



**City of St. Helena
Regular City Council
Regular Meeting
Tuesday, February 14, 2017 @ 6:00 PM
Vintage Hall Board Room - Second Floor
465 Main Street, St. Helena**

PLEASE NOTE: Any person who wishes to speak regarding an item on the agenda or make a comment under the "Oral Communication" portion of the agenda may do so, but please observe the time limit of three minutes.

Page

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Mayor: Alan Galbraith

Vice Mayor: Peter White

City Council: Paul Dohring

Geoff Ellsworth

Mary Koberstein

4. PUBLIC FORUM:

Members of the public are entitled to speak on matters of municipal concern not on the agenda during Public Forum. Each person's comments shall be limited to 3 minutes. Each person is entitled to speak on any non-agendized item only once at any meeting. Brief questions by Councilmembers for clarifications may be posed and answered, and Councilmembers may make requests that items be placed on future agendas, but in accordance with state law, no substantive discussion or action may take place unless and until the matter properly appears on the agenda.

5. REPORTS BY STAFF AND CITY COUNCIL, FUTURE AGENDA ITEMS, AND AB 1234 REPORTS:

Reports by staff and/or Councilmembers on items of general interest. Brief questions for clarification may be posed and answered, and Councilmembers may request that items be placed on a future agenda. Except under certain circumstances, the Brown Act prohibits any other discussion or action by the City Council.

- 5.1. Closed Session - announce actions taken if any from January 26, 2017
- City Attorney Thomas B. Brown

6. PRESENTATIONS AND PUBLIC RECOGNITIONS

- 6.1. Proclamation - Proclaiming February as American Heart Month -
Presented to Queen of the Valley Medical Center Director of Program
Development Pam Dodson and St. Helena Community Member Bill
Ryan

[Item 6.1](#)

7. STAFF BRIEFING

7

- 7.1. New City of St. Helena Website Roll Out - Kathy Robinson, IT and HR Director

8. CONSENT ITEMS

Members of the Council or the public may ask that any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless that is done, one motion may be used to adopt all recommended actions. (Roll Call Vote)

- 8.1. Consideration and proposed approval of Special and Regular Meeting Minutes of: 9 - 25

1. Special Joint Meeting of January 24, 2017
2. Regular Meeting of January 24, 2017
3. Special Meeting of January 31, 2017
4. Special Meeting of February 4, 2017

CEQA Determination: Not a CEQA project

Prepared By: Cindy Black, City Clerk

Recommendation: Approve

[Item 8.1](#)

- 8.2. Consideration and proposed approval of a resolution setting a hearing to approve the annexation of territory into the St. Helena Municipal Sewer District No. 1, MSD Annexation No. 131 (1486 Sulphur Springs Ave., St Helena, CA. APN's 009-362-024 & 025). 27 - 38

CEQA Determination: Categorically Exempt, CEQA Guidelines Section 15319, Annexations of Existing Facilities and Lots for Exempt Facilities, and Section 15061, No Possibility of Significant Effect on the Environment

Prepared By: Christina Cook, Public Works Administrative Assistant

Steven Palmer, PE, Director of Public Works/City Engineer

Recommendation: Adopt

[Item 8.2](#)

- 8.3. Consideration and Proposed Approval of a Resolution to Authorize the City Manager to Execute the Agreement Between the City of St. Helena and Califa Group for the Provision, Installation and Maintenance of Advanced Network (Data) Services for the Library 39 - 48

CEQA Determination: Not a CEQA project

Prepared By: Christina Kreiden, Library Director

Tracey Perkosky, Grants and Finance Manager

Recommendation: Adopt

[Item 8.3](#)

- 8.4. Consideration and proposed approval of a resolution related to the development by Our Town St. Helena of the former City property located at 684 McCorkle Avenue, including: 49 - 73

(a) The rescission of Resolution No. 89-23 requiring construction of a sewer main at 684 McCorkle Avenue and the vacation of an agreement to construct the sewer main; and

(b) The approval of a subordination agreement with Our Town St.

Helena to provide for the financing of the development of the site with affordable housing units; and
(c) Direction to the Interim City Manager to execute the subordination agreement and take such other actions as are necessary.

CEQA Determination: Not a CEQA Project

Prepared By: Erica Ahmann Smithies, Asst PW Director

Recommendation: Adopt

[Item 8.4](#)

- 8.5. Consideration and proposed adoption of a resolution authorizing the City Manager to execute a Professional Services Agreement with Larry Walker and Associates in the amount of \$35,100 to prepare a permit application and provide regulatory support to the Wastewater Treatment and Reclamation Facility Permit for Land Application of Treated Discharge; and transfer \$35,100 from Capital Improvement Project (CIP) S-66 New Well for Fiscal Year 2016/2017 to CIP S-52 Wastewater Treatment and Reclamation Plant Upgrade Phase I 75 - 489

CEQA Determination: Not a CEQA project

Prepared By: Steven Palmer, Director of Public Works

Recommendation: Adopt

[Item 8.5](#)

- 8.6. Consideration and Proposed Adoption of a Resolution Granting an Appeal by Marina Hoffman, Reversing the Planning Commission Decision Approving a Use Permit and Denying the Use Permit for the Ladera Winery Tasting Room at 1234 Adams Street in the CB Zoning District 491 - 526

CEQA Determination: Categorically Exempt pursuant to Section 15301 of the CEQA Guidelines and Generally Exempt pursuant to Section 15270

Prepared By: Noah Housh, Planning and Community Improvement Director

Recommendation: Adopt

[Item 8.6](#)

9. PUBLIC HEARING

9.1. ***THIS PUBLIC HEARING ITEM HAS BEEN CANCELLED.***

Proposal to implement an applicant fee of \$500.00 to cover the costs associated with holding a Neighborhood Meeting to inform residents of certain development applications proposed within their neighborhoods.

CEQA Determination: Categorical Exemption: It has been determined that the project is exempt for the requirements of the California Environmental Quality Act (CEQA) under Section 15061 (b) (3) the 'General Rule' in that it can be seen with certainty that there is no possibility the proposed action may have a significant impact on the environment and therefor CEQA is not applicable.

Prepared By: Noah Housh, Planning Director

Recommendation: Adopt

10. NEW BUSINESS

- 10.1. Consideration and proposed approval of a resolution appointing an applicant to the Planning Commission 527 - 551

CEQA Determination: Not a CEQA project

Prepared By: Cindy Black, City Clerk

Recommendation: Appoint

[Item 10.1](#)

- 10.2. Consideration and proposed Approval of a Resolution for a Low Income Subsidy Program for Water and Wastewater Customers; and 553 - 582
- a. Rescind Resolution 2006-44 Authorizing Low Income Water and Wastewater Rates; or
- b. Provide Additional Direction on the Creation of a Revised Policy

CEQA Determination: Not a CEQA project

Prepared By: Tracey Perkosky, Grants and Finance Manager

Recommendation: Adopt

[Item 10.2](#)

[Subsidy Powerpoint](#)

- 10.3. Consideration and proposed approval of a resolution authorizing the following: 583 - 591

1. An immediate partial payback to the General Fund from Water and Wastewater Funds for the loans established by Resolutions 2010-62 and 2010-63. The amount to be paid will be equal to the amount owed for the low income subsidy from 2008 to December 31, 2016. The amount to be paid from the Water Fund to the General Fund would be \$63,906.67 and the amount to be paid from the Wastewater Fund to the General Fund would be \$80,848.73.

2. A transfer to the Water and Wastewater Funds from the General Fund for the amount owed for the low income subsidy from 2008 to December 31, 2016. The amount to be transferred is \$63,906.67 from the Water Fund to the General fund and \$80,848.73 from the Wastewater Fund to the General Fund.

CEQA Determination: Not a CEQA project

Prepared By: April Mitts, Finance Director

Recommendation: Adopt

[Item 10.3](#)

- 10.4. Discussion at request of Council member Koberstein:
- a. Water rate review and consider establishment of an Ad Hoc committee consisting of staff, residents and outside bond counsel to review revenue requirements and assess the impact of reasonable alternatives on the rate structure. Contact Hansford Consulting to confirm availability to test alternative rate models, review functionalization and cost allocation assumptions, and timing requirements.
- b. Consideration and direction in response to proposal from the St.

Helena Chamber of Commerce with respect of the establishment of a Property Based Improvement District (PBID)

- 10.5. Fiscal Year 2016/17 2nd Quarter Finance Report and Consideration and Proposed Approval of a Resolution Approving Mid-Year Budget Adjustments for FY 2016/17

593 - 644

CEQA Determination: Not a CEQA Project

Prepared By: April Mitts, Finance Director

Recommendation: Adopt

[Item 10.5](#)

[FY 17 Mid Year Budget Review Presentation](#)

- 10.6. Discussion of February 4, 2017 Goal Setting Workshop in relationship with City needs

11. ADJOURNMENT

The next Regular City Council meeting is scheduled for February 28, 2017, at 6:00 p.m. in the Vintage Hall Board Room located at 465 Main Street.

This agenda was posted at City Hall, 1480 Main Street, and at Vintage Hall, 465 Main Street, St. Helena, California on February 10, 2017.



Cindy Black, City Clerk

In Compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please call the City Clerk's Office (707) 967-2792. Notification 72 hours prior to the meeting as required by Section 202 of the Americans with Disabilities Act will enable the City to make reasonable arrangements to ensure accessibility to this meeting

CHALLENGING DECISIONS OF CITY ENTITIES

The time limit within which to commence any lawsuit or legal challenge to any quasi-adjudicative decision made by the City of St. Helena is governed by Section 1094.6 of the Code of Civil Procedure, unless a shorter limitation period is specified by any other provision, including without limitation Government Code section 65009 applicable to many land use and zoning decisions, Government Code section 66499.37 applicable to the Subdivision Map Act, and Public Resources Code section 21167 applicable to the California Environmental Quality Act (CEQA). Under Section 1094.6, any lawsuit or legal challenge to any quasi-adjudicative decision made by the City must be filed no later than the 90th day following the date on which such decision becomes final. Any lawsuit or legal challenge, which is not filed within that 90-day period, will be barred. Government Code section 65009 and 66499.37, and Public Resources Code section 21167, impose shorter limitations periods and requirements, including timely service in addition to filing.

If a person wishes to challenge the above actions in court, they may be limited to raising only those issues they or someone else raised at the meeting described in this notice, or in written correspondence delivered to the City of St. Helena, at or prior to the meeting. In addition, judicial challenge may be limited or barred where the interested party has not sought and exhausted all available administrative remedies.

SUPPLEMENTAL MATERIAL RECEIVED AFTER THE POSTING OF THE AGENDA

Any supplemental writings or documents distributed to a majority of the City Council regarding any item on this Agenda, after the posting of the Agenda, will be available for public review in the City Clerk's Office located at 1480 Main Street, St. Helena, California, during normal business hours. In addition, such writings or documents will be made available on the City's web site at <https://sthelena.civicweb.net> and will be available for public review at the respective meeting.

City of St. Helena

PROCLAMATION

American Heart Month

WHEREAS, the month of February has been proclaimed by the President of the United States of America as “American Heart Month.”

WHEREAS, over 400,000 Americans die from heart disease each year, more than breast cancer, lung cancer, prostate cancer and AIDS combined; and

WHEREAS, over 90% of those suffering sudden cardiac arrest die before reaching the hospital; and

WHEREAS, chances of survival are increased dramatically if cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) resources are available and utilized within the first three to seven minutes after sudden cardiac arrest; and

WHEREAS, the goal of American Heart Month is to raise awareness of heart disease, prevention and treatment; and

WHEREAS, it is appropriate to increase awareness of the value of CPR training and encourage placement of AED’s in public places; and

WHEREAS, the American Heart Association and the Napa County Emergency Medical Services Agency advocate the “Chain of Survival,” which represents the five crucial links of the emergency treatment of sudden cardiac arrest. The links are:

Early Access to Care * Early CPR * Early Defibrillation *

Effective Advanced Life Support * Integrated Post Cardiac Arrest Care

WHEREAS, City of St. Helena is committed to strengthening the links in the chain of survival; and supports widespread CPR training, and public access defibrillation (PAD) and HeartSafe Community programs; and

Now, therefore, be it resolved, that I, Alan Galbraith, Mayor of the City of St. Helena, do hereby proclaim **February** as **American Heart Month**, encouraging all residents of the City of St. Helena to learn the risks of cardiovascular disease, to stay fit through exercise and good nutrition, to know the signs of Stroke, Heart Attack and Sudden Cardiac Arrest, to learn critical lifesaving skills such as CPR and AED use, to call 9-1-1, to Act in Time when a cardiovascular emergency occurs and encouraging our community to become a HeartSafe Community.

Dated: February 14, 2017

Alan Galbraith, Mayor
City of St. Helena

**Minutes
City of St. Helena
Special Joint City Council and Planning Commission Meeting
Tuesday, January 24, 2017 @ 4:00 PM - 6:00 PM
Vintage Hall Board Room - Second Floor
465 Main Street, St. Helena**

A complete video recording of this meeting, except for closed session, can be found at <https://sthelena.civicweb.net/Portal/> or by calling the City Clerk at (707) 967-2792. The City Council video is the official record of the Council meeting.

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL

Present: Councilmembers Koberstein, Ellsworth, Dohring, White, Mayor Galbraith
Absent: None

Present: Commissioners Monnette, Sweeney (arrived at 4:22 pm), Chair Kistner
Absent: Commissioner Parker

4. AFFORDABLE HOUSING AND NAPA COUNTY

4.1. Presentation by Fair Housing Napa Valley for an interactive discussion

Fair Housing Napa Valley representatives Pablo Zatarain and Tito Carranza provided an interactive presentation and discussion with Council, Commission and community members.

5. ADJOURNMENT

The meeting adjourned at 5:55 p.m.

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk

Minutes
City of St. Helena
Regular City Council
Regular Meeting
Tuesday, January 24, 2017 @ 6:00 PM
Vintage Hall Board Room - Second Floor
465 Main Street, St. Helena

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1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. ROLL CALL

Present: Councilmembers Koberstein, Ellsworth, Dohring, White, Mayor Galbraith
Absent: None

4. PUBLIC FORUM:

Mary Stephenson and Marcus Marquez addressed the City Council.

5. REPORTS BY STAFF AND CITY COUNCIL, FUTURE AGENDA ITEMS, AND AB 1234 REPORTS:

Public Works Director Steve Palmer announced the upcoming February 15, 2017, Draft ADA Transition Plan Public Workshop to be held at the St. Helena Fire House.

Library Director Chris Krieden announced upcoming events to be held at the Library.

Councilmember Koberstein noted a Business Communications instructor from Napa Valley College reached out to her. The instructor noted an upcoming semester long project for students to work on civic minded collaborative problem solving skills and is offering a student to work with the City free of charge. Councilmember Koberstein will share the information with the City Manager.

Councilmember Dohring requested the status of agendizing housing development and the property-based business improvement district (PBID) issue. Mayor Galbraith noted

that he wishes to have a PBID discussion item during goal setting and have an agendized housing discussion item in a few months.

Vice Mayor White noted he received the same correspondence from the Napa Valley College instructor.

6. STAFF BRIEFING

None

7. CONSENT ITEMS

Members of the Council or the public may ask that any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless that is done, one motion may be used to adopt all recommended actions. (Roll Call Vote)

7.1. Consideration and proposed approval of Special Meeting Minutes of January 17, 2017.

CEQA Determination: Not a CEQA project
Prepared By: Cindy Black, City Clerk
Recommendation: Approve

7.2. Consideration and proposed approval of a resolution approving a joint use agreement with St. Helena Unified School District for the use of Vintage Hall Board Room through February 2020 for a total cost not to exceed \$31,500

CEQA Determination: not a CEQA project
Prepared By: Cindy Black, City Clerk
Recommendation: Adopt

7.3. Receive and File Grant Quarterly Report for FY 2017 Q1 and Q2, for the period ending December 31, 2016

CEQA Determination: Not a CEQA project
Prepared By: April Mitts, Finance Director
Tracey Perkosky, Grants & Finance Manager
Recommendation: Receive and file

Councilmember Dohring moved to approve Consent as presented. The motion was seconded by Vice Mayor White and on roll call carried by the following vote:

AYES: Councilmembers Dohring, White, Koberstein, Ellsworth and Mayor Galbraith

NOES: None
ABSENT: None

8. PUBLIC HEARINGS

8.1. Consideration and proposed resolution denying an Appeal of the Planning Commission decision to approve a Demolition Permit and Design Review to demolish an existing single-family home in order to construct an 8 unit multifamily dwelling on the property located at 632 McCorkle Avenue in the HR: High Density Residential district.

CEQA Determination: Categorically Exempt pursuant to Section 15332 of the CEQA Guidelines

Prepared By: Aaron Hecock, Senior Planner

Reviewed by: Noah Housh, Planning and Community Improvement Director

Recommendation: Deny

Councilmember Koberstein read a statement of disclosure acknowledging she was a Planning Commission member on December 6, 2016 when this matter came before the Planning Commission. She noted that she will be impartial while listening to evidence and deliberations for making a decision on this item.

Vice Mayor White disclosed that he met with the applicant and neighbor.

Councilmember Dohring disclosed he met with the applicant and neighbor.

Councilmember Ellsworth disclosed he met with the applicant and appellant.

Senior Planner Aaron Hecock reported on this item.

Mayor Galbraith opened the public hearing.

Appellant Vickie Bradshaw addressed the City Council.

Anne Fisher, Ron Sproat, Elizabeth Goelz, Sean Knight, Bobbi Monnette, Marina Hoffman, Paul Skinner spoke in opposition of this item.

Applicant Joe McGrath addressed the City Council.

Jeff Feeney and Pat Dell spoke in favor of this item.

Vickie Bradshaw and Joe McGrath addressed the City Council and provided rebuttal statements.

Mayor Galbraith closed the public hearing.

Vice Mayor White moved to deny an Appeal of the Planning Commission decision to approve a Demolition Permit and Design Review to demolish an existing single-family home in order to construct an 8 unit multifamily dwelling on the property located at 632 McCorkle Avenue in the HR: High Density Residential district. The motion was seconded by Mayor Galbraith and on roll call carried by the following vote:

AYES: Vice Mayor White, Mayor Galbraith, Councilmember Dohring

NOES: Councilmembers Koberstein, Ellsworth

ABSENT: None

Mayor Galbraith called a break at 8:45 pm.

Mayor Galbraith reconvened the meeting at 8:57 pm.

8.2. Consideration and proposed resolution denying an Appeal of the Planning Commission decision to approve a Use Permit for the Ladera Tasting room located at 1234 Adams in the Central business District.

CEQA Determination: Categorically Exempt pursuant to Section 15301 of the CEQA Guidelines

Prepared By: Lilly Bianco, Contract Planner

Reviewed By: Noah Housh, Planning and Community Improvement Director

Recommendation: Deny

Councilmember Ellsworth read a statement of disclosure acknowledging similarities to a similar case he has publicly opposed. However, he will not recuse himself from this item due to being impartial, and will listen to evidence and deliberations fairly for making a decision on this item.

Planning and Community Improvement Director Noah Housh reported on this item.

Mayor Galbraith called for public comment.

Appellant Marina Hoffman addressed the City Council.

Steve Erickson and Nancy Ambrosini spoke in opposition of the project.

Applicant representative Brian Russell addressed the City Council.

Kim Phinney and Pam Simpson spoke in favor of the project.

Marina Hoffman and Brian Russell addressed the City Council and provided rebuttal statements.

Mayor Galbraith closed public comment.

Vice Mayor White moved to deny an Appeal of the Planning Commission decision to approve a Use Permit for the Ladera Tasting room located at 1234 Adams in the Central business District. The motion was seconded by Mayor Galbraith and on roll call carried by the following vote:

AYES: Vice Mayor White, Mayor Galbraith

NOES: Councilmembers Koberstein, Ellsworth, Dohring

ABSENT: None

Councilmember Koberstein moved to grant the Appeal of the Planning Commission decision to approve a Use Permit for the Ladera Tasting room located at 1234 Adams in the Central business District. The motion was seconded by Councilmember Ellsworth.

City Attorney Thomas B. Brown called for a point of clarification in that the item was not agendaized to memorialize the granting of the appeal

Councilmember Koberstein moved to call for a straw vote to bring this item back at the next City Council meeting as a consent item to memorialize the decision to grant the appeal. The motion was seconded by Councilmember Ellsworth and on roll call carried by the following vote:

AYES: Councilmembers Koberstein, Ellsworth, Dohring

NOES: Vice Mayor White, Mayor Galbraith

ABSENT: None

8.3. Proposal to implement an applicant fee of \$500.00 to cover the costs associated with holding a Neighborhood Meeting to inform residents of certain development applications proposed within their neighborhoods.

CEQA Determination: Categorical Exemption: It has been determined that the project is exempt for the requirements of the California Environmental Quality Act (CEQA) under Section 15061 (b) (3) the 'General Rule' in that it can be seen with certainty that there is no possibility the proposed action may have a significant impact on the environment and therefor CEQA is not applicable.

Prepared By: Noah Housh, Planning and Community Director

Recommendation: Review and provide direction

Planning and Community Director Noah Housh reported on this item.

Mayor Galbraith opened public comment.

Bobbie Monnette, Pat Dell and Mary Stephenson addressed the City Council.

Mayor Galbraith closed public comment.

At 9.58 pm it was the consensus of the City Council to proceed with the meeting beyond 10:00 pm.

It was the consensus of the City Council to table this item for future discussion.

9. NEW BUSINESS

9.1. Consideration and Proposed Approval of a Resolution Authorizing an Employment Agreement with Larry Pennell for the Position of Interim City Manager

CEQA Determination: Exempt. (CEQA Guidelines §§ 15061(b)(3), 15273

Prepared By: April Mitts, Director of Finance

Kathy Robinson, Director of HR & IT

Recommendation: Adopt

No public comment received.

Vice Mayor White moved to approve a resolution authorizing an employment agreement with Larry Pennell for the position of Interim City Manager. The motion was seconded by Councilmember Koberstein and on roll call carried by the following vote:

AYES: Councilmembers White, Koberstein, Ellsworth, Dohring, Mayor Galbraith

NOES: None

ABSENT: None

City Clerk Cindy Black administered the oath of office to Interim City Manager Larry Pennell.

Interim City Manager Larry Pennell was seated at the dais.

It was a unanimous decision of the City Council to continue the meeting beyond 10:30 pm.

9.2. Provide Direction on Revised Policy to Provide Rate Subsidies from the General Fund for Low Income Water and Wastewater Customers

CEQA Determination: Not a CEQA project
Prepared By: Tracey Perkosky, Grants & Finance Manager
Recommendation: Provide direction

Grants & Finance Manager Tracey Perkosky reported on this item.

No public was received.

The City Council provided Grants & Finance Manager Tracey Perkosky with policy direction and to bring the item back at a future meeting for consideration.

9.3. 1. Consider and proposed approval of request from Calistoga Affordable Housing for up to an additional \$200,000 from the Affordable Housing Trust Fund for the Turley Flats affordable housing project (for a not to exceed total of \$700,000 in a loan from the AHTF) and authorize drawdown of previously committed funds; and

2. Approve loan documents for the Turley Flats Affordable Housing Project including: (i) an Affordable Housing Loan Agreement that documents the disbursement and repayment conditions for the City loan, (ii) an Affordable Housing Regulatory Agreement that restricts occupancy in the Turley Flats units to low income households and restricts rents to affordable rents for a term of 55 years, (iii) a Promissory Note that memorializes the Developer's obligation to repay the City Loan; and (iv) a Deed of Trust that will be recorded against the Project property at 1105 Pope Street to secure repayment of the City loan; and

3. Acceptance of Emergency Vehicle Access Easement across the adjacent property at 1127 Pope Street.

4. Authorize the City Manager (or designated signee) to execute the loan documents on behalf of the City substantially in the form presented to the City Council.

CEQA Determination: This item is exempt from CEQA pursuant to Guidelines Sections 15061(b)(1), 15061(b)(2), and specifically, the "General Rule" Section 15061(b)(3), where it can be seen with certainty that the proposed action will have no significant effect on the environment.

Prepared By: Noah Housh, Planning Director

Recommendation: 1. Approve; and 2. Accept; and 3. Review, provide direction, approve; and 4. Accept; and 5. Accept

Planning Director Noah Housh reported on this item.

Applicant Calistoga Affordable Housing President Larry Kromann addressed the City Council.

Vice Mayor White made a motion to adopt staff's recommendation.

No second to the motion was received and staff was directed to bring this item back for consideration at a special City Council meeting before February 1, 2017.

Items 9.4 and 9.5 were not heard due to the Mayor adjourning the meeting.

~~9.4. Discussion of possible acquisition of 6-unit property on Monte Vista apartment building currently for sale.~~

~~CEQA Determination: Not a CEQA project
Requested By: Mayor Galbraith~~

~~9.5. Discussion at request of Council member Koberstein of water rate review. Consider establishment of an Ad Hoc committee consisting of staff, residents and outside bond counsel to review revenue requirements and assess the impact of reasonable alternatives on the rate structure. Contact Hansford Consulting to confirm availability to test alternative rate models, review functionalization and cost-allocation assumptions, and timing requirements.~~

~~CEQA Determination: Not a CEQA project
Requested By: Councilmember Koberstein~~

10. ADJOURNMENT

ADJOURNMENT

Mayor Galbraith adjourned the meeting at 10:59 p.m.

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk

**Minutes
City of St. Helena
Special City Council
Special Meeting
Tuesday, January 31, 2017 @ 2:15 PM
Vintage Hall Board Room - Second Floor
465 Main Street, St. Helena**

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1. CALL TO ORDER

2. ROLL CALL

Present: Councilmembers Koberstein, Ellsworth, Dohring, White, Mayor Galbraith
Absent: None

3. PUBLIC COMMENT:

We Care President Susan Wren addressed the City Council.

Councilmember Dohring and Koberstein requested the items not heard before the adjournment of January 24, 2017 City Council meeting be agendized at the upcoming regular City Council meeting.

4. NEW BUSINESS

4.1. 1. Consideration and proposed approval of request from Calistoga Affordable Housing for up to an additional \$200,000 from the Affordable Housing Trust Fund for the Turley Flats affordable housing project (for a not to exceed total of \$700,000 in a loan from the AHTF) and authorize drawdown of previously committed funds; and

2. Approve loan documents for the Turley Flats Affordable Housing Project including: (i) an Affordable Housing Loan Agreement that documents the disbursement and repayment conditions for the City loan, (ii) an Affordable Housing Regulatory Agreement that restricts occupancy in the Turley Flats units to low income households and restricts rents to affordable rents for a term of 55 years, (iii) a Promissory Note that memorializes the Developer's obligation to repay the City Loan; and (iv) a Deed of Trust that will be recorded against the Project property at 1105 Pope Street to secure repayment of the City loan; and

3. Acceptance of Emergency Vehicle Access Easement across the adjacent property at 1127 Pope Street.

4. Authorize the City Manager (or designated signee) to execute the loan documents on behalf of the City substantially in the form presented to the City Council.

CEQA Determination: This item is exempt from CEQA pursuant to Guidelines Sections 15061(b)(1), 15061(b)(2), and specifically, the "General Rule" Section 15061(b)(3), where it can be seen with certainty that the proposed action will have no significant effect on the environment.

Prepared By: Noah Housh, Planning Director

Recommendation: 1. Approve; and 2. Accept; and 3. Review, provide direction, approve; and 4. Accept; and 5. Accept

Planning Director Noah Housh reported on this item.

Mayor Galbraith opened public comment.

Applicant Calistoga Affordable Housing President Larry Kromann and Associate Paul Coates addressed the City Council.

Bobbi Monnette addressed the City Council

Mayor Galbraith closed public comment.

Vice Mayor White moved to adopt staff's recommendation. Councilmember Ellsworth seconded the motion and on roll call carried by the following vote:

AYES: Councilmembers White, Ellsworth, Koberstein, Dohring, Mayor Galbraith

NOES: None

ABSENT: None

5. ADJOURNMENT

Mayor Galbraith adjourned the meeting at 3:43 p.m.

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk

**Minutes
City of St. Helena
Special City Council Goal Setting Workshop
Saturday, February 4, 2017 @ 9:00 AM to 4:00 PM
Vintage Hall Board Room - Second Floor
465 Main Street, St. Helena**

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1. CALL TO ORDER

Mayor Galbraith called the meeting to order and the flag was saluted.

2. ROLL CALL

Present: Councilmembers Koberstein, Ellsworth, Dohring, White, Mayor Galbraith
Absent: None

3. OVERVIEW OF GOAL SETTING SESSION

Facilitator Rex Osborn addressed the City Council and audience regarding the format of the workshop.

4. PUBLIC COMMENTS PERTAINING TO THE GOAL SETTING WORKSHOP

(Please note the individual highlighted goals and priorities may not be complete. Please refer to the video to review the individual speaker's goals and priorities in its entirety.)

Susanne Salvestrin noted the importance of preserving history.

Doug Barr - transparency and trust, completion of General Plan, tourism, public/private partnership.

Susan Davis - more town hall meetings/neighborhood meetings, community engagement and no 3 minute public comment rule.

Mike Thomas - itemized City financial accounting, understanding of City infrastructure, Adams Street status and increase revenue.

Bill Ryan noted the need for increased communication.

Lois Battuello - follow City policies already in place, understand accounting terminology, bonding and build a new St. Helena Police Station.

Wayne Armstrong - new business district sidewalks, public restrooms for locals and tourists and have the Chamber of Commerce move to Main Street.

Richard Seiferheld - impacts of local businesses have on the environment, Sulphur and York Creek related to fish migration, developments inside/outside City limits that impact the City's water resources, dam removal, traffic congestion, do not extend Adams Street to the Silverado Trail, second family homes and reach out to homeowners.

Miriam Hansen - historical preservation ordinance, historical preservation commission and historical preservation of St. Helena.

Michael Merriam - increase the City's sphere of influence.

Julie Spencer - transportation from downtown to the St. Helena hospital and improve public transportation.

Tom Ferrell - acceptable hotel guidelines, create citizens group to create guidelines, improve fiscal oversight and reestablish confidence between community, elected and City staff.

Glen Smith - affordable housing and better diversity, legacy businesses, local serving businesses and rent subsidy for local serving businesses.

Pat Dell - promote local businesses, complete General Plan, fix streets/sidewalks, public restrooms, provide community meetings, revenue generation, Adams Street property, real estate transfer tax and more affordable housing.

Bobbi Monnette read a statement from George David highlighting adopting the general plan, land use and zoning. She also highlighted her goals which related to: Adams Street property, preservation of St. Helena, reevaluate the noise ordinance, air pollution and reevaluate the fire place ordinance.

Tom Belt highlighted goals which related to the York Creek dam removal.

Grace Kistner - hiring of the new City Manager, complete the General Plan and increased communication between the City and community.

Jennifer R. noted the tennis courts at Crane Park need repairing.

Elaine R. - community preservation, pedestrian safety, growth management and becoming a sanctuary city.

Phoebe Ellsworth - different types of hotels, retirement and senior/long term care housing.

Susan Kenward - updating the City's zoning ordinance and ABC regulations.

Arthur Pena shared his goals.

Debbie Schlesinger - restoring the library's budget to increase hours of service.

Gail - make the planning permitting process more streamlined and repair the Crane Park tennis courts.

Mr. Goelz - City finances, fiscal planning and make goals accountable.

Jeff Farmer noted the hotels need to be located on Main Street.

Kim Phinney read a statement which highlighted goals which related to improving community outreach and City to fund half of the 2017 community 4th of July fireworks from the General Fund.

Citizen - keep the character of the community, pedestrian safety, concern for large business in neighborhoods and concern for preservation of local Oak trees.

Esther Akersloot - community safety, patrolling speeding vehicles, senior transportation and sidewalk repairs.

Betsy Holzhauer - traffic safety and parking.

Pam Smithers - traffic safety, speed enforcement with mitigating efforts.

Peter - traffic safety, need for speed bumps, use of the PG&E lot for parking and evaluate the need for City staffing.

Pam Simpson - the adoption of the General Plan, look to the future and not the past, expand the City limits, review the City permitting process, revenue generating avenues and forming an improvement district for local businesses by creating a property-based business improvement district (PBID).

Pete - traffic reduction, infrastructure, local businesses, City permitting process, zoning and tourist management.

Oliver Caldwell - "Rebuild St. Helena Group" master plan which includes a potential convention center, creating City revenue, quality of life, infrastructure, General Plan, future of Adams Street and City Hall properties, lack of culture and sustainable projects.

Ann Nevero noted the strengths and accomplishments of the City.

5. LUNCH BREAK

Mayor Galbraith called a lunch break at 12:25 pm.

Mayor Galbraith reconvened the workshop at 1:35 pm.

6. PUBLIC COMMENTS PERTAINING TO THE GOAL SETTING WORKSHOP

7. COUNCIL GENERATED DISCUSSIONS

8. COUNCIL DISCUSSION/PRIORITIES

Facilitator Rex Osborn welcomed the City Council to individually provide their general goals and priorities.

Peter White:

1. Attract young families and engage with them to become more involved in the community
2. Initiate the PBID process
3. Finish the General Plan
4. Provide additional education surrounding the City's financials

Paul Dohring:

1. Increase citizen involvement and collaboration (Create a process/plan for community engagement)
2. More Town Hall Meetings
3. Pursue PBID
4. Hire City Manager
5. Ensure the quality of life for the community
6. Balance between the community and the Council
7. Housing Strategic Plan
8. Safety measures for the community

Geoff Ellsworth:

1. Improve communication with the community
2. Livability – retain citizens

3. Fiscally responsible and easy for the community to understand
4. Public safety (sidewalks and parking)
5. Collaborate with the community
6. Regional roadway

Mary Koberstein

1. Communicate and outreach in new ways
2. Provide financial information in an easy to understand format
3. Council proactive thinking and approach
4. Review housing and zoning (workforce, affordable and senior living)
5. Engage second homeowners and get them involved in the community
6. Money vs. leverage (how can we better leverage our assets)
 - a. Citizens
 - b. Advisory Committee/Economic Development
 - c. Asset Management
7. Engage Our Town St. Helena regarding housing
8. Environmental issues such as noise
9. Revisit Adams Street RFP's
10. PBID
11. Charter City and a Transfer Tax

Alan Galbraith

1. Long range financial forecast needs updating
2. Charter City and a Transfer Tax
3. Evaluate the Adams Street RFP's
4. Retain staff
5. Meet fiduciary obligations
6. Move forward with PBID
7. Replace downtown sidewalks
8. Public bathrooms
9. Complete the General Plan
10. Remove the York Creek Dam
11. Historical Preservation Ordinance
12. Affordable/workforce Housing
13. Public transportation to the hospital
14. Public Safety
15. Communication with the community/community engagement

9. SUMMARY / NEXT STEPS

It was the consensus of the City Council to direct staff to engage in the PBID process.

Interim City Manager Larry Pennell addressed the City Council and community members.

10. ADJOURNMENT

The meeting adjourned at 2:32 p.m.

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk



Report to the City Council
Council Meeting of February 14, 2017

Agenda Section: Consent

Subject: Consideration and proposed approval of a resolution setting a hearing to approve the annexation of territory into the St. Helena Municipal Sewer District No. 1, MSD Annexation No. 131 (1486 Sulphur Springs Ave., St Helena, CA. APN's 009-362-024 & 025).

CEQA Determination: **Categorically Exempt, CEQA Guidelines Section 15319, Annexations of Existing Facilities and Lots for Exempt Facilities, and Section 15061, No Possibility of Significant Effect on the Environment**

Prepared By: Christina Cook, Public Works Administrative Assistant 
Steven Palmer, PE, Director of Public Works/City Engineer

Approved By: Larry Pennell, Interim City Manager 

BACKGROUND

Rutherford Investors LLC, owner of 1486 Sulphur Springs Ave., St Helena, CA, Napa County Assessor Parcel Numbers (APN's) 009-362-024 & 025, has applied to be annexed into the St. Helena Municipal Sewer District No. 1. A location map & description for the property is shown in Attachment 1. City Council approval of the annexation is the formal administrative process to change the property's tax rate area code from septic to sanitary sewer for tax purposes.

DISCUSSION

The property was approved for a subdivision into 4 residential lots in 2005 (Tentative Parcel Map 2005-77) and multiple extensions extended the tentative map approval. On June 21, 2016, the Planning Commission approved the application to demolish the two residences on the property, and the owner is moving forward with processing the final map for the subdivision. One condition of approval for the tentative map is annexing the property into the City's sewer district. This resolution ordering the public hearing is the first step of the process to annex the property into the District. The resolution requires a vote of at least two-thirds of all the members of the City Council (at least four affirmative votes) to order the public hearing. (Health & Safety Code § 4643.)

The next step will be to notice and hold a public hearing for objections, if any, from persons interested in the proposed annexation during a regularly scheduled City Council meeting February 28, 2017. At that time, the City Council will consider a resolution

approving the property annexation (which will also require at least four affirmative votes). (Health & Safety Code § 4645-47.)

If the City Council approves the second resolution, City staff will then process the annexation with Napa County and the State Board of Equalization to change the tax rate area code for the property. Staff will work with the applicant to obtain required encroachment and building permits.

FISCAL IMPACT

The Applicant is responsible for all costs for annexation and connection. The Applicant will extend the sewer main in Sulphur Springs, construct a sewer main on the Property to the new sewer main in the street, construct sewer laterals for each new lot, and pay annexation fees. Each new lot will connect to the City sewer; and pay connection, and impact fees at the time individual building permits are issued and the building are constructed.

RECOMMENDED ACTION

Staff recommends the City Council adopt Resolution Setting a Hearing to Approve the Annexation of Territory to the St. Helena Municipal Sewer District No. 1, MSD Annexation No. 131, 1486 Sulphur Springs Ave., St Helena, CA. APN's 009-362-024 & 025.

ATTACHMENTS

1. Description & Location Map
2. Resolution

ATTACHMENT 1

PROPOSED ANNEXATION TO THE CITY OF ST. HELENA MUNICIPAL SEWER
DISTRICT No. 1

GEOGRAPHIC DESCRIPTION
FOR SUBJECT PARCELS
A.P.N.s 009-362-024 & 025

All that certain real property, situate in the City of St. Helena, County of Napa, State of California, being a portion of the Carne Humana Rancho and also being more particularly described as follows:

Beginning at the most southwesterly corner of the City of St. Helena Municipal Sewer District No. 1 Boundary per City of St. Helena Resolution No. 2009-91 dated August 25, 2009;

Thence (1) along the southwesterly line of said District No. 1 Boundary North 40°06'01" West 130.74 feet, more or less, to the most southerly corner of the City of St. Helena Municipal Sewer District No. 1 Boundary per City of St. Helena Resolution No. 2013-27 dated May 14, 2013;

Thence (2) along the southwesterly line of last said District No. 1 Boundary North 40°06'01" West 85.43 feet, more or less, to the most northerly corner of the parcel of land described in the deed to Rutherford Investors, LLC recorded April 7, 2005 as Document No. 2005-0013172, Official Records of Napa County;

Thence (3) leaving said District No. 1 Boundary South 46°51'24" West 99.02 feet to the most westerly corner of said parcel of land described in the deed to Rutherford Investors LLC;

Thence (4) South 40°47'17" East 422.93 feet to the northwesterly line of Sulphur Springs Avenue and the most southerly corner of said parcel of land described in the deed to Rutherford Investors LLC;

Thence (5) along said northwesterly line of Sulphur Springs Avenue North 46°51'45" East 93.94 feet to the most easterly corner of said parcel of land described in the deed to Rutherford Investors LLC;

Thence (6) leaving said northwesterly line of Sulphur Springs Avenue North 40°06'01" West 206.92 feet, more or less, to the Point of Beginning.

Containing 0.93 acres of land, more or less.

BASIS OF BEARINGS

Being South 46°51'45" West between a found 3/4" iron pipe tagged LS 4510 4.00 feet southwest of the most easterly corner of the lands of Rutherford Investors, LLC, formerly

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the lands of John G. Euser, as shown on that Record of Survey filed February 17, 2005 in Book 36 of Surveys, Page 94, Napa County Records and a found 3/4" iron pipe, not tagged, marking the easterly most of corner of Parcel A of Map No. 642 as shown on that Record of Survey filed December 19, 1960 in Book 6 of Surveys, Page 35, Napa County Records.

For assessment purposes only. This description of land is not a legal property description as defined in the Subdivision Map Act and may not be used as the basis for an offer for sale of the land described.

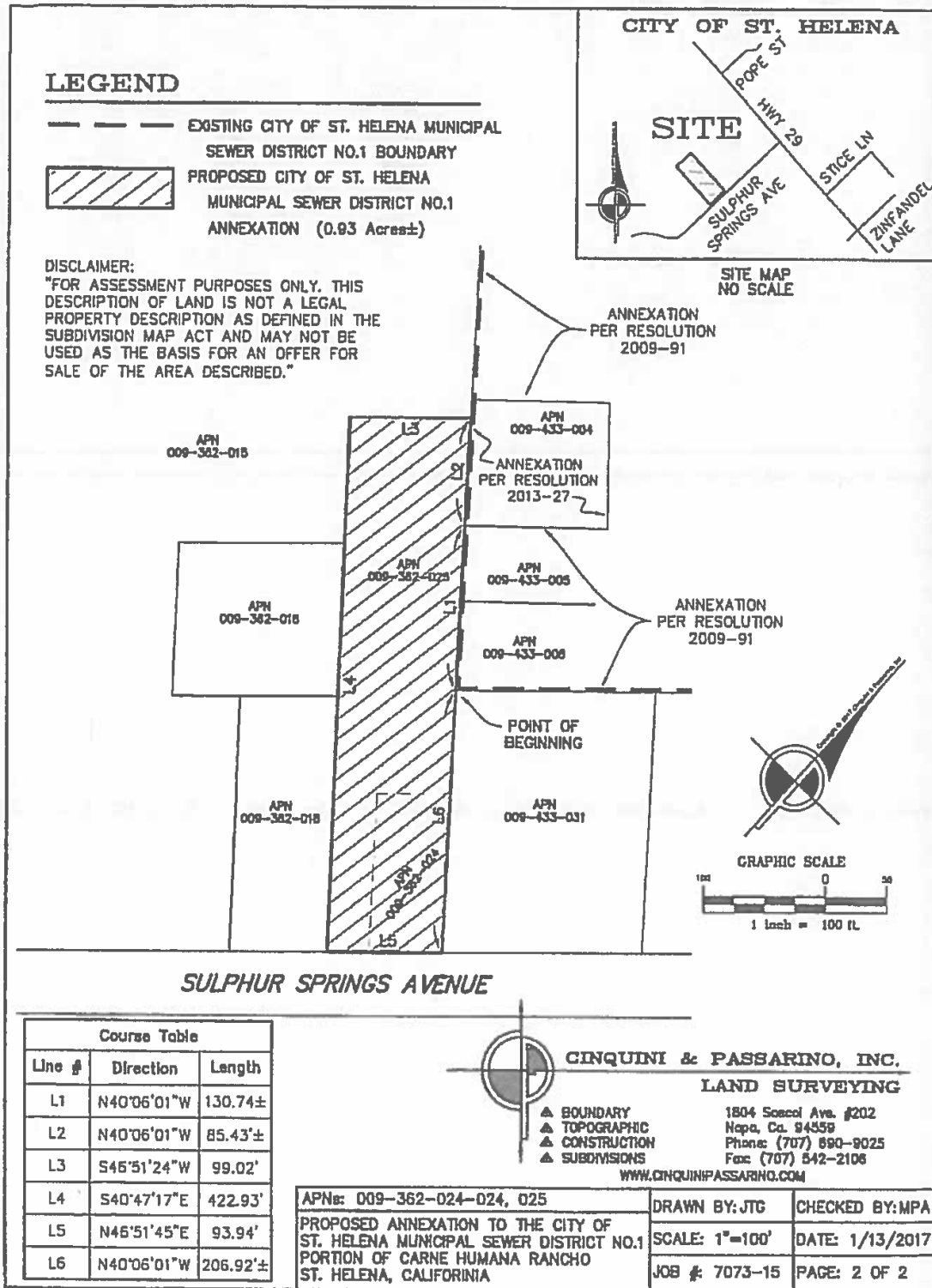
Prepared by Cinquini & Passarino, Inc.

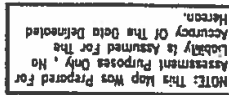

Mark P. Andrilla, PLS 8985

1.16.17
Date



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ATTACHMENT 2

CITY OF ST. HELENA

RESOLUTION NO. 2017-

**Resolution Setting a Hearing to Approve the Annexation of Territory into the
St Helena Municipal Sewer District No. 1 MSD ANNEXATION NO. 131
1486 Sulphur Springs Ave. St Helena, CA. 94574
APN's 009-362-024 & 025**

RECITALS

- A. The property at 1486 Sulphur Springs Ave., St Helena, CA. 94574 APN's 009-362-024 & 025 will benefit from annexation into the St. Helena Municipal Sewer District No. 1; and
- B. The owner of 1486 Sulphur Springs Ave., St Helena, CA. 94574 APN's 009-362-024 & 025 has requested annexation into the St. Helena Municipal Sewer District No. 1; and
- C. The legal description and boundary for the territory to be annexed is described in the attached Exhibit A – Annexation Description; and
- D. All annexation fees have been paid.

RESOLUTION

NOW, THEREFORE, the City Council of the City of St. Helena resolves as follows:

- 1. The territory described in the attached Exhibit A – Annexation Description, commonly known as 1486 Sulphur Springs Ave., St Helena, CA. 94574 APN's 009-362-024 & 025 is hereby ordered for a hearing set; and
- 2. A hearing for objections, if any, by any person interested in the proposed annexation shall be held during the regular meeting of the City Council at 6:00 on February 28, 2017.

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017 by the following vote:

Mayor Galbraith: _____

Vice Mayor White: _____

Councilmember Ellsworth: _____

Councilmember Dohring: _____

Councilmember Koberstein: _____

APPROVED:

ATTEST:

Alan Galbraith
Mayor

Cindy Black
City Clerk

Exhibit A

**PROPOSED ANNEXATION TO THE CITY OF ST. HELENA MUNICIPAL SEWER
DISTRICT No. 1**

**GEOGRAPHIC DESCRIPTION
FOR SUBJECT PARCELS
A.P.N.s 009-362-024 & 025**

All that certain real property, situate in the City of St. Helena, County of Napa, State of California, being a portion of the Carne Humana Rancho and also being more particularly described as follows:

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Thence (5) along said northwesterly line of Sulphur Springs Avenue North 46°51'45" East 93.94 feet to the most easterly corner of said parcel of land described in the deed to Rutherford Investors LLC;

Thence (6) leaving said northwesterly line of Sulphur Springs Avenue North 40°06'01" West 206.92 feet, more or less, to the Point of Beginning.

Containing 0.93 acres of land, more or less.

BASIS OF BEARINGS

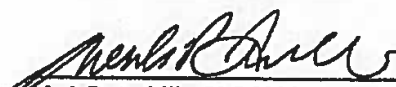
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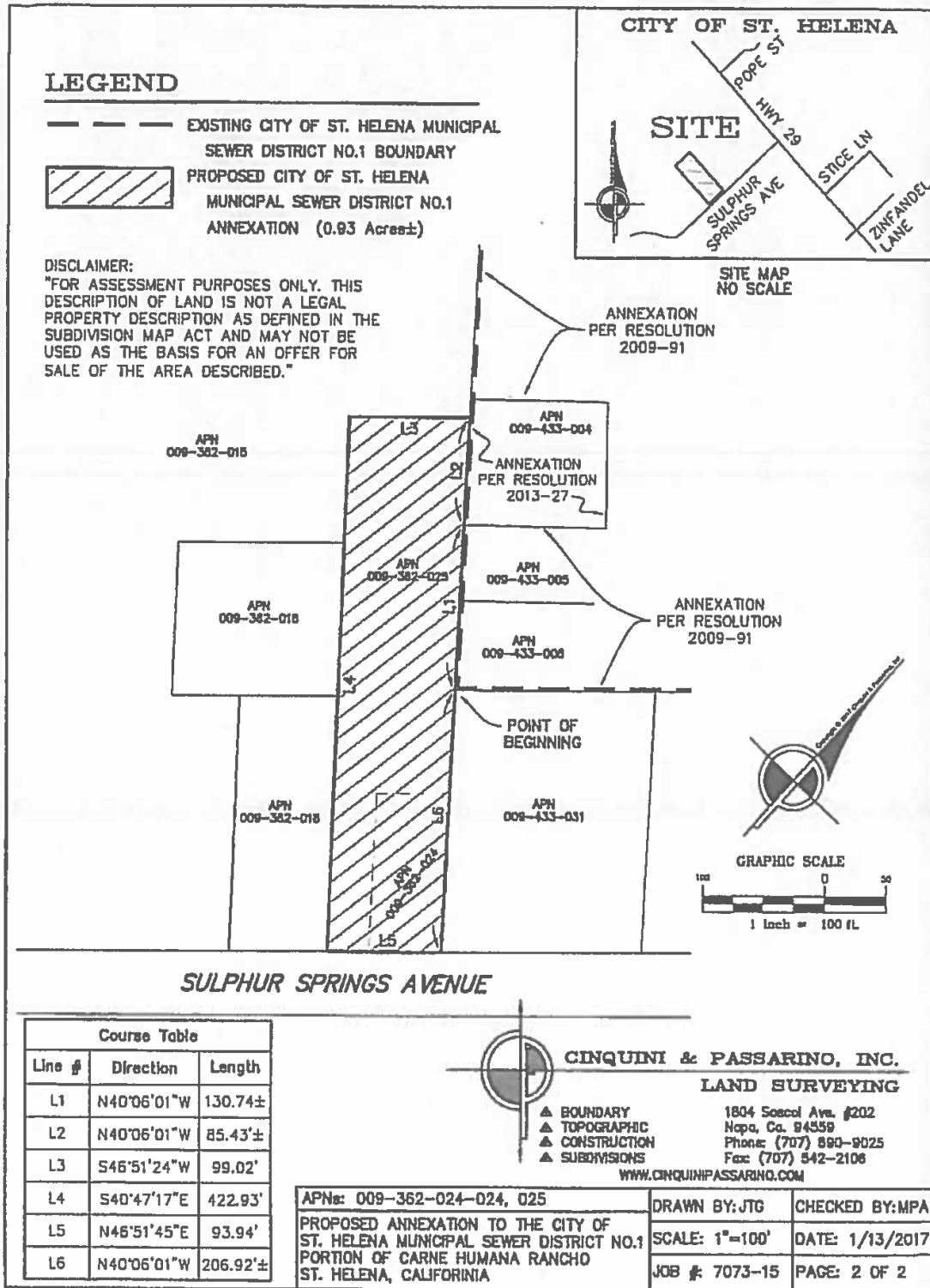
Prepared by Cinquini & Passarino, Inc.

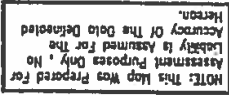

Mark P. Andrilla, PLS 8985

1.16.17
Date



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Report to the City Council
Council Meeting of February 14, 2017

Agenda Section: Consent

Subject: Consideration and Proposed Approval of a Resolution to Authorize the City Manager to Execute the Agreement Between the City of St. Helena and Califa Group for the Provision, Installation and Maintenance of Advanced Network (Data) Services for the Library

CEQA Status: Not a CEQA project

**Prepared By: Christina Kreiden, Library Director
Tracey Perkosky, Grants and Finance Manager**

Approved By: Larry Pennell, Interim City Manager

BACKGROUND

The California State Library, Califa Group and the Center for Education Network Initiatives in California (CENIC) have joined together to bring high-speed broadband to all of California's public libraries by connecting them to the California Research & Education Network (CalREN). This is a high-capacity 3,800-mile fiber-optic-based network designed meet the requirements of all the higher education institutions, K-12 schools, libraries, and many other public-serving California institutions.

One of the key elements of this partnership, whose goal is to bring adequate high-speed internet services to libraries and educational institutions, is to leverage federal E-rate discounts and California Teleconnect Fund (CTF) discounts on the library's behalf. In order to participate in the program and receive the discounts, the City must enter into an agreement with Califa.

DISCUSSION

By connecting to CalREN, the St. Helena Library will be joining with more than 10,000 California K-12 public schools, districts, and County Offices of Education; 12 California Community Colleges; the 23-campus California State University system; the 10-campus University of California system; three independent universities (Stanford, Caltech, and USC); and over 100 California public libraries who have already connected, including Napa County, Marin County, Solano County, and Benicia.

When libraries are digitally enabled, they can achieve great things. With CalREN, the St. Helena Library is effectively providing all of our patrons and staff with the most advanced

21st Century connectivity. This high-bandwidth, high-capacity Internet network will greatly enhance our connection to the digital world and provided better access for the enrichment and advancement of our users, including those looking for employment and healthcare information, business opportunities, arts and cultural events, and more.

The St. Helena Library already provides access to the Internet, however its current capacity is far from adequate. A connection speed of 100 Mbps is no comparison to the 1G offered by CENIC. According to Comcast, the current level of service is ideal for eight to ten users or devices. The Library currently provides a total of eighteen computers for public use: three in Children's, six for teens, and nine for adults. This same network is also used by staff, adding 10 more computers, and various wireless devices such as tablets from patrons. As a result, the network is often slow, causing frustration and reduced productivity.

Limited additional hardware is needed to complete the transition to CalREN. The City will be using the discount of 65% on Cisco equipment offered through Califa. In addition, the City applied for the maximum amount of a grant from the Southern California Library Cooperative which will pay for 50% of all remaining costs. This is estimated to be \$2,696 with the grant covering \$1,348 and the City providing \$1,348. These costs will be budgeted in the Fiscal Year 17/18 budget as the approval and grant funds will not be available until after July 1.

The new service, before the rebate is received, is \$813 per month. However, after the E-rate and CTF are applied, the rate drops to \$162.60 monthly, not including taxes and surcharges. The library currently pays \$230 per month for inadequate service. This change will have a net reduction in cost of about \$67 per month or \$804 per year.

The attached agreement is for five years. The Library may cancel the agreement with a 60 day notice prior to June 30th if the rebate funding is not available.

FISCAL IMPACT

In FY 17/18 there will be \$1348 in hardware and set-up costs from the General Fund. The new service, after the rebates are received, will be \$162.60 per month which is \$67 less per month than current costs (not including taxes and surcharges).

RECOMMENDED ACTION

Staff recommends the City Council adopt the resolution authorizing the City Manager to execute the agreement between the City of St. Helena and Califa Group for the provision, installation and maintenance of advanced network services for the Library.

ATTACHMENTS

1. Resolution
2. Agreement Between the City of St Helena and Califa Group for the Provision, Installation and Maintenance of Advanced Network (Data) Services

Attachment 1

CITY OF ST. HELENA

RESOLUTION No. 2017-

Resolution Authorizing the City Manager to Execute the Agreement Between the City of St. Helena and Califa for the Provision, Installation and Maintenance of Advanced Network (Data) Services

RECITALS

- A. The City of St. Helena and Califa Group wish to enter into an agreement to provide high speed internet service to the St. Helena Public Library; and
- B. The City has the option of opting out of the agreement if the discounted funding through E-rate and the California Telecommunications Fund (CTF) is not available and the City provides 60 days notice prior to June 30th; and
- C. This service will provide data speeds of 1 Gigabyte.

RESOLUTION

The City Council of the City of St. Helena hereby resolves as follows:

- 1. Authorizes the City Manager to execute the agreement and any related items.

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017, by the following vote:

Mayor Galbraith:	_____
Vice Mayor White:	_____
Councilmember Dohring:	_____
Councilmember Ellsworth:	_____
Councilmember Koberstein:	_____

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk

Attachment 2

**AGREEMENT BETWEEN THE CITY OF St. HELENA AND
CALIFA
FOR THE PROVISION, INSTALLATION AND MAINTENANCE OF
ADVANCED NETWORK (DATA) SERVICES**

This Agreement, hereinafter referred to as "Agreement", is entered into as of January 1, 2017 by and between Califa Group, a California public benefit corporation, hereinafter referred to as "Califa" and City of St. Helena on behalf of the St. Helena Public library, hereinafter referred to as "Library". Califa and Library are sometimes referred to in this Agreement individually as "Party" and collectively as "Parties". All written communications between the parties shall be addressed as follows unless and until amended in writing by the respective party.

City of St. Helena
Chris Kreiden
Library Director
1492 Library Lane
St. Helena, CA 94574

Califa
Paula MacKinnon
Interim Director
2471 Flores Street
San Mateo, CA 94403

WITNESS THAT

WHEREAS, Califa, on behalf of the California State Library, has contracted with CENIC to provide high speed networking to libraries in California; and

WHEREAS, Library desires to contract with Califa to obtain one or more data circuits to connect Library to the CENIC high speed broadband fiber network, CalREN, and, if specified in appendix #1, attached, to connect Library to other library sites as identified in said appendix for the purpose of connecting to CalREN.

NOW THEREFORE, Library and Califa enter into this Agreement:

1. Relationship between the Parties

It is the purpose of this Agreement to set forth the terms and conditions applicable to the provision of communications and related network services to Library.

2. Services to be Provided

The primary communications infrastructure provided by CENIC is the California Research and Education Network ("CalREN"). Among the services that CENIC will provide to Libraries

Attachment 2

are use of CalREN and contracting for and provision of data circuits supplied by network service providers.

Califa, on behalf of Library, will contract with CENIC for such data circuits. Specific circuits and their costs are included in the appendix attached. Califa will assure that CENIC notifies the Library of installation requirements and necessary maintenance instructions. Neither CENIC nor Califa shall be responsible for operating or maintaining software, equipment or cabling that connects equipment not provided by CENIC for the services unless specifically agreed to in writing by CENIC.

3. Term and Termination of this Agreement

- (a) **TERM OF THIS AGREEMENT.** This Agreement shall be in effect from January 1, 2017 through June 30, 2022.
- (b) **TERMINATION.** Termination prior to the end date stated above shall result in Library having to pay any circuit telecommunications carrier termination charges resulting from early termination of the Service. Notwithstanding the above, upon a 60 day written notice prior to the second and each following June 30 after a circuit is installed, Library may cancel a circuit without penalty if funding to pay for that circuit is not available and Library does not for at least 12 months after said notice order or otherwise obtain a replacement circuit in place of the cancelled circuit.
- (c) Library may terminate this agreement if non-recurring, one-time costs for all circuits included in appendix 1 are increased by the telecommunications carrier from the amount shown in appendix 1. See footnote for non-recurring charges in appendix 1 for more information.

4. Payment

Payment for services shall be due within thirty (30) days of receipt of a Califa invoice reflecting provision of the services for which the invoice is sent; or as otherwise agreed to by Library and Califa. Except for non-recurring costs, if any, costs in Appendix I shall only begin upon installation of circuit(s). Library will put forth reasonable efforts to make payments within thirty (30) days after receipt of invoice.

5. Miscellaneous

- (a) **CONDITIONS OF USE.** Library agrees to conform to the CENIC Appropriate Use Policy located at <http://www.cenic.org/p=2081/> and to any specific conditions of use imposed by subcontractors providing communications services to CENIC as may be in force at the time such services are made available per an Addendum to this Agreement. If such conditions of use are modified library will be notified and if Library believes it can no longer conform to their requirements, Library shall have one hundred eighty (180) days to terminate the affected service without penalty. If Library does not elect to terminate the service, Library must conform to the revised conditions of use or be subject to termination of the service by CENIC.

Attachment 2

- (b) **CONFLICTING CLAUSES.** If any clause in this Master Agreement is in conflict with a clause in an Addendum to this Agreement, the language in the Addendum shall take precedence but only for the service defined in that Addendum.
- (c) **FORCE MAJEURE.** Neither party will be responsible for performance of its obligations hereunder where delayed or hindered by war, riots, embargoes, strikes involving third parties, acts of Local Access Providers or of its vendors, or suppliers, acts of unrelated third parties, accidents, cable cuts, act(s) of God or any other event beyond its reasonable control.
- (d) **GOVERNING LAW.** The laws of the State of California shall govern this Agreement.
- (e) **NON LIBRARY USES:** Library understands that this agreement covers only library use of CalREN and of circuits provided hereunder and Library agrees that no other uses will be made of the services provided herein.

6. Entire Agreement

This Agreement and any Addenda contemporaneously or subsequently executed by the parties constitute the entire Agreement between the parties regarding the subject matter of this Agreement and supersede all prior written or oral agreements with respect to such. This Agreement may not be modified orally, and no modification shall be binding unless in writing and signed by authorized representatives of both parties.

7. General Provisions

7.1 Nondiscrimination:

- (a) During the performance of this Contract, Califa and its subcontractors shall not deny the Contract's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age (over 40) or sex. Califa shall insure that the evaluation and treatment of employees and applicants for employment are free of such discrimination.

- 7.2** It is expressly agreed and understood by the parties hereto that if any provision of this Agreement is held to be or invalid under any applicable statute or rule of law, it is deemed to that extent to be omitted. However, the balance of the Agreement shall remain in full force and effect.

- 7.3** **Rights and Remedies:** The rights and remedies of Library provided herein shall not be exclusive and are in addition to any other rights and remedies provided by law.

- 8. Indemnification.** Library shall indemnify Califa, its trustees, officers, agents and employees harmless from and against any and all liability, loss, expenses (including reasonable attorneys' fees), or claims for injury or damages arising out of the performance of this Agreement, but only in proportion to and to the extent such liability, loss, expense, attorneys' fees, or claims for injury or

Attachment 2

damages are caused by or result from the negligent or intentional acts or omissions of Library its officers, agents, or employees.

Califa shall indemnify Library, its trustees, officers, agents and employees harmless from and against any and all liability, loss, expenses (including reasonable attorneys' fees), or claims for injury or damages arising out of the performance of this Agreement, but only in proportion to and to the extent such liability, loss, expense, attorneys' fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of Califa, its officers, agents, or employees.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized representatives.

For Library

Signature

Name

Title

Date

for Califa


Signature

Paula MacKinnon
Name

Interim Director
Title

1.24.17
Date

Attachment 2

Appendix #1
Provision, Installation and Maintenance
Of Advanced Network (Data) Services:
Reimbursement of Circuit Costs

This Appendix lists the circuits contracted for by CENIC on behalf of Califa and the Library for connecting CENIC's fiber optic backbone to Library and for library connections that are not direct connections to CENIC's fiber optic backbone, e.g. direct connections between libraries. Library understands that CENIC will bill Califa, and Califa will bill Library, for actual costs of circuits charged by network service providers, including taxes and surcharges and without markup. Prior to approval of CENIC's Library consortium E-rate application by the FCC's E-rate contractor, not all applicable E-rate and CTF discounts will be reflected on invoices. After the E-rate application for any given year is approved, the network service provider will coordinate with CENIC to provide appropriate credits and such credits will be passed from CENIC to Califa and from Califa to the Library. Such credits are typically issued sometime during the fiscal year after the year in which the circuits are installed and services are first provided. In subsequent years, credits continue to be issued in the fiscal year after the year for which services have been provided. Library further understands that the exact discounted cost of circuits will not be known until after the E-rate consortium application is approved. The actual start date of the service, and therefore of circuit costs, will be dependent on coordination among CENIC, the Library and the network service provider. Any one time (Non-recurring or NRC) costs included below are typically invoiced by carriers prior to circuit installation and will be invoiced to Library upon receipt of invoice to CENIC from carrier.

Attachment 2

St. Helena Public Library					
5 year term					
		1G to CalREN			
Summary Totals		Pre Discount Costs (not including Taxes & Surcharges)		Estimated Net Costs, after discounts applied (not including Taxes & Surcharges)	
		NRC*	Monthly	NRC*	Monthly
		\$ -	\$ 813.00	\$ -	\$ 162.60
Note 1: Design is for a circuit from St. Helena Public Library to a CalREN Hub site. Circuits from the Branch Libraries are to go to St. Helena Public Library					
		1G Circuit to CalREN			
Connection to HUB	Disc %	Pre Discount Costs		Estimated Net Costs, after discounts applied	
E-rate Discount for St. Helena Public Library**:	0.6				
CTF Discount***:	0.5				
Connection to CalREN Hub at St. Helena Public Library		NRC*	Monthly	NRC*	Monthly
Link 1: 1G to CalREN Hub		\$ -	\$ 813.00	\$ -	\$ 162.60

Attachment 2

Taxes & Surcharges on links	Varies
Library Equipment	St. Helena Public Library is responsible to provide a router with at least one LAN interface. This router should support BGP and NAT. An upgraded Firewall appliance may also be needed to support the data streams.

Note 2: These numbers do not include early termination fees that might be required from current provider(s), nor equipment the Library may need to purchase to support these circuits, nor Taxes & Surcharges on the circuits.

Definitions

***NRC - Non-Recurring Charges**

****E-rate discount:** percent discount indicated is an estimate based on data available at the time the quote was generated. Actual discount percentage will be identified by the E rate authorities at a later point.

*****CTF discount:** percent discount of amount after E rate discount is applied. CTF discount is always 50%.

Note 3: E-rate and CTF discounts are dependent upon the continued funding of these programs. CENIC/Califa cannot guarantee the E-rate and CTF discounts, and these discounts are subject to change.



Report to the City Council
Council Meeting of February 14, 2017

Agenda Section: Consent

Subject: Consideration and proposed approval of a resolution related to the development by Our Town St. Helena of the former City property located at 684 McCorkle Avenue, including:

- (a) The rescission of Resolution No. 89-23 requiring construction of a sewer main at 684 McCorkle Avenue and the vacation of an agreement to construct the sewer main; and
- (b) The approval of a subordination agreement with Our Town St. Helena to provide for the financing of the development of the site with affordable housing units; and
- (c) Direction to the Interim City Manager to execute the subordination agreement and take such other actions as are necessary.

CEQA Determination: Not a CEQA Project

Prepared By: Erica Ahmann Smithies
Erica Ahmann Smithies, Asst PW Director

Reviewed By: Noah Housh
Noah Housh, Planning & Community Imp

Steven Palmer
Steven Palmer, Director of Public Works

Approved By: Larry Pennell
Larry Pennell, Interim City Manager

BACKGROUND

The City purchased 684 McCorkle Avenue (i.e. Assessor's Parcel No. 009-502-007) for \$700,000 in 2013 with funds from the City's Affordable Housing Trust Fund and a loan from the City's General Fund, after having found it to be a potential site for a future affordable housing or workforce housing project. Subsequently, in 2015, the City agreed

to sell the property (appraised at \$920,000) for \$1 to Our Town St. Helena (OTSH) for the purpose of allowing OTSH to develop affordable housing units consisting of owner-occupied housing available to "lower income households."

DISCUSSION

On December 19, 2016, City Council approved a resolution approving OTSH's Tentative Subdivision Map for developing 684 McCorkle into 8 affordable housing units. In order for OTSH to move forward with the development, the following two actions need to be authorized by City Council.

First of all, OTSH has requested the City vacate an existing sewer main construction agreement. On October 10, 1988, City Council approved an Agreement to extend the City sewer main on 684 McCorkle Avenue, which agreement was recorded November 10, 1988 in Book 1620 at page 6 of Official Records of Napa County. On March 28, 1989, City Council adopted Resolution No. 89-23 to defer construction of the sewer main until receipt of written demand from the City of St. Helena, a certified copy of which Resolution was recorded April 6, 1989 in Book 1648 at page 851 of Official Records of Napa County. The construction of the sewer main was completed, but the Agreement and the recorded resolution deferring construction of the Agreement were never removed from the title of the parcel. OTSH has requested that the City vacate the Agreement and rescind Resolution 89-23 so it no longer encumbers the property.

Secondly, in order for OTSH to obtain financing for the Project the City is being required to subordinate its lienholder claims to the lender. The City has already agreed to this term, and this action will authorize the City Manager to execute a subordination agreement that can be provided to the lender. On April 21, 2016, the City executed a Declaration of Restricted Covenants with Our Town St. Helena (OTSH) outlining the requirements of the site to be utilized for affordable housing, which Declaration was recorded April 25, 2016 as Series Number 2016-0009573 of Official Records of Napa County. On June 30, 2016, the City executed an Amendment to the Declaration of Restricted Covenants with OTSH, which the City agreed to subordinated terms and conditions to financing obtained by OTSH, upon terms and conditions approved by the City which Amendment was recorded July 1, 2016 as Series Number 2016-0016006 of Official Records. The revised subordination requirements of the property are as follows:

"The City agrees to subordinate the terms and conditions of this Agreement to financing obtained by OTSH, upon terms and conditions approved by the City. In the event of a senior lienholder liquidation, the Agreement and all terms and conditions of the Agreement shall become null and void. The City, at its sole option, shall have the right to pay the senior lienholder debt in full once a default has occurred with the condition that senior lienholder's loan and loan documents are assigned to the City."

City staff has worked with OTSH to draft a Subordination Agreement that meets the above requirements and is recommending City Council to adopt the agreement and to authorize the Interim City Manager to execute the agreement.

FISCAL IMPACT

There are no fiscal impacts to the City at this time.

RECOMMENDED ACTION

Staff recommends the City Council adopt the resolution vacating an Agreement to construct a sewer main and rescind Resolution No. 89-23 attached to 684 McCorkle Avenue; Adopt a Subordination Agreement with Our Town St. Helena and authorize the Interim City Manager to execute the Subordination Agreement.

ATTACHMENTS

[Attch 1 Reso 684 McCorkle](#)

[Attch 2 1988 Sewer Agreement](#)

[Attch 3 Resolution 89-23](#)

[Attch 4 City Declaration](#)

[Attch 5 City Decl Amendment](#)

[Attch 6 Subord Agmt City Draft 1-26-17](#)

Attachment 1

CITY OF ST. HELENA

RESOLUTION No. 2017-

Resolution Vacating an Agreement to Construct a Sewer Main and Rescind Resolution No. 89-23 attached to 684 McCorkle Avenue; Adopting a Subordination Agreement with Our Town St. Helena and Authorizing the Interim City Manager to Execute the Subordination Agreement

RECITALS

- A. On October 10, 1988, City Council approved an Agreement to extend the City sewer main on 684 McCorkle Avenue (i.e. Assessor's Parcel No. 009-502-007), which agreement was recorded November 10, 1988 in Book 1620 at page 6 of Official Records of Napa County; and
- B. On March 28, 1989, City Council adopted Resolution No. 89-23 to defer construction of the sewer main until receipt of written demand from the City of St. Helena, a certified copy of which Resolution was recorded April 6, 1989 in Book 1648 at page 851 of Official Records of Napa County; and
- C. The sewer main work was completed on 684 McCorkle Avenue, but the Agreement and Resolution were never removed from the parcel title; and
- D. On April 21, 2016, the City executed a Declaration of Restricted Covenants with Our Town St. Helena (OTSH) outlining the requirements of the site to be utilized for affordable housing, which Declaration was recorded April 25, 2016 as Series Number 2016-0009573 of Official Records of Napa County; and
- E. On June 30, 2016, the City executed an Amendment to the Declaration of Restricted Covenants with OTSH, which the City agreed to subordinated terms and conditions to financing obtained by OTSH, upon terms and conditions approved by the City which Amendment was recorded July 1, 2016 as Series Number 2016-0016006 of Official Records; and
- F. City Staff has reviewed a Subordination Agreement between the City and OTSH that meet the intents of the Amended Declaration of Restricted Convents; and

RESOLUTION

The City Council of the City of St. Helena hereby resolves as follows:

1. Vacate the Agreement to Construct a Sewer Main attached to 684 McCorkle Avenue and authorize the recording of the resolution.
2. Rescind Resolution No. 89-23 and authorize the recording of this resolution.
3. Adopt the Subordination Agreement with Our Town St. Helena.
4. Authorize the Interim City Manager to Execute the Subordination Agreement with Our Town St. Helena.

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017, by the following vote:

Mayor Galbraith:	_____
Vice Mayor White:	_____
Councilmember Dohring:	_____
Councilmember Ellsworth:	_____
Councilmember Koberstein:	_____

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk

NAPA COUNTY

Attachment 2

Exempt from Recording Fees
Gov. Code Sect. 6103

VOL. 1620 PAGE 6

RECORDED IN
OFFICIAL RECORDS - M
OF NAPA COUNTY, CA - R

1988 NOV 10 AM 11:09

ELEANOR E. NINEROUCH - F
COUNTY RECORDER - LF

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

Richard Samuel King
Mary MacLeod King
684 McCorkle Avenue
St. Helena, CA 94574

AGREEMENT

RICHARD SAMUEL KING and MARY H. MACLEOD hold title to the following real property located at 684 McCorkle Avenue, St. Helena, County of Napa, State of California more particularly described as follows:

COMMENCING at an iron stake on the Old "Logan" line distant thereon 46' 40' East 691.40 feet from a street monument, at the intersection Allison Avenue and McCorkle Avenue; running thence North 43' West along the Northeasterly line of land conveyed to Edward L. McAluley of Deed of record in Volume 103 of Deeds, at page 271, said Napa County Records, 282.30 feet to the Northwesterly line of the lands conveyed to C. J. McClain by Deed of record in Volume 106 of Deeds, at page 395, said Napa County Records; thence Northeasterly along last mentioned line 83.50 feet; thence South 43' East 290.91 feet to said old line of Logan; thence along last mentioned line South 46' 40' West 83.0 feet to the point of commencement.

Subject to: Covenants, conditions, restrictions, reservations, rights, rights of way, and easements of record.

A.P.N. 9-502-07

Based on the determination by the St. Helena City Council, made October 10, 1988, that at this time, we, RICHARD SAMUEL KING and MARY H. MACLEOD aka MARY MACLEOD KING, may extend the sewer main a lesser distance than across the entire frontage of the real property located at 684 McCorkle Avenue, St. Helena, California; we agree to commence construction to extend the sewer main across the entire frontage of said property within thirty (30) days of receipt of written notice from the City of St. Helena that such extension is required. It is agreed that if we fail to commence construction of this extension of the sewer main across the entire frontage of said property, or fail to complete construction within three months, the City of St. Helena shall have the right to place a lien against said property for the reasonable costs of constructing said extension.

Agreement, page 1
31690

NAPA COUNTY

Attachment 2

VOL. 1620 PAGE 7

This agreement shall be binding on and inure to the benefit of the heirs, successors, personal representatives and assigns of the parties, and shall be recorded in Napa County. We agree to pay all costs, expenses, fees (including reasonable attorney fees), and charges incurred by the City of St. Helena in enforcing any of the provisions of this agreement.

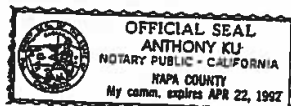
DATED: 2 Nov., 1988

Mary H. MacLeod
Mary H. MacLeod

Richard Samuel King
Richard Samuel King

STATE OF CALIFORNIA)
COUNTY OF NAPA) ss.

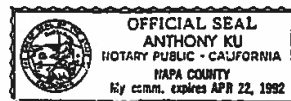
On NOVEMBER 2, 1988, before me, the undersigned, a Notary Public in and for the State of California, personally appeared Mary H. MacLeod, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged that she executed it.



Anthony Ku
Notary Public

STATE OF CALIFORNIA)
COUNTY OF NAPA) ss.

On NOVEMBER 2, 1988, before me, the undersigned, a Notary Public in and for the State of California, personally appeared Richard Samuel King, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged that he executed it.



Anthony Ku
Notary Public

END OF DOCUMENT

Agreement, page 2

NAPA COUNTY

Attachment 3

Return To:

Coombs & Denlap

VOL. 1648 PAGE 851

RESOLUTION NO. 89- 23

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
ST. HELENA APPROVING A DEFERRED IMPROVEMENT
AGREEMENT WITH RICHARD KING AND MARY MACLEOD
REGARDING PROPERTY LOCATED AT 684 MCCORKLE
AVENUE, ST. HELENA

WHEREAS, the St. Helena City Council determined on October 10, 1988, that Richard King and Mary Macleod, the owners of property at 684 McCorkle Avenue, St. Helena, California, may defer construction of a sewer main until receipt of written demand from the City of St. Helena; and

WHEREAS, Richard King and Mary Macleod have executed a written agreement to so construct the sewer main, a copy of which is attached hereto as Exhibit "A".

NOW THEREFORE, the City Council of the City of St. Helena resolves that the attached Agreement is hereby approved by the City Council of the City of St. Helena and the City Clerk is authorized to record this Resolution with attachment in the office of the County Recorder of Napa County.

PASSED AND ADOPTED at a regular meeting of the City Council held on the 28th day of March, 1989, by the following vote:

AYES	:	Councilmen Hunter, Brown, Salinger, Perez, Mayor Aquila
NOES	:	None
ABSENT	:	None
ABSTAIN	:	None

Approved:

John F. Aquila
John F. Aquila
Mayor

Attest:

Gene Armstead
Gene Armstead
City Administrator/City Clerk

RECORDED IN
OFFICIAL RECORDS
OF NAPA COUNTY, CALIF.
1989 APR -6 PM 3:35
ELEANOR E. FLORENCE
COUNTY RECORDER - LF

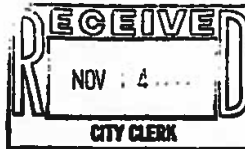
No fee

09761

NAPA COUNTY

Attachment 3

Exempt from Recording. ss
Gov. Code Sect. 6103



VOL. 1648 PAGE 852

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

Richard Samuel King
Mary MacLeod King
684 McCorkle Avenue
St. Helena, CA 94574

CONFORMED COPY
NAPA COUNTY RECORDER
OFFICIAL RECORDS
Date Recorded NOV 10 1988
VOL 1620 PAGE 6
Volume and Page

AGREEMENT

RICHARD SAMUEL KING and MARY H. MACLEOD hold title to the following real property located at 684 McCorkle Avenue, St. Helena, County of Napa, State of California more particularly described as follows: -

COMMENCING at an iron stake on the Old "Logan" line distant thereon 46' 40' East 691.40 feet from a street monument, at the intersection Allison Avenue and McCorkle Avenue; running thence North 43' West along the Northeasterly line of land conveyed to Edward L. McAluley of Deed of record in Volume 103 of Deeds, at page 271, said Napa County Records, 282.30 feet to the Northwesterly line of the lands conveyed to C. J. McClain by Deed of record in Volume 106 of Deeds, at page 395, said Napa County Records; thence Northeasterly along last mentioned line 83.50 feet; thence South 43' East 290.91 feet to said old line of Logan; thence along last mentioned line South 46' 40' West 83.0 feet to the point of commencement.

Subject to: Covenants, conditions, restrictions, reservations, rights, rights of way, and easements of record.

A.P.N. 9-502-07

Based on the determination by the St. Helena City Council, made October 10, 1988, that at this time, we, RICHARD SAMUEL KING and MARY H. MACLEOD aka MARY MACLEOD KING, may extend the sewer main a lesser distance than across the entire frontage of the real property located at 684 McCorkle Avenue, St. Helena, California; we agree to commence construction to extend the sewer main across the entire frontage of said property within thirty (30) days of receipt of written notice from the City of St. Helena that such extension is required. It is agreed that if we fail to commence construction of this extension of the sewer main across the entire frontage of said property, or fail to complete construction within three months, the City of St. Helena shall have the right to place a lien against said property for the reasonable costs of constructing said extension.

Agreement, page 1

Exhibit "A"

Attachment 3

NAPA COUNTY

VOL. 1648 PAGE 853

This agreement shall be binding on and inure to the benefit of the heirs, successors, personal representatives and assigns of the parties, and shall be recorded in Napa County. We agree to pay all costs, expenses, fees (including reasonable attorney fees), and charges incurred by the City of St. Helena in enforcing any of the provisions of this agreement.

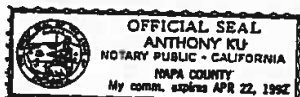
DATED: 2 Nov., 1988

Mary H. MacLeod
Mary H. MacLeod

Richard Samuel King
Richard Samuel King

STATE OF CALIFORNIA)
COUNTY OF NAPA) ss.

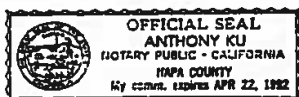
On NOVEMBER 2, 1988, before me, the undersigned, a Notary Public in and for the State of California, personally appeared Mary H. MacLeod, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged that she executed it.



Anthony Ku
Notary Public

STATE OF CALIFORNIA)
COUNTY OF NAPA) ss.

On NOVEMBER 2, 1988, before me, the undersigned, a Notary Public in and for the State of California, personally appeared Richard Samuel King, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged that he executed it.



Anthony Ku
Notary Public

Agreement, page 2

NAPA COUNTY

Attachment 3

VOL. 1648 PAGE 854

CLERK'S CERTIFICATE

I, Gene Armstead, City Clerk of the City of St. Helena, do hereby certify that the foregoing is a full, true and correct copy of the Resolution duly adopted at a Regular Meeting of the City Council of the City of St. Helena on the 28th day of March, 1989, at which meeting all of the members of the City Council had due notice and at which a majority thereof were present; that at such meeting the Resolution was adopted by the following vote:

AYES: Councilmen Brown, Hunter, Salinger, Perez, Mayor Aquila

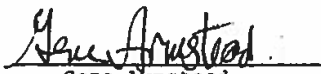
NOES: None

ABSENT : None

ABSTAIN: None

I have carefully compared the same with the original minutes of the meeting on file and of record in my office and that the resolution is duly entered of record in the minutes, and the resolution is a full, true and correct copy of the original resolution adopted at the meeting and entered in the minutes; that the Resolution has not been amended, modified or rescinded since the date of its adoption, and the same is now in full force and effect.

Witness my hand and seal of the City of St. Helena this 5th day of April, 1989.


Gene Armstead
City Clerk

END OF DOCUMENT

First Am Title Co. 300013 LT
 RECORDING REQUESTED BY
 AND WHEN RECORDED MAIL TO:

City Clerk
 City of St. Helena
 1480 Main Street
 St. Helena, CA 94574

EXEMPT FROM RECORDING FEES PER
 GOVERNMENT CODE §27383
 APN 046-141-001

Attachment 4

 2016-0009573
 Recorded REC FEE 0.00
 Official Records
 County of
 Napa
 JOHN TUTEUR
 Assessor-Recorder-Cou
 08:00AM 25-Apr-2016 LS Page 1 of 7

DECLARATION OF RESTRICTIVE COVENANTS

This Agreement dated APRIL 21, 2016 is between the CITY OF ST. HELENA (the "City") and OUR TOWN ST. HELENA, a California non-profit public benefit corporation ("OTSH").

RECITALS

A. The City developed a program to provide housing opportunities to low and moderate income purchasers of homes to be offered for sale at prices which are below those otherwise prevailing in the market as described in St. Helena Municipal Code Chapter 17.146 (the "Program").

B. The City has sold that certain real property as described in Exhibit A attached hereto and incorporated herein ("Property") to OTSH for the purpose of OTSH developing at least six (6) single-family housing unit (the "Units") on the Property through a self-help housing program.

C. Each of the Units shall be sold at an Affordable Housing Cost to a Low Income Household (the "owner").

NOW THEREFORE, the parties acknowledge and agree as follows:

ARTICLE 1. DEFINITIONS

1.01 "Affordable Housing Cost" shall be as defined in Health and Safety Code Section 50052.5 or any successor thereto for low or moderate income households, as adjusted for family size appropriate for the unit. If the statute is no longer in effect and no successor statute is enacted, the Agency shall establish the Affordable Housing Cost for purposes of this Agreement.

1.02. "Low-Income Household" means persons and families whose income does not exceed 80% of area median income for Napa County, as published by the United States Department of Housing and Urban Development from time to time,, as adjusted for family size.

Attachment 4

ARTICLE 2. AFFORDABILITY RESTRICTIONS

2.01. Affordability Requirements. OTSH agrees that the each of the Units shall only be sold to a Low-Income Household at an Affordable Housing Cost.

2.02. Sale of Property.

A. Household Income Qualifications. Prior to a proposed sale or other transfer of any part of the Property by OTSH, OTSH shall provide documentation to the City that the proposed buyer has been approved by the United States Department of Agriculture (USDA) to purchase the Unit through the USDA's Self-Help Housing Program and qualifies as a Low-Income Household. OTSH shall also submit demographic information on the proposed buyer as requested for reporting purposes..

B. Resale Restriction. At the time of purchase of a Unit, the buyer must execute a Resale Restriction and Option to Purchase Agreement in essentially the form attached as Exhibit B which shall replace this Agreement for the Unit.

ARTICLE 3. DEFAULTS

3.01. Default. The City shall give written notice to OTSH specifying the nature of the default. If the violation is not corrected to the satisfaction of the City within thirty (30) days after the date of the notice, or within such further time as the City determines is necessary to correct the violation, the City may declare a default under this Agreement. Upon the declaration of a default, the City may apply to a court of competent jurisdiction for specific performance of the Agreement, for an injunction prohibiting a proposed sale or transfer in violation of this Agreement, for a declaration that the prohibited transfer is void, or for any such other relief as may be appropriate.

3.02. Attorney Fees and Costs. If any action is brought to enforce the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees and costs.

ARTICLE 4. GENERAL

4.01. Notices. Notices required to be sent shall be sent by certified mail, return receipt requested, to the following addresses:

To the City:

City Manager
City of St. Helena
1480 Main Street
St. Helena, California 94574

With copy to:

Attachment 4

Housing Authority of the City of Napa
P.O. Box 660
Napa, California 94559
Attn: Housing Manager

To OTSH:

Our Town St Helena
c/o John Sales
1451 Oak Avenue
St. Helena, Ca 94574

The parties may subsequently change addresses by providing written notice of the change in address to the other parties.

4.02. Duration.

The covenants set forth herein shall be covenants running with the land for a term of fifty five (55) years from the date of recordation until replaced with a subsequent Resale Restriction and Option to Purchase Agreement executed by the Low-Income Household.

4.02. Successors and Assigns.

OTSH, by and for itself and each successor to any interest in the Property, hereby specifically acknowledges and agrees to be bound by the covenants contained herein.

4.03. Subordination.

The City agrees to subordinate the terms and conditions of this Agreement to financing obtained by OTSH, upon terms and conditions approved by the City.

4.04. Amendment.

This Agreement may be amended only in writing by the City and OTSH.

Signatures on following page

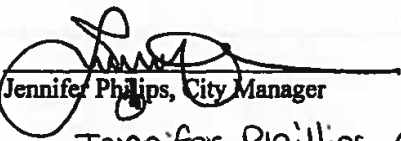
Attachment 4

IN WITNESS WHEREOF, the parties have executed this Agreement on or as of the date first written above.

OUR TOWN ST. HELENA:


Mary Stephenson, Board President
Stephenson

CITY OF ST. HELENA:


Jennifer Phillips, City Manager
Jennifer Phillips, City Manager

Attest:


Alan Galbraith, Mayor

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

}

}ss

K. HANSEN
COMM. # 2066593
NOTARY PUBLIC - CALIFORNIA
SONOMA COUNTY
MY COMM. EXPIRES MAY 2, 2018

Notary Public

Attachment 4

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

}

COUNTY OF NAPA

} ss

On 4/22/16, before me, K. Hansen, Notary
 Public, personally
 appeared Mary Stephenson — who
 proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
 subscribed to the within instrument and acknowledged to me that he/she/they executed the same
 in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument
 the person(s), or entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the
 foregoing paragraph is true and correct.

WITNESS my hand and official seal.



K. Hansen
 Notary Public

Attachment 4

END OF DOCUMENT

EXHIBIT "A"

Escrow Number: 00300013

COMMENCING at an iron stake on the old "Logan" line distant thereon 46° 40' East 691.40 feet from a street monument at the Intersection Allison Avenue and McCorkle Avenue; running thence North 43° West along the northeasterly line of land conveyed to Edward L. McAuley by Deed of record in Book 103 of Deeds at page 271, said Napa County Records, 282.30 feet to the northwesterly line of the lands conveyed to C.J. McClain by Deed of record in Book 106 of Deeds at page 395, said Napa County Records; thence northeasterly along last mentioned line 83.50 feet; thence South 43° East 290.91 feet to said old line of Logan; thence along last mentioned line South 46° 40' West 83.0 feet to the Point of Commencement.

APN: 009-502-007

Attachment 5



2016-0016006

Recorded	REC FEE	0.00
Official Records		
County of	CC1 ONE CONFORM	1.00
Napa		
JOHN TUTEUR		
Assessor-Recorder-Cou		

09:14AM 01-Jul-2016 JW Page 1 of 3

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

EXEMPT FROM RECORDING FEES PER
GOVERNMENT CODE §27383
APN 046-141-001

**AMENDMENT TO
DECLARATION OF RESTRICTIVE COVENANTS**

This Amendment to Declaration of Restrictive Covenants (the "Amendment") is made this 30th day of June, 2016, between the CITY OF ST. HELENA (the "City") and OUR TOWN ST. HELENA, a California non-profit public benefit corporation ("OTSH"). It amends the Declaration of Restrictive Covenants dated April 21, 2016 and recorded on April 25, 2016 as Instrument Number 2016-009573 in the office of the County Recorder, Records of Napa County, as follows:

Section 4.03 is hereby deleted in its entirety and replaced with: The City agrees to subordinate the terms and conditions of this Agreement to financing obtained by OTSH, upon terms and conditions approved by the City. In the event of a senior lienholder liquidation, the Agreement and all terms and conditions of the Agreement shall become null and void. The City, at its sole option, shall have the right to pay the senior lienholder debt in full once a default has occurred with the condition that senior lienholder's loan and loan documents are assigned to the City.

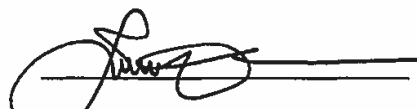
All other terms and conditions of the Declaration of Restrictive Covenants shall remain unchanged.

IN WITNESS WHEREOF, the parties have executed this Agreement on or as of the date first written above.

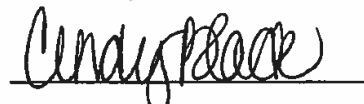
OUR TOWN ST. HELENA:


Mary Stephenson, Board President

CITY OF ST. HELENA:


Jennifer Philips, City Manager

Attest:


Cindy Black, City Clerk

Attachment 5

ACKNOWLEDGMENTS

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF NAPA

}
}ss

On 6/30/2014, before me, Maria Pantoja, Notary Public, personally appeared Mary Stephenson who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(s); or entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Notary Public

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

On 6/30/2014, before me, Mania Pantoya, Notary Public, personally appeared Jennifer Philips who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Notary Public

Attachment 6

Recording Requested By: Rural Community Assistance Corporation 3120 Freeboard Drive, Suite 201 West Sacramento, CA 95691	Space above this line for Recorder's Use
And When Recorded Mail To: Rural Community Assistance Corporation Attn: Loan Fund 3120 Freeboard Drive, Suite 201 West Sacramento, CA 95691 Loan No: 0855-OTSH-02	

SUBORDINATION AGREEMENT

NOTICE: THIS SUBORDINATION AGREEMENT RESULTS IN YOUR SECURITY INTEREST IN THE PROPERTY BECOMING SUBJECT TO AND OF LOWER PRIORITY THAN THE LIEN OF SOME OTHER OR LATER SECURITY INSTRUMENT.

This subordination agreement ("Agreement") is made as of _____, 2017, by and between Our Town St. Helena, a California nonprofit public benefit corporation ("OTSH"), the City of St. Helena, a political subdivision of the State of California ("Junior Lender") and Rural Community Assistance Corporation, a California nonprofit public benefit corporation ("Lender").

WITNESSETH

WHEREAS, on **April 21, 2016**, OTSH executed a Declaration of Restrictive Covenants with the **City of St. Helena**, covering certain real property in the City of St. Helena, County of Napa, State of California, which property is more particularly described in Exhibit A attached hereto and by this reference made a part hereof, hereinafter referred to as the "Property", and which Declaration of Restrictive Covenants was recorded on April 25, 2016 as Document No. 2016-0009573 in the Official Records of Napa County, State of California, hereinafter referred to as "Declaration";

WHEREAS, on **June 30, 2016**, OTSH executed an Amendment to Declaration of Restrictive Covenants with the **City of St. Helena**, covering the Property, and which Amendment to Declaration of Restrictive Covenants was recorded on July 1, 2016 as Document No. 2016-0016006 in the Official Records of Napa County, State of California, hereinafter referred to as "Amendment";

Attachment 6

WHEREAS, on May 9, 2016, OTSH applied for a loan ("Loan"), from Lender to develop eight lots to be used for single-family housing units through a self-help housing program, commonly known as Brenkle Court, to be constructed on the Property;

WHEREAS, on June 6, 2016, Lender conditionally approved the Loan in the amount of Two Hundred Thirty Two Thousand Seven Hundred Seventy Dollars and No Cents (\$232,770.00);

WHEREAS, on June 13, 2016, Lender issued its commitment to OTSH in which it agreed to make the Loan under certain terms and conditions;

WHEREAS it is a condition precedent to Lender making the Loan that OTSH shall enter into a loan agreement with Lender ("Loan Agreement") and give Lender a promissory note for the loan amount to evidence the Loan ("Note"), and that Note shall be secured by a deed of trust to First American Title Company, as trustee, naming Lender as beneficiary, ("Lender Deed"), and the Lender Deed must unconditionally be and remain at all times during the term of the Loan a first position lien or charge upon the Property;

WHEREAS it is to the mutual benefit of the parties hereto that Lender make the Loan and Junior Lender is willing to subordinate its Junior Lender Declaration and Amendment to the Lender Deed;

NOW, THEREFORE, in consideration of the mutual benefits accruing to the parties hereto and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and in order to induce Lender to enter into the Loan, the parties hereto declare, understand and agree:

1. That the Lender Deed securing the Loan as well as all other obligations recited therein as being secured thereby, and any renewals or extensions thereof, unconditionally shall be and remain at all times a lien or charge upon the Property prior and superior to the Junior Lender Declaration and Amendment;
2. That Lender would not enter into the Loan Agreement nor make the Loan without this Agreement;
3. That this Agreement shall be the whole and only agreement with regard to the subordination of the Junior Lender Declaration and Amendment in favor of the Lender Deed, and this Agreement shall supersede and cancel, but only insofar as would affect the priority between the Junior Lender Declaration and Amendment and the Lender Deed, any prior agreement as to such subordination, including but not limited to, those provisions, if

Attachment 6

any, contained in the Junior Lender Declaration and Amendment which provide for the subordination of the lien or charge thereof to another deed or deeds of trust or to another mortgage or mortgages.

Junior Lender declares, agrees and acknowledges that:

1. It consents to the Loan and approves all provisions of the Loan Agreement, Note and Lender Deed;
2. It intentionally and unconditionally waives, relinquishes and subordinates the lien or charge of the Junior Lender Declaration and Amendment in favor of the Lender Deed, as to the Loan as well as all other obligations recited therein as being secured thereby, and understands that in reliance upon and in consideration of this waiver, relinquishment and subordination, specific monetary and other obligations are being made and will be entered into which would not be made or entered into but for Lender's reliance upon this waiver, relinquishment and subordination.

Junior Lender shall have the right to cure:

1. Upon notice by Lender to OTSH of any default under the Lender's Loan, Lender shall deliver to Junior Lender a copy of said notice concurrently with delivery to OTSH, and Junior Lender shall have the right (but not the obligation) to cure, within sixty (60) days following the delivery of such notice to Junior Lender, any or all defaults specified in said notice.

The parties hereto further agree:

1. This Agreement may be executed in any number of separate counterparts, each of which shall be deemed an original, and all of which counterparts taken together shall constitute one agreement; and
2. This Agreement will be governed by or construed in accordance with the laws of the State of California and federal law, where applicable.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

City of St. Helena

Attachment 6

By: _____
Larry Pennell
Interim City Manager

Our Town St. Helena

By: _____
Mary Stephenson
Board President

Rural Community Assistance Corporation

By: _____
Michael D. Carroll
Director, Lending and Housing



Report to the City Council
Council Meeting of February 14, 2017

Agenda Section: Consent

Subject: Consideration and proposed adoption of a resolution authorizing the City Manager to execute a Professional Services Agreement with Larry Walker and Associates in the amount of \$35,100 to prepare a permit application and provide regulatory support to the Wastewater Treatment and Reclamation Facility Permit for Land Application of Treated Discharge; and transfer \$35,100 from Capital Improvement Project (CIP) S-66 New Well for Fiscal Year 2016/2017 to CIP S-52 Wastewater Treatment and Reclamation Plant Upgrade Phase I

CEQA Determination: Categorically Exempt, Section 15301 Existing Facilities

Prepared By: 
Steven Palmer, Director of Public Works

Approved By: 
Larry Pennell, Interim City Manager

BACKGROUND

The City of St Helena owns and operates a wastewater treatment and reclamation facility (WWTRF) located at 1 Chaix Lane. The WWTRF treats wastewater to a secondary level of treatment and discharges treated wastewater to both the Napa River and an adjacent City-owned irrigation field. The City is authorized to operate the WWTRF and discharge treated wastewater by two separate discharge permits and subject to a Cease and Desist Order, all issued by the San Francisco Bay Regional Water Quality Control Board (Regional Board). Regional Board Order R2-2016-0003 regulates the discharge of treated wastewater to the Napa River, and Regional Board Order 87-090 regulates the discharge of treated wastewater to the irrigation field.

Napa River Discharge (Orders R2-2016-0003 and R2-2016-0004)

The Regional Board adopted Order R2-2016-0003 on January 13, 2016. This Order includes more stringent discharge limits for biochemical oxygen demand (BOD) and total suspended solids (TSS) that the City WWTRF cannot currently meet on a regular basis. Consequently, the Regional Board simultaneously issued a cease and desist order (CDO) with a Task and Time schedule for the City to modify the WWTRF to meet the more stringent limits (Order R2-2016-0004). The CDO allows the City to continue complying with the previous effluent limits as long as it is in compliance with the Task and Time Schedule below.

Task	Deadline
a. Submit a Draft Feasibility Study that analyzes various options to meet the NPDES permit effluent limits in Table 1. The study shall analyze all of the options described in the March 2015 Wastewater Facilities Evaluation Update and include other options that would achieve compliance. For each option considered, evaluate (i) the anticipated effectiveness and reliability of the treatment, (ii) the amount of time it will take to implement, (iii) the ability to produce recycled water (recycled water uses to be considered shall include those that offset local potable water use or provide environmental enhancement, including but not limited to turf and vineyard irrigation) or the additional efforts required to produce such recycled water, and (iv) the costs.	September 1, 2016
b. Submit a Final Feasibility Study that addresses any Executive Officer comments on the Draft Feasibility Study and identifies a preferred option.	December 1, 2016
c. Submit a Draft Workplan for implementation of the preferred option identified in task 2.b and a schedule for implementation. Include a plan and schedule for funding the project.	June 1, 2017
d. Submit a Final Workplan that addresses any Executive Officer comments on the Draft Workplan required by task 2.c	September 1, 2017
e. Submit notification documenting the beginning of implementation of the Final Workplan.	March 1, 2019
f. Submit documentation of the completion of Final Workplan implementation and begin operation of the new or modified treatment system.	September 1, 2020
g. Submit a report evaluating the effectiveness of the new or modified treatment system and whether it is likely to meet the requirements of	December 1, 2020

	the NPDES permit. If the system appears unlikely to meet the requirements of the NPDES permit, identify and implement measures to ensure compliance.	
h.	Achieve full compliance with the 2016 Permit effluent limits listed in Table 1 of this Cease and Desist Order	February 28, 2021

The first task is to prepare a feasibility study to evaluate means to meet the new discharge limits, discuss the potential for recycled water production and use, and provide a recommendation to the Regional Board. The City submitted the Draft Feasibility Study on August 30, 2016, and received comments from the Regional Board in a letter dated November 7, 2016 (Attachment 3). That letter also extended the deadline for submitting the Final Feasibility Study to March 1, 2017. Regional Board Orders R2-2016-0003 and R2-2016-0004 are included as Attachments 4 and 5.

Irrigation Field Discharge (Order 87-090)

The November 7, 2016 letter from the Regional Board also added a new requirement to submit a Report of Waste Discharge for Land Application of Treated Wastewater (ROWD). Through this action, the Regional Board will be issuing a new permit to replace existing Order 87-090 which regulates the application of treated wastewater to the irrigation field. The timing of this requirement for a ROWD is partially driven by a complaint filed by adjacent property owners based on a report by their consultant, Dellavalle Laboratory, Inc. The Dellavalle report asserts, among other things, that the land application of treated wastewater at the City property is contributing to increased groundwater elevation and nutrient concentrations. A copy of the complaint and the report are included as Attachment 6.

The ROWD is required to contain a substantial amount of information that must be gathered and analyzed. The Regional Board has directed that the ROWD must contain:

1. Water balance evaluation for the proposed discharge practices.
2. Evaluation of groundwater movement and fate.
3. Nutrient balance evaluation of nitrogen discharges to the land application rate.
4. Groundwater monitoring plan.

The letter established a deadline of March 1, 2017 for submitting the ROWD.

DISCUSSION

City staff requires expert assistance in order to prepare the ROWD, comply with the November 7, 2016 letter, and review the adjacent property owner complaint. City staff solicited a proposal from Larry Walker and Associates because the City currently contracts with the firm to support the City with consulting and engineering services for the City's Discharge Permit, self-monitoring reports, and SSMPs. Additionally, Larry Walker and Associates provides critical historical knowledge of the City's system and operations.

Pursuant to St Helena Municipal Code Sections 3.04.320-340, professional services shall be procured through negotiated contract to firms who have demonstrated an adequate level of experience, competence, staffing and other professional qualifications necessary for more than a satisfactory performance of the services required. Based on prior work that Larry Walker and Associates has provided for the City and their unique skills and knowledge of the City's WWTRF, Staff believes that Larry Walker and Associates has demonstrated the level of experience, competence, staffing and other professional qualifications necessary for exceptional performance of the services required and described in the scope of work provided, and recommends that a professional services agreement with Larry Walker and Associates be procured through negotiated contract. In addition, due to the timing of the work and sensitivity of the Regional Board to this ROWD, Staff believes that it is in the best interest of the City to have one consultant providing all regulatory compliance services for the WWTRF at this time.

FISCAL IMPACT

The Regional Board requirement to submit an ROWD for Land Application was unexpected and not budgeted this Fiscal Year. In order to fund this work that is required by the Regional Board, Staff recommendation is transfer \$35,100 from Capital Improvement Project (CIP) S-66 New Well for Fiscal Year 2016/2017 to CIP S-52 Wastewater Treatment and Reclamation Plant Upgrade Phase I, thereby increasing the CIP S-52 Wastewater Treatment and Reclamation Plant Upgrade Phase I budget for Fiscal Year 2016/2017 from \$232,108 to \$267,208. The WWTRF is not connected to City water and relies on a drinking water well that has not been usable for many years. Consequently, potable water is purchased and trucked to the WWTRF for the three plant operators to use. This fiscal action will reduce funding for a new drinking water well at the WWTRF from \$65,000 to \$29,900 and delay installation of a new well.

Based on the current 5-year CIP, the Wastewater Capital Project Fund balance will be \$80,000 by the end of next fiscal year (Fiscal Year 2017/2018).

RECOMMENDED ACTION

Adopt a resolution authorizing the City Manager to execute a Professional Services Agreement with Larry Walker and Associates in the amount of \$35,100 to prepare a permit application and provide regulatory support to the Wastewater Treatment and Reclamation Facility Permit for Land Application of Treated Discharge; and transfer \$35,100 from the project account for CIP S-66 New Well for Fiscal Year 2016/2017 to CIP S-52 Wastewater Treatment and Reclamation Plant Upgrade Phase I.

ATTACHMENTS

[Attachment 1 - Resolution](#)

[Attachment 2 - PSA](#)

[Attachment 3 - Board Comments Feasibility Study](#)

[Attachment 4 - R2-2016-0003](#)

[Attachment 5 - R2-2016-0004](#)

[Attachment 6 - Complaint Letter](#)

ATTACHMENT 1

CITY OF ST. HELENA

RESOLUTION NO. 2017-_____

AUTHORIZING THE CITY MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH LARRY WALKER AND ASSOCIATES IN THE AMOUNT OF \$35,100 TO PREPARE A PERMIT APPLICATION AND PROVIDE REGULATORY SUPPORT TO THE WASTEWATER TREATMENT AND RECLAMATION FACILITY PERMIT FOR LAND APPLICATION OF TREATED DISCHARGE; AND TRANSFER \$35,100 FROM CIP S-66 NEW WELL FOR FISCAL YEAR 2016/2017 TO CIP S-52 WASTERWATER TREATMENT AND RECLAMATION PLANT UPGRADE PHASE I

RECITALS

- A. The City of St Helena owns, operates, and maintains a domestic wastewater treatment and reclamation facility (WWTRF) located at 1 Chaix Lane; and
- B. The WWTRF is operated under terms and conditions of San Francisco Regional Water Quality Control Board (Board) orders R2-2016-0003, 87-090, and Cease and Desist Order R2-2016-0004; and
- C. The Board has required the City to prepare a Report of Waste Discharge for Land Application of Treated Discharge (ROWD) by March 1, 2017 in order to replace Order 87-090; and
- D. The ROWD requires that a substantial amount of information must be gathered and analyzed, which requires specialized professional services; and
- E. City of St Helena Municipal Code requires that professional services be procured through negotiated contract to firms who have demonstrated an adequate level of experience, competence, staffing and other professional qualifications necessary for more than a satisfactory performance of the services required; and
- F. Larry Walker and Associates has submitted a proposal meeting the requirements of the City for an amount not to exceed \$31,500; and
- G. Larry Walker and Associates currently provides regulatory compliance services for the WWTRF to the City of St Helena, recently supported the City through issuance of Board Orders R2-2016-0003 and R2-2016-0004; and has demonstrated the level of experience, competence, staffing and other professional qualifications necessary for exceptional performance of the services required; and
- H. The Board requirement to submit an ROWD for Land Application was unexpected and not budgeted this Fiscal Year.

RESOLUTION

NOW, THEREFORE, the City Council of the City of St. Helena resolves as follows:

1. The City Manager is authorized to execute a Professional Services Agreement with Larry Walker and Associates in the amount of \$35,100 to prepare a permit application and provide regulatory support to the Wastewater Treatment and Reclamation Facility Permit for Land Application of Treated Discharge
2. A transfer \$35,100 from the project account for CIP S-66 New Well for Fiscal Year 2016/2017 to CIP S-52 Wastewater Treatment and Reclamation Plant Upgrade Phase I is authorized.

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

ATTEST:

Alan Galbraith
Mayor

Cindy Black
City Clerk

ATTACHMENT 2

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT, made and entered into on February 14, 2017 by and between the City of St. Helena, located in the County of Napa, State of California (City), and Larry Walker and Associates (Consultant).

RECITALS:

A. City desires to employ Consultant to furnish professional services in connection with the project described as Wastewater Treatment and Reclamation Facility Permit for Land Application of Treated Discharge.

B. Consultant has represented that Consultant has the necessary expertise, experience, and qualifications to perform the required duties.

NOW, THEREFORE, in consideration of the mutual premises, covenants, and conditions herein contained, the parties agree as follows:

SECTION 1 – BASIC SERVICES

Consultant agrees to perform the services and work (together, “services”) set forth in **Exhibit A, “Scope of Services”** and made part of this Agreement.

SECTION 2 – ADDITIONAL SERVICES

Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement which are in addition to or outside of those set forth in this Agreement or **Exhibit A, “Scope of Services”**, unless such additional services and compensation are authorized in advance and in writing by the City Council or City Manager of the City.

SECTION 3 – TIME FOR COMPLETION

The time for completion of services shall be as identified in **Exhibit A, “Scope of Services”**.

SECTION 4 – COMPENSATION AND METHOD OF PAYMENT

A. Subject to any limitations set forth in this Agreement, City agrees to pay consultant the amount specified in **Exhibit B, “Compensation”**, attached hereto and made a part hereof. Total compensation shall not exceed \$35,100, unless additional compensation is approved in accordance with Section 2.

B. Consultant shall furnish to City an original invoice for all services performed and expenses incurred during the preceding month. The invoice shall detail charges by the following categories if applicable: labor (by sub-category), travel, materials, equipment, supplies, subconsultant contracts, and miscellaneous expenses. City shall independently review each invoice submitted to determine whether the services performed and expenses incurred are in

Page 1 of 13

ATTACHMENT 2

compliance with the provisions of this Agreement. If no charges or expenses are disputed, the invoice shall be approved and City will use its best efforts to cause Consultant to be paid within 30 days of receipt of invoice. If any charges or expenses are disputed by City, the original invoice shall be returned by City to Consultant for correction and resubmission. If the City reasonably determines, in its sole judgment, that the invoiced charges and expenses exceed the value of the services performed to date and that it is probable that the Agreement will not be completed satisfactorily within the Agreement price, City may retain all or a portion of the invoiced charges and expenses. Within thirty (30) days of satisfactory completion of the project, City shall pay the retained amount, if any, to Consultant. In no event shall City be obligated to pay late fees or interest, whether or not such requirements are contained in Consultant's invoice.

C. Payment to the Consultant for services performed pursuant to this Agreement shall not be deemed to waive any defects in services performed by Consultant.

SECTION 5 – STANDARD OF PERFORMANCE

Consultant represents and warrants that it has the qualifications, experience and facilities necessary to properly perform the services required under this Agreement in a thorough, competent and professional manner. Consultant shall at all times faithfully, competently and to the best of its ability, experience and talent, perform all services described herein. In meeting its obligations under this Agreement, Consultant shall employ, at a minimum, generally accepted standards and practices utilized by persons engaged in providing services similar to those required of Consultant under this Agreement.

SECTION 6 – INSPECTION AND FINAL ACCEPTANCE

City may inspect and accept or reject any of Consultant's services under this Agreement, either during performance or when completed. City shall reject or finally accept Consultant's services within sixty (60) days after submitted to City, unless the parties mutually agree to extend such deadline. City shall reject services by a timely written explanation, otherwise Consultant's services shall be deemed to have been accepted. City's acceptance shall be conclusive as to such services except with respect to latent defects and fraud. Acceptance of any of Consultant's services by City shall not constitute a waiver of any of the provisions of this Agreement including, but not limited to, the sections pertaining to indemnification and insurance.

SECTION 7 – INSURANCE REQUIRED

Consultant shall procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the services hereunder by the Consultant, its agents, representatives, or employees, as indicated:

- A. Minimum Scope of Insurance. Coverage shall be at least as broad as:
 1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
 2. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto).

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ATTACHMENT 2

3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

B. Minimum Limits of Insurance. Consultant shall maintain limits no less than:

1. General Liability: \$2,000,000 per occurrence for bodily injury, personal injury and property damage including operations, products and completed operations, as applicable. If Commercial General Liability Insurance or other form with a General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: \$2,000,000 per accident for bodily injury and property damage.
3. Employer's Liability: \$2,000,000 per accident for bodily injury or disease.

C. Professional Liability Insurance. When Consultant under this Agreement is duly licensed under California Business and Professions Code as an architect, landscape architect, professional engineer, or land surveyor ("design professional"), Consultant shall maintain at least \$2,000,000 of professional liability insurance.

D. Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions of \$25,000 or greater must be declared to and approved by the City.

E. Other Insurance Provisions. The commercial general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City, its agent, officers, officials, employees, and volunteers are to be covered as additional insured as respects: liability arising out of services or operations performed by the Consultant or Consultant's subconsultants; or automobile owned, leased, hired or borrowed by the Consultant.
2. For any claims related to Consultant's conduct while performing the services of this project, the Consultant's insurance coverage shall be primary insurance as respects the City, its agents, officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its agents, officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.
3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.
4. Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subsection (b) of Section 2782 of the Civil Code.

F. Waiver of Subrogation. The workers compensation policy is to be endorsed with a waiver of subrogation. The insurance company, in its endorsement, agrees to waive all rights of subrogation against the City, its agents, officers, officials, employees and volunteers for losses paid under the terms of this policy which arises from the services performed by the named insured for the City.

ATTACHMENT 2

G. The Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: VII, unless otherwise acceptable to the City.

H. Verification of Coverage. Consultant shall furnish the City with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on forms provided by the City or on forms that conform to City requirements. All certificates and endorsements are to be received and approved by the City before services commence. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

SECTION 8 – INDEMNIFICATION

A. Consultant shall indemnify and hold harmless City, its agents, officers, officials, employees, and volunteers from any and all claims, demands, suits, loss, damages, injury, and/or liability (including any and all costs and expenses in connection therewith), incurred by reason of any negligent or otherwise wrongful act or omission of Consultant, its officers, agents, employees and subcontractors, or any of them, under or in connection with this Agreement; and Consultant agrees at its own cost, expense and risk to defend any and all claims, actions, suits, or other legal proceedings brought or instituted against City, its agents, officers, officials, employees and volunteers, or any of them, arising out of such negligent or otherwise wrongful act or omission, and to pay and satisfy any resulting judgments.

B. When Consultant under this Agreement is a design professional, the provisions of this section regarding Consultant's duty to defend and indemnify apply only to claims that arise out of or relate to the negligence, recklessness, or willful misconduct of the design professional.

C. If any action or proceeding is brought against Indemnitees by reason of any of the matters against which Consultant has agreed to indemnify Indemnitees as provided above, Consultant, upon notice from City, shall defend Indemnitees at Consultant's expense by counsel acceptable to City, such acceptance not to be unreasonably withheld. Indemnitees need not have first paid for any of the matters to which Indemnitees are entitled to Indemnification in order to be so indemnified. The insurance required to be maintained by Consultant shall ensure Consultant's obligations under this section, but the limits of such insurance shall not limit the liability of Consultant hereunder. The provisions of this section shall survive the expiration or earlier termination of this Agreement.

D. The provisions of this section do not apply to claims to the extent occurring as a result of the City's sole negligence or willful acts or misconduct.

SECTION 9 – INDEPENDENT CONTRACTOR STATUS

A. Consultant is and shall at all times remain a wholly independent contractor and not an officer, employee or agent of City. Consultant shall have no authority to bind City in any manner, nor to incur an obligation, debt or liability of any kind on behalf of or against City, whether by contract or otherwise, unless such authority is expressly conferred under this Agreement or is otherwise expressly conferred in writing by City.

ATTACHMENT 2

B. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultant's exclusive direction and control. Neither City, nor any elected or appointed boards, officers, officials, employees or agents of City, shall have control over the conduct of Consultant or any of Consultant's officers, employees or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that Consultant or any of Consultant's officers, employees or agents are in any manner officials, officers, employees or agents of City.

C. Neither Consultant, nor any of Consultant's officers, employees or agents, shall obtain any rights to retirement, health care or any other benefits which may otherwise accrue to City's employees. Consultant expressly waives any claim Consultant may have to any such rights.

SECTION 10 – CONFLICTS OF INTEREST

A. Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, which would conflict in any manner with the interests of City or which would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent, or subcontractor without the express written consent of the City Manager. Consultant agrees to at all times avoid conflicts with the interests of City in the performance of this Agreement.

B. City understands and acknowledges that Consultant is, as of the date of execution of this Agreement, independently involved in the performance of non-related services for other governmental agencies and private parties. Consultant is aware of any stated position of City relative to such projects. Any future position of City on such projects shall not be considered a conflict of interest for purposes of this section.

SECTION 11 – OWNERSHIP OF DOCUMENTS

A. All original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents prepared, developed or discovered by Consultant in the course of providing any services pursuant to this Agreement shall become the sole property of City and may be used, reused or otherwise disposed of by City without the permission of the Consultant. When requested by City, but no later than three years after project completion, Consultant shall deliver to City all such original maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents.

B. All copyrights, patents, trade secrets, or other intellectual property rights associated with any ideas, concepts, techniques, inventions, processes, improvements, developments, works of authorship, or other products developed or created by Consultant during the course of providing services (collectively the "Work Product") shall belong exclusively to City. The Work Product shall be considered a "work made for hire" within the meaning of Title 17 of the United States Code. Without reservation, limitation, or condition, Consultant hereby assigns, at the time of creation of the Work Products, without any requirement of further consideration, exclusively and perpetually, any and all right, title, and interest Consultant may have in the Work Product throughout the world, including without limitation any copyrights, patents, trade secrets, or other

ATTACHMENT 2

intellectual property rights, all rights of reproduction, all rights to create derivative works, and the right to secure registrations, renewals, reissues, and extensions thereof.

SECTION 12 – CONFIDENTIAL INFORMATION; RELEASE OF INFORMATION

A. All information gained or Work Product produced by Consultant in performance of this Agreement shall be considered confidential, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or Work Product to persons or entities other than City without prior written authorization from the City Manager, except as may be required by law.

B. Consultant, its officers, employees, agents or subcontractors, shall not, without prior written authorization from the City Manager or unless requested by the City Attorney of City, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories or other information concerning the services performed under this Agreement. Response to a subpoena or court order shall not be considered “voluntary” provided consultant gives City notice of such court order or subpoena.

C. If Consultant, or any officer, employee, agent or subcontractor of Consultant, provides any information or Work Product in violation of this Agreement, then City shall have the right to reimbursement and indemnity from Consultant for any damages, costs and fees, including attorneys fees, caused by or incurred as a result of Consultant’s conduct.

D. Consultant shall promptly notify City should Consultant, its officers, employees, agents or subcontractors be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions or other discovery request, court order or subpoena from any party regarding this Agreement and the services performed thereunder. City retains the right, but has no obligation, to represent Consultant or be present at any deposition, hearing or similar proceeding. Consultant agrees to cooperate fully with City and to provide City with the opportunity to review any response to discovery requests provided by Consultant. However, this right to review any such response does not imply or mean the right by City to control, direct, or rewrite such response.

SECTION 13 – SUSPENSION OF SERVICES

City may, at any time, by ten (10) days written notice suspend further performance by Consultant. All suspensions shall extend the time schedule for performance in a mutually satisfactory manner and Consultant shall be paid for services performed and reimbursable expenses incurred prior to the suspension date.

SECTION 14 – COMPLIANCE WITH LAW

Consultant shall keep itself informed of and comply with all applicable federal, state and local laws, statutes, codes, ordinances, regulations and rules in effect during the term of this Agreement. Consultant shall obtain any and all licenses, permits and authorizations necessary to perform the services set forth in this Agreement. Neither City, nor any elected or appointed

ATTACHMENT 2

boards, officers, officials, employees or agents of City, shall be liable, at law or in equity, as a result of any failure of Consultant to comply with this section.

SECTION 15 – COMPLIANCE WITH CIVIL RIGHTS

During the performance of this Agreement, Consultant agrees as follows:

A. Equal Employment Opportunity. In connection with the execution of this Agreement, Consultant shall not discriminate against any employee or applicant for employment because of race, religion, color, ancestry, age, sexual orientation, physical handicap, medical condition, marital status, sex, or national origin. Such actions shall include, but not be limited to, the following: employment, promotion, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rate of pay or other forms of compensation; and selection for training including apprenticeship.

B. Nondiscrimination Civil Rights Act of 1964. Consultant will comply with all federal regulations relative to nondiscrimination to federally-assisted programs.

C. Solicitations for Subcontractors including Procurement of Materials and Equipment. In all solicitations, either by competitive bidding or negotiations, made by Consultant for services to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor, supplier, or lessor shall be notified by Consultant of Consultant's obligations under this Agreement and the regulations relative to nondiscrimination.

SECTION 16 – RECORDS

A. Records of Consultant's direct labor costs, payroll costs, and reimbursable expenses pertaining to this project covered by this Agreement will be kept on a generally recognized accounting basis and made available to City if and when required for a period of up to 3 years from the date of Consultant's final invoice.

B. Consultant's records and design calculations will be available for examination and audit if and as required. The cost of any reproductions shall be paid by City.

SECTION 17 – COOPERATION BY CITY

All public information, data, reports, records, and maps as are existing and available to City as public records, and which are necessary for carrying out the services as outlined in the Exhibit A, "Scope of Services", shall be furnished to Consultant in every reasonable way to facilitate, without undue delay, the services to be performed under this Agreement.

SECTION 18 – NOTICES

All notices required or permitted to be given under this Agreement shall be in writing and shall be personally delivered, or sent by facsimile or first class mail, addressed as follows:

ATTACHMENT 2

To City: City Manager
1480 Main Street
St. Helena, California 94574

To Consultant: Kristine Corneille
Larry Walker and Associates
707 Fourth Street, Suite 200
Davis, California 95616

Notice shall be deemed effective on the date personally delivered or transmitted by facsimile, or, if mailed, three (3) days after deposit in the custody of the U.S. Postal Service.

SECTION 19 – TERMINATION

A. City may terminate this Agreement, with or without cause, at any time by giving ten (10) days written notice of termination to Consultant. If such notice is given, Consultant shall cease immediately all services in progress.

B. If either Consultant or City fail to perform any material obligation under this Agreement, then, in addition to any other remedies, either Consultant, or City may terminate this Agreement immediately upon written notice.

C. Upon termination of this Agreement by either Consultant or City, all property belonging to City which is in Consultant's possession shall be delivered to City. Consultant shall furnish to City a final invoice for services performed and expenses incurred by Consultant, prepared as set forth in this Agreement.

SECTION 20 – ATTORNEY FEES

If litigation or other proceeding is required to enforce or interpret any provision of this Agreement, the prevailing party in such litigation or other proceeding shall be entitled to an award of reasonable attorneys' fees, costs and expenses, in addition to any other relief to which it may be entitled. In addition, any legal fees, costs and expenses incurred to enforce the provisions of this Agreement shall be reimbursed to the prevailing party.

SECTION 21 – ENTIRE AGREEMENT

This Agreement, including the attached Exhibits, is the entire, complete, final and exclusive expression of the parties with respect to the matters addressed therein and supersedes all other agreements or understandings, whether oral or written, or entered into between Consultant and City prior to the execution of this Agreement. No statements, representations or other agreements, whether oral or written, made by any party which are not embodied herein shall be valid and binding unless in writing duly executed by the parties or their authorized representatives.

SECTION 22 – SUCCESSORS AND ASSIGNS

ATTACHMENT 2

This Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the parties. However, this Agreement shall not be assigned by Consultant without written consent of the City.

SECTION 23 – CONTINUITY OF PERSONNEL

Consultant shall make every reasonable effort to maintain the stability and continuity of Consultant's staff assigned to perform the services required under this Agreement. Consultant shall notify City of any changes in Consultant's staff assigned to perform the services required under this Agreement, prior to any such performance.

SECTION 24 – DEFAULT

In the event that Consultant is in default under the terms of this Agreement, the City shall not have any obligation or duty to continue compensating Consultant for any services performed after the date of default and may terminate this Agreement immediately by written notice to Consultant.

SECTION 25 – WAIVER

Waiver by any party to this Agreement of any term, condition, or covenant of this Agreement shall not constitute a waiver of any other term, condition, or covenant. Waiver by any party of any breach of the provisions of this Agreement shall not constitute a waiver of any other provision, nor a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by City of any work or services by Consultant shall not constitute a waiver of any of the provisions of this Agreement.

SECTION 26 – LAW TO GOVERN; VENUE

This Agreement shall be interpreted, construed and governed according to the laws of the State of California. In the event of litigation between the parties, venue in state trial courts shall lie exclusively in the County of Napa. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Northern District of California, in San Francisco.

SECTION 27 – SEVERABILITY

If any term, condition or covenant of this Agreement is declared or determined by any court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall not be affected thereby and the Agreement shall be read and construed without the invalid, void or unenforceable provision(s).

SECTION 28 – SPECIAL PROVISIONS

ATTACHMENT 2

This Agreement is subject to the following special provisions: none.

IN WITNESS WHEREOF, the parties hereto have accepted, made, and executed this Agreement upon the terms, conditions, and provisions above stated, the day and year first above written.

Consultant:

City:

By: _____

By: _____

Name: _____

Name: Larry Pennell

Title: _____

Title: Interim City Manager

Approved as to Form:

By: _____

Name: Thomas B. Brown

Title: City Attorney

ATTACHMENT 2

EXHIBIT A
SCOPE OF SERVICES

Task 1. Land Application ROWD

This task is for services needed to submit an application (Report of Waste Discharge, ROWD) for coverage under a land application permit, or Waste Discharge Requirement. ROWD preparation is covered under this task, including consultation with the City to obtain necessary data and information, and preparation of application forms.

Task 1.1. Compilation and Evaluation of Data

Pertinent data will be compiled and reviewed to evaluate compliance history and determine data sufficiency. Additional information to be used in the evaluation includes pertinent San Francisco Regional Water Quality Control Board (RWQCB) correspondence, any special studies performed by the City, and current planning documents for the Wastewater Treatment and Reclamation Facility (WWTRF). Also, outliers in the data will be evaluated to determine if it is appropriate for the City to request that they be removed from the dataset for determining reasonable potential and calculating effluent limitations.

Task 1.2. Permit-Specific Meeting with St. Helena

After the ROWD has been submitted, LWA will hold an initial meeting with the City to discuss the current permitting policy and schedule prevalent at the RWQCB, its potential effect on the City, and pertinent issues that the City is concerned about in the permit renewal process.

Task 1.3. Determination of Effluent Limitations

Based on its history of working with WDR permits, LWA will calculate effluent limitations under several possible scenarios and conduct “what if’s” to determine the consequences of various alternative interpretations. The results of the comparison will be discussed with the City. Contingency: Depending on the information the Regional Water Board asks for with the ROWD, it may be necessary to model groundwater mixing and the impact on wells surrounding the land application field. LWA has developed a model to perform this work and has added funds to this task to run the model, should that be required.

Task 1.4. Meetings and Communications with Regional Water Board Staff

The investment in communicating with RWQCB staff on a regular basis cannot be overemphasized. The cost estimate for this project includes meetings with RWQCB staff, as necessary, as well as other forms of communication such as phone conversations and email.

Task 1.5. Comments on Administrative Draft

RWQCB staff typically provides an Administrative Draft permit to the discharger for review. Comments on the Administrative Draft will be requested in writing, with a justification for any requested changes. A very short (approximately 1 week) turn-around may be allowed for review. After comments are submitted, a meeting may be held with RWQCB staff to discuss the proposed changes. For the purposes of this proposal, it is estimated that there will be one Administrative Draft permit issued to the City and reviewed by LWA.

Task 1.6. Comments on Tentative Order

Comments on the Tentative Order are normally more detailed and comprehensive than comments on Administrative Draft because Tentative Order comments are submitted for the

ATTACHMENT 2

public record and can be used in an appeal or for other actions on the permit. However, the number of issues is normally reduced in comparison to the Administrative Draft. The Tentative Order comments may require additional research for citations of precedent-setting activity, and will cover all aspects of the permit that the City wishes the RWQCB staff to revise or that the City may wish to appeal.

Once the Tentative Order comments are submitted to the RWQCB, which may be in a preliminary form prior to the official public comment date, it is appropriate to work out any differences. In addition, it is possible that RWQCB staff may wish to make changes to the permit during the public comment period and will normally discuss these changes with the discharger. Depending on the timing under which the Tentative Order is issued, there may be a fair amount of activity during the public comment period.

Task 1.7. Preparation for Board Hearing

Prepare any needed backup information and attend the RWQCB hearing.

Task 1.8. Development of Compliance Plan and Dates Tracking

Prepare an overall schedule to keep track of activities required by the reissued permit, to prevent any compliance problems.

Task 2. Review of Third Party Report(s)

The City has received a copy of a formal complaint produced by Dellavalle Laboratory, Inc. claiming that the City has violated Order 87-090. LWA will review the claims in this report and prepare recommendations for additional testing or other actions. LWA is also prepared to review and respond to any additional reports produced by Dellavalle Laboratory or another third party.

Task 3. Land Application Permit Assistance

Under this task, funds are allocated to assist the City with implementation of the new land application permit. This task will be used for evaluating compliance concerns, preparing or reviewing reports, communicating with RWQCB staff, responding to Notices of Violation, assisting with inspections, analytical laboratory communications, requests from RWQCB staff for information or assistance, and following regulatory developments. In addition, LWA will help the City evaluate operational changes for the spray field. LWA will help evaluate options to ensure compliance with regulatory requirements specified in Order 87-090 or the new land application permit.

Task 4. Project Management

LWA activities under this task will include attendance at meetings in St. Helena and/or the RWQCB, as well as managing budgets and schedules. All invoice materials will be delivered to the City electronically and in hard copy format.

This Scope of Services is expected to be complete by July 1, 2018, however it is dependent on the RWQCB timeline for issuing the new land application permit.

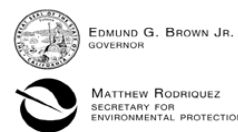
ATTACHMENT 2

**EXHIBIT B
COMPENSATION**

Task	Description	Task Cost
1	Land Application ROWD	\$19,880
2	Review of Third Party Reports	\$8,210
3	Land Application Permit Assistance	\$3,130
4	Project Management	\$3,880
	Total	\$35,100

Billing will be on a time and materials basis, not to exceed the total amount shown above, and will be billed based on LWA's current rate schedule.

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EDMUND G. BROWN JR.
GOVERNORMATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION**San Francisco Bay Regional Water Quality Control Board**

November 7, 2016

File Nos. CW-258384 and CW-258386¹

City of St. Helena
 Attn.: Steven Palmer, spalmer@cityofstheleena.org
 1480 Main Street
 St. Helena, CA 94574

Subject: St. Helena Wastewater Treatment and Reclamation Plant – (1) Notice of Violation (2) Comments on the Draft Feasibility Study for Wastewater Treatment Plant Improvements, and (3) Requirement for Report of Waste Discharge for Land Application of Treated Wastewater

Dear Mr. Palmer:

This letter provides notice that the City of St. Helena (City) is in violation of its Water Reclamation Requirements (Order No. 87-090) (WRR). It requires the City to submit an updated Report of Waste Discharge (ROWD) to the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) for the City's discharges of treated wastewater to land, and also provides comments on the City's August 2016 *Draft Feasibility Study for Wastewater Treatment Plant Improvements* (Draft Feasibility Study), required by Cease and Desist Order No. R2-2016-0004 (CDO).

The City has violated the WRR by applying reclaimed wastewater to its land application area at greater than agronomic rates, and by not notifying the Regional Water Board of these violations and not submitting a proposed corrective action plan, as required by the WRR Self-Monitoring Program (section V.2.a). This may have resulted in adverse water quality impacts, including elevated groundwater nutrient concentrations and elevated groundwater levels. This letter's requirement that the City submit an updated ROWD is intended to set forth a process by which the City will provide information to clarify its current practices and revise those practices as necessary, including practices to correct violations. The ROWD shall identify discharge management practices consistent with appropriate protection of groundwater and provide the information necessary to update the WRR.

The Draft Feasibility Study screens various options the City considered to improve its treatment plant and evaluates two in detail. The CDO requires the City to submit a Final Feasibility Study addressing the Water Board's comments on the Draft Feasibility Study by December 1, 2016. This letter provides the comments to be addressed. The Regional Water Board plans to draft a new discharge permit that

¹ Case information is stored electronically in the Water Board's California Integrated Water Quality System database, and its Electronic Content Management electronic files.

City of St. Helena

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will cover both land discharges and discharges to the Napa River. The information requested in this letter will facilitate this effort.

Background

The City's wastewater treatment plant treats about 500,000 gallons per day of domestic wastewater by flow through a series of facultative and aerobic treatment ponds designed and constructed as an Advanced Integrated Pond System (AIPS ponds). Treatment by the AIPS ponds is followed by disinfection with chlorine and dechlorination with ascorbic acid or by natural decomposition. During dry weather, the City's WRR allows the discharge of treated wastewater to land by sprinkler discharges within an 88-acre land application area adjacent to the treatment plant. During the wet weather season, when influent flows exceed the capacity of the treatment plant storage and land application discharge systems, and ambient river flow affords adequate dilution, the City's NPDES permit (currently Water Board Order No. R2-2016-0003) allows treated wastewater to be discharged to the Napa River.

From December 2010 through March 2015, there were 24 NPDES permit effluent limit violations for total coliform, copper, cyanide, and residual chlorine, and 27 WRR effluent limit violations for biochemical oxygen demand (BOD). These violations are listed in Table F-4 of the NPDES permit. The permit contains stricter BOD and total suspended solids (TSS) limits for Napa River discharges than in the past. The existing treatment plant cannot meet the stricter limits, even under optimal conditions. Therefore, the CDO requires the City to upgrade its treatment plant to provide more effective and reliable treatment to meet the stricter BOD and TSS limits.

While the CDO addresses concerns related to river discharges, it does not directly address concerns related to potential adverse impacts to groundwater resulting from land application practices, such as discharges in excess of hydraulic capacity, discharges while soils are saturated, discharges to only a limited portion of the entire land application area, and discharges without a vegetative crop. Of particular concern is the potential for excessive nitrogen loading to groundwater from these types of practices. The Regional Water Board intends to address these concerns by issuing revised discharge requirements that reflect the City's implementation of improved treatment and discharge management practices to ensure appropriate groundwater quality protection.

Comments on Draft Feasibility Study

The Draft Feasibility Study analyzes and screens thirteen options described in the City's March 2015 *Wastewater Facilities Evaluation Update* based on feasibility to meet BOD and TSS effluent limits. The two options that the Study considered in detail were to construct either: (1) a trickling filter or (2) a treatment wetland between the existing AIPS ponds and the disinfection units. Both options assume that current solids management practices will continue and no upgrades to the disinfection system will be necessary. The City chose the trickling filter as the preferred option based primarily on cost and ease of operation.

CDO Table 3, Task b, requires the City to submit a Final Feasibility Study that addresses any Executive Officer comments on the Draft Feasibility Study and identifies a preferred option. Thus, the Final Feasibility Study must address the following comments:

1. **Analyze current solids management practices, any changes needed, and solids management practices needed for each treatment option studied.** The current treatment system is unusual because it has no clarifiers to remove solids. Solids are ground at the

headworks and heavy solids settle out in the first two AIPS ponds (Ponds 1A and 1B). This contrasts with most San Francisco Bay Region treatment plants, which continuously remove solids as part of their normal operations. The management practice of allowing solids to remain in the AIPS Ponds for an extended time has caused serious difficulties with plant operation and permit compliance. Excessive solids accumulation reduces the treatment effectiveness of the AIPS ponds over time and is believed to be the primary cause of the BOD and TSS violations described in the CDO.

Management practices used to separate, store, treat, and ultimately dispose of solid materials removed from the liquid wastewater stream are an integral component of the wastewater treatment process. The Final Feasibility Study needs to thoroughly evaluate solids management practices and costs for each treatment option studied. The evaluation should include equipment, operations, final means of disposal, costs, benefits, uncertainties if any, and implementation schedules. Potential costs include the capital and operating costs of equipment, such as clarifiers, digesters, and dewatering devices; costs of solids final disposal operations; and costs of additional personnel, if needed.

2. **Analyze potential demand for recycled water and select a preferred option that meets that demand.** At a minimum, the Final Feasibility Study must fully analyze the City's water recycling potential, including a demand assessment, and identify a preferred option consistent with the predicted demand. The Draft Feasibility Study bases its conclusion that there is limited water recycling potential at City parks and local vineyards on plant operators' assumptions that there is little current demand for recycled water at adjacent vineyards. An adequate demand assessment should reflect communications with prospective users, including local grape growers. Installation of tertiary treatment processes would provide high quality water for agriculture or landscaping, and would likely increase demand. Much of the Town of Yountville's recycled water distribution system came about because of local demand.
3. **Analyze current disinfection system equipment and operation, and include any necessary upgrades in the preferred option.** The City has not consistently met its total coliform limits. Accordingly, the Final Feasibility Study must evaluate the need for disinfection system upgrades and select a disinfection system appropriate for each treatment option evaluated, including the preferred option.
4. **Include the potential benefits and constraints of constructed wetlands in the wetlands option evaluation.** The Draft Feasibility Study identified the trickling filter option as the preferred option (versus the constructed wetlands option) primarily because the construction costs of the trickling filter would be lower. However, the analysis did not include variations, such as leaving Pond 4 intact and constructing a wetland system entirely within the land application area, or a combination of wetlands and trickling filter, and did not address ancillary benefits of constructed wetlands, such as recreation, education, and habitat. Both the trickling filter and wetlands options would treat wastewater to levels that will meet effluent limits; however, the constructed wetlands could also convert low-grade habitat (land application area fields) to high-grade habitat (wetlands adjacent to a major river) that could potentially benefit the community as a park or wildlife refuge. Other San Francisco Bay Region communities (e.g., Petaluma and Martinez) use constructed wetlands as parks for the benefit of wildlife and the community. However, constructed wetlands could also occupy area needed for land

City of St. Helena

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application, constraining the volume of treated wastewater that could be applied. The Final Feasibility Study must consider such benefits and constraints.

5. **Describe the City's outreach efforts and public participation in selecting a preferred option.** The Final Feasibility Study must describe the City's outreach efforts and public participation in identifying a preferred option. We believe the public must be involved in the decision-making process, and we recommend that the City reach out to its community before making its final decision.

We recognize that the level of detail this letter requires will render compliance with the CDO December 1, 2016, deadline for submitting the Final Feasibility Study difficult. While only the Regional Water Board can change a Board Order deadline, we intend to use our enforcement discretion to withhold enforcement of this deadline as long as we receive a complete and thorough report that adequately incorporates our feedback as set forth above by **March 1, 2017**.

Requirement for Report of Waste Discharge

The City is required to submit to the Water Board a technical report in the form of a ROWD describing the City's proposed program for managed discharges of treated wastewater to land, consistent with adequate groundwater protection. This report shall completely describe the wastewater treatment and discharge infrastructure and operational methods for controlling the discharges to land. This will include the current infrastructure and operational methods and any changes planned for the near future. For any planned changes, the report shall include a time schedule of dates when the actions involved will be initiated and completed.

The Draft Feasibility Study proposes changes that could potentially affect groundwater quality through the discharge of treated wastewater to land and thus groundwater, particularly from excessive nutrient loading. This is a particular concern for the constructed wetland option because it would reduce the land application area available for discharge and require higher application rates. The ROWD must fully analyze the potential effects to groundwater from the discharges to land. Therefore, the ROWD must include the following information to address concerns about groundwater quality:

1. **Water balance evaluation for the proposed discharge practices.** The ROWD must include a tabulated accounting of planned water management at the irrigation field, including wastewater applied, rainwater fallen, water evaporated, water taken up by vegetation, and water infiltrated into the soil, and ultimately characterizing wastewater transported to groundwater. The water balance evaluation must use monthly or daily values representative of planned water management practices. The evaluation must include two versions, one using a normal rainfall record, and one using a rainfall record equivalent to a 10-year return period wet weather season.
2. **Evaluation of groundwater movement and fate.** The ROWD must include an evaluation of groundwater beneath and downstream of the irrigation field to illustrate how the groundwater is affected by the discharges, and how groundwater migration to adjacent properties and to the Napa River occurs. This evaluation must include contributions of wastewater to groundwater determined from the discharge practices water balance evaluation discussed in item 1 above. The evaluation must also estimate the direction, speed, and volumetric flow of groundwater flow beneath and downgradient of the discharge area, and characterize how the discharges affect groundwater flow and levels. If the study determines that the discharge will eventually

City of St. Helena

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emerge from the groundwater to the Napa River as base flow, it must predict the residence time in the groundwater.

3. **Nutrient balance evaluation of nitrogen discharges to the land application area.** The ROWD must provide a full analysis of the potential effects to groundwater and surface water from land application to irrigation fields and any other land disposal proposed as part of each treatment option. This analysis must consider the nitrogen quality of the final effluent, the nitrogen loading to the land, the nutrient uptake capacity of the vegetation and soils in the land application area, changes in groundwater levels, and the potential to degrade groundwater and surface water quality. The evaluation must also consider the potential groundwater quality effects of distributed discharges of recycled water for irrigation of local vineyards (versus continual discharges only to the land application area fields).
4. **Groundwater monitoring plan.** The ROWD must propose a groundwater monitoring plan that will allow the City to characterize groundwater depth, quality, and movement, and any potential changes that may occur as a result of the land discharge practices. The plan must propose a system of properly constructed groundwater monitoring wells at locations both upgradient and downgradient of, and perhaps within, the land application area, with screening depths appropriate for groundwater sampling and analysis based on the local ambient groundwater characteristics.

The ROWD shall be submitted to the Regional Water Board no later than **March 1, 2017**.

This requirement for technical information (to be submitted through a ROWD) is made pursuant to Water Code section 13267, which allows the Regional Water Board to require technical or monitoring program reports from anyone who has discharged, discharges, proposes to discharge, or is suspected of discharging waste that could affect water quality. Preparing a ROWD will primarily involve compiling and evaluating existing information; this burden bears a reasonable relationship to the water quality concerns to be addressed because the information is needed to develop appropriate control measures that will protect groundwater quality. The attachment provides additional information about Water Code section 13267 requirements. Any extension in the above deadline must be confirmed in writing by Regional Water Board staff.

Please contact Vincent Christian at (510) 622-2336 or by email to vchristian@waterboards.ca.gov if you have any questions.

Sincerely,

Bruce H. Wolfe
Executive Officer

Attachment: Fact Sheet regarding Water Code section 13267

cc: Dellavalle Laboratory, Inc.
Attention: Mr. Danyal Kasapligil

City of St. Helena

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November 7, 2016

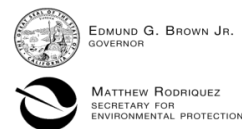
1910 W. McKinley Ave, Suite 110
Fresno, CA 93728

Downey Brand LLP
Attention: Ms. Melissa A. Thorne
621 Capitol Mall, 18th Floor, Sacramento, CA 95814

Cris Carrigan, SWRCB Office of Enforcement
(Cris.Carrigan@waterboards.ca.gov)

Bean Family Vineyards, LLC
Attention: Mr. James Bean
420 Palm Street, Palo Alto, CA 94301

Jack Neal & Son Vineyard Management
Attention: Mr. Mark Neal
360 La Fata Street,
St. Helena, CA 94574



San Francisco Bay Regional Water Quality Control Board

ORDER No. R2-2016-0003
NPDES No. CA0038016

The following discharger is subject to waste discharge requirements (WDRs) set forth in this Order:

Table 1. Discharger Information

Discharger	City of St. Helena
Facility Name	City of St. Helena Wastewater Treatment and Reclamation Plant and its wastewater collection system
Facility Address	1 Chaix/Thomann Lane St. Helena, CA 94574 Napa County
CIWQS Place Number	258386

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Secondary-treated municipal wastewater	38.502778	-122.437500	Napa River

Table 3. Administrative Information

This Order was adopted on:	January 13, 2016
This Order shall become effective on:	March 1, 2016
This Order shall expire on:	February 28, 2021
CIWQS Regulatory Measure	404297
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with California Code of Regulations, title 23, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	June 1, 2020
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, San Francisco Bay Region, have classified this discharge as follows:	Minor

I, Bruce H. Wolfe, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on the date indicated above.

 Bruce H. Wolfe, Executive Officer

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NPDES No. CA0038016

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I. FACILITY INFORMATION

Information describing the City of St. Helena Wastewater Treatment and Reclamation Plant and its wastewater collection system (Facility) is summarized in Table 1 and in Fact Sheet (Attachment F) sections I and II.

II. FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), finds:

- A. Legal Authorities.** This Order serves as WDRs pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to federal Clean Water Act (CWA) section 402 and implementing regulations adopted by U.S. EPA and Water Code chapter 5.5, division 7 (commencing with § 13370). It shall serve as an NPDES permit for point source discharges from the Facility to surface waters.
- B. Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information the Discharger submitted as part of its application, information obtained through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F) contains background information and rationale for the requirements in this Order and is hereby incorporated into and constitutes findings for this Order. Attachments A through E and G are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** Provision VI.C.5.c is included to implement State law only (California Water Code section 13241). This provision is not required or authorized under the federal CWA; consequently, violations of this provision are not subject to the enforcement remedies available for NPDES violations.
- D. Notification of Interested Parties.** The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe these WDRs and provided an opportunity to submit written comments and recommendations. The Fact Sheet provides details regarding the notification.
- E. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. The Fact Sheet provides details regarding the public hearing.

THEREFORE, IT IS HEREBY ORDERED that Order No. R2-2010-0105 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions of Water Code division 7 (commencing with § 13000) and regulations adopted thereunder and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for past violations of the previous order.

III. DISCHARGE PROHIBITIONS

- A.** Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited.

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- B.** Discharge at Discharge Point No. 001 is prohibited unless the river flow-to-effluent flow ratio is at least 50:1.
- C.** The bypass of untreated or partially-treated wastewater to waters of the United States is prohibited, except as provided for in Attachment D sections I.G.2 and I.G.3.
- D.** Average dry weather influent flow from the treatment plant in excess of 0.50 MGD is prohibited. Average dry weather influent flow shall be determined from three consecutive dry weather months each year, with compliance measured at Monitoring Location REC-001 as described in the Monitoring and Reporting Program (MRP, Attachment E).
- E.** Any sanitary sewer overflow that results in a discharge of untreated or partially-treated wastewater to waters of the United States is prohibited.
- F.** Discharge to the Napa River is prohibited during the dry season each year, from June 1 through October 31. The need to discharge during the dry season may arise as a result of early or late season storms. As soon as possible after determining that discharge will be necessary, the Discharger shall notify the Regional Water Board case manager by phone or email and provide information supporting its determination. Unless the case manager objects, the Discharger may commence discharge but only when absolutely necessary and only to the extent necessary for the reason stated above. The discharge shall be monitored and meet limitations and shall consist of fully treated effluent.

For each dry season discharge event, the Discharger shall submit a report within five business days after the end of the discharge that describes the reasons for the need to discharge, with supporting information, and describe the discharge flow volume, duration, and estimated dilution within the receiving water. In accordance with the Monitoring and Reporting Program (Attachment E), the discharge quality shall be reported in the next monthly self-monitoring report.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

- A.** Discharges at Discharge Point No. 001 shall comply with the following effluent limitations, with compliance measured at Monitoring Locations EFF-001 as described in the MRP:

Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand, 5-day @ 20°C (BOD ₅)	mg/L	15	25	---	---	---
Total Suspended Solids (TSS)	mg/L	15	20	---	---	---
Oil and Grease	mg/L	10	---	20	---	---
pH ^[1]	standard units	---	---	---	6.5	8.5
Total Residual Chlorine	mg/L	---	---	---	---	0.0 ^[2]
Copper, Total	µg/L	8.3	---	17	---	---
Cyanide, Total	µg/L	15	---	30	---	---
Ammonia, Total	mg/L as N	16	---	39	---	---

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Unit Abbreviations:

mg/L = milligrams per liter

µg/L = micrograms per liter

Footnote:

- ^[1] If the Discharger monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Discharger shall be in compliance with this pH limitation provided that both of the following conditions are satisfied: (i) the total time during which the pH is outside the required range shall not exceed 7 hours and 26 minutes in any calendar month; and (ii) no individual excursion from the required pH range shall exceed 60 minutes.
- ^[2] The Discharger may elect to use a continuous on-line monitoring system for measuring or determining that residual dechlorinating agent is present. This monitoring system may be used to prove that anomalous residual chlorine exceedances measured by on-line chlorine analyzers are false positives because it is chemically improbable to have chlorine present in the presence of sodium bisulfite. If Regional Water Board staff finds convincing evidence that chlorine residual exceedances are false positives, the exceedances are not violations of this Order's total chlorine residual limit.

B. Percent Removal. The average monthly percent removal of biochemical oxygen demand (BOD₅) and total suspended solids (TSS) at Discharge Point No. 001 shall not be less than 85 percent (i.e., in each calendar month, the arithmetic mean of BOD₅ and TSS, by concentration, for effluent samples collected at Monitoring Location EFF-001 or REC-001 as described in the MRP, shall not exceed 15 percent of the arithmetic mean of the BOD₅ and TSS, by concentration, for influent samples collected at Monitoring Location INF-001 as described in the MRP at approximately the same times during the same period).

C. Total Coliform. Discharges at Discharge Point No. 001 shall comply with the following total coliform limitations, with compliance measured at Monitoring Location EFF-001 as described in the MRP:

1. The five-sample moving median shall not exceed 23 Most Probable Number (MPN)/100 mL.
2. The daily maximum shall not exceed 240 MPN/100 mL.

D. Whole Effluent Acute Toxicity. Discharges at Discharge Point No. 001 shall meet the following acute toxicity limitations, with compliance measured at Monitoring Location EFF-001 as described in the MRP:

1. A three-sample median value of not less than 90 percent survival; and
2. A single-sample maximum value of not less than 70 percent survival.

These acute toxicity limitations are defined as follows:

- **Three-sample median.** A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit if one of the past two bioassay tests also shows less than 90 percent survival.
- **Single sample maximum.** A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit.

If the Discharger can demonstrate that toxicity exceeding the levels cited above is caused by ammonia and that the ammonia in the discharge complies with the total ammonia effluent limitations in Table 4 of this Order, then such toxicity shall not constitute a violation of this effluent limitation.

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quality standards are promulgated or approved pursuant to CWA section 303, or amendments thereto, the Regional Water Board may revise or modify this Order in accordance with the more stringent standards.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all “Standard Provisions” in Attachment D.
2. The Discharger shall comply with all applicable provisions of the “Regional Standard Provisions, and Monitoring and Reporting Requirements for NPDES Wastewater Discharge Permits” (Attachment G).

B. Monitoring and Reporting

The Discharger shall comply with the MRP (Attachment E) and future revisions thereto and applicable sampling and reporting requirements in Attachments D and G.

C. Special Provisions

1. Reopener Provisions

The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances as allowed by law:

- a. If present or future investigations demonstrate that the discharges governed by this Order have or will have a reasonable potential to cause or contribute to, or will cease to have, adverse impacts on water quality or beneficial uses of the receiving waters.
- b. If new or revised water quality objectives or total maximum daily loads (TMDLs) come into effect (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order may be modified as necessary to reflect the updated water quality objectives and wasteload allocations in the TMDLs. Adoption of the effluent limitations in this Order is not intended to restrict in any way future modifications based on legally-adopted water quality objectives or TMDLs or as otherwise permitted under federal regulations governing NPDES permit modifications.
- c. If translator, dilution, or other water quality studies provide a basis for determining that a permit condition should be modified.
- d. If State Water Board precedential decisions, new policies, new laws, or new regulations are adopted.
- e. If an administrative or judicial decision on a separate NPDES permit or WDRs addresses requirements similar to this discharge.
- f. Or as otherwise authorized by law.

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The Discharger may request a permit modification based on any of the circumstances above. With any such request, the Discharger shall include antidegradation and anti-backsliding analyses.

2. Effluent Characterization Study and Report

- a. Study Elements.** The Discharger shall continue to characterize and evaluate the discharge from the following discharge point to verify that the “no” or “unknown” reasonable potential analysis conclusions of this Order remain valid and to inform the next permit reissuance. The Discharger shall collect representative samples at the monitoring station set forth below, as defined in the MRP, at no less than the frequency specified below:

<u>Discharge Point</u>	<u>Monitoring Location</u>	<u>Minimum Frequency</u>
001	EFF-001 or REC-001	Once

The samples shall be analyzed for the pollutants listed in Attachment G, Table C, except for those pollutants with effluent limitations where the MRP already requires more frequent monitoring, and except for those pollutants for which there are no water quality criteria (see Fact Sheet Table F-6). Samples shall also be analyzed for the pollutants listed in Basin Plan Tables 3-5 and 3-6, except for odor and radioactivity (see Fact Sheet Table F-7). Compliance with this requirement shall be achieved in accordance with the specifications of Attachment G sections III.A.1 and III.A.2.

The Discharger shall evaluate whether concentrations of any of these pollutants significantly increase over past performance. The Discharger shall investigate the cause of any such increase. The investigation may include, but need not be limited to, an increase in monitoring frequency, monitoring of internal process streams, and monitoring of influent sources. The Discharger shall establish remedial measures addressing any increase resulting in reasonable potential to cause or contribute to an excursion above applicable water quality objectives. This requirement may be satisfied through identification of the constituent as a “pollutant of concern” in the Discharger’s Pollutant Minimization Program, described in Provision VI.C.3.

b. Reporting Requirements

- i. Routine Reporting.** The Discharger shall, within 45 days of receipt of analytical results, report the following in the transmittal letter for the appropriate self-monitoring report:
- (a)** Indication that a sample for this study was collected; and
 - (b)** Identity of pollutants detected at or above applicable water quality criteria (see Fact Sheet Tables F-6 and F-7) and the detected concentrations of those pollutants.
- ii. Final Report.** The Discharger shall submit a final report that presents all these data with the application for permit reissuance.

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3. Receiving Water Characterization Study and Report

- a. Study Elements.** The Discharger shall characterize and evaluate the receiving water at the following discharge points to verify that the “no” or “unknown” reasonable potential analysis conclusions of this Order remain valid and to inform the next permit reissuance. The Discharger shall collect representative samples at the monitoring stations set forth below, as defined in the MRP, at no less than the frequency specified below:

<u>Monitoring Location</u>	<u>Minimum Frequency</u>
RSW-001	Once
RSW-900	Once

At Monitoring Locations RSW-001 and RSW-900, samples shall be analyzed for the pollutants listed in Attachment G, Table C, except for those pollutants for which there are no water quality criteria (see Fact Sheet Table F-6). At Monitoring Location RSW-900, the samples shall also be analyzed for the pollutants listed in Basin Plan Tables 3-5 and 3-6, except for odor and radioactivity (see Fact Sheet Table F-7). Compliance with this requirement shall be achieved in accordance with the specifications of Attachment G sections III.A.1 and III.A.2.

The Discharger may complete this study on its own or in collaboration with other Napa River dischargers (i.e., the City of Calistoga and the Town of Yountville).

b. Reporting Requirements

- i. Routine Reporting.** The Discharger shall, within 45 days of receipt of analytical results, report the following in the transmittal letter for the appropriate self-monitoring report:
- (a)** Indication that a sample for this study was collected; and
 - (b)** Identity of pollutants detected at or above applicable water quality criteria (see Fact Sheet Tables F-6 and F-7) and the detected concentrations of those pollutants.
- ii. Final Report.** The Discharger shall submit a final report that presents all these data with the application for permit reissuance.

4. Pollutant Minimization Program

- a.** The Discharger shall continue to improve its existing Pollutant Minimization Program to promote minimization of pollutant loadings to the treatment plant and therefore to the receiving waters.
- b.** The Discharger shall submit an annual report no later than February 28 each year. Each annual report shall include at least the following information:
- i. Brief description of treatment plant.** The description shall include the service area and treatment plant processes.

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- ii. **Discussion of current pollutants of concern.** Periodically, the Discharger shall analyze its circumstances to determine which pollutants are currently a problem and which pollutants may be potential future problems. This discussion shall include the reasons for choosing the pollutants.
- iii. **Identification of sources for pollutants of concern.** This discussion shall include how the Discharger intends to estimate and identify pollutant sources. The Discharger shall include sources or potential sources not directly within the ability or authority of the Discharger to control, such as pollutants in the potable water supply and air deposition.
- iv. **Identification of tasks to reduce the sources of pollutants of concern.** This discussion shall identify and prioritize tasks to address the Discharger's pollutants of concern. The Discharger may implement the tasks by itself or participate in group, regional, or national tasks that address its pollutants of concern. The Discharger is strongly encouraged to participate in group, regional, or national tasks that address its pollutants of concern whenever it is efficient and appropriate to do so. An implementation timeline shall be included for each task.
- v. **Outreach to employees.** The Discharger shall inform employees about the pollutants of concern, potential sources, and how they might be able to help reduce the discharge of these pollutants of concern into the treatment facilities. The Discharger may provide a forum for employees to provide input.
- vi. **Continuation of Public Outreach Program.** The Discharger shall prepare a pollution prevention public outreach program for its service area. Outreach may include participation in existing community events, such as county fairs; initiating new community events, such as displays and contests during Pollution Prevention Week; conducting school outreach programs; conducting plant tours; and providing public information in newspaper articles or advertisements, radio or television stories or spots, newsletters, utility bill inserts, or web sites. Information shall be specific to target audiences. The Discharger shall coordinate with other agencies as appropriate.
- vii. **Discussion of criteria used to measure Pollutant Minimization Program and task effectiveness.** The Discharger shall establish criteria to evaluate the effectiveness of its Pollutant Minimization Program. This discussion shall identify the specific criteria used to measure the effectiveness of each task in Provisions VI.C.3.b.iii, iv, v, and vi.
- viii. **Documentation of efforts and progress.** This discussion shall detail all of the Discharger's Pollutant Minimization Program activities during the reporting year.
- ix. **Evaluation of Pollutant Minimization Program and task effectiveness.** This Discharger shall use the criteria established in Provision VI.C.3.b.vii to evaluate the program and task effectiveness.
- x. **Identification of specific tasks and timelines for future efforts.** Based on the evaluation, the Discharger shall explain how it intends to continue or change its tasks

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to more effectively reduce the amount of pollutants flowing to the treatment plant and, subsequently, in its effluent.

- c. The Discharger shall develop and conduct a Pollutant Minimization Program as further described below when there is evidence that a priority pollutant is present in the effluent above an effluent limitation (e.g., sample results reported as detected but not quantified [DNQ] when the effluent limitation is less than the method detection limit [MDL], sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, or results of benthic or aquatic organism tissue sampling) and either:
 - i. A sample result is reported as DNQ and the effluent limitation is less than the Reporting Level (RL); or
 - ii. A sample result is reported as not detected (ND) and the effluent limitation is less than the MDL, using definitions in Attachment A and reporting protocols described in the MRP.
- d. If triggered by the reasons set forth in Provision VI.C.3.c, above, the Discharger's Pollutant Minimization Program shall include, but not be limited to, the following actions and submittals:
 - i. Annual review and semi-annual monitoring of potential sources of the reportable priority pollutants, which may include fish tissue monitoring and other bio-uptake sampling or alternative measures when source monitoring is unlikely to produce useful analytical data;
 - ii. Quarterly monitoring for the reportable priority pollutants in the influent to the Facility. The Executive Officer may approve alternative measures when influent monitoring is unlikely to produce useful analytical data;
 - iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutants in the effluent at or below the effluent limitation;
 - iv. Implementation of appropriate cost-effective control measures for the reportable priority pollutants, consistent with the control strategy; and
 - v. Inclusion of the following specific items within the annual report required by Provision VI.C.3.b above:
 - (a) All Pollutant Minimization Program monitoring results for the previous year;
 - (b) List of potential sources of the reportable priority pollutants;
 - (c) Summary of all actions undertaken pursuant to the control strategy; and
 - (d) Description of actions to be taken in the following year.

5. Special Provisions for Municipal Facilities

a. Sludge and Biosolids Management

- i. All sludge and biosolids shall be disposed of, managed, or reused in a municipal solid waste landfill; through land application; as a Class A compost; through a waste-to-energy facility or another recognized and approved technology; in a sludge-only landfill; or in a sewage sludge incinerator in accordance with 40 C.F.R. part 503.
- ii. Sludge and biosolids treatment, storage, and disposal, or reuse, shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.
- iii. The sludge and biosolids treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the storage site. Adequate protection is defined as protection from at least a 100-year storm and the highest possible tidal stage that may occur.
- iv. Sludge or biosolids disposed in a municipal solid waste landfill shall meet the requirements of 40 C.F.R. part 258.
- v. This Order does not authorize permanent onsite sludge or biosolids storage or disposal. A Report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity.

- b. **Collection System Management.** The Discharger shall properly operate and maintain its collection system (see Attachment D section I.D). The Discharger shall report any noncompliance (see Attachment D sections V.E.1 and V.E.2) and mitigate any discharge from its collection system that violates this Order (see Attachment D section I.C).

The *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* (General Collection System WDRs), State Water Board Order No. 2006-0003 DWQ as amended by State Water Board Order No. WQ 2013-0058-EXEC, has requirements for operation and maintenance of separate sanitary sewer collection systems and for reporting and mitigating sanitary sewer overflows from the separate sanitary sewer portion of the Discharger's collection system. While the Discharger must comply with both the General Collection System WDRs and this Order, the General Collection System WDRs more clearly and specifically stipulate requirements for operation and maintenance and for reporting and mitigating sanitary sewer overflows. Implementation of the General Collection System WDRs for proper operation and maintenance and mitigation of sanitary sewer overflows will satisfy the corresponding federal NPDES requirements specified in Attachment D (as supplemented by Attachment G). Following the notification and reporting requirements in the General Collection System WDRs will satisfy the corresponding NPDES reporting requirements specified in Attachment D (as supplemented by Attachment G) for sanitary sewer overflows from the separate sanitary sewer portion of the collection system.

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- c. Wastewater Impoundment Integrity.** The Discharger shall take measures necessary to ensure that any impoundment the Discharger uses for storage or treatment of untreated or partially-treated wastewater is sufficiently water tight to prevent leakage of wastewater to groundwater. This shall include inspection and testing of liner integrity prior to putting back into service any impoundment that has been out of service and dry for one month or longer and any necessary routine maintenance and inspection of impoundments while in service.
- d. Standard Operating Procedures for Resource Recovery.** If the Discharger receives hauled-in anaerobically-digestible material for injection into an anaerobic digester, the Discharger shall notify the Regional Water Board and develop and implement Standard Operating Procedures for this activity. The Standard Operating Procedures shall be developed prior to initiation of hauling. The Standard Operating Procedures shall address material handling, including unloading, screening or other processing prior to anaerobic digestion, and transportation; spill prevention; spill response; avoidance of the introduction of materials that could cause interference, pass through, or upset of the treatment processes; avoidance of prohibited material; vector control; odor control; operation and maintenance; and the disposition of any solid waste segregated from introduction to the digester. The Discharger shall train its staff on the Standard Operating Procedures and maintain records for a minimum of three years for each load received, describing the hauler, waste type, and quantity received. In addition, the Discharger shall maintain records for a minimum of three years for the disposition, location, and quantity of cumulative pre-digestion segregated solid waste hauled offsite.

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ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)

Also called the average, the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative

Taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic

Known to cause cancer in living organisms.

Coefficient of Variation

Measure of data variability calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge

Either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit) for a constituent with limitations expressed in units of mass; or (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period is considered the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)

Sample result less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

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Dilution Credit

Amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined by conducting a mixing zone study or modeling the discharge and receiving water.

Effluent Concentration Allowance (ECA)

Value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the CV for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (*Technical Support Document For Water Quality-based Toxics Control*, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bay

Indentation along the coast that encloses an area of oceanic water within a distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration

Concentration that results from the confirmed detection of the substance below the ML value by the analytical method.

Estuaries

Waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars are considered estuaries. Estuarine waters are considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters include, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Inland Surface Waters

All surface waters of the state that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation

Highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation

Lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

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Maximum Daily Effluent Limitation (MDEL)

Highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median

Middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between $n/2$ and $n/2+1$).

Method Detection Limit (MDL)

Minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)

Concentration at which the entire analytical system gives a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone

Limited volume of receiving water allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND)

Sample results less than the laboratory's MDL.

Persistent Pollutants

Substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program

Program of waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the Pollutant Minimization Program is to reduce all potential sources of a priority pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. Cost effectiveness may be considered when establishing the requirements of a Pollutant Minimization Program. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), is considered to fulfill Pollutant Minimization Program requirements.

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Pollution Prevention

Any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Board or Regional Water Board.

Reporting Level (RL)

ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from SIP Appendix 4 in accordance with SIP section 2.4.2 or established in accordance with SIP section 2.4.3. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Source of Drinking Water

Any water designated as having a municipal or domestic supply (MUN) beneficial use.

Standard Deviation (σ)

Measure of variability calculated as follows:

$$\sigma = \left(\frac{\sum (x - \mu)^2}{(n - 1)} \right)^{0.5}$$

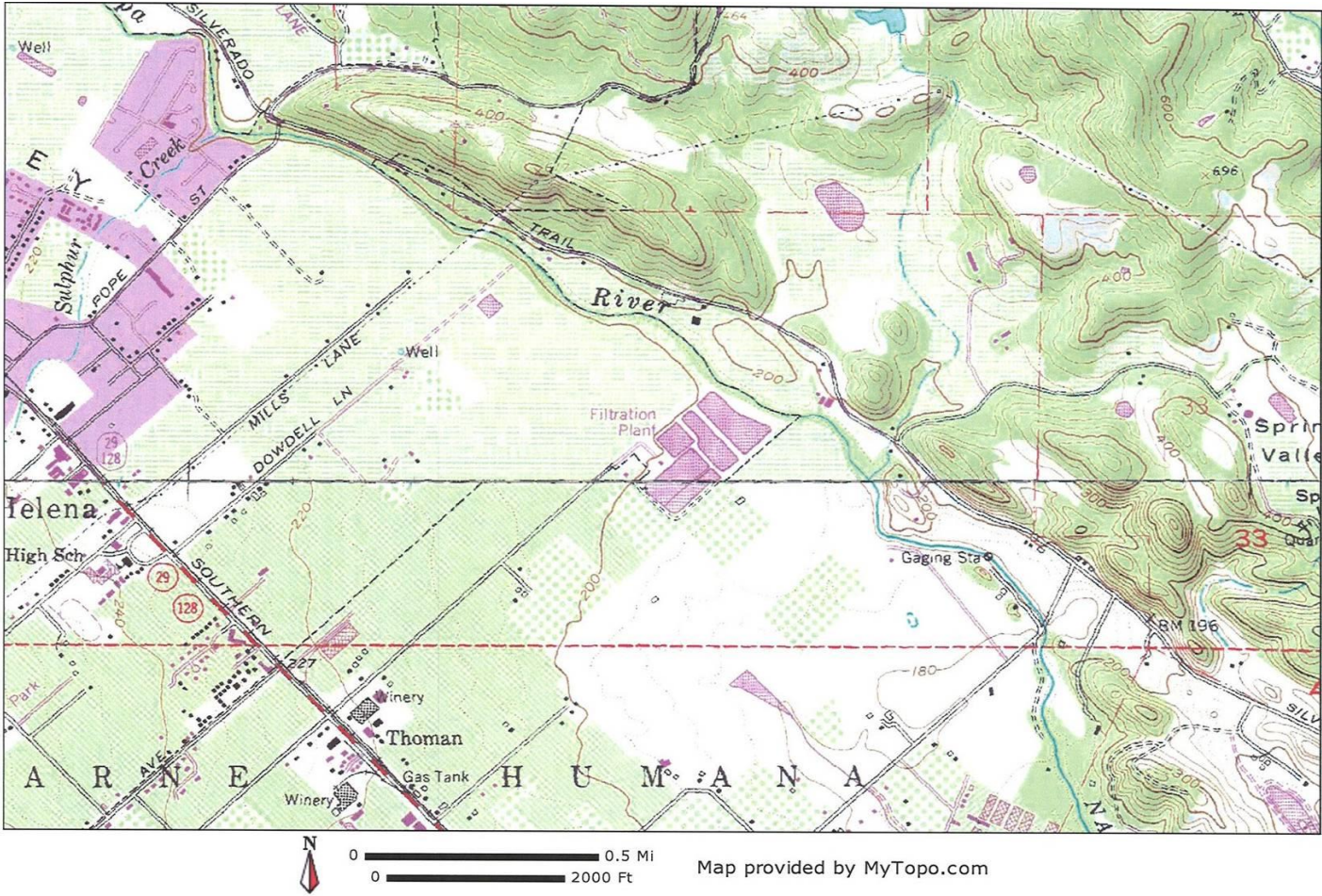
where:

- x is the observed value;
- μ is the arithmetic mean of the observed values; and
- n is the number of samples.

Toxicity Reduction Evaluation (TRE)

Study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. A TIE is a set of procedures to identify the specific chemicals responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

ATTACHMENT B – FACILITY MAP



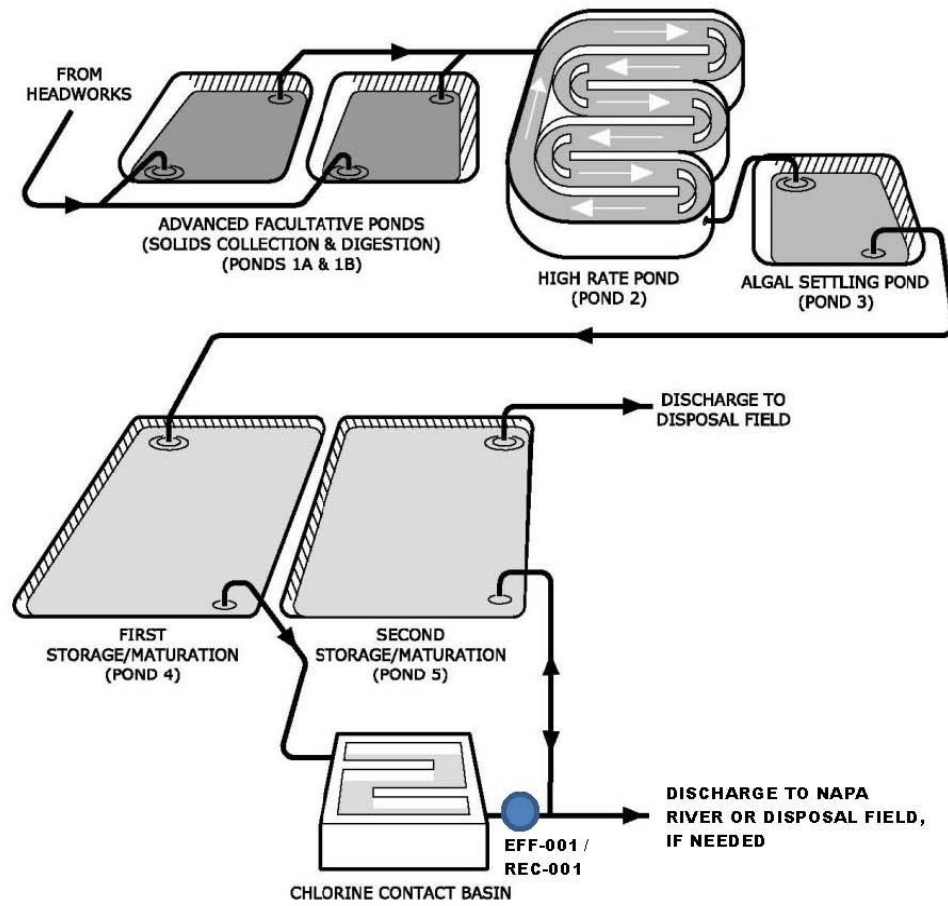
Attachment B – Facility Map

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ATTACHMENT C – PROCESS FLOW DIAGRAM



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ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
2. The Discharger shall comply with effluent standards or prohibitions established under CWA section 307(a) for toxic pollutants and with standards for sewage sludge use or disposal established under CWA section 405(d) within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

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F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2)); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of ensuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

G. Bypass

1. Definitions

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
- b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. **Bypass not exceeding limitations.** The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. **Prohibition of bypass.** Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of

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equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and

- c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. **Approval.** The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions—Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

- a. **Anticipated bypass.** If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)
- b. **Unanticipated bypass.** The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

- 1. **Effect of an upset.** An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)
- 2. **Conditions necessary for a demonstration of upset.** A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
 - c. The Discharger submitted notice of the upset as required in Standard Provisions—Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

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- d. The Discharger complied with any remedial measures required under Standard Provisions—Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

- 3. **Burden of proof.** In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS—PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. §§ 122.41(l)(3), 122.61.)

III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- B. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapters N or O. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or required under 40 C.F.R. chapter 1, subchapter N or O. For the purposes of this paragraph, a method is sufficiently sensitive when:
 - 1. The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either (a) the method ML is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter, or (b) the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
 - 2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N or O for the measured pollutant or pollutant parameter.

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In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS—RECORDS

- A.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)
- B.** Records of monitoring information shall include the following:
 - 1.** The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
 - 2.** The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
 - 3.** The date(s) the analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
 - 4.** The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
 - 5.** The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
 - 6.** The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)
- C.** Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):
 - 1.** The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
 - 2.** Permit applications and attachments, permits, and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS—REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

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B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions—Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)
2. For a corporation, all permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)

For a partnership or sole proprietorship, all permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

For a municipality, state, federal, or other public agency, all permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).)

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Standard Provisions—Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
 - c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

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4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions—Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)
5. Any person signing a document under Standard Provisions—Reporting V.B.2 or V.B.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order. (40 C.F.R. § 122.22(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written

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submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (Alternatively, for an existing manufacturing, commercial, mining, or silvicultural discharge as referenced in 40 C.F.R. section 122.42(a), this notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under 40 C.F.R. section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1).) (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R. § 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 122.41(l)(2).)

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H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions—Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision—Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

- A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS—NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA sections 301 or 306 if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of this Order. (40 C.F.R. § 122.42(b)(2).)
3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Clean Water Act section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and State laws and regulations.

I. GENERAL MONITORING PROVISIONS

- A.** The Discharger shall comply with this MRP. The Executive Officer may amend this MRP pursuant to 40 C.F.R. sections 122.62, 122.63, and 124.5. If any discrepancies exist between this MRP and the “Regional Standard Provisions, and Monitoring and Reporting Requirements (Supplement to Attachment D) for NPDES Wastewater Discharge Permits” (Attachment G), this MRP shall prevail.
- B.** The Discharger shall conduct all monitoring in accordance with Attachment D, section III, as supplemented by Attachment G. Equivalent test methods must be more sensitive than those specified in 40 C.F.R. section 136 and must be specified in this permit.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Locations

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description
Influent	INF-001	Any point in the plant at which all waste tributary to the treatment system is present and preceding any phase of treatment that may alter the influent character.
Effluent	EFF-001	Any point after full treatment, including disinfection, that represents all wastewater discharged to the Napa River at Discharge Point No. 001.
Effluent	REC-001	Any point after full treatment, including disinfection, that represents all wastewater directed to irrigation fields or recycled (excluding internal recycle at the treatment plant), and thus not discharged to the Napa River at Discharge Point No. 001.
Receiving Water	RSW-001	Any point in the Napa River upstream of Discharge Point No 001.
Receiving Water	RSW-002	A point in the Napa River approximately 600 feet downstream of Discharge Point No. 001.
Receiving Water	RSW-900	Any point or points in the Napa River for the purpose of collecting data for the Receiving Water Characterization Study identified in Provision VI.C.3 of the Order.
Biosolids	BIO-001	Any point following onsite biosolids processing.

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III. INFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor plant influent at Monitoring Location INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow ^[1]	MGD	Continuous	Continuous/D
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	C-24	3/Week ^[2]
Total Suspended Solids	mg/L	C-24	3/Week ^[2]

Abbreviations:

MGD = million gallons per day
mg/L = milligrams per liter
C-24 = 24-hour composite sample
Continuous/D = measured continuously, and recorded and reported daily
1/Week = once per week

Footnotes:

^[1] Flow shall be monitored continuously and the following information shall be reported in monthly self-monitoring reports:

- Daily average flow (MGD)
- Monthly average flow (MGD)
- Total monthly flow volume (MG)
- Maximum daily average flow rates (MGD)

^[2] The Discharger shall collect influent samples on the same days as effluent samples. The monitoring frequency may be decreased to once per quarter when not discharging to the Napa River.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Discharges to Napa River

When discharging to the Napa River, the Discharger shall monitor plant effluent at Monitoring Location EFF-001 as follows. When the minimum sampling frequency is weekly, monthly, or quarterly, at least one sample is required for any weekly, monthly, or quarterly period in which a discharge to Discharge Point No. 001 occurs.

Table E-3. Effluent Monitoring—Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow ^[1]	MGD	Continuous	Continuous/D
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	C-24	3/Week
Total Suspended Solids	mg/L	C-24	3/Week
Oil and Grease	mg/L	C-24	1/Quarter ^[2]
Total Coliform Bacteria	MPN/100 mL ^[3]	Grab	3/Week
Ammonia, Total	mg/L as N	C-24	1/Quarter ^[4]
pH	standard units	Grab	1/Day ^[4,5]
Temperature	°C	Grab	1/Quarter ^[4]
Acute Toxicity ^[6]	% survival	C-24	1/Quarter
Chlorine Residual ^[7]	mg/L	Continuous or Grab	1/Day or Continuous/2H
Copper	µg/L	C-24	1/Month
Cyanide ^[8]	µg/L	Grab	1/Month
River Flow-to-Effluent Flow Ratio ^[9]	---	Calculated	1/Day

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Abbreviations:

MGD	= million gallons per day
mg/L	= milligrams per liter
µg/L	= micrograms per liter
mg/L as N	= milligrams per liter as nitrogen
°C	= degrees Celsius
% survival	= percent survival
C-24	= 24-hour composite
Grab	= grab sample
Continuous/D	= measured continuously, and recorded and reported daily
Continuous/2H	= measured continuously or, if infeasible, at least every 2 hours
1/Day	= once per day
3/Week	= three times per week
1/Month	= once per month
1/Quarter	= once per quarter

Footnotes:

- [1] Flow shall be monitored continuously and the following information shall be reported in self-monitoring reports:
- Daily average flow (MGD)
 - Monthly average flow (MGD)
 - Total monthly flow volume (MG)
 - Maximum daily average flow rates (MGD)
- [2] Oil and grease sampling and analysis shall be conducted in accordance with U.S. EPA Method 1664A.
- [3] Results may be reported as Colony Forming Units/100 milliliters (CFU/100 mL) if the laboratory method used provides results in CFU/100 mL.
- [4] Ammonia monitoring shall occur concurrently with pH and temperature monitoring.
- [5] If pH is monitored continuously, the minimum and maximum pH values for each day shall be reported in self-monitoring reports.
- [6] Acute bioassay tests shall be performed in accordance with MRP section V.A.
- [7] Effluent residual chlorine concentrations shall be monitored once per day by grab sample from the recycled water storage pond, or continuously, or at a minimum every other hour, immediately following dechlorination. The Discharger shall describe all excursions of the chlorine limit in the transmittal letter of self-monitoring reports as required by Attachment G section V.C.1.a. If monitoring continuously, the Discharger shall report through data upload to CIWQS, from discrete readings of the continuous monitoring every hour on the hour, the maximum for each day and any other discrete hourly reading that exceed the effluent limit, and, for the purpose of mandatory minimum penalties required by Water Code section 13385(i), compliance shall be based only on these discrete readings. The Discharger shall retain continuous monitoring readings for at least three years. The Regional Water Board reserves the right to use all continuous monitoring data for discretionary enforcement.
- [8] The Discharger may, at its option, analyze for cyanide as Weak Acid Dissociable Cyanide using protocols specified in Standard Method Part 4500-CN-I, USEPA Method OI 1677, or an equivalent method in the latest edition.
- [9] The Discharger shall calculate and report the river flow-to-effluent flow ratio once per day when discharging to the Napa River. The river flow-to-effluent flow ratio shall be calculated as the ratio of the instantaneous flow of the Napa River measured at USGS Station No. 11458000 (at 8 a.m. every morning) to the average effluent flow during the previous 24 hours (8 a.m. to 8 a.m.) measured at Monitoring Location EFF-001.

B. Discharges to Irrigation Fields or Reused Offsite

The Discharger shall monitor plant effluent flow at Monitoring Location REC-001 continuously and the following information shall be reported in self-monitoring reports:

- Daily average flow (MGD)
- Monthly average flow (MGD)
- Total monthly flow volume (MG)
- Maximum daily average flow (MGD)

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V. WHOLE EFFLUENT ACUTE TOXICITY TESTING REQUIREMENTS

- A. Compliance with the whole effluent acute toxicity effluent limitations at Discharge Point No. 001 shall be evaluated at Monitoring Location EFF-001 by measuring survival of test organisms exposed to 96-hour static renewal bioassays.
- B. Test organisms shall be fathead minnow (*Pimephales promelas*). Alternatively, the Executive Officer may specify a more sensitive organism or, if testing a particular organism proves unworkable, the most sensitive organism available.
- C. Bioassays shall be performed according to the most up-to-date protocols in 40 C.F.R. part 136, currently *Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms*, 5th Edition (EPA-821-R-02-012). If these protocols prove unworkable, the Executive Officer and the Environmental Laboratory Accreditation Program may grant exceptions in writing upon the Discharger's request with justification.
- D. If the Discharger demonstrates that specific identifiable substances in the discharge are rapidly rendered harmless upon discharge to the receiving water, compliance with the acute toxicity limit may be determined after test samples are adjusted to remove the influence of those substances. Written acknowledgement that the Executive Officer concurs with the Discharger's demonstration and that the adjustment will not remove the influence of other substances must be obtained prior to any such adjustment. The Discharger may manually adjust the pH of whole effluent acute toxicity samples prior to performing bioassays to minimize ammonia toxicity interference.
- E. The sample may be taken from final secondary effluent prior to disinfection. Bioassay water monitoring shall include, on a daily basis, pH, dissolved oxygen, ammonia (if toxicity is observed), temperature, hardness, and alkalinity. These results shall be reported. If final or intermediate results of an acute bioassay test indicate a violation or threatened violation (e.g., the percentage of surviving test organisms is less than 70 percent), the Discharger shall initiate a new test as soon as practical and shall investigate the cause of the mortalities and report its findings in the next self-monitoring report. The Discharger shall repeat the test until a test fish survival rate of 90 percent or greater is observed. If the control fish survival rate is less than 90 percent, the bioassay test shall be restarted with new fish and shall continue as soon as practical until an acceptable test is completed (i.e., control fish survival rate is 90 percent or greater).

VI. RECEIVING WATER MONITORING REQUIREMENTS

The Discharger shall monitor receiving waters at Monitoring Location RSW-002 as set forth in the table below. In addition, the Discharger shall obtain flow data from USGS Station No.11458000 at approximately 8 a.m. each day that a discharge to the Napa River occurs (this flow shall be used to calculate the river flow-to-effluent flow ratio; see Discharge Prohibition III.C of the Order).

Table E-4. Receiving Water Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	standard units	Grab	2/Year ^[1]
Temperature	°C	Grab	2/Year ^[1]

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Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Ammonia	mg/L as N	Grab	2/Year ^[1]
Hardness	mg/L as CaCO ₃	Grab	2/Year ^[1]

Abbreviations:

MGD = million gallons per day
 °C = degrees Celsius
 mg/L = milligrams per liter
 mg/L as N = milligrams per liter as nitrogen
 mg/L as CaCO₃ = milligrams per liter as calcium carbonate
 Grab = grab sample
 1/Day = once per day
 2/Year = twice per year

Footnote:

^[1] Parameters shall be analyzed twice per year during the discharge season; once after the first storm of the season during the interval from October 1 through January 31, and once during the interval from February 1 through May 15.

VII. OTHER MONITORING REQUIREMENTS

The Discharger shall adhere to sludge monitoring requirements required by 40 C.F.R. part 258 (for landfill disposal) and 40 C.F.R. part 503 (for land application).

VIII. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachments D and G) related to monitoring, reporting, and recordkeeping, with modifications shown in section X, below.

B. Self-Monitoring Reports (SMRs)

- SMR Format.** The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Web site (http://www.waterboards.ca.gov/water_issues/programs/ciwqs). The CIWQS website will provide additional information for SMR submittal in the event of a planned service interruption for electronic submittal.
- SMR Due Dates and Contents.** The Discharger shall submit SMRs by the due dates, and with the contents, specified below:
 - Monthly SMRs** — Monthly SMRs shall be due 30 days after the end of each calendar month, covering that calendar month. The monthly SMR shall contain the applicable items described in sections V.B and V.C of both Attachments D and G of this Order. See Provision VI.C.2 (Effluent Characterization Study and Report) and Provision VI.C.3 (Receiving Water Characterization Study and Report) of this Order for information that must also be reported with monthly SMRs.

Monthly SMRs shall include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the Discharger shall include the results of such monitoring in the calculations and reporting for the SMR.

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- b. Annual SMR** — Annual SMRs shall be due February 1 each year, covering the previous calendar year. The annual SMR shall contain the items described in sections V.C.1.f of Attachment G. See Provision VI.C.2 (Effluent Characterization Study and Report), Provision VI.C.3 (Receiving Water Characterization Study and Report), and Provision VI.C.4 (Pollution Minimization Program) of this Order for information that must also be reported with the annual SMR.
- c. Specifications for Submitting SMRs to CIWQS** — The Discharger shall submit analytical results and other information using one of the methods in the table below:

Table E-5. CIWQS Reporting

Parameter	Method of Reporting	
	EDF/CDF data upload or manual entry	Attached File
All parameters identified in influent, effluent, and receiving water monitoring tables (except Dissolved Oxygen and Temperature)	Required for all results	
Dissolved Oxygen Temperature	Required for monthly maximum and minimum results only ^[1]	Discharger may use this method for all results or keep records
Antimony Arsenic Beryllium Cadmium Chromium Copper Cyanide Lead Mercury Nickel Selenium	Silver Thallium Zinc Dioxins & Furans (by U.S. EPA Method 1613) Other Pollutants (by U.S. EPA methods 601, 602, 608, 610, 614, 624, and 625)	Required for all results ^[2]
Volume and Duration of Blended Discharge ^[3]	Required for all blended effluent discharges	
Analytical Method	Not required (Discharger may select “data unavailable”) ^[1]	
Collection Time Analysis Time	Not required (Discharger may select “0:00”) ^[1]	

Footnotes:

- ^[1] The Discharger shall continue to monitor at the minimum frequency specified in this MRP, keep records of the measurements, and make the records available upon request.
- ^[2] These parameters require EDF/CDF data upload or manual entry regardless of whether monitoring is required by this MRP or other provisions of this Order (except for biosolids, sludge, or ash provisions).
- ^[3] The requirement for volume and duration of blended discharge applies only if this Order authorizes the Discharger to discharge blended effluent.

The Discharger shall arrange all reported data in a tabular format and summarize data to clearly illustrate whether the Facility is operating in compliance with effluent limitations. The Discharger is not required to duplicate the submittal of data entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide

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for entry into a tabular format, the Discharger shall electronically submit the data in a tabular format as an attachment.

- 3. Monitoring Periods.** Monitoring periods for all required monitoring shall be as set forth below unless otherwise specified:

Table E-6. Monitoring Periods

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
Continuous	Order effective date	All times
1/2 Hours	Order effective date	Every two-hour period, beginning at midnight (e.g., 12:00 a.m. through 1:59 a.m.)
1/Day	Order effective date	Every 24-hour period, beginning at midnight and continuing through 11:59 p.m.
1/Week or 3/Week	Sunday following (or on) Order effective date	Sunday through Saturday
1/Month	First day of calendar month following (or on) Order effective date	First day of calendar month through last day of calendar month
1/Quarter ^[1]	Closest January 1, April 1, July 1, or October 1 before or after Order effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31
2/Year ^[1]	Closest October 1 or February 1 before or after Order effective date	October 1 through January 31 February 1 through May 15
1/Year ^[1]	Closest January 1 before or after Order effective date	January 1 through December 31
Once	Order effective date	Anytime such that monitoring results may be submitted with the application for permit reissuance

Footnote:

^[1] Monitoring performed during the previous order term may be used to satisfy monitoring required by this Order.

- 4. RL and MDL Reporting.** The Discharger shall report with each sample result the Reporting Level (RL) and Method Detection Limit (MDL) as determined by the procedure in 40 C.F.R. part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means the laboratory considers appropriate.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

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- d. The Discharger shall instruct laboratories to establish calibration standards so that the minimum level (ML) value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

- 5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and in the Fact Sheet and Attachments A, D, and G. For purposes of reporting and administrative enforcement by the Regional Water Board and the State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

C. Discharge Monitoring Reports (DMRs)

At any time during the term of this Order, the State Water Board or the Regional Water Board may notify and require the Discharger to submit DMRs. Once notified, the Discharger shall electronically certify and submit DMRs with SMRs using the Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring.

IX. MODIFICATIONS TO ATTACHMENT G

This MRP modifies Attachment G as indicated below.

A. Attachment G section V.C.1.c.2 is revised as follows:

- 2) When determining compliance with an average monthly or maximum daily effluent limitation, and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of detected but not quantified (DNQ) or nondetect (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
 - i. The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
 - ii. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

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If a sample result, or the arithmetic mean or median of multiple sample results, is below the reporting limit, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a Pollutant Minimization Program, the Discharger shall not be deemed out of compliance.

B. Attachment G sections V.C.1.f and V.C.1.g are revised as follows, and section V.C.1.h (Reporting data in electronic format) is deleted:

f. Annual self-monitoring report requirements

By the date specified in the MRP, the Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year. The report shall contain the following:

- 1) Annual compliance summary table of treatment plant performance, including documentation of any blending events (this summary table is not required if the Discharger has submitted the year's monitoring results to CIWQS in electronic reporting format by EDF/CDF upload or manual entry);
- 2) Comprehensive discussion of treatment plant performance and compliance with the permit (This discussion shall include any corrective actions taken or planned, such as changes to facility equipment or operation practices that may be needed to achieve compliance, and any other actions taken or planned that are intended to improve performance and reliability of the Discharger's wastewater collection, treatment, or disposal practices.);
- 3) Both tabular and graphical summaries of the monitoring data for the previous year if parameters are monitored at a frequency of monthly or greater (this item is not required if the Discharger has submitted the year's monitoring results to CIWQS in electronic reporting format by EDF/CDF upload or manual entry);
- 4) List of approved analyses, including the following:
 - (i) List of analyses for which the Discharger is certified;
 - (ii) List of analyses performed for the Discharger by a separate certified laboratory (copies of reports signed by the laboratory director of that laboratory shall not be submitted but be retained onsite); and
 - (iii) List of "waived" analyses, as approved;
- 5) Plan view drawing or map showing the Discharger's facility, flow routing, and sampling and observation station locations;
- 6) Results of annual facility inspection to verify that all elements of the SWPP Plan are accurate and up to date (only required if the Discharger does not route all stormwater to the headworks of its wastewater treatment plant); and
- 7) Results of facility report reviews (The Discharger shall regularly review, revise, and update, as necessary, the O&M Manual, the Contingency Plan, the Spill

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Prevention Plan, and Wastewater Facilities Status Report so that these documents remain useful and relevant to current practices. At a minimum, reviews shall be conducted annually. The Discharger shall include, in each Annual Report, a description or summary of review and evaluation procedures, recommended or planned actions, and an estimated time schedule for implementing these actions. The Discharger shall complete changes to these documents to ensure they are up-to-date.).

g. Report submittal

The Discharger shall submit SMRs addressed as follows, unless the Discharger submits SMRs electronically to CIWQS:

California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
Attn: NPDES Wastewater Division

h. Reporting data in electronic format – *Deleted*

C. Attachment G sections V.E.2, V.E.2.a, and V.E.2.c are revised as follows, and sections V.E.2.b (24-hour Certification) and V.E.2.d (Communication Protocol) are deleted:

2. Unauthorized Discharges from Municipal Wastewater Treatment Plants¹

The following requirements apply to municipal wastewater treatment plants that experience an unauthorized discharge at their treatment facilities and supersede requirements imposed on the Discharger by the Executive Officer by letter of May 1, 2008.

a. Two (2)-Hour Notification

For any unauthorized discharges that enter a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the California Office of Emergency Services (CalOES, currently 800-852-7550), the local health officers or directors of environmental health with jurisdiction over the affected water bodies, and the Regional Water Board. Timely notification by the Discharger to CalOES also satisfies notification to the Regional Water Board. Notification shall include the following:

- 1) Incident description and cause;
- 2) Location of threatened or involved waterway(s) or storm drains;

¹ California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

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- 3) Date and time the unauthorized discharge started;
 - 4) Estimated quantity and duration of the unauthorized discharge (to the extent known), and the estimated amount recovered;
 - 5) Level of treatment prior to discharge (e.g., raw wastewater, primary treated, undisinfected secondary treated, and so on); and
 - 6) Identity of the person reporting the unauthorized discharge.
- b. 24-hour Certification – *Deleted*
- c. 5-day Written Report

Within five business days, the Discharger shall submit a written report that includes, in addition to the information required above, the following:

- 1) Methods used to delineate the geographical extent of the unauthorized discharge within receiving waters;
 - 2) Efforts implemented to minimize public exposure to the unauthorized discharge;
 - 3) Visual observations of the impacts (if any) noted in the receiving waters (e.g., fish kill, discoloration of water) and the extent of sampling if conducted;
 - 4) Corrective measures taken to minimize the impact of the unauthorized discharge;
 - 5) Measures to be taken to minimize the chances of a similar unauthorized discharge occurring in the future;
 - 6) Summary of Spill Prevention Plan or O&M Manual modifications to be made, if necessary, to minimize the chances of future unauthorized discharges; and
 - 7) Quantity and duration of the unauthorized discharge, and the amount recovered.
- d. Communication Protocol – *Deleted*

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ATTACHMENT F – FACT SHEET

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order. As described in section II.B of the Order, the Regional Water Board incorporates this Fact Sheet as findings supporting the issuance of the Order.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility:

Table F-1. Facility Information

WDID	2 283014001
CIWQS Place ID	258386
Discharger	City of St. Helena
Facility Name	City of St. Helena Wastewater Treatment and Reclamation Plant and its wastewater collection system
Facility Address	1 Chaix/Thomann Lane St. Helena, CA 94574 Napa County
Facility Contact, Title, Phone	Steven Palmer, Public Works Director, 707-967-2792
Authorized Person to Sign and Submit Reports	Same as facility contact
Mailing Address	1480 Main Street, St. Helena, CA 94574
Billing Address	Same as mailing address
Facility Type	Publicly-Owned Treatment Works (POTW)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	B
Pretreatment Program	No
Recycled Water Requirements	Regional Water Board Order No. 87-090
Mercury and PCBs Requirements	NPDES Permit No. CA0038849
Permitted Flow	0.50 million gallons per day (MGD) – average daily dry weather design flow
Design Flow	2.8 MGD – peak wet weather flow
Watershed	San Pablo Bay
Receiving Water	Napa River
Receiving Water Type	Freshwater

- A.** The City of St. Helena (Discharger) owns and operates the City of St. Helena Wastewater Treatment and Reclamation Plant (plant) and its associated wastewater collection system (collectively, the Facility). The plant provides secondary treatment of wastewater collected from its service area and discharges treated effluent to the Napa River when plant influent exceeds the capacity of the recycled water distribution and storage system. The Napa River is a water of the United States within the San Pablo Bay watershed. Attachment B provides maps of the area around the Facility, and Attachment C provides a plant flow schematic.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and State laws, regulations, plans, and policy are held to be equivalent to references to the Discharger herein.

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- B.** The Discharger is regulated pursuant to National Pollutant Discharge Elimination System (NPDES) Permit No. CA0038016. The Discharger is authorized to discharge subject to waste discharge requirements in this Order at the discharge location described in Table 2 of this Order. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the effective period for the discharge authorization.
- C.** Pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES regulation requirements for continuation of expired permits. The Discharger was previously subject to Order No. R2-2010-0105 (previous order), which became effective on November 1, 2010. The Discharger filed a Report of Waste Discharge and submitted an application for reissuance of its Waste Discharge Requirements (WDRs) and NPDES permit on May 1, 2015. The previous order was therefore administratively extended by operation of law beyond its stated expiration date (October 31, 2015).
- D.** The discharge is also regulated under NPDES Permit No. CA0038849, which establishes requirements on mercury and polychlorinated biphenyls (PCBs). This Order does not affect that permit.

The Discharger is also regulated by Order No. 87-090 for the discharge or disposal of plant effluent to the Discharger's spray irrigation fields during dry weather. In contrast, this Order regulates the discharge of plant effluent to the Napa River during wet weather when the irrigation fields are saturated. Discharge to the irrigation fields occurs more commonly than discharge to Napa River.

- E.** When applicable, State law requires dischargers to file a petition with the State Water Board's Division of Water Rights and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce such requirements under Water Code section 1211. This is not an NPDES permit requirement.

II. FACILITY DESCRIPTION

A. Wastewater and Biosolids Treatment

- 1. Location and Service Area.** The plant is located at 1 Chaix/Thomann Lane in St. Helena. It provides secondary treatment of domestic and commercial source wastewater from the City of St. Helena. The estimated service area population is about 6,000.
- 2. Collection System.** The Discharger operates about 18.8 miles of sewer lines and one pump station on Crinella Drive.
- 3. Current Wastewater Treatment.** The average dry weather design treatment capacity of the plant is 0.50 million gallons per day (MGD). Wastewater treatment processes include solids grinding by a comminutor, biological treatment through a series of ponds (described in Table F-2), and chlorine disinfection. These treatment processes are capable of meeting secondary treatment standards. The average dry weather flow treated in 2014 was 0.36 MGD. The average annual flow treated in 2014 was 0.47 MGD, and the highest daily flow treated was 1.03 MGD during wet weather.

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The previous order had required the Discharger to evaluate the adequacy of its treatment capacity. The Discharger's March 2015 *Wastewater Facilities Evaluation Update* (Bennett Engineering Services) indicated that the service area population is only growing slightly (less than earlier projections) and that the per capita wastewater flows are declining due to conservation measures. Therefore, the existing treatment system is capable of meeting the Discharger's near-term waste loads and flows. The report projected that in 2030 the average dry weather flows will be about 0.50 MGD, the current capacity. However, the report also indicated that the Discharger should plan to increase its capacity to 0.65 MGD by 2030 to account for uncertainty.

Table F-2. Wastewater Ponds

Pond	Type	Surface Area (acres)	Depth (feet)	Volume (million gallons)
1A	Facultative with Digester	2.9	10	8.1
1B	Facultative with Digester	2.1	14	7.5
2	High-rate (aeration)	5.1	3	4.0
3	Algae Sedimentation	2.5	9	6.3
4	Maturation/Storage	3.0	11.5	9.8
5	Maturation/Storage	6.7	13	24.6

- 4. Future Wastewater Treatment.** To comply with the effluent limitations listed in Table 4 of this Order, the Discharger will design and construct upgrades to the treatment plant.
- 5. Biosolids Management.** The Discharger does not remove solids from its ponds on a regular basis. Most of the solids settle out in Ponds 1A and 1B, where they are anaerobically digested at the bottom of the pond. When solids accumulate to the point where treatment becomes ineffective, the Discharger drains Ponds 1A and 1B to excavate the solids. The Discharger last did this for Pond 1A in 2014.
- 6. Stormwater.** Stormwater discharges at the plant are covered under the State Water Board's General Permit for Industrial Stormwater Discharges (NPDES General Permit CAS000001).

B. Discharge Points and Receiving Waters

Plant effluent is discharged into the Napa River through a shallow water outfall (Discharge Point No. 001). This occurs typically only during wet weather when the Discharger's irrigation fields are saturated. Normally during dry weather, the Discharger disposes of plant effluent to its 88 acres of fields through spray irrigation pursuant to Order No. 87-090. A small portion of plant effluent, less than 2 percent, is also reused to irrigate a redwood tree farm and to grow mosquito fish.

C. Summary of Existing Requirements and Monitoring Data

The effluent limitations in the previous order and representative monitoring data from the previous order term are presented below:

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Table F-3. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limits			Monitoring Data (when discharging to Napa River) (12/1/10-6/30/15)		
		Monthly Average	Weekly Average	Daily Maximum	No. of Samples / No. Below Detection Limit	Highest Daily Discharge	Average ± Standard Deviation ^[1]
Biochemical Oxygen Demand (BOD)	mg/L	30	45	---	21/4	23	8.1 ± 4.6
Total Suspended Solids (TSS)	mg/L	30	45	---	21/3	20	12 ± 5.1
Oil and Grease	mg/L	10	---	20	6/6	<1.4	---
pH	standard units	6.5 - 8.5			4/0	6.3-7.2 ^[2]	6.6 ± 0.4
Residual Chlorine, Total	mg/L	0.0 maximum			---	0.0	---
Copper, Total	µg/L	14	---	24	6/0	6.9	5.0 ± 1.4
Cyanide, Total	µg/L	30	---	15	5/0	23	13 ± 8
Bis(2-ethylhexyl)phthalate	µg/L	6.0	---	3.0	6/6	<3.0	---
Dioxin-TEQ	µg/L	2.6 x 10 ⁻⁸	---	1.3 x 10 ⁻⁸	4/4	<3.40E-07	---
Ammonia, Total	mg/L as N	39	---	16	6/0	16	9.9 ± 4.0
Acute Toxicity	% Survival	Greater than 90% (3-sample median) Not less than 70% (single sample)			6/0	95 ^[3]	98 ± 3

Unit Abbreviations:

mg/L = milligrams per liter
µg/L = micrograms per liter
mg/L as N = milligrams per liter as nitrogen
% = percent

Footnotes:

^[1] Samples below the detection limit were assumed to be one-half the detection limit.

^[2] Lowest and highest values.

^[3] Lowest value.

D. Compliance Summary

- 1. Treatment Plant.** The table below lists violations from November 2010 through August 2015 of the previous order and Order No. 87-090, which regulates discharge of the treated effluent to land:

Table F-4. Effluent Limitation Violations

Date	Violation	Unit	Effluent Limit	Reported Value
NPDES Permit Violations				
11/04/2010	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
11/19/2010	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
11/20/2010	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
11/24/2010	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
11/30/2010	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
12/28/2010	Copper Daily Maximum	µg/L	24	123

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09/27/2012	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	37
10/12/2012	Total Coliform Single-Sample Maximum	MPN/100 mL	240	500
10/12/2012	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
10/15/2012	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
10/15/2012	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	50
10/15/2012	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
10/23/2012	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	50
12/26/2012	Residual Chlorine Daily Maximum	mg/L	0.0	0.4
12/27/2012	Residual Chlorine Daily Maximum	mg/L	0.0	0.1
05/22/2013	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
05/23/2013	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	30
10/25/2013	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	50
10/30/2013	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	50
10/31/2013	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	50
02/12/2014	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	33
02/13/2014	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	33
02/14/2014	Total Coliform 5-Sample Moving Median	MPN/100 mL	23	33
12/22/2014	Cyanide, Total (as CN) 30-Day Average	µg/L	15	16
Water Reclamation Requirements (Order No. 87-090) Violations				
12/24/2010	Biochemical Oxygen Demand Daily Maximum	mg/L	40	76
03/02/2012	Biochemical Oxygen Demand Daily Maximum	mg/L	40	>220
06/28/2012	Biochemical Oxygen Demand Daily Maximum	mg/L	40	43
07/03/2012	Biochemical Oxygen Demand Daily Maximum	mg/L	40	43
09/17/2012	Biochemical Oxygen Demand Daily Maximum	mg/L	40	42
09/25/2012	Biochemical Oxygen Demand Daily Maximum	mg/L	40	44
10/08/2012	Biochemical Oxygen Demand Daily Maximum	mg/L	40	87
06/12/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	42
06/20/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	49
09/03/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	45
09/20/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	44
10/04/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	101
10/11/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	51
11/08/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	46
12/04/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	67
12/13/2013	Biochemical Oxygen Demand Daily Maximum	mg/L	40	54
05/01/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	46
06/01/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	46
06/17/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	51
08/08/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	70
08/28/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	59
09/09/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	59
11/25/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	81
11/26/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	61
12/09/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	111
12/10/2014	Biochemical Oxygen Demand Daily Maximum	mg/L	40	124
03/12/2015	Biochemical Oxygen Demand Daily Maximum	mg/L	40	76

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- 2. Collection System.** The table below shows the Discharger's sanitary sewer overflow (SSO) rates (total SSOs per 100 miles of collection system for each of the past four years) and other information along with those for the county and region. The Discharger had three SSOs in 2012 and none since. Future SSOs could potentially reach waters of the U.S. and thus could violate Prohibition III.D of this Order.

Table F-5. SSO Rates (total SSOs/100 miles of sewer)
(based on CIWQS data analysis completed in February 2015)^[1]

	Sewer System Length (miles)	Sewer System Average Age (years) ^[2]	2011	2012	2013	2014
St. Helena	20	30.4	0	6.3	0	0
Napa County average of 3 medium systems (10-99 miles)	29.8	38.9	2.7	4.9	4.2	4.6
San Francisco Bay Region average of 49 medium systems (10-99 miles)	31.8	45.2	10.7	10.9	12.9	10.4
San Francisco Bay Region median of all 132 systems	42	44.5	4.2	4.8	4.5	2.7

Footnotes:

^[1] The State Water Board's Enrollee's Guide to the SSO Database defines "Total number of SSOs per 100 miles of Sewer" as "...the number of SSOs, for which the reporting Enrollee is responsible, for every 100 miles of pipe or sewer lines in an Enrollee's sanitary sewer system. Due to the large variation in facility specific characteristics, this metric should only be viewed as a rough comparison of the operation and maintenance performance of Enrollees and their sanitary sewer systems."

^[2] Average age as of 2014.

E. Planned Changes

To comply with the new limitations for BOD and TSS in Table 4 of this Order, which reflect pollutant levels achievable by implementing advanced secondary treatment, the Discharger will upgrade the plant. Concurrent with adoption of this Order, the Regional Water Board considered a cease and desist order containing a time schedule of tasks to achieve advanced secondary treatment.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

A. Legal Authorities

This Order serves as WDRs pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to Clean Water Act (CWA) section 402 and implementing regulations adopted by U.S. EPA and Water Code chapter 5.5, division 7 (commencing with § 13370). It shall serve as an NPDES permit for point source discharges from the Facility to surface waters.

B. California Environmental Quality Act

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act, Public Resources Code division 13, chapter 3 (commencing with § 21100).

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C. State and Federal Regulations, Policies, and Plans

- 1. Water Quality Control Plan.** The Regional Water Board adopted the *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, this Order implements State Water Board Resolution No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the Napa River are listed below:

Table F-6. Napa River Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Napa River	Agricultural Supply (AGR) Municipal and Domestic Supply (MUN) Cold Freshwater Habitat (COLD) Fish Spawning (SPWN) Warm Freshwater Habitat (WARM) Wildlife Habitat (WILD) Water Contact Recreation (REC1) Non-Contact Water Recreation (REC2) Navigation (NAV) Fish Migration (MIGR) Preservation of Rare and Endangered Species (RARE)

- 2. National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and amended it on May 4, 1995 and November 9, 1999. About 40 criteria in the NTR apply in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and incorporated the previously adopted NTR criteria that applied in the State. U.S. EPA amended the CTR on February 13, 2001. These rules contain water quality criteria for priority pollutants.
- 3. State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria U.S. EPA promulgated for California through the NTR and the priority pollutant objectives the Regional Water Board established in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria U.S. EPA promulgated through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives, and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
- 4. Domestic Water Quality.** In accordance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order complies with that policy by requiring discharges to meet, when necessary, maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

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5. **Antidegradation Policy.** Federal regulations at 40 C.F.R. section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy through State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, which is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. Permitted discharges must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.
6. **Anti-Backsliding Requirements.** CWA sections 402(o) and 303(d)(4) and 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.
7. **Recycled Water Policy.** The State Water Board adopted Resolution No. 2013-0003 on January 22, 2013, titled *Policy for Water Quality Control for Recycled Water*, which is intended to promote sustainable local water supplies by increasing the acceptance and promoting the use of recycled water. The policy sets a goal to increase the use of recycled water statewide by at least one million acre feet per year (afy) over the 2002 baseline-level by 2020 and by at least two million afy by 2030. Consistent with the policy, the Regional Water Board is to exercise its authority to the fullest extent possible to encourage the use of recycled water and to develop watershed-based salt and nutrient management plans to ensure use of recycled water does not degrade groundwater resources.

D. Impaired Waters on CWA 303(d) List

In October 2011, U.S. EPA approved a revised list of impaired waters pursuant to CWA section 303(d), which requires identification of specific water bodies where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. Where it has not done so already, the Regional Water Board plans to adopt total maximum daily loads (TMDLs) for pollutants on the 303(d) list. TMDLs establish wasteload allocations for point sources and load allocations for non-point sources and are established to achieve the water quality standards for the impaired waters.

The Napa River is listed as impaired by nutrients, pathogens, and sediment. San Pablo Bay, to which the Napa River is tributary, is listed for chlordane, DDT, dieldrin, dioxins and furans, mercury, nickel, PCBs, selenium, and exotic species. The SIP requires final effluent limitations for all 303(d)-listed pollutants to be consistent with TMDLs and associated wasteload allocations.

On February 12, 2008, U.S. EPA approved a TMDL for mercury in San Francisco Bay. On March 29, 2010, U.S. EPA approved a TMDL for PCBs in San Francisco Bay. The TMDLs for mercury and PCBs apply to this discharge but are implemented through NPDES Permit No. CA0038849.

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On February 29, 2008, U.S. EPA approved a TMDL for pathogens in the Napa River. This Order's total coliform effluent limitations are more stringent than the Napa River pathogens TMDL requires.

On January 21, 2011, U.S. EPA approved a TMDL for sediment in the Napa River. This Order's TSS effluent limitations are more stringent than specified by the Napa River sediment TMDL (see Basin Plan Table 7.8.4-3b, footnote a).

The discharge is a potential source of nutrients to the Napa River but is not expected to be a significant contributor to the impairment. The Napa River was listed as impaired for nutrients in the 1970s because of high nutrient levels and excessive algae growth, but water quality has significantly improved as a result of changes in agricultural practices in the watershed and reduced nutrient loads from wastewater treatment plants. In the 1980s, the Regional Water Board started prohibiting wastewater discharges to the river during the dry season when flows are naturally low because of the summer droughts in this Mediterranean climate. While the discharge prohibition in this Order does not apply exclusively to the "dry season," it serves the same function because it limits discharge to the river when there is recycled water demand, which correlates closely to the dry season. Also, the three treatment plants discharging to the non-tidal portion of the river (Calistoga, St. Helena, and Yountville) have improved their treatment processes. Receiving water nutrient concentrations (i.e., nitrate, nitrite, and ammonia) and other indicators (i.e., algae and chlorophyll *a*) are now below levels of concern. On February 12, 2014, the Regional Water Board approved a proposal to remove the nutrients listing, subject to State Water Board and U.S. EPA approval.

The discharge is not a significant source of chlordane, DDT, and dieldrin because these pollutants have not been detected in the discharge. The discharge is also not a source of exotic species because it is disinfected. It is an insignificant source of dioxins and furans, nickel, and selenium because discharge concentrations of these pollutants are consistently below water quality objectives or detection limits.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants discharged into waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of receiving waters.

A. Discharge Prohibitions

1. **Discharge Prohibition III.A (Discharge at a location or in a manner different from that described in this Order is prohibited):** This prohibition is based on 40 C.F.R. section 122.21(a) and Water Code section 13260, which require filing an application and Report of Waste Discharge before a discharge can occur. Discharges not described in the application and Report of Waste Discharge, and subsequently in this Order, are prohibited.

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2. Discharge Prohibition III.B (Discharge is prohibited unless the river flow-to-effluent flow ratio is at least 50:1): This prohibition ensures that the discharge does not fully use the assimilative capacity of the Napa River in consideration of the other permitted wastewater discharges to this same segment of the river, specifically the City of Calistoga and the Town of Yountville, because all dischargers share the same receiving water monitoring for priority pollutants. Attachment F-1 to this Fact Sheet estimates that a ratio of at least 46:1 is necessary to ensure that assimilative capacity is available for all Napa River dischargers. These relatively simple calculations involve the following assumptions:

- The mass of pollutants flowing downstream through the river equals the masses from each source flowing into the river;
- Urban runoff flows are about 15 times the combined flows of the treatment plants discharging to the river; and
- Urban runoff copper loads are about 8 times those of the wastewater discharges.

This prohibition also ensures that the river flow-to-effluent flow ratio is consistent with an underlying assumption of the mixing zone study (June 2010 Effluent Mixing Zone / Dilution Credit Study, Larry Walker Associates) that serves as the basis for dilution credits used to analyze reasonable potential for non-priority pollutants (see Fact Sheet section IV.C.3.c) and to derive water quality-based effluent limits for others (see Fact Sheet section IV.C.4).

3. Discharge Prohibition III.C (Bypass is prohibited): This prohibition is based on 40 C.F.R. section 122.41(m) (see Attachment D section I.G).

4. Discharge Prohibition III.D (Average dry weather influent flow in excess of 0.50 MGD is prohibited): This Order prohibits an average dry weather influent flow greater than 0.50 MGD because the plant design treatment capacity (i.e., its historic and tested treatment reliability) is 0.50 MGD. Exceeding this flow could result in lower reliability and greater potential to violate water quality requirements.

5. Discharge Prohibition III.E (Sanitary sewer overflows are prohibited): Basin Plan Table 4-1, Discharge Prohibition 15, and the CWA prohibit the discharge of wastewater to surface waters, except as authorized under an NPDES permit. Publicly-owned treatment works must achieve secondary treatment at a minimum and any more stringent limitations necessary to meet water quality standards (33 U.S.C. § 1311[b][1][B and C]). A sanitary sewer overflow that results in the discharge of raw sewage or wastewater not meeting this Order's effluent limitations to surface waters is therefore prohibited under the CWA and the Basin Plan.

6. Discharge Prohibition III.F (Discharge to Napa River is prohibited during dry season) and Exception to Non-Tidal Water Discharge Prohibition: Basin Plan Table 4-1, Discharge Prohibition 1, prohibits discharges to any non-tidal water. Discharge Point No. 001 discharges to the Napa River where the river is non-tidal. Discharge Prohibition III.F of this Order is similar to the previous order and maintains Basin Plan Discharge Prohibition 1 during the dry season when it is feasible to not discharge (i.e., when the treated wastewater can be discharged to irrigation fields or used to supply recycled water demand) and provides an exception when it is infeasible to not discharge (i.e., during wet weather when there is no recycled water demand or demand is low and the irrigation fields are saturated). Basin Plan

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section 4.2 provides for exceptions to Basin Plan Discharge Prohibition 1 under certain circumstances:

- An inordinate burden would be placed on a discharger relative to the beneficial uses protected, and an equivalent level of environmental protection can be achieved by alternate means;
- A discharge is approved as part of a reclamation project;
- Net environmental benefits will be derived as a result of the discharge; or
- A discharge is approved as part of a groundwater cleanup project.

The Basin Plan further states:

Significant factors to be considered by the Regional Water Board in reviewing requests for exceptions will be the reliability of the discharger's system in preventing inadequately treated wastewater from being discharged to the receiving water and the environmental consequence of such discharges.

This Order grants an exception to Basin Plan Discharge Prohibition 1 for the following reasons:

- At times, avoiding discharge to non-tidal waters is an inordinate burden. There is no feasible alternative to discharge when the irrigation field is saturated during wet weather. Regional Water Board Order No. 87-090 prohibits discharge to the Discharger's irrigation fields when they are saturated. The wastewater volume during these times can far exceed the storage capacity of the ponds.
- An equivalent level of protection is provided when the discharge meets the BOD and TSS effluent limits in Table 4 of the Order, which reflect advanced secondary treatment.

The basis for this Order granting an exception to Basin Plan Discharge Prohibition 1 is different than the basis set forth in the previous order. The previous order granted an exception based on the Discharger providing reliable treatment. However, the compliance record summarized in Fact Sheet section II.D.1 shows that assuming reliable treatment is unjustified. The new basis relies on equivalent protection resulting from more stringent BOD and TSS limits than those in the previous order. More stringent BOD and TSS limits will also improve disinfection performance to ensure compliance with total coliform limits. Moreover, it is reasonable to re-assess the appropriateness of the exemption based simply on "reliable" secondary treatment nearly four decades after the secondary treatment standards were established nationally.

The Discharger cannot immediately comply with the more stringent limits; therefore, concurrent with the adoption of this Order, the Regional Water Board considered a cease and desist order that requires actions leading to compliance with these new more stringent requirements.

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B. Conventional and Non-Conventional Pollutant Effluent Limitations

1. Scope and Authority

CWA section 301(b) and 40 C.F.R. section 122.44 require that permits include conditions meeting technology-based requirements, at a minimum, and any more stringent effluent limitations necessary to meet water quality standards. The discharges authorized by this Order must meet minimum federal technology-based requirements based on the Secondary Treatment Standards at 40 C.F.R. section 133 as summarized below. The Basin Plan contains additional requirements for certain pollutants.

Table F-7. Secondary Treatment Requirements

Parameter	Monthly Average	Weekly Average
BOD ₅ ^[1]	30 mg/L	45 mg/L
CBOD ₅ ^[1]	25 mg/L	40 mg/L
TSS	30 mg/L	45 mg/L
BOD (or CBOD) and TSS Removal	85 percent or greater	-
pH	6.0 – 9.0 standard units	

Abbreviations:

BOD₅ = biochemical oxygen demand (5 days at 20°C)

CBOD₅ = carbonaceous biochemical oxygen demand (5 days at 20°C)

Footnote:

^[1] CBOD₅ effluent limitations may be substituted for BOD₅ limitations.

2. Effluent Limitations

- a. BOD and TSS.** The BOD and TSS 85 percent removal requirement is based on secondary treatment standards. The weekly and average monthly limitations are based on performance reflective of advanced secondary treatment and are comparable to limits for other facilities in the region operating advanced secondary systems.

The TSS limits are also more stringent than necessary to comply with the Napa River sediment TMDL (Basin Plan section 7.8.4). Basin Plan Table 7.8.4-3b (footnote a) states, “For wastewater treatment plant discharges, compliance with [an] existing permit effluent limit of 30 mg/L of TSS is consistent with these wasteload allocations.”

- b. Oil and Grease.** The oil and grease effluent limitations are based on Basin Plan Table 4-2.
- c. pH.** The pH effluent limitations are based on the Secondary Treatment Standards and Basin Plan Table 4-2.
- d. Total Residual Chlorine.** The total residual chlorine effluent limitation is based on Basin Plan Table 4-2.
- e. Total Coliform.** The total coliform effluent limitations are based on Basin Plan Table 4-2A, footnotes b and d. Footnote b allows total coliform limits in lieu of enterococcus limits for intermittent discharges and discharges for which total coliform monitoring is required (e.g., at water recycling facilities). Footnote d allows exceptions to the limits listed in Table 4-2A as long as beneficial uses are not compromised and

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discharges do not exceed a five-sample median of 23 MPN/100 mL nor a maximum of 240 MPN/100 mL during dry weather. The total coliform limits are more stringent than the Napa River Pathogen TMDL requires (Basin Plan section 7.8.2 and Table 7.8.2-4 require a five-sample median less than 240 colony-forming units [CFU]/100 mL and a single-sample maximum of 10,000 CFU/100 mL).

C. Toxic Pollutant Effluent Limitations

1. Scope and Authority

For toxic pollutants, this Order contains water quality-based effluent limitations (WQBELs) that implement water quality objectives that protect beneficial uses. CWA section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than federal technology-based requirements where necessary to achieve applicable water quality standards. According to 40 C.F.R. section 122.44(d)(1)(i), permits must include effluent limitations for all pollutants that are or may be discharged at levels that have a reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective, WQBELs must be established using (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting a narrative criterion, supplemented with relevant information (40 C.F.R. § 122.44[d][1][vi]). The process for determining reasonable potential and calculating WQBELs is intended to achieve applicable water quality objectives and criteria and to protect designated uses of receiving waters as specified in the Basin Plan. This Order imposes numeric effluent limitations for toxic pollutants with reasonable potential to cause or contribute to exceedances of water quality standards.

2. Beneficial Uses and Water Quality Criteria and Objectives

Discharge Point No. 001 discharges to the Napa River. Fact Sheet section III.C.1, above, identifies the beneficial uses of the Napa River. Water quality criteria and objectives to protect these beneficial uses are described below:

- a. **Basin Plan Objectives.** The Basin Plan specifies numeric water quality objectives for many pollutants to protect aquatic life, municipal drinking water supplies, and agricultural water supplies (see Basin Plan sections 3.3.21 and 3.3.22). It also specifies several narrative water quality objectives, including objectives for toxicity, bioaccumulation, and temperature. The narrative toxicity objective states, “All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.” The narrative bioaccumulation objective states, “Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered.” The narrative temperature objective states, “The natural receiving water temperature of inland surface waters shall not be altered...,” and “The temperature of any cold or warm freshwater habitat shall not be increased by more than 5°F (2.8°C) above natural receiving water temperature.”

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- i. **Agricultural Supply Pollutants.** The agricultural supply water quality objectives listed in Basin Plan Table 3-6 include threshold and limit concentrations. Pollutant effects are observable at threshold concentrations and undesirable at limit concentrations; therefore, the limit concentrations listed in Basin Plan Table 3-6 are the applicable water quality objectives for this Order.
- ii. **Dioxins and Furans.** With respect to dioxins and furans, the narrative bioaccumulation objective is translated into a numeric criterion as follows. When the CTR was promulgated, U.S. EPA stated its support of the regulation of dioxin and dioxin-like compounds through the use of toxicity equivalencies (TEQs). U.S. EPA stated, “For California waters, if the discharge of dioxin or dioxin-like compounds has reasonable potential to cause or contribute to a violation of a narrative criterion, numeric WQBELs for dioxin or dioxin-like compounds should be included in NPDES permits and should be expressed using a TEQ scheme” (65 Fed. Reg. 31695-31696, May 18, 2000). This Order uses a TEQ scheme based on a set of toxicity equivalency factors (TEFs) the World Health Organization developed in 1998, and a set of bioaccumulation equivalency factors (BEFs) U.S. EPA developed for the Great Lakes region (40 C.F.R. part 132, Appendix F) to convert the concentration of any congener of dioxin or furan into an equivalent concentration of 2,3,7,8-tetrachlorinated dibenzo-p-dioxin (2,3,7,8-TCDD). Although the 1998 World Health Organization scheme includes TEFs for dioxin-like PCBs, they are not included in this Order’s TEQ scheme. The CTR has established a specific water quality criterion for PCBs, and dioxin-like PCBs are included in the analysis of total PCBs.

The CTR establishes a numeric water quality objective for 2,3,7,8-TCDD of 1.4×10^{-8} µg/L for the protection of human health when aquatic organisms are consumed. The CTR criterion is used as a criterion for dioxin-TEQ because dioxin-TEQ represents a toxicity-weighted concentration equivalent to 2,3,7,8-TCDD, thus translating the narrative bioaccumulation objective into a numeric criterion.

- iii. **Total Ammonia.** Basin Plan section 3.3.20 contains water quality objectives for un-ionized ammonia of 0.025 mg/L as an annual median and 0.16 mg/L as a maximum for Central San Francisco Bay and upstream waters. Using the receiving water temperature, salinity levels, and pH concentrations, as explained below, this translates to 52 mg/L (as nitrogen) as the chronic objective for total ammonia and 64 mg/L (as nitrogen) as the acute total ammonia objective. Translation is necessary since (1) sampling and laboratory methods are unavailable to analyze for un-ionized ammonia, and (2) the fraction of total ammonia that exists in the toxic un-ionized form depends on the pH, salinity, and temperature of the receiving water.

To translate the un-ionized ammonia objectives, pH, salinity, and temperature data were obtained from the Napa River from December 2010 through December 2012. The un-ionized fraction of total ammonia was calculated as follows:

$$\text{For salinity} < 10 \text{ ppt: fraction of NH}_3 = \frac{1}{1 + 10^{(pK - pH)}}$$

Where:

$$pK = 0.09018 + \frac{2729.92}{T}$$

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T = Temperature (Kelvin)

The median and maximum un-ionized ammonia fractions were then used to express the daily maximum and the annual average un-ionized objectives as chronic and acute total ammonia criteria. The results were 52 mg/L for the chronic objective and 64 mg/L for the acute objective.

- b. CTR Criteria.** The CTR specifies numeric aquatic life and human health criteria for numerous priority pollutants. These criteria apply to inland surface waters and enclosed bays and estuaries. Some human health criteria are for consumption of “water and organisms” and others are for consumption of “organisms only.” The criteria applicable to “water and organisms” apply to the Napa River because it is a potential source of drinking water.
- c. NTR Criteria.** The NTR establishes numeric aquatic life and human health criteria for a number of toxic pollutants for San Francisco Bay waters upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. The NTR criteria apply to the Napa River.
- d. Receiving Water Salinity.** The Napa River is a freshwater river in the vicinity of the discharge. As confirmed by the *Collaborative Napa River Receiving Water Evaluation* (2003), Napa River salinity in all samples upstream and downstream of the discharge falls below one part per thousand, indicating a freshwater environment. Therefore, the freshwater water quality objectives from the Basin Plan, NTR, and CTR apply to this discharge.
- e. Receiving Water Hardness.** Ambient hardness data were used to calculate freshwater water quality objectives that are hardness dependent. Six data were collected downstream of the discharge point between April 2010 and December 2012. The average hardness of 69 mg/l was used to calculate the water quality objectives.
- f. Site-Specific Metals Translators.** Effluent limitations for metals must be expressed as total recoverable metal (40 C.F.R. § 122.45[c]). Since the water quality objectives for metals are typically expressed as dissolved metal, translators must be used to convert metals concentrations from dissolved to total recoverable and vice versa. The CTR contains default translators; however, site-specific conditions, such as water temperature, pH, total suspended solids, and organic carbon may affect the form of metal (dissolved, non-filterable, or otherwise) present and therefore available to cause toxicity. In general, dissolved metals are more available and more toxic to aquatic life than other forms. Site-specific translators can account for site-specific conditions, thereby preventing overly stringent or under-protective water quality objectives. In determining the need for and calculating WQBELs for all applicable metals, CTR default translators were used.

3. Need for Water Quality-Based Effluent Limitations (Reasonable Potential Analysis)

Assessing whether a pollutant has reasonable potential to exceed a water quality objective is the fundamental step in determining whether a WQBEL is required.

- a. Available Information.** The reasonable potential analysis for this Order is based on

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effluent monitoring data the Discharger collected from November 2010 to March 2015, as supplemented by effluent data the Discharger collected in March 2015 (for pollutant objectives listed in Basin Plan Tables 3-5 and 3-6). The reasonable potential analysis is based on ambient monitoring data the Discharger collected from April 2007 to February 2009 and data reported in *Collaborative Napa River Receiving Water Evaluation* (2003).

In some cases, reasonable potential cannot be determined because effluent data are limited or ambient background concentrations are unavailable. Provision VI.C.2 of the Order requires the Discharger to continue monitoring for such constituents in its effluent using analytical methods that provide the best feasible detection limitations. When additional data become available, further analysis will be conducted to determine whether numeric effluent limitations are necessary.

This Order does not contain WQBELs for constituents that do not demonstrate reasonable potential; however, Provision VI.C.2 of the Order still requires monitoring for such pollutants. If concentrations are found to have increased significantly, Provision VI.C.2 of the Order requires the Discharger to investigate the sources of the increases and implement remedial measures if the increases pose a threat to receiving water quality.

b. Priority Pollutants. For the priority pollutants (including those with Basin Plan water quality objectives for municipal and agricultural supply beneficial uses), the reasonable potential analysis for this Order is based on the methodology set forth in SIP section 1.3. Dioxin-TEQ is also included because these objectives are intended to protect aquatic life and human health, similar to the priority pollutant objectives. The analysis begins with identifying the maximum effluent concentration (MEC) observed for each pollutant based on available effluent concentration data and the ambient background concentration (B). SIP section 1.4.3 states that ambient background concentrations are either the maximum ambient concentration observed or, for water quality objectives intended to protect human health, the arithmetic mean of observed concentrations. There are three triggers in determining reasonable potential:

- i. Trigger 1** is activated if the maximum effluent concentration is greater than or equal to the lowest applicable water quality objective ($MEC \geq$ water quality objective).
- ii. Trigger 2** is activated if the ambient background concentration observed in the receiving water is greater than the lowest applicable water quality objective ($B >$ water quality objective), *and* the pollutant is detected in any effluent sample.
- iii. Trigger 3** is activated if a review of other information indicates that a WQBEL is needed to protect beneficial uses.

The maximum effluent concentrations (MECs), most stringent applicable water quality criteria and objectives, and background concentrations used in the analysis are presented below, along with the reasonable potential analysis results (yes or no) for each pollutant. The pollutants that exhibit reasonable potential are copper and cyanide by Trigger 1.

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Table F-8. Priority Pollutant Reasonable Potential Analysis

CTR No.	Pollutants	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) ^{[1][2]}	B or Minimum DL (µg/L) ^{[1][2]}	RPA Results ^[3]
1	Antimony	6	0.16	1.8	No
2	Arsenic	50	1.4	4.3	No
3	Beryllium	4	<0.09	0.06	U
4	Cadmium	0.85	0.06	<0.02	No
5a	Chromium (III)	50	---	1.8	U
5b	Chromium (VI)	11	<4.5	<0.6	No
6	Copper	6.8	6.9	3.1	Yes
7	Lead	2.0	0.45	1.1	No
8	Mercury (303(d) listed) ^[4]	---	---	---	---
9	Nickel	38	5	4.1	No
10	Selenium (303(d) listed)	5.0	<0.4	3.0	No
11	Silver	2.1	0.04	0.02	No
12	Thallium	1.7	<0.05	<0.01	No
13	Zinc	87	17	12	No
14	Cyanide	5.2	23	<0.6	Yes
16	2,3,7,8-TCDD	1.4 E-08	<5.3 E-07	<3.4 E-07	U
	Dioxin-TEQ	1.4 E-08	<3.4 E-07	1.1 E-11	U
17	Acrolein	320	2.8	<1.2	No
18	Acrylonitrile	0.059	<0.69	<0.58	U
19	Benzene	1	<0.18	<0.10	No
20	Bromoform	4.3	<0.15	<0.10	No
21	Carbon Tetrachloride	0.25	<0.16	<0.06	No
22	Chlorobenzene	70	<0.18	<0.1	No
23	Chlorodibromomethane	0.40	<0.17	<0.08	No
24	Chloroethane	No Criteria	<0.38	<0.11	U
25	2-Chloroethylvinyl ether	No Criteria	<0.28	<0.29	U
26	Chloroform	No Criteria	1.4	<0.09	U
27	Dichlorobromomethane	0.56	<0.17	<0.08	No
28	1,1-Dichloroethane	5	<0.19	<0.06	No
29	1,2-Dichloroethane	0.38	<0.18	<0.09	No
30	1,1-Dichloroethylene	0.057	<0.21	<0.07	U
31	1,2-Dichloropropane	0.52	<0.18	<0.07	No
32	1,3-Dichloropropylene	0.5	<0.16	<0.07	No
33	Ethylbenzene	300	<0.26	<0.09	No
34	Methyl Bromide	48	<0.17	<0.06	No
35	Methyl Chloride	No Criteria	<0.23	<0.09	U
36	Methylene Chloride	4.7	<0.2	<0.08	No
37	1,1,2,2-Tetrachloroethane	0.17	<0.1	<0.07	No
38	Tetrachloroethylene	0.8	<0.19	<0.12	No
39	Toluene	150	1.2	<0.06	No
40	1,2-Trans-Dichloroethylene	10	<0.22	<0.09	No
41	1,1,1-Trichloroethane	200	<0.19	<0.11	No
42	1,1,2-Trichloroethane	0.6	<0.16	<0.06	No

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CTR No.	Pollutants	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) ^{[1][2]}	B or Minimum DL (µg/L) ^{[1][2]}	RPA Results ^[3]
43	Trichloroethylene	2.7	<0.2	<0.07	No
44	Vinyl Chloride	0.5	<0.25	<0.14	No
45	2-Chlorophenol	120	<0.98	<0.80	No
46	2,4-Dichlorophenol	93	<0.99	<0.70	No
47	2,4-Dimethylphenol	540	<0.87	<0.80	No
48	2-Methyl- 4,6-Dinitrophenol	13.4	<0.91	<0.60	No
49	2,4-Dinitrophenol	70	<0.83	<0.60	No
50	2-Nitrophenol	No Criteria	<0.89	<0.60	U
51	4-Nitrophenol	No Criteria	<0.83	<0.70	U
52	3-Methyl 4-Chlorophenol	No Criteria	<0.91	<0.60	U
53	Pentachlorophenol	0.28	<0.81	<0.60	U
54	Phenol	21000	<0.69	<0.60	No
55	2,4,6-Trichlorophenol	2.1	<0.97	<0.60	No
56	Acenaphthene	1200	<0.03	<0.03	No
57	Acenaphthylene	No Criteria	<0.03	<0.02	U
58	Anthracene	9600	<0.03	0.02	No
59	Benzidine	0.00012	<5	<5.0	U
60	Benzo(a)Anthracene	0.0044	<0.03	<0.02	U
61	Benzo(a)Pyrene	0.0044	<0.03	<0.02	U
62	Benzo(b)Fluoranthene	0.0044	<0.03	<0.02	U
63	Benzo(ghi)Perylene	No Criteria	<0.03	<0.02	U
64	Benzo(k)Fluoranthene	0.0044	<0.03	<0.03	U
65	Bis(2-Chloroethoxy)Methane	No Criteria	<0.93	<0.70	U
66	Bis(2-Chloroethyl)Ether	0.031	<0.93	<0.90	U
67	Bis(2-Chloroisopropyl)Ether	1400	<0.95	<0.60	No
68	Bis(2-Ethylhexyl)Phthalate	1.8	<0.81	<0.60	No
69	4-Bromophenyl Phenyl Ether	No Criteria	<0.97	<0.97	U
70	Butylbenzyl Phthalate	3000	<0.98	<0.70	No
71	2-Chloronaphthalene	1700	<0.98	<0.98	No
72	4-Chlorophenyl Phenyl Ether	No Criteria	<0.99	<0.99	U
73	Chrysene	0.0044	<0.03	<0.02	U
74	Dibenzo(a,h)Anthracene	0.0044	<0.03	<0.02	U
75	1,2-Dichlorobenzene	600	<0.27	<0.11	No
76	1,3-Dichlorobenzene	400	<0.18	<0.11	No
77	1,4-Dichlorobenzene	5	<0.18	<0.10	No
78	3,3 Dichlorobenzidine	0.04	<5	<0.10	U
79	Diethyl Phthalate	23000	<0.86	<0.60	No
80	Dimethyl Phthalate	313000	<0.97	<0.70	No
81	Di-n-Butyl Phthalate	2700	<0.91	<0.60	No
82	2,4-Dinitrotoluene	0.11	<0.96	<0.60	U
83	2,6-Dinitrotoluene	No Criteria	<0.98	<0.60	U
84	Di-n-Octyl Phthalate	No Criteria	<0.92	<0.70	U
85	1,2-Diphenylhydrazine	0.04	<0.9	<0.60	U
86	Fluoranthene	300	<0.03	<0.02	No

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CTR No.	Pollutants	C or Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) ^{[1][2]}	B or Minimum DL (µg/L) ^{[1][2]}	RPA Results ^[3]
87	Fluorene	1300	<0.03	<0.02	No
88	Hexachlorobenzene	0.00075	<0.91	<0.91	U
89	Hexachlorobutadiene	0.44	<0.92	<0.92	U
90	Hexachlorocyclopentadiene	50	<0.9	<0.80	No
91	Hexachloroethane	1.9	<0.94	<0.94	No
92	Indeno(1,2,3-cd)Pyrene	0.0044	<0.03	<0.02	U
93	Isophorone	8.4	<0.93	<0.8	No
94	Naphthalene	No Criteria	<0.03	<0.02	U
95	Nitrobenzene	17	<0.95	<0.70	No
96	N-Nitrosodimethylamine	0.00069	<0.88	<0.80	U
97	N-Nitrosodi-n-Propylamine	0.005	<0.97	<0.60	U
98	N-Nitrosodiphenylamine	5	<0.83	<0.60	No
99	Phenanthrene	No Criteria	<0.03	0.04	U
100	Pyrene	960	<0.03	<0.02	No
101	1,2,4-Trichlorobenzene	5	<0.98	<0.98	No
102	Aldrin	0.00013	<0.0047	<0.002	U
103	Alpha-BHC	0.0039	<0.005	<0.002	U
104	Beta-BHC	0.014	<0.004	<0.002	No
105	Gamma-BHC	0.019	<0.004	<0.002	No
106	Delta-BHC	No Criteria	<0.004	<0.02	U
107	Chlordane (303(d) listed)	0.00057	<0.005	<0.003	U
108	4,4'-DDT (303(d) listed)	0.00059	<0.004	<0.003	U
109	4,4'-DDE (linked to DDT)	0.00059	<0.003	<0.003	U
110	4,4'-DDD	0.00083	<0.004	<0.002	U
111	Dieldrin (303d listed)	0.00014	<0.004	<0.003	U
112	Alpha-Endosulfan	0.056	<0.004	<0.003	No
113	beta-Endosulfan	0.056	<0.005	<0.002	No
114	Endosulfan Sulfate	110	<0.005	<0.002	No
115	Endrin	0.036	<0.005	<0.002	No
116	Endrin Aldehyde	0.76	<0.005	<0.002	No
117	Heptachlor	0.00021	<0.005	<0.003	U
118	Heptachlor Epoxide	0.0001	<0.004	<0.002	U
119-125	PCBs sum (303(d) listed) ^[4]	---	---	---	---
126	Toxaphene	0.0002	<0.2	---	U

Unit Abbreviations:

mg/L = milligrams per liter

µg/L = micrograms per liter

Footnotes:

^[1] The maximum effluent concentration and ambient background concentration are the actual detected concentrations unless preceded by a "<" sign, in which case the value shown is the minimum detection level (DL).

^[2] The maximum effluent concentration or ambient background concentration is "Unavailable" when there are no monitoring data for the constituent.

^[3] RPA Results = Yes, if MEC ≥ WQC, B > WQC and MEC is detected, or Trigger 3
= No, if MEC and B are < WQC or all effluent data are undetected
= Unknown, cannot determine (U), if no criteria have been promulgated or data are insufficient.

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^[4] SIP section 1.3 excludes from its reasonable potential analysis procedure priority pollutants for which a TMDL has been developed. TMDLs have been developed for mercury and PCBs in San Francisco Bay. Mercury and PCBs from wastewater discharges are regulated by NPDES Permit No. CA0038849, which implements the San Francisco Bay Mercury and PCBs TMDLs.

- c. Municipal and Agricultural Supply Pollutants.** Municipal and agricultural supply are beneficial uses of the Napa River. For water quality objectives designed to protect municipal and agricultural supply (see Basin Plan Tables 3-5 and 3-6), except for those already analyzed in Table F-8, the reasonable potential analysis is based on the *Technical Support Document for Water Quality-based Toxics Control* (Technical Support Document or TSD) (EPA/505/2-90-001). The TSD allows reasonable potential analyses using either receiving water concentrations projected from effluent data or measured receiving water concentrations. The analysis presented in Table F-9 is based on the method that predicts receiving water quality based on pollutant concentrations, a confidence interval, and the number of samples available. The first step is to calculate the percentile, p_n , represented by the maximum effluent concentration (MEC) in a set of n samples based on the desired confidence level, e.g., 95% or 99% (the higher the confidence level, the more conservative the analysis).

$$p_n = (1 - \text{confidence level})^{1/n}$$

Only one sample was taken for these pollutants in this analysis. Using a 95 percent confidence interval, the percentile is:

$$p_1 = (1 - 0.95)^{1/1} = 0.05$$

For a normal distribution, the Z-score for 0.95 percentile is:

$$Z_{0.95} = 1.64$$

The concentration multiplying factor (C)¹ corresponding to the MEC percentile (C_{p_n}) and the selected upper bound percentile ($C_{p_{upper\ bound}}$) is found using the following equation, where $\sigma^2 = \ln(CV^2 + 1)$, p is the percentile ($p_{upper\ bound}$ or p_n), and z_p is the standard normal distribution value for the percentile p :

$$C_p = \exp(Z_p \sigma - 0.5 \sigma^2)$$

Assuming the coefficient of variation (CV) is 0.6 (the TSD assumes 0.6 whenever there are fewer than ten samples), the variability $\sigma^2 = \ln(CV^2 + 1) = 0.307$. Therefore,

$$\begin{aligned} C_{0.05} &= \exp(Z_{0.05} \sigma - 0.5 \sigma^2) = \exp(-1.64 * 0.55 - 0.5 * 0.55^2) = 0.35 \\ C_{upper\ bound} &= C_{0.95} = \exp(Z_{0.95} \sigma - 0.5 \sigma^2) = \exp(1.64 * 0.55 - 0.5 * 0.55^2) = 2.13 \end{aligned}$$

The concentration ratio (R) is calculated using the following equation:

$$R = \frac{C_{upper\ bound}}{C_{p_n}} = \frac{2.13}{0.35} = 6.1$$

¹ The TSD refers to these values as “reasonable potential multiplying factors.” In this context, they are directly proportional to the effluent concentrations at the corresponding percentiles.

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The Discharger's mixing zone study (June 2010 Effluent Mixing Zone / Dilution Credit Study, Larry Walker Associates) indicates that the effluent plume is diluted 21:1 (i.e., 20 parts river water for each part effluent or $D = 20$) about 225 feet downstream from Discharge Point No. 001 when the river flow-to-effluent flow ratio is 50:1. Discharge Prohibition III.B maintains this ratio, and Fact Sheet section IV.C.4.a justifies a mixing zone as large as 225 feet downstream. Therefore, to calculate the receiving water concentration, this analysis assumes a dilution factor of $D=20$. This dilution factor accounts for upstream discharges (Calistoga), which for the purpose of this calculation are assumed to contain pollutant concentrations similar to those of this discharge (few data are available for the pollutants listed in Table F-7).

Using $R=6.1$ and $D=20$, the projected maximum receiving water concentrations (RWC) is then estimated using the following equation:

$$RWC = MEC \times R / \text{dilution factor} = MEC \times 0.305$$

The most stringent applicable water quality objectives, maximum effluent concentrations, and calculated receiving water concentrations (RWC) are presented below, along with the reasonable potential analysis results (yes or no) for each pollutant. Reasonable potential was not exhibited for any pollutants.

Table F-9. Municipal and Agricultural Supply Pollutant Reasonable Potential Analysis

Pollutant	Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) ^[1]	RWC (µg/L) ^[1]	RPA Results ^[2]
Total Dissolved Solids	500,000	430,000	130,000	No
Electrical Conductivity	900 mmhos/cm	630 mmhos/cm	190 mmhos/cm	No
Aluminum	200	310	95	No
Barium	1,000	44	13	No
Boron	2,000	200	61	No
Chloride	360,000	65	20	No
Cobalt	5,000	1	0.3	No
Fluoride	600	<0.1	<0.1	No
Iron	300	780	240	No
Lithium	2,500	6.9	2.1	No
Manganese	50	140	43	No
Molybdenum	50	0.95	0.58	No
Nitrate (as NO ₃)	45,000	---	---	U
Nitrate + Nitrite (as N)	5,000	1,300	390	No
Nitrite (as N)	1,000	---	---	U
Sulfate	250,000	46,000	28,000	No
Vanadium	1,000	3.3	2.0	No
MBAS (foaming agents)	500	200	61	No
Phenols	1.0	<1.0	<1.0	No
Trihalomethanes	100	1.2	0.40	No
Lindane	0.2	<0.04	<0.04	No
Methoxychlor	30	<0.005	<0.005	No
2,4-D	70	<0.028	<0.028	No
2,4,4-TP Silvex	50	<0.2	<0.2	No

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Pollutant	Governing Criterion or Objective (µg/L)	MEC or Minimum DL (µg/L) ^[1]	RWC (µg/L) ^[1]	RPA Results ^[2]
Alachlor	2.0	<0.022	<0.022	No
Atrazine	1.0	<0.048	<0.048	No
Bentazon	18	<0.063	<0.063	No
Dalapon	200	<0.12	<0.12	No
Dinoseb	7.0	<0.2	<0.2	No
Diquat	20	<0.34	<0.34	No
Endothall	100	<2.7	<2.7	No
Ethylene dibromide	0.05	<0.0057	<0.0057	No
Glyphosate	700	<1.6	<1.6	No
Molinate	20	<0.015	<0.015	No
Oxaryl	50	<0.40	<0.40	No
Picloram	500	<0.015	<0.015	No
Simazine	4.0	<0.028	<0.028	No
Thiobencarb	1.0	<0.008	<0.008	No
1,2-dibromo-3-chloropropane	0.2	<0.01	<0.01	No
Cis-1,2-dichloroethylene	6.0	<0.20	<0.20	No
Methyl-tert-butyl ether	5	<0.15	<0.15	No
Monochlorobenzene	70	<0.5	<0.5	No
Styrene	100	<0.5	<0.5	No
Trichlorofluoromethane	150	<0.29	<0.29	No
1,1,2-trichloro-1,2,2-trifluoromethane	1,200	<1.0	<1.0	No

Unit Abbreviations:

µg/L = micrograms per liter
mmhos/cm = millisiemens per centimeter

Footnotes:

^[1] The maximum effluent concentration and ambient background concentration are the actual detected concentrations unless preceded by a "<" sign, in which case the value shown is the minimum detection level (DL).

^[2] RPA Results = Yes, if RWC ≥ WQC
= No, if RWC < WQC or all effluent data are undetected
= Unknown, cannot determine (U), if no criteria have been promulgated or data are insufficient.

d. Ammonia. Reasonable potential for ammonia was evaluated using two approaches, one based on effluent ammonia concentrations and one based on receiving water ammonia concentrations.

i. Effluent Approach. The effluent approach uses the TSD method described in Fact Sheet section IV.C.3.c above. Four un-ionized ammonia effluent samples were collected between December 2010 and December 2012. Using a 95 percent confidence interval, the percentile is:

$$p_1 = (1 - 0.95)^{1/5} = 0.473$$

For a normal distribution, the Z-score for 0.95 percentile is:

$$Z_{0.473} = -0.07$$

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The concentration multiplying factor (C) corresponding to the MEC percentile (C_{Pn}) and the selected upper bound percentile ($C_{P \text{ upper bound}}$) is found using the following equations, assuming the coefficient of variation (CV) is 0.6:

$$C_{0.05} = \exp(Z_{0.473}\sigma - 0.5\sigma^2) = \exp(-0.07 * 0.55 - 0.5 * 0.55^2) = 0.83$$

$$C_{\text{upperbound}} = C_{0.95} = \exp(Z_{0.95}\sigma - 0.5\sigma^2) = \exp(1.64 * 0.55 - 0.5 * 0.55^2) = 2.13$$

The concentration ratio (R) is calculated using the following equation:

$$R = \frac{C_{\text{upperbound}}}{C_{Pn}} = \frac{2.13}{0.83} = 2.58$$

Using R=2.32 and assuming no dilution, the projected maximum receiving water concentration (RWC) is estimated using the following equation, where the MEC is expressed as un-ionized ammonia based on effluent temperature and pH as described in Fact Sheet section IV.C.2.a.ii above:

$$\text{RWC} = \text{MEC} \times R = 0.063 \text{ mg/L} \times 2.58 = 0.16 \text{ mg/L}$$

This projected RWC is equals the acute water quality objective (0.016 mg/L) and is greater than the chronic water quality objective (0.025 mg/L), indicating reasonable potential.

- ii. **Receiving Water Approach.** The receiving water approach is based on four receiving water samples collected about 100 feet downstream of the discharge outfall from December 2010 through December 2012. Un-ionized ammonia concentrations are calculated based on receiving water temperature and pH as described in Fact Sheet section IV.C.2.a.ii above. The observed maximum concentration (0.0033 mg/L) was less than the acute water quality objective (0.16 mg/L) and the observed median concentration (0.00042 mg/L) was less than the chronic water quality objective (0.025 mg/L). Therefore, reasonable potential is not triggered using this approach. Nevertheless, since the effluent approach results in reasonable potential, this Order contains ammonia WQBELs.
- e. **Temperature.** Basin Plan section 3.3.17 prohibits the alteration of natural receiving water temperatures such that beneficial uses are adversely affected and temperature increases greater than 2.8°C above natural receiving water temperatures. Receiving water and effluent monitoring from April 2010 through December 2014 showed no significant difference between the upstream, downstream, and effluent monitoring stations. Therefore, the discharge will not increase the river temperature, and there is no reasonable potential for temperature to exceed the Basin Plan water quality objective.
- f. **Acute Toxicity.** Basin Plan section 4.5.5.3.1 requires acute toxicity monitoring and limitations, implying there is reasonable potential for the discharge to cause or contribute to exceedances of the acute toxicity water quality objective.
- g. **Chronic Toxicity.** Consistent with Basin Plan section 4.5.5.3.2, the Discharger does not monitor for chronic toxicity because the Facility is small, there are no industrial dischargers within its service area, and its discharges are intermittent. For these same

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reasons, there is no reasonable potential for the discharge to cause or contribute to exceedances of the chronic toxicity water quality objective.

4. Water Quality-Based Effluent Limitations (WQBELs)

WQBELs were developed for the pollutants determined to have reasonable potential to cause or contribute to exceedances of water quality objectives. The WQBELs are based on the procedure specified in SIP section 1.4, which is required for priority pollutants. SIP section 1.4 is used as guidance for other pollutants.

- a. Mixing Zones and Dilution Credits.** The Order provides dilution credits for cyanide and copper. The SIP allows dilution credits for completely-mixed discharges and, under certain circumstances, incompletely-mixed discharges. The discharge is incompletely-mixed as defined in the SIP (more than 5 percent difference in pollutant concentrations in a cross section of the river within two river widths downstream). The outfall does not have a diffuser.

A CORMIX model was run under various flow conditions with a 50:1 river flow-to-wastewater flow ratio. According to the Discharger's mixing zone study (June 2010 Effluent Mixing Zone / Dilution Credit Study, Larry Walker Associates), within 25 feet downstream, the model estimated the plume had 6:1 dilution and spread 5 to 10 feet across the channel due to lateral momentum. At about 100 feet downstream, the plume was fully mixed vertically and spread about 12 feet across the channel. A dye tracer study provided similar results; the dye was diluted by at least 5:1 within this zone and spread across half of the river's width 100 feet downstream.

The dilution ratio was 21:1 by about 225 feet downstream under worst-case conditions (e.g., maximum daily average flow of 8.1 MGD). As discussed in Fact Sheet section IV.C.3.c, above, a mixing zone extending 225 feet downstream was used for the reasonable potential analysis for most non-priority pollutants with municipal or agricultural supply water quality objectives. A mixing zone extending no more than 225 feet downstream from the outfall meets SIP section 1.4.2.2.A requirements because it will not do any of the following:

- i. Compromise the integrity of the water body.** The mixing zone will not compromise the integrity of the receiving waters because it is small (less than 225 feet) relative to the size of the Napa River (55 miles).
- ii. Cause acute toxicity to aquatic life passing through the mixing zone.** Acutely toxic conditions will not exist inside the mixing zone because this Order contains acute toxicity effluent limits and requires acute toxicity testing to demonstrate compliance. These limits do not account for any dilution; therefore, compliance with these limits protects areas within the mixing zones. Bioassay monitoring conducted on fathead minnow during the past permit cycle showed high survival rates, indicating that organisms passing through the mixing zone are unlikely to experience acute toxicity.
- iii. Restrict the passage of aquatic life.** The mixing zone will not restrict the passage of aquatic life because the mixing zone is small compared to the size of the river at the

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discharge location. The mixing zone extends about 100 feet downstream and about 12 feet from the bank. The width of the river is about 40 feet. Aquatic organisms can easily pass around the mixing zone.

iv. Adversely affect biologically sensitive or critical habitats, including, but not limited to, habitats of species under federal or State endangered species laws.

The Napa River has two potential species of concern in the area. Steelhead (*Oncorhynchus mykiss irideus*) is a federally-listed “threatened” species known to spawn in the Napa River in January and February. The western pond turtle (*Actinemys marmorata*) is a State-listed species of special concern. Since turtles breathe air, they are unlikely to be adversely affected by contact with diluted effluent. Steelhead may take in pollutants through their gills as they pass through the mixing zone, but, because the mixing zone extends only 12 feet from the bank and 100 feet downstream, steelhead are unlikely to reside within the mixing zone for any significant duration that could adversely affect them.

v. Produce undesirable or nuisance aquatic life. The mixing zone will not produce undesirable or nuisance aquatic life. Cyanide and copper are not biostimulants or plant nutrients so they will not cause growth of aquatic nuisance species. Moreover, this Order imposes receiving water limitations that prohibit bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses.

vi. Result in floating debris, oil, or scum. The mixing zone will not result in floating debris, oil, or scum because the effluent receives treatment that will eliminate oils, grease, debris, and scum. In addition, this Order imposes receiving water limitations that prohibit floating debris, oil, or scum at any place and at any time.

vii. Produce objectionable color, odor, taste, or turbidity. The mixing zone will not produce objectionable color, odor, taste, or turbidity because the effluent receives treatment and is disinfected prior to discharge. Secondary treatment generally addresses objectionable odor, taste, and turbidity through the biological degradation of organic compounds and clarification. In addition, this Order prohibits alteration of color or turbidity beyond natural background levels.

viii. Cause objectionable bottom deposits. The mixing zone will not cause objectionable bottom deposits because the effluent receives treatment and is free of settleable solids. In addition, this Order prohibits bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses.

ix. Cause nuisance. The mixing zone will not cause a nuisance because the effluent receives treatment and is disinfected prior to discharge. This Order prohibits discharges from causing a nuisance, which Water Code section 13050(m) defines to mean anything that meets all three of the following criteria:

- is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property;

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- affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and
 - occurs during, or as a result of, the treatment or disposal of wastes.
- x. **Dominate the receiving water body or overlap a mixing zone from a different outfall.** The mixing zone will not overlap any other mixing zone because the Regional Water Board has not established any other mixing zone nearby.
- xi. **Be located at or near any drinking water intake.** There are no drinking water intakes within 225 feet of the outfall.

In compliance with SIP section 1.4.2.2.B, the mixing zone protects all beneficial uses and complies with all regulatory requirements. Copper and cyanide are not carcinogenic, bioaccumulative, or persistent in the environment. Moreover, the Napa River flows freely at the point of discharge and flushes and dilutes pollutants downstream.

SIP section 1.4.2.2 requires mixing zones to be as small as practicable. To ensure that the cyanide and copper mixing zones are as small as possible, the cyanide and copper WQBELs are based on the smallest possible dilution credits ($D = 3$ and $D = 1$). Based on current performance, these dilution credits are minimum necessary for the Discharger to consistently meet the resulting WQBELs. These dilution credits are much smaller than the dilution credit associated with the 225-foot mixing zone ($D = 20$).

- b. **WQBEL Calculations.** For those pollutants with reasonable potential, average monthly effluent limitations (AMELs) and maximum daily effluent limitations (MDELs) were calculated as shown in the table below:

Table F-10. WQBEL Calculations

PRIORITY POLLUTANTS	Cyanide	Copper	Total Ammonia (acute)	Total Ammonia (chronic)
Units	µg/L	µg/L	mg/L N	mg/L N
Basis and Criteria type	NTR	Basin Plan	Basin Plan Aquatic Life	Basin Plan Aquatic Life
Criteria -Acute	22	9.9	64	---
Criteria -Chronic	5.2	6.8	---	52
Criteria –Human Health	---	---	---	---
Water Effects Ratio (WER)	1	1	1	1
Lowest WQO	5.2	6.8	64	52
Dilution Factor (D) (if applicable)	3.0	1.0	0	0
No. of samples per month	4	4	4	30 ^[1]
Aquatic life criteria analysis required? (Y/N)	Y	Y	Y	Y
HH criteria analysis required? (Y/N)	Y	N	N	N
Applicable Acute WQO	22	9.9	64	---
Applicable Chronic WQO	5.2	6.8	---	52

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PRIORITY POLLUTANTS	Cyanide	Copper	Total Ammonia (acute)	Total Ammonia (chronic)
Units	µg/L	µg/L	mg/L N	mg/L N
HH criteria	220,000	---	---	---
Background (Maximum Conc for Aquatic Life calc)	0.60	3.10	0.40	0.40
Background (Average Conc for Human Health calc)	0.60	---	---	---
Is the pollutant on the 303d list and/or bioaccumulative (Y/N)?	N	N	N	N
ECA acute	86	17	64	---
ECA chronic	19	10	---	52
ECA HH	700	---	---	---
No. of data points <10 or at least 80% of data reported non detect? (Y/N)	N	N	N	N
Avg of effluent data points	12	4.2	8.7	8.7
Std Dev of effluent data points	0.75	0.08	0.34	0.34
CV calculated	0.60	0.80	0.04	0.04
CV (Selected) - Final	0.60	0.60	0.60	0.60
ECA acute mult99	0.32	0.32	0.32	----
ECA chronic mult99	0.53	0.53	---	0.93
LTA acute	28	5.3	21	---
LTA chronic	10	5.5	---	48
minimum of LTAs	10	5.3	21	48
AMEL mult95	1.6	1.6	1.6	1.2
MDEL mult99	3.1	3.1	3.1	3.1
AMEL (aq life)	16	8.3	32	57
MDEL(aq life)	31	17	64	150
MDEL/AMEL Multiplier	2.0	2.0	2.0	2.6
AMEL (human hlth)	700	---	---	---
MDEL (human hlth)	1,400	---	----	---
minimum of AMEL for Aq. life vs HH	16	8.3	32	57
minimum of MDEL for Aq. Life vs HH	31	17	64	150
Previous order limit (average monthly)	15	14	16	16
Previous order limit (maximum daily)	30	24	39	39
Final limit - AMEL	15	8.3	16	16
Final limit - MDEL	30	17	39	39

Footnote:

^[1] Statistical adjustments were made to the total ammonia WQBEL calculations. The SIP assumes a 4-day average concentration and a monthly sampling frequency of 4 days per month to calculate effluent limitations based on

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chronic criteria, but the Basin Plan chronic water quality objective for un-ionized ammonia is based on an annual median instead of the typical 4-day average. Therefore, a 365-day average and a monitoring frequency of 30 days per month (the maximum daily sampling frequency in a month since the averaging period for the chronic criteria is longer than 30 days) were used. These statistical adjustments are supported by U.S. EPA's *Water Quality Criteria; Notice of Availability; 1999 Update of Ambient Water Quality Criteria for Ammonia* (64 Fed. Reg. 71974-71980, December 22, 1999).

- c. **Acute Toxicity QBELs.** This Order includes whole effluent acute toxicity QBELs based on Basin Plan Table 4-3. Bioassays are to be performed as specified in the MRP. Based on Basin Plan section 3.3.20, if the Discharger can demonstrate that ammonia causes acute toxicity in excess of the whole effluent acute toxicity QBELs, and that the ammonia in the discharge complies with the total ammonia QBELs in this Order, then such toxicity does not constitute a violation of the whole effluent acute toxicity QBELs.

D. Discharge Requirement Considerations

1. **Anti-backsliding.** This Order complies with the anti-backsliding provisions of CWA sections 402(o) and 303(d)(4), and 40 C.F.R. section 122.44(l), which generally require effluent limitations in a reissued permit to be as stringent as those in the previous order. The requirements of this Order are at least as stringent as those in the previous order.

This Order does not retain QBELs for dioxin-TEQ from the previous order because data do not indicate reasonable potential to exceed water quality objectives. This is consistent with State Water Board Order No. WQ 2001-16.

2. **Antidegradation.** This Order complies with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16. It continues the status quo with respect to the level of discharge authorized in the previous order, which is the baseline by which to measure whether degradation will occur. This Order does not allow for an increase in flow, a reduced level of treatment, or less stringent effluent limitations relative to those in the previous order.

This Order removes a prohibition in the previous order against discharge of elevated temperature into the Napa River; however, this removal will not degrade water quality because monitoring during the past permit cycle showed no temperature difference between the effluent and receiving water. Moreover, the receiving water limitation in Provision V.5 of the Order requires that present natural background temperatures not be altered.

3. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. This Order's technology-based requirements implement minimum, applicable federal technology-based requirements. In addition, this Order contains more stringent effluent limitations as necessary to meet water quality standards. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement CWA requirements.

This Order's QBELs have been derived to implement water quality objectives that protect beneficial uses. The beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that QBELs were derived from the CTR, the CTR is the applicable standard pursuant to

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40 C.F.R. section 131.38. The procedures for calculating these WQBELs are based on the CTR, as implemented in accordance with the SIP, which U.S. EPA approved on May 18, 2000. U.S. EPA approved most Basin Plan beneficial uses and water quality objectives prior to May 30, 2000. Beneficial uses and water quality objectives submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to 40 C.F.R. section 131.21(c)(1). U.S. EPA approved the remaining beneficial uses and water quality objectives so they are applicable water quality standards pursuant to 40 C.F.R. section 131.21(c)(2).

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

The receiving water limitations in sections V.A and V.B of the Order are based on Basin Plan narrative and numeric water quality objectives. The receiving water limitation in section V.C of the Order requires compliance with federal and State water quality standards in accordance with the CWA and regulations adopted thereunder.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Attachment D contains standard provisions that apply to all NPDES permits in accordance with 40 C.F.R. section 122.41 and additional conditions applicable to specific categories of permits in accordance with 40 C.F.R. section 122.42. The Discharger must comply with these provisions. The conditions set forth in 40 C.F.R. sections 122.41(a)(1) and (b) through (n) apply to all state-issued NPDES permits and must be incorporated into the permits either expressly or by reference.

In accordance with 40 C.F.R. section 123.25(a)(12), states may omit or modify conditions to impose more stringent requirements. Attachment G contains standard provisions that supplement the federal standard provisions in Attachment D. This Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the State’s enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates Water Code section 13387(e) by reference.

B. Monitoring and Reporting

CWA section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (Attachment E) establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements. For more background regarding these requirements, see Fact Sheet section VII.

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C. Special Provisions

1. Reopener Provisions

These provisions are based on 40 C.F.R. sections 122.62 and 122.63 and allow modification of this Order and its effluent limitations as necessary in response to updated water quality objectives, regulations, or other new and relevant information that may become available in the future, and other circumstances as allowed by law.

2. Effluent Characterization Study and Report

This Order does not include effluent limitations for pollutants that do not demonstrate reasonable potential, but this provision requires the Discharger to continue monitoring for these pollutants as described in the MRP and Attachment G. Monitoring data are necessary to verify that the “no” and “unknown” reasonable potential analysis conclusions of this Order remain valid. This requirement is authorized pursuant to Water Code section 13267 and is necessary to inform the next permit reissuance and to ensure that the Discharger takes timely steps in response to any unanticipated change in effluent quality during the term of this Order.

3. Receiving Water Characterization Study and Report

This Order does not include effluent limitations for pollutants that do not demonstrate reasonable potential, but this provision requires the Discharger to continue monitoring for these pollutants as described in the MRP and Attachment G. Monitoring data are necessary to verify that the “no” and “unknown” reasonable potential analysis conclusions of this Order remain valid. This requirement is authorized pursuant to Water Code section 13267 and is necessary to inform the next permit reissuance. The Order allows the Discharger to complete the study on its own or in collaboration with other Napa River dischargers.

4. Pollutant Minimization Program

This provision is based on Basin Plan section 4.13.2 and SIP section 2.4.5.

5. Special Provisions for Municipal Facilities

- a. **Sludge and Biosolids Management.** This provision is based on Basin Plan section 4.17 and 40 C.F.R. parts 257 and 503. “Sludge” refers to the solid, semisolid, and liquid residue removed during primary, secondary, and advanced wastewater treatment processes. “Biosolids” refers to sludge that has been treated and may be beneficially reused.
- b. **Collection System Management.** The Discharger’s collection system is part of the Facility regulated through this Order. This provision explains this Order’s requirements as they relate to the Discharger’s collection system and promotes consistency with the State Water Board’s *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* (General Collection System WDRs), Order No. 2006-0003-DWQ, as amended by Order No. WQ 2013-0058-EXEC. The General Collection System WDRs contain requirements for collection system operation and maintenance, and for reporting

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and mitigating sanitary sewer overflows. They also require agencies to develop sanitary sewer management plans and report all sanitary sewer overflows. The Discharger must comply with both the General Collection System WDRs and this Order.

- c. **Wastewater Impoundment Integrity.** This provision is required to ensure that the wastewater storage ponds do not leak and potentially threaten groundwater beneficial uses. Because this provision implements State requirements only and does not contain NPDES-related requirements, the following factors listed in Water Code section 13241 are considered:
 - i. **Past Present, and Probable Future Beneficial Uses.** This provision will protect the municipal and agricultural beneficial uses of groundwater by ensuring that untreated or partially-treated wastewater does not leak through the impoundments and contaminate the groundwater. In the past, leaking impoundments have contaminated nearby municipal supply wells.
 - ii. **Environmental Characteristics of Hydrographic Unit.** This provision will not affect the Napa River hydrographic unit because the impoundments are not intended or designed to serve as a water source for underlying groundwater or the Napa River.
 - iii. **Water Quality Conditions That Could Reasonably Be Achieved Through Coordinated Control.** This provision will protect water quality in the area by fully containing wastewater until it meets specified treatment levels.
 - iv. **Economic Considerations.** This provision will have no cost beyond the expected expenses to maintain impoundments as designed. This provision could avoid costs associated with potentially contaminating groundwater.
 - v. **Need For Developing Housing Within Region.** This provision will not affect the need to develop housing in the region because it does not affect population or land use within the region.
 - vi. **Need To Develop and Use Recycled Water.** This provision may improve the Discharger's ability to recycle water by containing water long enough to achieve full treatment to meet water quality criteria for multiple uses, including recycled water. It will also prevent water loss through percolation.
- d. **Standard Operating Procedures for Resource Recovery.** Standard Operating Procedures are required for dischargers that accept hauled waste fats, oil, and grease for injection into anaerobic digesters. The development and implementations of Standard Operating Procedures for management of these materials is intended to allow the California Department of Resources Recycling and Recovery to exempt operations from separate and redundant permitting programs. If the Discharger does not accept fats, oil, and grease for resource recovery purposes, it is not required to develop and implement Standard Operating Procedures.

VII. RATIONALE FOR MONITORING AND REPORTING PROGRAM

Attachment E contains the MRP for this Order. It specifies sampling stations, pollutants to be monitored (including all parameters for which effluent limitations are specified), monitoring

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frequencies, and reporting requirements. The following provides the rationale for the MRP requirements.

A. MRP Requirements Rationale

1. Influent Monitoring. Influent flow monitoring is necessary to understand Facility operations and to evaluate compliance with Discharge Prohibition III.D, which prohibits dry weather influent flow greater than 0.5 MGD. Influent BOD₅ and TSS monitoring is necessary to evaluate compliance with this Order's 85 percent removal requirements.

2. Effluent Monitoring. Effluent flow monitoring at Monitoring Location EFF-001 is necessary to distinguish flows discharged to the Napa River versus flows that go to the irrigation fields. Monitoring for other parameters at this location is necessary to evaluate compliance with this Order's effluent limitations and to conduct future reasonable potential analyses.

Effluent flow monitoring at Monitoring Location REC-001 is to understand Facility operations and to distinguish flows discharged to the Napa River versus flows that go to the irrigation fields.

3. Whole Effluent Acute Toxicity Testing. Acute whole effluent toxicity tests are necessary to evaluate compliance with the whole effluent acute toxicity effluent limitations.

4. Receiving Water Monitoring. Napa River flow monitoring is needed to determine the river flow-to-effluent flow ratio and to evaluate compliance with Discharge Prohibition III.C. Monitoring for hardness is necessary to determine applicable water quality objectives. Monitoring for pH and temperature is necessary to provide data to translate the Basin Plan's un-ionized ammonia water quality objectives into total ammonia criteria. Monitoring for total ammonia may be useful to complete future reasonable potential analyses.

5. Other Monitoring. Biosolids monitoring is required pursuant to 40 C.F.R. part 258 (for landfill disposal) or 40 C.F.R. part 503 (for land application).

B. Monitoring Requirements Summary. The table below summarizes routine monitoring requirements. This table is for informational purposes only. The actual requirements are specified in the MRP and elsewhere in this Order.

Table F-11. Monitoring Requirements Summary

Parameter	Influent INF-001	Effluent EFF-001	Effluent REC-001	Receiving Water RSW-001 and RSW-002	Biosolids BIO-001
Flow	Continuous/D	Continuous/D	Continuous/D	1/Day ^[1]	----
Biochemical Oxygen Demand 5-day @ 20°C BOD ₅	1/Week ^[2]	3/Week	---	----	----
Total Suspended Solids	1/Week ^[2]	3/Week	---	----	----
Oil and Grease	----	1/Quarter	----	----	----
pH	----	1/Day	----	2/Year ^[3]	----
Temperature	----	1/Quarter	----	2/Year ^[3]	----
Total Coliform Bacteria	----	3/Week	----	----	----

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Parameter	Influent INF-001	Effluent EFF-001	Effluent REC-001	Receiving Water RSW-001 and RSW-002	Biosolids BIO-001
Acute Toxicity	----	1/Quarter	----	----	----
Chlorine Residual	----	Continuous/2H	----	----	----
Ammonia, Total	----	1/Quarter	----	2/Year ^[3]	----
Hardness	----	---	----	2/Year ^[3]	----
Copper, Total	----	1/Month	----	---	----
Cyanide, Total	----	1/Month	----	---	----
Other Pollutants	----	Once	----	Once ^[4]	----
River Flow-to-Effluent Flow Ratio	----	1/Day	----	----	----
Paint Filter Test	----	----	----	----	1/Year

Abbreviations:

Continuous/D = measured continuously, and recorded and reported daily
Continuous/2H= measured continuously or, if infeasible, at least every 2 hours
1/Day = once per day
1/Week = once per week
3/Week = three times per week
1/Month = once per month
1/Quarter = once per quarter
2/Year = twice per year

Footnotes:

- ^[1] Monitoring is required at the USGS Station No.11458000 and only when discharging to the Napa River.
^[2] The frequency is to be once per quarter when not discharging to the Napa River.
^[3] Monitoring is required only at Monitoring Location RSW-002.
^[4] Collaborative downstream monitoring is to be conducted at Monitoring Location RSW-900.

VIII. PUBLIC PARTICIPATION

The Regional Water Board considered the issuance of WDRs that will serve as an NPDES permit for the Facility. As a step in the WDR adoption process, Regional Water Board staff developed tentative WDRs and encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through *The Napa Valley Register*. The public had access to the agenda and any changes in dates and locations through the Regional Water Board's website at <http://www.waterboards.ca.gov/sanfranciscobay>.

B. Written Comments. Interested persons were invited to submit written comments concerning the tentative WDRs as explained through the notification process. Comments were to be submitted either in person or by mail to the Executive Officer at the Regional Water Board at 1515 Clay Street, Suite 1400, Oakland, California 94612, Attention: Vince Christian.

For full staff response and Regional Water Board consideration, the written comments were due at the Regional Water Board office by 5:00 p.m. on November 23, 2015.

C. Public Hearing. The Regional Water Board held a public hearing on the tentative WDRs during its regular meeting at the following date and time, and at the following location:

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Date: January 13, 2016
Time: 9:00 a.m.
Location: Elihu Harris State Office Building
1515 Clay Street, 1st Floor Auditorium
Oakland, CA 94612
Contact: Vince Christian, (510) 622-2336, vchristian@waterboards.ca.gov.

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested to be in writing.

Dates and venues change. The Regional Water Board web address is <http://www.waterboards.ca.gov/sanfranciscobay>, where one could access the current agenda for changes in dates and locations.

- D. Reconsideration of Waste Discharge Requirements.** Any aggrieved person may petition the State Water Board to review the Regional Water Board decision regarding the final WDRs. The State Water Board must receive the petition at the following address within 30 calendar days of the Regional Water Board action:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml.

- E. Information and Copying.** The Report of Waste Discharge, related supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:00 a.m. and 5:00 p.m. (except noon to 1 p.m.), Monday through Friday. Copying of documents may be arranged by calling (510) 622-2300.
- F. Register of Interested Persons.** Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference the Facility, and provide a name, address, and phone number.
- G. Additional Information.** Requests for additional information or questions regarding this Order should be directed to Vince Christian, at (510) 622-2336 or vchristian@waterboards.ca.gov.

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APPENDIX F-1 RIVER FLOW-TO-EFFLUENT FLOW RATIO CALCULATIONS

The flow balance for the Napa River from a point just upstream of the City of Calistoga's outfalls to a point just downstream of the City of St. Helena's outfall can be expressed as in Equation 1.

$$Q_{\text{RivUpstrm}} + Q_c + Q_{\text{sh}} + Q_y + Q_{\text{urban}} + Q_{\text{trib}} = Q_{\text{RivDnstrm}}$$

Where:

$Q_{\text{RivUpstrm}}$ = Upstream River Flow
 Q_c = Calistoga Effluent Flow
 Q_{sh} = Saint Helena Effluent Flow
 Q_y = Yountville Effluent Flow
 Q_{urban} = Urban Runoff Flow
 Q_{trib} = Tributary Flow
 $Q_{\text{RivDnstrm}}$ = Downstream River Flow

Conservatively assuming that Q_{trib} is negligible during the early part of the discharge season, this equation yields the following:

$$\textbf{Equation 1: } Q_{\text{RivUpstrm}} + Q_c + Q_{\text{sh}} + Q_y + Q_{\text{urban}} = Q_{\text{RivDnstrm}}$$

Conservatively using wet weather influent data¹ to estimate the flows of each wastewater treatment facility yields the following:

$$\begin{aligned} Q_{\text{sh}} &= 1.0 \text{ Mgal/day} \\ Q_y &= 0.80 \text{ Mgal/day} = 0.8 * Q_{\text{sh}} \\ Q_c &= 0.89 \text{ Mgal/day} = 0.89 * Q_{\text{sh}} \end{aligned}$$

Thus:

$$\textbf{Equation 2: } Q_c + Q_{\text{sh}} + Q_y = 2.69 * Q_{\text{sh}} = 2.69 \text{ Mgal/day} = 982 \text{ Mgal/year}$$

Q_{urban} can be estimated through this equation:²

$$Q_{\text{urban}} = C_{\text{mun}} * I * A_{\text{mun}} + C_{\text{ind}} * I * A_{\text{ind}}$$

Where:

I = rainfall = 30 inches / year
 C_{mun} = municipal runoff fraction = 0.2
 C_{ind} = industrial runoff fraction = 1.0
 A_{mun} = municipal area = 25,667 acres
 A_{ind} = industrial area = 1,447 acres

¹ Average flow data are from Calistoga, St. Helena, and Yountville self-monitoring reports for December 2014, a very wet month.

² This equation, the runoff fractions, and land use areas are from Table 7b of the staff report for the Napa River Sediment Total Maximum Daily Load (January 16, 2007).

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$$Q_{urban} = [0.2(30in/year)(25667acres) + 1.0(30in/year)(1447acres)] \times \left[\frac{1.008ft^3/sec}{acre-in/hr} \right] \times \left[\frac{3600sec}{hr} \right] \times \left[\frac{7.4805gal}{ft^3} \right]$$

$$Q_{urban} = 5,359 \text{ Mgal/year}$$

Therefore, Q_{urban} is about 5.5 times the combined flow of the treatment plants.

$$\frac{Q_{urban}}{Q_c + Q_{sh} + Q_y} = \frac{5359 \text{ Mgal/year}}{982 \text{ Mgal/year}} = 5.5$$

$$Q_{Urban} = 5.5 * (Q_c + Q_{sh} + Q_y)$$

Substituting this ratio into Equation 1:

$$Q_{RivUpstrm} + 6.5 * (Q_c + Q_{sh} + Q_y) = Q_{RivDnstrm}$$

Using Equation 2:

$$\text{Equation 3: } Q_{RivUpstrm} = Q_{RivDnstrm} - 17.485 * Q_{sh}$$

Effluent and ambient background data suggest that the Napa River's assimilative capacity may be most limited with respect to copper. Therefore, the minimum river flow-to-effluent flow ratio is calculated by setting the background, effluent, and runoff copper mass equal to the downstream copper mass based on the downstream flow and copper water quality objective (C_o).

The copper mass balance can be expressed as follows:

$$\text{Equation 4: } Q_{RivUpstrm} * C_b + Q_c * C_c + Q_{sh} * C_{sh} + Q_y * C_y + Q_{urban} * C_{urban} = Q_{RivDnstrm} * C_o$$

Where:

C_b = Upstream Background River Copper Concentration

C_c = Calistoga Effluent Copper Concentration

C_{sh} = Saint Helena Effluent Copper Concentration

C_y = Yountville Effluent Copper Concentration

C_{urban} = Urban Runoff Copper Concentration

C_{trib} = Tributary Copper Concentration

C_o = Downstream River Copper Water Quality Objective Concentration

Assuming that urban and non-urban runoff copper loads are about eight times those of the wastewater treatment plants yields the following:³

$$Q_{urban} * C_{urban} = 8 * (Q_c * C_c + Q_{sh} * C_{sh} + Q_y * C_y)$$

Combining the above equation with Equation 4 yields the following:

$$Q_{RivUpstrm} * C_b + 9 * (Q_c * C_c + Q_{sh} * C_{sh} + Q_y * C_y) = Q_{RivDnstrm} * C_o$$

³ The relative copper loads are from the staff report for the Copper Site Specific Objectives (June 6, 2007).

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Substituting Equation 3 into Equation 4 and solving for the river flow-to-effluent flow ratio yields the following:

$$\frac{Q_{RivDnstrm}}{Q_{sh}} = \frac{17.485 \times C_b - 8.01 \times C_c - 9 \times C_{sh} - 7.2 \times C_y}{C_b - C_o}$$

Effluent copper concentrations are conservatively based on each wastewater treatment plant's 95th percentile effluent copper concentration from 2010 through 2014. The downstream copper water quality objective (7.9 mg/L) is based on Basin Plan Table 3-4 and the lowest measured downstream hardness of 82 mg/L. The background copper concentration (3.1 mg/L) is based on the highest upstream measurement the Discharger collected from February 2002 through March 2015.

$$C_c = 8.9 \text{ mg/L}$$

$$C_{sh} = 6.8 \text{ mg/L}$$

$$C_y = 16 \text{ mg/L}$$

$$C_o = 7.9 \text{ mg/L}$$

$$C_b = 3.1 \text{ mg/L}$$

Substituting these values into the equation above yields the following:

$$\frac{Q_{RivDnstrm}}{Q_{sh}} = \frac{17.485 \times 3.1 - 8.01 \times 8.9 - 9 \times 6.8 - 9 \times 16}{3.1 - 7.9} = \frac{46}{1}$$

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ATTACHMENT G
REGIONAL STANDARD PROVISIONS, AND MONITORING
AND REPORTING REQUIREMENTS
(SUPPLEMENT TO ATTACHMENT D)

For

NPDES WASTEWATER DISCHARGE PERMITS

March 2010

City of St. Helena
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ORDER No. R2-2016-0003
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**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

**REGIONAL STANDARD PROVISIONS, AND MONITORING AND
REPORTING REQUIREMENTS
(SUPPLEMENT TO ATTACHMENT D)**

FOR

NPDES WASTEWATER DISCHARGE PERMITS

APPLICABILITY

This document applies to dischargers covered by a National Pollutant Discharge Elimination System (NPDES) permit. This document does not apply to Municipal Separate Storm Sewer System (MS4) NPDES permits.

The purpose of this document is to supplement the requirements of Attachment D, Standard Provisions. The requirements in this supplemental document are designed to ensure permit compliance through preventative planning, monitoring, recordkeeping, and reporting. In addition, this document requires proper characterization of issues as they arise, and timely and full responses to problems encountered. To provide clarity on which sections of Attachment D this document supplements, this document is arranged in the same format as Attachment D.

I. STANDARD PROVISIONS - PERMIT COMPLIANCE

A. Duty to Comply – Not Supplemented

B. Need to Halt or Reduce Activity Not a Defense – Not Supplemented

C. Duty to Mitigate – This supplements I.C. of Standard Provisions (Attachment D)

1. Contingency Plan - The Discharger shall maintain a Contingency Plan as originally required by Regional Water Board Resolution 74-10 and as prudent in accordance with current municipal facility emergency planning. The Contingency Plan shall describe procedures to ensure that existing facilities remain in, or are rapidly returned to, operation in the event of a process failure or emergency incident, such as employee strike, strike by suppliers of chemicals or maintenance services, power outage, vandalism, earthquake, or fire. The Discharger may combine the Contingency Plan and Spill Prevention Plan into one document. Discharge in violation of the permit where the Discharger has failed to develop and implement a Contingency Plan as described below will be the basis for considering the discharge a willful and negligent violation of the permit pursuant to California Water Code Section 13387. The Contingency Plan shall, at a minimum, contain the provisions of a. through g. below.
 - a. Provision of personnel for continued operation and maintenance of sewerage facilities during employee strikes or strikes against contractors providing services.

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- b. Maintenance of adequate chemicals or other supplies and spare parts necessary for continued operations of sewerage facilities.
 - c. Provisions of emergency standby power.
 - d. Protection against vandalism.
 - e. Expeditious action to repair failures of, or damage to, equipment and sewer lines.
 - f. Report of spills and discharges of untreated or inadequately treated wastes, including measures taken to clean up the effects of such discharges.
 - g. Programs for maintenance, replacement, and surveillance of physical condition of equipment, facilities, and sewer lines.
2. Spill Prevention Plan - The Discharger shall maintain a Spill Prevention Plan to prevent accidental discharges and minimize the effects of such events. The Spill Prevention Plan shall:
- a. Identify the possible sources of accidental discharge, untreated or partially treated waste bypass, and polluted drainage;
 - b. Evaluate the effectiveness of present facilities and procedures, and state when they became operational; and
 - c. Predict the effectiveness of the proposed facilities and procedures, and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

This Regional Water Board, after review of the Contingency and Spill Prevention Plans or their updated revisions, may establish conditions it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of the permit upon notice to the Discharger.

D. Proper Operation & Maintenance – This supplements I.D of Standard Provisions (Attachment D)

- 1. Operation and Maintenance (O&M) Manual - The Discharger shall maintain an O&M Manual to provide the plant and regulatory personnel with a source of information describing all equipment, recommended operational strategies, process control monitoring, and maintenance activities. To remain a useful and relevant document, the O&M Manual shall be kept updated to reflect significant changes in treatment facility equipment and operational practices. The O&M Manual shall be maintained in usable condition and be available for reference and use by all relevant personnel and Regional Water Board staff.
- 2. Wastewater Facilities Status Report - The Discharger shall regularly review, revise, or update, as necessary, its Wastewater Facilities Status Report. This report shall document how the Discharger operates and maintains its wastewater collection, treatment, and disposal facilities to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the Discharger's service responsibilities.

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3. Proper Supervision and Operation of Publicly Owned Treatment Works (POTWs) - POTWs shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Division 4, Chapter 14, Title 23 of the California Code of Regulations.

E. Property Rights – Not Supplemented

F. Inspection and Entry – Not Supplemented

G. Bypass – Not Supplemented

H. Upset – Not Supplemented

I. Other – This section is an addition to Standard Provisions (Attachment D)

1. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code Section 13050.
2. Collection, treatment, storage, and disposal systems shall be operated in a manner that precludes public contact with wastewater, except in cases where excluding the public is infeasible, such as private property. If public contact with wastewater could reasonably occur on public property, warning signs shall be posted.
3. If the Discharger submits a timely and complete Report of Waste Discharge for permit reissuance, this permit continues in force and effect until a new permit is issued or the Regional Water Board rescinds the permit.

J. Storm Water – This section is an addition to Standard Provisions (Attachment D)

These provisions apply to facilities that do not direct all storm water flows from the facility to the wastewater treatment plant headworks.

1. Storm Water Pollution Prevention Plan (SWPP Plan)

The SWPP Plan shall be designed in accordance with good engineering practices and shall address the following objectives:

- a. To identify pollutant sources that may affect the quality of storm water discharges; and
- b. To identify, assign, and implement control measures and management practices to reduce pollutants in storm water discharges.

The SWPP Plan may be combined with the existing Spill Prevention Plan as required in accordance with Section C.2. The SWPP Plan shall be retained on-site and made available upon request of a representative of the Regional Water Board.

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2. Source Identification

The SWPP Plan shall provide a description of potential sources that may be expected to add significant quantities of pollutants to storm water discharges, or may result in non-storm water discharges from the facility. The SWPP Plan shall include, at a minimum, the following items:

- a. A topographical map (or other acceptable map if a topographical map is unavailable), extending one-quarter mile beyond the property boundaries of the facility, showing the wastewater treatment facility process areas, surface water bodies (including springs and wells), and discharge point(s) where the facility's storm water discharges to a municipal storm drain system or other points of discharge to waters of the State. The requirements of this paragraph may be included in the site map required under the following paragraph if appropriate.
- b. A site map showing the following:
 - 1) Storm water conveyance, drainage, and discharge structures;
 - 2) An outline of the storm water drainage areas for each storm water discharge point;
 - 3) Paved areas and buildings;
 - 4) Areas of actual or potential pollutant contact with storm water or release to storm water, including but not limited to outdoor storage and process areas; material loading, unloading, and access areas; and waste treatment, storage, and disposal areas;
 - 5) Location of existing storm water structural control measures (i.e., berms, coverings, etc.);
 - 6) Surface water locations, including springs and wetlands; and
 - 7) Vehicle service areas.
- c. A narrative description of the following:
 - 1) Wastewater treatment process activity areas;
 - 2) Materials, equipment, and vehicle management practices employed to minimize contact of significant materials of concern with storm water discharges;
 - 3) Material storage, loading, unloading, and access areas;
 - 4) Existing structural and non-structural control measures (if any) to reduce pollutants in storm water discharges; and
 - 5) Methods of on-site storage and disposal of significant materials.
- d. A list of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities.

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3. Storm Water Management Controls

The SWPP Plan shall describe the storm water management controls appropriate for the facility and a time schedule for fully implementing such controls. The appropriateness and priorities of controls in the SWPP Plan shall reflect identified potential sources of pollutants. The description of storm water management controls to be implemented shall include, as appropriate:

a. Storm water pollution prevention personnel

Identify specific individuals (and job titles) that are responsible for developing, implementing, and reviewing the SWPP Plan.

b. Good housekeeping

Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm drain conveyance system.

c. Spill prevention and response

Identify areas where significant materials can spill into or otherwise enter storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, and cleanup equipment and procedures shall be identified, as appropriate. The necessary equipment to implement a cleanup shall be available, and personnel shall be trained in proper response, containment, and cleanup of spills. Internal reporting procedures for spills of significant materials shall be established.

d. Source control

Source controls include, for example, elimination or reduction of the use of toxic pollutants, covering of pollutant source areas, sweeping of paved areas, containment of potential pollutants, labeling of all storm drain inlets with "No Dumping" signs, isolation or separation of industrial and non-industrial pollutant sources so that runoff from these areas does not mix, etc.

e. Storm water management practices

Storm water management practices are practices other than those that control the sources of pollutants. Such practices include treatment or conveyance structures, such as drop inlets, channels, retention and detention basins, treatment vaults, infiltration galleries, filters, oil/water separators, etc. Based on assessment of the potential of various sources to contribute pollutants to storm water discharges in significant quantities, additional storm water management practices to remove pollutants from storm water discharges shall be implemented and design criteria shall be described.

f. Sediment and erosion control

Measures to minimize erosion around the storm water drainage and discharge points, such as riprap, revegetation, slope stabilization, etc., shall be described.

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g. Employee training

Employee training programs shall inform all personnel responsible for implementing the SWPP Plan. Training shall address spill response, good housekeeping, and material management practices. New employee and refresher training schedules shall be identified.

h. Inspections

All inspections shall be done by trained personnel. Material handling areas shall be inspected for evidence of, or the potential for, pollutants entering storm water discharges. A tracking or follow up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded. Inspection records shall be retained for five years.

i. Records

A tracking and follow-up procedure shall be described to ensure that adequate response and corrective actions have been taken in response to inspections.

4. Annual Verification of SWPP Plan

An annual facility inspection shall be conducted to verify that all elements of the SWPP Plan are accurate and up-to-date. The results of this review shall be reported in the Annual Report to the Regional Water Board described in Section V.C.f.

K. Biosolids Management – This section is an addition to Standard Provisions (Attachment D)

Biosolids must meet the following requirements prior to land application. The Discharger must either demonstrate compliance or, if it sends the biosolids to another party for further treatment or distribution, must give the recipient the information necessary to ensure compliance.

1. Exceptional quality biosolids meet the pollutant concentration limits in Table III of 40 CFR Part 503.13, Class A pathogen limits, and one of the vector attraction reduction requirements in 503.33(b)(1)-(b)(8). Such biosolids do not have to be tracked further for compliance with general requirements (503.12) and management practices (503.14).
2. Biosolids used for agricultural land, forest, or reclamation shall meet the pollutant limits in Table I (ceiling concentrations) and Table II or Table III (cumulative loadings or pollutant concentration limits) of 503.13. They shall also meet the general requirements (503.12) and management practices (503.14) (if not exceptional quality biosolids) for Class A or Class B pathogen levels with associated access restrictions (503.32) and one of the 10 vector attraction reduction requirements in 503.33(b)(1)-(b)(10).
3. Biosolids used for lawn or home gardens must meet exceptional quality biosolids limits.
4. Biosolids sold or given away in a bag or other container must meet the pollutant limits in either Table III or Table IV (pollutant concentration limits or annual pollutant loading rate limits) of 503.13. If Table IV is used, a label or information sheet must be attached to the biosolids packing that explains Table IV (see 503.14). The biosolids must also meet the Class A pathogen limits and one of the vector attraction reduction requirements in 503.33(b)(1)-(b)(8).

II. STANDARD PROVISIONS – PERMIT ACTION – Not Supplemented

Attachment G
Regional Standard Provisions, and Monitoring and Reporting Requirements (March 2010)

G-6

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III. STANDARD PROVISIONS – MONITORING

A. Sampling and Analyses – This section is a supplement to III.A and III.B of Standard Provisions (Attachment D)

1. Use of Certified Laboratories

Water and waste analyses shall be performed by a laboratory certified for these analyses in accordance with California Water Code Section 13176.

2. Use of Appropriate Minimum Levels

Table C lists the suggested analytical methods for the 126 priority pollutants and other toxic pollutants that should be used, unless a particular method or minimum level (ML) is required in the MRP.

For priority pollutant monitoring, when there is more than one ML value for a given substance, the Discharger may select any one of the analytical methods cited in Table C for compliance determination, or any other method described in 40 CFR part 136 or approved by U.S. EPA (such as the 1600 series) if authorized by the Regional Water Board. However, the ML must be below the effluent limitation and water quality objective. If no ML value is below the effluent limitation and water quality objective, then the method must achieve an ML no greater than the lowest ML value indicated in Table C. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

3. Frequency of Monitoring

The minimum schedule of sampling analysis is specified in the MRP portion of the permit.

a. Timing of Sample Collection

- 1) The Discharger shall collect samples of influent on varying days selected at random and shall not include any plant recirculation or other sidestream wastes, unless otherwise stipulated by the MRP.
- 2) The Discharger shall collect samples of effluent on days coincident with influent sampling unless otherwise stipulated by the MRP or the Executive Officer. The Executive Officer may approve an alternative sampling plan if it is demonstrated to be representative of plant discharge flow and in compliance with all other permit requirements.
- 3) The Discharger shall collect grab samples of effluent during periods of day-time maximum peak effluent flows (or peak flows through secondary treatment units for facilities that recycle effluent flows).
- 4) Effluent sampling for conventional pollutants shall occur on at least one day of any multiple-day bioassay test the MRP requires. During the course of the test, on at least one day, the Discharger shall collect and retain samples of the discharge. In the event a bioassay test does

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not comply with permit limits, the Discharger shall analyze these retained samples for pollutants that could be toxic to aquatic life and for which it has effluent limits.

- i. The Discharger shall perform bioassay tests on final effluent samples; when chlorine is used for disinfection, bioassay tests shall be performed on effluent after chlorination-dechlorination; and
- ii. The Discharger shall analyze for total ammonia nitrogen and calculate the amount of un-ionized ammonia whenever test results fail to meet the percent survival specified in the permit.

b. Conditions Triggering Accelerated Monitoring

- 1) If the results from two consecutive samples of a constituent monitored in a 30-day period exceed the monthly average limit for any parameter (or if the required sampling frequency is once per month and the monthly sample exceeds the monthly average limit), the Discharger shall, within 24 hours after the results are received, increase its sampling frequency to daily until the results from the additional sampling show that the parameter is in compliance with the monthly average limit.
- 2) If any maximum daily limit is exceeded, the Discharger shall increase its sampling frequency to daily within 24 hours after the results are received that indicate the exceedance of the maximum daily limit until two samples collected on consecutive days show compliance with the maximum daily limit.
- 3) If final or intermediate results of an acute bioassay test indicate a violation or threatened violation (e.g., the percentage of surviving test organisms of any single acute bioassay test is less than 70 percent), the Discharger shall initiate a new test as soon as practical, and the Discharger shall investigate the cause of the mortalities and report its findings in the next self monitoring report (SMR).
- 4) The Discharger shall calibrate chlorine residual analyzers against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, the Discharger shall collect grab samples at least every 30 minutes until compliance with the limit is achieved, unless the Discharger monitors chlorine residual continuously. In such cases, the Discharger shall continue to conduct continuous monitoring as required by its permit.
- 5) When a bypass occurs (except one subject to provision III.A.3.b.6 below), the Discharger shall monitor flows and collect samples on a daily basis for all constituents at affected discharge points that have effluent limits for the duration of the bypass (including acute toxicity using static renewals), except chronic toxicity, unless otherwise stipulated by the MRP.
- 6) Unless otherwise stipulated by the MRP, when a bypass approved pursuant to Attachment D, Standard Provisions, Sections I.G.2 or I.G.4, occurs, the Discharger shall monitor flows and, using appropriate procedures as specified in the MRP, collect and retain samples for affected discharge points on a daily basis for the duration of the bypass. The Discharger shall analyze for total suspended solids (TSS) using 24-hour composites (or more frequent increments) and for bacteria indicators with effluent limits using grab samples. If TSS exceeds 45 mg/L in any composite sample, the Discharger shall also analyze the retained samples for that discharge for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-

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TEQ, and acute and chronic toxicity. Additionally, at least once each year, the Discharger shall analyze the retained samples for one approved bypass discharge event for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity. This monitoring shall be in addition to the minimum monitoring specified in the MRP.

c. Storm Water Monitoring

The requirements of this section only apply to facilities that are not covered by an NPDES permit for storm water discharges and where not all site storm drainage from process areas (i.e., areas of the treatment facility where chemicals or wastewater could come in contact with storm water) is directed to the headworks. For storm water not directed to the headworks during the wet season (October 1 to April 30), the Discharger shall:

- 1) Conduct visual observations of the storm water discharge locations during daylight hours at least once per month during a storm event that produces significant storm water discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor, etc.
- 2) Measure (or estimate) the total volume of storm water discharge, collect grab samples of storm water discharge from at least two storm events that produce significant storm water discharge, and analyze the samples for oil and grease, pH, TSS, and specific conductance.

The grab samples shall be taken during the first 30 minutes of the discharge. If collection of the grab samples during the first 30 minutes is impracticable, grab samples may be taken during the first hour of the discharge, and the Discharger shall explain in the Annual Report why the grab sample(s) could not be taken in the first 30 minutes.

- 3) Testing for the presence of non-storm water discharges shall be conducted no less than twice during the dry season (May 1 to September 30) at all storm water discharge locations. Tests may include visual observations of flows, stains, sludges, odors, and other abnormal conditions; dye tests; TV line surveys; or analysis and validation of accurate piping schematics. Records shall be maintained describing the method used, date of testing, locations observed, and test results.
- 4) Samples shall be collected from all locations where storm water is discharged. Samples shall represent the quality and quantity of storm water discharged from the facility. If a facility discharges storm water at multiple locations, the Discharger may sample a reduced number of locations if it establishes and documents through the monitoring program that storm water discharges from different locations are substantially identical.
- 5) Records of all storm water monitoring information and copies of all reports required by the permit shall be retained for a period of at least three years from the date of sample, observation, or report.

d. Receiving Water Monitoring

The requirements of this section only apply when the MRP requires receiving water sampling.

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- 1) Receiving water samples shall be collected on days coincident with effluent sampling for conventional pollutants.
- 2) Receiving water samples shall be collected at each station on each sampling day during the period within one hour following low slack water. Where sampling during lower slack water is impractical, sampling shall be performed during higher slack water. Samples shall be collected within the discharge plume and down current of the discharge point so as to be representative, unless otherwise stipulated in the MRP.
- 3) Samples shall be collected within one foot of the surface of the receiving water, unless otherwise stipulated in the MRP.

B. Biosolids Monitoring – This section supplements III.B of Standard Provisions (Attachment D)

When biosolids are sent to a landfill, sent to a surface disposal site, or applied to land as a soil amendment, they must be monitored as follows:

1. Biosolids Monitoring Frequency

Biosolids disposal must be monitored at the following frequency:

<u>Metric tons biosolids/365 days</u>	<u>Frequency</u>
0-290	Once per year
290-1500	Quarterly
1500-15,000	Six times per year
Over 15,000	Once per month

(Metric tons are on a dry weight basis)

2. Biosolids Pollutants to Monitor

Biosolids shall be monitored for the following constituents:

- Land Application: Arsenic, cadmium, copper, mercury, molybdenum, nickel, lead, selenium, and zinc
- Municipal Landfill: Paint filter test (pursuant to 40 CFR 258)
- Biosolids-only Landfill or Surface Disposal Site (if no liner and leachate system): arsenic, chromium, and nickel

C. Standard Observations – This section is an addition to III of Standard Provisions (AttachmentD)

1. Receiving Water Observations

The requirements of this section only apply when the MRP requires standard observations of the receiving water. Standard observations shall include the following:

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- a. *Floating and suspended materials* (e.g., oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.
- b. *Discoloration and turbidity*: description of color, source, and size of affected area.
- c. *Odor*: presence or absence, characterization, source, distance of travel, and wind direction.
- d. *Beneficial water use*: presence of water-associated waterfowl or wildlife, fisherpeople, and other recreational activities in the vicinity of each sampling station.
- e. *Hydrographic condition*: time and height of corrected high and low tides (corrected to nearest National Oceanic and Atmospheric Administration location for the sampling date and time of sample collection).
- f. *Weather conditions*:
 - 1) Air temperature; and
 - 2) Total precipitation during the five days prior to observation.

2. Wastewater Effluent Observations

The requirements of this section only apply when the MRP requires wastewater effluent standard observations. Standard observations shall include the following:

- a. *Floating and suspended material of wastewater origin* (e.g., oil, grease, algae, and other macroscopic particulate matter): presence or absence.
- b. *Odor*: presence or absence, characterization, source, distance of travel, and wind direction.

3. Beach and Shoreline Observations

The requirements of this section only apply when the MRP requires beach and shoreline standard observations. Standard observations shall include the following:

- a. *Material of wastewater origin*: presence or absence, description of material, estimated size of affected area, and source.
- b. *Beneficial use*: estimate number of people participating in recreational water contact, non-water contact, or fishing activities.

4. Land Retention or Disposal Area Observations

The requirements of this section only apply to facilities with on-site surface impoundments or disposal areas that are in use. This section applies to both liquid and solid wastes, whether confined or unconfined. The Discharger shall conduct the following for each impoundment:

- a. Determine the amount of freeboard at the lowest point of dikes confining liquid wastes.
- b. Report evidence of leaching liquid from area of confinement and estimated size of affected area. Show affected area on a sketch and volume of flow (e.g., gallons per minute [gpm]).

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- c. Regarding odor, describe presence or absence, characterization, source, distance of travel, and wind direction.
- d. Estimate number of waterfowl and other water-associated birds in the disposal area and vicinity.

5. Periphery of Waste Treatment and/or Disposal Facilities Observations

The requirements of this section only apply when the MRP specifies periphery standard observations. Standard observations shall include the following:

- a. *Odor*: presence or absence, characterization, source, and distance of travel.
- b. *Weather conditions*: wind direction and estimated velocity.

IV. STANDARD PROVISIONS – RECORDS

A. Records to be Maintained – This supplements IV.A of Standard Provisions (Attachment D)

The Discharger shall maintain records in a manner and at a location (e.g., wastewater treatment plant or Discharger offices) such that the records are accessible to Regional Water Board staff. The minimum period of retention specified in Section IV, Records, of the Federal Standard Provisions shall be extended during the course of any unresolved litigation regarding the subject discharge, or when requested by the Regional Water Board or Regional Administrator of U.S. EPA, Region IX.

A copy of the permit shall be maintained at the discharge facility and be available at all times to operating personnel.

B. Records of monitoring information shall include – This supplements IV.B of Standard Provision (Attachment D)

1. Analytical Information

Records shall include analytical method detection limits, minimum levels, reporting levels, and related quantification parameters.

2. Flow Monitoring Data

For all required flow monitoring (e.g., influent and effluent flows), the additional records shall include the following, unless otherwise stipulated by the MRP:

- a. Total volume for each day; and
- b. Maximum, minimum, and average daily flows for each calendar month.

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3. Wastewater Treatment Process Solids

- a. For each treatment unit process that involves solids removal from the wastewater stream, records shall include the following:
 - 1) Total volume or mass of solids removed from each collection unit (e.g., grit, skimmings, undigested biosolids, or combination) for each calendar month or other time period as appropriate, but not to exceed annually; and
 - 2) Final disposition of such solids (e.g., landfill, other subsequent treatment unit).
- b. For final dewatered biosolids from the treatment plant as a whole, records shall include the following:
 - 1) Total volume or mass of dewatered biosolids for each calendar month;
 - 2) Solids content of the dewatered biosolids; and
 - 3) Final disposition of dewatered biosolids (disposal location and disposal method).

4. Disinfection Process

For the disinfection process, these additional records shall be maintained documenting process operation and performance:

- a. For bacteriological analyses:
 - 1) Wastewater flow rate at the time of sample collection; and
 - 2) Required statistical parameters for cumulative bacterial values (e.g., moving median or geometric mean for the number of samples or sampling period identified in this Order).
- b. For the chlorination process, when chlorine is used for disinfection, at least daily average values for the following:
 - 1) Chlorine residual of treated wastewater as it enters the contact basin (mg/L);
 - 2) Chlorine dosage (kg/day); and
 - 3) Dechlorination chemical dosage (kg/day).

5. Treatment Process Bypasses

A chronological log of all treatment process bypasses, including wet weather blending, shall include the following:

- a. Identification of the treatment process bypassed;
- b. Dates and times of bypass beginning and end;
- c. Total bypass duration;

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- d. Estimated total bypass volume; and
- e. Description of, or reference to other reports describing, the bypass event, the cause, the corrective actions taken (except for wet weather blending that is in compliance with permit conditions), and any additional monitoring conducted.

6. Treatment Facility Overflows

This section applies to records for overflows at the treatment facility. This includes the headworks and all units and appurtenances downstream. The Discharger shall retain a chronological log of overflows at the treatment facility and records supporting the information provided in section V.E.2.

C. Claims of Confidentiality – Not Supplemented

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information – Not Supplemented

B. Signatory and Certification Requirements – Not Supplemented

C. Monitoring Reports – This section supplements V.C of Standard Provisions (Attachment D)

1. Self Monitoring Reports

For each reporting period established in the MRP, the Discharger shall submit an SMR to the Regional Water Board in accordance with the requirements listed in this document and at the frequency the MRP specifies. The purpose of the SMR is to document treatment performance, effluent quality, and compliance with the waste discharge requirements of this Order.

a. Transmittal letter

Each SMR shall be submitted with a transmittal letter. This letter shall include the following:

- 1) Identification of all violations of effluent limits or other waste discharge requirements found during the reporting period;
- 2) Details regarding violations: parameters, magnitude, test results, frequency, and dates;
- 3) Causes of violations;
- 4) Discussion of corrective actions taken or planned to resolve violations and prevent recurrences, and dates or time schedule of action implementation (if previous reports have been submitted that address corrective actions, reference to the earlier reports is satisfactory);
- 5) Data invalidation (Data should not be submitted in an SMR if it does not meet quality assurance/quality control standards. However, if the Discharger wishes to invalidate any measurement after it was submitted in an SMR, a letter shall identify the measurement suspected to be invalid and state the Discharger's intent to submit, within 60 days, a formal request to invalidate the measurement. This request shall include the original measurement in question, the reason for invalidating the measurement, all relevant documentation that supports invalidation [e.g., laboratory sheet, log entry, test results, etc.], and discussion of the

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corrective actions taken or planned [with a time schedule for completion] to prevent recurrence of the sampling or measurement problem.);

- 6) If the Discharger blends, the letter shall describe the duration of blending events and certify whether blended effluent was in compliance with the conditions for blending; and
- 7) Signature (The transmittal letter shall be signed according to Section V.B of this Order, Attachment D – Standard Provisions.).

b. Compliance evaluation summary

Each report shall include a compliance evaluation summary. This summary shall include each parameter for which the permit specifies effluent limits, the number of samples taken during the monitoring period, and the number of samples that exceed applicable effluent limits.

c. Results of analyses and observations

- 1) Tabulations of all required analyses and observations, including parameter, date, time, sample station, type of sample, test result, method detection limit, method minimum level, and method reporting level, if applicable, signed by the laboratory director or other responsible official.
- 2) When determining compliance with an average monthly effluent limitation and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of detected but not quantified (DNQ) or nondetect (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
 - i. The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
 - ii. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

If a sample result, or the arithmetic mean or median of multiple sample results, is below the reporting limit, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a Pollutant Minimization Program, the Discharger shall not be deemed out of compliance.

- 3) Dioxin-TEQ Reporting: The Discharger shall report for each dioxin and furan congener the analytical results of effluent monitoring, including the quantifiable limit (reporting level), the method detection limit, and the measured concentration. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating dioxin-TEQ, the Discharger shall set congener concentrations below the minimum levels (ML) to zero. The Discharger shall calculate and report dioxin-TEQs using the following formula, where the MLs, toxicity equivalency factors (TEFs), and bioaccumulation equivalency factors (BEFs) are as provided in Table A:

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$$\text{Dioxin-TEQ} = \Sigma (C_x \times \text{TEF}_x \times \text{BEF}_x)$$

where: C_x = measured or estimated concentration of congener x
 TEF_x = toxicity equivalency factor for congener x
 BEF_x = bioaccumulation equivalency factor for congener x

Table A
Minimum Levels, Toxicity Equivalency Factors,
and Bioaccumulation Equivalency Factors

Dioxin or Furan Congener	Minimum Level (pg/L)	1998 Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

d. Data reporting for results not yet available

The Discharger shall make all reasonable efforts to obtain analytical data for required parameter sampling in a timely manner. Certain analyses require additional time to complete analytical processes and report results. For cases where required monitoring parameters require additional time to complete analytical processes and reports, and results are not available in time to be included in the SMR for the subject monitoring period, the Discharger shall describe such circumstances in the SMR and include the data for these parameters and relevant discussions of any observed exceedances in the next SMR due after the results are available.

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e. Flow data

The Discharger shall provide flow data tabulation pursuant to Section IV.B.2.

f. Annual self monitoring report requirements

By the date specified in the MRP, the Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year. The report shall contain the following:

- 1) Annual compliance summary table of treatment plant performance, including documentation of any blending events;
- 2) Comprehensive discussion of treatment plant performance and compliance with the permit (This discussion shall include any corrective actions taken or planned, such as changes to facility equipment or operation practices that may be needed to achieve compliance, and any other actions taken or planned that are intended to improve performance and reliability of the Discharger's wastewater collection, treatment, or disposal practices.);
- 3) Both tabular and graphical summaries of the monitoring data for the previous year if parameters are monitored at a frequency of monthly or greater;
- 4) List of approved analyses, including the following:
 - (i) List of analyses for which the Discharger is certified;
 - (ii) List of analyses performed for the Discharger by a separate certified laboratory (copies of reports signed by the laboratory director of that laboratory shall not be submitted but be retained onsite); and
 - (iii) List of "waived" analyses, as approved;
- 5) Plan view drawing or map showing the Discharger's facility, flow routing, and sampling and observation station locations;
- 6) Results of annual facility inspection to verify that all elements of the SWPP Plan are accurate and up to date (only required if the Discharger does not route all storm water to the headworks of its wastewater treatment plant); and
- 7) Results of facility report reviews (The Discharger shall regularly review, revise, and update, as necessary, the O&M Manual, the Contingency Plan, the Spill Prevention Plan, and Wastewater Facilities Status Report so that these documents remain useful and relevant to current practices. At a minimum, reviews shall be conducted annually. The Discharger shall include, in each Annual Report, a description or summary of review and evaluation procedures, recommended or planned actions, and an estimated time schedule for implementing these actions. The Discharger shall complete changes to these documents to ensure they are up-to-date.).

g. Report submittal

The Discharger shall submit SMRs to:

California Regional Water Quality Control Board

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San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
Attn: NPDES Wastewater Division

h. Reporting data in electronic format

The Discharger has the option to submit all monitoring results in an electronic reporting format approved by the Executive Officer. If the Discharger chooses to submit SMRs electronically, the following shall apply:

- 1) *Reporting Method*: The Discharger shall submit SMRs electronically via a process approved by the Executive Officer (see, for example, the letter dated December 17, 1999, "Official Implementation of Electronic Reporting System [ERS]" and the progress report letter dated December 17, 2000).
- 2) *Monthly or Quarterly Reporting Requirements*: For each reporting period (monthly or quarterly as specified in the MRP), the Discharger shall submit an electronic SMR to the Regional Water Board in accordance with the provisions of Section V.C.1.a-e, except for requirements under Section V.C.1.c(1) where ERS does not have fields for dischargers to input certain information (e.g., sample time). However, until U.S. EPA approves the electronic signature or other signature technologies, dischargers that use ERS shall submit a hard copy of the original transmittal letter, an ERS printout of the data sheet, and a violation report (a receipt of the electronic transmittal shall be retained by the Discharger). This electronic SMR submittal suffices for the signed tabulations specified under Section V.C.1.c(1).
- 3) *Annual Reporting Requirements*: Dischargers who have submitted data using the ERS for at least one calendar year are exempt from submitting the portion of the annual report required under Section V.C.1.f(1) and (3).

D. Compliance Schedules – Not supplemented

E. Twenty-Four Hour Reporting – This section supplements V.E of Standard Provision (Attachment D)

1. Spill of Oil or Other Hazardous Material Reports

- a. Within 24 hours of becoming aware of a spill of oil or other hazardous material that is not contained onsite and completely cleaned up, the Discharger shall report by telephone to the Regional Water Board at (510) 622-2369.
- b. The Discharger shall also report such spills to the State Office of Emergency Services [telephone (800) 852-7550] only when the spills are in accordance with applicable reporting quantities for hazardous materials.
- c. The Discharger shall submit a written report to the Regional Water Board within five working days following telephone notification unless directed otherwise by Regional Water Board staff. A report submitted electronically is acceptable. The written report shall include the following:
 - 1) Date and time of spill, and duration if known;

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- 2) Location of spill (street address or description of location);
- 3) Nature of material spilled;
- 4) Quantity of material involved;
- 5) Receiving water body affected, if any;
- 6) Cause of spill;
- 7) Estimated size of affected area;
- 8) Observed impacts to receiving waters (e.g., oil sheen, fish kill, water discoloration);
- 9) Corrective actions taken to contain, minimize, or clean up the spill;
- 10) Future corrective actions planned to be taken to prevent recurrence, and schedule of implementation; and
- 11) Persons or agencies notified.

2. Unauthorized Discharges from Municipal Wastewater Treatment Plants¹

The following requirements apply to municipal wastewater treatment plants that experience an unauthorized discharge at their treatment facilities and are consistent with and supercede requirements imposed on the Discharger by the Executive Officer by letter of May 1, 2008, issued pursuant to California Water Code Section 13383.

a. Two (2)-Hour Notification

For any unauthorized discharges that result in a discharge to a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services (telephone 800-852-7550), the local health officers or directors of environmental health with jurisdiction over the affected water bodies, and the Regional Water Board. The notification to the Regional Water Board shall be via the Regional Water Board's online reporting system at www.wbers.net, and shall include the following:

- 1) Incident description and cause;
- 2) Location of threatened or involved waterway(s) or storm drains;
- 3) Date and time the unauthorized discharge started;
- 4) Estimated quantity and duration of the unauthorized discharge (to the extent known), and the estimated amount recovered;

¹ California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

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- 5) Level of treatment prior to discharge (e.g., raw wastewater, primary treated, undisinfected secondary treated, and so on); and
- 6) Identity of the person reporting the unauthorized discharge.

b. 24-hour Certification

Within 24 hours, the Discharger shall certify to the Regional Water Board, at www.wbers.net, that the State Office of Emergency Services and the local health officers or directors of environmental health with jurisdiction over the affected water bodies have been notified of the unauthorized discharge.

c. 5-Day Written Report

Within five business days, the Discharger shall submit a written report, via the Regional Water Board's online reporting system at www.wbers.net, that includes, in addition to the information required above, the following:

- 1) Methods used to delineate the geographical extent of the unauthorized discharge within receiving waters;
- 2) Efforts implemented to minimize public exposure to the unauthorized discharge;
- 3) Visual observations of the impacts (if any) noted in the receiving waters (e.g., fish kill, discoloration of water) and the extent of sampling if conducted;
- 4) Corrective measures taken to minimize the impact of the unauthorized discharge;
- 5) Measures to be taken to minimize the chances of a similar unauthorized discharge occurring in the future;
- 6) Summary of Spill Prevention Plan or O&M Manual modifications to be made, if necessary, to minimize the chances of future unauthorized discharges; and
- 7) Quantity and duration of the unauthorized discharge, and the amount recovered.

d. Communication Protocol

To clarify the multiple levels of notification, certification, and reporting, the current communication requirements for unauthorized discharges from municipal wastewater treatment plants are summarized in Table B that follows.

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Table B
Summary of Communication Requirements for Unauthorized Discharges¹ from
Municipal Wastewater Treatment Plants

Discharger is required to:	Agency Receiving Information	Time frame	Method for Contact
1. Notify	California Emergency Management Agency (Cal EMA)	As soon as possible, but not later than 2 hours after becoming aware of the unauthorized discharge.	Telephone – (800) 852-7550 (obtain a control number from Cal EMA)
	Local health department	As soon as possible, but not later than 2 hours after becoming aware of the unauthorized discharge.	Depends on local health department
	Regional Water Board	As soon as possible, but not later than 2 hours after becoming aware of the unauthorized discharge.	Electronic ² www.wbers.net
2. Certify	Regional Water Board	As soon as possible, but not later than 24 hours after becoming aware of the unauthorized discharge.	Electronic ³ www.wbers.net
3. Report	Regional Water Board	Within 5 business days of becoming aware of the unauthorized discharge.	Electronic ⁴ www.wbers.net

¹ California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

² In the event that the Discharger is unable to provide online notification within 2 hours of becoming aware of an unauthorized discharge, it shall phone the Regional Water Board's spill hotline at (510) 622-2369 and convey the same information contained in the notification form. In addition, within 3 business days of becoming aware of the unauthorized discharge, the Discharger shall enter the notification information into the Regional Water Board's online system in electronic format.

³ In most instances, the 2-hour notification will also satisfy 24-hour certification requirements. This is because the notification form includes fields for documenting that OES and the local health department have been contacted. In other words, if the Discharger is able to complete all the fields in the notification form within 2 hours, certification requirements are also satisfied. In the event that the Discharger is unable to provide online certification within 24 hours of becoming aware of an unauthorized discharge, it shall phone the Regional Water Board's spill hotline at (510) 622-2369 and convey the same information contained in the certification form. In addition, within 3 business days of becoming aware of the unauthorized discharge, the Discharger shall enter the certification information into the Regional Water Board's online system in electronic format.

⁴ If the Discharger cannot satisfy the 5-day reporting requirements via the Regional Water Board's online reporting system, it shall submit a written report (preferably electronically in pdf) to the appropriate Regional Water Board case manager. In cases where the Discharger cannot satisfy the 5-day reporting requirements via the online reporting system, it must still complete the Regional Water Board's online reporting requirements within 15 calendar days of becoming aware of the unauthorized discharge.

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F. Planned Changes – Not supplemented

G. Anticipated Noncompliance – Not supplemented

H. Other Noncompliance – Not supplemented

I. Other Information – Not supplemented

VI. STANDARD PROVISION – ENFORCEMENT – Not Supplemented

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS – Not Supplemented

VIII. DEFINITIONS – This section is an addition to Standard Provisions (Attachment D)

More definitions can be found in Attachment A of this NPDES Permit.

1. Arithmetic Calculations

- a. Geometric mean is the antilog of the log mean or the back-transformed mean of the logarithmically transformed variables, which is equivalent to the multiplication of the antilogarithms. The geometric mean can be calculated with either of the following equations:

$$\text{Geometric Mean} = \text{Antilog} \left(\frac{1}{N} \sum_{i=1}^N \text{Log}(C_i) \right)$$

or

$$\text{Geometric Mean} = (C_1 * C_2 * \dots * C_N)^{1/N}$$

Where “N” is the number of data points for the period analyzed and “C” is the concentration for each of the “N” data points.

- b. Mass emission rate is obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lb/day)} = \frac{8.345}{N} \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.785}{N} \sum_{i=1}^N Q_i C_i$$

In which “N” is the number of samples analyzed in any calendar day and “Q_i” and “C_i” are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the “N” grab samples that may be taken in any calendar day. If a composite sample is taken, “C_i” is the concentration measured in the composite sample and “Q_i” is the average flow rate occurring during the period over which the samples are composited. The daily concentration of a constituent measured over any calendar day shall be determined from the flow-weighted average of the same constituent in the combined waste streams as follows:

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$$C_d = \text{Average daily concentration} = \frac{1}{Q_t} \sum_{i=1}^N Q_i C_i$$

In which “N” is the number of component waste streams and “Q” and “C” are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the “N” waste streams. “Q_t” is the total flow rate of the combined waste streams.

- c. Maximum allowable mass emission rate, whether for a 24-hour, weekly 7-day, monthly 30-day, or 6-month period, is a limitation expressed as a daily rate determined with the formulas in the paragraph above, using the effluent concentration limit specified in the permit for the period and the specified allowable flow.
- d. POTW removal efficiency is the ratio of pollutants removed by the treatment facilities to pollutants entering the treatment facilities (expressed as a percentage). The Discharger shall determine removal efficiencies using monthly averages (by calendar month unless otherwise specified) of pollutant concentration of influent and effluent samples collected at about the same time and using the following equation (or its equivalent):

$$\text{Removal Efficiency (\%)} = 100 \times [1 - (\text{Effluent Concentration} / \text{Influent Concentration})]$$

2. Biosolids means the solids, semi-liquid suspensions of solids, residues, screenings, grit, scum, and precipitates separated from or created in wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow and underflow in the solids handling parts of the wastewater treatment system.
3. Blending is the practice of recombining wastewater that has been biologically treated with wastewater that has bypassed around biological treatment units.
4. Bottom sediment sample is (1) a separate grab sample taken at each sampling station for the determination of selected physical-chemical parameters, or (2) four grab samples collected from different locations in the immediate vicinity of a sampling station while the boat is anchored and analyzed separately for macroinvertebrates.
5. Composite sample is a sample composed of individual grab samples collected manually or by an automatic sampling device on the basis of time or flow as specified in the MRP. For flow-based composites, the proportion of each grab sample included in the composite sample shall be within plus or minus five percent (+/-5%) of the representative flow rate of the waste stream being measured at the time of grab sample collection. Alternatively, equal volume grab samples may be individually analyzed with the flow-weighted average calculated by averaging flow-weighted ratios of each grab sample analytical result. Grab samples comprising time-based composite samples shall be collected at intervals not greater than those specified in the MRP. The quantity of each grab sample comprising a time-based composite sample shall be a set of flow proportional volumes as specified in the MRP. If a particular time-based or flow-based composite sampling protocol is not specified in the MRP, the Discharger shall determine and implement the most representative sampling protocol for the given parameter subject to Executive Officer approval.
6. Depth-integrated sample is defined as a water or waste sample collected by allowing a sampling device to fill during a vertical traverse in the waste or receiving water body being sampled. The Discharger shall collect depth-integrated samples in such a manner that the collected sample will be representative of the waste or water body at that sampling point.

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7. Flow sample is an accurate measurement of the average daily flow volume using a properly calibrated and maintained flow measuring device.
8. Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples represent only the condition that exists at the time the wastewater is collected.
9. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with receiving water around the point of discharge.
10. Overflow is the intentional or unintentional spilling or forcing out of untreated or partially treated wastes from a transport system (e.g., through manholes, at pump stations, and at collection points) upstream from the treatment plant headworks or from any part of a treatment plant facility.
11. Priority pollutants are those constituents referred to in 40 CFR Part 122 as promulgated in the Federal Register, Vol. 65, No. 97, Thursday, May 18, 2000, also known as the California Toxics Rule, the presence or discharge of which could reasonably be expected to interfere with maintaining designated uses.
12. Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage. It excludes infiltration and runoff from agricultural land.
13. Toxic pollutant means any pollutant listed as toxic under federal Clean Water Act section 307(a)(1) or under 40 CFR 401.15.
14. Untreated waste is raw wastewater.
15. Waste, waste discharge, discharge of waste, and discharge are used interchangeably in the permit. The requirements of the permit apply to the entire volume of water, and the material therein, that is disposed of to surface and ground waters of the State of California.

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Table C
List of Monitoring Parameters and Analytical Methods

CTR No.	Pollutant/Parameter	Analytical Method ¹⁰	Minimum Levels ¹¹ (µg/l)											DCP
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	
1.	Antimony	204.2					10	5	50	0.5	5	0.5		1000
2.	Arsenic	206.3				20		2	10	2	2	1		1000
3.	Beryllium						20	0.5	2	0.5	1			1000
4.	Cadmium	200 or 213					10	0.5	10	0.25	0.5			1000
5a.	Chromium (III)	SM 3500												
5b.	Chromium (VI)	SM 3500				10	5							1000
	Chromium (total) ¹²	SM 3500					50	2	10	0.5	1			1000
6.	Copper	200.9					25	5	10	0.5	2			1000
7.	Lead	200.9					20	5	5	0.5	2			10,000
8.	Mercury	1631 (note) ¹³												
9.	Nickel	249.2					50	5	20	1	5			1000
10.	Selenium	200.8 or SM 3114B or C						5	10	2	5	1		1000
11.	Silver	272.2					10	1	10	0.25	2			1000
12.	Thallium	279.2					10	2	10	1	5			1000
13.	Zinc	200 or 289					20		20	1	10			
14.	Cyanide	SM 4500 CN ⁻ C or I				5								
15.	Asbestos (only required for dischargers to MUN waters) ¹⁴	0100.2 ¹⁵												
16.	2,3,7,8-TCDD and 17 congeners (Dioxin)	1613												
17.	Acrolein	603	2.0	5										
18.	Acrylonitrile	603	2.0	2										
19.	Benzene	602	0.5	2										
33.	Ethylbenzene	602	0.5	2										
39.	Toluene	602	0.5	2										
20.	Bromoform	601	0.5	2										
21.	Carbon Tetrachloride	601	0.5	2										
22.	Chlorobenzene	601	0.5	2										
23.	Chlorodibromomethane	601	0.5	2										
24.	Chloroethane	601	0.5	2										

¹⁰ The suggested method is the U.S. EPA Method unless otherwise specified (SM = Standard Methods). The Discharger may use another U.S. EPA-approved or recognized method if that method has a level of quantification below the applicable water quality objective. Where no method is suggested, the Discharger has the discretion to use any standard method.

¹¹ Minimum levels are from the *State Implementation Policy*. They are the concentration of the lowest calibration standard for that technique based on a survey of contract laboratories. Laboratory techniques are defined as follows: GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; LC = High Pressure Liquid Chromatography; Color = Colorimetric; FAA = Flame Atomic Absorption; GFAA = Graphite Furnace Atomic Absorption; ICP = Inductively Coupled Plasma; ICPMS = Inductively Coupled Plasma/Mass Spectrometry; SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption (i.e., U.S. EPA 200.9); Hydride = Gaseous Hydride Atomic Absorption; CVAA = Cold Vapor Atomic Absorption; DCP = Direct Current Plasma.

¹² Analysis for total chromium may be substituted for analysis of chromium (III) and chromium (VI) if the concentration measured is below the lowest hexavalent chromium criterion (11 µg/l).

¹³ The Discharger shall use ultra-clean sampling (U.S. EPA Method 1669) and ultra-clean analytical methods (U.S. EPA Method 1631) for mercury monitoring. The minimum level for mercury is 2 ng/l (or 0.002 µg/l).

¹⁴ MUN = Municipal and Domestic Supply. This designation, if applicable, is in the Findings of the permit.

¹⁵ Determination of Asbestos Structures over 10 [micrometers] in Length in Drinking Water Using MCE Filters, U.S. EPA 600/R-94-134, June 1994.

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CTR No.	Pollutant/Parameter	Analytical Method ¹⁰	Minimum Levels ¹¹ (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
25.	2-Chloroethylvinyl Ether	601	1	1										
26.	Chloroform	601	0.5	2										
75.	1,2-Dichlorobenzene	601	0.5	2										
76.	1,3-Dichlorobenzene	601	0.5	2										
77.	1,4-Dichlorobenzene	601	0.5	2										
27.	Dichlorobromomethane	601	0.5	2										
28.	1,1-Dichloroethane	601	0.5	1										
29.	1,2-Dichloroethane	601	0.5	2										
30.	1,1-Dichloroethylene or 1,1-Dichloroethene	601	0.5	2										
31.	1,2-Dichloropropane	601	0.5	1										
32.	1,3-Dichloropropylene or 1,3-Dichloropropene	601	0.5	2										
34.	Methyl Bromide or Bromomethane	601	1.0	2										
35.	Methyl Chloride or Chloromethane	601	0.5	2										
36.	Methylene Chloride or Dichlorormethane	601	0.5	2										
37.	1,1,2,2-Tetrachloroethane	601	0.5	1										
38.	Tetrachloroethylene	601	0.5	2										
40.	1,2-Trans-Dichloroethylene	601	0.5	1										
41.	1,1,1-Trichloroethane	601	0.5	2										
42.	1,1,2-Trichloroethane	601	0.5	2										
43.	Trichloroethene	601	0.5	2										
44.	Vinyl Chloride	601	0.5	2										
45.	2-Chlorophenol	604	2	5										
46.	2,4-Dichlorophenol	604	1	5										
47.	2,4-Dimethylphenol	604	1	2										
48.	2-Methyl-4,6-Dinitrophenol or Dinitro-2-methylphenol	604	10	5										
49.	2,4-Dinitrophenol	604	5	5										
50.	2-Nitrophenol	604		10										
51.	4-Nitrophenol	604	5	10										
52.	3-Methyl-4-Chlorophenol	604	5	1										
53.	Pentachlorophenol	604	1	5										
54.	Phenol	604	1	1		50								
55.	2,4,6-Trichlorophenol	604	10	10										
56.	Acenaphthene	610 HPLC	1	1	0.5									
57.	Acenaphthylene	610 HPLC		10	0.2									
58.	Anthracene	610 HPLC		10	2									
60.	Benzo(a)Anthracene or 1,2 Benzanthracene	610 HPLC	10	5										
61.	Benzo(a)Pyrene	610 HPLC		10	2									
62.	Benzo(b)Fluoranthene or 3,4 Benzo(b)fluoranthene	610 HPLC		10	10									
63.	Benzo(ghi)Perylene	610 HPLC		5	0.1									
64.	Benzo(k)Fluoranthene	610 HPLC		10	2									
74.	Dibenzo(a,h)Anthracene	610 HPLC		10	0.1									
86.	Fluoranthene	610 HPLC	10	1	0.05									
87.	Fluorene	610 HPLC		10	0.1									
92.	Indeno(1,2,3-cd) Pyrene	610 HPLC		10	0.05									
100.	Pyrene	610 HPLC		10	0.05									
68.	Bis(2-Ethylhexyl)Phthalate	606 or 625	10	5										

Attachment G
Regional Standard Provisions, and Monitoring and Reporting Requirements (March 2010)

G-26

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CTR No.	Pollutant/Parameter	Analytical Method ¹⁰	Minimum Levels ¹¹ (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
70.	Butylbenzyl Phthalate	606 or 625	10	10										
79.	Diethyl Phthalate	606 or 625	10	2										
80.	Dimethyl Phthalate	606 or 625	10	2										
81.	Di-n-Butyl Phthalate	606 or 625		10										
84.	Di-n-Octyl Phthalate	606 or 625		10										
59.	Benzidine	625		5										
65.	Bis(2-Chloroethoxy)Methane	625		5										
66.	Bis(2-Chloroethyl)Ether	625	10	1										
67.	Bis(2-Chloroisopropyl)Ether	625	10	2										
69.	4-Bromophenyl Phenyl Ether	625	10	5										
71.	2-Chloronaphthalene	625		10										
72.	4-Chlorophenyl Phenyl Ether	625		5										
73.	Chrysene	625		10	5									
78.	3,3'-Dichlorobenzidine	625		5										
82.	2,4-Dinitrotoluene	625	10	5										
83.	2,6-Dinitrotoluene	625		5										
85.	1,2-Diphenylhydrazine (note) ¹⁶	625		1										
88.	Hexachlorobenzene	625	5	1										
89.	Hexachlorobutadiene	625	5	1										
90.	Hexachlorocyclopentadiene	625	5	5										
91.	Hexachloroethane	625	5	1										
93.	Isophorone	625	10	1										
94.	Naphthalene	625	10	1	0.2									
95.	Nitrobenzene	625	10	1										
96.	N-Nitrosodimethylamine	625	10	5										
97.	N-Nitrosodi-n-Propylamine	625	10	5										
98.	N-Nitrosodiphenylamine	625	10	1										
99.	Phenanthrene	625		5	0.05									
101.	1,2,4-Trichlorobenzene	625	1	5										
102.	Aldrin	608	0.005											
103.	α-BHC	608	0.01											
104.	β-BHC	608	0.005											
105.	γ-BHC (Lindane)	608	0.02											
106.	δ-BHC	608	0.005											
107.	Chlordane	608	0.1											
108.	4,4'-DDT	608	0.01											
109.	4,4'-DDE	608	0.05											
110.	4,4'-DDD	608	0.05											
111.	Dieldrin	608	0.01											
112.	Endosulfan (alpha)	608	0.02											
113.	Endosulfan (beta)	608	0.01											
114.	Endosulfan Sulfate	608	0.05											
115.	Endrin	608	0.01											
116.	Endrin Aldehyde	608	0.01											
117.	Heptachlor	608	0.01											
118.	Heptachlor Epoxide	608	0.01											

¹⁶ Measurement for 1,2-Diphenylhydrazine may use azobenzene as a screen: if azobenzene is measured at >1 ug/l, then the Discharger shall analyze for 1,2-Diphenylhydrazine.

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CTR No.	Pollutant/Parameter	Analytical Method ¹⁰	Minimum Levels ¹¹ (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
119-125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	608	0.5											
126.	Toxaphene	608	0.5											

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

CEASE AND DESIST ORDER No. R2-2016-0004

**CITY OF ST. HELENA
WASTEWATER TREATMENT AND RECLAMATION PLANT
ST. HELENA, NAPA COUNTY**

WHEREAS the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), finds the following:

1. The City of St. Helena (Discharger) owns and operates the City of St. Helena Wastewater Treatment and Reclamation Plant (Plant), located at 1 Chaix/Thomann Lane, St. Helena. The Plant provides secondary treatment for domestic and commercial wastewater from the City of St. Helena. The Plant has an average dry weather treatment capacity of 0.5 million gallons per day (MGD) and can treat up to 2.8 MGD during wet weather. Plant treatment processes include a comminuter (solids grinder), a series of treatment ponds, chlorine disinfection, and dechlorination (by natural decomposition or ascorbic acid addition).
2. During dry weather conditions, the Plant discharges to spray irrigation fields in accordance with waste discharge requirements (Order No. 87-090). During wet weather, when the irrigation fields are saturated and discharge is necessary, the Plant discharges to the Napa River in accordance with NPDES permit No. CA0038016 (Order No. R2-2016-0003) (hereinafter, the 2016 Permit).
3. Basin Plan Table 4-1, Discharge Prohibition 1, prohibits discharges to non-tidal waters. The Napa River is non-tidal in the vicinity of St. Helena. Basin Plan section 4.2 provides for exceptions to Basin Plan Discharge Prohibition 1 under certain circumstances, including when an inordinate burden would be placed on a discharger relative to the beneficial uses protected, and an equivalent level of environmental protection can be achieved by alternate means. In reissuing the 2016 Permit, the Regional Water Board found that requiring the Discharger to build an outfall to tidal waters (over 40 miles away) or to not discharge under any circumstances, including wet weather, would impose an undue burden. In granting the exception to the discharge prohibition, the Regional Water Board determined that the Discharger must provide equivalent protection when discharging to the Napa River by ensuring that treated effluent meets the limits in Table 1 below. Therefore, the 2016 Permit imposed new, more stringent biochemical oxygen demand (BOD) and total suspended solids (TSS) effluent limits reflective of levels that can be met by implementing advanced secondary treatment:

Table 1: 2016 Permit BOD and TSS Effluent Limits

	Weekly Average	Monthly Average
BOD	25	15
TSS	20	15

Abbreviations:

BOD = biochemical oxygen demand
TSS = total dissolved solids

4. The Plant is currently designed to provide only secondary treatment, not advanced secondary treatment. Plant effluent monitoring data from January 2010 through August 2015 show many instances when the Discharger would not immediately comply with the 2016 Permit's new BOD and TSS effluent limits. Of 66 monthly results, 40 exceed the new monthly BOD limit and 58 exceed the new monthly TSS limit. Because samples were collected roughly weekly, individual results can be compared to the weekly average effluent limits. Of 162 results, 47 exceed the new weekly BOD limit and 95 exceed the new weekly TSS limits.
5. The Plant currently relies on a series of treatment ponds that use aerobic and anaerobic bacteria to reduce organic matter concentrations. To meet the 2016 Permit's new BOD and TSS effluent limits, the Discharger will likely need to incorporate filtration or another process into its treatment system. Such a process could offer an added benefit if the effluent met requirements for unrestricted recycled water use. In its May 2006 "Plant Upgrade and Water Recycling Design Memorandum," the Discharger identified about 65 acres of turf and 4,700 acres of vineyard area that could potentially be irrigated with recycled water. Of these 4,700 acres of vineyard area, 1,148 acres are within City of St. Helena limits.
6. In its March 2015 *Wastewater Facilities Evaluation Update* (Bennett Engineering Services), the Discharger described several potential modifications it could make to improve Plant performance. While the report did not analyze the feasibility of the various options to achieve advanced secondary treatment, it provided three recommendations: (1) construct solids management systems outside the treatment train to manage solids accumulation (in Pond 1) within design recommendations, (2) automate disinfection and dechlorination during river discharges, and (3) construct a rock filter system between Pond 3 and the disinfection facility to improve removal of TSS from algae growth in the ponds. If implemented, the construction of a rock filter system could facilitate compliance with the 2016 Permit's effluent limits.
7. Water Code section 13301 authorizes the Regional Water Board to issue a cease and desist order when it finds that a waste discharge is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the Regional Water Board.
8. Because the Discharger will violate or threatens to violate the effluent limits in the 2016 Permit shown in Table 1, this Cease and Desist Order is necessary to ensure that the Discharger achieves compliance. This Order establishes interim requirements and a time schedule for the Discharger to complete necessary actions to address its imminent and threatened violations.
9. Pursuant to Water Code section 13385(j)(3), mandatory minimum penalties required by Water Code sections 13385(h) and (i) do not apply when a discharger complies with a cease and desist order issued pursuant to Water Code section 13301 if the following conditions are met:
 - a. The cease and desist order specifies actions the discharger must take to correct the violations that would otherwise be subject to mandatory minimum penalties;
 - b. The discharger is unable to consistently comply with effluent limits because the effluent limits are new, more stringent, or modified regulatory requirements; new or modified

control measures are necessary to comply with the effluent limits; and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days;

- c. The Regional Water Board establishes a time schedule of no more than five years for bringing the discharge into compliance. The time schedule must be as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures necessary to comply with the effluent limits. If the time schedule exceeds one year, it must include interim requirements and the dates for their achievement. The interim requirements must include effluent limits for the pollutants of concern and actions and milestones leading to compliance with the limits; and
 - d. The discharger has prepared and is implementing in a timely and proper manner a pollution prevention plan pursuant to Water Code section 13263.3.
- 10.** Based on Water Code section 13385(j)(3), mandatory minimum penalties required by Water Code sections 13385(h) and (i) do not apply for the following reasons:
- a. This Cease and Desist Order (Provisions 1 and 2 below) specifies actions the Discharger must take to correct the violations that would otherwise be subject to mandatory minimum penalties.
 - b. As explained in Finding 4, above, the Discharger is unable to consistently comply with the new, more stringent effluent limits in the 2016 Permit. Moreover, any control measures necessary to comply with the effluent limits (described in Findings 5 and 6, above) cannot be designed, installed, and put into operation within 30 calendar days.
 - c. This Cease and Desist Order (Provision 2, below) establishes a time schedule of no more than five years for bringing the discharge into compliance. The time schedule is as short as possible because it is the minimum amount of time necessary for the Discharger to modify or rebuild its treatment plant to comply with its effluent limits. As specified in Table 2, the Discharger must evaluate its potential alternatives, and then fund, design, and construct the selected alternative. These tasks are likely to take the allotted time specified in the schedule.
- Although the time schedule exceeds one year, this Cease and Desist Order (Provisions 1 and 2, below) imposes interim requirements that include interim BOD and TSS effluent limits and actions and milestones leading to compliance with the limits.
- d. The Discharger has prepared and is implementing a pollution prevention plan pursuant to permit requirements. The Discharger's pollution prevention plan meets the substantive requirements of Water Code section 13263.3. The pollution prevention plan aims to reduce influent concentrations of all pollutants of concern.
- 11.** The interim effluent limits in Table 2 are based on the NPDES permit effluent limits in place prior to adoption of the 2016 Permit (i.e., those in Order No. R2-2010-0105). They are

intended to ensure that the Discharger maintains at least its existing performance while completing all tasks the time schedule requires.

12. This Cease and Desist Order is an enforcement action and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code § 21000 et seq.) in accordance with Title 14 of the California Code of Regulations, section 15321.
13. The Regional Water Board notified the Discharger and other interested parties of its intent to consider adoption of this Cease and Desist Order and provided an opportunity to submit written comments and appear at a public hearing. The Regional Water Board, in a public hearing, heard and considered all comments.

IT IS HEREBY ORDERED, in accordance with Water Code section 13301, that the Discharger shall cease and desist from discharging and threatening to discharge wastes in violation of its NPDES permit by complying with the following provisions:

1. **Interim Effluent Limitations.** The Discharger shall comply with the following interim effluent limits:

Table 2: Interim BOD and TSS Effluent Limits

	Weekly Average (mg/L)	Monthly Average (mg/L)
BOD	45	30
TSS	45	30

Unit:

mg/L = milligrams per liter

Abbreviations:

BOD = biochemical oxygen demand

TSS = total dissolved solids

2. **Tasks and Time Schedule.** The Discharger shall complete the actions listed in Table 3 in accordance with the time schedule provided therein. The Discharger shall implement all actions set forth for each deliverable. Upon a written request from the Discharger, with justification, the Executive Officer may modify the deadlines for tasks 2.e through 2.g to account for delays beyond the reasonable control of the Discharger, such as permitting delays by other agencies.

Table 3: Tasks and Time Schedule

Task	Deadline
a. Submit a Draft Feasibility Study that analyzes various options to meet the NPDES permit effluent limits in Table 1. The study shall analyze all of the options described in the March 2015 <i>Wastewater Facilities Evaluation Update</i> and include other options that would achieve compliance. For each option considered, evaluate (i) the anticipated effectiveness and reliability of the treatment, (ii) the amount of time it will take to implement, (iii) the ability to produce recycled water (recycled water uses to be considered shall include those that offset local potable water use or provide environmental enhancement, including but not limited to turf and vineyard irrigation) or the additional efforts required to produce such recycled water, and (iv) the costs.	September 1, 2016
b. Submit a Final Feasibility Study that addresses any Executive Officer comments on the Draft Feasibility Study and identifies a preferred option.	December 1, 2016

Task	Deadline
c. Submit a Draft Workplan for implementation of the preferred option identified in task 2.b and a schedule for implementation. Include a plan and schedule for funding the project.	June 1, 2017
d. Submit a Final Workplan that addresses any Executive Officer comments on the Draft Workplan required by task 2.c.	September 1, 2017
e. Submit notification documenting the beginning of implementation of the Final Workplan.	March 1, 2019
f. Submit documentation of the completion of Final Workplan implementation and begin operation of the new or modified treatment system.	September 1, 2020
g. Submit a report evaluating the effectiveness of the new or modified treatment system and whether it is likely to meet the requirements of the NPDES permit. If the system appears unlikely to meet the requirements of the NPDES permit, identify and implement measures to ensure compliance.	December 1, 2020
h. Achieve full compliance with the 2016 Permit effluent limits listed in Table 1 of this Cease and Desist Order.	February 28, 2021

3. **Consequences of Non-Compliance.** If the Discharger fails to comply with the provisions of this Cease and Desist Order, the Executive Officer is hereby authorized to request the Attorney General to take appropriate actions against the Discharger in accordance with Water Code sections 13331 and 13350. Such actions may include judicial injunctive and civil remedies and/or administrative civil liabilities.
4. **Force Majeure.**¹ If the Discharger is delayed, interrupted, or prevented from meeting the provisions and time schedules of this Cease and Desist Order due to a force majeure, the Discharger shall notify the Executive Officer in writing within ten days of the date the Discharger first knows of the force majeure. The Discharger shall demonstrate that timely compliance with the Cease and Desist Order or any affected deadlines will be actually and necessarily delayed, and that it has taken measures to avoid or mitigate the delay by exercising all reasonable precautions and efforts, whether before or after the occurrence of the force majeure.
5. **Mandatory Minimum Penalties.** Violations of the NPDES permit effluent limits listed in Table 1 shall not be subject to the mandatory minimum penalties required by Water Code sections 13385(h) and (i) as long as the Discharger complies with this Cease and Desist Order in its entirety. If the Discharger fails to comply with this Cease and Desist Order in any way, including but not limited to any interim effluent limit in Table 2 or any requirement of Table 3, the Discharger shall be subject to mandatory minimum penalties for all NPDES permit violations for the entire calendar month during which the Cease and Desist Order non-compliance occurs. If the Discharger returns to compliance, violations of the NPDES permit

¹ A “force majeure” is an event that could not have been anticipated by and is beyond the control of the Discharger, such as an act of God; earthquake, flood, or other natural disaster; civil disturbance or strike; fire or explosion; declared war within the United States; embargo; or other event of similar import and character. “Force majeure” does not include delays caused by funding, contractor performance, equipment delivery and quality, weather, permitting, other construction-related issues, CEQA challenges, initiative litigation, adverse legislation, or legal matters (with the exception of an injunction issued by a court of law specifically preventing construction from occurring).

effluent limits in Table 1 shall again not be subject to mandatory minimum penalties as of the first day of the month following the return to full compliance.

- 6. Effective Date.** This Cease and Desist Order shall become effective on the effective date of the 2016 Permit.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Cease and Desist Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 13, 2016.

Bruce H. Wolfe
Executive Officer

ATTACHMENT 6

DOWNEYBRAND

Melissa A. Thorne
 mthorne@downeybrand.com
 916.520.5376 Direct
 916.520.5776 Fax

Downey Brand LLP
 621 Capitol Mall, 18th Floor
 Sacramento, CA 95814
 916.444.1000 Main
 downeybrand.com

September 6, 2016

VIA EMAIL (BRUCE.WOLFE@WATERBOARDS.CA.GOV) AND U.S. MAIL

Bruce Wolfe, Executive Officer
 SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD
 1515 Clay Street, Suite 1400
 Oakland, CA 94612

Re: St. Helena Wastewater Treatment Plant Violations
 Client-Matter No. 45298.00000

Dear Mr. Wolfe:

On behalf of the River Run Vineyards and Bean Family Vineyards (collectively, Vineyards), we send this petition for immediate action by the San Francisco Regional Water Quality Control Board (Regional Board) to address on-going, egregious violations of water quality requirements at the St. Helena Wastewater Treatment Plant (WWTP) and its Land Application Area. Pursuant to California Water Code section 13320, the Regional Board has sixty (60) days to act under this petition for action, or the Vineyards plan to elevate this issue to the State Water Resources Control Board on a petition for review.

This issue has been raised with the Regional Board several times previously, but no actions have yet been taken, so the Vineyards have decided to elevate the issue in hopes of getting some action on an expedited basis. The following provides a chronology of events:

- On December 16, 2015, an environmental consultant for the Vineyards filed a formal complaint on the Cal-EPA website, which was assigned record number 46019. A receipt for this complaint is attached as **Exhibit 1**. On this same date, Mr. Blair Allen, a Water Resources Control Engineer with the Regional Board sent a note to Lisa Rubin, Technical Consultant for Dellavalle Laboratory, Inc., which acknowledged receipt of the complaint.
- On January 8, 2016, Mr. Allen and Ms. Rubin spoke on the phone regarding the complaint and the regulatory unit's plan of action. A record of communication outlining the conversation was generated by Ms. Rubin and is attached as **Exhibit 2**.
- On January 12, 2016, Ms. Rubin sent a copy of the record of communication to Mr. Allen to review its accuracy and Mr. Allen responded suggesting revisions.

Bruce Wolfe, Executive Officer
September 6, 2016
Page 2

- On January 13, 2016, Mr. Allen requested a formal summary of the communication for his files and Ms. Rubin sent a letter summarizing that communication in a letter dated January 15, 2016, attached as **Exhibit 3**.
- On February 3, 2016, Ms. Rubin had another call with Mr. Allen and she understood the Regional Board's position at that time to be the Regional Board is not considering the complaint to be a high priority and the case will be re-reviewed in late summer or early fall. See **Exhibit 4**.
- On February 26, 2016, Ms. Rubin filed a follow-up complaint with Cal-EPA, which stated the following, as seen in **Exhibit 5**:

"This is to acknowledge that CalEPA has not responded to our initial complaint, Complaint Record No. 46019. The date that initial complaint was filed was 12/16/2015. We reported that the St. Helena Wastewater Treatment Facility was not in compliance with their Water Reclamation Requirement Order No. 87-090. We have observed, analyzed, and investigated the land application area (LAA) practices from 2012-2015. We sent a 212-page4 technical report to the San Francisco Bay Regional Water Quality Control Board, and on 2/3/2016, we were informed that no action was to take place on the complaint at this time. In our analysis, we observed several activities and provided evidence that current management practices at the LAA have threatened to impact both California's environment and the public health. We request an appropriate response to this complaint and a timeline of events that will aid in protecting the local groundwater aquifers and neighboring residents."

- Although there was correspondence between March and June of 2016 (**Exhibit 6**) with Brian Thompson in the Region 2 Enforcement Unit, Christine Boschen, Region 2 Senior Environmental Scientist, and Blair Allen, promised action to send a request to St. Helena for a new Report of Waste Discharge (ROWD) have not materialized.

As set forth in the initial and supplemental complaints, the Vineyards and their owners believe that this represents a high priority violation due to the significant threat to local water quality, detrimental impacts to human health and the environment, including the Vineyards' crops and groundwater quality, and also due to the fact that the St. Helena WWTP has a history of prior violations.

Even though the WWTP was issued a Notice of Violation (NOV) on August 3, 2011, for violating their Water Recycling Requirements, Order No. R2-87-090 (WRR Order), the City continues to violate the requirements and prohibitions in that Order. The City has also violated its other permits, as is demonstrated in Order No. R2-2015-1021 (Nov. 2015) issuing \$290,177 in administrative civil penalties, and alleging that "on January 29 through February 7, 2014, there was an unauthorized discharge of approximately 5,035,000 gallons (15.45 acre-feet) of partially treated wastewater to groundwater from the 2-acre size Pond 1A at Settling Respondent's Plant (Alleged Violation); the discharge was a violation of Order R2-2010- 0105,

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Bruce Wolfe, Executive Officer
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Provision VII.A.2, Attachment G at section I.I.1, that the treatment shall not create pollution, contamination, or nuisance; and the unauthorized discharge violated California Water Code section 13350, subdivision (a), and is subject to administrative civil liability pursuant to section 13350, subdivision (e).” This action likely also adversely affected local groundwater compounding the WRR non-compliance issues.

The City was also issued a Cease and Desist Order (No. R2-2016-0004) on January 13, 2016, which addressed plant upgrades related to BOD and TSS, but failed to address issues with nutrients that had been raised with the Regional Board by the Vineyards’ first complaint in December of 2015. Similarly, the City’s recently issued NPDES permit (Order No. R2-2016-0003) does not adequately monitor for or require treatment for nitrogen compounds to protect surface and underground waters.

Specific Allegations:

The following sets forth the requirements in the WRR Order R2-87-090 (**Exhibit 7**) and demonstrates non-compliance with the same.

Requirement 4.

“The discharger will apply reclaimed wastewater to the grassland through low trajectory sprinklers at a controlled rate corresponding to grass evapotranspiration rate.”

Non-Compliance: The WWTP continually discharges effluent to the LAA far in excess of the grass evapotranspiration rate. As of August 2015, there was no grass crop to utilize the water applied. Besides some minor evaporation, with no crop for uptake, the ultimate fate of the discharged water is deep percolation carrying with it an excessive load of nitrogen. Groundwater statewide is being adversely impacted by nitrogen with many wells being found in excess of the Maximum Contaminant Levels (MCLs) for nitrates. The Regional Board has an obligation to regulate non-compliant discharges to avoid pollution and contamination of local groundwater, such as that of the Vineyards, which are neighboring properties to the LAA.

Prohibition 1.

“The treatment, storage, distribution, or reuse of reclaimed water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.”

Non-compliance: The threat to contaminate and contamination of groundwater used by the Vineyards meets the three requirements of Water Code §13050(m) by increasing pollutant loads of a constituent (nitrate) that can be injurious to health and obstructs the free use of property, by affecting a considerable number of persons, and occurred as a result of disposal of wastes.

Bruce Wolfe, Executive Officer
September 6, 2016
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Prohibition 4.

“No waste shall be applied to the irrigation site during rainfall, or when soils are saturated to a point where runoff is likely.”

Non-Compliance: The WWTP has applied wastewater at least twice on rainy days during the study period of 2013–2015 (Nov. 19, 2013 and Apr. 24, 2015). In addition, the WWTP systematically applies effluent to the disposal field during rainy months when no net water demand exists and soils are likely to be saturated. The only fate of water applied under such conditions is deep percolation to the groundwater, again with a high nitrogen loading.

Prohibition 6.

“The use of reclaimed water shall not cause the degradation of groundwater suitable for domestic use or cause any change in a quality parameter which would make the groundwater less suitable for irrigation use.”

Non-Compliance: Ground water quality monitoring by the City of St. Helena indicates nitrate contamination of groundwater under the LAA. Background nitrate-N levels in Napa Valley groundwater are generally very low. However, the nitrate-N level in well G-2 at the LAA has exceeded the EPA maximum contaminant level (MCL) of 10 mg/L nitrate-nitrogen in 21 of the 39 samples reported for 2012–June 2015. This data might be compounded if the other monitoring well had been monitored as required, but it does not appear that well G-1, listed in the Final Self-Monitoring Program section of Order 87-090, has been monitored at all. This constitutes a separate ground for a finding of non-compliance.

Provision C.1.

“The discharger shall comply with a Self-Monitoring Program as ordered by the Executive Officer.” The Monitoring Requirements specify two groundwater monitoring wells – G-1 and G-2 (See Final Self-Monitoring Program at p. 3).

Non-Compliance: The WWTP has failed to submit groundwater monitoring well data for Well G-1 and should be found to be in non-compliance with the severely outdated WRR Order.

If the City intended to change its disposal techniques or monitoring requirements, the City was under an obligation to “file with the appropriate regional board a report of any material change or proposed change in the character of the recycled water or its use.” Cal. Wat. Code §13522.5(b); Order No. R2-87-090, at p.5, Provision C.6. Failure to furnish such a report constitutes a misdemeanor. Cal. Wat. Code §13522.6. In addition, the Regional Board possesses the power to ask the Attorney General to pursue a judicial restraining order or injunction for non-compliance. Cal. Wat. Code §13522.7, §13525. The Regional Board has many other options under the Water Code, none of which have been explored to address the complaints registered.

Bruce Wolfe, Executive Officer
 September 6, 2016
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The Vineyards, through their consultants, have provided numerous documents demonstrating these continued violations and explaining how these practices by the WWTP have negatively impacted the ground water and neighboring Vineyards property.

Our clients are aggrieved because the WWTP is operating under an outdated WRR Order from 1987 where a contemporary Waste Discharge Requirements (WDRs) for land application is needed, or at least the facility must be ordered to comply with and complete a Salt and Nutrient Management Plan (SNMP) in accordance with the State Water Resources Control Board's Recycled Water Policy and recently issued general permit. St. Helena was never even brought into compliance with region-wide recycling Order No. R2-96-0011. St. Helena must be ordered to apply its municipal effluent at agronomic rates to meet and not exceed crop water and nitrogen requirements to prevent continued degradation of local groundwater.

While the WWTP's NPDES permit (Order No. R2-2016-0003) allows discharge to the river and has even had the discharge period expanded by two (2) months (when flow conditions and dilution ratios are met), the City of St. Helena's draft General Plan Update stated a goal to avoid all direct discharges into the Napa River, including even secondary treated discharges allowed under its current tentative NPDES Permit.

This goal is not acceptable, as it will continue to force over-reliance on the over-applied LAA. Discharges to the Napa River are needed for when there is no net crop demand from the LAA. Continuing to discharge to the LAA when there is no crop water demand in the winter rainy months will continue to degrade groundwater quality and contaminate the local aquifer.

The Vineyards respectfully request that the Regional Board take immediate action to require St. Helena to file a ROWD for its current disposal operations. The fact that the LAA has not been adequately maintained and operated has transformed this operation from a recycling project to a waste disposal facility. The current activities at the LAA must be regulated accordingly.

To this end, the Vineyards ask the Executive Officer to immediately issue a Cleanup and Abatement Order to the City of St. Helena under Water Code section 13304, which sets forth a tight timeframe for the City to take actions to remedy the problems alleged herein. Also, the Vineyards would like access to information on the City's progress via independent testing performed by an independent third party and through regular updates on all monitoring results and measurements. Finally, the Vineyards request that this issue be included in Item 7 on the Regional Board's September 14, 2016 meeting agenda as one of the "priorities for FY 2016-2017." Nitrate contamination is a pressing issue for this state and the Regional Board has the opportunity and obligation to address this problem before water wells become unusable.

Bruce Wolfe, Executive Officer
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The Vineyards would also like to set a meeting with you in the next month to discuss the actions that the Regional Board plans to take. The Vineyards would also like to be regularly updated on these actions, assuming the requested activities occur. Please let us know a convenient time for a meeting.

Very truly yours,

DOWNEY BRAND LLP



Melissa A. Thorme

1455372.1

cc: Cris Carrigan, SWRCB Office of Enforcement (Cris.Carrigan@waterboards.ca.gov)
Paul Pelosi, River Run Vineyards
James Bean, Bean Family Vineyards
Mark Neal, Jack Neal & Son Vineyard Management
Danyal Kasapligil, Dellavalle Laboratory, Inc.

DOWNEYBRAND

Exhibit 1

From: Complaints@dtsc.ca.gov
Sent: Wednesday, December 16, 2015 1:53 PM
To: l.rubin@dellavallelab.com
Subject: CalEPA Environmental Complaint Form

DO NOT REPLY TO THIS MESSAGE.

Thank you for submitting your complaint to CalEPA.

If this is an emergency, please dial 911 immediately. You may file a complaint with CalEPA at any time. CalEPA processes complaints during normal business hours, 8:00 a.m. to 5:00 p.m., Monday to Friday. Complaints received on weekends or State and federal holidays will be processed during normal business hours. Again, if this is an Emergency, Dial 911.

Dear Dellavalle Laboratory, Inc.,

This is to acknowledge that the California Environmental Protection Agency (CalEPA) is in receipt of your complaint. Your complaint was received on 12/16/2015 at 01:52 PM and has been assigned record number 46019. CalEPA staff will assess this complaint and will investigate, inspect or refer the complaint information to another agency as appropriate.

Your Complaint has been logged and sent to CalEPA Complaints Staff. .

Exhibit 2

DELLAVALLE LABORATORY, INC.		
RECORD OF COMMUNICATION		☒ Phone Call ☐ Other (specify) _____ ☐ Meeting
PARTIES		
Lisa Rubin** Technical Consultant Dellavalle Laboratory, Inc.	Blair Allen Water Resources Engineer San Francisco Bay Regional Water Quality Control Board	DATE: 1/8/2016 TIME: 3:00 pm
** Party Initiating Communication		
SUBJECT: Follow Up on St. Helena WWTP LAA Complaint		Phone Number: 510.622.2305
SUMMARY OF COMMUNICATION: Mr. Allen, This is just a record of communication for our phone conversation on 1/8/2016. It is my understanding that there will be a meeting on 1/15/2016 between your supervisor and yourself to discuss the current situation with the St. Helena LAA in regards to the complaint that Dellavalle Laboratory submitted to the Board on 12/16/15. We discussed the following: 1. The Board introducing the report to the City of St. Helena for comment. 2. Pumping up the schedule for the City to complete a Report of Waste Discharge, so that the Board can bring Order No. 87-090 up to date to reflect current environmental standards. 3. The possibility that a more intensive groundwater monitoring program be included in the new Order.		
CONCLUSIONS, ACTION TAKEN OR REQUIRED: We concluded that after the meeting, you would contact me or e-mail me an outline of your discussion, within two weeks, so that we may be kept informed on any future progress.		
		WRITTEN BY: Lisa Rubin

Exhibit 3



January 15, 2016

Blair Allen, WRC Engineer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, California, 94612

Re: Formal complaint of violations to the WDR Order No. 87-090 at the St. Helena Wastewater Treatment Plant and Land Application Area

Mr. Allen,

This is just a record of communication for our phone conversation on 1/8/2016. It is my understanding that you will be meeting with your supervisor on 1/15/2016 for a work plan review meeting, and anticipate discussing the St Helena Water Recycling Requirements case, including the evaluation report and complaint that Dellavalle Laboratory submitted to the Water Board on 12/16/2015.

We discussed the following:

1. Water Board may forward the report to the City of St. Helena for review and comment.
2. Water Board anticipates working to update the Water Recycling Requirements for City of St Helena, currently as Order No. 87-090, in 2016. This effort will include obtaining an updated Report of Waste Discharge from the City of St Helena.
3. Water Board anticipates the WRR Order update effort will include development of a more comprehensive groundwater monitoring program for the land application area.

We concluded that after the meeting, you would contact me or e-mail me an outline of your discussion, within two weeks, so that we may be kept informed on any future progress.

Thank you for your assistance,

Lisa Rubin
Technical Consultant
Dellavalle Laboratory, Inc.
408-667-7661

Exhibit 4

DELLAVALLE LABORATORY, INC.		
RECORD OF COMMUNICATION		☒ Phone Call
		☐ Other (specify) _____
		☐ Meeting
PARTIES		
Lisa Rubin** Technical Consultant Dellavalle Laboratory, Inc.	Blair Allen Water Resources Engineer San Francisco Bay Regional Water Quality Control Board	DATE: 2/3/2016 TIME: 2:00 pm
** Party Initiating Communication		
SUBJECT: Follow Up on St. Helena WWTP LAA Complaint		Phone Number: 510.622.2305
SUMMARY OF COMMUNICATION: Mr. Allen, This is just a record of communication for our phone conversation on 2/3/2016. It is my understanding that the position that the Board is taking in terms of the filed complaint against St. Helena WWTP LAA is that the situation is not considered a high priority and the case will be re-reviewed in late summer or early fall.		
CONCLUSIONS, ACTION TAKEN OR REQUIRED: No action taken on the complaint. The situation at the WWTP LAA will be re-reviewed in late summer or early fall.		
		WRITTEN BY: Lisa Rubin

Exhibit 5




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CalEPA Environmental Complaint Form - Please Verify Your Information

The information you have provided is displayed below. Your complaint has not been submitted yet. Please review the information provided to ensure it is as complete and accurate as possible. If you need to make any changes, return to [Complaint Form](#). If you are finished and ready to submit your complaint, please click the "Submit Complaint" button below.

If you wish to keep a copy of the information you are about to submit in your complaint, please print this page now. Note, you will receive a confirmation of receipt but not a copy of the actual complaint that is submitted.

You must click the "Submit Complaint" button at the bottom of the page or your complaint will not be submitted!

Emergency: No **Spill:** No

Your Information:

Follow-up information on CalEPA's handling of this complaint will be sent

Name: Lisa Rubin
Address: 1910 W McKinley, Ste 110
City, St, ZIP: Fresno, CA 93728
Phone Number: (408)667-7661 E-Mail: l.rubin@dellavallelab.com

Complaint Information:

Address of the complaint occurrence, or location description

Address: 100 Chaix Lane
City, St, ZIP: SAINT HELENA, CA 94574
County: NAPA
Location: St. Helena Wastewater Treatment Plant Land Application Area
Description:

Facility, Company or Person's Name and Address

Responsible Person: Steve Palmer, PE
Company Name: City of St. Helena-Public Works
Address: 1480 Main Street
City, St, ZIP: SAINT HELENA, CA 94574
Phone Number: (707)968-2624

Complaint Related To:
Water

Date of Occurrence: Time: Ongoing

Ongoing Occurrence: Yes

Complaint Description

This is to acknowledge that the CalEPA has not responded to our initial complaint. Complaint Record No. is 46019. The date that initial complaint was filed was 12/16/2015. We reported that the St. Helena Wastewater Treatment Facility was not in compliance with their Water Reclamation Requirement Order No. 87-090. We have observed, analyzed, and investigated the land application area(LAA) practices from 2012-2015. We sent a 212-page technical report to the San Francisco Bay Regional Water Quality Control Board, and on 2/3/2016, we were informed that no action was to take place on the complaint at this time. In our analysis, we observed several activities and provided evidence that current management practices at the LAA have threatened to impact both California's environment and the public health. We request an appropriate response to this complaint and a timeline of events that will aid in protecting the local groundwater aquifers and neighboring residents.

Submit Complaint

Last updated: June 2, 2014
 California Environmental Protection Agency, <http://www.calepa.ca.gov>
 General Public Contact: cepacomm@calepa.ca.gov (916) 323-2514

Exhibit 6

DELLAVALLE LABORATORY, INC.		
RECORD OF COMMUNICATION	☐ Phone Call	☒ Other (specify)
	☐ Meeting	_____ Email
PARTIES		
*Lisa Rubin Dellavalle Laboratory Inc	Brian Thompson Enforcement Unit-Region 2	DATE: 3/15/2016 TIME: 10:15 a.m.
* Party Initiating Communication		
SUBJECT: Follow-up to Enforcement Complaint for St. Helena (sent 2/26/2016)		Phone Number: (510) 622-2422
SUMMARY OF COMMUNICATION: Sent an e-mail with the following request: Good morning Mr. Thompson, Have you had the chance to review the formal request for enforcement action against the St. Helena Wastewater Treatment Plant (Sent on February 26, 2016)? Do you have any information that I may pass on to our client in regards to action? Please let me know where we stand so that we may determine if we need to attend the April Board meeting. I may be reached by phone or email. As of 3/28/2016 there has been no response.		
CONCLUSIONS, ACTION TAKEN OR REQUIRED: On 3/28/2016- Nilan Watmore, Special Assistant at CalEPA said that he would handle communications with Mr. Thompson.		
		WRITTEN BY: Lisa Rubin

DELLAVALLE LABORATORY, INC.		
RECORD OF COMMUNICATION		☒ Phone Call ☐ Other (specify) _____ ☐ Meeting
PARTIES		DATE: 4/5/2016 TIME: 2:00 pm
*Lisa Rubin Technical Consultant Dellavalle Laboratory, Inc.	Brian Thompson Enforcement Unit Region 2 (San Francisco Bay)	
* Party Initiating Communication		
SUBJECT: Update on Enforcement Complaint St. Helena LAAs		Phone Number: (510) 622-2422
SUMMARY OF COMMUNICATION: I spoke with Mr. Thompson in regards to the status of the enforcement complaint against St. Helena WWTP. He said that he initially sent the report to the wrong division because he thought that the complaint pertained to another issue with the Plant. Upon its return to him, he forwarded the complaint to another unit (did not disclose which unit), but he took my phone number and email and said that he would make sure that the new unit contacted me in regards to status. He said to call him back if I was not contacted and that he would have the name of the individual that was now handling the case. He did not specify how long I should wait, but he inferred that I could call him back on 4/6/2016. I informed him that we needed a status update due to the Board meeting being held next week, and we needed to know if we would have to attend to present our concerns.		
CONCLUSIONS, ACTION TAKEN OR REQUIRED: On 4/5/2016 at 2:30 pm, Christine Boschen (Blair Allen's supervisor) called to give a status report. 1. She will be reviewing the case at a staff meeting today. 2. She will fully review the report. 3. She says that it would not be a bad idea to send a copy of the report to the City of St. Helena for their review. 4. Upon review by the Board, if it is determined that a violation has occurred, a NOV will be issued with a request for a technical report to address violations. 5. She said that we have gotten their attention, and it is not necessary to attend the Board meeting because a plan of action will definitely occur once she has fully read the report.		
		WRITTEN BY: Lisa Rubin

Christine Boschen update and meeting set.txt

From: Boschen, Christine@waterboards
[mailto:Christine.Boschen@waterboards.ca.gov]
Sent: Tuesday, April 05, 2016 5:44 PM
To: danyal@dellavallelab.com
Cc: Allen, Blair@waterboards
Subject: Best dates for us are 4/18 and 4/19

Hi Danyal,

Thanks for taking my call this afternoon. The best dates for Blair and me to meet with you are Monday 4/18 or Tuesday 4/19, anywhere between 10 to 4. We have other windows of time here and there, but these were the best dates and would allow us both time to read (or, for Blair, to re-read) your report in advance of meeting with you.

Please let us know how that works for you.

Sincerely,

Christine Boschen
Senior Environmental Scientist

San Francisco Bay Regional Water Quality Control Board
1515 Clay Street Suite 1400
Oakland, CA 94612

(510) 622-2346 direct
Christine.boschen@waterboards.ca.gov

FW St Helena 'Recycled Water'.txt

From: Allen, Blair@waterboards [mailto:Blair.Allen@waterboards.ca.gov]
Sent: Monday, April 18, 2016 2:17 PM
To: Danyal Kasapligil (danyal@dellavallelab.com)
Cc: Boschen, Christine@waterboards; Gunter, Melissa@waterboards
Subject: St Helena 'Recycled Water'

Danyal -

It was pleasure meeting with you today and discussing matters of water quality and water recycling.

Hopefully, in due time, our discussions will be more about positive accomplishments than poor practices.

NOI Reports Attached.

Attached are two reports we discussed today and you asked for copies of:

St Helena's 2006 NOI for coverage under WRR Order 96-011, and

St Helena's 2012 NOI for coverage under WRR Order 96-011.

Water Board's "ECM" Filing System.

The annotations in the file name, "ECM#_____)", are my abbreviations to denote the document-specific numbers of the documents as filed in our Water Board electronic filing system (sometimes called "ECM").

The filing system is unfortunately not available over the internet, but it is our primary document file system, and available to the public via our document review protocol. The copies I have sent you here today are the exact same as the copies in the file system.

2015 Complaint Report.

Also, for reference in case needed, the 12-16-2015 complaint letter and technical report prepared by your office is also filed in the ECM file system, as ECM document #2276249.

(You mentioned today that the report has been updated since original print. The version I have at my desk, and filed away, is the 12-16-2015 version. If you would like me file updated versions, I can do that also; please send to me if so desired.)

Thank you again for coming to Oakland to meet with us.

Page 1

FW St Helena 'Recycled Water'.txt
I look forward to future work with you.

P.S. I'm heading out on vacation later this week for a month to Greece, and to the (formerly Greek) Black Sea coast of Turkey, April 20 to May 20. I will not be checking emails. But feel free to email, and I will catch up when I return.

Meanwhile, Christine Boschen will be in contact with you about our anticipated schedule of future actions.

Best of the day to you.

Sincerely,

Blair Allen, P.E.
Water Resources Control Engineer
Watershed Management Division
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400, Oakland, California, 94612
ballen@waterboards.ca.gov -- 510.622.2305

June 3 2016 Communication on Meeting Follow-up.txt

From: Danyal Kasapligil [mailto:danyal@dellavallelab.com]
Sent: Friday, June 03, 2016 11:27 AM
To: Allen, Blair@waterboards
Subject: St Helena WWTP

Hello Blair,

Just checking in on what progress has been made since our meeting 8 weeks ago.

I'm sure you are swamped since your return (time to update the voicemail message)

Thanks,

Danyal Kasapligil
Dellavalle Laboratory, Inc.
1910 W. McKinley Ave suite 110
Fresno, CA 93728
800-228-9896

502 Mace Blvd suite 2B
Davis CA 95618
fax: 530-756-5553
cell: 831-750-4509

June 14 2016 Communication from Board Regarding Progress.txt

From: Allen, Blair@waterboards [mailto:Blair.Allen@waterboards.ca.gov]
Sent: Tuesday, June 14, 2016 5:01 PM
To: Danyal Kasapligil
Cc: Boschen, Christine@waterboards
Subject: RE: St Helena WWTP Discharges to Land

Danyal -

Thanks for the heads up on the voice mail message.

You are correct about a vacation pile up. I used to handle it well. This year recovery is almost as long as the vacation. But, I'm back.

No progress to report since we last met in person.

I'm working on this issue this week.

This issue: For now, I'll call it, Updated WDRs for St Helena WWTP Discharges to Land.

First step is written request to City for an ROWD.

Likely a letter, subject line ~ 'Request for Report of Waste Discharge'.

And include your analysis report and commentary to the effect that the ROWD needs to address the issues presented there, and present a discharge program in accord with ambient environmental conditions such as rainwater, surface water and groundwater.

I'll keep you posted.

.Blair Allen.

.ballen@waterboards.ca gov. -- .510.622.2305.

June 16 2016 Communication of Intent for Legal Action.txt

From: Danyal Kasapligil [mailto:danyal@dellavallelab.com]
Sent: Thursday, June 16, 2016 8:30 AM
To: 'Boschen, Christine@waterboards'; Blair Allen
Subject: RE: St Helena WWTP Discharges to Land
Importance: High

Dear Christine and Blair,

I am sorry to say that we are very disappointed to hear that no progress has been made on this issue since we met on April 18, 2016.

After that meeting you had assured me that a request for a ROWD would be made within a month of our meeting (by the end of May). It has now been almost two months since our meeting and half a year since we filed our complaint and technical report with your department.

At our meeting, you reassured me that we have your full attention. It has been tough to keep going back to my clients to report that absolutely no progress has been made.

Our clients feel that this important issue is not being taken seriously by your department. They are starting to feel that their concerns are being ignored and that they may need to alter their approach to get some action on this matter.

We hope to see something from you by next week, June 23rd.

Thank you,

Danyal kasapligil
Dellavalle Laboratory, Inc.
1910 W. McKinley Ave suite 110
Fresno, CA 93728
800-228-9896

502 Mace Blvd suite 2B
Davis CA 95618
fax: 530-756-5553
cell: 831-750-4509

Exhibit 7

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-090

WATER RECLAMATION REQUIREMENTS FOR:

CITY OF ST. HELENA
NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The City of St. Helena (hereinafter called the discharger) presently operates a secondary sewage treatment plant consisting of a series of 5 ponds with a designed capacity of 0.5 million gallons per day (MGD). During the period of December 1 through April 30, pond effluent is disinfected prior to discharging to the Napa River, a water of the United States, under the National Pollutant Discharge Elimination System (NPDES). The Board has adopted a separate set of waste discharge requirements (NPDES Permit No. CA0038016) for this discharge.
2. The discharger, by application dated July 13, 1983 and supplemental technical report dated April, 1985, proposed a summertime golf course irrigation project. The Board, on November 20, 1985, has adopted water reclamation requirements in Order No. 85-133 for this project. The golf course project was never implemented. The discharger hence studied other alternatives.
3. The discharger, on March 31, 1987, submitted an amended facilities plan and proposed a summertime grassland irrigation project. Secondary treated wastewater will be disinfected and stored in pond 5 prior to being pumped to a grassland through sprinkler spray during dry months. The grassland irrigation site is located on the west bank of the Napa River, adjacent to and southeast of the treatment plant, with 87.6 acres of net irrigable land. The discharger will purchase the land, plant grass and operate the irrigation site. The discharger is both the producer and user of the reclaimed wastewater. Attachment A is a location map of the irrigation site and is hereby made a part of this Order.
4. The discharger will apply reclaimed wastewater to the grassland through low trajectory sprinklers at a controlled rate corresponding to grass evapotranspiration rate. The irrigation pumps will be provided with shutoff switches controlled by an anemometer to stop spraying when wind velocity in the field is high. A minimum of 50-foot wide buffer zone will be maintained along the Napa River bank and along the southeast and southwest boundaries. Along the southeast and southwest boundaries, the buffer zones will be irrigated by well water using spray irrigation through a separate sprinkler system. During the irrigation season, runoff from the site will be collected in perimeter ditches leading to two tail water sumps and be pumped back to the field.

5. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The water quality goals to be used in regulating water quality factors as set forth in the Basin Plan include maximum feasible reclamation or reuse of municipal, industrial, and agricultural wastewaters.
6. Section 13523 of the California Water Code provides that a Regional Board, after consultation with and reception of recommendations from the State Department of Health, and if it is determined such action to be necessary to protect the public health, safety, or welfare, shall prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water.
7. These water reclamation requirements are in conformance with the statewide reclamation criteria established by the State Department of Health Services as prescribed in Title 22, Section 60301 through Section 60355, California Administrative Code.
8. The City of St. Helena, on February 2, 1987, certified as complete a Supplemental Environmental Impact Report (EIR) on the proposed wastewater reclamation project. The EIR finds that, with the mitigation measures included in the project, the project will not have a significant adverse impact on the environment.
9. The Board has notified the discharger, and interested agencies and persons of its intent to prescribe water reclamation requirements for the proposed reuse.
10. The Board, in a public meeting, heard and considered all comments pertaining to this reuse.

IT IS HEREBY ORDERED, that the discharger, in order to meet the provisions contained in Division 7 of the California Water code and regulations adopted thereunder, shall comply with the following:

A. Prohibitions

1. The treatment, storage, distribution, or reuse of reclaimed water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. No reclaimed water shall be allowed to escape from the designated use area via surface flow or airborne spray.
3. Reclaimed water shall not be used as a domestic or animal water supply. There shall be no cross-connection between potable water supply and piping containing reclaimed water. Supplementing reclaimed water with water used for domestic supply shall not be allowed except through an air-gap separation.
4. No waste shall be applied to the irrigation site during rainfall, or when soils are saturated to a point where runoff is likely.
5. Reclaimed wastewater shall not be sprayed on any facility or area not designated for reclamation such as walkways, passing

vehicles, buildings, domestic water facilities or food handling facilities. Drinking water facilities shall be protected from direct or windblown reclaimed water spray.

6. The use of reclaimed water shall not cause the degradation of groundwater suitable for domestic use or cause any change in a quality parameter which would make the groundwater less suitable for irrigation use.
7. There shall be no irrigation or impoundment of reclaimed water within 500 feet of any well used for domestic supply or 100 feet of any irrigation well unless it can be demonstrated that special circumstances justify lesser distances to be acceptable.

B. Reclaimed Water Use Specifications

1. The discharger shall assure that the reclaimed wastewater is at all times an adequately oxidized, disinfected wastewater that meets the following quality limits at all times:

In any grab sample:

- | | |
|------------------------------------|--------------------|
| a. 5-day Biochemical Oxygen Demand | 40.0 mg/l, maximum |
| b. Dissolved Oxygen | 1.0 mg/l, minimum |
| c. Dissolved Sulfides | 0.1 mg/l, maximum |

At any point in the disinfection facilities where adequate contact with disinfectant is assured:

- d. The median number of total coliform organisms shall not exceed 23 MPN/100 ml as determined from the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform organisms shall not exceed 240 MPN/100ml in any two consecutive samples.
2. The discharger shall discontinue the pumping of reclaimed water to the irrigation site during any period in which he has reason to believe that the limits specified in B.1 above are not being met. The pumping of reclaimed water shall not be resumed until all conditions which caused the limits specified in B.1 to be violated have been corrected.
3. All equipment, including pumps, piping, valves, etc. with public access which may at any time contain reclaimed water shall be adequately and clearly identified with warning signs and the discharger shall make all necessary provisions, in addition, to inform the public that the liquid contained is reclaimed water and is unfit for human consumption.
4. The buffer zones along the site perimeter shall have a minimum allowable width of 50 feet, as measured from the end of sprinkler radius of throw to the property line. The Board may require a buffer zone width beyond 50 feet in certain areas if deemed necessary. Under no circumstances may the buffer zones

along the southeast and southwest boundaries be spray irrigated by reclaimed wastewater. Surface irrigation of these buffer zones by reclaimed wastewater is not allowed, unless a specific plan is submitted for review and approval by the Executive Officer.

5. Under no circumstances may reclaimed wastewater be used to irrigate within 100 feet of the two wells located on the reclamation site.
6. The anemometer controlled irrigation pumps must be automatically shut down whenever wind velocity at the irrigation site exceeds a preset level. The discharger shall monitor the irrigation system performance with respect to wind velocity and direction to develop an operating envelop within which the irrigation system can operate without resulting in the escaping of wastewater from the irrigation site in the form of droplets, or airborne spray. An engineering report must be generated from this monitoring effort within three months of the start of the reclamation project and be submitted, to the satisfaction of the Executive Officer, for review and approval.
7. The discharger shall manage its spray irrigation so as to minimize wastewater ponding in the spray field which could cause mosquito breeding problem.
8. Adequate time should be provided between the last irrigation and grass mowing to allow the grass to dry.
9. Irrigation site shall be fenced to restrict public access. Perimeter warning signs indicating that the reclaimed wastewater is not safe for drinking or contact should be posted at least every 500 feet with a minimum of one sign at each corner and one at each access road.
10. There shall be at least a 10-foot horizontal and 1-foot vertical separation (with the domestic water above the reclaimed water pipeline) between all pipelines transporting reclaimed water and those transporting domestic water.
11. Along the southeastern and southwestern boundaries, the operation of well water spray in the buffer zones should be managed in a manner to effectively prevent reclaimed wastewater from escaping the irrigation site in the form of droplets, airborne spray, or mist.

C. Provisions

1. The discharger shall comply with a Self-Monitoring Program as ordered by the Executive Officer.
2. The discharger shall permit the Board or its authorized representatives in accordance with California Water Code Section 13267(c):

- (a) Entry upon premises in which an effluent source is located or in which any required records are kept.
 - (b) Access to copy any records required to be kept under terms and conditions of this Order.
 - (c) Inspection of any monitoring equipment or method required by this Order.
 - (d) Sampling of reclaimed water.
3. The discharger shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed by the discharger to achieve compliance with this Order.
 4. A contingency plan shall be developed outlining the action to be taken in the event effluent quality fails to meet required standards. The plan must be submitted for review, to the satisfaction of the Executive Officer, prior to the startup of the irrigation operation.
 5. In the event of any change in control or ownership of land or water reclamation facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.
 6. The discharger shall file with the Regional Board a report on waste discharge at least 180 days before making any material change or proposed change in the character, location, or volume of the reuse, except for emergency conditions in which case the Board shall be notified.
 7. The Board will review this Order periodically and may revise the requirements when necessary.
 8. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - (a) Violation of any term or condition contained in this Order;
 - (b) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts; and
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized reuse.
 9. The water reclamation requirements previously prescribed by the Board in Order No. 85-133 is no longer applicable. Order No. 85-133 is hereby rescinded.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July

15, 1987.



ROGER B. JAMES
Executive Officer

Attachments:
Location Map
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FINAL
SELF-MONITORING PROGRAM
FOR

CITY OF ST. HELENA

WASTEWATER RECLAMATION PROJECT

NAPA COUNTY

ORDER NO. 87-090

CONSISTS OF

PART A

PART A

CITY OF ST. HELENA
WASTEWATER RECLAMATION PROJECT

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger or reclaimed water user, also referred to as a self-monitoring program, are:

1. To document compliance with waste discharge and/or water reclamation requirements and prohibitions established by the Regional Board.
2. To facilitate self-policing by the waste discharger or reclaimed water user in the prevention and abatement of pollution arising from waste discharge or water reclamation.

II. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of "Standard Methods for the Examination of Water and Wastewater" prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved and specified by the Executive Officer of this Regional Board.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health or a laboratory approved by the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

III. DEFINITION OF TERMS

1. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

2. Standard Observations

a. Land Retention or Pond Area

This applies both to liquid and solid wastes confined or unconfined.

- (1) Determine height of the freeboard at lowest point of dikes confining liquid wastes.
- (2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)
- (3) Odor: presence or absence, characterization, source, and distance of travel.
- (4) Estimated number of waterfowl and other water-associated birds in the pond area and vicinity.

b. Periphery of Spray Irrigation Site

- (1) Evidence of reclaimed wastewater escaping the irrigation site through surface runoff or airborne spray. (Show affected area on a sketch.)
- (2) Odor: presence or absence, characterization, source, and distance of travel.
- (3) Evidence of surfacing or ponding of reclaimed water as well as mosquitoes breeding within the irrigation area due to excessive spray.
- (4) Warning signs or notices adequately posted to inform public that the water used for irrigation is reclaimed waste.

IV. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSIS AND OBSERVATIONS

1. DESCRIPTION OF SAMPLING STATIONS

a. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	Located at any point in the effluent from the treatment plant, prior to being pumped to the irrigation site. (Maybe the same point as E-001-D.)
E-001-D	Located at any point in the effluent from disinfection facilities at which point adequate contact with the disinfectant is assured.

b. STORAGE PONDS

<u>Station</u>	<u>Description</u>
----------------	--------------------

P-1 Located at a point in pond No.5, within one foot of the water surface and no less than two feet from the bank, representative of the wastewater.

c. LAND OBSERVATION

<u>Station</u>	<u>Description</u>
L-1 thru L-'n'	Located at ends and midpoints of the perimeter levees of pond No.5.
I-1 thru I-'n'	Located at points spaced equidistantly around the periphery of the spray irrigation area. Points shall be separated by not more than 1000 feet. A sketch showing the stations shall be submitted with the first monitoring report and subsequent self-monitoring reports when station location is changed or a violation is noted.

d. GROUNDWATER

<u>Station</u>	<u>Description</u>
G-1	An existing well located within the irrigation site, along the southwest boundary, to be used as the irrigation source in buffer areas. This well will be sanitary sealed.
G-2	An existing well located within the irrigation site, northeastern to the center of the field. This well will be sanitary sealed.

2. SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

- a. This self-monitoring program is applicable when wastewater is reclaimed for irrigation.
- b. The discharger is required to perform observations, sampling, and analyses according to the schedule given in Table I. (Attachment A)

V. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violation of Requirements:

In the event the discharger is unable to comply with the conditions of the water reclamation requirements and prohibitions due to:

- (a) maintenance work, power failure, or breakdown of waste treatment equipment, or
- (b) accidents caused by human error or negligence, or
- (c) other causes such as acts of nature,

the discharger shall notify the Regional Board office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to prevent the problems from recurring.

2. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar month by the fifteenth day of the following month. The reports shall be comprised of the following:

a. Letter of Transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as operation modifications and/or facilities expansion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

b. Results of Analyses and Observations

Tabulations of the results from each required analysis and/or observations specified in Table I by date, time, type of sample, and station.

c. List of Approved Analyses

- (1) Listing of analyses for which the discharger is approved by the State Department of Health.
- (2) List of analyses performed for the discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

I, Roger B. James, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with the Water Reclamation Requirements established in Regional Board Order No. 87-090.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.



ROGER B. JAMES
Executive Officer

Effective Date: July 15, 1987

Attachments:

- A. Table I
- B. User's Self-Monitoring Report Form

ATTACHMENT A

TABLE I

SCHEDULE FOR SAMPLINGS, MEASUREMENTS, AND ANALYSES
CITY OF ST. HELENA

SAMPLING STATIONS	E-001	E-001 -D	P-1	L-1 thru L-'n'	I-1 thru I-'n'	G-1 thru G-2
Type of Samples	G	G	G	O	O	G
Flow Rate, (MGD)	D					
5-day Biochemical Oxygen Demand	2W					
pH, (unit)	2W		M			
Dissolved Oxygen, (mg/l)	2W		M			
Dissolved Sulfides, (mg/l), (l)	2W		M			
Settleable Matter, (ml/l-hr)	2W					
Total Coliform, (MPN/100 ml)		D				M
Total Dissolved Solids, (mg/l)						Q
Nitrate, (mg/l)						Q
Applicable Standard Observations	2W			W	W (2)	

LEGEND FOR TABLE

G= Grab sample,
O= Observation,D= Daily,
W= Once each week,
2W= Every two weeks,
M= Monthly,
Q= Quarterly,

Notes:

- (1). Analyze for this item only when Dissolved Oxygen is below 2.0 mg/l.
- (2). The discharger shall perform the designated observations and file the User's Report (in Attachment B) as part of the Self-Monitoring Report monthly during the irrigation period. The observation must be made during the period when reclaimed wastewater irrigation is in progress.

ATTACHMENT B

User's Self-Monitoring Report

1. Name of User: CITY OF ST. HELENA
2. Month and Year: _____
3. Circle dates that Reclaimed water being used: 1 2 3 4 5 6 7 8 9 10 11
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
4. Total gallons used for the month: _____
5. Required weekly observations: (Fill in the date of the inspection and write "yes" or "no" for each observation.)

Date and Time					
Observed Escape of Wastewater from the Irrigation Site by Surface Flow or Airborne Spray					
Wastewater Used on Unauthorized Areas					
Odor from Wastewater					
Mosquitoes Breeding Resulted from Wastewater Ponding					
Warning Signs Properly Posted					
Public Contact with Wastewater					
Tailwater System Failure					
Automatic Shutoff switch being Tested and Functions Properly					

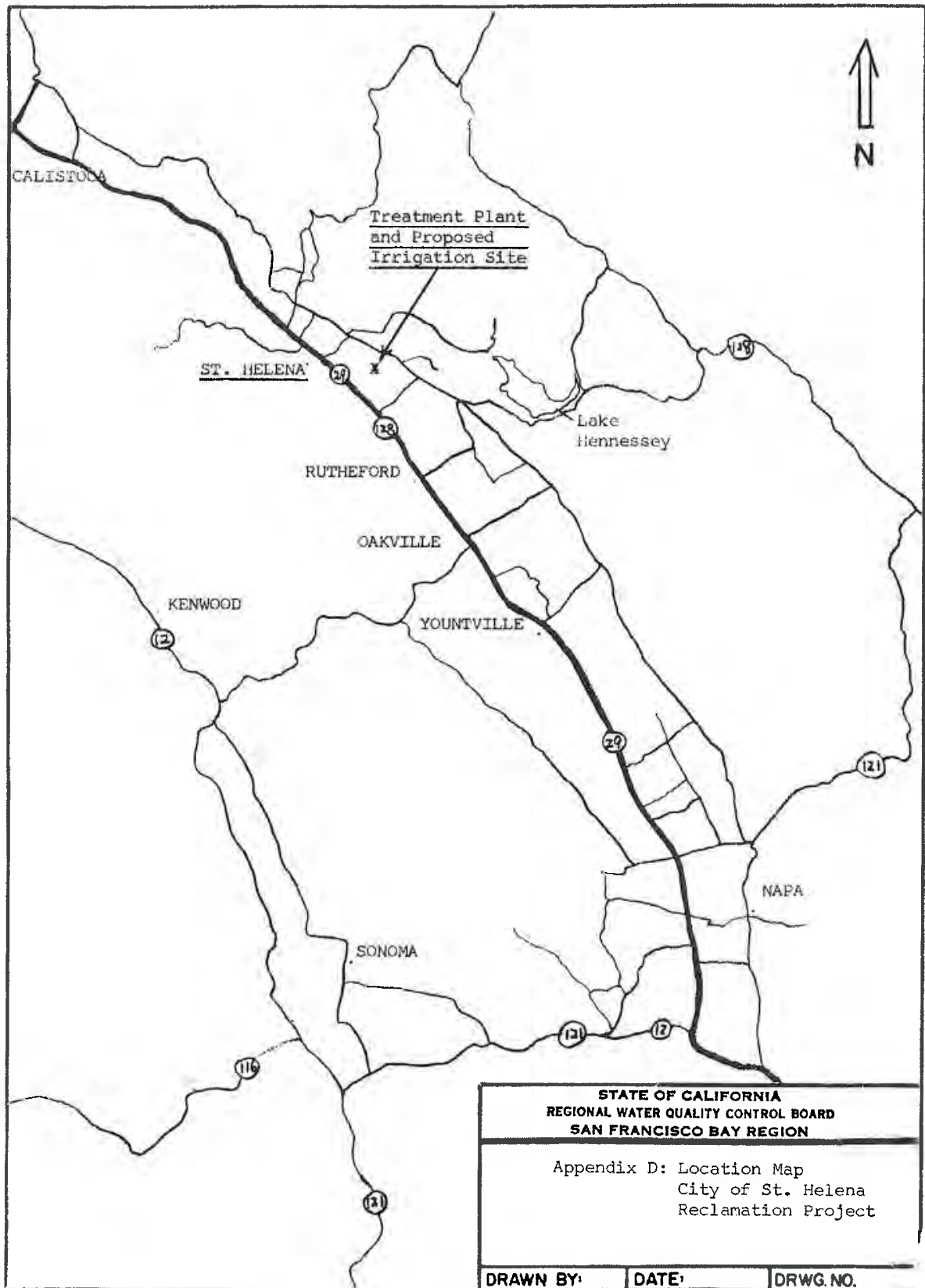
If any of the observations were yes, a written report containing the following information shall be submitted:

- (1) State time when noted violation(s) was observed and show its location on a map.
- (2) Explain cause and extent of violation(s) observed.
- (3) Describe corrective action taken and the dates compliance was achieved and irrigation was resumed.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Signature of Operator

Date





December 16, 2015

Blair Allen, WRC Engineer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, California, 94612

Re: Formal complaint of violations to the WDR Order No. 87-090 at the St. Helena
Wastewater Treatment Plant and Land Application Area

At the request of neighboring residents and property owners, Dellavalle Laboratory, Inc. has been retained to evaluate the impact current management practices at the City of St. Helena Wastewater Treatment Plant Land Application Area have had upon the local groundwater aquifer and the impacts upon neighboring vineyards.

After a five-month investigation, we have found:

The City of St Helena Waste Water Treatment Plant (WWTP) has been over applying wastewater to its land application area (LAA) disposal fields. This has resulted in nitrate contamination of the local ground water and a rise in the water table which has negatively impacted neighboring vineyards.

The WWTP was issued a Notice of Violation (NOV) on August 3, 2011 for violating their water reclamation requirements. Although the City of St Helena responded with a 53 page technical report on October 31, 2011, they still continue to violate their requirements and prohibitions set forth in their Water Reclamation Requirement (WRR) Order 87-090:

Requirement 4.

"The discharger will apply reclaimed wastewater to the grassland through low trajectory sprinklers at a controlled rate corresponding to grass evapotranspiration rate."

The discharger (WWTP) continually discharges effluent far in excess of the grass evapotranspiration rate. As of August 2015 there was no grass crop to utilize the water applied. Besides some minor evaporation, with no crop uptake, the ultimate fate of the discharged water is deep percolation. With it, this wastewater carries an excessive load of nitrogen.

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Prohibition 4.

"No waste shall be applied to the irrigation site during rainfall, or when soils are saturated to a point where runoff is likely."

Although the discharger only applied wastewater twice on rainy days during the study period of 2013 – 2015 (Nov. 19, 2013 and Apr. 24, 2015) they systematically apply effluent to the disposal field during rainy months when there is no net water demand and soils are likely to be saturated. The only fate of water applied under such conditions is deep percolation to the ground water.

Prohibition 6.

"The use of reclaimed water shall not cause a degradation of groundwater suitable for domestic use or cause any change in a quality parameter which would make the groundwater less suitable for irrigation use."

Ground water quality monitoring by the City of St Helena indicates nitrate contamination of ground water under the LAA. Background nitrate-N levels in Napa Valley ground water are generally very low. The nitrate-N level in well G-2 at the LAA has exceeded the EPA maximum contaminant level (MCL) of 10 mg/L nitrate-nitrogen in 21 of the 39 samples reported for 2012 – June 2015. Well G-1 listed in the Self Monitoring Program section of Order 87-090 has not been monitored.

The attached report documents these continued violations and explains how these practices at the WWTP LAA have negatively impacted the ground water and neighboring vineyards.

Current Issues

The City of St Helena WWTP LAA is operating under an outdated water reclamation requirement (WRR) from 1987. Contemporary waste discharge requirements (WDR) for land application of municipal effluent generally require that the effluent be applied at agronomic rates to meet and not exceed crop water and nitrogen requirements to prevent degradation of ground water. Contemporary WDR's are typically quite specific in monitoring these mass balances of both water and nitrogen. The 1987 WRR is relatively vague by today's standards, specifying that the effluent be applied at a "controlled rate" to meet the grass evapotranspiration rate along with the above mentioned requirements and prohibitions.

We have been told by RWQCB staff that updating the WRR is not a priority for them as their focus has been directed to updating the National Pollutant Discharge Elimination System (NPDES) permit for discharges to the Napa River.

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Based on the results of our study and the severe environmental damage that may be occurring, it is our opinion that the RWQCB should immediately address the WRR.

The RWQCB has attached a Cease and Desist Order to the new NPDES permit requiring the WWTP to upgrade its facilities within five years to meet stricter discharge limits for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS). There is a public hearing set for this on January 13, 2016 at the RWQCB in Oakland.

Based on the reported evidence, the appropriate response from the RWQCB would be to issue another Cease and Desist Order to the City of St. Helena Waste Water Treatment Plant requiring improvements to the irrigation design, groundwater monitoring network, and management practices at the WWTP and LAA.

Effluent applications during periods of no crop water demand have resulted in deep percolation of the effluent to the local water table resulting in nitrate contamination of the groundwater. The LAA has a groundwater monitoring component, which has shown that the one monitoring well currently being monitored exceeds the EPA limit for nitrate. This situation of nitrate contamination will continue, unless the WWTP makes operational changes to discharge to the river in the winter months as their permit allows.

While the WWTP is allowed to discharge to the river and has even had the period when this is possible expanded by two months, (given that flow conditions and dilution ratios are met), the City of St Helena states in their draft General Plan Update that it is their "goal to avoid all direct discharges into the Napa River, including even secondarily-treated discharges that are allowed under its current Tentative Order from the Regional Water Quality Control Board." Why this is their goal is not stated. This is not desirable as it will continue to force over-reliance on the over-applied LAA.

Discharges to the Napa River are needed for when there is no net crop demand from the LAA. Continuing to discharge to the LAA when there is no crop water demand in the winter rainy months will continue to degrade groundwater quality and contaminate the local aquifer.

Once the Environmental Impact Report (EIR) for the City of St Helena General Plan Update is finalized soon, it will be posted in early 2016 for public comment. It is important that we formally comment on this aspect as we believe that this important issue is being over-looked, or not adequately addressed.

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Recommendations

Improvements needed:

- Update the WRR from 1987 so that it may reflect current State and Federal water quality standards in order to achieve compliance with the law and protect the waters of the State. This should include revising the monitoring and reporting program (MRP) to include evaluation of the nitrogen content of the effluent in order to calculate specific agronomic nitrogen loading rates.
- Upgrade the LAA to irrigate the entire area to maximize water use. Deep percolation of effluent to groundwater is inevitable given the current situation and practices.
- Actively farm the LAA with forage crops that are harvested and remove the nitrogen containing crop off-site.

Management practices in the meantime must:

- Maximize discharges to the Napa River during the allowable period of November 1 through May 31.
- Management practices may need to be improved (discharge flow rates may need to be better managed) to meet the required dilution ratio depending on river flows.
- Discharges to the LAA must be avoided during months when monthly rainfall exceeds monthly evapotranspiration.
- Groundwater monitoring well GRD-002 must be monitored for nitrate concentration. If this monitoring well has been buried by the storage building at this site then new monitoring wells need to be installed and monitored. Additionally, monitoring wells need to be installed up-gradient and down-gradient of the LAA to quantify the influence of the LAA upon groundwater.
- The irrigated area at the LAA needs to be maximized.

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The citizens of St Helena and surrounding areas request that the RWQCB takes prompt action to protect their groundwater resources. Upon review, we request comments and a timeline of impending events be sent to l.rubin@dellavallelab.com. We eagerly await the Board's response.

Sincerely,



Danyal Kasapligil, M.S.
Certified Professional Agronomist

Cc: Bruce H. Wolfe, Executive Officer II, San Francisco Bay Regional Water Quality Control Board, Region 2, 1515 Clay Street, Suite 1400, Oakland, California, 94612.

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**Evaluation of Management Practices at the
City of St. Helena Wastewater Treatment
Plant Land Application Area and the Effects
Upon Neighboring Vineyards**

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- 2) City of St. Helena California Water Code Section 13267 Technical Report
- 3) City of St. Helena Wastewater Treatment Plant Reclaimed Effluent Flow, 2012-2015 Electronic Self-Monitoring Reports (eSMRs)
- 4) City of St. Helena Wastewater Treatment Plant Domestic Well (GRD-002), 2012-2015 Electronic Self-Monitoring Reports (eSMRs)
- 5) Reports of Water Analysis: Lab Nos. 226697, 217696, 229777
- 6) St. Helena Land Application Area October 2015 Report of Water Analysis: Lab Report 229776

- 7) California Regional Water Quality Control Board Meeting Notes from October 26, 2010 Inspection
- 8) CIWQS Facility at a Glance Violations Report for Order 87-090
- 9) St. Helena General Plan Update 2030: Chapter 4 - Public Facilities and Services
- 10) California Regional Water Quality Control Board Monitoring and Reporting Program (MRP) No. R2-2010-0105

Appendices

- A) CIMIS 2012-2015 Monthly Reporting of ET_O-Precipitation
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Evaluation of Management Practices at the City of St. Helena Waste Water Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

1. Introduction

Members of the community of St. Helena (Community) farm several vineyards both adjacent and near to the City of St. Helena Waste Water Treatment Plant (WWTP). These vineyards have been negatively impacted by the disposal of excess amounts of municipal effluent to an approximately 86-acre land application area (LAA), which consists of an 82.5-acre disposal field, 0.3-acre mosquito fish pond complex, a 1.5-acre willow sapling growing project, and a 1.7-acre Redwood Forest project.

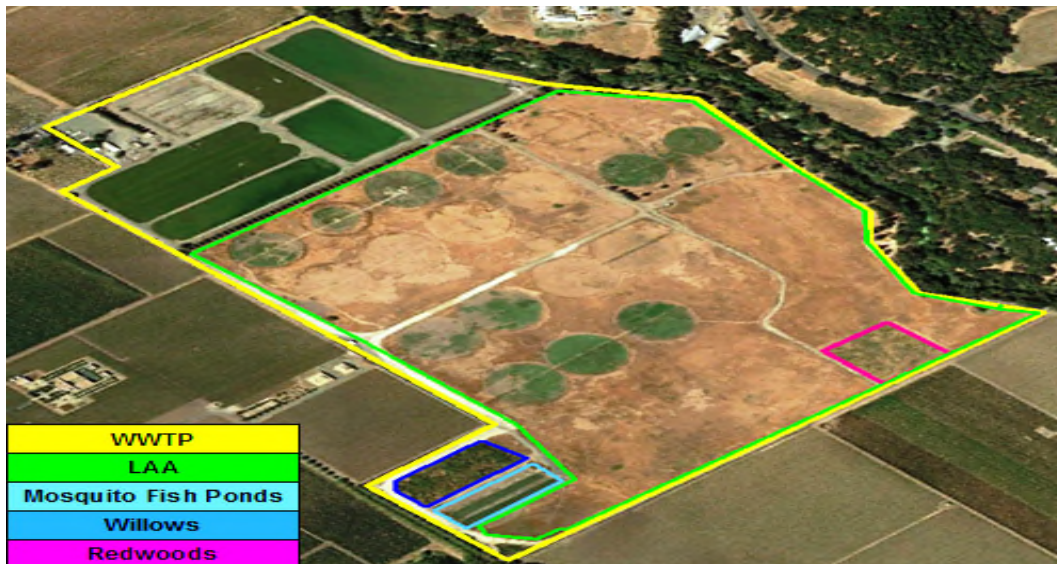


Figure 1. St. Helena Wastewater Treatment Plant and Land Application Area.

California Regional Water Quality Control Board, San Francisco Bay Region, Order No. 87-090 (Order) adopted on July 15, 1987, regulates the LAA and requires annual and monthly sampling and reporting of waste discharges. The City of St. Helena (City) owns and operates the WWTP and LAA. The WWTP is southeast of the city at 1 Chaix Lane in Section 32, T8N, R5W; MDB&M. Treated effluent from the WWTP is applied to land via irrigation at LAA located in Section 5, T7N, R5W; MDB&M.

The purpose of this report is to evaluate irrigation management practices in the LAA from 2012-2015 and demonstrate how the WWTP has not been in compliance with the Order (**Attachment 1**). Site specific findings, prohibitions, provisions, and monitoring requirements are highlighted in Attachment 1. By disregarding these set regulations, the WWTP has degraded groundwater quality and has had a negative environmental impact upon Community vineyards.

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2. LAA Irrigation System

The City by technical report dated March 31, 1987, submitted to the California Regional Water Quality Control Board, San Francisco Bay Region (Board), a proposal for a summertime grassland irrigation project (the LAA). Discharge of reclaimed water to land was to be through spray irrigation onto grass fields. Based on information in the 2006 *City of St. Helena Notice of Intent for Coverage Under the General Water Reuse Order* (NOI), two 100 hp pumps are used to pump secondary treated wastewater to the irrigation system. One pump is operated at a time, pumping a maximum of 2200 gallons per minute (gpm). The 10-inch irrigation mainline from the storage pond to the disposal field is 5,000 ft. in length.

The mainline historically supplied irrigation wastewater to sixteen 6" zone control valves and each zone had approximately 90 sprinklers. Between August of 2002 and July of 2003, 8 "big gun" sprinklers were installed, replacing the previous smaller sprinklers. The NOI stated that the smaller discharge sprinklers were used less frequently since the installation of these big gun sprinklers.

On October 31, 2011, the City submitted the *City of St. Helena California Water Code Section 13267 Technical Report* to the Board proposing material changes in the irrigation design (**Attachment 2**). The following month, 10 additional big gun sprinklers were installed (**Figure 2**). Each one sprays approximately 215 gpm and covers approximately 1.1 acres resulting in a precipitation rate of 0.43 inches/hr. There is a 100 ft. buffer zone surrounding the field and adjacent properties.



Figure 2. 2011 Irrigation System at the LAA.

Evaluation of Management Practices at the City of St. Helena Waste Water Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

Prior to the installment of the Redwood Forest project, a Staff Report from April 2013 was submitted to the City Council by the Director of Public Works which discussed future reclamation field projects. The report stated, "Presently, the City has 18 rain gun sprinklers that cover a portion of the reclamation field. In order to maximize utilization of the reclamation fields, the Wastewater Treatment Operator recommends installing an additional 45 rain guns" (City of St. Helena 2013). As of April 2015, the irrigation design remains the same (**Figure 3**).



Figure 3. April 2015 Satellite image of LAA.

3. Irrigation Management Plan for Reclaimed Water

Reclaimed water is water that is used more than one time before it passes back into the natural water cycle. The basis of a good irrigation management program for the use of reclaimed water is one that utilizes the amount of water which, in combination with rainfall, meets the water demands of the irrigated vegetation to maximize water uptake and prevent deep percolation to the groundwater table. Irrigation demands are site (climate and soil) and crop specific. In order for an irrigation program to be efficient and effective, water applications need to be in balance with crop demand. This water balance approach commonly uses reference evapotranspiration (ET_o) weather data and

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crop coefficients. Crop coefficients (K_c) are plant models used in estimating crop evapotranspiration (ET_c). K_c is the ratio of crop evapotranspiration (ET_c) to that of a reference crop (grass) ET_o under the same conditions. The effect of both crop transpiration and soil evaporation are integrated into a single crop coefficient which can be used to develop a basic irrigation schedule and calculate a water balance. These calculations can also be used to determine the size of a land application area needed for the proper disposal of treated effluent.

Finding No. 4 in the Order mandates that a “controlled rate” which corresponds to crop ET must be used for hydraulic loading. In order to determine the amount of irrigation to apply, the ET must be determined. Based on monthly and daily ET_o information gathered from the California Irrigation Management Information System (CIMIS) from 2012-2015 (**Appendix A and B**) and 2015 K_c for grass (forage/pasture) (**Appendix C**) reported by the Center for Irrigation Technology (CIT), we have calculated the controlled rate to effectively utilize the effluent at this site on a monthly and daily basis (**Appendix D and E**).

4. Hydraulic Loading

Excessive application of irrigation wastewater can lead to changes in both chemical and physical groundwater parameters. The area of land to which the reclaimed water is applied is as important as the rate of application. The WWTP has been discharging to a maximum of only 24 acres of the LAA and often to a lesser area.



Figure 4. July 2012 Satellite imagery of LAA.

Figure 4 (2012) shows virtually no growing crop to effectively utilize land applied waste water.

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Figure 5. October 2013 Satellite imagery of LAA.



Figure 5 (2013) shows 10 of the 18 big gun sprinklers applying waste water to green, actively growing plants.



Figure 6. August 2014 Satellite imagery of LAA.

Only 11 of the 18 big gun sprinklers are applying waste water to green actively growing plants in Figure 6 (2014).

Based on a land application area of 24 acres (although clearly the effective land application area is much less than the 24 acres of irrigable land) and effluent flow information gathered from the WWTP's electronic self-monitoring reports (eSMRs) on the California Integrated Water Quality System Project (CIWQS) from 2012-2015 (**Attachment 3**), the applied hydraulic rate to the LAA far exceeded the controlled-allowable rate (ET) on a continuous basis. Hydraulic loading amounts are summarized in **Appendix F**. The hydraulic loading amounts and corresponding calculated "controlled rate" or allowable loading rates and amounts are shown on an average daily basis and monthly basis for January 2012 through July 2015 in **Figures 7 through 14**.

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The allowable hydraulic loading is based upon crop water needs [crop evapotranspiration (ET_c) – rainfall]. This crop evapotranspiration assumes an actively growing crop, although there currently is not. The allowable hydraulic loading (controlled rate) is shown as a negative value when rainfall exceeds evapotranspiration. Under these conditions of no crop water demand, there should be no land application of waste water.

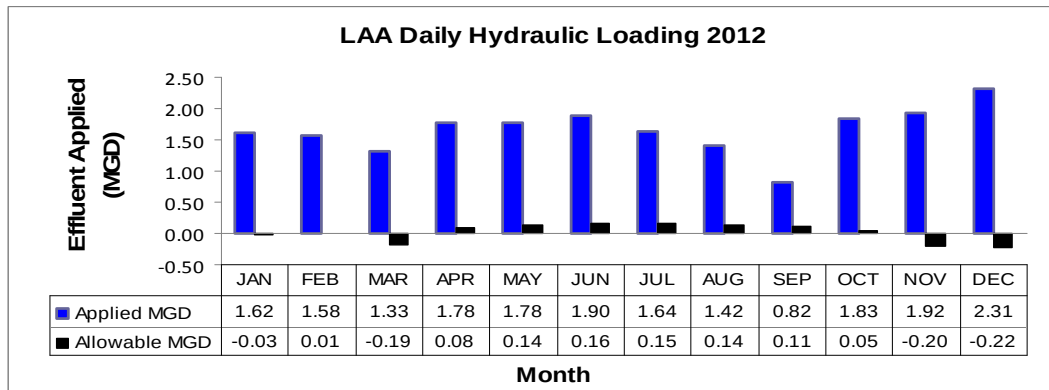


Figure 7. 2012 LAA Daily Hydraulic Loading (based on discharge days only).

Figure 7 shows 2012 daily hydraulic loading based on discharge days only and the 24 acre land application area. The calculated allowable daily applications are negative in January, March, November, and December because rainfall exceeded evapotranspiration on those days resulting in a net negative water demand. No effluent should have been applied at all during those days of no net water demand.

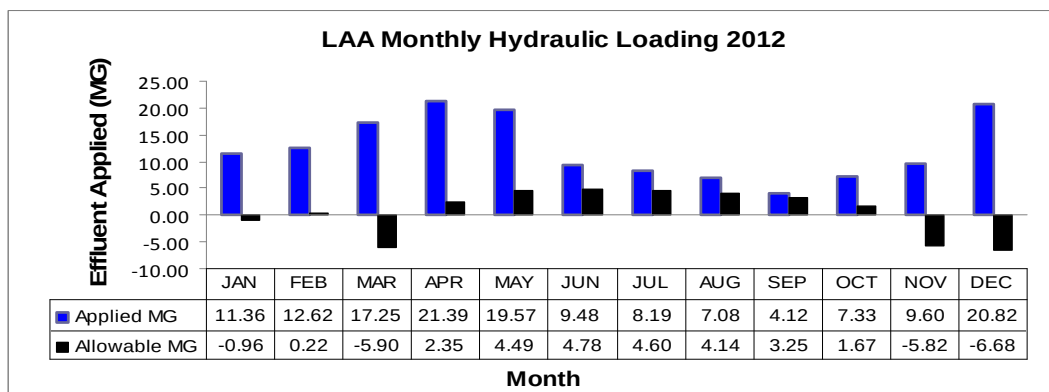


Figure 8. 2012 LAA Monthly Hydraulic Loading.

Figure 8 shows that the monthly hydraulic loading grossly exceeds the allowable amounts of effluent application and that there were months when there was no net water demand and there should have been no land applications of effluent.

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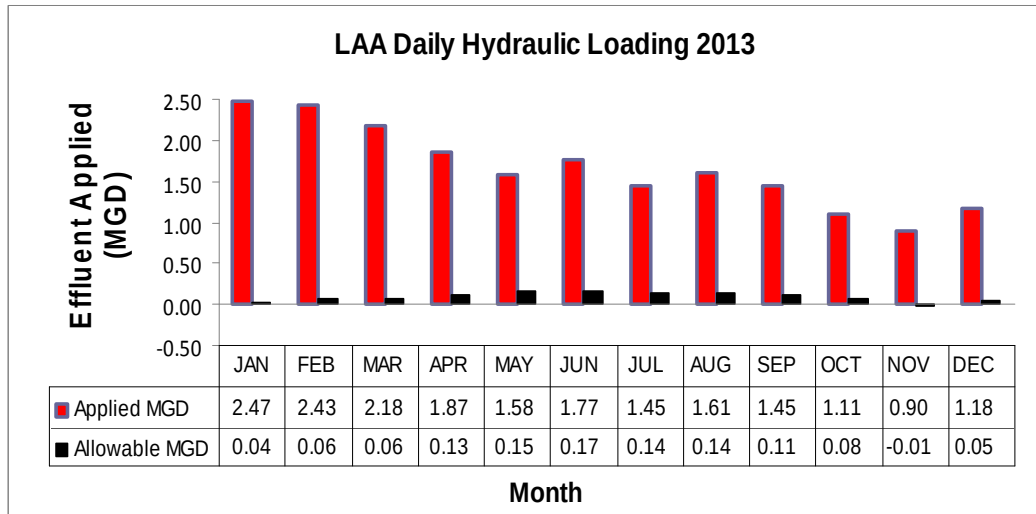


Figure 9. 2013 LAA Daily Hydraulic Loading (based on discharge days only).

Although there were slight hydraulic demands in every month of 2013, monthly application amounts still grossly exceeded the allowable (controlled) rate by a factor of 10 to 66 depending on the month (**Table 1**).

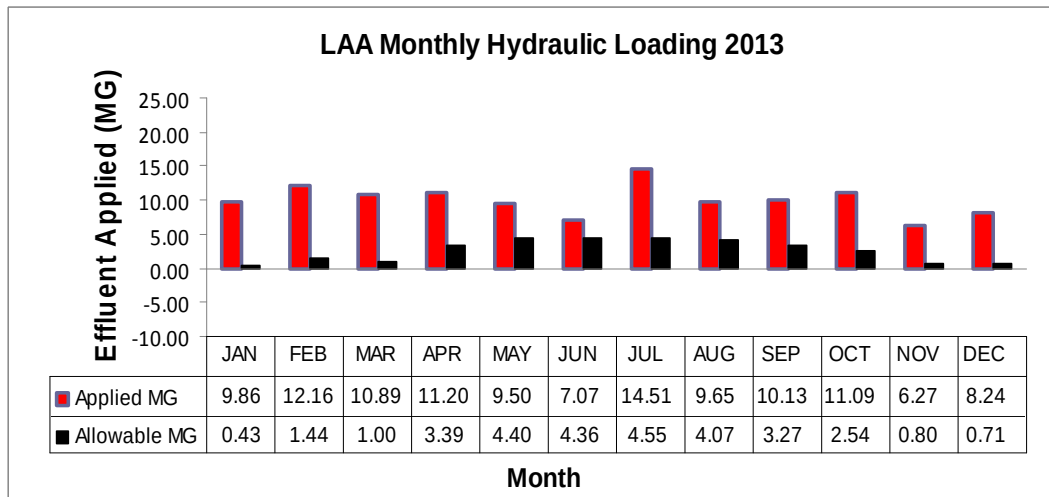


Figure 10. 2013 LAA Monthly Hydraulic Loading.

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No effluent was discharged in February or October of 2014 due to a spill in the WWTP's advanced facultative Pond 1A.

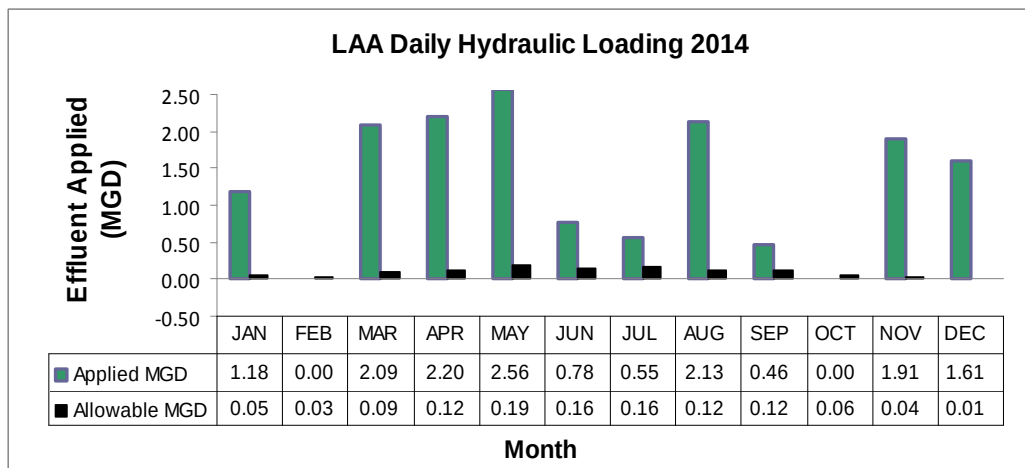


Figure 11. 2014 LAA Daily Hydraulic Loading (based on discharge days only).

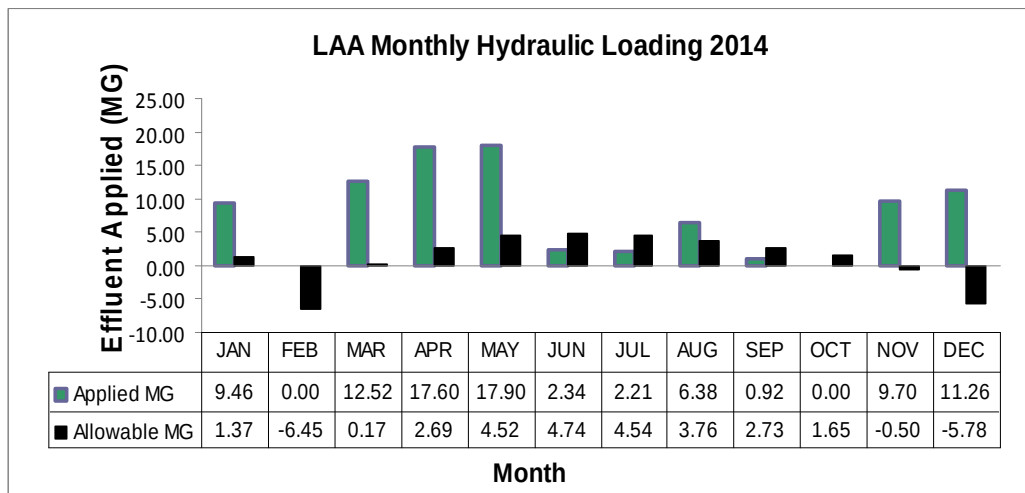


Figure 12. 2014 LAA Monthly Hydraulic Loading.

Excessive hydraulic loading continued in the winter of 2014-2015, when there should have been little to no land applications (i.e. January and February 2015).

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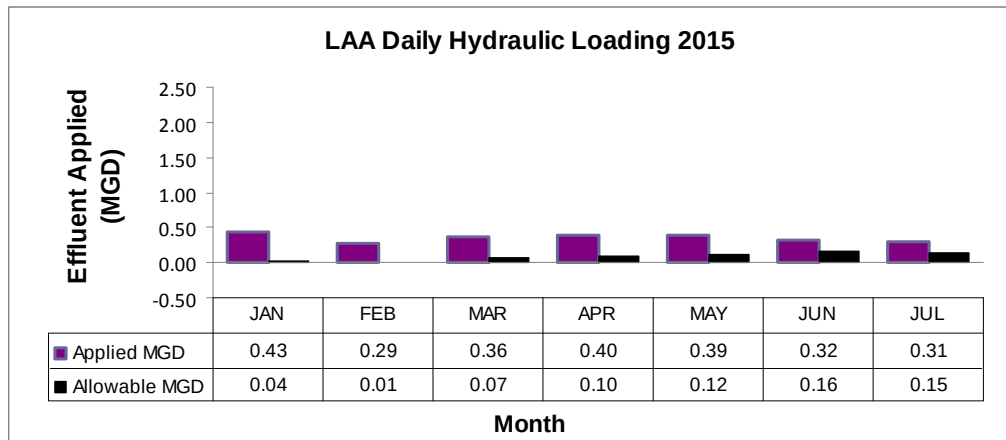


Figure 13. 2015 LAA Daily Hydraulic Loading (based on discharge days only).

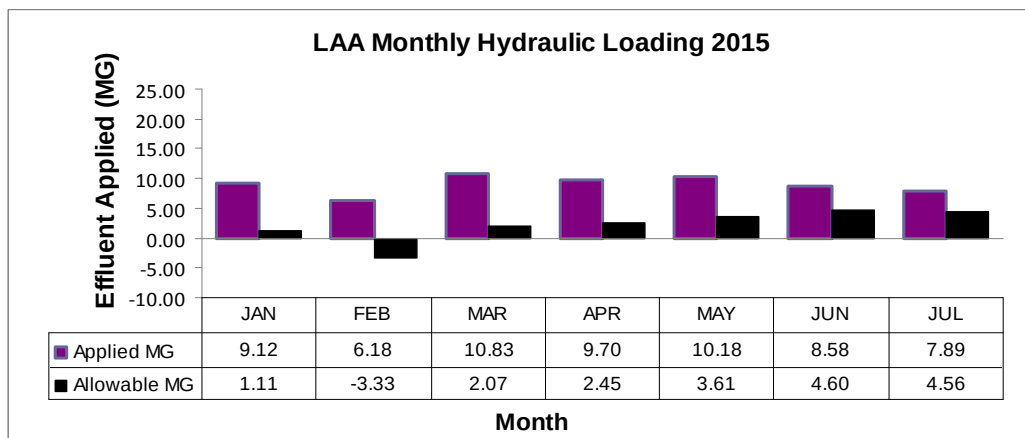


Figure 14. 2015 LAA Monthly Hydraulic Loading.

Prohibition No. 6 in the Order specifically states, “The use of reclaimed water shall not cause the degradation of groundwater suitable for domestic use or cause any change in a quality parameter which would make the groundwater less suitable for irrigation use.” Any physical or chemical change in groundwater parameters that may have negative impacts on agricultural production is a violation of the Order.

Irrigation inefficiencies can create situations of deep percolation and runoff. Excessive over application of reclaimed water can cause physical changes in groundwater parameters, including a rise in the water table. Nutrients (nitrogen) not assimilated by the plant may leach below the root zone and degrade groundwater quality.

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Crop evapotranspiration (ET_c) rates and effluent applications are summarized in the hydraulic summary (**Table 1**) and show the ratio of effluent applications to the theoretical demand (controlled rate). The Order defines “controlled rate” as the “grass evapotranspiration rate”. Crop water demand must also take into account rainfall amounts which also contribute to crop need. Therefore the controlled rate is calculated as crop evapotranspiration minus rainfall ($ET_c - \text{rainfall}$).

St. Helena WWTP Hydraulic Loading							
Applied: Controlled Ratios							
2012-2015							
Mo-Yr	Avg. Rate Applied	Avg. Controlled Rate (ET_c -precipitation)	Applied: Controlled	Mo-Yr	Avg. Rate Applied	Avg. Controlled Rate (ET_c -precipitation)	Applied: Controlled
	(MGD)	(MGD)	ratio		(MGD)	(MGD)	ratio
Jan-12	1.62	-0.03	-54:1	Nov-13	0.90	-0.01	-75:1
Feb-12	1.58	0.01	158:1	Dec-13	1.18	0.05	25:1
Mar-12	1.33	-0.19	-7:1	Jan-14	1.18	0.05	25:1
Apr-12	1.78	0.08	22:1	Feb-14	0.00	0.03	0
May-12	1.78	0.14	13:1	Mar-14	2.09	0.09	23:1
Jun-12	1.90	0.16	12:1	Apr-14	2.20	0.12	18:1
Jul-12	1.64	0.15	11:1	May-14	2.56	0.19	14:1
Aug-12	1.42	0.14	10:1	Jun-14	0.78	0.16	5:1
Sep-12	0.82	0.11	7:1	Jul-14	0.55	0.16	3:1
Oct-12	1.83	0.05	37:1	Aug-14	2.13	0.12	18:1
Nov-12	1.92	-0.20	-10:1	Sep-14	0.46	0.12	4:1
Dec-12	2.31	-0.22	-11:1	Oct-14	0.00	0.06	0
Jan-13	2.47	0.04	66:1	Nov-14	1.94	0.04	49:1
Feb-13	2.43	0.06	38:1	Dec-14	1.61	0.01	124:1
Mar-13	2.18	0.06	34:1	Jan-15	0.43	0.04	11:1
Apr-13	1.87	0.13	15:1	Feb-15	0.29	0.01	41:1
May-13	1.58	0.15	10:1	Mar-15	0.36	0.07	6:1
Jun-13	1.77	0.17	11:1	Apr-15	0.4	0.10	4:1
Jul-13	1.45	0.14	10:1	May-15	0.39	0.12	3:1
Aug-13	1.61	0.14	12:1	Jun-15	0.32	0.16	2:1
Sep-13	1.45	0.11	13:1	Jul-15	0.31	0.15	2:1
Oct-13	1.11	0.08	14:1				
Avg. Rate Applied is provided in Appendix F-2. Avg. Controlled Rate is provided in Appendix E. 2013-2015 Avg. Controlled Rate is based on discharge days only.							

Table 1. Hydraulic Summary for 2012 – 2015.

Table 1 indicates that all monthly effluent applications exceed the “controlled rate” by a factor of 2.0 to 158. Negative ratios are calculated when the calculated controlled rate is negative, when monthly rainfall exceeded crop monthly crop evapotranspiration and no effluent should have been applied.

In the best case scenario, the recent applied to controlled rate ratio of 2:1 in June and July 2015, the applied rate exceeds the allowable rate by 100 percent. However, because there is no water consuming crop present the over-application is much greater than indicated in Table 1.

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5. Groundwater Depth and Flow

Groundwater is the water beneath the land surface, consisting largely of surface water that has percolated down through the soils and is the source of water in wells. Information gathered from the *Napa County Comprehensive Groundwater Monitoring Program* 2014 Annual Report indicates that the direction of groundwater flow in the St. Helena Subarea is in a southeastern direction.

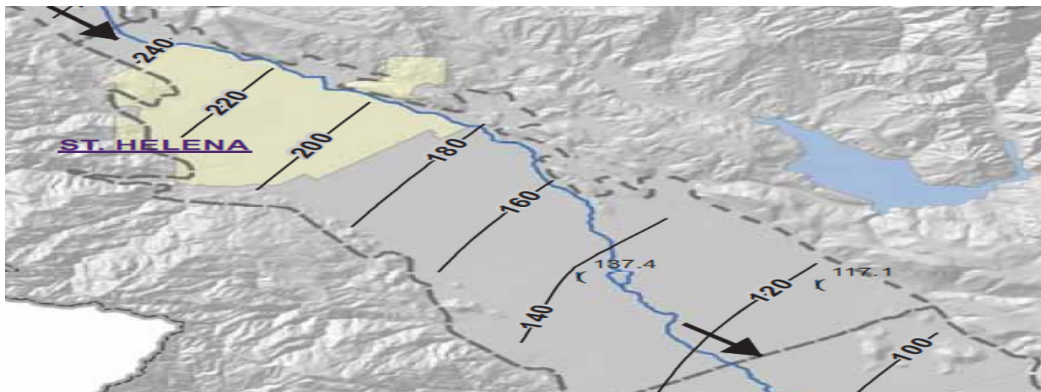


Figure 15. Groundwater Elevation and Direction of Flow: Napa Valley Floor (St. Helena Subarea). Arrows indicate the direction of groundwater flow.

Depth to groundwater indicates where the water table exists, the level below which the ground is saturated with water. Information gathered from the *2013 Napa County Updated Hydrogeologic Conceptualization and Characterization of Conditions* reported that the depth to groundwater can be shallow in the St. Helena Subarea.



Figure 16. Depth to Groundwater: Napa Valley Floor (St. Helena Subarea).

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6. Groundwater Well Monitoring at the LAA and Nitrate-Nitrogen (NO₃-N) Levels

In the Monitoring Reporting Program (MRP) section of the Order, it is stated that there are two existing wells (G-1 and G-2) that exist within the LAA. G-1 is located along the southwest boundary of the LAA. Well GRD-002 (G-2) is located in the middle of the LAA (**Figure 17**).

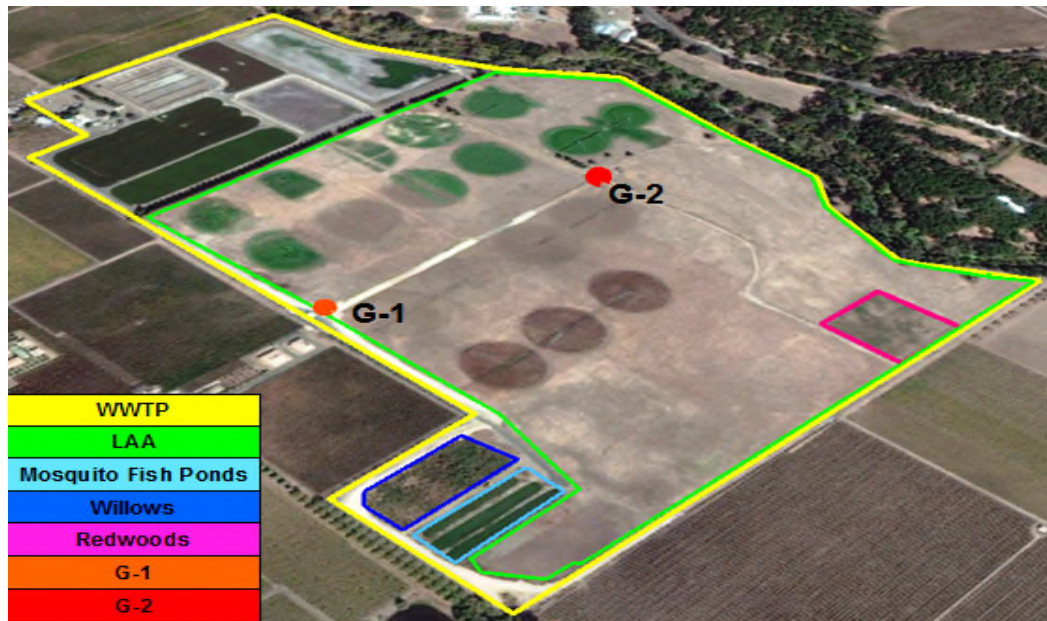


Figure 17. Site Location Map of LAA Groundwater Monitoring Wells.

In the Order, sampling schedules are listed. Both G-1 and G-2 are required to sample and test for nitrate-nitrogen (NO₃-N) on a quarterly basis. The WWTP has failed to provide any groundwater analysis for G-1, and groundwater monitoring information gathered from the dischargers eSMRs from 2012-2015 (**Attachment 4**) demonstrate that G-2 (reported as domestic well GRD-002 in the monthly reports) regularly exceeds the Maximum Contaminant Level (MCL) for safe drinking water of 10.0 milligrams per liter (mg/L) nitrate-N. Nitrate-N levels in well G-2 exceeded the MCL in 21 of the 39 samples reported for 2012 – June 2015 (**Figure 18**).

No water quality analyses have been reported for well G-1. In 2006, the Office of the Director of Public Works reported that G-1 was an existing well and was being used as the irrigation source in the buffer zone area (City of St. Helena 2006). Water quality analyses samples are required and needed for G-1 to ensure that no degradation has occurred which could effect irrigation use in the vicinity. The lack of sampling and reporting from well G-1 is in violation of the MRP.

Evaluation of Management Practices at the City of St. Helena Waste Water
Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

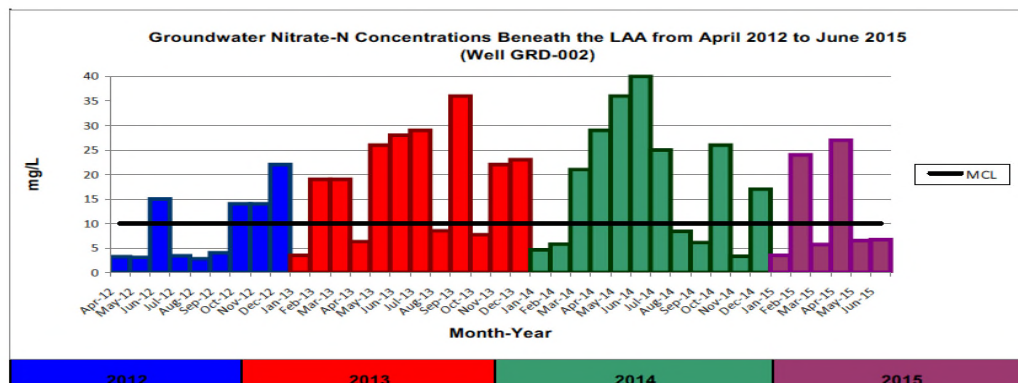


Figure 18. Groundwater Nitrate-N concentrations beneath the LAA from April 2012 to June 2015 (Well GRD-002).

In 1974, Congress passed the Safe Drinking Water Act (SDWA). This law requires the Environmental Protection Agency (EPA) to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur. In 1992, the Phase II Rule to the SDWA was enacted which began the regulation of nitrate-nitrogen and established the MCL of 10.0 mg/L reported as nitrate-nitrogen ($\text{NO}_3\text{-N}$). Regulations are updated by the EPA every six years. As of 2015, the established MCL for $\text{NO}_3\text{-N}$ remains the same.

The degraded groundwater quality at the WWTP is in violation of the law. Most nitrate-N levels in the St Helena groundwater basin are less than 1.0 mg/L $\text{NO}_3\text{-N}$ (Napa County Environmental Management 2015). Three reports of water analysis were conducted on neighboring vineyard wells (**Attachment 5**), and the results ranged from 3.0 mg/L of $\text{NO}_3\text{-N}$ to 5.2 mg/L $\text{NO}_3\text{-N}$. It is our contention that the St Helena WWTP has degraded groundwater quality by applying nitrogen containing effluent at excessive rates. Municipal effluent is high in nutrients (including nitrogen) and salts. Applications in excess of crop uptake and removal can result in leaching of these nutrient salts to the groundwater, thereby contaminating it.

7. Nitrogen Loading

The *Water Quality Control Plan for the San Francisco Bay Basin-Region 2* (Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin.

For nitrogen, the potential for groundwater degradation depends on wastewater quality (nitrogen concentration), hydraulic loading, crop nitrogen uptake, and irrigation management to prevent leaching to the ground water. Most of the nitrogen in wastewater can mineralize and be converted to nitrate which can either be absorbed by plant growth or eventually deep percolate to groundwater.

Evaluation of Management Practices at the City of St. Helena Waste Water Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

On October 13, 2015, a wastewater sample was collected from the LAA (**Attachment 6**). The results indicated a total nitrogen (TN) level of 36.7 mg/L. Using this figure, we calculated the annual nitrogen load from 2012 to Year to Date 2015. The nitrogen load to the land application areas ranged from 17,472- 45,550 lbs. of total nitrogen applied annually (**Appendix G**). That is the equivalent 728 to 1,898 lbs of nitrogen per acre for the 24 irrigated acres, with minimal plant nitrogen uptake and no crop removal.

The only fate of this excess nitrogen application is soil loading, deep percolation to ground water resulting in the groundwater contamination that has been documented in the high ground water nitrate-N levels in monitoring well G2. This groundwater contamination is in violation of the law.

8. Soils

The dominant soil type under the LAA and its surrounding acreage is the Pleasanton (170) soil series (Napa County Soil Survey, United States Department of Agriculture, Natural Resources Conservation Service SoilWeb). The Pleasanton series is a member of the fine-loamy, mixed thermic order of Mollisols. The lower 6-ft. is a gravelly fine sandy loam with a slightly alkaline pH of 7.4. The lower 6-ft. also contains many very fine pores which are more readily influenced by capillary action.



Figure 19. USDA soil map including WWTP and LAA.

The EPA's Guide for Industrial Waste Management states that nutrient levels are key determinants of application rates. "Disproportionate soil nutrient levels caused by high wastewater application rates can result in contamination of ground water and soils. Nutrient loading is dependent on nutrient levels in both the waste and the soil, making characterization of the soil, as well as of the waste, important."

Evaluation of Management Practices at the City of St. Helena Waste Water
Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

The Food and Agriculture Organization of the United Nations states that typical concentrations of potassium (K) in treated wastewater effluent are 30 mg/L and nitrogen (N) is 50 mg/L. N and K are less affected by slightly alkaline soils. Plant available K has a considerable influence on plant N uptake and utilization (Bar Tal 2011). Excessive nitrogen can lead to vigorous vegetative growth which can reduce wine grape quality.

9. Shallow Groundwater and Impacts on Neighboring Vineyards

Grapevines have proportionally deeper rooting systems than many plants in the world. They have very deep maximum rooting profiles, and reports of 19 feet and deeper are not infrequent (Smart et al., 2006).

Based on the fine textured soil type in the LAA and nearby vineyards, a shallow water table can allow for an upward flow through capillary rise into the soils, and in turn come into contact with the deeper part of the rooting system. Depth to groundwater in the LAA has been reported by the Board to be as low as 5 feet during parts of the season (**Attachment 7**). This shallow depth to groundwater under the LAA allows water to be drawn into the unsaturated zone of the soil and come into contact with the rooting system of nearby vineyards, resulting in undesirably excessive vine growth.

10. Compliance History and Violations

California Water Code Section 13267 allows for the investigation of any discharge that may affect the quality of waters of the State. On October 26, 2010 the Board inspected the LAA. On August 4, 2011, the Board issued a *Notice of Violation* (NOV) and a *Requirement to Submit a California Water Code Section 13267 Technical Report* to address alleged violations. The required report was provided on October 31, 2011 (**Attachment 2**). A *Facility at a Glance report* (**Attachment 8**) generated by CIWIQS lists the violations.

In the NOV, the Board cited the WWTP as violating **Provision C-6** in the Order by not notifying the Board when making material changes to the facility without 180 days advanced notice and the submission of a Report of Waste Discharge (ROWD). By altering the irrigation design, the City made changes in their irrigation management plan. These changes had the potential to degrade the groundwater, which is considered a water of the State.

The Board also cited the WWTP as violating **Specification B-7** and **Prohibition A-4** in the Order by not appropriately minimizing ponding in the LAA and applying discharge during rain events or when the soils had reached a saturated point.

Evaluation of Management Practices at the City of St. Helena Waste Water
Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards



Figure 20. 2010 Inspection Photo of Ponding.

Appendix H shows how the cycle of prohibited discharges during rain events has still occurred since the NOV was issued in 2011. In Attachment 2, dated October 31, 2011, the City states that “the City will not apply wastewater to the irrigation field site during rainfall or when soils are saturated to a point where runoff is likely. This action is now in effect.”

As recently as May 14, 2015, Appendix G also demonstrates that wastewater continues to be applied during periods when there is no vegetative water demand. When water is applied to saturated soils and there is no net evapotranspiration demand, the applied water will deep percolate eventually to the water table.



Figure 21. 2010 Inspection Photo of Discharging Under Saturated Conditions.

Evaluation of Management Practices at the City of St. Helena Waste Water Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

2010 inspection notes posted on CIWIS (**Attachment 7**) reflect the Board's concerns in regards to the irrigation design, field absorption, and shallow seasonal groundwater levels (5-20 feet). A new Report of Waste Discharge (ROWD) was requested by the Board to determine if new waste discharge requirements were needed for the LAA.

In addition to the violations, Board staff observed that vegetative growth did not appear to be maintained. Attachment 7 states, "Maintaining the vegetation at the Irrigated Field is likely to improve vegetative uptake of the reclaimed water, diminishing the likelihood of ponding, runoff and hydric loss to the local aquifer." The NOV requested a copy of the City's vegetation maintenance program. The 2011 Technical Report responding to the NOV states "The City's vegetative maintenance program includes disking the irrigation field in two directions each fall."

The initial Order was specified a summertime grassland irrigation program. The WWTP changed this program to a year round discharge, which is in violation of the Order. A photo taken of the LAA in August of 2015 (**Figure 22**) illustrates that the LAA is not properly maintaining a crop to utilize the applied wastewater. No forage crop has been planted, and the vast majority of the vegetation consists of dead mustard plants (winter annual plants) that are not capable of utilizing the wastewater applied during the summer. Because of this situation, hydric loss to the local aquifer is inevitable.



Figure 22. Photo of Land Application Area in August 2015 showing no crop present.

11. St. Helena General Plan Update 2030

California Government Code 65300-65303.4 requires each local government to adopt a General Plan, which sets forth guiding principles, goals, and strategies that a City will take in managing its future. In 2010, ESA developed the *St. Helena General Plan Update and Draft Program Environmental Impact Report* (Plan), which included developmental plans for 2010-2030. In April of 2015, the Plan was updated in regards to public services, including wastewater (**Attachment 9**). The Plan states that "the City's goal is to avoid all direct discharges into the Napa River, including even secondarily-treated discharges that are allowed under its current Tentative Order from the Regional Water Quality Board."

Evaluation of Management Practices at the City of St. Helena Waste Water
Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

The WWTP is regulated under California Regional Water Quality Control Board, San Francisco Bay Region, Order No. R2-2010-0105 and under National Pollutant Discharge Elimination System Permit No. CA 0038016 (Permits). The Permits allow the WWTP to discharge secondary treated effluent to the Napa River during the wet weather period of December 1 through April 30, when the river to wastewater dilution flow ratio is at least 50:1.

The Permits direct that the monitoring location (**Attachment 10**) for discharge flow be completed at a point in the Napa River that is the same station as the United States Geological Survey (USGS) monitoring station No. 11456000. When the river to wastewater dilution flow ratio is not at least 50:1, the wastewater is to be stored in the onsite storage ponds and/or used for irrigation at the LAA. WWTP discharges to the Napa River from 2012-2015 are listed in **Table 2**.

Month	2012	2013	2014	2015
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
December	16.068	0	23.659	N/A

Table 2. WWTP Discharges to the Napa River during 2012-2015 in Million Gallons (MG)

The 50:1 river to wastewater dilution flow ratio (Ratio) is a set parameter which is intended as an environmental constraint to protect the waters of the State. Discharges to the Napa River offset the volume of discharge to the LAA during times of low ET. According to **Appendix I**, from 2012-2015, the over application of discharges in acre-feet (AF) during the allowable Napa River discharge period ranged from 103 AF to 256 AF. These wet weather period discharges should have been released to the Napa River and not to an area with little or none net water demand.

In Attachment 2, the City claimed that there were difficulties in discharging to the Napa River due to low staff, no online analyzer for trending of total chlorine residuals, concerns of being in violation of the Permit, and increased analytical costs associated with river discharge. The City further explained that, "the effluent rate is controllable, with 8.062 mgd set as the current maximum. A discharge rate of less than 2.0 mgd is impractical due to plant operational requirements."

Based on information gathered from the National Water Information System for USGS Monitoring Station No. 11456000 (**Appendix J**), permissible discharges could have occurred from 2012-2015, but the WWTP chose not to discharge due to management decisions, not environmental limitations. A discharge rate of 2.0 million gallons per day (MGD) is the equivalent of 3 cubic-feet per second (CFS). A discharge rate of 8.062 MGD is the equivalent of 13 CFS. With a river flow between 150 CFS and 650 CFS, the operational requirements and State requirement of a 50:1 ratio could have been met (**Appendix K**).

Evaluation of Management Practices at the City of St. Helena Waste Water
Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

12. Conclusion

The Basin Plan encourages the reuse of wastewater and identifies crop irrigation as a reuse option.

The presented information is being reported in an effort to identify some of the practices at the WWTP that have impacted local groundwater and neighboring vineyards.

The established hydraulic loading rates are based on application records from the WWTP and satellite imagery that illustrate a *maximum* land application area of approximately 24-acres.

The information regarding the irrigation design has been established by submissions of technical reports. Inefficiencies created by the irrigation system design have been noted by the City, but the installation of 45 more sprinklers to apply the effluent to a larger area has not yet been put into effect. Over application of reclaimed wastewater will continue to occur under the current conditions of winter time land applications and any applications when there is not an actively growing crop.

Nitrate-N ($\text{NO}_3\text{-N}$) levels in the groundwater will continue to exceed the MCL unless proper agronomic management practices are adopted and the reclaimed wastewater is applied at an agronomic rate to meet crop water demands (evapotranspiration rates). This is a general requirement for all current waste discharge requirements involving land application of effluent.

Based on the location of nearby vineyards, it is quite feasible that the south-easterly flow of groundwater coupled with elevation changes brought forth by deep percolation have managed to invade the root zone and cause changes in plant growth. Due to the characteristics of the soil texture in the area, capillary rise can occur between the saturated and unsaturated zones, reaching deep-rooted vine systems.

The St Helena WWTP is operating under a 28 year old water reclamation requirement from 1987. The current Order is in need of a new set of Waste Discharge Requirements that match current State and Federal laws in regard to water quality. As of November 2015, a new Report of Waste Discharge has not been drafted by the City.

The data presented here indicates that the water balance is not being managed properly and a change in both physical and chemical parameters of groundwater in the area has occurred. General approaches to current waste discharge requirements commonly require that effluent applications must be based on agronomic requirements and show a net neutral balance for both water and nitrogen applications to prevent degradation of groundwater. This requires that crops are grown, adequately irrigated, and harvested to remove the biomass accumulating nitrogen to prevent nitrate leaching to groundwater.

Evaluation of Management Practices at the City of St. Helena Waste Water
Treatment Plant Land Application Area and the Effects Upon Neighboring Vineyards

The LAA at the St Helena WWTP is not being farmed and harvested portions of crops are not being removed. A visual inspection from neighboring properties shows that as of August 2015, the vast majority of the LAA under big gun irrigation has no crop under cultivation (**Figure 22**). The only plants growing are a few weeds, and the vast majority of the land area is covered with dead mustard plants (a winter annual plant).

Presently there is no significant crop water use, nor crop nitrogen uptake. Although some of the applied wastewater will evaporate, the vast majority of current applications will only percolate to groundwater. The water quality data from well G-2 indicates that the deep percolation of this nitrogen laden water is contaminating the local aquifer.

Changes in the management of the LAA are needed to prevent further water quality degradation of the aquifer to ensure safe potable water and suitable water quality to irrigate the world famous Napa Valley vineyards.

December 2015

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Attachment 1
California Regional Water Quality Control Board
Order No. 87-090



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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-090

WATER RECLAMATION REQUIREMENTS FOR:

CITY OF ST. HELENA
NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The City of St. Helena (hereinafter called the discharger) presently operates a secondary sewage treatment plant consisting of a series of 5 ponds with a designed capacity of 0.5 million gallons per day (MGD). During the period of December 1 through April 30, pond effluent is disinfected prior to discharging to the Napa River, a water of the United States, under the National Pollutant Discharge Elimination System (NPDES). The Board has adopted a separate set of waste discharge requirements (NPDES Permit No. CA0038016) for this discharge.
2. The discharger, by application dated July 13, 1983 and supplemental technical report dated April, 1985, proposed a summertime golf course irrigation project. The Board, on November 20, 1985, has adopted water reclamation requirements in Order No. 85-133 for this project. The golf course project was never implemented. The discharger hence studied other alternatives.
3. The discharger, on March 31, 1987, submitted an amended facilities plan and proposed a summertime grassland irrigation project. Secondary treated wastewater will be disinfected and stored in pond 5 prior to being pumped to a grassland through sprinkler spray during dry months. The grassland irrigation site is located on the west bank of the Napa River, adjacent to and southeast of the treatment plant, with 87.6 acres of net irrigable land. The discharger will purchase the land, plant grass and operate the irrigation site. The discharger is both the producer and user of the reclaimed wastewater. Attachment A is a location map of the irrigation site and is hereby made a part of this Order.
4. The discharger will apply reclaimed wastewater to the grassland through low trajectory sprinklers at a controlled rate corresponding to grass evapotranspiration rate. The irrigation pumps will be provided with shutoff switches controlled by an anemometer to stop spraying when wind velocity in the field is high. A minimum of 50-foot wide buffer zone will be maintained along the Napa Riverbank and along the southeast and southwest boundaries. Along the southeast and southwest boundaries, the buffer zones will be irrigated by well water using spray irrigation through a separate sprinkler system. During the irrigation season, runoff from the site will be collected in perimeter ditches leading to two tail water sumps and be pumped back to the field.

5. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986. The water quality goals to be used in regulating water quality factors as set forth in the Basin Plan include maximum feasible reclamation or reuse of municipal, industrial, and agricultural wastewaters.
6. Section 13523 of the California Water Code provides that a Regional Board, after consultation with and reception of recommendations from the State Department of Health, and if it is determined such action to be necessary to protect the public health, safety, or welfare, shall prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water.
7. These water reclamation requirements are in conformance with the statewide reclamation criteria established by the State Department of Health Services as prescribed in Title 22, Section 60301 through Section 60355, California Administrative Code.
8. The City of St. Helena, on February 2, 1987, certified as complete a Supplemental Environmental Impact Report (EIR) on the proposed wastewater reclamation project. The EIR finds that, with the mitigation measures included in the project, the project will not have a significant adverse impact on the environment.
9. The Board has notified the discharger, and interested agencies and persons of its intent to prescribe water reclamation requirements for the proposed reuse.
10. The Board, in a public meeting, heard and considered all comments pertaining to this reuse.

IT IS HEREBY ORDERED, that the discharger, in order to meet the provisions contained in Division 7 of the California Water code and regulations adopted there under, shall comply with the following:

A. Prohibitions

1. The treatment, storage, distribution, or reuse of reclaimed water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. No reclaimed water shall be allowed to escape from the designated use area via surface flow or airborne spray.
3. Reclaimed water shall not be used as a domestic or animal water supply. There shall be no cross-connection between potable water supply and piping containing reclaimed water. Supplementing reclaimed water with water used for domestic supply shall not be allowed except through an air-gap separation.
4. No waste shall be applied to the irrigation site during rainfall, or when soils are saturated to a point where runoff is likely.
5. Reclaimed wastewater shall not be sprayed on any facility or area not designated for reclamation such as walkways, passing

vehicles, buildings, domestic water facilities or food handling facilities. Drinking water facilities shall be protected from direct or windblown reclaimed water spray.

6. The use of reclaimed water shall not cause the degradation of groundwater suitable for domestic use or cause any change in a quality parameter which would make the groundwater less suitable for irrigation use.
7. There shall be no irrigation or impoundment of reclaimed water within 500 feet of any well used for domestic supply or 100 feet of any irrigation well unless it can be demonstrated that special circumstances justify lesser distances to be acceptable.

B. Reclaimed Water Use Specifications

1. The discharger shall assure that the reclaimed wastewater is at all times an adequately oxidized, disinfected wastewater that meets the following quality limits at all times:

In any grab sample:

- | | |
|------------------------------------|--------------------|
| a. 5-day Biochemical Oxygen Demand | 40.0 mg/l, maximum |
| b. Dissolved Oxygen | 1.0 mg/l, minimum |
| c. Dissolved Sulfides | 0.1 mg/l, maximum |

At any point in the disinfection facilities where adequate contact with disinfectant is assured:

- d. The median number of total coliform organisms shall not exceed 23 MW100ml as determined from the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform organisms shall not exceed 240 MPN/100 ml in any two consecutive samples.
2. The discharger shall discontinue the pumping of reclaimed water to the irrigation site during any period in which he has reason to believe that the limits specified in B.1 above are not being met. The pumping of reclaimed water shall not be resumed until all conditions which caused the limits specified in B.1 to be violated have been corrected.
3. All equipment, including pumps, piping, valves, etc. with public access which may at any time contain reclaimed water shall be adequately and clearly identified with warning signs and the discharger shall make all necessary provisions, in addition, to inform the public that the liquid contained is reclaimed water and is unfit for human consumption.
4. The buffer zones along the site perimeter shall have a minimum allowable width of 50 feet, as measured from the end of sprinkler radius of throw to the property line. The Board may require a buffer zone width beyond 50 feet in certain areas if deemed necessary. Under no circumstances may the buffer zones

along the southeast and southwest boundaries be spray irrigated by reclaimed wastewater. Surface irrigation of these buffer zones by reclaimed wastewater is not allowed, unless a specific plan is submitted for review and approval by the Executive Officer.

5. Under no circumstances may reclaimed wastewater be used to irrigate within 100 feet of the two wells located on the reclamation site.
6. The anemometer controlled irrigation pumps must be automatically shut down whenever wind velocity at the irrigation site exceeds a preset level. The discharger shall monitor the irrigation system performance with respect to wind velocity and direction to develop an operating envelop within which the irrigation system can operate without resulting in the escaping of wastewater from the irrigation site in the form of droplets, or airborne spray. An engineering report must be generated from this monitoring effort within three months of the start of the reclamation project and be submitted, to the satisfaction of the Executive Officer, for review and approval.
7. The discharger shall manage its spray irrigation so as to minimize wastewater ponding in the spray field which could cause mosquito breeding problem.
8. Adequate time should be provided between the last irrigation and grass mowing to allow the grass to dry.
9. Irrigation site shall be fenced to restrict public access. Perimeter warning signs indicating that the reclaimed wastewater is not safe for drinking or contact should be posted at least every 500 feet with a minimum of one sign at each corner and one at each access road.
10. There shall be at least a 10-foot horizontal and 1-foot vertical separation (with the domestic water above the reclaimed water pipeline) between all pipelines transporting reclaimed water and those transporting domestic water.
11. Along the southeastern and southwestern boundaries, the operation of well water spray in the buffer zones should be managed in a manner to effectively prevent reclaimed wastewater from escaping the irrigation site in the form of droplets, airborne spray, or mist.

C. Provisions

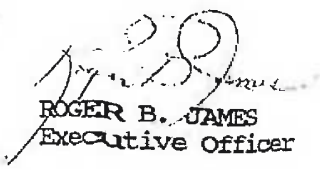
1. The discharger shall comply with a Self-Monitoring Program as ordered by the Executive Officer.
2. The discharger shall permit the Board or its authorized representatives in accordance with California Water Code Section 13267(c):

Entry upon premises in which an effluent source is located or in which any required records are kept.

- (b) Access to copy any records required to be kept under terms and conditions of this Order.
 - (c) Inspection of any monitoring equipment or method required by this Order.
 - (d) Sampling of reclaimed water.
3. The discharger shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed by the discharger to achieve compliance with this Order.
 4. A contingency plan shall be developed outlining the action to be taken in the event effluent quality fails to meet required standards. The plan must be submitted for review, to the satisfaction of the Executive Officer, prior to the startup of the irrigation operation.
 5. In the event of any change in control or ownership of land or water reclamation facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.
 6. The discharger shall file with the Regional Board a report on waste discharge at least 180 days before making any material change or proposed change in the character, location, or volume of the reuse, except for emergency conditions in which case the Board shall be notified.
 7. The Board will review this Order periodically and may revise the requirements when necessary.
 8. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - (a) Violation of any term or condition contained in this Order;
 - (b) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts; and
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized reuse.
 9. The water reclamation requirements previously prescribed by the Board in Order No. 85-133 is no longer applicable. Order No. 85-133 is hereby rescinded.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July

15, 1987.


ROGER B. JAMES
Executive Officer

Attachments:
Location Map
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

FINAL
SELF-MONITORING PROGRAM
FOR

CITY OF ST. HELENA

WASTEWATER RECLAMATION PROJECT

NAPA COUNTY

ORDER NO. 87-090

CONSISTS OF

PART A

PART A

CITY OF ST. HELENA
WASTEWATER RECLAMATION PROJECT

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger or reclaimed water user, also referred to as a self-monitoring program, are:

1. To document compliance with waste discharge and/or water reclamation requirements and prohibitions established by the Regional Board.
2. To facilitate self-policing by the waste discharger or reclaimed water user in the prevention and abatement of pollution arising from waste discharge or water reclamation.

II. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of "Standard Methods for the Examination of Water and Wastewater" prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved and specified by the Executive Officer of this Regional Board.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health or a laboratory approved by the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

III. DEFINITION OF TERMS

1. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
2. Standard Observations
 - a. Land Retention or Pond Area

This applies both to liquid and solid wastes confined or unconfined.

- (1) Determine height of the freeboard at lowest point of dikes confining liquid wastes.
- (2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)
- (3) Odor: presence or absence, characterization, source, and distance of travel.
- (4) Estimated number of waterfowl and other water-associated birds in the pond area and vicinity.

b. Periphery of Spray Irrigation Site

- (1) Evidence of reclaimed wastewater escaping the irrigation site through surface runoff or airborne spray. (Show affected area on a sketch.)
- (2) Odor: presence or absence, characterization, source, and distance of travel.
- (3) Evidence of surfacing or ponding of reclaimed water as well as mosquitoes breeding within the irrigation area due to excessive spray.
- (4) Warning signs or notices adequately posted to inform public that the water used for irrigation is reclaimed waste.

IV. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSIS AND OBSERVATIONS

1. DESCRIPTION OF SAMPLING STATIONS

a. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	Located at any point in the effluent from the treatment plant, prior to being pumped to the irrigation site. (Maybe the same point as E-001-D.)
E-001-D	Located at any point in the effluent from disinfection facilities at which point adequate contact with the disinfectant is assured.

b. STORAGE PONDS

<u>Station</u>	<u>Description</u>
----------------	--------------------

P-1 Located at a point in pond No.5, within one foot of the water surface and no less than two feet from the bank, representative of the wastewater.

c. LAND OBSERVATION

<u>Station</u>	<u>Description</u>
11-1 thru	Located at ends and midpoints of the perimeter levees of pond No.5.
I-1 thru I-'n'	Located at points spaced equidistantly around the periphery of the spray irrigation area. Points shall be separated by not more than 1000 feet. A sketch showing the stations shall be submitted with the first monitoring report and subsequent self-monitoring reports when station location is changed or a violation is noted.

d. GROUNDWATER

<u>Station</u>	<u>Description</u>
G-1	An existing well located within the irrigation site, along the southwest boundary, to be used as the irrigation source in buffer areas. This well will be sanitary sealed.
G-2	An existing well located within the irrigation site, northeastern to the center of the field. This well will be sanitary sealed.

2. SCHEDULE OF SAMPLING, ANALYSIS, AND OBSERVATIONS

- a. This self-monitoring program is applicable when wastewater is reclaimed for irrigation.
- b. The discharger is required to perform observations, sampling, and analyses according to the schedule given in Table I. (Attachment A)

v. REPORTS TO RF, FILED WITH THE REGIONAL BOARD

1. Violation of Requirements:

In the event the discharger is unable to comply with the conditions of the water reclamation requirements and prohibitions due to:

- (a) maintenance work, power failure, or breakdown of waste treatment equipment, or
- (b) accidents caused by human error or negligence, or
- (c) other causes such as acts of nature,

the discharger shall notify the Regional Board office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to prevent the problems from recurring.

2. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar month by the fifteenth day of the following month. The reports shall be comprised of the following:

a. Letter of Transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as operation modifications and/or facilities expansion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

b. Results of Analyses and Observations

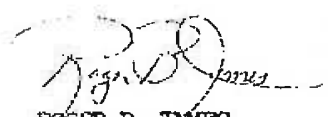
Tabulations of the results from each required analysis and/or observations specified in Table I by date, time, type of sample, and station.

c. List of Approved Analyses

- (1) Listing of analyses for which the discharger is approved by the State Department of Health.
- (2) List of analyses performed for the discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

I, Roger B. James, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

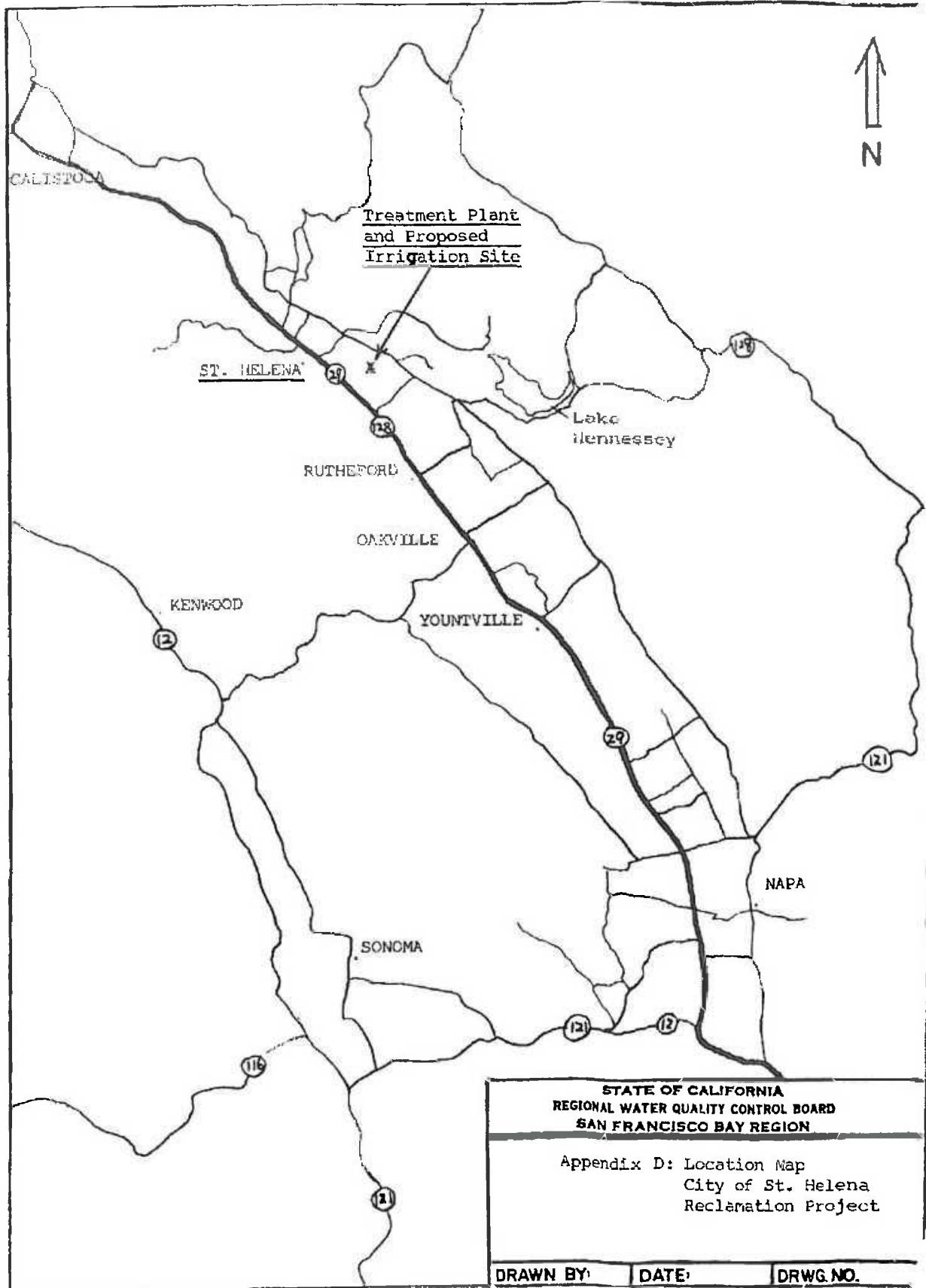
1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with the Water Reclamation Requirements established in Regional Board Order No. 87-090.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.


ROGER B. JAMES
Executive Officer

Effective Date: July 15, 1987

Attachments:

- A. Table I
- B. User's Self-Monitoring Report Form



**Attachment 2
City of St. Helena
California Water Code Section 13267
2011 Technical Report**



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Chemists and Consultants

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CITY OF ST. HELENA

WASTEWATER TREATMENT PLANT

CALIFORNIA WATER CODE SECTION 13267 TECHNICAL REPORT

PREPARED BY :

THE OFFICE OF THE DIRECTOR OF PUBLIC WORKS

OCTOBER 31, 2011



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EXECUTIVE SUMMARY

On August 4, 2011, the Office of the Director of Public Works for the City of St. Helena received a Notice of Violation and Requirement to Submit a Technical Report per California Water Code 13267 letter from the California Regional Water Quality Control Board San Francisco Bay Region (CRWQCB-SF). The letter that was dated August 3, 2011, alleged four violations and one potential violation of its Water Reclamation Requirement (WRR), Order No. 87-090.

This report will serve to meet the requirements of the CRWQCB-SF in providing a technical report to address the four alleged violations and one potential violation by the October 31, 2011 deadline. There was an additional request for the City to contact the Water Board by October 3, 2011 to schedule a follow-up site inspection and meeting to discuss proposed changes to Facility practices to bring the City into compliance with the WRR. On September 29, 2011 John Draper, the City of St. Helena's Associate Engineer, contacted Blain Allen to make such arrangements. The site inspection and meeting were held with Blair Allen and Tong Yin on October 18, 2011.

A summary of the Violations are listed here:

Violation 1. The City is estimated to have discharged at least 131 million gallons (MG) of reclaimed water to the Facility's Irrigated Field in violation of WRR Prohibition A.4, which states:

No waste shall be applied to the irrigation site during rainfall, or when soils are saturated to a point where runoff is likely.

Violation 2. The City violated its WRRs by not managing spray irrigation to appropriately minimize ponding in the Irrigated Field. WRR Reclaimed Water Use Specification B.7 states:

The discharge shall manage its spray irrigation so as to minimize wastewater ponding in the spray field which could cause mosquito problem [sic].

Violation 3. The City violated its WRR by discharging reclaimed water to the irrigated field with 5-day biochemical oxygen demand (BODs) and coliform in excess of WRR limits. Also, it appears that the City continued to discharge water in violation of the WRR. The WRR contains the following reclaimed water limits for BODs, and total coliform:

In a grab sample: a 5-day Biochemical Oxygen Demand 40 mg/l, maximum.

The median number of total coliform organisms shall not exceed 23 MPN/100ml as determined from the bacteriological results of the last seven days for which analyses have been completed...

WRR specification B.2 requires the City to stop discharge to the Irrigated Field when limits are exceeded, and not to begin again until appropriated corrective action have been taken:

The discharger shall discontinue the pumping of reclaimed water to the irrigation site during any period in which he has reason to believe that the limits specified in B.1 above are not being met. The pumping of reclaimed water shall not be resumed until all conditions which caused the limits specified in B.1 to be violated have been corrected.

Violation 4. The City violated its WRR by making material changes to its facility without filing the required Report of Waste Discharge with the Water Board at least 180 days in advance of making changes. WRR Provision C.6 states:

The discharger shall file with the Regional Board a report [of] waste discharge at least 180 days before making any material change or proposed change in the character, location, volume of the reuse, except for emergency conditions in which case the Board shall be notified.

Potential Violation 5. The City may be in violation of WRR requirements prohibiting discharge of reclaimed water within 100 or 500 feet of wells. WRR Reclaimed Prohibition A.7 states:

There shall be no irrigation or impoundment of reclaimed water within 500 feet of any well used for domestic supply or 100 feet of any irrigation well unless it can be demonstrated that special circumstances justify lesser distances to be acceptable.

WRR Reclaimed Water Specification B.5 states:

Under no circumstances may reclaimed wastewater be used to irrigate within 100 feet of the two wells located on the reclamation site.

The City of St. Helena's California Water Code Section 13267 Technical Report, respectfully submitted, and electronically signed this 31st day of October, 2011.

TECHNICAL REPORT RESPONSE FOR EACH VIOLATION**VIOLATION 1**

Discharge Of reclaimed water during rain event.

TECHNICAL REPORT REQUIREMENT

Pertaining to Violation 1, the City is required to provide: 1) an explanation for the discharging of reclaimed water to the Irrigation Field on rain event days; 2) data for each rain event including the date of the rain event, volume of reclaimed water discharged, the depth of rainfall, and all other necessary information, as appropriate; 3) the City's corrective action plan with time schedule for implementation.

Explanation for Violation

The City recognizes that reclaimed water was discharged to the irrigation fields during rain event days as defined in the Notice of Violation. The discharge of reclaimed water to the Irrigation field on rain event days occurred when the storage capacity of Ponds 4 and 5 had reached the maximum acceptable level and there were difficulties with discharging to the Napa River, as described below. Plant operators checked daily when reclaimed water was being applied to the irrigation field to be sure there was no runoff. No runoff was noted during the dates identified by the Regional Water Board.

On the rain event days that the City discharged to the Irrigation Field, Ponds 4 and 5 were at or near capacity. The tabulation of freeboard data for Ponds 4 and 5 which is required for the ROWD for Violation #4 is provided in Attachment 3.

The flows in the Napa River were great enough for discharge to the River and meet the 25:1 dilution requirement. The City's previous permit dilution ratio was 25:1 and was such until October 2010 prior to the 2010 NPDES permit reissuance which increased the dilution ratio to 50:1. Difficulties associated with discharging to the Napa River included the following:

- River flow compared to discharge flow must be monitored not less than once every 6 hours to be sure that discharge flow is not exceeding the current 50:1 dilution ratio. During the day this is not a problem but normally this needs to be checked at least once during the night.
- An operator must be onsite 24 hours a day during the entire discharge event in order to collect and analyze for Total Chlorine residual (required minimum analysis no less than once every two hours). The City does not have an online analyzer for trending of total chlorine residual.
- Concerned about the possible violation of discharge requirements related to discharging to the Napa River.

The City and Tong Yin have previously discussed the City's discharge event logistics. Excerpts from these conversations are provided below.

Why doesn't the City discharge at a lower flow rate for a longer period of time?

The City of St. Helena Wastewater Treatment Plant has a staff of two full time certified waste water operators. With so few staff the City is always grasping for ways to save time and ensure adequate attention is paid to keeping the plant's biological and physical processes at optimal operating conditions.

In discharging at a higher flow rate the City is able to save a substantial amount of time and money in several ways:

1. An operator must be onsite 24 hours a day during the entire discharge event in order to collect and analyze for Total Chlorine residual (required minimum analysis no less than once every two hours). The City does not have an online analyzer for trending of total chlorine residual.
2. The continuous monitoring that is associated with river discharge requires an enormous amount of staff time. In order to ensure staff is available for other plant operational requirements, the City strives to complete the discharge event as fast as reasonably possible.
3. The increased number of laboratory analyses associated with river discharge means increased costs to the City. Lessening the number of discharge days results in a substantial analytical cost savings.

Normally when will you [the City] know that the Plant will need to discharge and how much flow to discharge to keep the ponds safe?

The decision to discharge is based on pond levels, weather forecast, and river flow. The City goes into the wet weather months with the storage pond completely empty and other ponds kept as low as possible. The City knows discharging will be necessary if all ponds are nearly full and the grass field is too wet for irrigation. When discharging is necessary, the City makes every effort to time the discharge event as close to the beginning of the month as possible.

When the decision is made to discharge, staff first check the river flow rate to ensure the 25:1 river to effluent flow ratio can be achieved [note this is now 50:1 per 2010 NPDES permit]. The effluent discharge rate is then based on that ratio. The effluent flow rate is controllable, with 8.062 mgd set as the current maximum. Discharge is continued until pond levels are as low as possible. A discharge rate of less than 2.0 mgd is impractical due to plant operational requirements.

Required Rain Event Data

For each rain event the City is required to provide: the date of the rain event, the volume of reclaimed water discharged, the depth of rainfall, and all other necessary information, as appropriate. This information is provided in the following table.

The Notice of Violation letter from the CRWQCB-SF alleges that the City discharged at least 131 million gallons of reclaimed water on a total of 104 days during a rain event. The analysis defined a rain event as a 24-hour period where precipitation was greater than or equal to 0.3 inches as published by the California Irrigation Management Information System (CIMIS). It should be noted that the wastewater operators collect and report on-site rainfall data in the monthly Self-Monitoring Reports. As shown in the table below, there are several days when the CIMIS data indicated a rain event > 0.30 inches, but the wastewater plant on-site rainfall depth recorded was less than 0.3 inches. If these days are subtracted, there are 66 days when the City discharged reclaimed water during a rain event. The total volume of reclaimed water applied to irrigation field during those days is 81.69 million gallons.

Rain Event	Volume of Reclaimed Water Discharge	Precip Recorded at WWTP	Inspection/Observation of Irrigated Field Conditions	Other Necessary Information
1/1/05	1.255	.40	Not Running off the Field	
1/2/05	1.253	.61	Not Running off the Field	
1/7/05	.959	.47	Not Running off the Field	
1/10/05	2.288	.02	Not Running off the Field	Precip per CIMIS = .66
1/11/05	.288	.87	Not Running off the Field	
1/26/05	.166	.00	Not Running off the Field	Precip per CIMIS = .42
1/27/05	1.445	.07	Not Running off the Field	Precip per CIMIS = .75
1/28/05	1.536	.67	Not Running off the Field	
2/15/05	1.403	.02	Not Running off the Field	Precip per CIMIS = .78
2/19/05	1.116	.64	Not Running off the Field	
2/21/05	1.518	.60	Not Running off the Field	
2/27/05	.215	.19	Not Running off the Field	Precip per CIMIS = 1.53
3/1/05	.259	.00	Not Running off the Field	Precip per CIMIS = .51
3/4/05	1.55	.63	Not Running off the Field	
3/18/05	1.623	.00	Not Running off the Field	Precip per CIMIS = .55
3/19/05	.279	1.21	Not Running off the Field	
3/20/05	1.539	.41	Not Running off the Field	
3/21/05	.316	.65	Not Running off the Field	
3/22/05	.33	1.33	Not Running off the Field	
4/7/05	.438	.20	Not Running off the Field	Precip per CIMIS = .34
4/8/05	.473	.08	Not Running off the Field	Precip per CIMIS = .51
5/4/05	.49	.00	Not Running off the Field	Precip per CIMIS = .97
5/8/05	.335	.40	Not Running off the Field	
5/18/05	.477	.92	Not Running off the Field	
11/28/05	.73	.49	Not Running off the Field	
12/1/05	1.228	1.85	Not Running off the Field	
12/19/05	.545	.00	Not Running off the Field	Precip per CIMIS = .56
12/20/05	3.015	.04	Not Running off the Field	Precip per CIMIS = .64
12/21/05	2.818	1.06	Not Running off the Field	
12/26/05	.015	.75	Not Running off the Field	
12/27/05	3.09	.03	Not Running off the Field	Precip per CIMIS = 1.52
12/28/05	3.067	2.56	Not Running off the Field	
12/30/05	3.862	.08	Not Running off the Field	Precip per CIMIS = .42
12/31/05	.847	7.30	Not Running off the Field	
1/2/06	.174	1.52	Not Running off the Field	
1/3/06	3.534	.13	Not Running off the Field	Precip per CIMIS = .53

Rain Event	Volume of Reclaimed Water Discharge	Precip Recorded at	Inspection/Observation of Irrigated Field Conditions	Other Necessary Information
1/6/06	2.281	.04	Not Running off the Field	Precip per CIMIS = .39
1/7/06	.85	.00	Not Running off the Field	Precip per CIMIS = .33
1/14/06	3.49	.31	Not Running off the Field	
1/17/06	.468	.78	Not Running off the Field	
1/18/06	.300	.00	Not Running off the Field	Precip per CIMIS = .69
3/3/06	1.21	.44	Not Running off the Field	
3/5/06	1.715	.08	Not Running off the Field	Precip per CIMIS = 3.05
3/6/06	1.214	2.40	Not Running off the Field	
3/31/06	1.357	.51	Not Running off the Field	
4/2/06	1.208	.75	Not Running off the Field	
4/3/06	1.725	.06	Not Running off the Field	Precip per CIMIS = .48
4/4/06	1.24	.63	Not Running off the Field	
4/7/06	1.833	.00	Not Running off the Field	Precip per CIMIS = .68
4/9/06	.43	.00	Not Running off the Field	Precip per CIMIS = .38
4/11/06	.621	.35	Not Running off the Field	
4/12/06	3.092	1.71	Not Running off the Field	
4/16/06	.271	.05	Not Running off the Field	Precip per CIMIS = .55
11/2/06	2.367	.80	Not Running off the Field	
12/9/06	2.035	.73	Not Running off the Field	
12/10/06	1.900	.00	Not Running off the Field	Precip per CIMIS = .37
12/11/06	1.761	.91	Not Running off the Field	
12/12/06	1.874	.02	Not Running off the Field	Precip per CIMIS = .41
12/21/06	1.892	.72	Not Running off the Field	
2/22/07	.036	.01	Not Running off the Field	Precip per CIMIS = 1.11
2/24/07	.063	.00	Not Running off the Field	Precip per CIMIS = .51
2/26/07	.073	.36	Not Running off the Field	
2/27/07	.084	.49	Not Running off the Field	
3/26/07	.656	.30	Not Running off the Field	
4/21/07	.249	1.05	Not Running off the Field	
10/9/07	2.473	.65	Not Running off the Field	
12/4/07	1.854	.05	Not Running off the Field	Precip per CIMIS = .50
12/19/07	1.985	1.04	Not Running off the Field	
12/20/07	1.811	.00	Not Running off the Field	Precip per CIMIS = .33
1/3/08	1.921	3.06	Not Running off the Field	
1/4/08	.717	2.51	Not Running off the Field	
1/27/08	3.12	.12	Not Running off the Field	Precip per CIMIS = .83
1/31/08	.032	1.17	Not Running off the Field	
2/2/08	.120	1.15	Not Running off the Field	
2/21/08	.167	.30	Not Running off the Field	
2/23/08	.132	1.56	Not Running off the Field	
2/24/08	.149	.08	Not Running off the Field	Precip per CIMIS = .53
7/9/08	.617	.00	Not Running off the Field	Precip per CIMIS = --
10/31/08	.155	.00	Not Running off the Field	Precip per CIMIS = .50
11/1/08	.090	.23	Not Running off the Field	Precip per CIMIS = .43
12/18/08	1.701	.58	Not Running off the Field	
12/24/08	1.679	.93	Not Running off the Field	
2/10/09	1.748	.31	Not Running off the Field	
2/11/09	1.714	.20	Not Running off the Field	Precip per CIMIS = .33

Rain Event	Volume of Reclaimed Water Discharge	Precip Recorded at WWTP	Inspection/Observation of Irrigated Field Conditions	Other Necessary Information
2/17/09	1.747	1.00	Not Running off the Field	
2/22/09	1.746	1.04	Not Running off the Field	
2/23/09	1.646	.37	Not Running off the Field	
3/1/09	1.736	.86	Not Running off the Field	
3/2/09	1.716	.56	Not Running off the Field	
3/3/09	.311	.62	Not Running off the Field	
10/13/09	1.677	.85	Not Running off the Field	
11/20/09	1.609	.52	Not Running off the Field	
1/19/10	1.724	1.72	Not Running off the Field	
1/20/10	1.712	1.59	Not Running off the Field	
1/21/10	2.74	.78	Not Running off the Field	
1/25/10	.128	1.40	Not Running off the Field	
2/4/10	.453	1.18	Not Running off the Field	
2/9/10	1.756	.04	Not Running off the Field	Precip per CIMIS = .36
2/23/10	.512	1.72	Not Running off the Field	
3/2/10	1.721	.64	Not Running off the Field	
3/3/10	1.725	.36	Not Running off the Field	
3/12/10	1.329	.00	Not Running off the Field	Precip per CIMIS = .71
3/31/10	.456	.12	Not Running off the Field	Precip per CIMIS = .31
12/8/10	1.466	.39	Not Running off the Field	

Corrective Actions and Schedule

The City is to propose corrective actions to comply with the relevant WRR requirements and a time schedule for implementing those actions.

Action 1A: The City will not apply wastewater to the irrigation field site during rainfall or when soils are saturated to a point where runoff is likely. This action is now in effect.

Action 1B: During the wet weather months the City will manage the wastewater elevation in Pond 5 to keep it as low as possible while maintaining the integrity of the treatment process. When the level in Pond 5 is half full (6.5 ft.) or above, the City will implement the following River discharge preparation protocol:

- Check weather forecast
- Check river flow using the flow at USGS Station No 11456000 (Napa River near St Helena). River flow must be 151 cfs or greater during discharge to River. Note that it is not practical to discharge at less than 3.1 cfs, or 2 MGD.
- Check Total Ammonia, Dissolved Oxygen (DO), Total Chlorine residual, pH and Turbidity to confirm that the water quality will comply with the NPDES requirements for discharge to Napa River. The NPDES average monthly limits for these parameters are:
 - o Total Ammonia as Nitrogen = 16 mg/L
 - o DO shall not be < 7.0 mg/L.
 - o Total Chlorine residual shall not exceed 0.0 mg/L.

- o pH shall be between 6.5 and 8.5 or not cause changes > 0.5 pH in normal ambient river pH levels.
- o Turbidity and temperature shall not alter apparent color or temperature beyond present natural background levels.

Pond 5's maximum depth is 13.5 feet, allowing not less than one foot of freeboard. The floor of the River discharge channel from Pond 5 is at 4 feet (pond level) and thus it is not possible to discharge Pond 5 below 4 feet. In actuality, there is not sufficient flow to discharge below 4.5 feet. One foot of Pond 5 level equates to 1.892 million gallons and thus the maximum discharge volume from Pond 5 equals 17.028 million gallons, plus the chlorine contact chamber's maximum flow of 2.664 MGD. Maximum discharge flow through the nine inch Parshall Flume is 8.062 MGD.

Action 1C: On May 10, 2011 Ordinance 2011-4 was adopted by City Council to approve water and wastewater rates to meet the City's operating, maintenance, debt service and capital replacement costs. The City now has the funding necessary to implement the improvements necessary for safe and consistent discharge to the Napa River, including funding for a third Wastewater Treatment Operator position to reinforce current staffing levels.

VIOLATION 2

Failure to appropriately minimize ponding associated with irrigation using reclaimed water in the Irrigated Field.

TECHNICAL REPORT REQUIREMENT

Pertaining to Violation 2, the City is required to describe the current approach to managing ponding at the Irrigated Field, identify necessary corrective actions to appropriately minimize ponding, and propose a schedule for implementing those actions.

Current Approach to Managing Spray Irrigation to Minimize Wastewater Ponding in the Spray Field

The City currently applies treated wastewater through sprinklers and slotted irrigation pipe to the irrigation field, in specific zones, for a period of time and then valve changes are made to route water to the other zones. The current reclamation field topography has low areas that hold surface drainage from winter storms.

The City has a contract with Napa County Mosquito Abatement (NCMA), which includes inspections and abatement (as necessary). The contract with NCMA states:

Routine inspection of both weed and actual or potential mosquito breeding sites, before and after treatment. Due to the time sensitive nature of materials used for mosquito control, and in an effort to minimize environmental impacts of mosquito control efforts, inspections for mosquitoes occur a minimum of twice a month. Rainfall, temperature and humidity will affect the number of inspections that can occur at any given location.

The City has received no reports of or complaints regarding mosquitoes.

Corrective Action and Schedule

Action 2A: Disk the field in two directions. This was completed week of September 5, 2011.

Action 2B: Install interim improvements to the current irrigation sprinkler system as conceptually shown in **Attachment 1, Exhibit A**. The interim irrigation improvements will include the addition of ten Rainbird sprinklers similar in design to the existing sprinklers. This will increase the irrigated area and reduce the potential for ponding. As demonstrated during the October 18th site inspection, the City has tested four sprinkler nozzles with varying orifice diameters of .50" to .80". The City has concluded that all 4 variations produce an acceptable rate of application and spray pattern when using the existing 60hp pump. The temporary system will be in operation by November 30, 2011.

Action 2C: Manage the application rate of reclaimed wastewater to prevent ponding. On days when the irrigation system is in use, the City will perform field observations daily. If irrigation is causing significant ponding, then cease irrigation immediately.

Action 2D: Maintain and improve the existing tail water collection system to provide a pumping system to collect surface runoff and recirculate it back to Pond 5. This work is scheduled for completion by November 30, 2011.

Action 2E: Implement additional improvements to the irrigation system and reclamation field. A description of these additional improvements will be provided in the NOI as noted in the response to Violation 4.

VIOLATION 3

Discharge of reclaimed water exceeding WRR quality limits

TECHNICAL REPORT REQUIREMENT

Pertaining to Violation 3, the City is required to: 1) explain the basis for the reported water quality limit exceedances; 2) provide a schedule or other information showing when limits were exceeded and when discharge was stopped following observed exceedances; 3) propose any additional corrective actions necessary to prevent future exceedances; and 4) propose a schedule for implementing those actions.

Explanation for Reported Water Quality Exceedances

BOD > 40 mg/L: In 2007 there were three violations, one in 2008, none in 2009, and one in 2010. Two improvements have resulted in significant reclaim BOD reduction: 1) Aeration in pond 1B changed and the horsepower was reduced from 40hp of aspirating type aerators to 30hp of brush type aerators. Aspirating aerators inject air into the anaerobic/anoxic zone disrupting the processes of anaerobic digestion. They also have poor surface mixing characteristics which leaves significant areas of the pond surface without sufficient DO allowing odors to escape the surface of the pond. Brush type aerators maximize surface mixing with minimal impact on the lower depths of the pond and have significantly better oxygen transfer rates; 2) Pumping water directly from chlorine contact to the irrigation field bypassing storage Pond 5 and not allowing BOD to increase in the storage pond, has improved the BOD of the water reaching the irrigation field.

SBOD and BOD analysis have been performed on the same sample to compare results and it was noted that algae is in and of itself is a significant portion of the BOD analysis results.

Coliform Median > 23 MPN/100ml: Algae and high pH are the main factors making disinfection difficult. The City started using sodium hypochlorite in June 2006. (See the Response to Notice of Violation 2006, **Attachment 2**). The effectiveness of sodium hypochlorite decreases with increased pH and temperatures. At pH levels above 8.5, sodium hypochlorite is for all practical concerns non effective. The WTRP contains four ponds prior to the chlorine contact, the primary pond 1B, Ponds 2, 3, and 4. Algal growth occurs primarily in Ponds 2 and 3 (Pond 2 was designed for algal growth, originally designed to provide aeration of the primary ponds via circulation of algae rich water from Pond 2 back to the surface of the primary pond). During days of long daylight and warm/hot weather this growth is excessive. High concentrations of algae result in greatly elevated pH levels and in turn require much higher dosing with sodium hypochlorite. When algal growth is reduced, pH levels are expected to remain lower and more constant and thus sodium hypochlorite use should be more efficient while achieving required coliform reduction.

Explanation of Timing of Stopping Discharge Upon Observed Exceedances and Corrective Actions Taken Prior to Restarting Discharge to Irrigation Field

Sampling of the reclaimed water for BOD is required twice per month. It takes approximately two weeks to get the results from these tests from the analytical laboratory. The City will request on the Chain of Custody that the City needs to be notified immediately if BOD in any sample is greater than 40 mg/L. However, even with this protocol it will take a minimum of six days to determine the BOD concentration in any sample. Normally, the City does not apply reclaimed water to the irrigation field for longer than three days in succession, so by the time a result is reported, the discharge of that water has already been completed.

Future measures may include filtration followed by disinfection with ozone.

The following chart is **Summary of Events when Effluent BOD exceeded WRR maximum limit of 40 mg/L:**

Date	E-001D - Daily Flow From Disinfection Facilities (MGD)	E001R - Daily Flow From Water pumped from Cl2 Contact or Pond 5 to	E001R - BOD Daily Max. (mg/L)	Other Necessary Information
1/26/05	1.244	0.166	57	
2/28/05	0.789	0.247	59	
3/16/05	1.066	1.592	43	
5/11/05	1.155	0.42	55	
8/18/05	0.731	0.731	45	
10/27/05	0.195	0.195	52	
11/9/05	1.037	1.037	45	
12/29/05	2.871	3.249	41	
1/20/06	1.364	0	70	No E001R, came from E001
9/28/06	0.889	0.5	58	
11/21/06	0.949	2.132	53	
4/16/07	1.057	0.144	42	
4/26/07	1.022	0.226	57	
11/30/07	1.883	1.883	42	
9/17/08	0.681	0.681	58	
12/24/10	1.798	1.93	76	

The following is a **Summary of Events when Coliform exceeded WRR 7-day moving median limit of 23 MPN/100 mL:**

Date	E-001D - Daily Flow (MGD)	E001R - Daily Flow (MGD)	E001D - Total Coliform Daily (MPN/100mL)	Other Necessary Information
6/7/05	1.021	0.417	30	
6/8/05	0.147	1.464	30	
6/13/05	1.106	1.361	30	
6/14/05	0.701	1.361	30	

5/19/06	1.331	1.614	25	
5/20/06	1.273	1.547	25	
5/21/06	0.251	1.517	25	
7/21/06	0.265	0.237	49	Changed from Chlorine Gas to liquid Sodium Hypochlorite
7/25/06	0.928	0.179	70	
7/27/06	0.756	0.177	49	
8/2/06	0.868	0.239	49	
9/10/08	0.464	0.464	110	
9/17/08	0.681	0.681	30	
9/18/08	0.698	0.698	30	
9/19/08	0.793	0.793	30	
9/20/08	0.702	0.702	140	
9/21/08	0.536	0.536	300	
9/22/08	0.672	0.672	140	
9/23/08	0.677	0.677	140	
9/24/08	0.516	0.516	140	
9/30/08	0.648	0.648	30	
10/1/08	0.645	0.645	30	
5/5/09	1.76	1.76	30	
5/6/09	1.744	1.744	50	
5/12/09	1.716	1.716	50	
5/13/09	1.688	1.688	70	
5/19/09	1.697	1.697	70	
5/20/09	1.661	1.661	70	
5/28/09	1.75	1.75	50	
9/3/09	1.63	1.63	30	
9/9/09	1.706	1.706	130	
9/16/09	1.757	1.757	130	
9/17/09	1.737	1.737	130	
9/24/09	1.674	1.674	240	
9/25/09	1.684	1.684	130	
7/7/10	1.803	0	50	
7/15/10	1.74	0	60	
7/20/10	1.837	0	60	
7/21/10	1.797	0	80	
7/30/10	1.733	0.223	80	
8/7/10	1.721	0.693	60	
8/12/10	1.813	0	60	
9/30/10	1.772	1.772	50	
11/4/10	1.741	1.741	30	
11/19/10	1.878		30	
11/20/10	1.64		30	
11/24/10	1.744		30	
11/30/10	1.779	1.771	30	
12/10/10	1.731		30	

Monitoring Frequency Violation: Coliform Samples missed

Order No. 87-090 requires that the City shall test for total coliform daily when disinfection occurs (E-001D). An alleged 172 samples were missed being collected when disinfection

occurred. This number includes 31 days for January 2005. Note that 12 samples were collected and reported in January 2005 and disinfection occurred 31 days. The remaining 160 samples missed were consistent with NPDES permit requirements requiring total coliform samples be collected a minimum three times per week. When operators realized the confusion (May 2006) they immediately began collecting daily samples any time disinfection occurs.

This issue was addressed in the response to the Notice of Violation received in 2006 (April 12, 2006). An excerpt from the response to that Notice of Violation is provided below and the complete response is provided as **Attachment 2** to this Report.

Order No. 87-090 requires that the City test for total coliform daily at E-001-D when disinfection is occurring. These tests were erroneously being performed three times per week (consistent with the NPDES permit requirement), but are now performed each day disinfection occurs. The error occurred because of confusion with the NPDES permit, which requires sampling three times per week.

Corrective Action and Schedule

Action 3A: Modify type of aeration and include additional aeration. Four 10hp aspirating aerators were added to Pond 4 in 2011.

Action 3B: Increase circulation in Pond 2. Increased circulation via two 10hp aerators and one 15hp brush aerator slowed down with variable frequency drives to circulate water, but not aerate, similar to paddle wheels. Completed October 10, 2011.

Action 3C: The City has executed an agreement with the Napa County Department of Health Services to reduce grease and fats entering the wastewater collection system. This should reduce the organic loading.

Action 3D: The City will be proposing a pilot study of an ozone disinfection system to use in series with the chlorine contact system. It is anticipated that the ozone system will decrease the pH of the effluent such that the sodium hypochlorite disinfection works more efficiently. If this system proves beneficial, the City will explore moving completely to an ozone system and ceasing use of sodium hypochlorite. The City will also propose to install a pilot filtration system with backwash to Pond 1B. If this system appears to reduce the algae, a full system may be installed (similar to the City of Calistoga's). Another option that may be explored is the benefit of covering Pond 4 with balls to reduce algae.

VIOLATION 4

Material changes made to reuse without notifying the Water Board.

TECHNICAL REPORT REQUIREMENT

Pertaining to Violation 4, the City is immediately required to file a complete Report of Waste Discharge (ROWD) describing changes to the reclaimed water reuse. The ROWD must include: 1) all appropriate information regarding the willow farm and the fish pond, including dates of construction and operation, construction details, and a description of how these systems are integrated within the ongoing discharge of reclaimed water at the Irrigated Field; 2) describe the changed irrigation system and include an appropriately-detailed description of the systems' current design, including piping, control valves, sprinklers, shutdown procedures, the irrigation schedule, and description of how the irrigation schedule is implemented throughout the Irrigated Field; 3) provide detail on how irrigation is shut down during rain events and the flow is instead discharged to the Napa River, or alternatively, stored in Ponds 4 and 5, including using detailed water balance budget; and 4) for periods January 1, 2005 through December 31, 2010, include a tabulation of freeboard data for Ponds 4 and 5 with discussion regarding the sufficiency of freeboard and steps taken by the City to appropriately manage ponding depth at the Irrigated Field.

Submission of Notice of Intent

The City has requested that the ROWD submittal component of this Report be satisfied by the submittal of a complete Notice of Intent (NOI) for coverage under the General WRR Order 96-011, with a revised time schedule that includes an additional 90 days from October 31, 2011 to ensure appropriate detail can be prepared. Regional Water Board staff have indicated their acceptance of this request, and the complete NOI will be prepared and submitted by the January 31, 2012 deadline. The following projects will be described in detail in the NOI.

Willow Farm and Fish Pond Data

The United States Department of Agriculture, Natural Resources Conservation Service (NRCS) led an effort to have the City provide land and water in order that a willow tree farm could be planted to provide cuttings for use by the City, the Army Corps of Engineers, California Conservation Corps and other federal and state agencies or their contractors for erosion control purposes, especially along stream banks, in the region. The City Council approved Resolution 2005-36 "Approving the Use of Two (2) Acres of Wastewater Reclamation Field to Establish a Pilot Biotechnical Erosion Control Willow-Shoot Production Area to Benefit St. Helena and Other Up-Valley Projects for a Period of Not Less Than Ten (10) Years" in May 2005. Typical annual water application rates are not yet known, but a water meter was installed on October 21, 2011 to begin collecting this information. No direct contact with the irrigation water occurs during harvesting as it is applied on the ground by City staff and irrigation is discontinued prior to harvest. The dimensions of the Willow Tree Farm are 480 feet x 188 feet. (See location on **Attachment 1, Exhibit B**).

The City has three Mosquito Fish Ponds in the south corner of the irrigation field adjacent to the Willow Tree Farm described above. (See location on **Attachment 1, Exhibit B**). The Napa County Mosquito Abatement District harvests fish from the ponds during the mosquito season for use in other County activities to control mosquito egg and larvae populations. The ponds were originally excavated as a source of clay for other construction efforts at the Wastewater Treatment and Reclamation Plant (WTRP). The ponds measure approximately 200 feet long by 25 feet wide (total area is 480 feet x 178 feet) and are usually maintained with 4-5 feet of water. A water meter was installed on October 21, 2011 to track the water supplied to the ponds. One pond is generally kept at a lower elevation for operational flexibility. Water is added to the ponds, as needed to offset losses, and recirculation or emptying of the ponds has not been necessary. District personnel are familiar with the handling of the treated wastewater.

Irrigation System

In 2006 Blair Allen observed and accepted a field demonstration of the current sprinkler heads prior to installation of the current system. In October 2011 Blair Allen observed another field demonstration of the modified sprinkler heads prior to installation of additional units. The demonstration was deemed acceptable and the installation of more sprinklers is moving forward.

The current sprinkler system provides a buffer along the site perimeter of approximately 100 feet instead of the 50 feet required by WRR Specification B.4.

Storage Area for Dried Biosolids

The City will propose a stockpile area for temporary storage of the dried biosolids removed from Pond 1A.

Area Reserved for Solar Photovoltaic Panels

The City will propose the installation of solar power generation facilities to provide power to the wastewater treatment plant.

Planting of Redwood Trees for Harvesting

The City may propose the planting of redwood trees for harvesting.

Irrigation Procedures

If rain has begun to fall or significant precipitation is forecast, the City shuts down the irrigation system immediately, or several hours prior to the forecast rain event. When the irrigation system is shut down, all flow is stored in Pond 4 and/or Pond 5. As mentioned previously, if Pond 5 reaches 6.5 feet, discharge to the Napa River is initiated.

During normal operation, the City irrigates one zone of the field for one day before switching to the next zone. There are seven zones to alternate through.

Tabulation of Freeboard Data (01/01/2005 – 12/31/2010)

See Attachment 3 for freeboard data tables.

POTENTIAL VIOLATION 5

Discharge of reclaimed water to areas that may be within 100 or 500 feet of wells.

TECHNICAL REPORT REQUIREMENT

Pertaining to Potential Violation 5, the City must: 1) include a scaled figure showing the location of the two existing wells in the Irrigated Field, and any additional wells within either 100 feet or 500 feet of the Irrigated Field, as compared to areas irrigated with reclaimed water; 2) include a discussion regarding how reclaimed water irrigation practices comply with WRR requirement; and 3) if practices are in violation, provide a work plan and schedule to bring practices into compliance.

Scaled Figure of Well Locations

The location of the City's wells is provided in **Attachment 1, Exhibit B.**

Well Construction Information

There are two wells located in the irrigation field. Well G-1 (aka DWP-1) is located on the edge of the field, inside a structure. Well G-2(aka DWP-2) is located near the center of the irrigation field. Well G-2 was built in 1967. A sanitary seal was installed in 1988 as documented in the Black & Veatch Engineers August 12, 1988 letter report, Attachment 4.

Compliance with WRR Requirements

The current reclaimed water irrigation practices comply with the WRR requirements regarding the existing wells. Order No. 87-090 identified both wells as existing and provided discharge guidelines that have not been violated by the City's operational practices. Well G-1 has no use and Well G-2 is used only for monitoring purposes. The application of reclaimed water has not occurred within 100 feet of the two wells (G-1 and G-2) on the reclamation site.

TECHNICAL REPORT REQUIREMENT

The WRR Report shall include a description of the vegetative maintenance program at the Irrigated Field and propose any changes necessary to improve vegetative uptake of the reclaimed water and diminish the likelihood of ponding, runoff and hydric loss to the local aquifer.

Vegetation Maintenance Program

Description of the Vegetative Maintenance Program

The City's vegetative maintenance program includes disking the irrigation field in two directions each fall. The disking is performed in September each year to prepare the field for the upcoming wet season. These efforts, in addition to the frequent inspections by Napa County Mosquito Abatement ensure that the field operates in a safe and efficient manner.

ATTACHMENT 1. DIAGRAMS

EXHIBIT A. CURRENT & PROPOSED IRRIGATION SPRINKLER SYSTEM



EXHIBIT B. WILLOW FARM, FISH POND, AND WELL LOCATIONS



Attachment 3
City of St. Helena Wastewater Treatment Plant
Reclaimed Effluent Flow
2012-2015 Electronic Self-Monitoring Reports
(eSMRs)



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HYDRAULIC LOADING SUMMARY

Annual 2012

File Name: Annual (Hydraulic)

City of St. Helena Waste Water Treatment Plant

Month	INFLUENT (A-001)				RECLAIMED EFFLUENT (E-001-R)					DISCHARGED EFFLUENT (E-001)							
	Monthly	Daily Flow Rate			Number of Days Irrigated	Monthly	Daily Flow Rate			Number of Days Dis-charged	Monthly	Daily Flow Rate					
		Total	Avg	Max			Min	Total	Avg			Max	Min	Total	Avg	Max	Min
		mg	mgd	mgd			mgd	mg	mgd			mgd	mgd	mg	mgd	mgd	mgd
January	15.368	0.496	1.336	0.324	7	11.362	1.623	2.343	1.291	0							
February	12.638	0.436	0.531	0.373	11	12.616	1.577	1.623	1.504	0							
March	31.730	1.024	2.540	0.363	12	17.254	1.327	2.466	0.238	0							
April	22.029	0.734	1.306	0.471	12	21.389	1.782	2.659	0.063	0							
May	13.171	0.425	0.488	0.392	11	19.574	1.779	2.480	1.517	0							
June	11.712	0.390	0.437	0.360	5	9.479	1.896	2.613	1.535	0							
July	11.615	0.375	0.415	0.352	5	8.193	1.639	1.772	1.532	0							
August	11.813	0.381	0.413	0.355	5	7.078	1.416	1.673	0.625	0							
September	11.492	0.383	0.435	0.360	5	4.120	0.824	0.933	0.697	0							
October	11.901	0.384	0.432	0.383	4	7.329	1.832	2.677	0.619	0							
November	15.268	0.509	2.321	0.360	5	9.603	1.921	2.044	1.612	0							
December	38.313	1.236	2.946	0.570	9	20.821	2.313	2.374	2.232	4	16.068	4.921	7.420	3.330			
Total	207.050				91	148.818				4	16.068						
Maximum	38.313		2.946			21.389		2.677			16.068		7.420				
Minimum	11.492			0.324		4.120			0.063		16.068			3.330			
Average	17.254	0.567				12.402	1.635				16.068	4.017					

ND = No Discharge

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Influent & Effluent Flows

File Name: Flows, I&E

January 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow mgd	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd				gpm	mg	mgd
1	WD	0730	533	206.993	0.767	1125	104.494				1125		148.970	
2	MS	0730	517	207.760	0.745	1105	104.494				1133		148.970	
3	MS	0730	510	208.505	0.734	0830	0.000				0833		0.000	
4	MS	0730	506	0.734	0.728	0803	0.000				0805		0.000	
5	DB	0730	501	1.462	0.722	0951	0.000				1028		0.000	
6	DB	0730	497	2.184	0.715	1023	0.000				1028		0.000	
7	MS	0730	484	2.899	0.697	0814	0.000	2.298	24	2.298	0814		0.000	
8	MS	0730	467	3.596	0.672	0814	2.298	2.289	24	2.289	0811		0.000	
9	MS	0730	469	4.268	0.675	0814	4.587	2.180	24	2.180	0813		0.000	
10	MS	0730	456	4.943	0.656	0713	6.767				0715		0.000	
11	MS	0730	433	5.599	0.623	0721	6.767				0723		0.000	
12	WD	0730	419	6.222	0.603	1220	6.767				1220	1503	*	2.165
13	WD	0730	406	6.825	0.585	1128	6.767				1129	1569	*	2.099
14	WD	0730	385	7.410	0.554	0917	6.767				0939		*	
15	MS	0730	382	7.964	0.550	0914	6.767				0915		*	
16	MS	0730	379	8.514	0.546	0852	6.767				0856		*	
17	MS	0730	373	9.060	0.537	0854	6.767	2.277	24	2.277	0854	1944	0.000	2.799
18	MS	0730	368	9.597	0.530	0845	9.044				0845		2.799	
19	MS	0730	360	10.127	0.518	1212	9.044				1210		2.799	
20	MS	0730	363	10.645	0.509	1242	9.044				1245	1945	2.799	2.801
21	MS	0730	343	11.154	0.494	1135	9.044				1133		5.600	
22	MS	0730	331	11.648	0.477	0807	9.044				0810		5.600	
23	MS	0730	358	12.125	0.515	0750	9.044	2.303	24	2.303	0752		5.600	
24	MS	0730	368	12.640	0.530	0750	11.347	2.272	24	2.272	0753		5.600	
25	MS	0730	346	13.170	0.498	0742	13.619				0754		5.600	
26	JC	0730	340	13.668	0.489	1145	13.619				1145		5.600	
27	JC	0730	335	14.157	0.482	1025	13.619				1025		5.600	
28	MS	0730	327	14.639	0.471	0910	13.619				0912		5.600	
29	MS	0730	306	15.110	0.441	0803	13.619				0801		5.600	
30	MS	0730	310	15.551	0.446	0718	13.619				0719		5.600	
31	MS	0730	308	15.997	0.444	0755	13.619				0758		5.600	
Total					17.953			13.619		13.619				9.864
Average			402		0.579			2.270		2.270				2.466
1	MS	0730		16.441		0755	13.619				0753		5.600	

*Totalizer was not working - Flow calculated from gpm times run hours

Influent & Effluent Flows

File Name: Flows, I&E

February 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	MS	0730	323	16.441	0.465	0755	13.619				0753		5.600	
2	WD	0730	309	16.906	0.445	1110	13.619				1115	1875	5.600	2.700
3	WD	0730	317	17.351	0.456	1300	13.619				1310		8.300	
4	MS	0730	297	17.807	0.428	0809	13.619	2.308	24	2.308	0808		8.300	
5	MS	0730	296	18.235	0.426	0809	15.927	2.288	24	2.288	0806		8.300	
6	MS	0730	290	18.661	0.418	0807	18.215				0808		8.300	
7	MS	0730	299	19.079	0.431	0745	18.215				0746		8.300	
8	MS	0730	303	19.510	0.436	0713	18.215				0716		8.300	
9	MS	0730	297	19.946	0.428	1130	18.215				1131		8.300	
10	MS	0730	301	20.374	0.433	1315	18.215				1317		8.300	
11	MS	0730	288	20.807	0.414	1021	18.215				1018	1891	8.300	3.084
12	MS	0730	283	21.221	0.408	0816	18.215				0822		11.384	
13	WD	0730	280	21.629	0.403	0921	18.215				0923		11.384	
14	MS	0730	311	22.032	0.448	0750	18.215	2.294	24	2.294	0748	1681	11.384	2.420
15	WD	0730	271	22.480	0.390	0740	20.509				0744		13.804	
16	DB	0730	278	22.870	0.400	1047	20.509				1050		13.804	
17	DB	0730	274	23.270	0.395	1050	20.509				1038		13.804	
18	DB	0730	273	23.665	0.393	1045	20.509				1039		13.804	
19	WD	0730	302	24.058	0.435	0750	20.509				0753		13.804	
20	MS	0730	278	24.493	0.401	0754	20.509				0758		13.804	
21	MS	0730	312	24.894	0.449	0749	20.509		24	1.991	0750	1383	13.804	1.991
22	MS	0730	277	25.343	0.399	0750	20.509				0749		15.795	
23	JC	0730	273	25.742	0.393	1125	20.509				1125		15.795	
24	JC	0730	276	26.135	0.397	1025	20.509				1025		15.795	
25	MS	0730	268	26.532	0.386	0816	20.509				0820		15.795	
26	MS	0730	272	26.918	0.391	0750	20.509				0753		15.795	
27	MS	0730	266	27.309	0.383	0746	20.509				0749		15.795	
28	MS	0730	295	27.692	0.425	0720	20.509		24	1.967	0720	1366	15.795	1.967
29														
30														
31														
Total					11.676			6.890		10.848				12.162
Average			262		0.417			2.297		2.170				2.432
1	MS	0730		28.117			20.509						17.762	

Influent & Effluent Flows

File Name: Flows, I&E

March 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		gpm	mg	mgd
1	MS	0730	274	28.117	0.395	0717	20.509		0715		17.762	
2	MS	0730	265	28.512	0.381	1127	20.509		1126		17.762	
3	MS	0730	284	28.893	0.409	1028	20.509		1025		17.762	
4	MS	0730	274	29.302	0.394	0950	20.509		0952		17.762	2.583
5	MS	0730	330	29.696	0.475	0754	20.509		0757		20.345	
6	MS	0730	301	30.171	0.433	0744	20.509		0747		20.345	
7	MS	0730	308	30.604	0.444	0743	20.509	2.333	0743		20.345	
8	MS	0730	297	31.048	0.428	0742	22.842		0742		20.345	
9	DB	0730	302	31.476	0.435	1031	22.842		1035		20.345	
10	DB	0730	276	31.911	0.398	1039	22.842		1043		20.345	
11	WD	0730	285	32.309	0.410	0746	22.842		0748		20.345	
12	MS	0730	286	32.719	0.412	0813	22.842		0811		20.345	2.512
13	MS	0730	278	33.131	0.400	0806	22.842		0809		22.857	
14	MS	0730	274	33.531	0.395	1354	22.842		1355		22.857	1.953
15	WD	0730	276	33.926	0.397	0750	22.842		0752		24.810	
16	WD	0730	275	34.323	0.396	1020	22.842		1023		24.810	
17	WD	0730	278	34.719	0.400	1030	22.842		1035		24.810	
18	MS	0730	277	35.119	0.399	0800	22.842		0803		24.810	
19	MS	0730	301	35.518	0.433	0755	22.842		0758		24.810	
20	MS	0730	293	35.951	0.422	0758	22.842		0800		24.810	
21	MS	0730	294	36.373	0.424	0751	22.842		0752		24.810	1.930
22	MS	0730	283	36.797	0.408	0751	22.842		0752		26.740	
23	JC	0730	291	37.205	0.419	0935	22.842		0935		26.740	
24	JC	0730	285	37.624	0.410	0955	22.842		0955		26.740	
25	MS	0730	283	38.034	0.408	0742	22.842		0744		26.740	
26	WD	0730	294	38.442	0.423	1613	22.842		1615		26.740	1.913
27	WD	0730	283	38.865	0.407	0810	22.842		0815		28.653	
28	WD	0730	281	39.272	0.404	0740	22.842		0745		28.653	
29	WD	0730	279	39.676	0.402	0735	22.842		0738		28.653	
30	WD	0730	290	40.078	0.418	1100	22.842		1100		28.653	
31	WD	0730	285	40.496	0.410	1035	22.842		1035		28.653	
Total					12.789			2.333				10.891
Average			286		0.413			2.333				2.178
1	MS	0730		40.905		0859	22.842		0915		28.653	

Influent & Effluent Flows

File Name: Flows, I&E

April 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	MS	0730	291	40.906	0.419	0859	22.842				0915		28.653	
2	MS	0730	294	41.325	0.424	0720	22.842		24	1.924	0722		28.653	1.924
3	MS	0730	287	41.749	0.413	0720	22.842		22	1.678	0722		30.577	1.678
4	WD	0730	378	42.162	0.545	0740	22.842				0740		32.255	
5	MS	0730	317	42.707	0.456	0803	22.842				0807		32.255	
6	DB	0730	331	43.163	0.476	1002	22.842				1005		32.255	
7	DB	0730	323	43.639	0.465	1022	22.842				1024		32.255	
8	MS	0730	307	44.104	0.442	1243	22.842				1345		32.255	
9	MS	0730	292	44.546	0.421	0752	22.842				0755		32.255	
10	MS	0730	298	44.967	0.429	0802	22.842				0810		32.255	
11	WD	0730	319	45.396	0.460	0750	22.842				0750		32.255	
12	MS	0730	285	45.856	0.411	0748	22.842				0752		32.255	
13	WD	0730	292	46.267	0.421	1230	22.842				1230		32.255	
14	WD	0730	290	46.688	0.418	1205	22.842				1205		32.255	
15	WD	0730	283	47.106	0.408	1300	22.842		24	1.899	1302		32.255	1.899
16	JR	0730	274	47.514	0.394	1301	22.842		24	1.884	1300		34.154	1.884
17	MS	0730	284	47.908	0.409	0730	22.842				0822		36.038	
18	MS	0730	277	48.317	0.399	0756	22.842				0758		36.038	
19	WD	0730	279	48.716	0.402	0744	22.842				0748		36.038	
20	JC	0730	297	49.118	0.427	1104	22.842				1104		36.038	
21	JC	0730	290	49.545	0.418	1115	22.842				1115		36.038	
22	MS	0730	273	49.963	0.393	0803	22.842				0806		36.038	
23	JR	0730	267	50.356	0.384	0810	22.842				0848		36.038	
24	JR	0730	296	50.740	0.426	0753	22.842				0753		36.038	
25	JR	0730	285	51.166	0.382	0735	22.842				1047		36.038	
26	MS	0730	270	51.548	0.389	1043	22.842		24	1.921	1047		36.038	1.921
27	MS	0730	281	51.937	0.405	1211	22.842				1215		37.959	
28	MS	0730	275	52.342	0.396	1148	22.842				1151		37.959	
29	MS	0730	297	52.738	0.428	1145	22.842				0810		37.959	
30	JR	0730	265	53.166	0.381	1000	22.842		24	1.896	0726		37.959	1.896
Total					12.641					11.202				11.202
Average			283		0.421					1.867				1.867
1	JR	0730		53.547			22.842						39.855	

Influent & Effluent Flows

File Name: Flows, I&E

May 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	JR	0730	258	53.547	0.371	0744	22.842		24	1.910	0747	1326	39.847	1.910
2	MS	0730	268	53.918	0.386	0745	22.842				0747		41.757	
3	MS	0730	288	54.304	0.415	0744	22.842				0746		41.757	
4	DB	0730	269	54.719	0.387	1352	22.842				1357		41.757	
5	DB	0730	257	55.106	0.370	1125	22.842				1129		41.757	
6	JR	0730	278	55.476	0.400	0930	22.842				0846		41.757	
7	JR	0730	261	55.876	0.376	0800	22.842		24	1.947	0846	1352	41.757	1.947
8	JR	0730	261	56.262	0.376	0745	22.842				0930		43.704	
9	MS	0730	299	56.628	0.430	1635	22.842				1633		43.704	
10	MS	0730	263	57.058	0.378	1330	22.842				1329		43.704	
11	MS	0730	276	57.436	0.398	1210	22.842				1209		43.704	
12	MS	0730	263	57.834	0.379	1056	22.842				1059		43.704	
13	MS	0730	278	58.213	0.401	1602	22.842				1600		43.704	
14	JR	0730	299	58.614	0.431	0815	22.842				1300		43.704	
15	JR	0730	254	59.045	0.366	1152	22.842		22	1.517	1152	1149	43.704	1.517
16	MS	0730	266	59.411	0.383	0815	22.842				0813		45.221	
17	WD	0730	259	59.784	0.373	1103	22.842				1105		45.221	
18	JC	0730	280	60.167	0.417	1125	22.842				1120		45.221	
19	JC	0730	269	60.584	0.388	1005	22.842				1005		45.221	
20	MS	0730	257	60.972	0.370	0825	22.842				0830		45.221	
21	JR	0730	258	61.342	0.372	0810	22.842				0810		45.221	
22	JR	0730	278	61.714	0.401	0900	22.842		24	1.619	0938	1118	45.221	1.619
23	MS	0730	265	62.115	0.382	0855	22.842		22	1.668	0938	1112	46.840	1.668
24	MS	0730	265	62.497	0.382	0713	22.842				0719		48.508	
25	JC	0730	289	62.879	0.416	1145	22.842				1145		48.508	
26	JC	0730	282	63.295	0.406	1045	22.842				1048		48.508	
27	JC	0730	288	63.701	0.415	1055	22.842				1055		48.508	
28	JR	0730	259	64.116	0.373	0802	22.842				0801		48.508	
29	JR	0730	294	64.489	0.424	0750	22.842				0800		48.508	
30	MS	0730	263	64.913	0.379	0756	22.842				0758		48.508	
31	MS	0730	268	65.292	0.386	0722	22.842				0720	1746	48.508	0.838
Total					12.131					8.661				9.499
Average			272		0.391					1.732				1.583
1	DB	0730		65.678			22.842						49.346	

Influent & Effluent Flows

File Name: Flows, I&E

June 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd									
1	DB	0730	260	65.662	0.375	1347	22.843				1356		49.346	
2	DB	0730	265	66.037	0.381	1147	22.843				1145		49.346	
3	MS	0730	262	66.418	0.377	0804	22.843				0808		49.346	
4	JR	0730	261	66.795	0.376	0950	22.843				1535		49.346	
5	JR	0730	291	67.171	0.419	1500	22.843		23.6	1.885	1500	1333	49.346	1.885
6	JR	0730	269	67.590	0.388	0800	22.843				0800		51.231	
7	JR	0730	291	67.978	0.419	0803	22.843				0802		51.231	
8	JC	0730	242	68.397	0.348	1045	22.843				1045		51.231	
9	JC	0730	242	68.745	0.349	1020	22.843				1020		51.231	
10	JR	0730	282	69.094	0.406	0755	22.843				0755		51.231	
11	JR	0730	251	69.500	0.362	0754	22.843				0800		51.231	
12	JR	0730	258	69.862	0.372	1445	22.843		24	1.936	1445	1345	51.231	1.936
13	JR	0730	251	70.234	0.361	0803	22.843				0803		53.167	
14	JR	0730	260	70.595	0.375	0745	22.843				0745		53.167	
15	JC	0730	250	70.970	0.360	1030	22.843				1030		53.167	
16	JC	0730	251	71.330	0.361	1028	22.843				1025		53.167	
17	JR	0730	278	71.691	0.400	0742	22.843				0742		53.167	
18	JR	0730	253	72.091	0.364	0744	22.843				0744		53.167	
19	JR	0730	256	72.465	0.368	0810	22.843				0810		53.167	
20	JR	0730	285	72.823	0.411	0800	22.843		24	1.686	1130	1171	53.167	1.686
21	MS	0730	276	73.234	0.397	1016	22.843				1017		54.853	
22	MS	0730	260	73.631	0.375	1224	22.843				1226		54.853	
23	MS	0730	257	74.006	0.370	1125	22.843				1126		54.853	
24	JR	0730	257	74.376	0.370	0750	22.843				0818		54.853	
25	JR	0730	292	74.746	0.420	0800	22.843				0800		54.853	
26	MS	0730	278	75.166	0.400	0636	22.843				0639		54.853	
27	MS	0730	269	75.566	0.388	1300	22.843				1300		54.853	
28	MS	0730	286	75.954	0.412	1259	22.843		24	1.561	1259	1084	54.853	1.561
29	MS	0730	257	76.368	0.370	1109	22.843				1111		56.414	
30	MS	0730	269	76.736	0.387	1118	22.843				1119		56.414	
31							22.843						56.414	
Total					11.461					7.068				7.068
Average			257		0.382					1.767				1.767
1	MS	0730		77.123		0820	22.843				0822		56.414	

I = Totalizer was not working

Influent & Effluent Flows

File Name: Flows, I&E

July 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow mgd	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd				gpm	mg	mgd
1	MS	0730	265	77.123	0.382	0820	22.843				0822		52.593	
2	JR	0730	260	77.505	0.374	0745	22.843				0746		52.593	
3	MS	0730	287	77.879	0.413	1121	22.843		24	1.487	1119	1033	52.593	1.487
4	MS	0730	265	78.292	0.381	1117	22.843				1120		54.080	
5	MS	0730	274	78.673	0.394	0722	22.843				0723		54.080	
6	DB	0730	266	79.067	0.383	1039	22.843				1037		54.080	
7	DB	0730	256	79.450	0.369	1050	22.843				1047		54.080	
8	MS	0730	265	79.819	0.381	0819	22.843				0817		54.080	
9	JR	0730	290	80.200	0.418	0817	22.843				0817		54.080	
10	JR	0730	258	80.618	0.372	0704	22.843				1240		54.080	
11	JR	0730	259	80.990	0.373	1235	22.843		24	0.976	1240	678	54.080	0.976
12	MS	0730	265	81.363	0.382	1238	22.843		24	1.634	1240	1135	55.056	1.634
13	JC	0730	260	81.745	0.375	1050	22.843				1050		56.690	
14	JC	0730	272	82.120	0.392	1215	22.843				1215		56.690	
15	MS	0730	268	82.512	0.386	0840	22.843				1128		56.690	
16	MS	0730	249	82.898	0.359	0820	22.843		24	1.570	1128	1090	56.690	1.570
17	MS	0730	263	83.257	0.378	0720	22.843		24	1.610	1128	1118	58.260	1.610
18	MS	0730	263	83.636	0.379	1130	22.843		24	1.484	1128	1031	59.870	1.484
19	MS	0730	304	84.014	0.438	0857	22.843		21	1.293	0858	1026	61.354	1.293
20	MS	0730	260	84.452	0.375	1223	22.843				1225		62.647	
21	MS	0730	253	84.827	0.365	1229	22.843				1230		62.647	
22	JR	0730	256	85.192	0.369	0810	22.843				0810		62.647	
23	JR	0730	246	85.561	0.354	0758	22.843		24	1.437	0803	998	62.647	1.437
24	MS	0730	297	85.915	0.428	0800	22.843		24	1.504	0803	1044	64.084	1.504
25	JR	0730	269	86.343	0.387	0746	22.843		24	1.514	0803	1051	65.588	1.514
26	MS	0730	261	86.730	0.376	0758	22.843				0803		67.102	
27	MS	0730	258	87.106	0.371	1125	22.843				1127		67.102	
28	MS	0730	261	87.477	0.376	1155	22.843				1153		67.102	
29	MS	0730	301	87.853	0.433	0805	22.843				0807		67.102	
30	JR	0730	269	88.286	0.388	0800	22.843				0800		67.102	
31	JR	0730	255	88.674	0.367	0750	22.843				0745		67.102	
Total					11.918					14.509				14.509
Average			267		0.384					1.451				1.451
1	JR	0730		89.041	0.378		22.843						67.102	

Influent & Effluent Flows

File Name: Flows, I&E

August 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	JR	0730	263	89.041	0.378	0810	22.843		24	1.602	0819		67.102	1.602
2	MS	0730	263	89.419	0.379	0822	22.843				0819		68.704	
3	DB	0730	288	89.798	0.414	1016	22.843				1015		68.704	
4	DB	0730	265	90.212	0.382	1037	22.843				1040		68.704	
5	MS	0730	262	90.594	0.377	0719	22.843				0715		68.704	
6	JR	0730	256	90.971	0.369	0804	22.843				0803		68.704	
7	JR	0730	265	91.340	0.381	0810	22.843		24	1.591	0815		68.704	1.591
8	JR	0730	283	91.721	0.407	0815	22.843				0815		70.295	
9	JR	0730	258	92.128	0.372	0740	22.843				0740		70.295	
10	JC	0730	259	92.500	0.373	1125	22.843				1125		70.295	
11	JC	0730	257	92.873	0.370	1150	22.843				1150		70.295	
12	WD	0730	263	93.243	0.379	0846	22.843				0847		70.295	
13	WD	0730	288	93.622	0.414	1410	22.843				1419		70.295	
14	JR	0730	265	94.036	0.382	1416	22.843		24	1.647	1419		70.295	1.647
15	JR	0730	264	94.418	0.380	1409	22.843		24	1.648	1412		71.942	1.648
16	MS	0730	181	94.798	0.261	0754	22.843				0755		73.590	
17	JC	0730	269	95.059	0.387	0935	22.843				0935		73.590	
18	JC	0730	288	95.446	0.415	1110	22.843				1110		73.590	
19	MS	0730	251	95.861	0.362	0810	22.843				0809		73.590	
20	MS	0730	254	96.223	0.366	0802	22.843				0801		73.590	
21	JR	0730	254	96.589	0.366	0822	22.843		24	1.619	0822		73.590	1.619
22	JR	0730	258	96.955	0.371	0822	22.843				0820		75.209	
23	MS	0730	292	97.326	0.420	0803	22.843				0805		75.209	
24	MS	0730	257	97.746	0.370	1156	22.843				1203		75.209	
25	MS	0730	267	98.116	0.385	1145	22.843				1149		75.209	
26	JR	0730	253	98.501	0.364	0745	22.843				0745		75.209	
27	JR	0730	254	98.865	0.366	0745	22.843				0750		75.209	
28	MS	0730	283	99.231	0.407	0736	22.843				0737		75.209	
29	JR	0730	254	99.638	0.366	0745	22.843		24	1.538	0706		75.209	1.538
30	MS	0730	260	100.004	0.375	0702	22.843				0700		76.747	
31	DB	0730	263	100.379	0.379	1031	22.843				1031		76.747	
Total					11.717					9.645				9.645
Average			262		0.378					1.378				1.608
1	DB	0730		100.758	0.382		22.843				1016		76.747	

Influent & Effluent Flows

File Name: Flows, I&E

September 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	DB	0730	265	100.758	0.382		22.843				1016		76.748	
2	DB	0730	306	101.140	0.440		22.843				1036		76.748	
3	JR	0730	263	101.580	0.378	0811	22.843		24	1.550	0811		76.748	1.550
4	JR	0730	259	101.958	0.373	0811	22.843		23	1.506	0811		78.298	1.506
5	JR	0730	249	102.331	0.359	0811	22.843				0811		79.804	
6	JR	0730	260	102.690	0.375		22.843				0721		79.804	
7	JC	0730	282	103.065	0.406	1050	22.843				1050		79.804	
8	JC	0730	244	103.471	0.352	1050	22.843				1050		79.804	
9	MS	0730	263	103.823	0.379	0826	22.843				0828		79.804	
10	JR	0730	236	104.202	0.340	0750	22.843				0750		79.804	
11	MS	0730	253	104.542	0.364		22.843		24	1.668	0833		79.804	1.668
12	JR	0730	290	104.906	0.417		22.843		23	1.559	0833		81.472	1.559
13	MS	0730	267	105.323	0.384	0814	22.843				0817		83.031	
14	MS	0730	261	105.707	0.376	1250	22.843				1252		83.031	
15	MS	0730	247	106.083	0.356	1118	22.843				1120		83.031	
16	MS	0730	260	106.439	0.374	1011	22.843				1012		83.031	
17	WD	0730	278	106.813	0.400		22.843				0754		83.031	
18	JR	0730	263	107.213	0.378	0745	22.843				0739		83.031	
19	JR	0730	257	107.591	0.370	0742	22.843				0740		83.031	
20	MS	0730	266	107.961	0.383	1017	22.843		24	1.561	1020		83.031	1.561
21	WD	0730	273	108.344	0.393	1300	22.843				1300		84.592	
22	WD	0730	291	108.737	0.419	1140	22.843				1140		84.592	
23	MS	0730	270	109.156	0.389	0820	22.843				0818		84.592	
24	JR	0730	253	109.545	0.364	0753	22.843				1130		84.592	
25	JR	0730	252	109.909	0.363	1128	22.843		24	1.152	1130		84.592	1.152
26	JR	0730	258	110.272	0.372	1129	22.843		24	1.131	1129		85.744	1.131
27	WD	0730	267	110.644	0.385	0735	22.843				0738		86.875	
28	JC	0730	274	111.029	0.395	0950	22.843				0950		86.875	
29	JC	0730	262	111.424	0.377	1040	22.843				1040		86.875	
30	WD	0730	251	111.801	0.362	0740	22.843				0740		86.875	
31														
Total					11.405					10.127				10.127
Average			255		0.380					1.447				1.447
1	JR	0730		112.163									86.875	

Influent & Effluent Flows

File Name: Flows, I&E

October 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd								mg	mgd
1	JR	0730	259	112.163	0.373	0750	22.843				0747		86.875	
2	JR	0730	293	112.536	0.422	0725	22.843				1145		86.875	
3	JR	0730	258	112.958	0.371	1145	22.843		24	1.148	1145		86.875	1.148
4	WD	0730	264	113.329	0.380	1145	22.843		24	1.164	1145		88.023	1.164
5	DB	0730	260	113.709	0.374	1047	22.843				1045		89.187	
6	DB	0730	266	114.083	0.383	1030	22.843				1027		89.187	
7	WD	0730	263	114.466	0.378	0710	22.843				0707		89.187	
8	JR	0730	256	114.844	0.369	0720	22.843				0724		89.187	
9	JR	0730	258	115.213	0.372	0718	22.843				0718		89.187	
10	JR	0730	324	115.585	0.466	0725	22.843				1400		89.187	
11	WD	0730	267	116.051	0.384	1357	22.843		24	1.239	1400		89.187	1.239
12	WD	0730	267	116.435	0.385	1213	22.843				1211		90.426	
13	WD	0730	265	116.820	0.382	1142	22.843				1140		90.426	
14	WD	0730	269	117.202	0.387	0703	22.843				0700		90.426	
15	JR	0730	260	117.589	0.374	0721	22.843				0720		90.426	
16	MS	0730	256	117.963	0.368	0818	22.843				1114		90.426	
17	JR	0730	293	118.331	0.422	1110	22.843		24	1.266	1114		90.426	1.266
18	MS	0730	270	118.753	0.389	1111	22.843		24	1.261	1114		91.692	1.261
19	MS	0730	269	119.142	0.387	1226	22.843				1225		92.953	
20	MS	0730	271	119.529	0.390	1128	22.843				1130		92.953	
21	MS	0730	257	119.919	0.370	0830	22.843				0831		92.953	
22	JR	0730	267	120.289	0.384	1150	22.843				1145		92.953	
23	JR	0730	263	120.673	0.379	1145	22.843		24	1.267	1150		92.953	1.267
24	JR	0730	266	121.052	0.383	0750	22.843		24	1.001	1150		94.220	1.001
25	WD	0730	298	121.435	0.426	1046	22.843		23	0.839	1049		95.221	0.839
26	DB	0730	263	121.861	0.378	1008	22.843				1006		96.060	
27	DB	0730	253	122.239	0.365	1042	22.843				1039		96.060	
28	MS	0730	260	122.604	0.374	0801	22.843				0803		96.060	
29	JR	0730	234	122.978	0.337	1333	22.843				1330		96.060	
30	JR	0730	251	123.316	0.362	1328	22.843		24	0.969	1330		96.060	0.969
31	JR	0730	288	123.677	0.414	1315	22.843		24	0.940	1330		97.029	0.940
Total					11.928					11.094				11.094
Average			267		0.385					1.109				1.109
1	MS	0730		124.091			22.843						97.969	

Influent & Effluent Flows

File Name: Flows, I&E

November 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	MS	0730	265	124.091	0.382	0810	22.843		24	0.929	1330		97.969	0.929
2	JC	0730	258	124.473	0.372	1037	22.843				1037		98.898	
3	JC	0730	260	124.845	0.375	0925	22.843				0925		98.898	
4	MS	0730	256	125.212	0.368	0850	22.843				1145		98.898	
5	JR	0730	247	125.580	0.356	0751	22.843				0752		98.898	
6	JR	0730	251	125.936	0.362	0755	22.843				0844		98.898	
7	MS	0730	281	126.298	0.404	0945	22.843				1322		98.898	
8	MS	0730	252	126.702	0.363	0957	22.843		24	0.979	1039		98.898	0.979
9	WD	0730	260	127.065	0.375	1215	22.843				0932		99.877	
10	WD	0730	251	127.440	0.361	1313	22.843				1149		99.877	
11	WD	0730	253	127.801	0.365	1057	22.843				0752		99.877	
12	JR	0730	256	128.166	0.369	1059	22.843				1146		99.877	
13	JR	0730	251	128.535	0.362	0758	22.843		24	0.977	1146		99.877	0.977
14	JR	0730	283	128.897	0.407	0726	22.843		24	0.962	1146		100.854	0.962
15	MS	0730	260	129.304	0.374	0947	22.843				1216		100.854	
16	DB	0730	254	129.678	0.366	0830	22.843				1314		100.854	
17	DB	0730	245	130.044	0.353	1038	22.843				1057		100.854	
18	MS	0730	252	130.397	0.363	1114	22.843				0756		Calc [1]	
19	JR	0730	255	130.760	0.367	1220	23.605	0.763	24	0.968	1224		101.024	0.205
20	JR	0730	262	131.127	0.378	1224	24.583	0.978	24	0.978	1224		101.024	
21	JR	0730	260	131.505	0.375	1224	25.703	1.120	24	1.120	1224		101.024	
22	MS	0730	249	131.880	0.359	0816	25.703				0815		101.024	
23	MS	0730	257	132.239	0.370	1018	25.703				1019		101.024	
24	MS	0730	234	132.609	0.337	1010	25.703				1012		101.024	
25	MS	0730	243	132.946	0.350	1011	25.703		24	1.086	1012		102.119	1.086
26	JR	0730	240	133.296	0.345	1013	25.703		24	1.136	1012		103.242	1.136
27	JR	0730	253	133.641	0.364	0751	25.703				0750		103.242	
28	MS	0730	244	134.005	0.352	0746	25.703				0815		103.242	
29	JC	0730	245	134.357	0.353	0748	25.703				1010		103.242	
30	JC	0730	252	134.710	0.363	1133	25.703				1009		103.242	
31														
Total					10.990			2.861		9.135				6.274
Average			246		0.366			0.954		1.015				0.896
1	JC	0730	239	135.073	0.344	1008	25.703				1008		103.242	

[1] Found magmeter totalizer off - turned back on - total flow for Nov. 19 was calculated from avg gpm for 5 hours water applied to EFF-001R

Influent & Effluent Flows

File Name: Flows, I&E

December 2013

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate Avg gpm	Totalizer mg	Flow mgd	Time	Totalizer mg	Flow mgd	Hours run	Flow mgd	Time	Flow Rate gpm	Totalizer mg	Flow mgd
1	JC	0730	239	135.073	0.344	1008	25.703				1008		103.241	
2	MS	0730	247	135.417	0.355	0810	25.703				0810		103.241	
3	JR	0730	251	135.772	0.362	0741	25.703				1100		103.241	
4	JR	0730	242	136.134	0.348	1058	25.703		24	1.191	1100		103.241	1.191
5	JR	0730	246	136.482	0.354	1100	25.703		24	1.181	1100		104.432	1.181
6	MS	0730	263	136.836	0.379	0748	25.703				0751		105.613	
7	DB	0730	256	137.215	0.369	1027	25.703				1030		105.613	
8	DB	0730	239	137.584	0.344	1002	25.703				1005		105.613	
9	MS	0730	256	137.928	0.368	0810	25.703				0813		105.613	
10	JR	0730	242	138.296	0.348	1101	25.703				1100		105.613	
11	JR	0730	232	138.644	0.334	1040	25.703				1040		105.613	
12	JR	0730	231	138.978	0.333	1043	25.703		24	1.168	1040		105.613	1.168
13	MS	0730	237	139.311	0.341	1037	25.703		24	1.160	1038		106.781	1.160
14	MS	0730	235	139.652	0.339	1229	25.703				1228		107.941	
15	MS	0730	227	139.991	0.327	1222	25.703				1213		107.941	
16	WD	0730	248	140.318	0.357	1340	25.703				1343		107.941	
17	JR	0730	233	140.675	0.336	0743	25.703				0740		107.941	
18	JR	0730	222	141.011	0.319	1050	25.703				1055		107.941	
19	JR	0730	237	141.330	0.341	1052	25.703		24	1.178	1055		107.941	1.178
20	WD	0730	224	141.671	0.323	1058	25.703		24	1.176	1055		109.119	1.176
21	WD	0730	223	141.994	0.321	1110	25.703				1113		110.295	
22	WD	0730	225	142.315	0.324	1500	25.703				1505		110.295	
23	MS	0730	235	142.639	0.338	0749	25.703				0751		110.295	
24	WD	0730	234	142.977	0.337	1135	25.703				1139		110.295	
25	DB	0730	190	143.314	0.274	1027	25.703				1009		110.295	
26	JR	0730	236	143.588	0.340	1115	25.703				1117		110.295	
27	MS	0730	239	143.928	0.344	1117	25.703		24	1.182	1119		110.295	1.182
28	JC	0730	242	144.272	0.348	0950	25.703				0950		111.477	
29	JC	0730	235	144.620	0.338	0950	25.703				0948		111.477	
30	MS	0730	248	144.958	0.357	0824	25.703				0823		111.477	
31	WD	0730	211	145.315	0.304	0746	25.703				0746		111.477	
Total					10.546					8.236				8.236
Average			236		0.340					1.177				1.177
1	JC	0730		145.619		0929	25.703						111.477	

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Influent & Effluent Flows

File Name: Flows, I&E

January 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	JC	0730	244	145.619	0.352	0929	25.703				1012		111.477	
2	MS	0730	240	145.971	0.345	1014	25.703		24	1.181	1012		111.477	1.181
3	MS	0730	235	146.316	0.338	1000	25.703		24	1.172	0958		112.658	1.172
4	MS	0730	233	146.654	0.335	1007	25.703				1006		113.830	
5	MS	0730	224	146.989	0.323	1030	25.703				1028		113.830	
6	MS	0730	228	147.312	0.328	1140	25.703				1142		113.830	
7	JR	0730	250	147.640	0.360	1140	25.703		24	1.184	1142		113.830	1.184
8	JR	0730	237	148.000	0.341	1128	25.703		24	1.180	1135		115.014	1.180
9	JR	0730	235	148.341	0.339	0748	25.703				0740		116.194	
10	MS	0730	241	148.680	0.347	0801	25.703				0803		116.194	
11	JC	0730	240	149.027	0.346	1030	25.703				1030		116.194	
12	JC	0730	243	149.373	0.350	1045	25.703				1045		116.194	
13	MS	0730	260	149.723	0.375	0836	25.703				0838		116.194	
14	JR	0730	231	150.098	0.333	0743	25.703				0743		116.194	
15	JR	0730	238	150.431	0.343	1148	25.703		24	1.195	1153		116.194	1.195
16	JR	0730	232	150.774	0.334	1135	25.703		24	1.188	1139		117.389	1.188
17	MS	0730	241	151.108	0.347	0750	25.703				0752		118.577	
18	DB	0730	235	151.455	0.339	1028	25.703				1029		118.577	
19	DB	0730	231	151.794	0.332	1115	25.703				1113		118.577	
20	DB	0730	249	152.126	0.358	1050	25.703				1051		118.577	
21	JR	0730	230	152.484	0.331	0740	25.703				0740		118.577	
22	MS	0730	240	152.815	0.346	1056	25.703		24	1.188	1100		118.577	1.188
23	MS	0730	241	153.161	0.347	1103	25.703		24	1.176	1100		119.765	1.176
24	WD	0730	236	153.508	0.340	0920	25.703				0918		120.941	
25	WD	0730	244	153.848	0.351	1000	25.703				1000		120.941	
26	WD	0730	242	154.199	0.348	1004	25.703				1004		120.941	
27	MS	0730	233	154.547	0.335	0749	25.703				0752		120.941	
28	JR	0730	231	154.882	0.333	0745	25.703				0742		120.941	
29	MS	0730	230	155.215	0.331	0742	25.703				0745		120.941	
30	JR	0730	224	155.546	0.323	0747	25.703				0745		120.941	
31	MS	0730	233	155.869	0.336	0802	25.703				0801		120.941	
Total					10.586					9.464				9.464
Average			237		0.341					1.183				1.183
1	MS	0730		156.205		1100	25.703				1102		120.941	

Influent & Effluent Flows

File Name: Flows, I&E

February 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd									
1	MS	0730	236	156.205	0.340	1100	25.703				1102		120.941	
2	MS	0730	225	156.545	0.324	1124	25.703				1128		120.941	
3	WD	0730	239	156.869	0.344	0903	25.703				0904		120.941	
4	JR	0730	219	157.213	0.316	0745	25.703				0741		120.941	
5	MS	0730	254	157.529	0.366	0758	25.703				0800		120.941	
6	JR	0730	253	157.895	0.364	0740	25.703				0742		120.941	
7	MS	0730	399	158.259	0.574	0808	25.703				0809		120.941	
8	JC	0730	1228	158.833	1.768	1135	25.703				1135		120.941	
9	JC	0730	1287	160.601	1.853	1000	25.703				1000		120.941	
10	MS	0730	790	162.454	1.138	0808	25.703				0810		120.941	
11	JR	0730	596	163.592	0.858	1404	25.703	1.194	24	1.194	1400		120.941	
12	MS	0730	531	164.450	0.765	1404	26.897	1.234	24	1.234	1403		120.941	
13	JR	0730	460	165.215	0.862	1404	28.131	1.221	24	1.221	1406		120.941	
14	WD	0730	426	165.877	0.614	1404	29.352	1.138	24	1.138	0407		120.941	
15	WD	0730	389	166.491	0.560	1004	30.490				1035		120.941	
16	WD	0730	369	167.051	0.531	1258	30.490				1210		120.941	
17	WD	0730	358	167.582	0.515	1113	30.490				1043		120.941	
18	JR	0730	324	168.097	0.467	0750	30.490				0749		120.941	
19	MS	0730	314	168.564	0.452	0817	30.490				0819		120.941	
20	JR	0730	343	169.016	0.494	0741	30.490				0740		120.941	
21	MS	0730	303	169.510	0.436	0756	30.490				0758		120.941	
22	DB	0730	288	169.946	0.414	1014	30.490				1018		120.941	
23	DB	0730	273	170.360	0.393	1042	30.490				1045		120.941	
24	MS	0730	276	170.753	0.398	0758	30.490				0803		120.941	
25	WD	0730	272	171.151	0.392	0805	30.490				0803		120.941	
26	MS	0730	422	171.543	0.607	0750	30.490				0754		120.941	
27	JR	0730	497	172.150	0.715	1145	31.624	1.134	24	1.134	1140		120.941	
28	MS	0730	876	172.865	1.262	1145	32.758	1.134	24	1.134	1148		120.941	
29		0730												
30		0730												
31		0730												
Total					17.922			7.055		7.055				
Average			401		0.640			1.176		1.176				
1	MS	0730		174.127	1.045	1145	33.899	1.141					120.941	

Influent & Effluent Flows

File Name: Flows, I&E

March 2014

City of St. Helena Waste Water Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	MS	0730	726	174.127	1.045	1145	32.758	1.141	24	1.141	1146		120.941	
2	MS	0730	592	175.172	0.852	1145	33.899	1.126	24	1.126	1110		120.941	
3	MS	0730	590	176.024	0.849	1145	35.025	1.120	24	1.120	1143		120.941	
4	JR	0730	568	176.873	0.818	1145	36.145	1.120	24	1.120	1150		120.941	
5	MS	0730	563	177.691	0.811	1145	37.266	1.090	24	1.090	1147		120.941	
6	MS	0730	575	178.502	0.828	1145	38.355	1.098	24	1.098	1146		120.941	
7	MS	0730	511	179.330	0.736	0936	39.453				0935		120.941	
8	JC	0730	471	180.066	0.678	1030	39.453				1030		120.941	
9	JC	0730	436	180.744	0.628	1100	39.453				1100		120.941	
10	MS	0730	422	181.372	0.608	0853	39.453				0855	1874	120.941	2.687
11	JR	0730	387	181.980	0.557	0743	39.453				0847	1838	123.628	2.646
12	MS	0730	378	182.537	0.545	1100	39.453				1102		126.274	
13	JR	0730	372	183.082	0.536	0708	39.453		24	1.789	1102	1242	126.274	1.789
14	WD	0730	357	183.618	0.514	1050	39.453		24	1.786	1051	1239	128.063	1.786
15	WD	0730	339	184.132	0.488	0930	39.453				0930		129.849	
16	WD	0730	324	184.620	0.467	1200	39.453				1200		129.849	
17	MS	0730	330	185.087	0.475	0752	39.453				0754		129.849	
18	JR	0730	310	185.562	0.446	0745	39.453				0742		129.849	
19	WD	0730	306	186.008	0.441	0855	39.453				1112		129.849	
20	JR	0730	293	186.449	0.422	1112	39.453		24	1.797	1112	1248	129.849	1.797
21	MS	0730	292	186.871	0.421	0801	39.453				0800		131.646	
22	DB	0730	285	187.292	0.410	0950	39.453				0958		131.646	
23	DB	0730	279	187.702	0.402	1051	39.453				1056		131.646	
24	MS	0730	265	188.104	0.382	0853	39.453				0855		131.646	
25	MS	0730	288	188.486	0.414	0900	39.453				0903		131.646	
26	WD	0730	326	188.900	0.470	0740	39.453				0740		131.646	
27	MS	0730	303	189.370	0.437	0814	39.453				1120		131.646	
28	MS	0730	304	189.807	0.438	1122	39.453		24	1.816	1120	1261	131.646	1.816
29	MS	0730	505	190.245	0.727	1224	39.453				1119		133.462	
30	MS	0730	424	190.972	0.610	1120	39.453	2.235	23	2.235	1121		133.462	
31	MS	0730	575	191.582	0.828	0758	41.688				0802		133.462	
Total					18.283			8.930		16.118				12.521
Average			410		0.590			1.276		1.465				2.087
1	JR	0730		192.410		0740	41.688				0742		133.462	

Influent & Effluent Flows

File Name: Flows, I&E

April 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd									
1	JR	0730	843	192.410	1.214	1101	41.688						133.462	
2	MS	0730	722	193.624	1.039	1101	44.026	2.338	24	2.338	1105		133.462	
3	JR	0730	606	194.663	0.873	1101	46.354	2.328	24	2.328	1107		133.462	
4	MS	0730	565	195.536	0.814	1100	48.669	2.315	24	2.315	1100		133.462	
5	WD	0730	510	196.350	0.735	1000	48.669				1000		133.462	
6	WD	0730	460	197.085	0.662	1300	48.669				1300		133.462	3.496
7	MS	0730	427	197.747	0.615	0747	48.669				0750		136.958	
8	JR	0730	418	198.362	0.602	0744	48.669				0745		136.958	
9	MS	0730	385	198.964	0.555	0955	48.669				0759		136.958	
10	JR	0730	367	199.519	0.528	1058	48.669				1100		136.958	
11	MS	0730	368	200.047	0.530	1053	48.669		24	1.795	1050		138.753	1.795
12	DB	0730	350	200.577	0.504	1100	48.669				1108		140.548	
13	DB	0730	323	201.081	0.465	1056	48.669				1059		140.548	
14	MS	0730	332	201.546	0.478	0802	48.669				0805		138.753	2.044
15	JR	0730	306	202.024	0.441	0805	48.669				0805		140.797	
16	JR	0730	308	202.465	0.443	0750	48.669				0740		140.797	
17	JR	0730	294	202.908	0.424	0742	48.669		24	1.801	1134		140.797	
18	MS	0730	290	203.332	0.418	1130	48.669				1133		142.598	1.801
19	JC	0730	284	203.750	0.409	1020	48.669				1020		144.399	
20	JC	0730	274	204.159	0.394	1010	48.669				1010		144.399	
21	MS	0730	278	204.553	0.401	0827	48.669				1115		144.399	
22	JR	0730	272	204.954	0.392	1109	48.669		24	1.799	1111		144.397	1.799
23	JR	0730	262	205.346	0.377	1215	48.669				1201		146.196	
24	JR	0730	268	205.723	0.386	0746	48.669				0745		146.196	
25	MS	0730	282	206.109	0.406	0808	48.669				0810		144.397	
26	MS	0730	281	206.515	0.405	1139	48.669				1138		144.397	
27	MS	0730	264	206.920	0.380	0930	48.669				0929		144.397	
28	MS	0730	267	207.300	0.385	0745	48.669				0746		146.166	1.767 [1]
29	JR	0730	268	207.685	0.386	0808	48.669				0808		146.166	1.858 [1]
30	MS	0730	264	208.071	0.380	0823	48.669				0826		146.166	3.044 [1]
31														
Total					16.041			6.981		12.376				17.604
Average			359		0.535			2.327		2.063				2.201
1	MS	0730		208.451		0958	48.669	1.944	22.5	2.286	1100		14.166	

[1] Flow calculation from SCADA GPM - totalizer stopped

Influent & Effluent Flows

File Name: Flows, I&E

May 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd *		gpm	mg	mgd *
1	MS	0730	256	208.451	0.368	0958	48.669	1.944	22.5	1.944	1100	1911	146.166	0.665
2	MS	0730	276	208.819	0.398	0750					0751			
3	JC	0730	267	209.217	0.385	1055					1055			
4	JC	0730	263	209.602	0.378	1055					1055			
5	MS	0730	265	209.980	0.381	0840					0844	1915		2.895
6	JR	0730	261	210.361	0.376	1006					1003			
7	MS	0730	257	210.737	0.370	1143					0756			
8	JR	0730	259	211.107	0.373	1143		2.078	24	2.078	1137			
9	MS	0730	258	211.480	0.372	1143		2.074	24	2.074	1140			
10	WD	0730	263	211.852	0.378	1238					1240			
11	WD	0730	257	212.230	0.370	1212					1216			
12	MS	0730	285	212.600	0.410	0750					0748			
13	JR	0730	252	213.010	0.363	0747					0750			
14	MS	0730	247	213.373	0.356	1510					1440	1932		3.280
15	JR	0730	260	213.729	0.374	1510		2.016	24	2.016	1507			
16	MS	0730	261	214.103	0.376	1205		1.776	21	1.776	1208			
17	DB	0730	260	214.479	0.375	1128					1133			
18	DB	0730	259	214.854	0.373	1039					1042			
19	MS	0730	290	215.227	0.417	1115					0814	1913		2.755
20	JR	0730	265	215.644	0.381	1115		2.021		2.021	0814	1898		2.733
21	WD	0730	253	216.025	0.364	1115		1.584		1.584	0814	1733		2.610
22	WD	0730	257	216.389	0.370	1113		1.173		1.173	0720			
23	WD	0730	269	216.759	0.388	0734					0734			
24	WD	0730	263	217.147	0.379	1215					1215			
25	WD	0730	255	217.526	0.367	1146					1146			
26	WD	0730	269	217.893	0.388	1045					1045			
27	JR	0730	291	218.281	0.419	0744					0747			
28	MS	0730	257	218.700	0.370	1100					1000			
29	JR	0730	253	219.070	0.364	1100		1.899	24	1.899	1108	1966		2.961
30	MS	0730	256	219.434	0.368	0750					0749			
31	DB	0730	258	219.802	0.371	1048					1049			
Total					11.722			16.565		16.565				17.899
Average			263		0.378			1.841		1.841				2.557
1	DB	0730		220.173		1055	48.669				1057		14.166	

* Calculated - pump run hours x SCADA average flow trend

Influent & Effluent Flows

File Name: Flows, I&E

June 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd *		gpm	mg	mgd *
1	DB	0730	251	220.173	0.361	1052	48.669				1057		146.166	
2	MS	0730	300	220.534	0.432	0750	48.669				0748		146.166	
3	JR	0730	257	220.966	0.370	0741	48.669				1055		146.166	
4	JR	0730	257	221.336	0.370	1118	48.669				1055		146.166	
5	JR	0730	252	221.706	0.363	1117	48.669	1.791	24	1.791	0745	1921	146.166	0.991
6	MS	0730	258	222.069	0.372	0723	48.669				0724		146.166	
7	WD	0730	253	222.441	0.365	1135	48.669				1135		146.166	
8	WD	0730	236	222.806	0.340	1150	48.669	2.078	24	2.078	1150		146.166	
9	MS	0730	251	223.146	0.361	0925	48.669				0923		146.166	
10	JR	0730	259	223.507	0.373	0939	48.669				0939		146.166	
11	JR	0730	254	223.880	0.366	1100	48.669				1100		146.166	
12	JR	0730	248	224.246	0.357	1100	48.669	1.798	24	1.798	0939		146.166	
13	JR	0730	276	224.603	0.398	0940	48.669	1.689	22.7	1.689	0737		146.166	
14	JC	0730	256	225.001	0.368	1055	48.669				1055		146.166	
15	JC	0730	253	225.369	0.365	1030	48.669				1030		146.166	
16	WD	0730	255	225.731	0.367	0715	48.669				0718		146.166	
17	WD	0730	248	226.098	0.357	1012	48.669				1015	1938	146.166	0.872
18	MS	0730	239	226.455	0.344	1122	48.669				1042		146.166	
19	MS	0730	240	226.799	0.345	0805	48.669				0814		146.166	
20	MS	0730	281	227.144	0.404	0753	48.669				0755		146.166	
21	WD	0730	247	227.548	0.356	1248	48.669				1248		146.166	
22	WD	0730	238	227.904	0.342	1049	48.669				1049		146.166	
23	MS	0730	240	228.231	0.345	1212	48.669				0758		146.166	
24	WD	0730	244	228.576	0.351	1212	48.669	1.788	24	1.788	1200		146.166	
25	JR	0730	237	228.927	0.341	1212	48.669	1.789	24	1.789	1205		146.166	
26	JR	0730	236	229.268	0.340	1131	48.669				1130	1986	146.166	0.477
27	JR	0730	288	229.608	0.415	0745	48.669				0743		146.166	
28	JC	0730	244	230.023	0.352	1141	48.669				1138		146.166	
29	JC	0730	234	230.375	0.337	1122	48.669				1120		146.166	
30	JR	0730	247	230.712	0.355	0611	48.669				0607		146.166	
31														
Total					10.912			10.933		10.933				2.340
Average			244		0.352			0.683		0.683				0.260
1	DB	0730		220.173		1055	48.669				0649		146.166	

* Calculated - pump run hours x SCADA average flow trend

Influent & Effluent Flows

File Name: Flows, I&E

July 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg *	mgd		mgd		gpm	mg	mgd
1	DB	0730	227	231.067	0.327	0648	48.669				0649		146.166	
2	JR	0730	239	231.394	0.344	1145	48.669				1146		146.166	
3	JR	0730	278	231.738	0.400	1145	48.669	1.872	24	1.872	0705	1941	146.166	0.606
4	WD	0730	239	232.138	0.344	1150	48.669				1151		146.772	
5	WD	0730	271	232.482	0.390	1153	48.669				1154		146.772	
6	WD	0730	247	232.872	0.356	1151	48.669				1152		146.772	
7	JR	0730	231	233.228	0.332	0746	48.669				0743		146.772	
8	JR	0730	237	233.560	0.341	0742	48.669				0743		146.772	
9	JR	0730	231	233.901	0.333	0740	48.669				0741		146.772	
10	JR	0730	270	234.234	0.389	1110	48.669	1.877	24	1.877	1111		146.772	
11	JR	0730	251	234.623	0.361	0743	48.669				0752	1983	146.772	0.646
12	DB	0730	256	234.984	0.368	1440	48.669				1442		147.418	
13	DB	0730	252	235.352	0.363	1111	48.669				1128		147.418	
14	JR	0730	239	235.715	0.344	0743	48.669				0744		147.418	
15	JR	0730	255	236.059	0.367	0743	48.669				0744		147.418	
16	JR	0730	230	236.426	0.331	0745	48.669	1.869	24	1.869	0746		147.418	
17	JR	0730	268	236.757	0.386	0717	48.669				0718		147.418	
18	JR	0730	244	237.143	0.352	0746	48.669				0747	2000	147.418	0.480
19	MS	0730	237	237.495	0.341	1145	48.669				1146		147.898	
20	MS	0730	231	237.836	0.333	1115	48.669				1117		147.898	
21	MS	0730	239	238.169	0.344	1110	48.669				0804		147.898	
22	JR	0730	233	238.513	0.335	0741	48.669				0742		147.898	
23	JR	0730	229	238.848	0.330	1028	48.669				1029		147.898	
24	JR	0730	228	239.178	0.329	1028	48.669	1.880	24	1.880	1029		147.898	
25	JR	0730	270	239.507	0.389	0741	48.669				0812	1979	147.898	0.475
26	JC	0730	237	239.896	0.341	1030	48.669				1030		148.373	
27	JC	0730	219	240.237	0.316	1100	48.669				1100		148.373	
28	JR	0730	233	240.553	0.335	0742	48.669				0743		148.373	
29	JR	0730	222	240.888	0.320	0742	48.669				0743		148.373	
30	JR	0730	224	241.208	0.322	1045	48.669				0746		148.373	
31	JR	0730	269	241.530	0.388	1045	48.669	1.865	24	1.865	0746		148.373	
Total					10.851			9.363		9.363				2.207
Average			243		0.350			1.873		1.873				0.552
1	JR	0730		241.918			48.669				1055		148.373	

* Flows calculated - Magmeter bypassed while new 100 hp pump is being installed

Influent & Effluent Flows

File Name: Flows, I&E

August 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	JR	0730	248	241.918	0.357	0731	48.669	1.857	24	1.857	1055		145.555	
2	MS	0730	226	242.275	0.326	1128	50.526				1130		145.555	
3	MS	0730	238	242.601	0.342	1131	50.526				1132		145.555	
4	JR	0730	243	242.932	0.350	0745	50.526				0746		145.555	
5	JR	0730	238	243.282	0.342	0741	50.526				0740		145.555	
6	JR	0730	238	243.624	0.343	0743	50.526				0744		145.555	
7	JR	0730	267	243.967	0.384	0731	50.526				0752		145.555	
8	MS	0730	253	244.351	0.365	0731	50.526				0746		145.555	
9	JC	0730	240	244.716	0.346	1015	50.526				1015		145.555	
10	JC	0730	228	245.062	0.328	1210	50.526				1210		145.555	
11	JR	0730	242	245.378	0.348	0731	50.526				0752		145.555	0.589
12	JR	0730	237	245.726	0.341	0731	50.526				0755		146.144	
13	JR	0730	233	246.067	0.336	0752	50.526	1.872		1.872	0747		146.144	
14	JR	0730	273	246.403	0.393	0748	52.398	1.863		1.863	0744		146.144	
15	JR	0730	247	246.796	0.355	0805	54.261				0804		146.144	
16	WD	0730	247	247.151	0.356	1238	54.261				1150		146.144	
17	WD	0730	243	247.507	0.350	1311	54.261				1146		146.144	
18	JR	0730	249	247.845	0.359	0731	54.261				0748		146.144	
19	JR	0730	242	248.204	0.348	0744	54.261				0740		146.144	
20	JR	0730	242	248.552	0.349	0745	54.261				0942		146.144	2.863
21	JR	0730	269	248.901	0.387	0731	54.261				0815		149.007	
22	JR	0730	251	249.288	0.361	0731	54.261				0742		149.007	
23	DB	0730	271	249.649	0.390	1118	54.261				1032		149.007	
24	DB	0730	213	250.039	0.306	1123	54.261				1038		149.007	
25	JR	0730	588	250.337	0.378	0740	54.261				0746		149.007	
26	JR	0730	247	250.715	0.356	0731	54.261				0745		149.007	
27	JR	0730	238	251.071	0.342	0746	54.261				0747		149.007	
28	JR	0730	226	251.413	0.326	0747	54.261				0748		149.007	2.931
29	JR	0730	280	251.739	0.403	1200	54.261				1155		151.938	
30	JC	0730	240	252.142	0.346	1215	54.261				1230		151.938	
31	JC	0730	242	252.488	0.349	1112	54.261				1112		151.938	
Total					10.962			5.592		5.592				6.383
Average			256		0.354			1.864		1.864				2.128
1	JC	0730		252.837		1117	54.261				1118		151.938	

Influent & Effluent Flows

File Name: Flows, I&E

September 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow mgd	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd							gpm	mg	mgd
1	JC	0730	233	252.837	0.336	1120	48.669				1120		151.938	
2	JR	0730	233	253.173	0.335	0743	48.669				1032		151.938	
3	JR	0730	224	253.508	0.322	0744	48.669				0745		151.938	
4	JR	0730	237	253.830	0.341	0748	48.669				0746		151.938	
5	JR	0730	254	254.171	0.366	0747	48.669				0746		151.938	
6	WD	0730	247	254.537	0.355	1400	48.669				1400		151.938	
7	WD	0730	251	254.892	0.362	1300	48.669				1300		151.938	0.088
8	JR	0730	228	255.254	0.328	0746	48.669				0745	1990	152.026	0.828
9	JR	0730	228	255.582	0.329	0747	48.669				0746		152.854	
10	JR	0730	239	255.911	0.344	0745	48.669				0740		152.854	
11	JR	0730	265	256.255	0.382	0746	48.669				0746		152.854	
12	JR	0730	242	256.637	0.348	0744	48.669				0744		152.854	
13	DB	0730	244	256.985	0.351	1057	48.669				1058		152.854	
14	DB	0730	238	257.336	0.343	0747	48.669				0748		152.854	
15	JR	0730	245	257.679	0.353	0745	48.669				0744		152.854	
16	JR	0730	267	258.032	0.385	0750	48.669				0742		152.854	
17	JR	0730	231	258.417	0.333	0744	48.669		24	1.519	0745		152.854	
18	JR	0730	252	258.750	0.363	0746	48.669				0744		152.854	
19	JR	0730	262	259.113	0.377	1209	48.669				0752		152.854	
20	MS	0730	240	259.490	0.346	1203	48.669				1212		152.854	
21	MS	0730	251	259.836	0.362	0745	48.669				1202		152.854	
22	JR	0730	231	260.198	0.333	0745	48.669				0743		152.854	
23	JR	0730	230	260.531	0.331	0745	48.669				0744		152.854	
24	JR	0730	248	260.862	0.357	0746	48.669				0742		152.854	
25	JR	0730	264	261.219	0.380	0745	48.669				0747		152.854	
26	JR	0730	242	261.599	0.348	0747	48.669		23.8	1.503	0745		152.854	
27	WD	0730	238	261.947	0.342	1227	48.669				1228		152.854	
28	WD	0730	241	262.289	0.347	1057	48.669				1058		152.854	
29	JR	0730	242	262.636	0.348	0746	48.669				0747		152.854	
30	JR	0730	230	262.984	0.331	0745	48.669				0744		152.854	
31													152.854	
Total					10.478					3.022				0.916
Average			243		0.349					1.511				0.458
1	JR	0730		263.315		0745	48.669				0743		152.854	

Influent & Effluent Flows

File Name: Flows, I&E

October 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	JR	0730	590	263.315	0.337	0745	48.669				0743		152.854	
2	JR	0730	262	263.652	0.377	0744	48.669				0744		152.854	
3	JR	0730	253	264.029	0.364	0745	48.669		24	1.520	0742		152.854	
4	DB	0730	240	264.393	0.346	1112	48.669				1119		152.854	
5	DB	0730	236	264.739	0.340	1123	48.669				1127		152.854	
6	JR	0730	237	265.079	0.341	0746	48.669				0744		152.854	
7	JR	0730	227	265.420	0.327	0747	48.669				0743		152.854	
8	JR	0730	238	265.747	0.343	0744	48.669				0743		152.854	
9	JR	0730	268	266.090	0.386	0954	48.669		24	1.519	0953		152.854	
10	JR	0730	237	266.476	0.341	0746	48.669				0747		152.854	
11	MS	0730	240	266.817	0.346	1124	48.669				1125		152.854	
12	MS	0730	241	267.163	0.347	1209	48.669				1210		152.854	
13	MS	0730	240	267.510	0.345	0828	48.669				0831		152.854	
14	JR	0730	234	267.855	0.337	0742	48.669				0740		152.854	
15	JR	0730	227	268.192	0.327	0749	48.669				0746		152.854	
16	JR	0730	270	268.519	0.389	0741	48.669				0741		152.854	
17	JR	0730	237	268.908	0.341	0740	48.669		24	2.016	1233		152.854	
18	JC	0730	247	269.249	0.356	1120	48.669				1120		152.854	
19	JC	0730	244	269.605	0.352	1100	48.669				1100		152.854	
20	JR	0730	243	269.957	0.350	0742	48.669				0741		152.854	
21	JR	0730	235	270.307	0.338	0742	48.669				0739		152.854	
22	JR	0730	231	270.645	0.333	0742	48.669				0741		152.854	
23	JR	0730	236	270.978	0.340	0743	48.669		24	2.009	0742		152.854	
24	JR	0730	265	271.318	0.381	0744	48.669				0743		152.854	
25	DB	0730	240	271.699	0.346	1408	48.669				1351		152.854	
26	DB	0730	240	272.045	0.345	1135	48.669				1149		152.854	
27	JR	0730	231	272.390	0.332	0745	48.669				0744		152.854	
28	JR	0730	238	272.722	0.342	0739	48.669				0741		152.854	
29	JR	0730	224	273.064	0.322	0742	48.669				0743		152.854	
30	JR	0730	266	273.386	0.383	0743	48.669		24	2.012	0742		152.854	
31	JR	0730	242	273.769	0.348	0741	48.669				0739		152.854	
Total					10.802					9.076				
Average			253		0.348					1.815				
1	WD	0730		274.117			48.669						152.854	

Influent & Effluent Flows

File Name: Flows, I&E

November 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd									
1	WD	0730	231	274.117	0.332	1125	48.669				1125		152.854	
2	WD	0730	241	274.449	0.347	1140	48.669				1140		152.854	
3	JR	0730	236	274.796	0.340	0743	48.669				0740		152.854	
4	JR	0730	226	275.136	0.326	0742	48.669		24	1.803	0741		152.854	
5	JR	0730	233	275.462	0.335	0741	48.669		24	1.802	0740		152.854	
6	MS	0730	231	275.797	0.332	0750	48.669				0754		152.854	
7	JR	0730	235	276.129	0.339	1338	48.669				0743		152.854	0.535
8	MS	0730	256	276.468	0.368	1410	48.669				1409		153.389	
9	MS	0730	251	276.836	0.361	0744	48.669				0742		153.389	
10	JR	0730	233	277.197	0.335	0742	48.669		24	1.801	0740		153.389	
11	JR	0730	209	277.532	0.301	0740	48.669				0738		153.389	
12	JR	0730	232	277.833	0.334	0750	48.669				0747		153.389	
13	JR	0730	230	278.167	0.331	0751	48.669				0757		153.389	
14	MS	0730	231	278.498	0.333	0748	48.669				0747		153.389	
15	DB	0730	251	278.831	0.362	1010	48.669				1008		153.389	
16	DB	0730	235	279.193	0.339	1009	48.669				1006		153.389	
17	JR	0730	231	279.532	0.332	0744	48.669				0743		153.389	
18	JR	0730	271	279.864	0.390	0743	48.669				0742		153.389	
19	JR	0730	239	280.254	0.344	0742	48.669				0740		153.389	
20	JR	0730	242	280.598	0.349	0744	48.669				0743		153.389	
21	JR	0730	247	280.947	0.355	0741	48.669				0740		153.389	
22	JC	0730	271	281.302	0.390	1025	48.669				1028		153.389	
23	JC	0730	240	281.692	0.346	1130	48.669				1130		153.389	
24	JR	0730	236	282.038	0.340	0743	48.669				0741		153.389	2.730
25	JR	0730	249	282.378	0.358	0742	48.669				1138		156.119	3.243
26	JR	0730	248	282.736	0.357	0746	48.669		24	1.814	0748		159.362	2.705
27	JC	0730	228	283.093	0.328	1145	48.669		24	1.813	1145		162.067	0.491
28	WD	0730	244	283.421	0.352	1201	48.669				1205		162.558	
29	WD	0730	273	283.773	0.393	1128	48.669				1133		162.558	
30	WD	0730	269	284.166	0.387	1208	48.669				1210		162.558	
31		0730		284.553			48.669						162.558	
Total					10.436					9.033				9.704
Average			242		0.348					1.807				1.941
1	WD	0730		284.553		0846	48.669				0850		162.558	

Influent & Effluent Flows

File Name: Flows, I&E

December 2014

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			EFF-001D		RECLAIMED: EFF-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	WD	0730	259	284.555	0.373	0846	48.669				0850		162.558	
2	JR	0730	442	284.928	0.637	0740	48.669				0742		162.558	
3	JR	0730	584	285.565	0.841	0739	48.669				1111		162.558	
4	JR	0730	392	286.406	0.564	0745	48.669	1.810	24	1.810	1115		162.558	
5	JR	0730	478	286.970	0.689	0737	48.669	1.812	24	1.812	1115		162.558	
6	MS	0730	448	287.659	0.645	1048	48.669				1050		162.558	
7	MS	0730	376	288.304	0.541	1212	48.669				1213		162.558	0.023
8	JR	0730	342	288.845	0.493	0741	48.669	1.813	24	1.813	0740		162.581	2.840
9	JR	0730	315	289.338	0.453	0743	48.669	1.811	24	1.811	1151		165.421	2.920
10	JR	0730	549	289.791	0.791	0731	48.669	1.812	24	1.812	1603		168.341	0.888
11	JR	0730	2080	290.582	2.995	0731	48.669	1.814	24	1.814	0850		169.229	
12	JR	0730	919	293.577	1.323	0734	48.669	1.813	24	1.813	0734		169.229	
13	MS	0730	824	294.900	1.186	1147	48.669	1.811	24	1.811	1150		169.229	
14	MS	0730	1412	296.086	2.048	1135	48.669				1137		169.229	
15	JR	0730	1390	298.119	2.033	0743	48.669	1.813	24	1.813	0743		169.229	
16	JR	0730	1160	300.121	2.002	1145	48.669	1.736	23	1.736	0743		169.229	
17	JR	0730	1000	301.792	1.671	1145	50.405	2.168	24	2.168	0739		169.229	
18	MS	0730	1251	303.232	1.440	1145	52.573	2.189	24	2.189	1140		169.229	
19	MS	0730	925	305.033	1.801	1145	54.762	2.181	24	2.181	0758		169.229	
20	JR	0730	767	306.365	1.332	1145	56.943	2.171	24	2.171	0748		169.229	
21	JC	0730	682	307.469	1.104	1145	59.114	2.169	24	2.169	1106		169.229	
22	JR	0730	682	308.451	0.982	1145	61.283	2.186	24	2.186	0736		169.229	
23	JR	0730	617	309.339	0.888	0743	63.469				0742		169.229	
24	JR	0730	551	310.133	0.794	0743	63.469				0742		169.229	
25	DB	0730	483	310.829	0.696	0744	63.469				1037		169.229	
26	JC	0730	479	311.519	0.690	1000	63.469				1040		169.229	
27	JC	0730	458	312.178	0.659	1210	63.469				1210		169.229	
28	JC	0730	429	312.796	0.618	1110	63.469				1110		169.229	
29	JR	0730	351	313.302	0.506	0746	63.469				1203		169.229	1.652
30	JR	0730	386	313.858	0.556	0741	63.469		24	2.186	1203		170.881	2.007
31	JR	0730	417	314.459	0.601	0740	63.469		24	2.181	1203		172.888	0.934
Total					31.952			31.109		35.476				11.264
Average			692		1.031			1.944		1.971				1.609
1	WD	0730		315.060		1055	63.469				1057		173.822	

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Influent & Effluent Flows

File Name: Flows, I&E

January 2015

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	WD	0730	371	316.536	0.534	1055	61.756				1057		173.822	
2	JR	0730	363	317.070	0.522	0902	61.756				0901		173.822	
3	DB	0730	345	317.592	0.497	1055	61.756				1028		173.822	
4	DB	0730	337	318.089	0.485	0958	61.756				1057		173.822	
5	JR	0730	338	318.574	0.487	0741	61.756				0740		173.822	
6	JR	0730	313	319.061	0.451	0743	61.756				0742		173.822	0.037 [1]
7	JR	0730	302	319.512	0.435	0742	61.756				0740	1799	173.859	2.591
8	JR	0730	297	319.947	0.428	0740	61.756				0921	1510	176.450	2.174
9	JR	0730	290	320.375	0.417	0742	61.756				0741	2192	178.624	0.325
10	JC	0730	285	320.792	0.411	1015	61.756				1015		178.949	
11	JC	0730	277	321.203	0.399	1045	61.756				1045		178.949	
12	JR	0730	292	321.602	0.420	0742	61.756				0741		178.949	
13	JR	0730	280	322.022	0.403	0742	61.756				0741		178.949	
14	JR	0730	276	322.425	0.398	0742	61.756				0741	2188	178.949	0.457
15	MS	0730	274	322.823	0.394	1108	61.756	2.358			1107	2191	179.406	0.327
16	JR	0730	274	323.217	0.395	0743	64.114				0742		179.733	
17	MS	0730	290	323.612	0.417	1044	64.114				1040	2189	179.733	0.140
18	MS	0730	274	324.029	0.394	1040	64.114				1046	2190	179.873	0.275
19	MS	0730	274	324.423	0.395	1102	64.114				1100	2186	180.148	0.162
20	JR	0730	272	324.818	0.391	0744	64.114				0743	2188	180.310	0.153
21	JR	0730	264	325.209	0.380	0740	64.114	2.607			0738	2187	180.463	0.185
22	JR	0730	287	325.589	0.413	0743	66.721				0742	2190	180.648	0.186
23	JR	0730	268	326.002	0.386	0743	66.721				0742	2188	180.834	0.320
24	WD	0730	264	326.388	0.380	1050	66.721				1055	2190	181.154	0.055
25	WD	0730	249	326.768	0.358	0952	66.721				0937	2186	181.209	0.168
26	JR	0730	279	327.126	0.402	0739	66.721				0739	2185	181.377	0.204
27	JR	0730	256	327.528	0.369	0744	66.721	2.750			0743	2188	181.581	0.181
28	JR	0730	253	327.897	0.365	0742	69.471				0741	2189	181.762	0.116
29	WD	0730	251	328.262	0.362	0811	69.471				0810	2191	181.878	0.361
30	JR	0730	264	328.624	0.380	0741	69.471				0740	2192	182.239	0.471
31	JC	0730	257	329.004	0.370	1150	69.471				1150	1946	182.710	0.238
Total					12.838			7.715						9.116
Average			288		0.414			2.572						0.434
1	JC	0730	421	329.374		1260	69.471				1200		182.948	

[1] 100 hp Pump start up - First time run since installation completed - See Documents/Equipment/100 hp BJ start up

Influent & Effluent Flows

File Name: Flows_I&E

February 2015

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	JC	0730	253	329.374	0.364	1200	69.471				1200	1953	182.948	0.236
2	JR	0730	256	329.738	0.368	0818	69.471				0817	1949	183.184	0.235
3	JR	0730	252	330.106	0.363	0745	69.471				0744	1920	183.419	0.230
4	MS	0730	246	330.469	0.354	0822	69.471				0826	1917	183.649	0.231
5	MS	0730	262	330.823	0.377	0756	69.471				0759	1919	183.880	0.230
6	MS	0730	726	331.200	1.045	0750	69.471				0756		184.110	
7	MS	0730	682	332.245	0.982	1256	69.471				1258		184.110	
8	MS	0730	1085	333.227	1.562	1303	69.471	2.905	24	2.905	1305		184.110	
9	JR	0730	1076	334.789	1.549	0745	72.376	2.260	24	2.260	0743		184.110	
10	JR	0730	785	336.338	1.131	0749	74.636	2.896	24	2.896	0748		184.110	
11	JR	0730	663	337.469	0.955	0751	77.532	2.787	24	2.787	0750		184.110	
12	MS	0730	585	338.424	0.843	0752	80.319				0754		184.110	
13	JR	0730	538	339.267	0.774	0749	80.319				0745	1196	184.110	0.311
14	DB	0730	507	340.041	0.730	1009	80.319				1013	1193	184.421	0.303
15	DB	0730	462	340.771	0.665	1016	80.319				1018	1192	184.724	0.317
16	DB	0730	444	341.436	0.639	1045	80.319				1052	1188	185.041	0.203
17	JR	0730	411	342.075	0.592	0747	80.319				0746	1190	185.244	0.282
18	JR	0730	383	342.667	0.551	0747	80.319				0746	1296	185.526	0.312
19	JR	0730	360	343.218	0.518	0746	80.319				0745	1295	185.838	0.319
20	JR	0730	378	343.736	0.544	0752	80.319	2.169	24	2.169	0751	1301	186.157	0.392
21	MS	0730	388	344.280	0.559	1215	82.488				1218	1299	186.549	0.223
22	MS	0730	351	344.839	0.506	1036	82.488				1040	1300	186.772	0.281
23	JR	0730	336	345.345	0.484	0744	82.488				0743	1297	187.053	0.328
24	JR	0730	319	345.829	0.460	0743	82.488				0742	1552	187.381	0.418
25	JR	0730	356	346.289	0.513	0743	82.488				0742	1492	187.799	0.482
26	JR	0730	324	346.802	0.467	0745	82.488	2.253	24	2.253	0744	1265	188.281	0.267
27	JR	0730	321	347.269	0.462	0745	84.741				0744	1226	188.548	0.257
28	JC	0730	309	347.731	0.445	1030	84.741				1030	1222	188.805	0.319
29														
30														
31														
Total					18.802			15.270		15.270				6.176
Average			466		0.672			2.545		2.545				0.294
1	JC	0730		348.176	0.434		84.741						188.888	

Influent & Effluent Flows

File Name: Flows, I&E

March 2015

City of St. Helena Wastewater Treatment Plant

Day	Oper. Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow mgd	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd				gpm	mg	mgd
1	JC	0730	301	348.176	0.434	1210	84.741				1210	1224	188.888	0.204
2	JR	0730	297	348.610	0.427	0744	84.741				0743	1224	189.092	0.201
3	JR	0730	307	349.037	0.442	0745	84.741				0744	1223	189.293	0.367
4	JR	0730	288	349.479	0.414	0747	84.741				0746	1220	189.660	0.366
5	JR	0730	286	349.893	0.412	0743	84.741	2.234	24	2.234	0742	1276	190.026	0.367
6	JR	0730	286	350.305	0.412	0742	86.975				0741	1278	190.393	0.476
7	DB	0730	293	350.717	0.422	1015	86.975				1011	1269	190.869	0.481
8	DB	0730	270	351.139	0.389	1022	86.975				1035	1270	191.350	0.468
9	JR	0730	272	351.528	0.391	0743	86.975				0742	1269	191.818	0.477
10	JR	0730	275	351.919	0.396	0744	86.975				0743	1271	192.295	0.397
11	JR	0730	275	352.315	0.396	0745	86.975				0744	1266	192.692	0.409
12	JR	0730	280	352.711	0.403	0744	86.976	2.437	24	2.437	0743	1276	193.101	0.432
13	JR	0730	285	353.114	0.411	0747	89.412				0746	1274	193.533	0.419
14	WD	0730	287	353.526	0.413	1006	89.412				1004	1265	193.952	0.387
15	WD	0730	274	353.938	0.394	0956	89.412				0955	1268	194.339	0.386
16	JR	0730	280	354.332	0.403	0746	89.412				0745	1271	194.725	0.383
17	JR	0730	268	354.735	0.388	0744	89.412				0743	1266	195.108	0.417
18	JR	0730	269	355.121	0.388	0745	89.412				0744	1265	195.525	0.440
19	JR	0730	278	355.509	0.401	0745	89.412	2.438	24	2.438	0744	1273	195.965	0.114
20	JR	0730	271	355.910	0.390	0745	91.850				0743	1269	196.079	0.472
21	WD	0730	273	356.300	0.393	1115	91.850				1115	1277	196.551	0.091
22	WD	0730	264	356.693	0.380	1046	91.850				1056	1275	196.642	0.077
23	JR	0730	284	357.073	0.409	0742	91.850				0741	1273	196.719	0.336
24	JR	0730	265	357.482	0.381	0746	91.850				0745	1275	197.055	0.390
25	MS	0730	278	357.863	0.400	1147	91.850	2.433	24	2.433	0748		197.445	
26	WD	0730	276	358.263	0.397	0745	94.283				0753	1274	197.445	0.380
27	JR	0730	280	358.660	0.403	0745	94.283				0745	1270	197.825	0.476
28	JC	0730	286	359.063	0.412	1200	94.283				1200	1273	198.301	0.480
29	JC	0730	267	359.475	0.385	1230	94.283				1230	1271	198.781	0.176
30	JR	0730	262	359.860	0.377	0745	94.283				0744	1266	198.857	0.379
31	JR	0730	272	360.237	0.392	0745	94.283				0744	1265	199.336	0.378
Total					12.453			9.542		9.542				10.826
Average			279		0.402			2.386		2.386				0.361
1	JR	0730		360.629		0743	94.283				0742		199.714	

Influent & Effluent Flows

File Name: Flows, I&E

April 2015

City of St. Helena Wastewater Treatment Plant

Day	Operator Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	JR	0730	278	360.629	0.401	0743	94.283				0742	1248	199.714	0.381
2	JR	0730	297	361.030	0.428	0745	94.283	2.222	24	2.222	0744	1244	200.095	0.388
3	JR	0730	249	361.458	0.358	0745	96.505				0744		200.483	
4	WD	0730	262	361.816	0.377	1040	96.505				1043		200.483	
5	WD	0730	248	362.193	0.357	1143	96.505				1145		200.483	
6	WD	0730	293	362.550	0.422	0940	96.505				0940	1241	200.483	0.388
7	JR	0730	318	362.972	0.458	0746	96.505				0746		200.871	
8	JR	0730	306	363.430	0.441	0744	96.505	2.213	24	2.213	0743		200.871	
9	WD	0730	281	363.871	0.405	1230	98.718				0735	1258	200.871	0.436
10	WD	0730	281	364.276	0.404	0740	98.718				0745	1256	201.307	0.437
11	DB	0730	279	364.680	0.402	1120	98.718				1123		201.744	
12	DB	0730	270	365.082	0.389	1103	98.718				1106		201.744	
13	WD	0730	272	365.471	0.391	0916	98.718				0918	1260	201.744	0.435
14	JR	0730	258	365.862	0.371	0750	98.718				0749	1257	202.179	0.306
15	JR	0730	271	366.233	0.390	0746	98.718				0745	1258	202.485	0.435
16	JR	0730	266	366.623	0.383	0745	98.718				0744	1263	202.920	0.435
17	JR	0730	306	367.006	0.441	0752	98.718				0751	1260	203.355	0.492
18	WD	0730	269	367.447	0.387	1040	98.718				1045	1258	203.847	0.410
19	JR	0730	255	367.834	0.367	1020	98.718				1025	1259	204.257	0.400
20	JR	0730	246	368.201	0.354	0745	98.718				0918	1251	204.657	0.433
21	JR	0730	260	368.555	0.375	0747	98.718				0746	1255	205.090	0.429
22	JR	0730	244	368.930	0.352	0748	98.718	2.228	24	2.228	0747	1256	205.519	0.432
23	JR	0730	268	369.282	0.386	0758	100.946				0757	1249	205.951	0.439
24	JR	0730	304	369.668	0.438	0754	100.946				0753	1257	206.390	0.652
25	JC	0730	288	370.106	0.414	1253	100.946				1255	1248	207.042	0.354
26	JC	0730	269	370.520	0.387	1145	100.946				1145	1274	207.396	0.286
27	JR	0730	261	370.907	0.376	0746	100.946				0745	1262	207.682	0.430
28	JR	0730	253	371.283	0.364	0749	100.946				0748	1263	208.112	0.441
29	JR	0730	256	371.647	0.368	0741	100.946				0740	1268	208.553	0.430
30	JR	0730	261	372.015	0.376	0746	100.946	2.247	24	2.247	0745	1266	208.983	0.433
31														
Total					11.762			8.910		8.910				9.702
Average			272		0.392			2.228		2.228				0.422
1	JR	0730		372.391		0746	102.893		0746		0745		209.416	

Influent & Effluent Flows

File Name: Flows, I&E

May 2015

City of St. Helena Wastewater Treatment Plant

Day	Operator Initial	INFLUENT: A-001				POND 5 MAGMETER			E-001D		RECLAIMED: E-001R			
		Time	Flow Rate	Totalizer	Flow	Time	Totalizer	Flow	Hours run	Flow	Time	Flow Rate	Totalizer	Flow
			Avg gpm	mg	mgd		mg	mgd		mgd		gpm	mg	mgd
1	JR	0730	264	372.391	0.380	0746	100.946	2.247	24	2.247	0745	1333	209.416	0.584
2	JC	0730	256	372.771	0.369	1125	103.193				1125	1349	210.000	0.376
3	JC	0730	252	373.140	0.363	1030	103.193				1030	1331	210.376	0.408
4	JR	0730	251	373.503	0.362	0750	103.193				0749	1244	210.784	0.433
5	JR	0730	257	373.865	0.370	0800	103.193				0800	1260	211.217	0.431
6	JR	0730	246	374.235	0.354	0743	103.193				0742		211.648	
7	JR	0730	251	374.589	0.362	0745	103.193				0744	1236	211.648	0.438
8	JR	0730	290	374.951	0.417	0745	104.882	1.930	24	1.930	0744	1299	212.086	0.522
9	DB	0730	254	375.368	0.366	1057	106.812				1100	1253	212.608	0.361
10	DB	0730	257	375.734	0.370	1015	106.812				1018		212.969	
11	JR	0730	256	376.104	0.369	0744	105.123				0743	1333	212.969	0.054
12	JR	0730	248	376.473	0.357	0744	105.123				0743	1272	213.023	0.420
13	JR	0730	256	376.830	0.368	0742	105.123				0741	1257	213.443	0.430
14	JR	0730	271	377.198	0.390	0751	105.123				0750	1240	213.873	0.186
15	JR	0730	253	377.588	0.365	0742	105.123				0741	1248	214.059	0.629
16	MS	0730	250	377.953	0.360	1233	105.123				1237	1242	214.688	0.258
17	MS	0730	242	378.313	0.348	1016	105.123				1019	1237	214.946	0.403
18	JR	0730	239	378.661	0.344	0746	105.123				0745	1258	215.349	0.151
19	JR	0730	239	379.005	0.344	0750	105.123				0749		215.500	
20	MS	0730	232	379.349	0.334	0823	106.958	2.092	24	2.092	0830		215.500	
21	JR	0730	239	379.683	0.344	0743	107.215				0742		215.500	
22	JR	0730	238	380.027	0.343	0741	107.215				0740	1325	215.500	0.652
23	JC	0730	248	380.370	0.357	1218	107.215				1205	1235	216.152	0.412
24	JC	0730	238	380.727	0.342	1150	107.215				1150	1291	216.564	0.564
25	JC	0730	245	381.069	0.353	1320	107.215				1320	1270	217.128	0.171
26	JR	0730	238	381.422	0.343	0745	107.215				0744	1305	217.299	0.454
27	JR	0730	234	381.765	0.337	0743	107.215				0742	1325	217.753	0.453
28	JR	0730	243	382.102	0.350	0745	109.016	2.084	24	2.084	0744	1276	218.206	0.444
29	JR	0730	272	382.452	0.392	0749	109.299				0748	1309	218.650	0.479
30	WD	0730	241	382.844	0.347	1208	109.299				1210	1302	219.129	0.226
31	WD	0730	238	383.191	0.342	1041	109.299				1043	1303	219.355	0.236
Total					11.142			8.353		8.353				10.175
Average			250		0.359			2.088		2.088				0.391
1	JR	0730		383.533			109.299				0745		219.591	

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Attachment 4
City of St. Helena Wastewater Treatment Plant
Domestic Well (GRD-002)
2012-2015 Electronic Self-Monitoring Reports
(eSMRs)



DELLAVALLE[®]
Laboratory, Inc.
Chemists and Consultants

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website: dellavallelab.com

SELF MONITORING YEARLY SUMMARY

File Name: GRD-002

2012

City of St. Helena Wastewater Treatment Plant

Sample Origin	DOMESTIC WELL GRD-002									
Year	2012	2012	2012	2012	2012	2012 [1]	2012 [2]	2012	2012	2012
Month/Day	4/25	5/25	6/5	7/9	7/9	8/29	9/20	10/31	11/27	12/18
Time	1230	1238	1120	1330	1325	1125	1210	0838	1242	1235
Location	G-2	G-2	G-2	G-1	G-2	G-2	G-2	Grd-2	Grd-2	Grd-2
Operator	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Lab Submittal (Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes [2]	Yes	Yes	Yes
pH (units)	6.12	5.85	5.88	5.73	5.80	6.20	6.23	6.32	6.74	7.00
Temperature (C)	17.9	17.7	17.3	21.2	18.7	18.2	18.2	17.0	17.1	16.0
Turbidity (NTU)	0.16	0.11	0.10	1.34	0.01	0.04	0.04	0.05	0.02	0.10
T.D.S. (mg/L)	274	286	287	283	283	259	259	262	260	270
ORP	160	170	173	85	125	140	140	144	241	319
Dissolved Oxygen	5.1	6.0	4.7	8.1	5.0	5.5	5.5	5.4	6.2	4.9
NH ₃ -N	0.00	0.03	0.04	0.03	0.04	NA	NA	0.05	0.04	NA
Nitrate, Nitrogen (mg/L)	3.2	3.1	15	NA	3.4	2.8	4.0	14.0	14.0	22.0
Chloride (mg/L)	24	25	25	NA	21	19	18	19	18	28
Hardness (mg/L)				250	230					
Iron (mg/L)				0.13	<.05					
Alkalinity (mg/L)				188	188					
Coliform P/A	P	P	A	NA	P	P	P	P	A	P
E. Coli	A	A	A	NA	A	A	A	A	A	A
[1] Ran well pump 28 hrs. prior to collecting sample										
NA = Not Available (did not analyze for)										
[2] Ran well 5 hrs.										

SELF MONITORING YEARLY SUMMARY

2012 - 2013

File Name: GRD-002

City of St. Helena Wastewater Treatment Plant

Sample Origin	DOMESTIC WELL GRD-002									
Year	2012	2012	2012	2012 [1]	2012 [2]	2012	2012	2012	2013	2013
Month/Day	6/5	7/9	7/9	8/29	9/20	10/31	11/27	12/18	1/22	2/20
Time	1120	1330	1325	1125	1210	0838	1242	1235	0916	1130
Location	G-2	G-1	G-2	G-2	G-2	Grd-2	Grd-2	Grd-2	Grd-2	Grd-2
Operator	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Lab Submittal (Yes or No)	Yes	Yes	Yes	Yes	Yes [2]	Yes	Yes	Yes	Yes	Yes
pH (units)	5.88	5.73	5.80	6.20	6.23	6.32	6.74	7.00	5.91	6.20
Temperature (C)	17.3	21.2	18.7	18.2	18.2	17.0	17.1	16.0	16.2	17.0
Turbidity (NTU)	0.10	1.34	0.01	0.04	0.04	0.05	0.02	0.10	0.06	0.03
T.D.S. (mg/L)	287	283	283	259	259	262	260	270	275	292
ORP	173	85	125	140	140	144	241	319	192	118
Dissolved Oxygen	4.7	8.1	5.0	5.5	5.5	5.4	6.2	4.9	6.2	5.7
NH ₃ -N	0.04	0.03	0.04	NA	NA	0.05	0.04	NA	0.06	0.05
Nitrate, Nitrogen (mg/L)	15	NA	3.4	2.8	4.0	14.0	14.0	22.0	3.5	19.0
Chloride (mg/L)	25	NA	21	19	18	19	18	28	25	26
Hardness (mg/L)		250	230							
Iron (mg/L)		0.13	<.05							
Alkalinity (mg/L)		188	188							
Coliform P/A	A	NA	P	P	P	P	A	P	P	P
E. Coli	A	NA	A	A	A	A	A	A	A	A
[1] Ran well pump 28 hrs. prior to collecting sample										
NA = Not Available (did not analyze for)										
[2] Ran well 5 hrs.										

SELF MONITORING YEARLY SUMMARY

2013

File Name: GRD-002

City of St. Helena Wastewater Treatment Plant

Sample Origin	DOMESTIC WELL GRD-002									
Year	2013	2013	2013	2013	2013	2013	2013	2013	2013	2013
Month/Day	3/26	4/23	5/22	6/19	7/23	8/19	9/25	10/9	11/18	12/17
Time	1100	1145	1130	1030	1004	0953	0840	0905	1255	1033
Location	Grd-2	Grd-2	Grd-2	Grd-2	Grd-2	Grd-2	Grd-2	Grd-2	Grd-2	Grd-2
Operator	MS	JR	MS	JR	JR	MS	JR	JR	MS	JR
Lab Submittal (Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
pH (units)	6.54	6.69	6.61	6.21	6.15	6.28	6.85	7.11	6.49	6.81
Temperature (C)	17.9	17.8	17.8	18.0	18.8	18.7	17.0	17.0	17.2	17.5
Turbidity (NTU)	0.01	0.17	0.03	0.01	0.01	0.09	0.18	0.10	0.07	0.19
T.D.S. (mg/L)	294	295	588	288	279	297	290	296	283	267
ORP	450	110	450	231	184	121	283	248	167	279
Dissolved Oxygen	5.8	5.4	4.6	5.4	6.9	5.6	7.6	5.9	6.1	4.3
NH ₃ -N	0.13	NA	0.11	0.10	0.07	0.11	0.10	0.18	0.14	0.16
Nitrate, Nitrogen (mg/L)	19.0	6.3	26.0	28.0	29.0	8.5	36.0	7.7	22.0	23.0
Chloride (mg/L)	26	27	25	27	24	35	35	36	28	29
Hardness (mg/L)										
Iron (mg/L)										
Alkalinity (mg/L)										
Coliform P/A	P	P	P	P	P	P	A	P	P	A
E. Coli	A	A	A	A	A	A	A	A	A	A
NA = Not Available (did not analyze for)										

SELF MONITORING YEARLY SUMMARY

File Name: Domestic Well

2014

City of St. Helena Wastewater Treatment Plant

Sample Origin	DOMESTIC WELL											
Year	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	
Month/Day	14-Jan	12-Feb	3-Mar	8-Apr	27-May	28-Jun	8-Jul	7-Aug	10-Sep	2-Oct	4-Nov	
Time	0939	1157	1155	1015	1023	0855	0820	1044	0800	0825	0800	
Location	G-2	G-2	G-2	G-2	G-2	G-2	G-2	G-2	G-2	G-2	G-2	
Operator	MS	JR	MS	MS	MS	JR	JR	JR	JR	JR	JR	
Lab Submittal (Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
pH (units)	5.88	6.82	6.70	6.60	6.40	6.47	6.15	6.16	6.29	6.05	6.17	
Temperature (C)	17.1	17.0	17.9	18.9	19.0	18.7	18.3	19.7	17.9	17.8	17.1	
Turbidity (NTU)	0.03	0.21	0.09	0.12	0.27	0.53	0.02	0.13	0.11	0.08	0.06	
T.D.S. (mg/L)	294	282	271	285	298	283	286	279	284	267	280	
ORP	136	272	276	290	317	95	250	217	111	127	182	
Dissolved Oxygen	4.9	1.1	6.1	4.8	5.9	3.9	4.9	3.4	4.0	7.2	6.6	
Free Cl2 (mg/L)	<0.01	<0.01	<0.01	0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
NH ₃ -N	0.08	0.04	0.08	0.13	0.10	0.03	0.12	0.03	0.02	0.10	0.04	
Nitrate Nitrogen (mg/L)	4.6	5.8	21	29	36	40	25	8.4	6.1	26	3.3	
Chloride (mg/L)	32	30	21	21	32	23	19	27	26	30	32	
Total Coliform (in-house)				13							41	
Fecal Coliform (in-house)				0							2	
Coliform P/A (Caltest)	P	P	P	P	P	P	P	P	P	P	P	
E Coli (Caltest)	A	A	A	1	A	A	A	P	A	A	A	

SELF MONITORING YEARLY SUMMARY

File Name: Domestic Well

2014 - 2015

City of St. Helena Wastewater Treatment Plant

Sample Origin	DOMESTIC WELL															
Year	2014	2014	2014	2014	2014	2015	2015	2015	2015	2015	2015					
Month/Day	7-Aug	10-Sep	2-Oct	4-Nov	9-Dec	6-Jan	3-Feb	3-Mar	8-Apr	5-May	2-Jul					
Time	1044	0800	0825	0800	0825	0815	0828	0833	0922	0825	0825					
Location	G-2	G-2	G-2	G-2	G-2	G-2	G-2	G-2	G-2	G-2	G-2					
Operator	JR	JR	JR	JR	JR	JR	JR	JR	JR	JR	JR					
Lab Submittal (Yes or No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
pH (units)	6.15	6.29	6.05	6.17	6.19	6.35	6.31	6.87	6.08	6.18	6.30					
Temperature (C)	19.7	17.9	17.8	17.1	18.2	16.3	16.8	16.4	17.8	17.7	19.0					
Turbidity (NTU)	0.13	0.11	0.08	0.08	1.77	0.08	0.05	0.08	0.06	0.10	0.10					
T.D.S. (mg/L)	279	284	267	280	313	288	278	288	283	288	288					
ORP	217	111	127	182	202	30	146	189	122	175	134					
Dissolved Oxygen	3.4	4.0	7.2	6.6	5.2	8.1	7.3	8.2	6.1	7.4	7.6					
Free Cl2 (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1					
NH ₃ -N	0.03	0.02	0.10	0.04	0.08	0.11	0.14	0.14	0.05	0.11	0.09					
Nitrate, Nitrogen (mg/L)	8.4	6.1	26	3.3	17	3.5	24	5.7	27	6.5	6.7					
Chloride (mg/L)	27	26	30	32	47	43	26	29	28	25	28					
Total Coliform (in-house)				41	>2420	63.1		4	12	5	5.2					
Fecal Coliform (in-house)				2	P	A		A	A	A	A					
Coliform P/A (Caltest) [1]	P	P	P	P	A	A	A	A	A	A	A					
E. Coli (Caltest) [1]	P	A	A	A	A	A	A	A	A	A	A					
[1] P/A analysis is Drinking Water Coliform Present/Absent - When a whole number is given the analysis is Drinking Water Coliform Quant Tray																

Attachment 5
Reports of Water Analysis
Lab Nos. 226697, 217696, and 229777



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Report of Water Analysis

1910 W. McKinley, Suite 110, Fresno, CA 93728
FAX (559) 268-8174 - (800) 228-9896 - (559) 233-6129

Lab No. 226697
Sampler DK
Submitted Date 8/14/2015
Submitted by DK
Reported Date 8/20/2015
Location/Project: Water Quality

Material Submitted: Water

	Date Sampled	Time Sampled	NO ₃ -N mg/L
MCL-->			10.0
MDL-->			0.02
RL-->			0.1
SM-->			
EPA-->			300.0
Analysis Date:			8/17/2015
Analysis Time:			12:35

001	Ranch 218 dom well	8/12/15	17:15	3.0
-----	--------------------	---------	-------	-----

*See external laboratory documentation

pH analyzed outside of 15 min hold time.

MCL = Maximum Contaminant Level according to the California Domestic Water Quality and Monitoring Regulations (Title 22)

MDL = Method Detection Limit; **RL** = Reporting Limit

SM = Standard Methods for the Examination of Water and Wastewater, 19th ed., 1995

Dissolved metals (**bolded**) were filtered.

QA/QC available upon request.

Approved By: _____

Scott M. Friedland

ELAP Certification #1595

Attachment 5



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Report of Water Analysis

1910 W. McKinley, Suite 110, Fresno, CA 93728
 FAX (559) 268-8174 - (800) 228-9896 - (559) 233-6129

Lab No. 217696
 Sampler
 Submitted Date 3/30/15
 Submitted by
 Reported Date 4/3/15
 Location/Project: Water Quality

Material Submitted: Water

	Date Sampled	Time Sampled	NO ₃ -N mg/L
MCL-->			10.0
MDL-->			0.02
RL-->			0.1
SM-->			
EPA-->			300.0
Analysis Date:			3/31/15
Analysis Time:			0:29

001	Ranch 218 dom well	3/26/15	10:30	5.2
002	Ranch 78 N well	3/26/15	10:45	3.0

*See external laboratory documentation

pH analyzed outside of 15 min hold time.

MCL = Maximum Contaminant Level according to the California Domestic Water Quality and Monitoring Regulations (Title 22)

MDL = Method Detection Limit; **RL** = Reporting Limit

SM = Standard Methods for the Examination of Water and Wastewater, 19th ed., 1995

Dissolved metals (**bolded**) were filtered.

QA/QC available upon request.

Approved By: _____

Scott M. Friedland

ELAP Certification #1595

Attachment 5



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Report of Water Analysis

1910 W. McKinley, Suite 110, Fresno, CA 93728
 FAX (559) 268-8174 - (800) 228-9896 - (559) 233-6129

Lab No. 229777
 Sampler DK
 Submitted Date 10/13/2015
 Submitted by
 Reported Date 10/19/2015
 Location/Project Water Quality
 Copy To
 Fax
 e-mail

Material Submitted: Water

	Date Sampled	Time Sampled	NO ₃ -N mg/L
MCL-->			10.0
MDL-->			0.02
RL-->			0.1
SM-->			
EPA-->			300.0
Analysis Date:			10/14/2015
Analysis Time:			12:50

001	Ranch 218 dom well	10/12/15	16:45	3.2
-----	--------------------	----------	-------	-----

*See external laboratory documentation
 pH analyzed outside of 15 min hold time.

MCL = Maximum Contaminant Level according to the California Domestic Water Quality and Monitoring Regulations (Title 22)

MDL = Method Detection Limit; RL = Reporting Limit

SM = Standard Methods for the Examination of Water and Wastewater, 19th ed., 1995

Dissolved metals (**bolded**) were filtered.

QA/QC available upon request.

Approved By: _____

Scott M. Frieland

ELAP Certification #1595

Attachment 5

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Attachment 6
St. Helena Land Application Area
October 2015 Report of Water Analysis
Lab Report 229776



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Report of Water Analysis

Lab No. 229776
Sampler D.K
Submitted Date 10/13/2015
Submitted by
Reported Date 10/23/2015
Location/Project St. Helena WWTP

Material Submitted: Water

	Date	Time	NO ₃ -N	Total	Total		Total
	Sampled	Sampled		NH ₄ -N	TKN	Organic-N	Nitrogen
			mg/L	mg/L	mg/L	mg/L	TN
							mg/L
MCL-->			10.0				
MDL-->			0.02	0.2	0.7		
RL-->			0.1	0.5	1		1
SM-->				4500NH3 G	4500NH3 G	Calc	Calc
EPA-->			300.0				
Analysis Date:			10/14/2015	10/20/2015	10/22/2015		10/23/2015
Analysis Time:			12:29	10:06	8:58		
001	WWTP Filter @ Redwoods	10/12/15	16:30	<0.1	17.3	36.7	19.4
							36.7

*See external laboratory documentation

pH analyzed outside of 15 min hold time.

MCL = Maximum Contaminant Level according to the California Domestic Water Quality and Monitoring Regulations (Title 22)

MDL = Method Detection Limit; RL = Reporting Limit

SM = Standard Methods for the Examination of Water and Wastewater, 19th ed., 1995

Dissolved metals (**bolded**) were filtered.

QA/QC available upon request.

Approved By: _____

Scott M. Friedland

ELAP Certification #1595

Attachment 6

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**Attachment 7
California Regional Water Quality Control Board
Meeting Notes
October 26, 2010 Inspection**



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Minutes

Informational Meeting

St Helena Wastewater Treatment Ponds

October 26, 2010

10:00 – 2:30

ATTENDEES

City of St Helena: Wayne Daugherty (Operations), John G. Ferons (Public Works), Mary Neilan (City Manager), Michael Sample (Operations), John Draper (Planning)

Consultants: Jim Connell (Wes Yost), Kristine Corneillie (Larry Walker)

RWQCB, San Francisco Bay Region: Blair Allen (Watershed Management), Laurent Meiller (Enforcement), Tong Yin (NPDES)

USEPA: Charlotte Ely, Hilary Finck (Sustainable Water Infrastructure), Eugenia McNaughton (Quality Assurance)

PLANT TOUR

The group (minus Mary Neilan) took a tour of the Wastewater Treatment Plant including the office and data center, headworks, flow metering (to headworks) ponds 1A (not in use currently), 1B (2 deep areas separated by a weir with brush aerators) and influent flow chamber to ponds, pond 2 (algae high rate pond, not in operation), pond 3 (algae settling, not in use), pond 4 (storage), pond 5 and chlorine contact chamber, outflow to pond 5 storage, irrigation spray fields, outflow to river.

Reviewed the operation of the plant, described various elements, including data collection, flow measurements, influent treatment path through the system, erosion repair, chlorine contact operation. Conclusion: Plant is in good condition and operates reliably most of the time.

CURRENT PLANT CONDITIONS

Operational and/or maintenance issues

- Disinfection—still meeting regulatory requirements, but having issues
 - 2006—not allowed to use chlorine gas
 - use sodium hypochloride instead—became problem in August 2006
 - Michael looks into using bacteria to assist
 - pH drops from 8.5 to 6.7 with bacteria use
 - bacteria stop working in 2007—temperature sensitive
 - 2007—carbon dioxide used before water goes into rapidmixer lowers pH by 0.3
 - 2009—tried Peracetic acid in lab setting
 - Does not work well and is expensive
 - HCl acid does work to lower pH
 - Peroxide does not work at all
 - Many WWTP's moving to sodium hypochloride with sodium hypobromide
 - Can cause salinity (selenium?) issues
 - pH goes up and down seasonally—highest in July thru Oct
 - Ozone unit seems to work best
 - All secondary WWTP's are having issues since chlorine gas was prohibited
- Algae levels have been major issue

- Home wine operations have huge impact on wastewater system, especially during crush
 - No way to offset this currently

Related issues: sewer replacement schedule

Sewer system is old:

- I & I issue
- New policy says any new development has to offset flow
- \$160,000 for capital improvements not enough
- City has three funds: city, sewer, water
- So far no ARRA or grants for assistance
- Applying to USDA for possible funding

IN HOUSE PROPOSALS TO IMPROVE RELIABILITY OF PERFORMANCE

- Get pond 1A working like 1B
- Clean out ponds, make 1A deeper, line the ponds
- Apply biosolids (sludge) to field
 - Project-specific permit may not be needed. SWRCB has issued a General Order.
 - Application must be submitted to and approved by RWQCB.

Use pond 2 as it was designed

- Get algae growing in pond 2
 - Make it shallower
 - Use brush aerators to keep algae suspended
- Get nutrients down (algae will take up nutrients)

Use pond 3 as designed (as an algae settling pond)

Pond 4—water must be as clean as possible before going to contact chamber

- Need to shade the water to keep algae down
- Contractor evaluated using cover (too big an area to cover), bird balls (better solution)
- Considered shade structure with solar array, too heavy, expensive
- Wayne would like to use filters

Operators need to have real time water quality monitoring information to be in compliance

REVIEW OF CHANGES TO PLANT – HISTORICAL AND PROPOSED

- 1966 - originally no irrigation, just flow to river
- 1987 – disinfection begun
- 1980s – add aeration
- 1994 - 5 aerators, but only needed to run 3 or 4 most of the time
- 1996 - pond 1B built for industrial strength wastewater
- 2007 - started running 1B by itself
 - saved money and manpower
 - new brush aerators have helped
- 2008 - feasibility study for a “Type II AIPS” pond: take out the HRP (pond 2) to reduce algal growth, pipe pond 1B effluent to pond 4, cover 4 with “bird balls”

What was the plan after taking 1A offline?

Do the irrigation fields need work?

- More rainbirds to get more evaporation
- Ideas to use portion of field for solar array
 - Need 4-5 acres of array for power—just so happens that pond 4 is 4-5 acres, but putting solar array on top of pond was too expensive
 - Needs to be self sustaining, not necessarily profitable
- Proposal for redwood farm in reclamation field—20-year growing cycle; proponent seems to have done a great deal of research on this; might be worth reviewing
- Alfalfa - too expensive, wouldn't balance cost
 - Horse community expressed concerns about source of water
- Field prep is problem in order to grow crops
- Groundwater levels range from 5 to 21 feet seasonally

What about tertiary?

- The City asked Public Works to review this issue
- City has the highest water use/capita in the Valley
- Biggest users are the school and the two parks near the plant
- There is sufficient space, but not the funding
- Is it a serious proposal?
 - Good goal to pursue, but storage is a problem
 - Can't build on flood plain
- Problem: there is the idea, (not factually based), that no one wants to use reclaimed water
 - People already have wells that produce enough
 - Might only have seasonal customers

What about water conservation?

- Contested in plan
- City thinks it will take too long and that people won't do it
 - Blair points to success of EBMUD (made mandatory, people complied within two months)
- Must offset certain levels seasonally
- Tiered water pricing is being used
- Built into sewer rate increase
- Could use an education program to change behavior

Specific Issues

Flow monitoring

This issue was explained sufficiently during the Plant Tour.

Effluent discharge

Land discharge procedures, monitoring and reporting

Submit waste discharge report, including a description of the willow farm and fish pond uses

- City is not using the correct sprinklers or using whole field as EPA grant required Figure out water balance
- How much can field absorb?

Consider partial flow for tertiary instead of whole flow stream

Potential for algae harvesting (biosolids, biofuels, etc.) more of a mainstream idea these days

Discharges to land during rainfall

- Not supposed to do it
- Wayne's issues:
 - Difficult to keep lab work and levels right during rainfall
 - Only 2 people working 24/7 during rainfall
 - Wayne is concerned about water quality when discharging to river during rainfall
 - Quality changes too quickly

Takes 5 days or longer for lab work (BODs)

- Without filtration, can't control the quality

OTHER

- Discharge flexibility – discussion indicates that current situation needs to be improved so that river discharge can be managed more reasonably.

Potential to review pathogen indicator requirement – relates to the *E. coli* reporting requirement. It may not be the best indicator, but it is still generally used. If there is interest, EPA might be able to do a study of effluent bacteria using molecular techniques to identify sources.

Sludge removal – see discussion above.

Future water quality requirements: Nutrients? Other? – ammonia to the river, nitrates to ground water. City is monitoring currently; is this sufficient?

Potential funding sources – EPA has some programs that may be able to provide funding to help the City obtain a supervisory control and data acquisition system (SCADA).

MEETING ADJOURNED AT 2:00 PM. NO FUTURE MEETING SCHEDULED.

SUMMARY OF ACTION ITEMS

Issue: Storm water management

EPA (Charlotte) will send the city information on the EPA rain collection program. This item relates to reducing storm water inflow into the sewer system.

Status: Charlotte has sent this information.

Issue: Land disposal of sludge

Regional Board (Blair) will send the City (Michael) SWRCB guidance on land disposal of sludge. Blair, would you please send Eugenia a copy as well?

Issue: History of operations and processes

Related to the 2008 feasibility study for a "Type II AIPS" pond: the suggestion to take out the HRP (pond 2) to reduce algal growth, pipe pond 1B effluent to pond 4, cover 4 with "bird balls": What is the status of this plan? (Jim)

Clarification: *What was the long-term plan for pond 1A? (Jim, Michael or John F, notetakers are asking the question in order to clarify the notes.)*

Issue: Use of Rainbirds on irrigation field

EPA (Hilary and Eugenia) will review grant to St Helena to clarify issue of type of irrigators;

Status: The only records of direct EPA grants to the City date back to 1988, some time before the Rainbirds were put in place. Perhaps the City can find this information.

The City (Michael) will send RB (Blair) the study of water quality of spray.

Issue: Flow monitoring description and reports

The description of how flow is currently monitored should be up dated in future reports and continue to send up dated monitoring information to the RB (Michael).

Status: Michael is working on compiling this information.

Issue: Automation of data collection during rain events

EPA (Charlotte) will send the City information about a program that might be able to fund a SCADA system for the WWTP.

Status: Charlotte has sent this information.

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Attachment 8
CIWQS Facility at a Glance
Violations Report for Order No. 87-090



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website: dellavallelab.com

CIWIQS Facility At a Glance Report

Region	Place ID	Place Name	Place Type	Place Address	Place County
2	258384	St. Helena Recycled Water Program	Facility	CA	Napa

Violations

10/26/2010 The City violated its WRR by making material changes to its facility without filing the required Report of Waste Discharge with the Water Board at least 180 days in advance of making the changes. WRR Provision C.6 states: The discharger shall file with the Regional Board a report [of] waste discharge at least 180 days before making any material change or proposed change in the St. Helena Wastewater Treatment Plant - 5 - Notice of Violation character, location, or volume of the reuse, except for emergency conditions in which case the Board shall be notified. During the October 2010 inspection, we learned that the City maintains a willow farm and a fish pond within the Irrigated Field. In addition, additional irrigation sprinkler systems had been installed at the Irrigated Field. These all constitute material changes in the character of the reuse. However, the Water Board has not received a complete report of waste discharge (ROWD) for the changes.

10/26/2010 The City may be in violation of WRR requirements prohibiting discharge of reclaimed water within 100 or 500 feet of wells. WRR Prohibition A.7 states: There shall be no irrigation or impoundment of reclaimed water within 500 feet of any well used for domestic supply or 100 feet of any irrigation well unless it can be demonstrated that special circumstances justify lesser distances to be acceptable. WRR Reclaimed Water Specification B.5 states: Under no circumstances may reclaimed wastewater be used to irrigate within 100 feet of the two wells located on the reclamation site. Two production wells are located on the Irrigated Field. Our understanding is they are generally used for irrigation. However, the Water Board does not have a map showing the well locations, or the locations of any additional wells. Given observed ponding in October 2010 and unpermitted changes to irrigation at the Irrigation Field, it is possible that reclaimed water has been discharged within 100 feet of the two production wells in violation of WRR requirements. Finally, during the October 2010 inspection, staff observed that vegetative growth did not appear to be maintained at the Irrigated Field. Maintaining the vegetation at the Irrigated Field is likely to improve vegetative uptake of the reclaimed water, diminishing the likelihood of ponding, runoff and hydric loss to the local aquifer. This letter requires the City to include in the WRR Report a description of its vegetation maintenance program at the Irrigated Field.

10/26/2010 The City is estimated to have discharged at least 131 million gallons (MG) of reclaimed water to the Facility's Irrigated Field in violation of WRR Prohibition A.4, which states: No waste shall be applied to the irrigation site during rainfall, or when soils are saturated to a point where runoff is likely. According to the self-monitoring data submitted to the Regional Water Board, for the period from January 1, 2005, through December 31, 2010, the City discharged on a total of 104 days to the Facility's Irrigated Field during a rain event. For this analysis, we defined a rain event as a 24-hour period where the precipitation was greater than or equal to 0.3 inches. This is likely a low estimate of the number of days on which reclaimed water was discharged during rainfall as rain events can have less precipitation. The total volume of reclaimed water discharged to the Irrigated Field during these rainy days was 131 MG, with a daily average of 1.26 MG.

10/26/2010 The City violated its WRRs by not managing spray irrigation to appropriately minimize ponding in the Irrigated Field. WRR Reclaimed Water Use Specification B.7 states: The discharger shall manage its spray irrigation so as to minimize wastewater ponding in the spray field which could cause mosquito breeding problem [sic]. The discharge of reclaimed water to the Irrigated Field during at least 104 days when there was also significant rain likely resulted in ponding in violation of this Specification. In addition, during Water Board staffs October 26 inspection, we observed ponding of reclaimed water at the Irrigated Field that appeared to be in violation of Specification B.7

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Attachment 9
St. Helena General Plan Update 2030
Chapter 4 - Public Facilities and Services



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chapter four
public facilities
and services

4 public facilities and services



York Creek is approximately 7.2 miles long and its watershed collects runoff.

Water Recycling Potential

The City recognizes that that water should be recycled and that the recycled water should be put to beneficial use. The demand for recycled water is likely to be highest during the driest months when flows into the City's sewage treatment plant are at their lowest. This means that recycled water could not be a meaningful factor in augmenting supply for non-potable use without the addition of substantial storage capacity. It would be necessary to provide recycled storage, pumping and distribution facilities that includes, at minimum, 400 AF of storage. The City does not own land at a location suitable for such storage capacity, and at this time the cost of purchasing land and constructing such storage, a large capital cost, would not be fiscally justifiable to the water system's rate payers.

SEWER

Collection System

Over 2,000 customers are served by the City's sewer system within the present City limits. About 300 dwelling units and three wineries are on individual disposal systems, most of them too remote to reach the City's sewer system. With the exception of the original town site, which has four-inch sewer lines, most of the City is served by pipes adequately sized for dry weather flows. During the winter rainy season, surface and ground water infiltration increases flows by eight times. In several areas of the City, the sewer system suffers from defects which prevent free flow of sewage, resulting in backwater in the system. One lift station exists at the Crinella development in the northeast quadrant east of Main Street. The remaining system operates by gravity.

Treatment Plant

The wastewater treatment plant, including its low maintenance, integrated pond system, is located in the southeast corner of the City, near the Napa River. There are a series of ponds that treat the effluent to a secondary level, and the treated effluent is then sprayed onto a field owned by the City just south of the ponds. While the City's last permanent permit allowed for

discharge into the Napa River under very limited conditions, the City seeks to avoid discharges directly into the River, and in the five years of its last permit (2005-2010) the only discharges (which were allowed under City's permit) that occurred were 19 days in 2006 (a big flood year) and for one day in 2009 (in connection with a dye study). The City's goal is to avoid all direct discharges into the Napa River, including even secondarily-treated discharges that are allowed under its current Tentative Order from the Regional Water Quality Board.

Storm Drainage

The City is divided into two major watersheds, York Creek and Sulphur Creek. Both watersheds drain into the Napa River, east of the City limits. The following section provides an overview of the two major components of the City's drainage system. For additional discussion of flood potential in St. Helena and for policies to reduce flood incidence and minimize flood impacts, see the Public Health, Safety and Noise Element.

York Creek

The approximately 7.2 mile-long York Creek has a 4.4 square mile watershed that includes the Upper and Lower York Creek Reservoirs. Runoff north of Pratt Avenue is conveyed to York Creek through a number of culverts and ditches, then into Napa River north of the Pratt Avenue Bridge. Built at approximate Stream Mile 2.5, the Upper York Creek Dam (UYCD) stretches 140 feet across the channel and stands 50 feet high. The UYCD was built in 1900 to supply water to the City. Operations were halted in the 1980s due to acquisition of other water sources and ongoing issues with sedimentation.

Sulphur Creek

The Sulphur Creek watershed area is 9.3 square miles. Sulphur Creek's one major tributary, Heath Canyon Creek, joins the main stem of Sulphur Creek immediately before it exits Sulphur Canyon and begins to flow across the Valley. Heath Canyon and Sulphur Creek have a combined channel length of approximately 12.7 miles. The lower 1.5 miles of Sulphur Creek flow through

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Attachment 10
California Regional Water Quality Control Board
Order No. R2-2010-0105
Monitoring and Reporting Program (MRP)
Monitoring Locations



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City of St. Helena
Wastewater Treatment and Reclamation Plant

ORDER NO. R2-2010-0105
NPDES NO. CA0038016

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

National Pollutant Discharge Elimination System (NPDES) regulations at 40 CFR 122.48 require that all NPDES permits specify monitoring and reporting requirements. California Water Code (CWC) sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement the federal and State regulations.

I. GENERAL MONITORING PROVISIONS

- A. The Discharger shall comply with this MRP. The Executive Officer may amend this MRP pursuant to 40 CFR 122.62, 122.63, and 124.5. If any discrepancies exist between the MRP and the Regional Standard Provisions, the MRP prevails.
- B. The Discharger shall conduct all monitoring in accordance with Attachment D, section III, as supplemented by Attachment G of this Order. Equivalent test methods must be more sensitive than those specified in 40 CFR 136, must be specified in the permit, and must be approved for use by the Executive Officer, following consultation with the State Water Quality Control Board (State Water Board) Quality Assurance Program.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order.

Table E-1. Monitoring Station Locations

Type of Sampling Location	Monitoring Location Name	Monitoring Location Description
Influent	INF-001	At any point in the treatment facility headworks at which all waste tributary to the system is present and preceding any phase of treatment, and exclusive of any return flows or process side-streams, formerly A-001.
Effluent	EFF-001	At a point in the outfall from the treatment facilities following full treatment between the point of discharge and the point at which all waste tributary to that outfall is present, formerly E-001.
Effluent	EFF-001D	At a point immediately following full treatment (before dechlorination) before land disposal or pond storage and the point at which all waste tributary is present.
Receiving Water	RSW-001	At a point in the Napa River, located about 200 feet upstream from the point of discharge.
Receiving Water	RSW-002	At a point in the Napa River, located at the point of discharge.
Receiving Water	RSW-003	At a point in the Napa River, located about 100 feet downstream from the point of discharge.
Receiving Water	RSW-004	At a point in the Napa River, located about 1000 feet downstream from the point of discharge.

City of St. Helena
Wastewater Treatment and Reclamation Plant

ORDER NO. R2-2010-0105
NPDES NO. CA0038016

Type of Sampling Location	Monitoring Location Name	Monitoring Location Description
Receiving Water	RSW-005	At a point in the Napa River that is the same station as USGS monitoring station STH (No. 11456000) in the California Data Exchange Center database (maintained by the California Department of Natural Resources and the USGS), formerly C-F.
Pond Levees	L-1 through L-n	Points located along the perimeter levees of the wastewater ponds, at intervals not to exceed 500 feet.

III. INFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor influent to the facility at Monitoring Location INF-001 as follows. Influent sampling is required year-round.

Table E-2. Influent Monitoring – Monitoring Location INF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow Rate ^[1]	mgd/mg	Cont	1/Day
Biochemical Oxygen Demand (BOD)	mg/L	C-24	1/Week
	kg/day	Calculate	1/Week
Total Suspended Solids (TSS)	mg/L	C-24	1/Week
	kg/day	Calculate	1/Week

Legend for Table E-2:

Units:

mg = million gallons
mgd = million gallons per day
mg/L = milligrams per liter
kg/d = kilograms per day

Sample Type:

C-24 = 24-hour Composite
Cont = Continuous

Frequency:

1/Day = once per day
1/week = once per week

Footnotes to Table E-2:

[1] For influent flows, the following information shall also be reported monthly:

Daily: Total daily flow volume (mg)
Monthly: Monthly average flow rate (mgd)
Monthly: Maximum average daily flow rate (mgd)
Monthly: Minimum average daily flow rate (mgd)
Monthly: Total flow volume (mg)

IV. EFFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor treated effluent from the facility at Monitoring Location EFF-001D or EFF-001, when discharging to the Napa River, as follows.

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Table E-3. Effluent Monitoring – Monitoring Location EFF-001 or EFF-001D

Parameter	Units	Sample Type	Minimum Sampling Frequency	Sampling Station
Flow Rate ^[1]	mgd/mg	Cont.	1/Day	EFF-001
pH ^[2]	s.u.	Cont.	1/Day	EFF-001D
BOD ₅	mg/L	C-24	3/Week	EFF-001D
	kg/day	Calculate	3/Week	EFF-001D
TSS	mg/L	C-24	3/Week	EFF-001D
	kg/day	Calculate	3/Week	EFF-001D
BOD ₅ and TSS percent removal ^[3]	%	Calculate	1/Month	EFF-001D
Total Chlorine Residual ^[4]	mg/L	Cont or 2/hour	2/Hour	EFF-001
Oil and Grease ^[5]	mg/L	Grabs	1/Month	EFF-001D
Total Coliform Bacteria	MPN/100mL	Grab	3/Week	EFF-001D
Temperature	°C	Grab	1/Day	EFF-001
Acute Toxicity ^[6]	% survival	Static Renewal	1/Month	EFF-001
Dissolved Oxygen (DO)	mg/L	Grab	1/Day	EFF-001
	% saturation	Calculate	1/Day	EFF-001
Sulfides, total and dissolved (mg/L) (if DO < 2.0 mg/L)	mg/L	Grab	1/Day	EFF-001
Copper	.tg/L	C-24	1/Month	EFF-001
Cyanide	.tg/L	Grab	1/Month	EFF-001
Bis(2-ethylhexyl)phthalate	.tg/L	Grab	2/Year	EFF-001
Dioxin-TEQ	.tg/L	Grab	1/Year	EFF-001
Total Ammonia	mg/L as N	C-24	1/Month	EFF-001
Un-ionized Ammonia ^[7]	mg/L as N	Calculate	1/Month	EFF-001
Total Nitrogen ^[8]	mg/L as N	C-24	1/Month	EFF-001
Standard Observations	--	--	1/Day	EFF-001
Remaining Priority Pollutants	.tg/L	^[9]	1/5 years	EFF-001
Dilution Ratio – River:Effluent Flow ^[10]	--	Calculate	Cont or 1/Hour	EFF-001

Legends for Table E-3:

Units:

mg	=	million gallons
mgd	=	million gallons per
s.u.	=	day standard units
°C	=	degrees Celsius
mg/L	=	milligrams per liter
kg/d	=	kilograms per day
.tg/L	=	micrograms per liter
MPN/100 mL	=	most probable number per 100 milliliters

Sample Type:

C-24	=	24-hour Composite
Cont	=	Continuous

Sampling Frequency:

1/Day	=	once per day
1/Hour	=	once per hour
2/Hour	=	once every two hours
3/Week	=	three times per week
1/Week	=	once per week
1/Month	=	once per month

Attachment E – MRP

E-4

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1/Year = once per year
2/Year = Twice per year
1/5 years = once every five years

Footnotes to Table E-3:

[1] Flow Monitoring:

For effluent flows, the following information shall be reported monthly:

Daily: Total daily flow volume (mg)
Daily: Length of discharge in hours and minutes in a day
Daily: Average daily flow rate during discharge period (mgd)
Monthly: Total flow volume (mg)
Monthly: Length of discharge in hours and minutes in a month
Monthly: Monthly average flow rate during discharge period (mgd) = total flow volume/total length of discharge in a month
Monthly: Monthly average flow rate (mgd) during the entire month = total flow volume/number of days in a calendar month
Monthly: Maximum average daily flow rate (mgd)
Monthly: Minimum average daily flow rate (mgd)

- [2] If pH is monitored continuously, the minimum and maximum pH values for each day shall be reported in monthly Self-Monitoring Reports (SMRs).
- [3] The percent removal for BODs and TSS shall be reported for each calendar month in accordance with Effluent Limitations IV.A.1.b. Samples for BODs and TSS shall be collected simultaneously with influent samples.
- [4] Chlorine residual concentrations shall be monitored and reported for sampling points both before and after dechlorination. The Discharger shall report the maximum residual chlorine concentration observed following dechlorination on a daily basis. Total chlorine dosage (kg/day) shall be recorded on a daily basis.
- [5] Each oil and grease sample event shall consist of a composite sample comprised of three grab samples taken at equal intervals during the sampling date, with each grab sample being collected in a glass container. The grab samples shall be mixed in proportion to the instantaneous flow rates occurring at the time of each grab sample, within the accuracy of plus or minus 5%. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite sample for extraction or analysis.
- [6] Acute bioassay tests shall be performed in accordance with Section V.A of this MRP.
- [7] The Discharger shall calculate the un-ionized fraction of ammonia using the pH and temperature of the effluent at the time of sampling.
- [8] Total nitrogen in this MRP refers to Nitrate Nitrogen and Total Organic Nitrogen.
- [9] If no discharge to the Napa River occurs during the term of the permit, samples shall be collected at EFF-001D.
- [10] The dilution during a calendar day shall be calculated and reported as long as the discharge continues. The dilution shall be determined using the hourly average river flow obtained from USGS station No. 11456000 and the maximum discharge flow of the next hour at Monitoring Location EFF-001; 24 dilution ratios within a calendar day shall be reported. Allowable maximum discharge flow for the next hour shall be determined based on the average river flow for the previous hour.

V. WHOLE EFFLUENT ACUTE TOXICITY TESTING REQUIREMENTS

The Discharger shall monitor acute toxicity at the compliance location and frequency specified in Table E-3, as follows.

1. Compliance with the acute toxicity effluent limitations of this Order shall be evaluated by measuring survival of test organisms exposed to 96-hour static renewal bioassays.
2. Test organism shall be fathead minnow unless the Executive Officer specifies otherwise in writing.
3. All bioassays shall be performed according to the most up-to-date protocols in 40 CFR 136, currently in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms*, 5th Edition.

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4. To minimize the effects of ammonia toxicity during testing, the Discharger may adjust the pH of each 24-hour composite sample to match the pH measured at RSW-001 during the same day as effluent sample collection.
5. The sample may be taken from final secondary effluent prior to disinfection. Monitoring of the bioassay water shall include, on a daily basis, the following parameters: pH, dissolved oxygen, ammonia (if toxicity is observed), temperature, hardness, and alkalinity. These results shall be reported. If a violation of acute toxicity requirements occurs, the bioassay test shall be repeated with new fish as soon as practical and shall be repeated until a test fish survival rate of 90 percent or greater is observed. If the control fish survival rate is less than 90 percent, the bioassay test shall be restarted with new fish and shall continue as soon as practical until an acceptable test is completed (i.e., control fish survival rate is 90 percent or greater).

VI. RECLAMATION MONITORING REQUIREMENTS

Reclamation monitoring requirements are contained in Order No. 87- 090 (for land application) or 40 CFR 258 (for landfill disposal).

VII. RECEIVING WATER MONITORING REQUIREMENTS

The Discharger shall monitor the Napa River at RSW-001 through RSW-005 when there is discharge to the Napa River, as specified in Table E-4.

Table E-4. Receiving Water Monitoring – Monitoring Locations RSW-001 through RSW-005

Parameter	Units	Sample Type	Minimum Sampling Frequency
RSW-001 through RSW-005			
pH ^[1]	s.u.	Grab	1/Month
Temperature ^[1]	°C	Grab	1/Month
Turbidity	NTU	Grab	1/Month
Dissolved Oxygen	mg/L and % saturation	Grab	1/Month
Sulfides, total and dissolved (mg/L) (required only when DO < 2.0 mg/L)	mg/L	Grab	1/month
Standard Observations	--	--	1/Day
RSW-003 only			
Ammonia Nitrogen	mg/L as Nitrogen	Grab	1/Month
Un-ionized Ammonia Nitrogen	mg/L as Nitrogen	Calculate	1/Month
Total Nitrogen ^[4]	mg/L as Nitrogen	Grab	1/Month
Nitrate Nitrogen	mg/L as Nitrogen	Grab	1/Month
Total Organic Nitrogen	mg/L as Nitrogen		1/Month
Total Phosphate	mg/L as Phosphorous	Grab	1/Month
Total Dissolved Solids	mg/L	Grab	1/Month
Hardness	mg/L as CaCO ₃	Grab	1/Month
Conductivity	µmhos	Grab	1/Month
Salinity or TDS ^[2]	ppt or mg/L	Grab	1/Month
Chloride	mg/L	Grab	1/Month

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Parameter	Units	Sample Type	Minimum Sampling Frequency
<i>RSW-005 only</i>			
Dilution Ratio – River:Effluent Flow ^[3]	--	Calculate	1/Hour

Legend to Table E-4:

Units:

s.u.	=	standard units
°C	=	degrees Celsius
mg/L	=	milligrams per liter

Sampling Frequency:

1/Day	=	once per day
1/Month	=	once per month
1/Hour	=	once every hour

Footnotes to Table E-4:

- [1] Samples for pH and temperature shall be taken concurrently with effluent samples for ammonia.
- [2] The Discharger may choose to sample either total dissolved solids, salinity, or both, and shall sample the same parameters throughout the permit term.
- [3] The dilution during a calendar day shall be calculated and reported as long as the discharge continues. The dilution shall be determined using the hourly average river flow obtained from USGS station No. 11456000 and the maximum discharge flow of the next hour at Monitoring Location EFF-001; 24 dilution ratios within a calendar day shall be reported. Allowable maximum discharge flow for the next hour shall be determined based on the average river flow for the previous hour.

VIII. OTHER MONITORING REQUIREMENTS

A. Biosolids Monitoring

The Discharger shall adhere to sludge monitoring requirements required by 40 CFR 503 (for land application) or 40 CFR 258 (for landfill disposal)..

B. Pond Monitoring Requirements

The Discharger shall monitor the wastewater ponds at points located along the perimeter levees of the wastewater ponds as follows:

Table E-5. Pond Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Sulfide (required only when D.O. is < 2.0 mg/L)	mg/L	Grab	1/Quarter
Dissolved Oxygen	mg/L	Grab	1/Quarter
Standard Observation	--	Observation	1/Week

Legends to Table E-5:

mg/L =	milligrams per liter
1/Quarter =	once per quarter
1/Week =	once per week

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IX. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Federal Standard Provisions (Attachment D) and Regional Standard Provisions (Attachment G) related to monitoring, reporting, and recordkeeping.

B. Self Monitoring Reports

1. At any time during the term of this Order, the State or Regional Water Board may notify the Discharger to electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
2. The Discharger shall submit monthly and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order for each calendar month. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR. Monthly SMRs shall be due on the 30th day following the end of each calendar month, covering samples collected during that calendar month; Annual Reports shall be due on February 1 following each calendar year.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-6. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
Continuous	Day after permit effective date	All
1/Hour	Day after permit effective date	Hourly
1/Day	Day after permit effective date	Midnight through 11:59 PM or any 24-hour period that reasonably represents a calendar day for purposes of sampling.
1/Week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday
1/Month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month
1/Quarter	Closest of March 1, June 1, September 1, December 1 following (or on) permit effective date	December 1 through February 28 or 29 March 1 through May 31 June 1 through August 31 September 1 through November 30
2/Year	Closest of June 1 or December 1 following (or on) permit effective date	Once during December 1 through May 31 Once during June 1 through November 30
1/Year	January 1 following (or on) permit effective date	January 1 through December 31, preferably during the discharge season
1/5 years	Day after permit effective date	All

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Sampling Frequency	Monitoring Period Begins On...	Monitoring Period
Per Discharge Event	Anytime during the discharge event or as soon as possible after aware of the event	At a time when sampling can characterize the discharge event

4. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified,," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration,," (may be shortened to "Est. Conc.,,"). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected,," or ND.
- d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. The Discharger shall submit SMRs in accordance with the following requirements:

- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
- b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and set forth the proposed time schedule for corrective actions. Identified

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violations must include a description of the requirement that was violated and a description of the violation.

- c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
ATTN: NPDES Wastewater Division

C. Discharge Monitoring Reports

1. As described in Section X.B.1 above, at any time during the term of this Order, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger is not required to submit DMRs in accordance with the requirements described below.
2. Once notified by the State or Regional Water Board, the Discharger shall submit hard copy DMRs. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy of the DMR to one of the addresses listed below:

Standard Mail	FedEx/UPS/Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of EPA Form 3320-1.

D. Other Reports

The Discharger shall report the results of effluent monitoring required by Section VII.C.2 of this Order with the first monthly SMR following the respective due date.

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Appendix A
CIMIS 2012-2015 Monthly Reporting
ET_o-Precipitation



DELLAVALLE[®]
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Chemists and Consultants

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website: dellavallelab.com

California Irrigation Management Information System (CIMIS)
2012-2015 Monthly Reporting
Oakville - North Coast Valleys - Station 77

Stn Id	Stn Name	CIMIS Region	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
77	Oakville	North Coast Valleys	12-Jan	1.73	3.21	-1.48
77	Oakville	North Coast Valleys	12-Feb	2.44	2.1	0.34
77	Oakville	North Coast Valleys	12-Mar	2.71	11.76	-9.05
77	Oakville	North Coast Valleys	12-Apr	4.53	0.92	3.61
77	Oakville	North Coast Valleys	12-May	6.89	0	6.89
77	Oakville	North Coast Valleys	12-Jun	7.33	0	7.33
77	Oakville	North Coast Valleys	12-Jul	7.05	0	7.05
77	Oakville	North Coast Valleys	12-Aug	6.35	0	6.35
77	Oakville	North Coast Valleys	12-Sep	4.98	0	4.98
77	Oakville	North Coast Valleys	12-Oct	3.46	0.9	2.56
77	Oakville	North Coast Valleys	12-Nov	1.63	10.55	-8.92
77	Oakville	North Coast Valleys	12-Dec	1.15	11.39	-10.24
Stn Id	Stn Name	CIMIS Region	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
77	Oakville	North Coast Valleys	13-Jan	1.61	0.95	0.66
77	Oakville	North Coast Valleys	13-Feb	2.57	0.36	2.21
77	Oakville	North Coast Valleys	13-Mar	3.51	1.98	1.53
77	Oakville	North Coast Valleys	13-Apr	5.98	0.78	5.2
77	Oakville	North Coast Valleys	13-May	6.75	0	6.75
77	Oakville	North Coast Valleys	13-Jun	6.68	0	6.68
77	Oakville	North Coast Valleys	13-Jul	6.98	0	6.98
77	Oakville	North Coast Valleys	13-Aug	6.24	0	6.24
77	Oakville	North Coast Valleys	13-Sep	5.02	0	5.02
77	Oakville	North Coast Valleys	13-Oct	3.9	0	3.9
77	Oakville	North Coast Valleys	13-Nov	2.35	1.12	1.23
77	Oakville	North Coast Valleys	13-Dec	1.9	0.81	1.09
Stn Id	Stn Name	CIMIS Region	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
77	Oakville	North Coast Valleys	14-Jan	2.19	0.09	2.1
77	Oakville	North Coast Valleys	14-Feb	1.62	11.51	-9.89
77	Oakville	North Coast Valleys	14-Mar	3.55	3.29	0.26
77	Oakville	North Coast Valleys	14-Apr	5.01	0.88	4.13
77	Oakville	North Coast Valleys	14-May	6.94	0	6.94
77	Oakville	North Coast Valleys	14-Jun	7.27	0	7.27
77	Oakville	North Coast Valleys	14-Jul	6.97	0	6.97
77	Oakville	North Coast Valleys	14-Aug	5.76	0	5.76
77	Oakville	North Coast Valleys	14-Sep	4.68	0.49	4.19
77	Oakville	North Coast Valleys	14-Oct	3.41	0.88	2.53
77	Oakville	North Coast Valleys	14-Nov	1.74	2.51	-0.77
77	Oakville	North Coast Valleys	14-Dec	0.89	9.75	-8.86
Stn Id	Stn Name	CIMIS Region	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
77	Oakville	North Coast Valleys	15-Jan	1.78	0.07	1.71
77	Oakville	North Coast Valleys	15-Feb	0.32	5.43	-5.11
77	Oakville	North Coast Valleys	15-Mar	3.23	0.05	3.18
77	Oakville	North Coast Valleys	15-Apr	5.6	1.84	3.76
77	Oakville	North Coast Valleys	15-May	5.75	0.21	5.54
77	Oakville	North Coast Valleys	15-Jun	7.06	0.09	6.97
77	Oakville	North Coast Valleys	15-Jul	7.0	0.07	6.93
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Appendix B
CIMIS 2012-2015 Daily Reporting
ET_o-Precipitation



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California Irrigation Management Information System (CIMIS)
2012 Daily Reporting
Oakville - North Coast Valleys - Station 77

Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
1/1/2012	0.08	0	0.08	7/2/2012	0.22	0	0.22
1/2/2012	0.03	0	0.03	7/3/2012	0.25	0	0.25
1/3/2012	0.05	0	0.05	7/4/2012	0.25	0	0.25
1/4/2012	0.05	0	0.05	7/5/2012	0.23	0	0.23
1/5/2012	0.06	0	0.06	7/6/2012	0.24	0	0.24
1/6/2012	0.05	0.01	0.04	7/7/2012	0.28	0	0.28
1/7/2012	0.12	0	0.12	7/8/2012	0.24	0	0.24
1/8/2012	0.08	0	0.08	7/9/2012	0.23	0	0.23
1/9/2012	0.06	0	0.06	7/10/2012	0.25	0	0.25
1/10/2012	0.06	0	0.06	7/11/2012	0.27	0	0.27
1/11/2012	0.07	0	0.07	7/12/2012	0.25	0	0.25
1/12/2012	0.07	0	0.07	7/13/2012	0.22	0	0.22
1/13/2012	0.08	0	0.08	7/14/2012	0.2	0	0.2
1/14/2012	0.07	0	0.07	7/15/2012	0.21	0	0.21
1/15/2012	0.05	0	0.05	7/16/2012	0.2	0	0.2
1/16/2012	0.06	0	0.06	7/17/2012	0.09	0	0.09
1/17/2012	0.06	0	0.06	7/18/2012	0.23	0	0.23
1/18/2012	0.04	0	0.04	7/19/2012	0.23	0	0.23
1/19/2012	0	0.27	-0.27	7/20/2012	0.25	0	0.25
1/20/2012	0	1.68	-1.68	7/21/2012	0.28	0	0.28
1/21/2012	0.06	1	-0.94	7/22/2012	0.24	0	0.24
1/22/2012	0	0.08	-0.08	7/23/2012	0.22	0	0.22
1/23/2012	0.03	0.1	-0.07	7/24/2012	0.23	0	0.23
1/24/2012	0.04	0.04	0	7/25/2012	0.23	0	0.23
1/25/2012	0.06	0.03	0.03	7/26/2012	0.19	0	0.19
1/26/2012	0.04	0	0.04	7/27/2012	0.2	0	0.2
1/27/2012	0.1	0	0.1	7/28/2012	0.22	0	0.22
1/28/2012	0.08	0	0.08	7/29/2012	0.21	0	0.21
1/29/2012	0.08	0	0.08	7/30/2012	0.24	0	0.24
1/30/2012	0.05	0	0.05	7/31/2012	0.24	0	0.24
1/31/2012	0.05	0	0.05	8/1/2012	0.23	0	0.23
2/1/2012	0.05	0.05	0	8/2/2012	0.22	0	0.22
2/2/2012	0.1	0	0.1	8/3/2012	0.2	0	0.2
2/3/2012	0.09	0	0.09	8/4/2012	0.1	0	0.1
2/4/2012	0.09	0	0.09	8/5/2012	0.21	0	0.21
2/5/2012	0.08	0	0.08	8/6/2012	0.23	0	0.23
2/6/2012	0.07	0.02	0.05	8/7/2012	0.25	0	0.25
2/7/2012	0	0.78	-0.78	8/8/2012	0.24	0	0.24
2/8/2012	0.08	0.01	0.07	8/9/2012	0.25	0	0.25
2/9/2012	0.09	0	0.09	8/10/2012	0.24	0	0.24
2/10/2012	0.02	0.03	-0.01	8/11/2012	0.24	0	0.24
2/11/2012	0.07	0.02	0.05	8/12/2012	0.23	0	0.23
2/12/2012	0.03	0.1	-0.07	8/13/2012	0.23	0	0.23
2/13/2012	0.05	0.07	-0.02	8/14/2012	0.17	0	0.17
2/14/2012	0.08	0	0.08	8/15/2012	0.21	0	0.21
2/15/2012	0.13	0	0.13	8/16/2012	0.22	0	0.22

Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
2/16/2012	0.12	0	0.12	8/17/2012	0.2	0	0.2
2/17/2012	0.09	0	0.09	8/18/2012	0.23	0	0.23
2/18/2012	0.08	0	0.08	8/19/2012	0.21	0	0.21
2/19/2012	0.1	0	0.1	8/20/2012	0.19	0	0.19
2/20/2012	0.06	0	0.06	8/21/2012	0.19	0	0.19
2/21/2012	0.08	0	0.08	8/22/2012	0.17	0	0.17
2/22/2012	0.13	0	0.13	8/23/2012	0.18	0	0.18
2/23/2012	0.19	0	0.19	8/24/2012	0.18	0	0.18
2/24/2012	0.15	0	0.15	8/25/2012	0.15	0	0.15
2/25/2012	0.11	0	0.11	8/26/2012	0.18	0	0.18
2/26/2012	0.1	0	0.1	8/27/2012	0.21	0	0.21
2/27/2012	0.08	0	0.08	8/28/2012	0.23	0	0.23
2/28/2012	0.08	0.24	-0.16	8/29/2012	0.23	0	0.23
2/29/2012	0.04	0.78	-0.74	8/30/2012	0.21	0	0.21
3/1/2012	0.08	0.79	-0.71	8/31/2012	0.15	0	0.15
3/2/2012	0.14	0	0.14	9/1/2012	0.16	0	0.16
3/3/2012	0.13	0	0.13	9/2/2012	0.2	0	0.2
3/4/2012	0.13	0	0.13	9/3/2012	0.22	0	0.22
3/5/2012	0.13	0	0.13	9/4/2012	0.19	0	0.19
3/6/2012	0.15	0	0.15	9/5/2012	0.11	0	0.11
3/7/2012	0.16	0	0.16	9/6/2012	0.19	0	0.19
3/8/2012	0.13	0	0.13	9/7/2012	0.19	0	0.19
3/9/2012	0.15	0	0.15	9/8/2012	0.19	0	0.19
3/10/2012	0.09	0	0.09	9/9/2012	0.19	0	0.19
3/11/2012	0.08	0	0.08	9/10/2012	0.19	0	0.19
3/12/2012	0.08	0.07	0.01	9/11/2012	0.18	0	0.18
3/13/2012	0.02	3.51	-3.49	9/12/2012	0.15	0	0.15
3/14/2012	0.02	1.02	-1	9/13/2012	0.18	0	0.18
3/15/2012	0.03	0.01	0.02	9/14/2012	0.17	0	0.17
3/16/2012	0.01	1.37	-1.36	9/15/2012	0.17	0	0.17
3/17/2012	0.05	0.05	0	9/16/2012	0.17	0	0.17
3/18/2012	0.12	0	0.12	9/17/2012	0.16	0	0.16
3/19/2012	0.09	0	0.09	9/18/2012	0.15	0	0.15
3/20/2012	0.1	0	0.1	9/19/2012	0.16	0	0.16
3/21/2012	0.08	0	0.08	9/20/2012	0.16	0	0.16
3/22/2012	0.15	0.01	0.14	9/21/2012	0.17	0	0.17
3/23/2012	0.11	0	0.11	9/22/2012	0.18	0	0.18
3/24/2012	0.02	1.19	-1.17	9/23/2012	0.16	0	0.16
3/25/2012	0.08	0.21	-0.13	9/24/2012	0.14	0	0.14
3/26/2012	0.08	0.01	0.07	9/25/2012	0.14	0	0.14
3/27/2012	0.02	2.14	-2.12	9/26/2012	0.12	0	0.12
3/28/2012	0.12	0.23	-0.11	9/27/2012	0.15	0	0.15
3/29/2012	0.05	0	0.05	9/28/2012	0.13	0	0.13
3/30/2012	0.04	0	0.04	9/29/2012	0.13	0	0.13
3/31/2012	0.06	1.15	-1.09	9/30/2012	0.17	0	0.17
4/1/2012	0.16	0	0.16	10/1/2012	0.19	0	0.19
4/2/2012	0.15	0	0.15	10/2/2012	0.2	0	0.2
4/3/2012	0.11	0.02	0.09	10/3/2012	0.17	0	0.17
4/4/2012	0.15	0	0.15	10/4/2012	0.13	0	0.13
4/5/2012	0.13	0	0.13	10/5/2012	0.14	0	0.14
4/6/2012	0.16	0	0.16	10/6/2012	0.13	0	0.13

Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
4/7/2012	0.17	0	0.17	10/7/2012	0.14	0	0.14
4/8/2012	0.16	0	0.16	10/8/2012	0.14	0	0.14
4/9/2012	0.14	0	0.14	10/9/2012	0.1	0	0.1
4/10/2012	0.01	0.32	-0.31	10/10/2012	0.14	0	0.14
4/11/2012	0.11	0.03	0.08	10/11/2012	0.06	0	0.06
4/12/2012	0.11	0.07	0.04	10/12/2012	0.02	0	0.02
4/13/2012	0.11	0.03	0.08	10/13/2012	0.12	0	0.12
4/14/2012	0.18	0.05	0.13	10/14/2012	0.11	0	0.11
4/15/2012	0.15	0.05	0.1	10/15/2012	0.13	0	0.13
4/16/2012	0.17	0.04	0.13	10/16/2012	0.14	0	0.14
4/17/2012	0.17	0.03	0.14	10/17/2012	0.16	0	0.16
4/18/2012	0.19	0.04	0.15	10/18/2012	0.15	0	0.15
4/19/2012	0.19	0.02	0.17	10/19/2012	0.12	0	0.12
4/20/2012	0.2	0.22	-0.02	10/20/2012	0.11	0	0.11
4/21/2012	0.07	0	0.07	10/21/2012	0.1	0	0.1
4/22/2012	0.21	0	0.21	10/22/2012	0.08	0.08	0
4/23/2012	0.11	0	0.11	10/23/2012	0.06	0.01	0.05
4/24/2012	0.13	0	0.13	10/24/2012	0.06	0.12	-0.06
4/25/2012	0.09	0	0.09	10/25/2012	0.09	0.05	0.04
4/26/2012	0.15	0	0.15	10/26/2012	0.1	0	0.1
4/27/2012	0.2	0	0.2	10/27/2012	0.1	0	0.1
4/28/2012	0.21	0	0.21	10/28/2012	0.11	0	0.11
4/29/2012	0.21	0	0.21	10/29/2012	0.1	0	0.1
4/30/2012	0.22	0	0.22	10/30/2012	0.05	0.01	0.04
5/1/2012	0.2	0	0.2	10/31/2012	0.01	0.63	-0.62
5/2/2012	0.17	0	0.17	11/1/2012	0.06	0.01	0.05
5/3/2012	0.08	0	0.08	11/2/2012	0.07	0	0.07
5/4/2012	0.2	0	0.2	11/3/2012	0.09	0	0.09
5/5/2012	0.27	0	0.27	11/4/2012	0.09	0	0.09
5/6/2012	0.29	0	0.29	11/5/2012	0.1	0	0.1
5/7/2012	0.27	0	0.27	11/6/2012	0.1	0	0.1
5/8/2012	0.26	0	0.26	11/7/2012	0.02	0	0.02
5/9/2012	0.23	0	0.23	11/8/2012	0.04	0.08	-0.04
5/10/2012	0.23	0	0.23	11/9/2012	0.05	0	0.05
5/11/2012	0.26	0	0.26	11/10/2012	0.07	0	0.07
5/12/2012	0.24	0	0.24	11/11/2012	0.07	0.01	0.06
5/13/2012	0.19	0	0.19	11/12/2012	0.07	0	0.07
5/14/2012	0.21	0	0.21	11/13/2012	0.06	0	0.06
5/15/2012	0.22	0	0.22	11/14/2012	0.08	0	0.08
5/16/2012	0.2	0	0.2	11/15/2012	0.07	0	0.07
5/17/2012	0.2	0	0.2	11/16/2012	0.01	0.66	-0.65
5/18/2012	0.24	0	0.24	11/17/2012	0.03	1.44	-1.41
5/19/2012	0.23	0	0.23	11/18/2012	0.04	0	0.04
5/20/2012	0.25	0	0.25	11/19/2012	0.05	0	0.05
5/21/2012	0.22	0	0.22	11/20/2012	0.01	0.97	-0.96
5/22/2012	0.25	0	0.25	11/21/2012	0.06	0.04	0.02
5/23/2012	0.25	0	0.25	11/22/2012	0.06	0.01	0.05
5/24/2012	0.26	0	0.26	11/23/2012	0.07	0	0.07
5/25/2012	0.17	0	0.17	11/24/2012	0.06	0.01	0.05
5/26/2012	0.19	0	0.19	11/25/2012	0.06	0	0.06
5/27/2012	0.19	0	0.19	11/26/2012	0.06	0.01	0.05

Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
5/28/2012	0.2	0	0.2	11/27/2012	0.02	0	0.02
5/29/2012	0.23	0	0.23	11/28/2012	0.02	0.79	-0.77
5/30/2012	0.24	0	0.24	11/29/2012	0.01	2.37	-2.36
5/31/2012	0.26	0	0.26	11/30/2012	0	4.15	-4.15
6/1/2012	0.25	0	0.25	12/1/2012	0.02	1.26	-1.24
6/2/2012	0.26	0	0.26	12/2/2012	0.04	1.88	-1.84
6/3/2012	0.25	0	0.25	12/3/2012	0.05	0.01	0.04
6/4/2012	0.09	0	0.09	12/4/2012	0.01	0.32	-0.31
6/5/2012	0.21	0	0.21	12/5/2012	0.01	0.31	-0.3
6/6/2012	0.24	0	0.24	12/6/2012	0.04	0	0.04
6/7/2012	0.25	0	0.25	12/7/2012	0.05	0.01	0.04
6/8/2012	0.26	0	0.26	12/8/2012	0.04	0.01	0.03
6/9/2012	0.3	0	0.3	12/9/2012	0.08	0	0.08
6/10/2012	0.33	0	0.33	12/10/2012	0.06	0	0.06
6/11/2012	0.28	0	0.28	12/11/2012	0.05	0.02	0.03
6/12/2012	0.28	0	0.28	12/12/2012	0.05	0.01	0.04
6/13/2012	0.24	0	0.24	12/13/2012	0.06	0	0.06
6/14/2012	0.25	0	0.25	12/14/2012	0.03	0	0.03
6/15/2012	0.25	0	0.25	12/15/2012	0	0.17	-0.17
6/16/2012	0.28	0	0.28	12/16/2012	0.01	0.19	-0.18
6/17/2012	0.27	0	0.27	12/17/2012	0.03	0.12	-0.09
6/18/2012	0.22	0	0.22	12/18/2012	0.06	0.01	0.05
6/19/2012	0.25	0	0.25	12/19/2012	0.05	0	0.05
6/20/2012	0.28	0	0.28	12/20/2012	0.07	0.06	0.01
6/21/2012	0.22	0	0.22	12/21/2012	0.01	1.7	-1.69
6/22/2012	0.12	0	0.12	12/22/2012	0.04	1.22	-1.18
6/23/2012	0.23	0	0.23	12/23/2012	0	2.82	-2.82
6/24/2012	0.24	0	0.24	12/24/2012	0.05	0.02	0.03
6/25/2012	0.23	0	0.23	12/25/2012	0	0.71	-0.71
6/26/2012	0.25	0	0.25	12/26/2012	0.03	0.53	-0.5
6/27/2012	0.27	0	0.27	12/27/2012	0.05	0	0.05
6/28/2012	0.26	0	0.26	12/28/2012	0.01	0.01	0
6/29/2012	0.24	0	0.24	12/29/2012	0.04	0	0.04
6/30/2012	0.25	0	0.25	12/30/2012	0.06	0	0.06
7/1/2012	0.22	0	0.22	12/31/2012	0.05	0	0.05
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California Irrigation Management Information System (CIMIS)**2013 Daily Reporting****Oakville - North Coast Valleys- Station 77**

Date	ETo (in)	Precip (in)	ET _O -Precip (in)	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
1/1/2013	0.06	0	0.06	7/3/2013	0.26	0	0.26
1/2/2013	0.06	0	0.06	7/4/2013	0.27	0	0.27
1/3/2013	0.05	0	0.05	7/5/2013	0.24	0	0.24
1/4/2013	0.05	0	0.05	7/6/2013	0.21	0	0.21
1/5/2013	0	0.51	-0.51	7/7/2013	0.23	0	0.23
1/6/2013	0.02	0.03	-0.01	7/8/2013	0.24	0	0.24
1/7/2013	0.04	0	0.04	7/9/2013	0.27	0	0.27
1/8/2013	0.04	0.01	0.03	7/10/2013	0.26	0	0.26
1/9/2013	0.01	0.02	-0.01	7/11/2013	0.22	0	0.22
1/10/2013	0.04	0	0.04	7/12/2013	0.21	0	0.21
1/11/2013	0.03	0	0.03	7/13/2013	0.24	0	0.24
1/12/2013	0.05	0	0.05	7/14/2013	0.24	0	0.24
1/13/2013	0.07	0.01	0.06	7/15/2013	0.20	0	0.2
1/14/2013	0.07	0	0.07	7/16/2013	0.20	0	0.2
1/15/2013	0.05	0	0.05	7/17/2013	0.22	0	0.22
1/16/2013	0.06	0	0.06	7/18/2013	0.23	0	0.23
1/17/2013	0.05	0.01	0.04	7/19/2013	0.22	0	0.22
1/18/2013	0.07	0	0.07	7/20/2013	0.21	0	0.21
1/19/2013	0.08	0	0.08	7/21/2013	0.23	0	0.23
1/20/2013	0.07	0	0.07	7/22/2013	0.18	0	0.18
1/21/2013	0.07	0	0.07	7/23/2013	0.17	0	0.17
1/22/2013	0.06	0	0.06	7/24/2013	0.25	0	0.25
1/23/2013	0	0.36	-0.36	7/25/2013	0.24	0	0.24
1/24/2013	0.03	0	0.03	7/26/2013	0.23	0	0.23
1/25/2013	0.05	0	0.05	7/27/2013	0.21	0	0.21
1/26/2013	0.07	0	0.07	7/28/2013	0.20	0	0.2
1/27/2013	0.07	0	0.07	7/29/2013	0.17	0	0.17
1/28/2013	0.07	0	0.07	7/30/2013	0.20	0	0.2
1/29/2013	0.07	0	0.07	7/31/2013	0.20	0	0.2
1/30/2013	0.08	0	0.08	8/1/2013	0.23	0	0.23
1/31/2013	0.08	0	0.08	8/2/2013	0.23	0	0.23
2/1/2013	0.08	0.01	0.07	8/3/2013	0.20	0	0.2
2/2/2013	0.06	0	0.06	8/4/2013	0.18	0	0.18
2/3/2013	0.06	0	0.06	8/5/2013	0.20	0	0.2
2/4/2013	0.03	0.01	0.02	8/6/2013	0.18	0	0.18
2/5/2013	0.05	0	0.05	8/7/2013	0.17	0	0.17
2/6/2013	0.08	0.01	0.07	8/8/2013	0.20	0	0.2
2/7/2013	0.08	0.09	-0.01	8/9/2013	0.19	0	0.19
2/8/2013	0.09	0	0.09	8/10/2013	0.20	0	0.2
2/9/2013	0.10	0	0.1	8/11/2013	0.19	0	0.19
2/10/2013	0.09	0	0.09	8/12/2013	0.19	0	0.19
2/11/2013	0.11	0	0.11	8/13/2013	0.24	0	0.24
2/12/2013	0.09	0	0.09	8/14/2013	0.23	0	0.23
2/13/2013	0.09	0	0.09	8/15/2013	0.23	0	0.23
2/14/2013	0.1	0	0.1	8/16/2013	0.23	0	0.23
2/15/2013	0.11	0	0.11	8/17/2013	0.14	0	0.14

Date	ETo (in)	Precip (in)	ET _O -Precip (in)	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
2/16/2013	0.10	0	0.1	8/18/2013	0.22	0	0.22
2/17/2013	0.10	0	0.1	8/19/2013	0.14	0	0.14
2/18/2013	0.05	0	0.05	8/20/2013	0.20	0	0.2
2/19/2013	0.05	0.24	-0.19	8/21/2013	0.19	0	0.19
2/20/2013	0.11	0	0.11	8/22/2013	0.19	0	0.19
2/21/2013	0.11	0	0.11	8/23/2013	0.19	0	0.19
2/22/2013	0.11	0	0.11	8/24/2013	0.21	0	0.21
2/23/2013	0.12	0	0.12	8/25/2013	0.20	0	0.2
2/24/2013	0.14	0	0.14	8/26/2013	0.20	0	0.2
2/25/2013	0.11	0	0.11	8/27/2013	0.22	0	0.22
2/26/2013	0.14	0	0.14	8/28/2013	0.20	0	0.2
2/27/2013	0.12	0	0.12	8/29/2013	0.21	0	0.21
2/28/2013	0.11	0	0.11	8/30/2013	0.22	0	0.22
3/1/2013	0.12	0	0.12	8/31/2013	0.21	0	0.21
3/2/2013	0.08	0	0.08	9/1/2013	0.17	0	0.17
3/3/2013	0.11	0	0.11	9/2/2013	0.20	0	0.2
3/4/2013	0.07	0	0.07	9/3/2013	0.21	0	0.21
3/5/2013	0.07	0.58	-0.51	9/4/2013	0.20	0	0.2
3/6/2013	0.08	0.26	-0.18	9/5/2013	0.20	0	0.2
3/7/2013	0.06	0	0.06	9/6/2013	0.22	0	0.22
3/8/2013	0.13	0	0.13	9/7/2013	0.24	0	0.24
3/9/2013	0.15	0	0.15	9/8/2013	0.21	0	0.21
3/10/2013	0.14	0	0.14	9/9/2013	0.20	0	0.2
3/11/2013	0.14	0	0.14	9/10/2013	0.17	0	0.17
3/12/2013	0.14	0	0.14	9/11/2013	0.14	0	0.14
3/13/2013	0.14	0	0.14	9/12/2013	0.16	0	0.16
3/14/2013	0.09	0	0.09	9/13/2013	0.16	0	0.16
3/15/2013	0.12	0	0.12	9/14/2013	0.15	0	0.15
3/16/2013	0.15	0	0.15	9/15/2013	0.17	0	0.17
3/17/2013	0.14	0	0.14	9/16/2013	0.17	0	0.17
3/18/2013	0.11	0	0.11	9/17/2013	0.18	0	0.18
3/19/2013	0.05	0.06	-0.01	9/18/2013	0.20	0	0.2
3/20/2013	0.02	0.48	-0.46	9/19/2013	0.20	0	0.2
3/21/2013	0.14	0.01	0.13	9/20/2013	0.17	0	0.17
3/22/2013	0.18	0	0.18	9/21/2013	0.04	0	0.04
3/23/2013	0.16	0	0.16	9/22/2013	0.13	0	0.13
3/24/2013	0.16	0	0.16	9/23/2013	0.16	0	0.16
3/25/2013	0.12	0	0.12	9/24/2013	0.17	0	0.17
3/26/2013	0.16	0	0.16	9/25/2013	0.14	0	0.14
3/27/2013	0.06	0	0.06	9/26/2013	0.18	0	0.18
3/28/2013	0.07	0	0.07	9/27/2013	0.17	0	0.17
3/29/2013	0.17	0	0.17	9/28/2013	0.17	0	0.17
3/30/2013	0.07	0.33	-0.26	9/29/2013	0.05	0	0.05
3/31/2013	0.09	0.26	-0.17	9/30/2013	0.09	0	0.09
4/1/2013	0.09	0	0.09	10/1/2013	0.14	0	0.14
4/2/2013	0.13	0	0.13	10/2/2013	0.16	0	0.16
4/3/2013	0.14	0	0.14	10/3/2013	0.20	0	0.2
4/4/2013	0.06	0.67	-0.61	10/4/2013	0.22	0	0.22
4/5/2013	0.13	0.01	0.12	10/5/2013	0.17	0	0.17
4/6/2013	0.10	0	0.1	10/6/2013	0.15	0	0.15
4/7/2013	0.15	0.1	0.05	10/7/2013	0.16	0	0.16

Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
4/8/2013	0.22	0	0.22	10/8/2013	0.13	0	0.13
4/9/2013	0.25	0	0.25	10/9/2013	0.14	0	0.14
4/10/2013	0.23	0	0.23	10/10/2013	0.13	0	0.13
4/11/2013	0.19	0	0.19	10/11/2013	0.11	0	0.11
4/12/2013	0.19	0	0.19	10/12/2013	0.12	0	0.12
4/13/2013	0.19	0	0.19	10/13/2013	0.14	0	0.14
4/14/2013	0.21	0	0.21	10/14/2013	0.14	0	0.14
4/15/2013	0.19	0	0.19	10/15/2013	0.16	0	0.16
4/16/2013	0.24	0	0.24	10/16/2013	0.14	0	0.14
4/17/2013	0.25	0	0.25	10/17/2013	0.14	0	0.14
4/18/2013	0.23	0	0.23	10/18/2013	0.14	0	0.14
4/19/2013	0.22	0	0.22	10/19/2013	0.13	0	0.13
4/20/2013	0.24	0	0.24	10/20/2013	0.12	0	0.12
4/21/2013	0.25	0	0.25	10/21/2013	0.09	0	0.09
4/22/2013	0.27	0	0.27	10/22/2013	0.10	0	0.1
4/23/2013	0.27	0	0.27	10/23/2013	0.09	0	0.09
4/24/2013	0.20	0	0.2	10/24/2013	0.06	0	0.06
4/25/2013	0.17	0	0.17	10/25/2013	0.09	0	0.09
4/26/2013	0.19	0	0.19	10/26/2013	0.11	0	0.11
4/27/2013	0.20	0	0.2	10/27/2013	0.08	0	0.08
4/28/2013	0.22	0	0.22	10/28/2013	0.09	0	0.09
4/29/2013	0.25	0	0.25	10/29/2013	0.08	0	0.08
4/30/2013	0.29	0	0.29	10/30/2013	0.08	0	0.08
5/1/2013	0.30	0	0.3	10/31/2013	0.10	0	0.1
5/2/2013	0.28	0	0.28	11/1/2013	0.10	0	0.1
5/3/2013	0.25	0	0.25	11/2/2013	0.09	0	0.09
5/4/2013	0.26	0	0.26	11/3/2013	0.10	0	0.1
5/5/2013	0.09	0	0.09	11/4/2013	0.14	0	0.14
5/6/2013	0.07	0	0.07	11/5/2013	0.11	0	0.11
5/7/2013	0.18	0	0.18	11/6/2013	0.10	0	0.1
5/8/2013	0.16	0	0.16	11/7/2013	0.10	0	0.1
5/9/2013	0.20	0	0.2	11/8/2013	0.10	0	0.1
5/10/2013	0.21	0	0.21	11/9/2013	0.09	0	0.09
5/11/2013	0.22	0	0.22	11/10/2013	0.08	0	0.08
5/12/2013	0.24	0	0.24	11/11/2013	0.05	0.13	-0.08
5/13/2013	0.23	0	0.23	11/12/2013	0.04	0	0.04
5/14/2013	0.23	0	0.23	11/13/2013	0.09	0.12	-0.03
5/15/2013	0.20	0	0.2	11/14/2013	0.03	0	0.03
5/16/2013	0.19	0	0.19	11/15/2013	0.08	0.08	0
5/17/2013	0.23	0	0.23	11/16/2013	0.07	0	0.07
5/18/2013	0.24	0	0.24	11/17/2013	0.06	0	0.06
5/19/2013	0.26	0	0.26	11/18/2013	0.04	0.12	-0.08
5/20/2013	0.29	0	0.29	11/19/2013	0.01	0.47	-0.46
5/21/2013	0.25	0	0.25	11/20/2013	0.01	0.2	-0.19
5/22/2013	0.23	0	0.23	11/21/2013	0.14	0	0.14
5/23/2013	0.21	0	0.21	11/22/2013	0.17	0	0.17
5/24/2013	0.24	0	0.24	11/23/2013	0.11	0	0.11
5/25/2013	0.22	0	0.22	11/24/2013	0.06	0	0.06
5/26/2013	0.24	0	0.24	11/25/2013	0.06	0	0.06
5/27/2013	0.07	0	0.07	11/26/2013	0.05	0	0.05
5/28/2013	0.20	0	0.2	11/27/2013	0.06	0	0.06

Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
5/29/2013	0.25	0	0.25	11/28/2013	0.07	0	0.07
5/30/2013	0.25	0	0.25	11/29/2013	0.07	0	0.07
5/31/2013	0.27	0	0.27	11/30/2013	0.06	0	0.06
6/1/2013	0.25	0	0.25	12/1/2013	0.06	0	0.06
6/2/2013	0.25	0	0.25	12/2/2013	0.05	0	0.05
6/3/2013	0.23	0	0.23	12/3/2013	0.05	0	0.05
6/4/2013	0.23	0	0.23	12/4/2013	0.07	0	0.07
6/5/2013	0.22	0	0.22	12/5/2013	0.06	0	0.06
6/6/2013	0.23	0	0.23	12/6/2013	0.03	0.8	-0.77
6/7/2013	0.24	0	0.24	12/7/2013	0.06	0.01	0.05
6/8/2013	0.26	0	0.26	12/8/2013	0.05	0	0.05
6/9/2013	0.22	0	0.22	12/9/2013	0.06	0	0.06
6/10/2013	0.04	0	0.04	12/10/2013	0.06	0	0.06
6/11/2013	0.22	0	0.22	12/11/2013	0.06	0	0.06
6/12/2013	0.26	0	0.26	12/12/2013	0.06	0	0.06
6/13/2013	0.26	0	0.26	12/13/2013	0.05	0	0.05
6/14/2013	0.28	0	0.28	12/14/2013	0.06	0	0.06
6/15/2013	0.23	0	0.23	12/15/2013	0.05	0	0.05
6/16/2013	0.27	0	0.27	12/16/2013	0.06	0	0.06
6/17/2013	0.26	0	0.26	12/17/2013	0.05	0	0.05
6/18/2013	0.25	0	0.25	12/18/2013	0.04	0	0.04
6/19/2013	0.25	0	0.25	12/19/2013	0.10	0	0.1
6/20/2013	0.27	0	0.27	12/20/2013	0.10	0	0.1
6/21/2013	0.26	0	0.26	12/21/2013	0.05	0	0.05
6/22/2013	0.28	0	0.28	12/22/2013	0.06	0	0.06
6/23/2013	0.09	0	0.09	12/23/2013	0.06	0	0.06
6/24/2013	0.05	0	0.05	12/24/2013	0.06	0	0.06
6/25/2013	0.03	0	0.03	12/25/2013	0.06	0	0.06
6/26/2013	0.18	0	0.18	12/26/2013	0.06	0	0.06
6/27/2013	0.25	0	0.25	12/27/2013	0.04	0	0.04
6/28/2013	0.28	0	0.28	12/28/2013	0.10	0	0.1
6/29/2013	0.29	0	0.29	12/29/2013	0.10	0	0.1
6/30/2013	0.27	0	0.27	12/30/2013	0.06	0	0.06
7/1/2013	0.26	0	0.26	12/31/2013	0.05	0	0.05
7/2/2013	0.26	0	0.26				
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California Irrigation Management Information System (CIMIS)
2014 Daily Reporting
Oakville - North Coast Valleys - Station 77

Date	ETo (in)	Precip (in)	ET _O -Precip (in)	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
1/1/2014	0.06	0	2.5	7/3/2014	0.23	0	4.2
1/2/2014	0.06	0	2.2	7/4/2014	0.23	0	4.1
1/3/2014	0.06	0	2.5	7/5/2014	0.24	0	3.5
1/4/2014	0.09	0	3.2	7/6/2014	0.26	0	3.9
1/5/2014	0.09	0	3.4	7/7/2014	0.17	0	3.7
1/6/2014	0.05	0	2.4	7/8/2014	0.24	0	4.6
1/7/2014	0.06	0	2.5	7/9/2014	0.22	0	4.2
1/8/2014	0.04	0	2.4	7/10/2014	0.22	0	4.3
1/9/2014	0.06	0	2.7	7/11/2014	0.24	0	5
1/10/2014	0.06	0	2.6	7/12/2014	0.24	0	4
1/11/2014	0.01	0.03	2.6	7/13/2014	0.23	0	3.5
1/12/2014	0.08	0.01	4	7/14/2014	0.24	0	4.3
1/13/2014	0.08	0	3.4	7/15/2014	0.2	0	4.7
1/14/2014	0.07	0	2.6	7/16/2014	0.17	0	5.3
1/15/2014	0.08	0	2.7	7/17/2014	0.21	0	5.6
1/16/2014	0.09	0	3	7/18/2014	0.22	0	4.2
1/17/2014	0.09	0	2.7	7/19/2014	0.24	0	4
1/18/2014	0.08	0	2.9	7/20/2014	0.06	0	3.8
1/19/2014	0.09	0	3	7/21/2014	0.21	0	4.8
1/20/2014	0.08	0	2.8	7/22/2014	0.23	0	4.8
1/21/2014	0.08	0	2.9	7/23/2014	0.24	0	4.4
1/22/2014	0.08	0	3.3	7/24/2014	0.26	0	3.9
1/23/2014	0.12	0	4.4	7/25/2014	0.28	0	3.7
1/24/2014	0.1	0	3.2	7/26/2014	0.26	0	4.4
1/25/2014	0.1	0	2.9	7/27/2014	0.24	0	4.3
1/26/2014	0.07	0	2.4	7/28/2014	0.22	0	4
1/27/2014	0.05	0	2.2	7/29/2014	0.25	0	5
1/28/2014	0.05	0	2.8	7/30/2014	0.23	0	3.9
1/29/2014	0.02	0.01	3.1	7/31/2014	0.22	0	3.5
1/30/2014	0.07	0.04	3.3	8/1/2014	0.25	0	3.8
1/31/2014	0.09	0	3.6	8/2/2014	0.21	0	4.2
2/1/2014	0.09	0	3.7	8/3/2014	0.17	0	4.4
2/2/2014	0	0.47	3.3	8/4/2014	0.12	0	3.3
2/3/2014	0.05	0	2.8	8/5/2014	0.02	0	2.1
2/4/2014	0.06	0	2.7	8/6/2014	0.19	0	3.8
2/5/2014	0.05	0.31	2.9	8/7/2014	0.19	0	4
2/6/2014	0.01	0.62	2.4	8/8/2014	0.19	0	3.7
2/7/2014	0	0.94	4.8	8/9/2014	0.2	0	4.8
2/8/2014	0	3.46	5.4	8/10/2014	0.19	0	4.2
2/9/2014	0	1.75	4.3	8/11/2014	0.21	0	3.8
2/10/2014	0.05	0	2.4	8/12/2014	0.19	0	4.2
2/11/2014	0.06	0.01	3	8/13/2014	0.21	0	3.9
2/12/2014	0.03	0	2.2	8/14/2014	0.21	0	4.2
2/13/2014	0.05	0	2.1	8/15/2014	0.22	0	3.9
2/14/2014	0.04	0.01	3.6	8/16/2014	0.22	0	3.8
2/15/2014	0.02	0.11	3.7	8/17/2014	0.21	0	3.9

Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
2/16/2014	0.09	0	3.2	8/18/2014	0.18	0	4.5
2/17/2014	0.08	0	3	8/19/2014	0.17	0	5.1
2/18/2014	0.07	0	3.1	8/20/2014	0.11	0	4.8
2/19/2014	0.11	0	3.7	8/21/2014	0.2	0	4
2/20/2014	0.1	0	3	8/22/2014	0.18	0	4.3
2/21/2014	0.11	0	2.9	8/23/2014	0.19	0	4
2/22/2014	0.11	0	2.7	8/24/2014	0.19	0	4.2
2/23/2014	0.1	0	2.9	8/25/2014	0.17	0	4.9
2/24/2014	0.12	0	3.2	8/26/2014	0.2	0	3.7
2/25/2014	0.09	0	3.5	8/27/2014	0.22	0	3.8
2/26/2014	0.01	1.73	3.6	8/28/2014	0.21	0	3.3
2/27/2014	0.07	0.18	4.2	8/29/2014	0.12	0	2.8
2/28/2014	0.04	1.92	4.4	8/30/2014	0.22	0	3.5
3/1/2014	0.08	0.15	4.8	8/31/2014	0.21	0	3.6
3/2/2014	0.03	0.05	2.9	9/1/2014	0.22	0	3.4
3/3/2014	0.02	0.31	4	9/2/2014	0.17	0	5.3
3/4/2014	0.05	0.03	2.5	9/3/2014	0.17	0	3.3
3/5/2014	0.04	0.26	3.9	9/4/2014	0.16	0	3.2
3/6/2014	0.1	0	4	9/5/2014	0.16	0	3.3
3/7/2014	0.12	0	3	9/6/2014	0.17	0	3.3
3/8/2014	0.12	0	2.9	9/7/2014	0.19	0	3.2
3/9/2014	0.07	0	2.9	9/8/2014	0.16	0	3.1
3/10/2014	0.13	0.01	3.7	9/9/2014	0.16	0	3.1
3/11/2014	0.21	0	7.8	9/10/2014	0.2	0	3.1
3/12/2014	0.2	0	6.4	9/11/2014	0.2	0	2.8
3/13/2014	0.17	0	3.9	9/12/2014	0.19	0	2.6
3/14/2014	0.13	0.02	2.9	9/13/2014	0.18	0	3.1
3/15/2014	0.16	0	3.7	9/14/2014	0.18	0	3
3/16/2014	0.17	0	4	9/15/2014	0.18	0	3.6
3/17/2014	0.16	0	4.1	9/16/2014	0.18	0	3
3/18/2014	0.2	0	6.1	9/17/2014	0.17	0	3.7
3/19/2014	0.16	0	3.1	9/18/2014	0.08	0	3.5
3/20/2014	0.17	0	3.5	9/19/2014	0.13	0	3.2
3/21/2014	0.14	0	3.5	9/20/2014	0.15	0	3.5
3/22/2014	0.15	0	3.5	9/21/2014	0.15	0	4.4
3/23/2014	0.16	0	3.1	9/22/2014	0.14	0	2.9
3/24/2014	0.17	0	3.4	9/23/2014	0.16	0	3.9
3/25/2014	0.04	0.1	3.7	9/24/2014	0.12	0	4.2
3/26/2014	0.09	0.51	4.3	9/25/2014	0.12	0.32	3.7
3/27/2014	0.06	0.01	3.9	9/26/2014	0.12	0.04	3
3/28/2014	0.06	0.01	3.9	9/27/2014	0.14	0.01	3
3/29/2014	0.02	0.97	5	9/28/2014	0.07	0	2.4
3/30/2014	0.15	0	4.7	9/29/2014	0.11	0	2.8
3/31/2014	0.01	0.86	3.1	9/30/2014	0.13	0.12	2.5
4/1/2014	0.03	0.71	3.3	10/1/2014	0.2	0	4
4/2/2014	0.13	0	4	10/2/2014	0.17	0	2.4
4/3/2014	0.14	0	3.8	10/3/2014	0.17	0	2.4
4/4/2014	0.06	0.16	2.9	10/4/2014	0.18	0	2.6
4/5/2014	0.16	0.01	3.6	10/5/2014	0.17	0	2.6
4/6/2014	0.19	0	3.3	10/6/2014	0.16	0	2.5
4/7/2014	0.19	0	2.7	10/7/2014	0.14	0	3.2

Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
4/8/2014	0.2	0	3.3	10/8/2014	0.16	0	2.9
4/9/2014	0.15	0	3.2	10/9/2014	0.14	0	3.2
4/10/2014	0.18	0	3.1	10/10/2014	0.1	0	2.7
4/11/2014	0.13	0	3.7	10/11/2014	0.13	0	2.4
4/12/2014	0.16	0	5.7	10/12/2014	0.19	0	4.7
4/13/2014	0.19	0	3.7	10/13/2014	0.16	0	3.3
4/14/2014	0.15	0	3.4	10/14/2014	0.02	0.04	3.1
4/15/2014	0.15	0	3.1	10/15/2014	0.08	0.11	3
4/16/2014	0.2	0	3	10/16/2014	0.1	0	3
4/17/2014	0.2	0	4.1	10/17/2014	0.06	0	2.2
4/18/2014	0.2	0	3.7	10/18/2014	0.11	0	2.9
4/19/2014	0.2	0	4.4	10/19/2014	0.11	0	3.3
4/20/2014	0.21	0	3.1	10/20/2014	0.06	0	3.4
4/21/2014	0.13	0	3.5	10/21/2014	0	0	2.7
4/22/2014	0.21	0	6.4	10/22/2014	0.11	0	3.1
4/23/2014	0.2	0	4.8	10/23/2014	0.05	0	2.1
4/24/2014	0.17	0	5.1	10/24/2014	0.11	0	3.6
4/25/2014	0.04	0	3.3	10/25/2014	0.06	0.51	4
4/26/2014	0.17	0	5.5	10/26/2014	0.1	0.01	3.2
4/27/2014	0.15	0	4.9	10/27/2014	0.08	0	2.1
4/28/2014	0.21	0	3.7	10/28/2014	0.1	0	2.2
4/29/2014	0.26	0	3.8	10/29/2014	0.1	0	2.2
4/30/2014	0.25	0	3.5	10/30/2014	0.08	0	3.1
5/1/2014	0.25	0	3.6	10/31/2014	0.01	0.21	2.6
5/2/2014	0.24	0	3.8	11/1/2014	0.08	0	2.3
5/3/2014	0.21	0	5.5	11/2/2014	0.09	0.01	2.7
5/4/2014	0.16	0	4.5	11/3/2014	0.08	0	2.3
5/5/2014	0.2	0	5	11/4/2014	0.08	0	2.4
5/6/2014	0.21	0	4.7	11/5/2014	0.09	0	2.7
5/7/2014	0.21	0	3.9	11/6/2014	0.09	0	2.5
5/8/2014	0.09	0	3.3	11/7/2014	0.08	0	2
5/9/2014	0.19	0	5.2	11/8/2014	0.09	0	2.3
5/10/2014	0.21	0	4.1	11/9/2014	0.09	0	2.5
5/11/2014	0.27	0	5.7	11/10/2014	0.09	0	2.7
5/12/2014	0.25	0	3.5	11/11/2014	0.02	0	2.4
5/13/2014	0.27	0	3.3	11/12/2014	0.05	0.01	2.2
5/14/2014	0.28	0	3.5	11/13/2014	0.03	0.16	2.3
5/15/2014	0.26	0	3.1	11/14/2014	0.05	0.01	2.5
5/16/2014	0.24	0	3.7	11/15/2014	0.06	0	2.2
5/17/2014	0.21	0	3.8	11/16/2014	0.06	0.01	2.8
5/18/2014	0.23	0	4.5	11/17/2014	0.08	0	2.8
5/19/2014	0.2	0	5.9	11/18/2014	0.08	0	3.4
5/20/2014	0.2	0	3.9	11/19/2014	0	0.39	1.9
5/21/2014	0.22	0	4.4	11/20/2014	0	0.39	2.2
5/22/2014	0.21	0	4.4	11/21/2014	0.03	0.01	2.4
5/23/2014	0.2	0	3.8	11/22/2014	0.04	0.52	4.6
5/24/2014	0.23	0	4	11/23/2014	0.05	0.05	2.2
5/25/2014	0.25	0	3.5	11/24/2014	0.06	0.01	2.1
5/26/2014	0.26	0	3.7	11/25/2014	0.06	0	2.3
5/27/2014	0.25	0	3.6	11/26/2014	0.07	0	2.7
5/28/2014	0.24	0	3.5	11/27/2014	0.06	0	2.3

5/29/2014	0.27	0	3.8	11/28/2014	0.04	0.11	2.3
Date	ETo (in)	Precip (in)	ET _o -Precip (in)	Date	ETo (in)	Precip (in)	ET _o -Precip (in)
5/30/2014	0.21	0	4.3	11/29/2014	0.02	0.31	3.1
5/31/2014	0.21	0	3.6	11/30/2014	0.01	0.52	2.2
6/1/2014	0.23	0	4	12/1/2014	0.04	0.2	2.1
6/2/2014	0.2	0	5.4	12/2/2014	0.01	1.19	2.9
6/3/2014	0.21	0	4.2	12/3/2014	0.01	2.81	3.5
6/4/2014	0.24	0	3.8	12/4/2014	0.01	0.45	1.7
6/5/2014	0.23	0	5.3	12/5/2014	0.02	0.11	3.3
6/6/2014	0.22	0	3.5	12/6/2014	0.03	0.06	2.1
6/7/2014	0.21	0	3.4	12/7/2014	0.03	0.03	2.1
6/8/2014	0.27	0	2.9	12/8/2014	0.02	0.03	1.8
6/9/2014	0.28	0	3.6	12/9/2014	0.01	0.01	1.8
6/10/2014	0.23	0	3.9	12/10/2014	0.01	0.03	4.3
6/11/2014	0.2	0	5.6	12/11/2014	0	0.25	4.9
6/12/2014	0.24	0	4.6	12/12/2014	0.01	0.2	2
6/13/2014	0.25	0	3.2	12/13/2014	0.04	0.01	2.5
6/14/2014	0.23	0	3.3	12/14/2014	0.03	0.12	2.4
6/15/2014	0.23	0	4.5	12/15/2014	0	1.83	2.4
6/16/2014	0.24	0	4	12/16/2014	0.02	1.14	3
6/17/2014	0.26	0	3.6	12/17/2014	0.02	0.23	2.9
6/18/2014	0.3	0	4.3	12/18/2014	0.01	0.1	2
6/19/2014	0.24	0	4.1	12/19/2014	0	0.86	3.6
6/20/2014	0.28	0	4	12/20/2014	0.01	0.02	2.6
6/21/2014	0.25	0	4.3	12/21/2014	0.03	0.01	2.5
6/22/2014	0.24	0	4.6	12/22/2014	0.03	0.01	2.2
6/23/2014	0.24	0	3.8	12/23/2014	0.05	0.01	2.3
6/24/2014	0.27	0	4	12/24/2014	0.02	0.04	3.5
6/25/2014	0.2	0	4.7	12/25/2014	0.06	0	4.6
6/26/2014	0.23	0	6.9	12/26/2014	0.08	0	6.2
6/27/2014	0.24	0	4.6	12/27/2014	0.05	0	2.4
6/28/2014	0.25	0	3.7	12/28/2014	0.05	0	2.2
6/29/2014	0.27	0	3.2	12/29/2014	0.01	0	2.3
6/30/2014	0.28	0	4.3	12/30/2014	0.07	0	8.1
7/1/2014	0.24	0	4.6	12/31/2014	0.08	0	4.9
7/2/2014	0.2	0	4.3				
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California Irrigation Management Information System (CIMIS)
2015 Daily Reporting
Oakville - North Coast Valleys - Station 77

Date	ETo (in)	Precip (in)	ET _O -Precip (in)	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
1/1/2015	0.07	0	3.3	4/17/2015	0.22	0	3.6
1/2/2015	0.05	0	2.3	4/18/2015	0.19	0	3.7
1/3/2015	0.05	0	2.5	4/19/2015	0.17	0	3.9
1/4/2015	0.05	0	2.6	4/20/2015	0.18	0	4.3
1/5/2015	0.05	0	3	4/21/2015	0.12	0	5.3
1/6/2015	0.07	0	3.5	4/22/2015	0.17	0	4.3
1/7/2015	0.07	0	3	4/23/2015	0.18	0	3.9
1/8/2015	0.04	0	1.9	4/24/2015	0.2	0.55	6.4
1/9/2015	0.04	0	2	4/25/2015	0.17	0.11	4.4
1/10/2015	0.04	0	2.1	4/26/2015	0.21	0	4
1/11/2015	0.05	0	2.4	4/27/2015	0.26	0.03	4.8
1/12/2015	0.06	0.01	2.3	4/28/2015	0.2	0	4.6
1/13/2015	0.08	0	4	4/29/2015	0.21	0	3.2
1/14/2015	0.06	0	2.6	4/30/2015	0.25	0	3.5
1/15/2015	0.03	0	2.6	5/1/2015	0.23	0	4.4
1/16/2015	0.02	0.01	1.9	5/2/2015	0.19	0	3.7
1/17/2015	0.05	0.01	2.5	5/3/2015	0.18	0	5.1
1/18/2015	0.04	0	2.3	5/4/2015	0.17	0	4.9
1/19/2015	0.06	0	2.7	5/5/2015	0.19	0	4
1/20/2015	0.05	0.01	2.3	5/6/2015	0.21	0	3.5
1/21/2015	0.06	0	3.1	5/7/2015	0.18	0	4.8
1/22/2015	0.06	0.01	2.7	5/8/2015	0.19	0	4.5
1/23/2015	0.07	0	2.5	5/9/2015	0.2	0	4.3
1/24/2015	0.06	0	3.3	5/10/2015	0.17	0	4.1
1/25/2015	0.07	0.01	2.7	5/11/2015	0.2	0	4
1/26/2015	0.06	0.01	2.5	5/12/2015	0.22	0	5
1/27/2015	0.03	0	2.2	5/13/2015	0.2	0	5.2
1/28/2015	0.08	0	2.5	5/14/2015	0.12	0.21	4.2
1/29/2015	0.08	0	2.6	5/15/2015	0.18	0	4
1/30/2015	0.08	0	3.1	5/16/2015	0.2	0	4.5
1/31/2015	0.14	0	5.1	5/17/2015	0.11	0	4
2/1/2015	0.07	0	2.5	5/18/2015	0.2	0	4.5
2/2/2015	0.06	0	2.4	5/19/2015	0.16	0	3.9
2/3/2015	0.07	0	2.2	5/20/2015	0.17	0	7.6
2/4/2015	0.06	0	3	5/21/2015	0.15	0	5.7
2/5/2015	0.04	0.01	3.4	5/22/2015	0.18	0	4.2
2/6/2015	0.03	3.41	7.9	5/23/2015	0.18	0	4.1
2/7/2015	0	0.04	4.2	5/24/2015	0.21	0	5.1
2/8/2015	0	1.43	5.4	5/25/2015	0.18	0	4.8
2/9/2015	0	0.48	4.9	5/26/2015	0.2	0	5.4
2/10/2015	0	0	2.5	5/27/2015	0.21	0	4.6
2/11/2015	0	0	2.7	5/28/2015	0.17	0	3.7
2/12/2015	0	0	2.9	5/29/2015	0.2	0	3.9
2/13/2015	0	0	2.6	5/30/2015	0.2	0	3.8
2/14/2015	0	0	2.6	5/31/2015	0.18	0	5.1
2/15/2015	0	0	2.7	6/1/2015	0.18	0	0.18

Date	ETo (in)	Precip (in)	ET _O -Precip (in)	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
2/16/2015	0	0.01	2.8	6/2/2015	0.24	0	0.24
2/17/2015	0	0.01	2.5	6/3/2015	0.19	0	0.19
2/18/2015	0	0	2.9	6/4/2015	0.23	0	0.23
2/19/2015	0	0	2.4	6/5/2015	0.23	0	0.23
2/20/2015	0	0.01	2.9	6/6/2015	0.22	0	0.22
2/21/2015	0	0.01	3.5	6/7/2015	0.25	0	0.25
2/22/2015	0	0	7.7	6/8/2015	0.27	0	0.27
2/23/2015	0	0	8.4	6/9/2015	0.22	0	0.22
2/24/2015	0	0	2.9	6/10/2015	0.1	0.08	0.02
2/25/2015	0	0	2.7	6/11/2015	0.26	0.01	0.25
2/26/2015	0	0	3.2	6/12/2015	0.27	0	0.27
2/27/2015	0	0	5.5	6/13/2015	0.24	0	0.24
2/28/2015	0	0.02	2.8	6/14/2015	0.21	0	0.21
3/1/2015	0	0	3.2	6/15/2015	0.22	0	0.22
3/2/2015	0	0	2.7	6/16/2015	0.24	0	0.24
3/3/2015	0	0	3.4	6/17/2015	0.23	0	0.23
3/4/2015	0	0	3	6/18/2015	0.26	0	0.26
3/5/2015	0	0	3.1	6/19/2015	0.26	0	0.26
3/6/2015	0	0	3.1	6/20/2015	0.25	0	0.25
3/7/2015	0.01	0	3.1	6/21/2015	0.23	0	0.23
3/8/2015	0	0	3	6/22/2015	0.24	0	0.24
3/9/2015	0.1	0	3.4	6/23/2015	0.26	0	0.26
3/10/2015	0.07	0	3	6/24/2015	0.25	0	0.25
3/11/2015	0.09	0.04	3.7	6/25/2015	0.26	0	0.26
3/12/2015	0.14	0	3.1	6/26/2015	0.27	0	0.27
3/13/2015	0.13	0.01	2.7	6/27/2015	0.22	0	0.22
3/14/2015	0.13	0	3.1	6/28/2015	0.25	0	0.25
3/15/2015	0.12	0	3.5	6/29/2015	0.26	0	0.26
3/16/2015	0.03	0	2.1	6/30/2015	0.26	0	0.26
3/17/2015	0.15	0	3.8	7/1/2015	0.22	0	0.22
3/18/2015	0.16	0	3.4	7/2/2015	0.19	0	0.19
3/19/2015	0.16	0	3	7/3/2015	0.25	0	0.25
3/20/2015	0.11	0	3.2	7/4/2015	0.26	0	0.26
3/21/2015	0.16	0	4.5	7/5/2015	0.22	0	0.22
3/22/2015	0.13	0	4.5	7/6/2015	0.22	0	0.22
3/23/2015	0.15	0	4.9	7/7/2015	0.24	0	0.24
3/24/2015	0.11	0	4.8	7/8/2015	0.23	0	0.23
3/25/2015	0.17	0	3.1	7/9/2015	0.06	0.01	0.05
3/26/2015	0.18	0	2.8	7/10/2015	0.11	0.01	0.1
3/27/2015	0.18	0	4	7/11/2015	0.22	0	0.22
3/28/2015	0.19	0	3.4	7/12/2015	0.24	0	0.24
3/29/2015	0.19	0	3.1	7/13/2015	0.24	0.05	0.19
3/30/2015	0.17	0	3.9	7/14/2015	0.25	0	0.25
3/31/2015	0.2	0	5.6	7/15/2015	0.24	0	0.24
4/1/2015	0.17	0	4.7	7/16/2015	0.23	0	0.23
4/2/2015	0.22	0	5.9	7/17/2015	0.25	0	0.25
4/3/2015	0.2	0	4.5	7/18/2015	0.25	0	0.25
4/4/2015	0.17	0	4.3	7/19/2015	0.26	0	0.26
4/5/2015	0.09	0	4.1	7/20/2015	0.25	0	0.25
4/6/2015	0.12	0	4.9	7/21/2015	0.23	0	0.23
4/7/2015	0.1	1.15	4.2	7/22/2015	0.24	0	0.24

Date	ETo (in)	Precip (in)	ET _O -Precip (in)	Date	ETo (in)	Precip (in)	ET _O -Precip (in)
4/8/2015	0.16	0	3.1	7/23/2015	0.22	0	0.22
4/9/2015	0.17	0	3.3	7/24/2015	0.24	0	0.24
4/10/2015	0.19	0	3.8	7/25/2015	0.24	0	0.24
4/11/2015	0.17	0	3.4	7/26/2015	0.22	0	0.22
4/12/2015	0.2	0	3.1	7/27/2015	0.27	0	0.27
4/13/2015	0.19	0	5.5	7/28/2015	0.28	0	0.28
4/14/2015	0.2	0	5	7/29/2015	0.26	0	0.26
4/15/2015	0.26	0	6.9	7/30/2015	0.23	0	0.23
4/16/2015	0.27	0	5.9	7/31/2015	0.15	0	0.15
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**Appendix C
WATERIGHT
2015 Monthly Pasture Crop Coefficient**



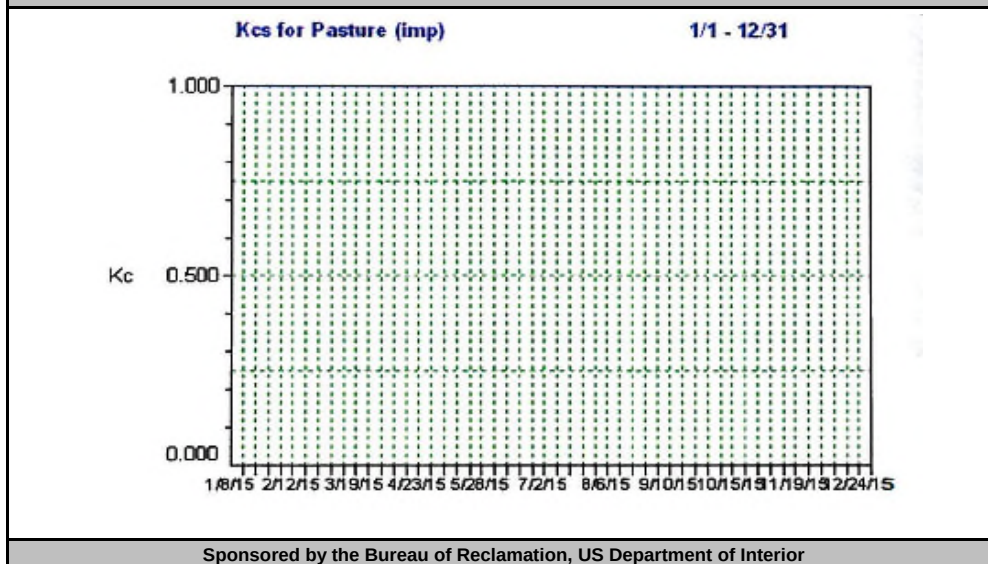
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WATERRIGHT

Center for Irrigation Technology and Advanced Technology Information Network
2015 Monthly Crop Coefficient for Pasture

Week Ending	Average K_c for Week	Week Ending	Average K_c for Week
1/8/2015	1.0	7/9/2015	1.0
1/15/2015	1.0	7/16/2015	1.0
1/22/2015	1.0	7/23/2015	1.0
1/29/2015	1.0	7/30/2015	1.0
2/5/2015	1.0	8/6/2015	1.0
2/12/2015	1.0	8/13/2015	1.0
2/19/2015	1.0	8/20/2015	1.0
2/26/2015	1.0	8/27/2015	1.0
3/5/2015	1.0	9/3/2015	1.0
3/12/2015	1.0	9/10/2015	1.0
3/19/2015	1.0	9/17/2015	1.0
3/26/2015	1.0	9/24/2015	1.0
4/2/2015	1.0	10/1/2015	1.0
4/9/2015	1.0	10/8/2015	1.0
4/16/2015	1.0	10/15/2015	1.0
4/23/2015	1.0	10/22/2015	1.0
4/30/2015	1.0	10/29/2015	1.0
5/7/2015	1.0	11/5/2015	1.0
5/14/2015	1.0	11/12/2015	1.0
5/21/2015	1.0	11/19/2015	1.0
5/28/2015	1.0	11/26/2015	1.0
6/4/2015	1.0	12/3/2015	1.0
6/11/2015	1.0	12/10/2015	1.0
6/18/2015	1.0	12/17/2015	1.0
6/25/2015	1.0	12/24/2015	1.0
7/2/2015	1.0	12/31/2015	1.0



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Appendix D
2012-2015 Monthly Allowable (Controlled)
Discharge based on ET



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St. Helena WWTP Land Application Area
Monthly Allowable (Controlled) Discharge based on ET
2012-2015

Date	ET _O	Kc	ETc	ETc	LAA	ETc	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	MG
12-Jan	-1.48	1.0	-1.48	-0.123	24	-2.96	0.326	-0.96
12-Feb	0.34	1.0	0.34	0.028	24	0.68	0.326	0.22
12-Mar	-9.05	1.0	-9.05	-0.754	24	-18.10	0.326	-5.90
12-Apr	3.61	1.0	3.61	0.301	24	7.22	0.326	2.35
12-May	6.89	1.0	6.89	0.574	24	13.78	0.326	4.49
12-Jun	7.33	1.0	7.33	0.611	24	14.66	0.326	4.78
12-Jul	7.05	1.0	7.05	0.588	24	14.10	0.326	4.60
12-Aug	6.35	1.0	6.35	0.529	24	12.70	0.326	4.14
12-Sep	4.98	1.0	4.98	0.415	24	9.96	0.326	3.25
12-Oct	2.56	1.0	2.56	0.213	24	5.12	0.326	1.67
12-Nov	-8.92	1.0	-8.92	-0.743	24	-17.84	0.326	-5.82
12-Dec	-10.24	1.0	-10.24	-0.853	24	-20.48	0.326	-6.68
13-Jan	0.66	1.0	0.66	0.055	24	1.32	0.326	0.43
13-Feb	2.21	1.0	2.21	0.184	24	4.42	0.326	1.44
13-Mar	1.53	1.0	1.53	0.128	24	3.06	0.326	1.00
13-Apr	5.2	1.0	5.20	0.433	24	10.40	0.326	3.39
13-May	6.75	1.0	6.75	0.563	24	13.50	0.326	4.40
13-Jun	6.68	1.0	6.68	0.557	24	13.36	0.326	4.36
13-Jul	6.98	1.0	6.98	0.582	24	13.96	0.326	4.55
13-Aug	6.24	1.0	6.24	0.520	24	12.48	0.326	4.07
13-Sep	5.02	1.0	5.02	0.418	24	10.04	0.326	3.27
13-Oct	3.90	1.0	3.90	0.325	24	7.80	0.326	2.54
13-Nov	1.23	1.0	1.23	0.103	24	2.46	0.326	0.80
13-Dec	1.09	1.0	1.09	0.091	24	2.18	0.326	0.71
14-Jan-15	2.10	1.0	2.10	0.175	24	4.20	0.326	1.37
14-Feb-15	-9.89	1.0	-9.89	-0.824	24	-19.78	0.326	-6.45
14-Mar-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
14-Apr-15	4.13	1.0	4.13	0.344	24	8.26	0.326	2.69
14-May-15	6.94	1.0	6.94	0.578	24	13.88	0.326	4.52
14-Jun-15	7.27	1.0	7.27	0.606	24	14.54	0.326	4.74
14-Jul-15	6.97	1.0	6.97	0.581	24	13.94	0.326	4.54
14-Aug-15	5.76	1.0	5.76	0.480	24	11.52	0.326	3.76
14-Sep-15	4.19	1.0	4.19	0.349	24	8.38	0.326	2.73
14-Oct-15	2.53	1.0	2.53	0.211	24	5.06	0.326	1.65
14-Nov-15	-0.77	1.0	-0.77	-0.064	24	-1.54	0.326	-0.50
14-Dec-15	-8.86	1.0	-8.86	-0.738	24	-17.72	0.326	-5.78

Date	ET _O	K _C	ET _C	ET _C	LAA	ET _C	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	MG
15-Jan-15	1.71	1.0	1.71	0.143	24	3.42	0.326	1.11
15-Feb-15	-5.11	1.0	-5.11	-0.426	24	-10.22	0.326	-3.33
15-Mar-15	3.18	1.0	3.18	0.265	24	6.36	0.326	2.07
15-Apr-15	3.76	1.0	3.76	0.313	24	7.52	0.326	2.45
15-May-15	5.54	1.0	5.54	0.462	24	11.08	0.326	3.61
15-Jun-15	7.06	1.0	7.06	0.588	24	14.12	0.326	4.60
15-Jul-15	7.00	1.0	7.00	0.583	24	14.00	0.326	4.56

$$ET \text{ (MG)} = \frac{{}^1(ET_C) (LAA) {}^2(CF)}{{}^3CF}$$

$${}^1ET_C = (ET_O) (K_C)$$

ET_O: Reference Evapotranspiration Rate (ET_O - precipitation) taken from Appendix A

K_C: Crop Coefficient for forage/pasture from Appendix C

¹ET_C: Crop Evapotranspiration Rate in inches

LAA: Land Application Area of 24 acres

²CF: Conversion Factor for acre-ft to million gallons (MG)

³CF: Conversion of inches into feet by dividing by 12

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Appendix E
2012-2015 Daily Allowable (Controlled)
Discharge based on ET



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St. Helena WWTP Land Application Area
Daily Allowable (Controlled) Discharge based on ET
2012

2012 *	Avg monthly ET _O	K _C	ET _C	ET _C	LAA	Average ET _C	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	(MGD)
January	-0.05	1.0	-0.05	-0.004	24	-0.10	0.326	-0.03
February	0.01	1.0	0.01	0.001	24	0.02	0.326	0.01
March	-0.29	1.0	-0.29	-0.024	24	-0.58	0.326	-0.19
April	0.12	1.0	0.12	0.010	24	0.24	0.326	0.08
May	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
June	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
July	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
August	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
September	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
October	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05
November	-0.3	1.0	-0.30	-0.025	24	-0.60	0.326	-0.20
December	-0.33	1.0	-0.33	-0.028	24	-0.66	0.326	-0.22

*Specific days of discharge are unknown. Monthly SMRs for 2012 only list the number of days irrigated.

$$ET \text{ (mgd)} = \frac{{}^1(ET_C) (LAA) {}^2(CF)}{{}^3CF}$$

$${}^1ET_C = (ET_O) (K_C)$$

Average Monthly ET_O: Reference Evapotranspiration Rate from Appendix A /days in month

K_C: Crop Coefficient for forage/pasture from Appendix C

¹ET_C: Crop Evapotranspiration Rate in inches

LAA: Land Application Area of 24 acres

²CF: Conversion Factor for acre-ft to million gallons (MG)

³CF: Conversion of inches into feet by dividing by 12

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St. Helena WWTP Land Application Area
Daily Allowable (Controlled) Discharge based on ET
2013 Discharge Days Only

2013	ET _o (in)	Kc Pasture	ETc (in)	ETc (ft)	LAA (ac)	ETc (ac-ft)	Conversion factor ac-ft to MG	Controlled Rate (ET) (MG)
12-Jan-13	0.05	1.0	0.05	0.004	24	0.10	0.326	0.03
13-Jan-13	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
17-Jan-13	0.04	1.0	0.04	0.003	24	0.08	0.326	0.03
20-Jan-13	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
2-Feb-13	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
11-Feb-13	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
14-Feb-13	0.10	1.0	0.10	0.008	24	0.20	0.326	0.07
21-Feb-13	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
28-Feb-13	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
4-Mar-13	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
12-Mar-13	0.14	1.0	0.14	0.012	24	0.28	0.326	0.09
14-Mar-13	0.09	1.0	0.09	0.008	24	0.18	0.326	0.06
21-Mar-13	0.13	1.0	0.13	0.011	24	0.26	0.326	0.08
26-Mar-13	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
2-Apr-13	0.13	1.0	0.13	0.011	24	0.26	0.326	0.08
3-Apr-13	0.14	1.0	0.14	0.012	24	0.28	0.326	0.09
15-Apr-13	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
16-Apr-13	0.24	1.0	0.24	0.020	24	0.48	0.326	0.16
26-Apr-13	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
30-Apr-13	0.29	1.0	0.29	0.024	24	0.58	0.326	0.19
1-May-13	0.30	1.0	0.30	0.025	24	0.60	0.326	0.20
7-May-13	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
15-May-13	0.20	1.0	0.20	0.017	24	0.40	0.326	0.13
22-May-13	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
23-May-13	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
31-May-13	0.27	1.0	0.27	0.023	24	0.54	0.326	0.18
5-Jun-13	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
12-Jun-13	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
20-Jun-13	0.27	1.0	0.27	0.023	24	0.54	0.326	0.18
28-Jun-13	0.28	1.0	0.28	0.023	24	0.56	0.326	0.18
3-Jul-13	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
11-Jul-13	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
12-Jul-13	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
16-Jul-13	0.20	1.0	0.20	0.017	24	0.40	0.326	0.13
17-Jul-13	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
18-Jul-13	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
19-Jul-13	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
23-Jul-13	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
24-Jul-13	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
25-Jul-13	0.24	1.0	0.24	0.020	24	0.48	0.326	0.16
1-Aug-13	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
7-Aug-13	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
14-Aug-13	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
15-Aug-13	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15

2013	ET _o	K _c	ET _c	ET _c	LAA	ET _c	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	(MG)
21-Aug-13	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
29-Aug-13	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
3-Sep-13	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
4-Sep-13	0.20	1.0	0.20	0.017	24	0.40	0.326	0.13
11-Sep-13	0.14	1.0	0.14	0.012	24	0.28	0.326	0.09
12-Sep-13	0.16	1.0	0.16	0.013	24	0.32	0.326	0.10
20-Sep-13	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
25-Sep-13	0.14	1.0	0.14	0.012	24	0.28	0.326	0.09
26-Sep-13	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
3-Oct-13	0.20	1.0	0.20	0.017	24	0.40	0.326	0.13
4-Oct-13	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
11-Oct-13	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
17-Oct-13	0.14	1.0	0.14	0.012	24	0.28	0.326	0.09
18-Oct-13	0.14	1.0	0.14	0.012	24	0.28	0.326	0.09
23-Oct-13	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
24-Oct-13	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
25-Oct-13	0.09	1.0	0.09	0.008	24	0.18	0.326	0.06
30-Oct-13	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05
31-Oct-13	0.10	1.0	0.10	0.008	24	0.20	0.326	0.07
1-Nov-13	0.10	1.0	0.10	0.008	24	0.20	0.326	0.07
8-Nov-13	0.10	1.0	0.10	0.008	24	0.20	0.326	0.07
13-Nov-13	-0.03	1.0	-0.03	-0.003	24	-0.06	0.326	-0.02
14-Nov-13	0.03	1.0	0.03	0.003	24	0.06	0.326	0.02
19-Nov-13	-0.46	1.0	-0.46	-0.038	24	-0.92	0.326	-0.30
25-Nov-13	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
26-Nov-13	0.05	1.0	0.05	0.004	24	0.10	0.326	0.03
4-Dec-13	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
5-Dec-13	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
12-Dec-13	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
13-Dec-13	0.05	1.0	0.05	0.004	24	0.10	0.326	0.03
19-Dec-13	0.10	1.0	0.10	0.008	24	0.20	0.326	0.07
20-Dec-13	0.10	1.0	0.10	0.008	24	0.20	0.326	0.07
27-Dec-13	0.04	1.0	0.04	0.003	24	0.08	0.326	0.03

$$ET \text{ (mgd)} = \frac{{}^1(ET_c) (LAA)^2 (CF)}{{}^3CF}$$

$${}^1ET_c = (ET_o) (K_c)$$

ET_o: Reference Evapotranspiration Rate from Appendix B-2

K_c: Crop Coefficient for forage/pasture from Appendix C

¹ET_c: Crop Evapotranspiration Rate in inches

LAA: Land Application Area of 24 acres

²CF: Conversion Factor for acre-ft to million gallons (MG)

³CF: Conversion of inches into feet by dividing by 12

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St. Helena WWTP Land Application Area
Daily Allowable (Controlled) Discharge based on ET
2014 Discharge Days Only

2014	ET _o (in)	Kc Pasture	ETc (in)	ETc (ft)	LAA (ac)	ETc (ac-ft)	Conversion factor ac-ft to MG	Controlled Rate (ET) MG
2-Jan-14	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
3-Jan-14	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
7-Jan-14	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
8-Jan-14	0.04	1.0	0.04	0.003	24	0.08	0.326	0.03
15-Jan-14	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05
16-Jan-14	0.09	1.0	0.09	0.008	24	0.18	0.326	0.06
22-Jan-14	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05
23-Jan-14	0.12	1.0	0.12	0.010	24	0.24	0.326	0.08
10-Mar-14	0.12	1.0	0.12	0.010	24	0.24	0.326	0.08
11-Mar-14	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
13-Mar-14	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
14-Mar-14	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
20-Mar-14	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
28-Mar-14	0.05	1.0	0.05	0.004	24	0.10	0.326	0.03
6-Apr-14	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
11-Apr-14	0.13	1.0	0.13	0.011	24	0.26	0.326	0.08
14-Apr-14	0.15	1.0	0.15	0.013	24	0.30	0.326	0.10
18-Apr-14	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
22-Apr-14	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
28-Apr-14	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
29-Apr-14	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
30-Apr-14	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
1-May-14	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
5-May-14	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
14-May-14	0.28	1.0	0.28	0.023	24	0.56	0.326	0.18
19-May-14	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
20-May-14	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
21-May-14	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
29-May-14	0.27	1.0	0.27	0.023	24	0.54	0.326	0.18
5-Jun-14	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
17-Jun-14	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
26-Jun-14	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
3-Jul-14	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
11-Jul-14	0.24	1.0	0.24	0.020	24	0.48	0.326	0.16
18-Jul-14	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
25-Jul-14	0.28	1.0	0.28	0.023	24	0.56	0.326	0.18
11-Aug-14	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
20-Aug-14	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
28-Aug-14	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
13-Sep-14	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
14-Sep-14	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
7-Nov-14	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05
24-Nov-14	0.05	1.0	0.05	0.004	24	0.10	0.326	0.03
25-Nov-14	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04

2014	ET _o	K _c	ET _c	ET _c	LAA	ET _c	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	MG
26-Nov-14	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
27-Nov-14	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
7-Dec-14	0	1.0	0.00	0.000	24	0.00	0.326	0.00
8-Dec-14	-0.01	1.0	-0.01	-0.001	24	-0.02	0.326	-0.01
9-Dec-14	0	1.0	0.00	0.000	24	0.00	0.326	0.00
10-Dec-14	-0.02	1.0	-0.02	-0.002	24	-0.04	0.326	-0.01
29-Dec-14	0.01	1.0	0.01	0.001	24	0.02	0.326	0.01
30-Dec-14	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
31-Dec-14	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05

$$ET \text{ (mgd)} = \frac{{}^1(ET_c) (LAA)^2 (CF)}{{}^3CF}$$

$${}^1ET_c = (ET_o) (K_c)$$

ET_o: Reference Evapotranspiration Rate from Appendix B-3

K_c: Crop Coefficient for forage/pasture from Appendix C

¹ET_c: Crop Evapotranspiration Rate in inches

LAA: Land Application Area of 24 acres

²CF: Conversion Factor for acre-ft to million gallons (MG)

³CF: Conversion of inches into feet by dividing by 12

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St. Helena WWTP Land Application Area
Daily Allowable (Controlled) Discharge based on ET
2015 Discharge Days Only

2015	ET _o	Kc	ETc	ETc	LAA	ETc	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	MG
6-Jan-15	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
7-Jan-15	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
8-Jan-15	0.04	1.0	0.04	0.003	24	0.08	0.326	0.03
9-Jan-15	0.04	1.0	0.04	0.003	24	0.08	0.326	0.03
14-Jan-15	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
15-Jan-15	0.03	1.0	0.03	0.003	24	0.06	0.326	0.02
17-Jan-15	0.04	1.0	0.04	0.003	24	0.08	0.326	0.03
18-Jan-15	0.04	1.0	0.04	0.003	24	0.08	0.326	0.03
19-Jan-15	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
20-Jan-15	0.04	1.0	0.04	0.003	24	0.08	0.326	0.03
21-Jan-15	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
22-Jan-15	0.05	1.0	0.05	0.004	24	0.10	0.326	0.03
23-Jan-15	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
24-Jan-15	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
25-Jan-15	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
26-Jan-15	0.05	1.0	0.05	0.004	24	0.10	0.326	0.03
27-Jan-15	0.03	1.0	0.03	0.003	24	0.06	0.326	0.02
28-Jan-15	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05
29-Jan-15	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05
30-Jan-15	0.08	1.0	0.08	0.007	24	0.16	0.326	0.05
31-Jan-15	0.14	1.0	0.14	0.012	24	0.28	0.326	0.09
1-Feb-15	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
2-Feb-15	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
3-Feb-15	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
4-Feb-15	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
5-Feb-15	0.03	1.0	0.03	0.003	24	0.06	0.326	0.02
13-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
14-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
15-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
16-Feb-15	-0.01	1.0	-0.01	-0.001	24	-0.02	0.326	-0.01
17-Feb-15	-0.01	1.0	-0.01	-0.001	24	-0.02	0.326	-0.01
18-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
19-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
20-Feb-15	-0.01	1.0	-0.01	-0.001	24	-0.02	0.326	-0.01
21-Feb-15	-0.01	1.0	-0.01	-0.001	24	-0.02	0.326	-0.01
22-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
23-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
24-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
25-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
26-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
27-Feb-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
28-Feb-15	-0.02	1.0	-0.02	-0.002	24	-0.04	0.326	-0.01
1-Mar-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
2-Mar-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00

2015	ET _o	Kc	ETc	ETc	LAA	ETc	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	MG
3-Mar-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
4-Mar-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
5-Mar-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
6-Mar-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
7-Mar-15	0.01	1.0	0.01	0.001	24	0.02	0.326	0.01
8-Mar-15	0	1.0	0.00	0.000	24	0.00	0.326	0.00
9-Mar-15	0.1	1.0	0.10	0.008	24	0.20	0.326	0.07
10-Mar-15	0.07	1.0	0.07	0.006	24	0.14	0.326	0.05
11-Mar-15	0.05	1.0	0.05	0.004	24	0.10	0.326	0.03
12-Mar-15	0.14	1.0	0.14	0.012	24	0.28	0.326	0.09
13-Mar-15	0.12	1.0	0.12	0.010	24	0.24	0.326	0.08
14-Mar-15	0.13	1.0	0.13	0.011	24	0.26	0.326	0.08
15-Mar-15	0.12	1.0	0.12	0.010	24	0.24	0.326	0.08
16-Mar-15	0.03	1.0	0.03	0.003	24	0.06	0.326	0.02
17-Mar-15	0.15	1.0	0.15	0.013	24	0.30	0.326	0.10
18-Mar-15	0.16	1.0	0.16	0.013	24	0.32	0.326	0.10
19-Mar-15	0.16	1.0	0.16	0.013	24	0.32	0.326	0.10
20-Mar-15	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
21-Mar-15	0.16	1.0	0.16	0.013	24	0.32	0.326	0.10
22-Mar-15	0.13	1.0	0.13	0.011	24	0.26	0.326	0.08
23-Mar-15	0.15	1.0	0.15	0.013	24	0.30	0.326	0.10
24-Mar-15	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
26-Mar-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
27-Mar-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
28-Mar-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
29-Mar-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
30-Mar-15	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
31-Mar-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
1-Apr-15	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
2-Apr-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
6-Apr-15	0.12	1.0	0.12	0.010	24	0.24	0.326	0.08
9-Apr-15	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
10-Apr-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
13-Apr-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
14-Apr-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
15-Apr-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
16-Apr-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
17-Apr-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
18-Apr-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
19-Apr-15	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
20-Apr-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
21-Apr-15	0.12	1.0	0.12	0.010	24	0.24	0.326	0.08
22-Apr-15	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
23-Apr-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
24-Apr-15	-0.35	1.0	-0.35	-0.029	24	-0.70	0.326	-0.23
25-Apr-15	0.06	1.0	0.06	0.005	24	0.12	0.326	0.04
26-Apr-15	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
27-Apr-15	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
28-Apr-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
29-Apr-15	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14

2015	ET _o	Kc	ETc	ETc	LAA	ETc	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	MG
30-Apr-15	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
1-May-15	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
2-May-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
3-May-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
4-May-15	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
5-May-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
7-May-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
8-May-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
9-May-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
11-May-15	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
12-May-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
13-May-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
14-May-15	-0.01	1.0	-0.01	-0.001	24	-0.02	0.326	-0.01
15-May-15	0.12	1.0	0.12	0.010	24	0.24	0.326	0.08
16-May-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
17-May-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
18-May-15	0.11	1.0	0.11	0.009	24	0.22	0.326	0.07
22-May-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
23-May-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
24-May-15	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
25-May-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
26-May-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
27-May-15	0.21	1.0	0.21	0.018	24	0.42	0.326	0.14
28-May-15	0.17	1.0	0.17	0.014	24	0.34	0.326	0.11
29-May-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
30-May-15	0.2	1.0	0.20	0.017	24	0.40	0.326	0.13
31-May-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
1-Jun-15	0.18	1.0	0.18	0.015	24	0.36	0.326	0.12
2-Jun-15	0.24	1.0	0.24	0.020	24	0.48	0.326	0.16
3-Jun-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
4-Jun-15	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
5-Jun-15	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
6-Jun-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
7-Jun-15	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
8-Jun-15	0.27	1.0	0.27	0.023	24	0.54	0.326	0.18
9-Jun-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
11-Jun-15	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
12-Jun-15	0.27	1.0	0.27	0.023	24	0.54	0.326	0.18
15-Jun-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
16-Jun-15	0.24	1.0	0.24	0.020	24	0.48	0.326	0.16
17-Jun-15	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
18-Jun-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
19-Jun-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
20-Jun-15	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
21-Jun-15	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15
22-Jun-15	0.24	1.0	0.24	0.020	24	0.48	0.326	0.16
23-Jun-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
24-Jun-15	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
25-Jun-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
26-Jun-15	0.27	1.0	0.27	0.023	24	0.54	0.326	0.18

2015	ET _o	K _c	ET _c	ET _c	LAA	ET _c	Conversion factor	Controlled Rate (ET)
	(in)	Pasture	(in)	(ft)	(ac)	(ac-ft)	ac-ft to MG	MG
27-Jun-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
28-Jun-15	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
29-Jun-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
30-Jun-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
1-Jul-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
2-Jul-15	0.19	1.0	0.19	0.016	24	0.38	0.326	0.12
3-Jul-15	0.25	1.0	0.25	0.021	24	0.50	0.326	0.16
4-Jul-15	0.26	1.0	0.26	0.022	24	0.52	0.326	0.17
5-Jul-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
6-Jul-15	0.22	1.0	0.22	0.018	24	0.44	0.326	0.14
7-Jul-15	0.24	1.0	0.24	0.020	24	0.48	0.326	0.16
8-Jul-15	0.23	1.0	0.23	0.019	24	0.46	0.326	0.15

$$ET \text{ (mgd)} = \frac{{}^1(ET_c) (LAA) {}^2(CF)}{{}^3CF}$$

$${}^1ET_c = (ET_o) (K_c)$$

ET_o: Reference Evapotranspiration Rate from Appendix B-4

K_c: Crop Coefficient for forage/pasture from Appendix C

¹ET_c: Crop Evapotranspiration Rate in inches

LAA: Land Application Area of 24 acres

²CF: Conversion Factor for acre-ft to million gallons (MG)

³CF: Conversion of inches into feet by dividing by 12

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Appendix F
2012-2015 Monthly and Daily
Hydraulic Loading Summary



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website: dellavallelab.com

MONTHLY HYDRAULIC LOADING SUMMARY 2012	
Month	Land Applied MG
January	11.362
February	12.616
March	17.254
April	21.389
May	19.574
June	9.479
July	8.193
August	7.078
September	4.120
October	7.329
November	9.603
December	20.821
MONTHLY HYDRAULIC LOADING SUMMARY 2013	
Month	Land Applied MG
January	9.864
February	12.162
March	10.891
April	11.202
May	9.499
June	7.068
July	14.509
August	9.645
September	10.127
October	11.094
November	6.274
December	8.236
MONTHLY HYDRAULIC LOADING SUMMARY 2014	
Month	Land Applied MG
January	9.46
February	0
March	12.52
April	17.60
May	17.90
June	2.34
July	2.21
August	6.38
September	0.92
October	0
November	9.70
December	11.26
MONTHLY HYDRAULIC LOADING SUMMARY 2015	
Month	Land Applied MG
January	9.12
February	6.18
March	10.83
April	9.70
May	10.18
June	8.58
July	7.89
Information Provided by the California Integrated Water Quality System Project (CIWQS)	

Appendix F-1

DAILY HYDRAULIC LOADING SUMMARY 2012			
Month	Number of days irrigated	Land Applied MG	Avg Daily MGD Applied
January	7	11.362	1.623
February	11	12.616	1.577
March	12	17.254	1.327
April	12	21.389	1.782
May	11	19.574	1.779
June	5	9.479	1.896
July	5	8.193	1.639
August	5	7.078	1.416
September	5	4.120	0.824
October	4	7.329	1.832
November	5	9.603	1.921
December	9	20.821	2.313
DAILY HYDRAULIC LOADING SUMMARY 2013			
Month	Number of days irrigated	Land Applied MG	Avg Daily MGD Applied
January	4	9.864	2.47
February	5	12.162	2.43
March	5	10.891	2.18
April	6	11.202	1.87
May	6	9.499	1.58
June	4	7.068	1.77
July	10	14.509	1.45
August	6	9.645	1.61
September	7	10.127	1.45
October	10	11.094	1.11
November	7	6.274	0.90
December	7	8.236	1.18
DAILY HYDRAULIC LOADING SUMMARY 2014			
Month	Number of days irrigated	Land Applied MG	Avg Daily MGD Applied
January	8	9.46	1.18
February	0	0.00	0.00
March	6	12.52	2.09
April	8	17.60	2.20
May	7	17.90	2.56
June	3	2.34	0.78
July	4	2.21	0.55
August	3	6.38	2.13
September	2	0.92	0.46
October	0	0.00	0.00
November	5	9.70	1.94
December	7	11.26	1.61
DAILY HYDRAULIC LOADING SUMMARY 2015			
Month	Number of days irrigated	Land Applied MG	Avg Daily MGD Applied
January	21	9.12	0.43
February	21	6.18	0.29
March	30	10.83	0.36
April	24	9.70	0.40
May	26	10.18	0.39
June	27	8.58	0.32
July	8	2.496	0.31
Information Provided by the California Integrated Water Quality System Project (CIWQS)			

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Appendix G
2012-2015 Nitrogen Loading Summaries



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NITROGEN LOADING SUMMARY 2012				
Month	Effluent Applied (MG)	TN (mg/L)	LAA (acre)	Nitrogen Loading (lbs/acre)
January	11.362	36.7	24	145
February	12.616	36.7	24	161
March	17.254	36.7	24	220
April	21.389	36.7	24	273
May	19.574	36.7	24	250
June	9.479	36.7	24	121
July	8.193	36.7	24	104
August	7.078	36.7	24	90
September	4.120	36.7	24	53
October	7.329	36.7	24	93
November	9.603	36.7	24	122
December	20.821	36.7	24	266
Total Annual Nitrogen Applied per Acre				1898
Total Annual Nitrogen Applied (lbs)				45,550
NITROGEN LOADING SUMMARY 2013				
Month	Effluent Applied (MG)	TN (mg/L)	LAA (acre)	Nitrogen Loading (lbs/acre)
January	9.864	36.7	24	126
February	12.162	36.7	24	155
March	10.891	36.7	24	139
April	11.202	36.7	24	143
May	9.499	36.7	24	121
June	7.068	36.7	24	90
July	14.509	36.7	24	185
August	9.645	36.7	24	123
September	10.127	36.7	24	129
October	11.094	36.7	24	141
November	6.274	36.7	24	80
December	8.236	36.7	24	105
Total Annual Nitrogen Applied per Acre				1538
Total Annual Nitrogen Applied (lbs)				36,904
NITROGEN LOADING SUMMARY 2014				
Month	Effluent Applied (MG)	TN (mg/L)	LAA (acre)	Nitrogen Loading (lbs/acre)
January	9.46	36.7	24	121
February	0.00	36.7	24	0
March	12.52	36.7	24	160
April	17.60	36.7	24	225
May	17.90	36.7	24	228
June	2.34	36.7	24	30
July	2.21	36.7	24	28
August	6.38	36.7	24	81
September	0.92	36.7	24	12
October	0.00	36.7	24	0
November	9.70	36.7	24	124
December	11.26	36.7	24	144
Total Annual Nitrogen Applied per Acre				1152
Total Annual Nitrogen Applied (lbs)				27,639

NITROGEN LOADING SUMMARY 2015				
Year-month	Effluent Applied (MG)	TN (mg/L)	LAA (acre)	Nitrogen Loading (lbs/acre)
January	9.12	36.7	24	116
February	6.18	36.7	24	79
March	10.83	36.7	24	138
April	9.70	36.7	24	124
May	10.18	36.7	24	130
June	8.58	36.7	24	109
July	2.496	36.7	24	32
Year to Date Nitrogen Applied per Acre				728
Year to Date Nitrogen Applied (lbs)				17,472
*Nitrogen Loading (lbs/acre) = Total N (mg/L)*8.34*Effluent applied (MG) / Applied acres				

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Appendix H
2012-2015 Daily Summary of Discharge
During Rain Events and (-) ET



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Date	Total ET _o	Precip	ET _o	Days	Average Monthly ET _o
	(in)	(in)	(in)	in month	(in)
Jan-12	1.73	3.21	-1.48	31	-0.05
Feb-12	2.44	2.1	0.34	29	0.01
Mar-12	2.71	11.76	-9.05	31	-0.29
Apr-12	4.53	0.92	3.61	30	0.12
May-12	6.89	0	6.89	31	0.22
Jun-12	7.33	0	7.33	30	0.24
Jul-12	7.05	0	7.05	31	0.23
Aug-12	6.35	0	6.35	31	0.20
Sep-12	4.98	0	4.98	30	0.17
Oct-12	3.46	0.9	2.56	31	0.08
Nov-12	1.63	10.55	-8.92	30	-0.30
Dec-12	1.15	11.39	-10.24	31	-0.33

Information to calculate average monthly ET_o was taken from Appendix A
Daily discharge dates were not available for 2012

Average Monthly ET_o = ET_o / days in month

Discharge during rain event is in violation of Prohibition No. 4.
Discharge during (-) ET_o

Date	Total ET _o (in)	Precip (in)	ET _o (in)	Date	Total ET _o (in)	Precip (in)	ET _o (in)
12-Jan-13	0.03	0.00	0.03	25-Jul-13	0.24	0.00	0.24
13-Jan-13	0.07	0.01	0.06	1-Aug-13	0.23	0.00	0.23
17-Jan-13	0.05	0.01	0.04	7-Aug-13	0.17	0.00	0.17
20-Jan-13	0.07	0.00	0.07	14-Aug-13	0.23	0.00	0.23
2-Feb-13	0.06	0.00	0.06	15-Aug-13	0.23	0.00	0.23
11-Feb-13	0.11	0.00	0.11	21-Aug-13	0.19	0.00	0.19
14-Feb-13	0.10	0.00	0.10	29-Aug-13	0.21	0.00	0.21
21-Feb-13	0.11	0.00	0.11	3-Sep-13	0.21	0.00	0.21
28-Feb-13	0.11	0.00	0.11	4-Sep-13	0.20	0.00	0.20
4-Mar-13	0.07	0.00	0.07	11-Sep-13	0.14	0.00	0.14
12-Mar-13	0.14	0.00	0.14	12-Sep-13	0.16	0.00	0.16
14-Mar-13	0.09	0.00	0.09	20-Sep-13	0.17	0.00	0.17
21-Mar-13	0.14	0.01	0.13	25-Sep-13	0.14	0.00	0.14
26-Mar-13	0.06	0.00	0.06	26-Sep-13	0.18	0.00	0.18
2-Apr-13	0.13	0.00	0.13	3-Oct-13	0.20	0.00	0.20
3-Apr-13	0.14	0.00	0.14	4-Oct-13	0.22	0.00	0.22
15-Apr-13	0.19	0.00	0.19	11-Oct-13	0.11	0.00	0.11
16-Apr-13	0.24	0.00	0.24	17-Oct-13	0.14	0.00	0.14
26-Apr-13	0.19	0.00	0.19	18-Oct-13	0.14	0.00	0.14
30-Apr-13	0.29	0.00	0.29	23-Oct-13	0.06	0.00	0.06
1-May-13	0.30	0.00	0.30	24-Oct-13	0.06	0.00	0.06
7-May-13	0.18	0.00	0.18	25-Oct-13	0.09	0.00	0.09
15-May-13	0.20	0.00	0.20	30-Oct-13	0.08	0.00	0.08
22-May-13	0.23	0.00	0.23	31-Oct-13	0.10	0.00	0.10
23-May-13	0.21	0.00	0.21	1-Nov-13	0.10	0.00	0.10
31-May-13	0.27	0.00	0.27	8-Nov-13	0.10	0.00	0.10
5-Jun-13	0.22	0.00	0.22	13-Nov-13	0.09	0.12	-0.03
12-Jun-13	0.26	0.00	0.26	14-Nov-13	0.03	0.00	0.03
20-Jun-13	0.27	0.00	0.27	19-Nov-13	0.01	0.47	-0.46
28-Jun-13	0.28	0.00	0.28	25-Nov-13	0.06	0.00	0.06
3-Jul-13	0.26	0.00	0.26	26-Nov-13	0.05	0.00	0.05
11-Jul-13	0.22	0.00	0.22	4-Dec-13	0.07	0.00	0.07
12-Jul-13	0.21	0.00	0.21	5-Dec-13	0.06	0.00	0.06
16-Jul-13	0.20	0.00	0.20	12-Dec-13	0.06	0.00	0.06
17-Jul-13	0.22	0.00	0.22	13-Dec-13	0.05	0.00	0.05
18-Jul-13	0.23	0.00	0.23	19-Dec-13	0.10	0.00	0.10
19-Jul-13	0.22	0.00	0.22	20-Dec-13	0.10	0.00	0.10
23-Jul-13	0.17	0.00	0.17	27-Dec-13	0.04	0.00	0.04
24-Jul-13	0.25	0.00	0.25				

Information Sponsored by California Department of Water Res

Information for discharge days only

Information to calculate ET_o was taken from Appendix B-2

Discharge during rain event is in violation of Prohibition No. 4.

Discharge during (-) ET_o

Date	Daily Total ET _O (in)	Precip (in)	ET _O (in)	Date	Total ET _O (in)	Precip (in)	ET _O (in)
2-Jan-14	0.06	0.00	0.06	21-May-14	0.22	0.00	0.22
3-Jan-14	0.06	0.00	0.06	29-May-14	0.27	0.00	0.27
7-Jan-14	0.06	0.00	0.06	5-Jun-14	0.23	0.00	0.23
8-Jan-14	0.04	0.00	0.04	17-Jun-14	0.26	0.00	0.26
15-Jan-14	0.08	0.00	0.08	26-Jun-14	0.23	0.00	0.23
16-Jan-14	0.09	0.00	0.09	3-Jul-14	0.23	0.00	0.23
22-Jan-14	0.08	0.00	0.08	11-Jul-14	0.24	0.00	0.24
23-Jan-14	0.12	0.00	0.12	18-Jul-14	0.22	0.00	0.22
February 2014	No Discharge ¹			25-Jul-14	0.28	0.00	0.28
10-Mar-14	0.13	0.01	0.12	11-Aug-14	0.21	0.00	0.21
11-Mar-14	0.21	0.00	0.21	20-Aug-14	0.11	0.00	0.11
13-Mar-14	0.17	0.00	0.17	28-Aug-14	0.21	0.00	0.21
14-Mar-14	0.13	0.02	0.11	13-Sep-14	0.18	0.00	0.18
20-Mar-14	0.17	0.00	0.17	14-Sep-14	0.18	0.00	0.18
28-Mar-14	0.06	0.01	0.05	October 2014	No Discharge ²		
6-Apr-14	0.19	0.00	0.19	7-Nov-14	0.08	0.00	0.08
11-Apr-14	0.13	0.00	0.13	24-Nov-14	0.06	0.01	0.05
14-Apr-14	0.15	0.00	0.15	25-Nov-14	0.06	0.00	0.06
18-Apr-14	0.20	0.00	0.20	26-Nov-14	0.07	0.00	0.07
22-Apr-14	0.21	0.00	0.21	27-Nov-14	0.06	0.00	0.06
28-Apr-14	0.21	0.00	0.21	7-Dec-14	0.03	0.03	0.00
29-Apr-14	0.26	0.00	0.26	8-Dec-14	0.02	0.03	-0.01
30-Apr-14	0.25	0.00	0.25	9-Dec-14	0.01	0.01	0.00
1-May-14	0.25	0.00	0.25	10-Dec-14	0.01	0.03	-0.02
5-May-14	0.20	0.00	0.20	29-Dec-14	0.01	0.00	0.01
14-May-14	0.28	0.00	0.28	30-Dec-14	0.07	0.00	0.07
19-May-14	0.20	0.00	0.20	31-Dec-14	0.08	0.00	0.08
20-May-14	0.20	0.00	0.20				

Information for discharge days only

Information to calculate ET_O was taken from Appendix B-3

¹ No Discharge due to repairs to WWTP for spill in Pond 1A

² No Discharge to LAA; all effluent used to refill Pond 1A

Discharge during rain event is in violation of Prohibition No. 4 in Order.

Discharge during (-) ET_O

Date	Total ET _o (in)	Precip (in)	ET _o minus (in)	Date	Total ET _o (in)	Precip (in)	ET _o (in)	Date	Total ET _o (in)	Precip (in)	ET _o (in)
6-Jan-15	0.07	0.00	0.07	11-Mar-15	0.09	0.04	0.05	12-May-15	0.20	0.00	0.20
7-Jan-15	0.07	0.00	0.07	12-Mar-15	0.14	0.00	0.14	13-May-15	0.22	0.00	0.22
8-Jan-15	0.04	0.00	0.04	13-Mar-15	0.13	0.01	0.12	14-May-15	0.20	0.21	-0.01
9-Jan-15	0.04	0.00	0.04	14-Mar-15	0.13	0.00	0.13	15-May-15	0.12	0.00	0.12
14-Jan-15	0.06	0.00	0.06	15-Mar-15	0.12	0.00	0.12	16-May-15	0.18	0.00	0.18
15-Jan-15	0.03	0.00	0.03	16-Mar-15	0.03	0.00	0.03	17-May-15	0.20	0.00	0.20
17-Jan-15	0.05	0.01	0.04	17-Mar-15	0.15	0.00	0.15	18-May-15	0.11	0.00	0.11
18-Jan-15	0.04	0.00	0.04	18-Mar-15	0.16	0.00	0.16	22-May-15	0.20	0.00	0.20
19-Jan-15	0.06	0.00	0.06	19-Mar-15	0.16	0.00	0.16	23-May-15	0.18	0.00	0.18
20-Jan-15	0.05	0.01	0.04	20-Mar-15	0.11	0.00	0.11	24-May-15	0.21	0.00	0.21
21-Jan-15	0.06	0.00	0.06	21-Mar-15	0.16	0.00	0.16	25-May-15	0.18	0.00	0.18
22-Jan-15	0.06	0.01	0.05	22-Mar-15	0.13	0.00	0.13	26-May-15	0.20	0.00	0.20
23-Jan-15	0.07	0.00	0.07	23-Mar-15	0.15	0.00	0.15	27-May-15	0.21	0.00	0.21
24-Jan-15	0.06	0.00	0.06	24-Mar-15	0.11	0.00	0.11	28-May-15	0.17	0.00	0.17
25-Jan-15	0.07	0.01	0.06	26-Mar-15	0.18	0.00	0.18	29-May-15	0.2	0.00	0.20
26-Jan-15	0.06	0.01	0.05	27-Mar-15	0.18	0.00	0.18	30-May-15	0.2	0.00	0.20
27-Jan-15	0.03	0.00	0.03	28-Mar-15	0.19	0.00	0.19	31-May-15	0.18	0.00	0.18
28-Jan-15	0.08	0.00	0.08	29-Mar-15	0.19	0.00	0.19	1-Jun-15	0.18	0	0.18
29-Jan-15	0.08	0.00	0.08	30-Mar-15	0.17	0.00	0.17	2-Jun-15	0.24	0	0.24
30-Jan-15	0.08	0.00	0.08	31-Mar-15	0.20	0.00	0.20	3-Jun-15	0.19	0	0.19
31-Jan-15	0.14	0.00	0.14	1-Apr-15	0.17	0.00	0.17	4-Jun-15	0.23	0	0.23
1-Feb-15	0.07	0.00	0.07	2-Apr-15	0.22	0.00	0.22	5-Jun-15	0.23	0	0.23
2-Feb-15	0.06	0.00	0.06	6-Apr-15	0.12	0.00	0.12	6-Jun-15	0.22	0	0.22
3-Feb-15	0.07	0.00	0.07	9-Apr-15	0.17	0.00	0.17	7-Jun-15	0.25	0	0.25
4-Feb-15	0.06	0.00	0.06	10-Apr-15	0.19	0.00	0.19	8-Jun-15	0.27	0	0.27
5-Feb-15	0.04	0.01	0.03	13-Apr-15	0.19	0.00	0.19	9-Jun-15	0.22	0	0.22
13-Feb-15	0	0.00	0.00	14-Apr-15	0.20	0.00	0.20	11-Jun-15	0.26	0.01	0.25
14-Feb-15	0	0.00	0.00	15-Apr-15	0.26	0.00	0.26	12-Jun-15	0.27	0	0.27
15-Feb-15	0	0.00	0.00	16-Apr-15	0.22	0.00	0.22	15-Jun-15	0.22	0	0.22
16-Feb-15	0	0.01	-0.01	17-Apr-15	0.22	0.00	0.22	16-Jun-15	0.24	0	0.24
17-Feb-15	0	0.01	-0.01	18-Apr-15	0.19	0.00	0.19	17-Jun-15	0.23	0	0.23
18-Feb-15	0	0.00	0.00	19-Apr-15	0.17	0.00	0.17	18-Jun-15	0.26	0	0.26
19-Feb-15	0	0.00	0.00	20-Apr-15	0.18	0.00	0.18	19-Jun-15	0.26	0	0.26
20-Feb-15	0	0.01	-0.01	21-Apr-15	0.12	0.00	0.12	20-Jun-15	0.25	0	0.25
21-Feb-15	0	0.01	-0.01	22-Apr-15	0.17	0.00	0.17	21-Jun-15	0.23	0	0.23
22-Feb-15	0	0.00	0.00	23-Apr-15	0.18	0.00	0.18	22-Jun-15	0.24	0	0.24
23-Feb-15	0	0.00	0.00	24-Apr-15	0.20	0.55	-0.35	23-Jun-15	0.26	0	0.26
24-Feb-15	0	0.00	0.00	25-Apr-15	0.17	0.11	0.06	24-Jun-15	0.25	0	0.25
25-Feb-15	0	0.00	0.00	26-Apr-15	0.21	0.00	0.21	25-Jun-15	0.26	0	0.26
26-Feb-15	0	0.00	0.00	27-Apr-15	0.26	0.03	0.23	26-Jun-15	0.27	0	0.27
27-Feb-15	0.00	0.00	0.00	28-Apr-15	0.20	0.00	0.20	27-Jun-15	0.22	0	0.22
28-Feb-15	0.00	0.02	-0.02	29-Apr-15	0.21	0.00	0.21	28-Jun-15	0.25	0	0.25

Date	Total ET _o	Precip	ET _o minus precip	Date	Total ET _o	Precip	ET _o	Date	Total ET _o	Precip	ET _o
	(in)	(in)	(in)		(in)	(in)	(in)		(in)	(in)	(in)
1-Mar-15	0.00	0.00	0.00	30-Apr-15	0.25	0.00	0.25	29-Jun-15	0.26	0	0.26
2-Mar-15	0.00	0.00	0.00	1-May-15	0.23	0.00	0.23	30-Jun-15	0.26	0	0.26
3-Mar-15	0.00	0.00	0.00	2-May-15	0.19	0.00	0.19	1-Jul-15	0.22	0	0.22
4-Mar-15	0.00	0.00	0.00	3-May-15	0.18	0.00	0.18	2-Jul-15	0.19	0	0.19
5-Mar-15	0.00	0.00	0.00	4-May-15	0.17	0.00	0.17	3-Jul-15	0.25	0	0.25
6-Mar-15	0.00	0.00	0.00	5-May-15	0.19	0.00	0.19	4-Jul-15	0.26	0	0.26
7-Mar-15	0.01	0.00	0.01	7-May-15	0.18	0.00	0.18	5-Jul-15	0.22	0	0.22
8-Mar-15	0.00	0.00	0.00	8-May-15	0.19	0.00	0.19	6-Jul-15	0.22	0	0.22
9-Mar-15	0.10	0.00	0.10	9-May-15	0.20	0.00	0.20	7-Jul-15	0.24	0	0.24
10-Mar-15	0.07	0.00	0.07	11-May-15	0.17	0.00	0.17	8-Jul-15	0.23	0	0.23

Information for discharge days only

Information to calculate ET_o was taken from Appendix B-4

Discharge during rain event is in violation of Prohibition No. 4 in Order.

Discharge during (-) ET_o

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**Appendix I
2012-2015
2012-2015 Wet Weather Periods
(December 1- April 30)
Over Applications**



DELLAVALLE[®]
Laboratory, Inc.
Chemists and Consultants

1910 W. McKinley Avenue, Suite 110 • Fresno, California 93728-1298
Phone (559) 233-6129 • (800) 228-9896 • Fax (559) 268-8174 •
website: dellavallelab.com

<u>2012</u>			<u>2013</u>			<u>2014</u>			<u>2015</u>		
Applied		(MG)	Applied		(MG)	Applied		(MG)	Applied		(MG)
JAN	11.36		JAN	9.86		JAN	9.46		JAN	9.12	
FEB	12.62		FEB	12.16		FEB	0.00		FEB	6.18	
MAR	17.25		MAR	10.89		MAR	12.52		MAR	10.83	
APR	21.39		APR	11.20		APR	17.60		APR	9.70	
DEC	20.82		DEC	8.24		DEC	11.26				
Total	83.44	MG	Total	52.36	MG	Total	50.85	MG	Total	35.83	MG
	256.07	AF		160.67	AF		156.06	AF		109.96	AF
Allowable		(MG)	Allowable		(MG)	Allowable		(MG)	Allowable		(MG)
JAN	-0.96		JAN	0.43		JAN	1.37		JAN	1.11	
FEB	0.22		FEB	1.44		FEB	-6.45		FEB	-3.33	
MAR	-5.90		MAR	1.00		MAR	0.17		MAR	2.07	
APR	2.35		APR	3.39		APR	2.69		APR	2.45	
DEC	-6.68		DEC	0.71		DEC	-5.78				
Total	-10.97	MG	Total	6.97	MG	Total	-7.99	MG	Total	2.31	MG
	0.00	AF		21.39	AF		0.00	AF		7.08	AF
Yearly Wet Weather Period Overage (applied - allowable)											
83.44		MG	45.39		MG	50.85		MG	28.75		MG
256.07		AF	139.28		AF	156.06		AF	102.87		AF

1 AF= 0.325851 MG

Yearly Overage is Applied Rate-Allowable Rate in AF

No effluent should be land applied during a (-) period

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Appendix J
2012-2015 National Water Information System
Discharge Flow Data for USGS
Monitoring Station No. 11456000



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**National Water Information System
Statistics of Monthly Mean Data
December 1 through April 30 Discharge Flows in Cubic Feet Per Second (CFS)
USGS Station 11456000 Napa River near St. Helena**

2012	Mean (CF)	Maximum (CF)	Minimum (CF)
January	70.2	1120	2.8
February	12.3	32	7.4
March	340.0	2050	8.7
April	148.0	528	41.0
December	615.0	4300	48.0
2013	Mean (CF)	Maximum (CF)	Minimum (CF)
January	65.1	147.0	30.0
February	21.5	29.0	15.0
March	12.7	26.0	10.0
April	11.3	33.0	6.0
December	0.27	0.88	0.0
2014	Mean (CF)	Maximum (CF)	Minimum (CF)
January	1.25	2.00	0.60
February	128.0	1490.0	1.5
March	76.3	323.0	21.0
April	111.0	529.0	26.0
December	393.6	3700.0	9.3
2015	Mean (CF)	Maximum (CF)	Minimum (CF)
January	1.25	52.00	15.0
February	128.3	1030.0	13.0
March	76.3	35.0	15.0
April	111.3	29.0	6.0
December	NA	NA	NA
Sponsored by the United States Department of the Interior			

All months that had permissible discharge event days are highlighted in yellow.

Discharges were only completed in December 2012 and December 2014.

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**Appendix K
2012-2015 Napa River Flow Rates,
Allowable State Discharges, and
WWTP Operational Discharge Status'**



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2012 Napa River Flow Rates, Allowable State Discharges, and WWTP Operational Discharge Status'				
Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
1/1/2012	3	0	0	0
1/2/2012	3	0	0	0
1/3/2012	3	0	0	0
1/4/2012	3	0	0	0
1/5/2012	3	0	0	0
1/6/2012	3	0	0	0
1/7/2012	3	0	0	0
1/8/2012	3	0	0	0
1/9/2012	3	0	0	0
1/10/2012	3	0	0	0
1/11/2012	3	0	0	0
1/12/2012	3	0	0	0
1/13/2012	4	0	0	0
1/14/2012	3	0	0	0
1/15/2012	3	0	0	0
1/16/2012	3	0	0	0
1/17/2012	3	0	0	0
1/18/2012	3	0	0	0
1/19/2012	5	0	0	0
1/20/2012	98	1	0	0
1/21/2012	323	4	4	0
1/22/2012	97	1	0	0
1/23/2012	1120	14	8	0
1/24/2012	169	2	2	0
1/25/2012	89	1	0	0
1/26/2012	66	1	0	0
1/27/2012	50	1	0	0
1/28/2012	32	0	0	0
1/29/2012	27	0	0	0
1/30/2012	24	0	0	0
1/31/2012	19	0	0	0
2/1/2012	16	0	0	0
2/2/2012	13	0	0	0
2/3/2012	12	0	0	0
2/4/2012	11	0	0	0
2/5/2012	10	0	0	0
2/6/2012	9	0	0	0
2/7/2012	21	0	0	0
2/8/2012	19	0	0	0
2/9/2012	14	0	0	0
2/10/2012	14	0	0	0
2/11/2012	14	0	0	0
2/12/2012	14	0	0	0
2/13/2012	15	0	0	0
2/14/2012	14	0	0	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
2/15/2012	11	0	0	0
2/16/2012	11	0	0	0
2/17/2012	11	0	0	0
2/18/2012	11	0	0	0
2/19/2012	10	0	0	0
2/20/2012	10	0	0	0
2/21/2012	10	0	0	0
2/22/2012	9	0	0	0
2/23/2012	9	0	0	0
2/24/2012	8	0	0	0
2/25/2012	8	0	0	0
2/26/2012	8	0	0	0
2/27/2012	8	0	0	0
2/28/2012	7	0	0	0
2/29/2012	32	0	0	0
3/1/2012	39	1	0	0
3/2/2012	32	0	0	0
3/3/2012	18	0	0	0
3/4/2012	15	0	0	0
3/5/2012	14	0	0	0
3/6/2012	11	0	0	0
3/7/2012	10	0	0	0
3/8/2012	10	0	0	0
3/9/2012	10	0	0	0
3/10/2012	9	0	0	0
3/11/2012	9	0	0	0
3/12/2012	9	0	0	0
3/13/2012	642	8	8	0
3/14/2012	2050	26	8	0
3/15/2012	506	7	7	0
3/16/2012	1210	16	8	0
3/17/2012	1090	14	8	0
3/18/2012	389	5	5	0
3/19/2012	255	3	3	0
3/20/2012	183	2	2	0
3/21/2012	146	2	2	0
3/22/2012	124	2	2	0
3/23/2012	101	1	0	0
3/24/2012	110	1	0	0
3/25/2012	334	4	4	0
3/26/2012	213	3	3	0
3/27/2012	680	9	8	0
3/28/2012	1180	15	8	0
3/29/2012	447	6	6	0
3/30/2012	304	4	4	0
3/31/2012	386	5	5	0
4/1/2012	382	5	5	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
4/2/2012	265	3	3	0
4/3/2012	206	3	3	0
4/4/2012	164	2	2	0
4/5/2012	134	2	2	0
4/6/2012	113	1	0	0
4/7/2012	98	1	0	0
4/8/2012	87	1	0	0
4/9/2012	80	1	0	0
4/10/2012	103	1	0	0
4/11/2012	169	2	2	0
4/12/2012	369	5	5	0
4/13/2012	528	7	7	0
4/14/2012	308	4	4	0
4/15/2012	218	3	3	0
4/16/2012	170	2	2	0
4/17/2012	140	2	2	0
4/18/2012	120	2	2	0
4/19/2012	104	1	0	0
4/20/2012	92	1	0	0
4/21/2012	80	1	0	0
4/22/2012	73	1	0	0
4/23/2012	66	1	0	0
4/24/2012	62	1	0	0
4/25/2012	58	1	0	0
4/26/2012	55	1	0	0
4/27/2012	49	1	0	0
4/28/2012	47	1	0	0
4/29/2012	44	1	0	0
4/30/2012	41	1	0	0
12/1/2012	710	9	8	0
12/2/2012	3850	50	8	0
12/3/2012	631	8	8	0
12/4/2012	257	3	3	4
12/5/2012	443	6	6	0
12/6/2012	284	4	4	4
12/7/2012	185	2	2	0
12/8/2012	135	2	2	0
12/9/2012	104	1	0	0
12/10/2012	84	1	0	0
12/11/2012	76	1	0	0
12/12/2012	70	1	0	0
12/13/2012	60	1	0	0
12/14/2012	53	1	0	0
12/15/2012	48	1	0	0
12/16/2012	51	1	0	0
12/17/2012	103	1	0	0
12/18/2012	81	1	0	0

12/19/2012	65	1	0	0
Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
12/20/2012	59	1	0	0
12/21/2012	1220	16	8	0
12/22/2012	1610	21	8	0
12/23/2012	4300	56	8	0
12/24/2012	1330	17	8	0
12/25/2012	805	10	8	0
12/26/2012	920	12	8	0
12/27/2012	500	6	6	0
12/28/2012	355	5	5	4
12/29/2012	274	4	4	4
12/30/2012	217	3	3	0
12/31/2012	176	2	2	0
Total in MG		472	256	16
Information for river flows was provided by the United States Geological Survey and the Department of the Interior based on the National Water Information System for USGS Monitoring Station No. 11456000				

50:1 Ratio Calculation = $\frac{\text{River Flow (CFS)}}{50} = \text{Allowable Discharge (CFS)}$

Allowable Discharge (MGD) = Allowable Discharge (CFS) x 0.646

¹ Statistics of daily mean flow data

² Met State requirement of 50:1 river to wastewater dilution flow ratio and effluent BOD and TSS limits

³ Met both State requirement and WWTP operational requirements of 150 to 650 CFS river flow

⁴ WWTP actual discharges to the Napa River

2013 Napa River Flow Rates, Allowable State Discharges, and WWTP Operational Discharge Status'				
Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
1/1/2013	147	2	2	0
1/2/2013	127	2	2	0
1/3/2013	114	1	0	0
1/4/2013	103	1	0	0
1/5/2013	103	1	0	0
1/6/2013	123	2	2	0
1/7/2013	96	1	0	0
1/8/2013	88	1	0	0
1/9/2013	81	1	0	0
1/10/2013	75	1	0	0
1/11/2013	69	1	0	0
1/12/2013	65	1	0	0
1/13/2013	62	1	0	0
1/14/2013	57	1	0	0
1/15/2013	53	1	0	0
1/16/2013	52	1	0	0
1/17/2013	50	1	0	0
1/18/2013	49	1	0	0
1/19/2013	46	1	0	0
1/20/2013	44	1	0	0
1/21/2013	42	1	0	0
1/22/2013	40	1	0	0
1/23/2013	43	1	0	0
1/24/2013	47	1	0	0
1/25/2013	41	1	0	0
1/26/2013	38	0	0	0
1/27/2013	36	0	0	0
1/28/2013	34	0	0	0
1/29/2013	32	0	0	0
1/30/2013	31	0	0	0
1/31/2013	30	0	0	0
2/1/2013	29	0	0	0
2/2/2013	28	0	0	0
2/3/2013	27	0	0	0
2/4/2013	26	0	0	0
2/5/2013	25	0	0	0
2/6/2013	25	0	0	0
2/7/2013	27	0	0	0
2/8/2013	26	0	0	0
2/9/2013	24	0	0	0
2/10/2013	23	0	0	0
2/11/2013	23	0	0	0
2/12/2013	22	0	0	0
2/13/2013	21	0	0	0
2/14/2013	21	0	0	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
2/15/2013	21	0	0	0
2/16/2013	20	0	0	0
2/17/2013	20	0	0	0
2/18/2013	20	0	0	0
2/19/2013	21	0	0	0
2/20/2013	20	0	0	0
2/21/2013	18	0	0	0
2/22/2013	18	0	0	0
2/23/2013	17	0	0	0
2/24/2013	17	0	0	0
2/25/2013	16	0	0	0
2/26/2013	16	0	0	0
2/27/2013	15	0	0	0
2/28/2013	15	0	0	0
3/1/2013	14	0	0	0
3/2/2013	12	0	0	0
3/3/2013	13	0	0	0
3/4/2013	12	0	0	0
3/5/2013	13	0	0	0
3/6/2013	26	0	0	0
3/7/2013	16	0	0	0
3/8/2013	14	0	0	0
3/9/2013	13	0	0	0
3/10/2013	13	0	0	0
3/11/2013	13	0	0	0
3/12/2013	12	0	0	0
3/13/2013	12	0	0	0
3/14/2013	12	0	0	0
3/15/2013	11	0	0	0
3/16/2013	11	0	0	0
3/17/2013	11	0	0	0
3/18/2013	11	0	0	0
3/19/2013	11	0	0	0
3/20/2013	17	0	0	0
3/21/2013	15	0	0	0
3/22/2013	12	0	0	0
3/23/2013	11	0	0	0
3/24/2013	11	0	0	0
3/25/2013	11	0	0	0
3/26/2013	11	0	0	0
3/27/2013	10	0	0	0
3/28/2013	10	0	0	0
3/29/2013	10	0	0	0
3/30/2013	10	0	0	0
3/31/2013	15	0	0	0
4/1/2013	15	0	0	0
4/2/2013	11	0	0	0
4/3/2013	11	0	0	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
4/4/2013	33	0	0	0
4/5/2013	23	0	0	0
4/6/2013	16	0	0	0
4/7/2013	15	0	0	0
4/8/2013	14	0	0	0
4/9/2013	13	0	0	0
4/10/2013	12	0	0	0
4/11/2013	11	0	0	0
4/12/2013	11	0	0	0
4/13/2013	11	0	0	0
4/14/2013	11	0	0	0
4/15/2013	10	0	0	0
4/16/2013	10	0	0	0
4/17/2013	9	0	0	0
4/18/2013	9	0	0	0
4/19/2013	9	0	0	0
4/20/2013	9	0	0	0
4/21/2013	9	0	0	0
4/22/2013	9	0	0	0
4/23/2013	8	0	0	0
4/24/2013	8	0	0	0
4/25/2013	8	0	0	0
4/26/2013	8	0	0	0
4/27/2013	7	0	0	0
4/28/2013	7	0	0	0
4/29/2013	7	0	0	0
4/30/2013	6	0	0	0
12/1/2013	0	0	0	0
12/2/2013	0	0	0	0
12/3/2013	0	0	0	0
12/4/2013	0	0	0	0
12/5/2013	0	0	0	0
12/6/2013	0	0	0	0
12/7/2013	0	0	0	0
12/8/2013	1	0	0	0
12/9/2013	0	0	0	0
12/10/2013	0	0	0	0
12/11/2013	0	0	0	0
12/12/2013	0	0	0	0
12/13/2013	0	0	0	0
12/14/2013	0	0	0	0
12/15/2013	0	0	0	0
12/16/2013	0	0	0	0
12/17/2013	0	0	0	0
12/18/2013	0	0	0	0
12/19/2013	0	0	0	0
12/20/2013	0	0	0	0
12/21/2013	0	0	0	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
12/22/2013	0	0	0	0
12/23/2013	0	0	0	0
12/24/2013	0	0	0	0
12/25/2013	0	0	0	0
12/26/2013	0	0	0	0
12/27/2013	0	0	0	0
12/28/2013	1	0	0	0
12/29/2013	1	0	0	0
12/30/2013	1	0	0	0
12/31/2013	1	0	0	0
Total in MG		43	6	0
Information for river flows was provided by the United States Geological Survey and the Department of the Interior based on the National Water Information System for USGS Monitoring Station No. 11456000				

50:1 Ratio Calculation = $\frac{\text{River Flow (CFS)}}{50} = \text{Allowable Discharge (CFS)}$

Allowable Discharge (MGD) = Allowable Discharge (CFS) x 0.646

¹ Statistics of daily mean flow data

² Met State requirement of 50:1 river to wastewater dilution flow ratio and effluent BOD and TSS limits

³ Met both State requirement and WWTP operational requirements of 150 to 650 CFS river flow

⁴ WWTP actual discharges to the Napa River

2014 Napa River Flow Rates, Allowable State Discharges, and WWTP Operational Discharge Status'				
Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
1/1/2014	1	0	0	0
1/2/2014	1	0	0	0
1/3/2014	1	0	0	0
1/4/2014	1	0	0	0
1/5/2014	1	0	0	0
1/6/2014	1	0	0	0
1/7/2014	1	0	0	0
1/8/2014	1	0	0	0
1/9/2014	1	0	0	0
1/10/2014	1	0	0	0
1/11/2014	2	0	0	0
1/12/2014	1	0	0	0
1/13/2014	1	0	0	0
1/14/2014	2	0	0	0
1/15/2014	1	0	0	0
1/16/2014	1	0	0	0
1/17/2014	2	0	0	0
1/18/2014	1	0	0	0
1/19/2014	2	0	0	0
1/20/2014	2	0	0	0
1/21/2014	1	0	0	0
1/22/2014	2	0	0	0
1/23/2014	2	0	0	0
1/24/2014	1	0	0	0
1/25/2014	1	0	0	0
1/26/2014	1	0	0	0
1/27/2014	1	0	0	0
1/28/2014	1	0	0	0
1/29/2014	1	0	0	0
1/30/2014	2	0	0	0
1/31/2014	2	0	0	0
2/1/2014	2	0	0	0
2/2/2014	3	0	0	0
2/3/2014	3	0	0	0
2/4/2014	3	0	0	0
2/5/2014	2	0	0	0
2/6/2014	10	0	0	0
2/7/2014	15	0	0	0
2/8/2014	647	8	8	0
2/9/2014	1490	19	8	0
2/10/2014	474	6	6	0
2/11/2014	120	2	2	0
2/12/2014	56	1	0	0
2/13/2014	41	1	0	0
2/14/2014	33	0	0	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
2/15/2014	29	0	0	0
2/16/2014	27	0	0	0
2/17/2014	25	0	0	0
2/18/2014	22	0	0	0
2/19/2014	19	0	0	0
2/20/2014	13	0	0	0
2/21/2014	11	0	0	0
2/22/2014	9	0	0	0
2/23/2014	10	0	0	0
2/24/2014	11	0	0	0
2/25/2014	12	0	0	0
2/26/2014	29	0	0	0
2/27/2014	111	1	0	0
2/28/2014	365	5	5	0
3/1/2014	323	4	4	0
3/2/2014	139	2	2	0
3/3/2014	92	1	0	0
3/4/2014	118	2	2	0
3/5/2014	93	1	0	0
3/6/2014	213	3	3	0
3/7/2014	128	2	2	0
3/8/2014	88	1	0	0
3/9/2014	70	1	0	0
3/10/2014	61	1	0	0
3/11/2014	53	1	0	0
3/12/2014	49	1	0	0
3/13/2014	46	1	0	0
3/14/2014	43	1	0	0
3/15/2014	39	1	0	0
3/16/2014	37	0	0	0
3/17/2014	35	0	0	0
3/18/2014	32	0	0	0
3/19/2014	30	0	0	0
3/20/2014	28	0	0	0
3/21/2014	27	0	0	0
3/22/2014	25	0	0	0
3/23/2014	22	0	0	0
3/24/2014	21	0	0	0
3/25/2014	22	0	0	0
3/26/2014	33	0	0	0
3/27/2014	26	0	0	0
3/28/2014	24	0	0	0
3/29/2014	161	2	2	0
3/30/2014	100	1	0	0
3/31/2014	186	2	2	0
4/1/2014	513	7	7	0
4/2/2014	529	7	7	0
4/3/2014	262	3	3	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
4/4/2014	213	3	3	0
4/5/2014	187	2	2	0
4/6/2014	157	2	2	0
4/7/2014	136	2	2	0
4/8/2014	119	2	2	0
4/9/2014	109	1	0	0
4/10/2014	99	1	0	0
4/11/2014	91	1	0	0
4/12/2014	86	1	0	0
4/13/2014	80	1	0	0
4/14/2014	75	1	0	0
4/15/2014	70	1	0	0
4/16/2014	64	1	0	0
4/17/2014	58	1	0	0
4/18/2014	54	1	0	0
4/19/2014	48	1	0	0
4/20/2014	44	1	0	0
4/21/2014	42	1	0	0
4/22/2014	39	1	0	0
4/23/2014	37	0	0	0
4/24/2014	36	0	0	0
4/25/2014	37	0	0	0
4/26/2014	37	0	0	0
4/27/2014	33	0	0	0
4/28/2014	30	0	0	0
4/29/2014	28	0	0	0
4/30/2014	26	0	0	0
12/1/2014	9	0	0	0
12/2/2014	26	0	0	0
12/3/2014	311	0	0	0
12/4/2014	129	0	0	0
12/5/2014	69	0	0	0
12/6/2014	204	0	0	0
12/7/2014	96	0	0	0
12/8/2014	56	0	0	0
12/9/2014	43	0	0	0
12/10/2014	55	0	0	0
12/11/2014	3700	0	0	0
12/12/2014	1020	0	0	0
12/13/2014	332	0	0	0
12/14/2014	179	0	0	0
12/15/2014	807	0	0	0
12/16/2014	989	0	0	0
12/17/2014	831	0	0	0
12/18/2014	498	0	0	5
12/19/2014	816	0	0	7
12/20/2014	534	0	0	6

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
12/21/2014	381	0	0	4
12/22/2014	258	0	0	1
12/23/2014	181	0	0	0
12/24/2014	139	0	0	0
12/25/2014	111	0	0	0
12/26/2014	93	0	0	0
12/27/2014	80	0	0	0
12/28/2014	72	0	0	0
12/29/2014	67	0	0	0
12/30/2014	60	0	0	0
12/31/2014	56	0	0	0
Total in MG		121	74	23
Information for river flows was provided by the United States Geological Survey and the Department of the Interior based on the National Water Information System for USGS Monitoring Station No. 11456000				

50:1 Ratio Calculation = $\frac{\text{River Flow (CFS)}}{50} = \text{Allowable Discharge (CFS)}$

Allowable Discharge (MGD) = Allowable Discharge (CFS) x 0.646

¹ Statistics of daily mean flow data

² Met State requirement of 50:1 river to wastewater dilution flow ratio and effluent BOD and TSS limits

³ Met both State requirement and WWTP operational requirements of 150 to 650 CFS river flow

⁴ WWTP actual discharges to the Napa River

2015 Napa River Flow Rates, Allowable State Discharges, and WWTP Operational Discharge Status'				
Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
1/1/15	52	1	0	0
1/2/15	48	1	0	0
1/3/15	45	1	0	0
1/4/15	42	1	0	0
1/5/15	40	1	0	0
1/6/15	37	0	0	0
1/7/15	34	0	0	0
1/8/15	32	0	0	0
1/9/15	32	0	0	0
1/10/15	30	0	0	0
1/11/15	28	0	0	0
1/12/15	27	0	0	0
1/13/15	25	0	0	0
1/14/15	24	0	0	0
1/15/15	23	0	0	0
1/16/15	21	0	0	0
1/17/15	22	0	0	0
1/18/15	22	0	0	0
1/19/15	21	0	0	0
1/20/15	20	0	0	0
1/21/15	19	0	0	0
1/22/15	19	0	0	0
1/23/15	17	0	0	0
1/24/15	17	0	0	0
1/25/15	17	0	0	0
1/26/15	16	0	0	0
1/27/15	15	0	0	0
1/28/15	15	0	0	0
1/29/15	15	0	0	0
1/30/15	16	0	0	0
1/31/15	15	0	0	0
2/1/15	15	0	0	0
2/2/15	14	0	0	0
2/3/15	13	0	0	0
2/4/15	13	0	0	0
2/5/15	13	0	0	0
2/6/15	257	3	3	0
2/7/15	758	10	8	0
2/8/15	556	7	7	0
2/9/15	1030	13	8	0
2/10/15	386	5	5	0
2/11/15	222	3	3	0
2/12/15	157	2	2	0
2/13/15	124	2	2	0
2/14/15	105	1	0	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
2/15/15	91	1	0	0
2/16/15	80	1	0	0
2/17/15	73	1	0	0
2/18/15	67	1	0	0
2/19/15	63	1	0	0
2/20/15	59	1	0	0
2/21/15	55	1	0	0
2/22/15	52	1	0	0
2/23/15	48	1	0	0
2/24/15	45	1	0	0
2/25/15	42	1	0	0
2/26/15	40	1	0	0
2/27/15	39	1	0	0
2/28/15	37	0	0	0
3/1/15	35	0	0	0
3/2/15	34	0	0	0
3/3/15	32	0	0	0
3/4/15	30	0	0	0
3/5/15	28	0	0	0
3/6/15	27	0	0	0
3/7/15	27	0	0	0
3/8/15	27	0	0	0
3/9/15	25	0	0	0
3/10/15	24	0	0	0
3/11/15	23	0	0	0
3/12/15	22	0	0	0
3/13/15	21	0	0	0
3/14/15	21	0	0	0
3/15/15	20	0	0	0
3/16/15	20	0	0	0
3/17/15	19	0	0	0
3/18/15	19	0	0	0
3/19/15	18	0	0	0
3/20/15	17	0	0	0
3/21/15	17	0	0	0
3/22/15	18	0	0	0
3/23/15	18	0	0	0
3/24/15	17	0	0	0
3/25/15	17	0	0	0
3/26/15	17	0	0	0
3/27/15	16	0	0	0
3/28/15	16	0	0	0
3/29/15	15	0	0	0
3/30/15	15	0	0	0
3/31/15	15	0	0	0
4/1/15	15	0	0	0
4/2/15	14	0	0	0
4/3/15	14	0	0	0

Date	¹ River Flow (CFS)	² State Allowed Discharge (MGD)	³ WWTP Possible Operational Discharge (MGD)	⁴ WWTP Actual Discharges to River (MGD)
4/4/15	13	0	0	0
4/5/15	14	0	0	0
4/6/15	13	0	0	0
4/7/15	29	0	0	0
4/8/15	18	0	0	0
4/9/15	16	0	0	0
4/10/15	14	0	0	0
4/11/15	12	0	0	0
4/12/15	11	0	0	0
4/13/15	11	0	0	0
4/14/15	10	0	0	0
4/15/15	9	0	0	0
4/16/15	8	0	0	0
4/17/15	8	0	0	0
4/18/15	8	0	0	0
4/19/15	8	0	0	0
4/20/15	8	0	0	0
4/21/15	7	0	0	0
4/22/15	8	0	0	0
4/23/15	7	0	0	0
4/24/15	7	0	0	0
4/25/15	11	0	0	0
4/26/15	8	0	0	0
4/27/15	7	0	0	0
4/28/15	6	0	0	0
4/29/15	6	0	0	0
4/30/15	6	0	0	0
Total in MG		81	38	0
Information for river flows was provided by the United States Geological Survey and the Department of the Interior based on the National Water Information System for USGS Monitoring Station No. 11456000				

50:1 Ratio Calculation = $\frac{\text{River Flow (CFS)}}{50} = \text{Allowable Discharge (CFS)}$

Allowable Discharge (MGD) = Allowable Discharge (CFS) x 0.646

¹ Statistics of daily mean flow data

² Met State requirement of 50:1 river to wastewater dilution flow ratio and effluent BOD and TSS limits

³ Met both State requirement and WWTP operational requirements of 150 to 650 CFS river flow

⁴ WWTP actual discharges to the Napa River

End of Report

OCTOBER 12, 2016

CITY OF ST. HELENA
WASTEWATER TREATMENT & RECLAMATION FACILITY

Land Application Permitting Assistance Scope of Services

Submitted by

LARRY WALKER ASSOCIATES, INC



City of St. Helena Wastewater Treatment and Reclamation Facility
Land Application Permitting Assistance Scope of Services
by
Larry Walker Associates

Larry Walker Associates (LWA) anticipates the following tasks will need to be performed to assist the City of St. Helena (City) with their application for Land Application Waste Discharge Requirements (WDR) and to assist the City with regulatory matters pertaining to the land application field. A cost estimate for the identified tasks follows.

Task 1. Land Application ROWD

Larry Walker Associates (LWA) understands that the City will need to submit a permit application (Report of Waste Discharge, ROWD) for coverage under a land application permit, or Waste Discharge Requirement. ROWD preparation is covered under this task, including consultation with the City to obtain necessary data and information, and preparation of application forms. LWA treats all permits like a contract between the client and the regulatory agency. LWA works with the client to ensure that the client can comply with each of the terms and conditions included in this “contract.”

Task 1.1. Compilation and Evaluation of Data

Pertinent data will be compiled and reviewed to evaluate compliance history and determine data sufficiency. Additional information to be used in the evaluation includes pertinent San Francisco Regional Water Quality Control Board (RWQCB) correspondence, any special studies performed by the City, and current planning documents for the Wastewater Treatment and Reclamation Facility (WWTRF). Also, outliers in the data will be evaluated to determine if it is appropriate for the City to request that they be removed from the dataset for determining reasonable potential and calculating effluent limitations.

Task 1.2. Permit-Specific Meeting with St. Helena

After the ROWD has been submitted, LWA will hold an initial meeting the City to discuss the current permitting policy and schedule prevalent at the RWQCB, its potential effect on the City, and pertinent issues that the City is concerned about in the permit renewal process.

Task 1.3. Determination of Effluent Limitations

There are many different ways to develop effluent limitations for land application permits. Based on its history of working with WDR permits, LWA will calculate effluent limitations under several possible scenarios and conduct “what if’s” to determine the consequences of various alternative interpretations. The results of the comparison will be discussed with the City.

Contingency: Depending on the information the Regional Water Board asks for with the ROWD, it may be necessary to model groundwater mixing and the impact on wells

surrounding the land application field. LWA has developed a model to perform this work and has added funds to this task to run the model, should that be required.

Task 1.4. Meetings and Communications with Regional Water Board Staff

The investment in communicating with RWQCB staff on a regular basis cannot be overemphasized. The cost estimate for this project includes meetings with RWQCB staff, as necessary, as well as other forms of communication such as phone conversations and email.

Task 1.5. Comments on Administrative Draft

RWQCB staff typically provides an Administrative Draft permit to the discharger for review. Comments on the Administrative Draft will be requested in writing, with a justification for any requested changes. A very short (approximately 1 week) turn-around may be allowed for review. After comments are submitted, a meeting may be held with RWQCB staff to discuss the proposed changes. For the purposes of this proposal, it is estimated that there will be one Administrative Draft permit issued to the City and reviewed by LWA.

Task 1.6. Comments on Tentative Order

Comments on the Tentative Order are normally more detailed and comprehensive than comments on Administrative Draft because Tentative Order comments are submitted for the public record and can be used in an appeal or for other actions on the permit. However, the number of issues is normally reduced in comparison to the Administrative Draft, based on discussions with RWQCB staff. The Tentative Order comments may require additional research for citations of precedent-setting activity, and will cover all aspects of the permit that the City wishes the RWQCB staff to revise or that the City may wish to appeal.

Once the Tentative Order comments are submitted to the RWQCB, which may be in a preliminary form prior to the official public comment date, it is appropriate to work out any differences. In addition, it is possible that RWQCB staff may wish to make changes to the permit during the public comment period and will normally discuss these changes with the discharger. Depending on the timing under which the Tentative Order is issued, there may be a fair amount of activity during the public comment period.

Task 1.7. Preparation for Board Hearing

While the City is not required to testify at the RWQCB Hearing on its permit, it is advisable to attend the hearing. The reasons for attending include to express support for the permit as is or to counter any comments from other public entities that may influence the outcome of the permit. Often it is not necessary to stand up to testify during the hearing, but the RWQCB often asks if the City is present and thanks them for attending.

Task 1.8. Development of Compliance Plan and Dates Tracking

In the past, LWA has prepared an overall schedule to keep track of activities required by the reissued permit, to prevent any compliance problems.

Task 2. Review of Third Party Report(s)

The City has received a copy of a formal complaint produced by Dellavalle Laboratory, Inc. claiming that the City has violated Order 87-090. LWA will review the claims in this report and prepare recommendations for additional testing or other actions. LWA is also prepared to review and respond to any additional reports produced by Dellavalle Laboratory or another third party.

Task 3. Land Application Permit Assistance

Under this task, funds are allocated to assist the City with implementation of the new land application permit. This task can be used for evaluating compliance concerns, preparing or reviewing reports, communicating with RWQCB staff, responding to Notices of Violation, assisting with inspections, analytical laboratory communications, requests from RWQCB staff for information or assistance, and following regulatory developments. In addition, LWA will help the City evaluate operational changes for the spray field. While a third party is expected to help the City identify and select effective operational scenarios, LWA will help evaluate options to ensure compliance with regulatory requirements specified in Order 87-090 or the new land application permit.

Task 4. Project Management

LWA activities under this task will include attendance at meetings in St. Helena and/or the RWQCB, as well as managing budgets and schedules. All invoice materials will be delivered to the City electronically and in hard copy format.

City of St. Helena											
Professional Services by Larry Walker Associates											
Estimated Costs for Land Application Permitting Assistance											
Task	Description	LWA Labor Hours and Rates (1)						Total Hours	Total Labor Costs	Other Direct Costs	Total Costs
		Project Advisor:	Project Manager:	Project Engineer:	Project Staff II:	Project Staff I:	Contract Administrator:				
		Denise	Kristine	Airy	Steve / Elizabeth	Danielle / Katrina	Michelle				
		\$245	\$220	\$195	\$175	\$160	\$140				
1	Land Application ROWD	8	24	32		40		104	\$19,880		\$19,880
2	Review of Third Party Reports	2	16		24			42	\$8,210		\$8,210
3	Land Application Permit Assistance	2	12					14	\$3,130		\$3,130
4	Project Management		12				8	20	\$3,760	\$120 (2)	\$3,880
TOTAL PROJECT COSTS (3)		12	64	32	24	40	8	180	\$34,980	\$120	\$35,100
(1) LWA hourly rates are typically adjusted on July 1st of each year. The City will be provided 30-days notice of any proposed rate increase.											
(2) Estimated transportation costs to St. Helena for 1 meeting and 1 sampling event											
(3) The cost estimate is based on best available information and a projections of activities required											

LARRY WALKER ASSOCIATES

Rate Schedule Effective July 1, 2016 – June 30, 2017

PERSONNEL	Rate \$/Hour	REIMBURSABLE COSTS	
Project Staff			
Allison Lewis	\$ 80	Travel:	
Denise Walton	\$ 80	Local mileage	Current IRS rate
Adriana Stovall	\$ 90	Transportation	Actual expense
Michelle Benson	\$145	Auto rental	Actual commercial rate
Kathryn Walker	\$145	Fares	Actual expense
Olin Applegate	\$160	Room	Actual expense
Katrina Arredondo	\$160	Subsistence ⁽¹⁾	\$48 per day
Jenny Bayley	\$160		
Suzanne Brown	\$160		
Antonia Estevez-Olea	\$160	The rate for each meal as follows: ⁽¹⁾	
Nima Jabbari	\$160	Breakfast	\$ 9
Adriel Leon	\$160	Lunch	\$13
Amir Mani	\$160	Dinner	\$21
Danielle Moss	\$160	Incidentals	\$ 5
Steve Maricle	\$175		
Jeff Walker	\$175		
Elizabeth Yin	\$175		
Bryant Alvarado	\$195	Report Reproduction and Copying:	
Alina Constantinescu	\$195	Actual outside expense	
Reni Keane-Dengel	\$195	Per black and white copy, in-house	\$0.08
Airy Krich-Brinton	\$195	Per color copy, in-house	\$0.89
Mike Marson	\$195	Per binding, in-house	\$1.95
Giles Pettifor	\$195		
Hope M. Taylor	\$195		
Senior Staff		Special Postage and Express Mail:	
Kristine Corneillie	\$220	Actual expense	
Diana Engle	\$220		
Laura Foglia	\$220	Other Direct Costs:	
Paul Hartman	\$220	Actual expense	
Gorman Lau	\$220		
Will Lewis	\$220	Daily Equipment Rental Rates:	
Amy Storm	\$220	All single parameter field meters	
Mike Troughon	\$220	(pH, EC, D.O., Turbidity)	\$25 each
Rachel Warren	\$220	Multi-parameter field meters	\$35
		Peristaltic Sampling Pump	\$35
Associate		Professional grade GPS unit	\$25
Denise Connors	\$245	Digital Flow Meter	\$45
Betsy Elzufon	\$245	Digital Fluorometer	\$45
Sandy Mathews	\$245	Multi-parameter Data Sonde	
Mitch Mysliwec	\$245	(with telemetry)	
Claus Suverkropp	\$245	- first day	\$200
		- each additional day	\$ 40
Principal		Subcontractors:	
Karen Ashby	\$270	Actual expense plus 10% fee	
Ashli Cooper Desai	\$270		
Brian Laurenson	\$270		
Chris Minton	\$270		
Mack Walker	\$270		
Tom Grovhoug	\$295		
		Note: ⁽¹⁾ Charged when overnight lodging is required.	

Note: ⁽¹⁾ Charged when overnight lodging is required.

Revised 8/16/16



Report to the City Council
Council Meeting of February 14, 2017

Agenda Section: Consent

Subject: Consideration and Proposed Adoption of a Resolution Granting an Appeal by Marina Hoffman, Reversing the Planning Commission Decision Approving a Use Permit and Denying the Use Permit for the Ladera Winery Tasting Room at 1234 Adams Street in the CB Zoning District

CEQA Status: Categorically Exempt pursuant to Section 15301 of the CEQA Guidelines and Generally Exempt pursuant to Section 15270

Prepared By: Noah Housh, Planning and Community Improvement Director

Reviewed By: Larry Pennell, Interim City Manager

DISCUSSION

On December 20, 2016, the Planning Commission approved a Use Permit conditionally allowing the Ladera Tasting room to operate out of an existing commercial space located at 1234 Adams Street and in the CB: Central Business zoning district. The Commission voted to 2 to 1 (with one Commissioner abstaining) to approve the Use Permit.

As conditioned, the Use Permit would allow for the operation of a 20 seat wine tasting room with retail sales, accessory administrative office space, and outdoor seating in the existing retail space at 1234 Adams Street. There would be two full time employees and one part time employee. Hours of operation would be between the hours of 10:00 a.m. to 6:00 p.m. seven days a week with special events limited to one per month with the potential for hours to be extended until 9:00 p.m. No exterior modifications were approved as part of the Use Permit application.

On January 24, 2017, the City Council reviewed an appeal by Marina Hoffman of the Planning Commission's approval of the Ladera Tasting Room at a noticed public hearing. After reviewing all testimony and presentations, the Council voted to grant the appeal, reverse the Planning Commission decision, and deny the Use Permit that had been approved by the Planning Commission. The City Council directed staff to prepare a resolution with findings memorializing the Council's decision. Therefore the item has been brought back before the Council for consideration and adoption of a Resolution to

grant the appeal, reverse the decision of the Planning Commission, and deny the Use Permit for the Ladera Tasting Room.

FISCAL IMPACT

There will be no fiscal impact to the General Fund related to Council action on this item.

RECOMMENDED ACTION

The Planning and Community Improvement Department recommends that the City Council consider the staff report, and all written and spoken evidence, and:

1. Take action on the resolution with findings memorializing the Council's decision to grant the applicant's appeal of, and reverse the Planning Commission's decision, and deny the Use Permit to establish a wine tasting room in the existing commercial space at 1234 Adams Street, prepared as directed by the Council on January 24, 2017.

ATTACHMENTS

1. Resolution to Support the Appeal
2. Appeal Application and written statement
3. Dec 20, 2016, Staff Report and Resolution
4. Project plans
5. January 24, 2017 Staff Report

Attachment 1

CITY OF ST. HELENA

RESOLUTION No. 2017-

RESOLUTION OF THE COUNCIL OF THE CITY OF ST HELENA (1) GRANTING AN APPEAL BY MARINA HOFFMAN, (2) REVERSING THE PLANNING COMMISSION DECISION APPROVING A USE PERMIT AND (3) DENYING THE USE PERMIT FOR THE LADERA WINERY TASTING ROOM AT 1234 ADAMS STREET IN THE CB ZONING DISTRICT,

RECITALS

1. **Whereas**, The Applicant, Ladera Winery LLC, Submitted an application for a Use Permit to operate a 20-seat wine tasting room with retail sales, office, and outdoor seating in an existing commercial space located at 1234 Adams Street and in the CB: Central Business Zoning District.
2. **Whereas**, Wine tasting rooms are subject to a Use Permit pursuant to St. Helena Municipal Code ("SHMC") chapter 17.48.
3. **Whereas**, the Planning Commission of the City of St. Helena considered the project, staff report, and all testimony, written and spoken, at a duly noticed public hearing on December 20, 2016.
4. **Whereas**, at the conclusion of the public hearing on December 20, 2016, and having deliberated on the matter, the Planning Commission approved the Use Permit application.
5. **Whereas**, Marina Hoffman filed a timely appeal of the Planning Commission's decision to the City Council in accordance with SHMC chapter 1.16.
6. **Whereas**, the City Council considered Marina Hoffman's appeal at a duly noticed public hearing on January 24, 2017. The City Council, after reviewing all materials provided from the Planning Commission Public hearing, as well as considering the record of the proceedings before the City Council, the written evidence submitted for the Council public hearing, and the testimony and other evidence submitted at the Council public hearing, voted to grant the appeal and reverse the decision of the Planning Commission, thereby denying the Use Permit application; and
7. **Whereas**, the City Council directed staff to prepare a resolution with findings memorializing the City Council's vote on January 24, 2017.

RESOLUTION

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of St. Helena that the City Council hereby grants the appeal of, and reverses the Planning Commission's decision, and denies the Use Permit for the Ladera Winery Tasting Room located at 1234 Adams Street in the Central Business zoning district on the basis of the following findings:

A. The foregoing Recitals are true and correct and are incorporated herein and form a part of this Resolution.

B. The resolution granting the appeal, reversing the decision of the Planning Commission, and denying the Use Permit is not subject to the requirements of the California Environmental Quality Act ("CEQA").

C. The City Council has considered the findings identified in SHMC section 17.168.050 required to support approval of a Use Permit and hereby finds that the project applicant has not demonstrated the ability to meet all of the required findings in that:

F. Allowing the proposed wine tasting room use would conflict with the city's goal of maintaining the economic viability of a local-serving economy. The term local serving land use, as identified in the SHMC section 17.48.010, specifically identifies locally serving land uses as those which "derive a significant portion of their revenues from St. Helena residents, and which provide services and products which satisfy local residents' day-to-day needs. The Ladera project does not meet that definition.

G. The proposed tasting room use would be incompatible with surrounding land uses and would conflict with the purpose established for the district within which it would be located. This is because the tasting room land use proposes to serve alcohol within close proximity (less than 500-feet) to several youth and community oriented land uses including a pre-school, an elementary school, two churches and the City owned Carnegie Building which provides a variety of youth and community oriented programming. This is further supported by the California Alcohol Beverage Controls explicit limitations on alcohol related land uses within 600-feet of youth and community oriented land uses.

I. The proposed wine tasting room use would be injurious to public health, safety or welfare given that the service of alcohol would occur within close proximity to the youth and community oriented land uses described above and the Council has identified concerns with potential conflicts associated with drivers and pedestrians accessing the neighboring uses and those exiting the wine tasting room facility.

J. Granting the use permit to allow wine tasting at 1234 Adams Street would set a precedent for the approval of similar uses whose incremental effect would be detrimental to the city given the proliferation of alcohol related land uses currently in the City and located in close proximity to neighboring youth and community oriented land uses. In addition, approving the wine tasting land use would conflict with the General Plan, given that Guiding Policy 2.6.27 of the 1993 General Plan directs the prohibition of commercial uses which are primarily tourist-serving in nature, and Implementing Policy 2.6.42 of the 1993 General Plan identifies only businesses which are local-serving should be permitted within all commercial areas.

D. In making the findings in this Resolution, the City Council relies upon and hereby incorporates by reference all of the documents referenced in this Resolution and the associated staff report, City files for this matter, correspondence, presentations and other materials. The City Council also adopts as its findings the comments and arguments made by City Council members in opposition to the use permit during the City Council's deliberations on the appeal and Use Permit.

E. Therefore, the City Council of the City of St Helena hereby grants the appeal, reverses the decision of the Planning Commission and denies the Use Permit for the above-described project.

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017, by the following vote:

Mayor Galbraith:	_____
Vice Mayor White:	_____
Councilmember Koberstein:	_____
Councilmember Dohring:	_____
Councilmember Ellsworth:	_____

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk

ATTACHMENT 2
RECEIVED
PLANNING DEPARTMENT

JAN 03 2017

City of St. Helena

APPEAL

Planning Department
1480 Main Street
St. Helena, CA 94574

Office Use Only - Do Not Write in this Area

File Number PL17-001
General Plan _____ Zoning _____

Background Files PL16-087
Related Applications _____

Initial Deposit Received _____ Received By _____

Please Type or Print

Ladera Tasting Room
Project Name Event Center Project Applicant Ladera Winery LLC
Site Address 1234 Adams Street APN _____
Saint Helena

Person Submitting Appeal Hoffman, Marina
(Last Name, First Name)

Mailing Address 1355 Grove Court
City Saint Helena State CA ZIP Code 94574
Phone Number 707 967 0866

If you would like project correspondence and notice of meetings to be sent to parties other than the appellant, please list their names, address and telephone numbers on a separate sheet.

Action being appealed (include the name of the decision-making board and date the action was taken):

City of Saint Helena Planning Commission
Decision made on December 20, 2016

Action requested by appellant:

Reverse approval to open wine bar on
Adams Street in a school zone.

Reason for appeal:

It's in a SCHOOL ZONE and the
application does not meet the requirements
11 of the 12 areas needed for
approval.

You may attach additional paper if you need more room to describe the facts and grounds on which your appeal is being filed. Indicate what error in any order, requirement, permit, decision, determination, approval, or denial you believe should be corrected. Following receipt of your appeal, the Planning Department will place the appeal on the next agenda for which a notification can be published in the St. Helena Star. Such notice must be published at least ten (10) days in advance of the hearing date.

Processing fee: **\$1,000 Minor**
 Processing Fee: **\$2,600 Major**

Public Hearing Notice: **\$ 400**

Request Preparation of Mailing Labels: **\$ 200 *(Additional Fee)**

Applications with a negative balance at the time of the public hearing will be continued until the balance is paid in full.

I, Marina Hoffman, hereby file this application for an appeal and agree to pay any and all processing fees imposed by the St. Helena Municipal Code and City Council Resolutions (as they may be amended from time to time).

Failure to pay all accumulated fees by the time of public hearing will result in a continuance or denial of the project.

A finance charge of 12% per annum shall accrue on any balance unpaid after 30 days.

In the event the City is required to take legal action to enforce any of the terms and conditions of this application, Applicant and Property Owner agree to pay to City reasonable attorney fees and costs incurred in such action.

I, the applicant, will defend, indemnify and hold the City, its agents, officers, and employees harmless from any claim, action or proceeding to attack, set aside, void or annul an approval of the City concerning the project, as long as the City promptly notifies the applicant of any such claim, action or proceedings and the City cooperates fully in the defense. We have also reviewed the requirement to disclose the complete list of partners and/or shareholders.

Date: 1/3/2017 Applicant's Signature: Marina Hoffman

My name is Marina Hoffman. I have resided at 1355 Grove Court for twenty years. I am dissatisfied with an action taken by the Planning Commission and therefore I am appealing to the City Council.

The action I refer to is the Ladera Tasting Room/Event Center Use Permit. The applicant is Ladera Winery LLC. The location is 1234 Adams Street, Saint Helena.

The action to approve this Use Permit was on December 20, 2016.

I am asking you, the Saint Helena City Council, to uphold my appeal after the appropriate due diligence is applied to this application. After attending the December 20, 2016 meeting it became very clear to me that proper due diligence had not been performed by the City of Saint Helena Planning Commission.

Item 2.0 NOISE: That the proposed use would not generate levels of noise that adversely affect the health, safety, or welfare of neighboring properties or uses.

This use permit application includes a monthly "event". I think a clear description and understanding of the term "event" is required before a decision regarding problematic versus non problematic noise can be properly assessed. The concept of "noise" was not adequately addressed by the applicant or their legal representative. My concern is that the entire subject of noise was given a "pass". I felt that the assumption made was that noise was not going to be a problem and therefore discussion was not necessary. This is simply NOT acceptable.

Item 6.0 LOCAL ECONOMY That allowing the proposed use would NOT conflict with the City's GOAL of maintaining the economic viability of a local serving economy.

According to General Plan Policy 2.6.27 the following: "Prohibit commercial uses that are primarily tourist serving in nature, and are inconsistent with the community image of Saint Helena".

The arguments submitted in the staff report (suggesting that this business serves both locals and tourists) is inadequate. The wording used in the argument in the Staff Report is tangential and manipulative. A Tasting Room/Event Center is based on attracting tourists and the attraction of tourists follows a season of highs and lows. During the off season, locals do not regularly visit wine tasting rooms or arrange to have events at wine tasting bars. This application does NOT meet this goal.

Regarding the COMMUNITY IMAGE OF SAINT HELENA: MY image of MY community is what already exists in that district. A wine bar simply does not belong there.

Item 7.0 COMPATIBLE: That the proposed use would be compatible with surrounding land uses and would NOT conflict with the purpose established for the district within which it would be located.

The following is directly across the street.

CARNEGIE BUILDING Youth Facility

METHODIST CHURCH

ELEMENTARY SCHOOL Children ages; 8 to 10

PRE SCHOOL Children ages; Toddler

The following is adjacent and clearly within the "district".

CATHOLIC SCHOOL Children attend ages Kindergarten through eighth grade

CATHOLIC CHURCH

EPISCOPAL CHURCH

RESIDENTIAL DWELLINGS WHERE FAMILIES RESIDE

Please Note: NOTHING ABOUT THIS APPLICANT IS COMPATIBLE WITH THE EXISTING DISTRICT.

Also Please Note: Business and Professions Code 23789 authorizes the Alcohol Beverage Commission (ABC) to deny application under subdivision A if "within the immediate vicinity of churches and hospitals" and B if "the applicant is within 600 feet of schools and public playgrounds or nonprofit youth facilities".

The Applicant is **CLEARLY** within the immediate vicinity of churches and **CLEARLY** within 600 feet of a playground and youth facility.

Furthermore, Business and Profession code 23358 D empowers the ABC to deny an application on "public welfare or morals" ground if the main entrance is within 200 feet of a school or church. **CLEARLY**, this is not an appropriate location for the intended purpose of the applicant which is to serve alcohol.

8.0 CITY's GENERAL PLAN: That the proposed use would NOT be in conflict with the City's General Plan.

Again, referring to General Plan Policy 2.6.27

THIS BUSINESS SERVES TOURISTS AND THEREFORE DOES NOT GENERATE REVENUE FROM THE LOCALS THAT IN TURN SUPPORTS THE LOCAL ECONOMY.

The applicant has stated that they will only be serving a few individuals who wander in on foot. I question the incentive of a business who opens its doors and states at the outset that it will only be attracting a handful of people each day. There is something disingenuous and suspicious about this claim.

9.0 PUBLIC SAFETY: That the proposed use would NOT be injurious to public health, safety or welfare.

THIS CANNOT BE MET BY THIS APPLICANT.

The location is already very congested with vehicles and pedestrians, including children. Bringing alcohol in to this mixture was not adequately addressed. The applicant suggested that the employees will be personally responsible for complying with all regulations and would never allow anyone to leave these premises impaired. **BE REASONABLE!** This claim is absurd and it is also unfair to imply that this responsibility will be placed upon the employees. The responsibility does not reside upon the employees. The responsibility resides on the City Council to insure that the **PUBLIC's SAFETY AND WELFARE** is maintained to the highest

reasonable standard within the context of these applications for selling wine consumption.
Wine contains alcohol.

10.0 PRECEDENT: That granting the use permit would NOT set a precedent for the approval of similar uses whose incremental effect would be detrimental to the City or would be in conflict with the General Plan.

THIS SHOULD BE OF GRAVE CONCERN TO ALL OF US.

There is currently nothing in place that would prohibit the sale and consumption of alcohol all the way up and down Oak Street, thereby DESTROYING this district of churches and established sanctuaries designated for the use of the children and adults of this town.

The approval of this application has ALREADY resulted in the entitlement of the applicant to approach the podium at the meeting and state that he is there as a courtesy, his valuable time being spent as a courtesy to the commission, his right to do business at that location already legally acceptable and should not be questioned.

I am requesting that an emergency ordinance be adopted IMMEDIATELY to halt such behavior. Zones as described by the ABC need to be OFF LIMITS for the consumption of alcohol. Wine is alcohol.

11.0 That, as demonstrated on a detailed plan submitted by the applicant, adequate off-street parking to accommodate the long term parking needs of employees and business owners and customer is available.

I saw no detailed plan. There is NOT adequate parking. Anyone suggesting that there is, is delusional and therefore would not be able to adequately portray their delusion on a map.

12.0 That the capacity of surrounding streets is adequate to serve the automobiles and delivery truck traffic generated by the proposed use.

Again, the applicant verbally suggested that the business does not require items that arrive on trucks. Apparently they will bring their goods in to this establishment on foot. THERE IS NO MORE ROOM IN THAT AREA FOR ANY MORE VEHICLES OF ANY KIND. Have any of you been there lately?

I am incredulous that the staff report suggests, ahead of time and before a business opens, that everyone will be on foot.

I hope that you will embrace and thoroughly discuss what I have outlined above.

The Planning Commission was completely negligent in vetting this application and they apparently agreed with a flawed (and biased toward the applicant and against the citizens of this town) staff report. I am asking that this application be denied. I am asking for an Ordinance that will prevent these applications from even coming under the consideration of a Planning Commission who can so easily be swayed and make outrageous approvals such as this one. This ordinance would PROHIBIT THE CONSUMPTION OF ALCOHOL IN CERTAIN DETERMINED AND DESIGNATED DISTRICTS OF THE TOWN OF SAINT HELENA FOR THE PROTECTION OF THE PEOPLE WHO LIVE HERE.

I

Cal. Business and Professions Code § 23789

BACK TO REF
(/STATUTE/CA
REFUSAL-OF-I
FOR-PREMISE
HOSPITAL-SC
OR-NONPROI



CALIFORNIA BUSINESS AND PROFESSIONS CODE – ALCOHOLIC BEVERAGES – RESTRICTIONS ON ISSUANCE OF LICENSES – IN GENERAL – REFUSAL OF ISSUANCE OF RETAIL LICENSE FOR PREMISES LOCATED NEAR CHURCH, HOSPITAL, SCHOOL, PUBLIC PLAYGROUND, OR NONPROFIT YOUTH FACILITY

Current through the 2016 Legislative Session

(a) The department is specifically authorized to refuse the issuance, other than renewal or ownership transfer, of any retail license for premises located within the immediate vicinity of churches and hospitals.

(b) The department is specifically authorized to refuse the issuance, other than renewal or ownership transfer, of any retail license for premises located within at least 600 feet of schools and public playgrounds or nonprofit youth facilities, including, but not limited to, facilities serving Girl Scouts, Boy Scouts, or Campfire Girls. This distance shall be measured pursuant to rules of the department.

Ca. Bus. and Prof. Code § 23789

St. Helena General Plan

and which provide services and products which satisfy local residents' day-to-day needs. They are those businesses for which a majority of the shoppers are regular repeat customers from the community.

Local-serving businesses are of a smaller scale commensurate with the needs of the community. The number of any particular type of business is generally not greater than that required by the community. The nature of the goods and services are such that necessities are emphasized over novelty. Non-local serving or tourist serving uses, on the other hand, are those which would generally not be in St. Helena if it were not for the presence of visitors. Tourist serving business use is generally characterized by a redundancy in merchandise from store to store with goods sold being substantially similar to such goods sold in other major destination points. Some in the community have been in favor of controlling commercial growth in a manner and at a rate similar to policies controlling residential growth.

In addition to the regulatory type of commercial activity that occurs in St. Helena, the community is also concerned about the physical character of the two commercial areas. North of the bridge, the compact scale and historic character of the CBD establish a strong identity for the downtown as an attractive shopping district. In the CBD, the emphasis is on preserving the historic character and pedestrian scale, and then, where possible, extending those characteristics to adjoining commercial areas. South of the bridge, where commercial development embodies the characteristics more typical of auto-oriented, strip commercial development, the principal concern is encouraging the renovation and redevelopment of commercial sites to create a more attractive southern entrance to the City and a more vital and inviting commercial environment for local-serving retail.

The commercial land use policies should be read in conjunction with the policies in the Tourism Management and Community Design Elements when considering the physical form and character of the City's commercial areas.

Guiding Policies

- 2.6.25 Designate only as much land area for service and commercial uses as is sufficient and necessary to maintain St. Helena's historic role as a commercial center providing supplies and services to the surrounding area, and avoid the speculative expansion of commercial areas beyond the needs of the St. Helena community and its surrounding service area.
- 2.6.26 Designate sufficient acreage to accommodate needed local-serving commercial uses within the community.
- 2.6.27 Prohibit commercial uses that are primarily tourist-serving in nature, and that are inconsistent with the community image of St. Helena.

ATTACHMENT 3

USE PERMIT
NO. PL16-087
CITY OF ST. HELENA, STATE OF CALIFORNIA
GRANTED TO LADERA WINERY LLC
1234 ADAMS STREET

PROPERTY OWNER: LADERA WINERY LLC

APN: 009-223-022

Recitals

1. **Whereas**, The Applicant, Ladera Winery LLC, Submitted an application for a Use Permit to operate a 20-seat wine tasting room with retail sales, office, and outdoor seating in an existing commercial space located at 1234 Adams Street and in the CB: Central Business Zoning District.
2. **Whereas**, Wine tasting rooms are subject to a use permit pursuant to Municipal Code Chapter 17.48.
3. **Whereas**, The Planning Commission of the City of St. Helena, State of California, considered the project, staff report, and all testimony, written and spoken, at a duly noticed public hearing on December 20, 2016.
4. **Whereas**, A public notice was published in the Napa Valley Register and mailed to residents and occupants within 300 feet of the project site and in compliance with state and local law; and

Resolution

- A. In making the findings in this Resolution, the Planning Commission relied upon and hereby incorporates by reference all of the documents referenced in this Resolution and the associated staff report, City files for this matter, correspondence, presentations and other materials.
- B. The Planning Commission hereby finds that this project is exempt from the California Environmental Quality Act pursuant to Section 15301, Class 1 of the Guidelines which exempts the operation of existing facilities.
- C. Pursuant to Municipal Code Section 17.168.050, the Planning Commission finds that the Ladera Wine Tasting room will operate in an existing building located within St. Helena's commercial core. The proposed use would be compatible with surrounding uses which consist of boutique retail shops, artisanal food purveyors, restaurants, and upscale wine tasting rooms, further there is no expectation that it would conflict with the goals and objectives established for the CBD district. Given its location, the tasting room is within walkable distance of many other land uses and therefore its impacts to traffic would be limited.

There is no expectation the tasting room would be detrimental to the health, safety, peace, comfort and general welfare of persons in the neighborhood. As a local and visitor serving use, the proposed tasting room supports the development of responsible, visitor-serving components to the City's economy as a valuable source of jobs, tax revenues and cultural amenities.

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December 20, 2016

As conditioned, it is expected that the project would operate in an acceptable manner and be generally consistent with the intent of the General Plan and Zoning Code provisions and therefore, the Planning Commission makes the following Use Permit findings to support the motion to approve the use permit:

1. *That the proposed use would not generate odors, fumes, dust, light, glare, radiation or refuse that would be injurious to surrounding uses or to the community.*
2. *That the proposed use would not generate levels of noise that adversely affect the health, safety, or welfare of neighboring properties or uses.*
3. *That the proposed use would not generate traffic noise in excess of the "normally acceptable" range identified in the General Plan.*
4. *That the proposed use would not make excessive demands on the provision of public services including water supply, sewer capacity, energy supply, communication facilities, police protection, and fire protection.*
5. *That the proposed use would provide adequate ingress and egress to and from the proposed location.*
6. *That allowing the proposed use would not conflict with the City's goal of maintaining the economic viability of a local serving economy.*
7. *That the proposed use would be compatible with surrounding land uses and would not conflict with the purpose established for the district within which it would be located.*
8. *That the proposed use would not be in conflict with the City's General Plan.*
9. *That the proposed use would not be injurious to public health, safety, or welfare.*
10. *That granting the use permit would not set a precedent for the approval of similar uses whose incremental effect would be detrimental to the City or would be in conflict with the General Plan.*
11. *That, as demonstrated on a detailed plan submitted by the applicant, adequate off-street parking to accommodate the long term parking needs of employees and business owners and customers is available.*
12. *That the capacity of surrounding streets is adequate to serve the automobile and delivery truck traffic generated by the proposed use.*

- D. The Planning Commission approves the use permit for the above-described project with the following conditions of approval. The project shall be in conformance with all city ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.

Conditions of Approval

1. Project approvals shall be vested within one (1) year from the date of final action. A building permit for tenant improvements authorized under this approval shall have been obtained within one (1) year from the effective date of this action or the approval

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shall expire, provided however that the approval may be extended for up to two (2) one-year periods pursuant to the St. Helena Municipal Code, Section 17.08.130, Extension of Permits and Approvals. Any request for an extension of this approval shall be justified in writing and received by the Planning Department at least thirty (30) days prior to expiration.

2. The approvals shall not become effective until fourteen (14) calendar days after approval, providing that the action is not appealed by the City Council or any other interested party within that 14-day period.
3. All required fees, including planning fees, development impact fees, residential in-lieu housing fees, building fees, toilet retrofit fees, and St. Helena Unified School District fees shall be paid prior to issuance of a building permit. Fees shall be those in effect at the time of the issuance of the building permit.
4. Minor modifications to the approved project may be approved by the Planning Director insofar as they are in substantial conformance with this approval.
5. Pursuant to St. Helena Municipal Code Section 17.08.110, this permit shall run with the land and shall be binding upon all parties having any right, title or interest in the real property or any part thereof, their heirs, successors and assigns, and shall inure to their benefit and benefit of the City of St. Helena.
6. The primary purpose of this review is for compliance with the General Plan and Zoning Ordinance. The property owners or their designee shall be responsible for meeting with the Building Official, Fire Inspector and or Public Works Department to review compliance with Building Codes, Fire Codes and specific Public Works Standards including fire protection systems and any applicable accessibility standards of Title 24.
7. Construction shall be in compliance with plans submitted and reviewed by the Planning Commission on December 20, 2016, except as modified herein.
8. The site shall be kept clear at all times of garbage and debris. No outdoor storage is permitted.
9. Trash bins shall not be visible from public right-of-way.
10. All landscape plantings shall be maintained in good growing condition. Such maintenance shall include, where appropriate, pruning, weeding, and cleaning of debris and trash, fertilizing and regular watering. Where necessary, plantings shall be replaced with other plant materials to insure continued compliance with applicable landscaping requirements. If irrigation is employed, the irrigation system shall be maintained in sound operating condition with heads periodically cleaned and replaced when missing to ensure efficient watering and to maintain good health and vitality of landscape materials.
11. No signage is approved by this permit. A separate sign permit in compliance with the Municipal Code shall be obtained prior to installation of signage.
12. In any action or proceeding to attack, challenge, invalidate, set aside, void or annul the City's approval of applicant's Project, in whole or in part, applicant shall defend, at its own expense and without any cost to the City, and with counsel acceptable to the City, and shall fully and completely indemnify and hold the City, its agents, officers, and

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employees harmless from and against any and all claims, causes of action, damages, costs, attorney's fees and liability of any kind, so long as the City reasonably promptly notifies the applicant of any such claim, action, or proceedings and the City cooperates fully in the defense of the action or proceedings.

Planning Department Conditions of Approval

13. This permit authorizes a 20-seat wine tasting room with retail sales, appurtenant office space, and outdoor seating in an existing commercial space located at 1234 Adams Street. Tastings will be limited to the hours of 10:00 a.m. to 6:00 p.m.
14. Special events (including acoustical music) shall be allowed to occur on a once a month basis and shall end by 9 p.m.
15. No amplified or acoustic music is permitted outdoors.
16. No sales of "souvenir-type" items shall be permitted; only a small selection of items bearing the Ladera Winery motif is permitted.
17. This business shall remain distinct from those businesses authorized for operation as a food, beverage or drinking establishment as regulated through the Food & Beverage Establishments Inventory. This permit does not authorize the preparation of food on-site. Food may be offered insofar as it is at no cost to the consumer, is made off-premises and the facilities are approved by Napa County Environmental Management.
18. This approval is contingent on the Winery's continued ability to meet the Code provisions enumerated in Chapter 17.48 of the St. Helena Municipal Codes stipulating that wines for tasting and for sale must be made from a minimum of 75% Napa Valley grapes and must be labeled Napa Valley or be a sub-appellation of the Napa Valley. The applicant shall provide evidence of compliance with this code provision prior to issuance of certificate of occupancy and subject to review and approval by the Planning Director. If, at any time, the applicant is unable to meet this code provision the user permit shall be revoked.
19. The applicant shall maintain a Type 02 ABC license.
20. The applicant shall post a permanent sign at the exit that will state "No Alcohol Can Be Consumed Beyond This Point." The outdoor seating area in which wine is served shall be approved and meet all requirements of the Department of Alcohol and Beverage Control and as required by the Building Code. The outdoor tables and chairs will be brought inside at the close of each business day.
21. The applicant shall comply with all conditions of the Napa County Department of Environmental Management pertaining to glass washing for wine-tasting.
22. Fire equipment shall be inspected annually by the Fire Department.

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23. To reduce disturbance of residents in the project vicinity, any construction activities which generate noise that can be heard at the property line of any parcel of real property within the City limits shall be limited to 8:00 a.m. to 5:00 p.m. Monday through Saturday. Delivery of materials/equipment and cleaning and servicing of machines/equipment shall be limited to 7:00 a.m. to 6:00 p.m. Exceptions to these time restrictions may be granted by the Public Works Director for one of the following reasons: (1) inclement weather affecting work, (2) emergency work, or (3) other work, if work and equipment will not create noise that may be unreasonably offensive to neighbors as to constitute a nuisance. The City Engineer must be notified and give approval in advance of such work. No construction activities shall occur on Sundays or federal or local holidays that generate noise that can be heard at the property line of any parcel of real property within the City limits.

Public Works Conditions of Approval

24. Approval of this project shall be subject to the requirements of, and all improvements shall be designed and constructed in accordance with the most current version of the following at the time of improvement plan submittal: Caltrans Standards and Specifications, the City of St. Helena Municipal Code, the St. Helena Water and Sewer Standards, the St. Helena Street, Storm Drain and Sidewalk Standards, and all current federal, state and county codes governing such improvements.
25. Where applicable, the applicant shall be required to obtain an encroachment permit for improvements on public right-of-ways prior to receiving a grading or building permit authorizing site work or construction activities on the site.
26. Where applicable, the applicant shall be required to submit to the requirements for annual inspections of food/beverage service establishments and businesses that handle hazardous wastes for illicit stormwater discharges as required by the State National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges. The annual stormwater illicit discharge inspections are performed and invoiced by Napa County Department of Environmental Management.
27. The applicant and property owner recognize and agree, in lieu of the specific requirements of Chapter 13.12, and the City also agrees, that the unisex toilet facility should feature current water savings technology. They specifically agree that the Public Works Director in his/her discretion shall determine and specify fixtures that represent current water savings technology. At minimum, such fixtures include a dual flush toilet, as determined and specified by the Public Works Director. Faucets that automatically shut-off after a short interval may, in the discretion of the Public Works Director, be specified. The Public Works Director in his/her discretion may specify a heated hand-drying appliance or towels or both, in his/her discretion. The property owner and applicant, upon satisfactory installation of the foregoing, as certified by the Public Works Director or a member of his/her Department, shall not be subject to any in lieu fee. Further, the City shall not accept an in lieu fee in discharge of the specific installation requirements as set forth in this Condition 3.

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28. Any new and modified existing water laterals, meters and backflow prevention devices shall be required and constructed in accordance with the requirements of the City of St. Helena's Water Standards.
29. No construction may commence until adequate access to fire water supply is available to building sites as approved by the Fire Chief.
30. All wastewater lines of the proposed development must be connected to the St. Helena sewer system and designed in accordance with the City sewer system standards. Any new fixture units added to the existing building will require upgrade of the sewer lateral to the building, including a sewer cleanout at the property line.
31. Trash areas, dumpsters and recycling containers shall be enclosed and roofed per State and County standards to prevent water run-on to the trash area and water runoff from the area, to contain litter and trash so that it is not dispersed by the wind or run-off during waste removal. In the event that wine or food is disposed in these areas, they shall drain to the sanitary sewer system. An area drain connected to the sanitary sewer shall be installed in the enclosure area and a structural control such as an oil/water separator or sand filter shall be included. No other area shall drain into the trash enclosure. A sign shall be posted prohibiting the dumping of hazardous materials into the sanitary sewer.
32. Where applicable, deteriorating or broken curb, gutter and/or sidewalk along the project frontage shall be replaced per City specifications, extent to be determined by the Public Works Department.
33. Existing streets being cut by new services will require edge grinding and an A.C. overlay per City standards, extent to be determined by the Public Works Department.
34. The applicant shall repair all public improvements that are damaged by the construction process in accordance with Caltrans Standards and Specifications and the City Water/Sewer/Street/Storm Drain/Sidewalk Standards.

Building Department Conditions of Approval

35. A building permit is required for all onsite demolition, construction and/or change of occupancy.
36. The applicant will be required to comply with the codes in effect at the time of building permit issuance.
37. When submitting plans for a building permit, the plans shall include all documentation listed on the building permit application checklist.
38. The applicant shall provide a construction waste management plan with the building permit application.

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39. The plans for construction shall include a checklist for compliance with the California Green Buildings Standards Code, mandatory measures. Provide a reference on the checklist indicating where the mandatory measures can be found on the plans.
40. When submitting plans, the title page shall include all information referenced on the building permit application checklist Title Page requirements.
41. Building Permit application materials and plans shall include any documentation pertaining to special loads applicable to the design and the specified section of the code that addresses the condition; special inspections for any systems or components requiring special inspection; requirements for seismic resistance; and a complete list of deferred submittals at time of application. Any deferral of the required submittal items shall have prior approval of the Building Official however deferral of fire sprinkler design is not allowed.

I HEREBY CERTIFY that the foregoing demolition permit, design review, and use permit was duly and regularly approved by the Planning Commission of the City of St. Helena at a regular meeting of said Planning Commission held on October 18, 2016 by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

ATTEST:

Grace Kistner
Chair, Planning Commission

Noah Housh
Planning Director

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December 20, 2016

**USE PERMIT
NO. PL16-087
CITY OF ST. HELENA, STATE OF CALIFORNIA
GRANTED TO LADERA WINERY LLC
1234 ADAMS STREET**

PROPERTY OWNER: LADERA WINERY LLC

APN: 009-223-022

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2. **Whereas**, Wine tasting rooms are subject to a use permit pursuant to Municipal Code Chapter 17.48.
3. **Whereas**, The Planning Commission of the City of St. Helena, State of California, considered the project, staff report, and all testimony, written and spoken, at a duly noticed public hearing on December 20, 2016.
4. **Whereas**, A public notice was published in the Napa Valley Register and mailed to residents and occupants within 300 feet of the project site and in compliance with state and local law; and

Resolution

- A. In making the findings in this Resolution, the Planning Commission relied upon and hereby incorporates by reference all of the documents referenced in this Resolution and the associated staff report, City files for this matter, correspondence, presentations and other materials.
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December 20, 2016

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8. *That the proposed use would not be in conflict with the City's General Plan.*
9. *That the proposed use would not be injurious to public health, safety, or welfare.*
10. *That granting the use permit would not set a precedent for the approval of similar uses whose incremental effect would be detrimental to the City or would be in conflict with the General Plan.*
11. *That, as demonstrated on a detailed plan submitted by the applicant, adequate off-street parking to accommodate the long term parking needs of employees and business owners and customers is available.*
12. *That the capacity of surrounding streets is adequate to serve the automobile and delivery truck traffic generated by the proposed use.*

- D. The Planning Commission approves the use permit for the above-described project with the following conditions of approval. The project shall be in conformance with all city ordinances, rules, regulations and policies in effect at the time of issuance of a building permit. The conditions noted below are particularly pertinent to this permit and shall not be construed to permit violation of other laws and policies not so listed.

Conditions of Approval

1. Project approvals shall be vested within one (1) year from the date of final action. A building permit for tenant improvements authorized under this approval shall have been obtained within one (1) year from the effective date of this action or the approval

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2. The approvals shall not become effective until fourteen (14) calendar days after approval, providing that the action is not appealed by the City Council or any other interested party within that 14-day period.
3. All required fees, including planning fees, development impact fees, residential in-lieu housing fees, building fees, toilet retrofit fees, and St. Helena Unified School District fees shall be paid prior to issuance of a building permit. Fees shall be those in effect at the time of the issuance of the building permit.
4. Minor modifications to the approved project may be approved by the Planning Director insofar as they are in substantial conformance with this approval.
5. Pursuant to St. Helena Municipal Code Section 17.08.110, this permit shall run with the land and shall be binding upon all parties having any right, title or interest in the real property or any part thereof, their heirs, successors and assigns, and shall inure to their benefit and benefit of the City of St. Helena.
6. The primary purpose of this review is for compliance with the General Plan and Zoning Ordinance. The property owners or their designee shall be responsible for meeting with the Building Official, Fire Inspector and or Public Works Department to review compliance with Building Codes, Fire Codes and specific Public Works Standards including fire protection systems and any applicable accessibility standards of Title 24.
7. Construction shall be in compliance with plans submitted and reviewed by the Planning Commission on December 20, 2016, except as modified herein.
8. The site shall be kept clear at all times of garbage and debris. No outdoor storage is permitted.
9. Trash bins shall not be visible from public right-of-way.
10. All landscape plantings shall be maintained in good growing condition. Such maintenance shall include, where appropriate, pruning, weeding, and cleaning of debris and trash, fertilizing and regular watering. Where necessary, plantings shall be replaced with other plant materials to insure continued compliance with applicable landscaping requirements. If irrigation is employed, the irrigation system shall be maintained in sound operating condition with heads periodically cleaned and replaced when missing to ensure efficient watering and to maintain good health and vitality of landscape materials.
11. No signage is approved by this permit. A separate sign permit in compliance with the Municipal Code shall be obtained prior to installation of signage.
12. In any action or proceeding to attack, challenge, invalidate, set aside, void or annul the City's approval of applicant's Project, in whole or in part, applicant shall defend, at its own expense and without any cost to the City, and with counsel acceptable to the City, and shall fully and completely indemnify and hold the City, its agents, officers, and

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employees harmless from and against any and all claims, causes of action, damages, costs, attorney's fees and liability of any kind, so long as the City reasonably promptly notifies the applicant of any such claim, action, or proceedings and the City cooperates fully in the defense of the action or proceedings.

Planning Department Conditions of Approval

13. This permit authorizes a 20-seat wine tasting room with retail sales, appurtenant office space, and outdoor seating in an existing commercial space located at 1234 Adams Street. Tastings will be limited to the hours of 10:00 a.m. to 6:00 p.m.
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15. No amplified or acoustic music is permitted outdoors.
16. No sales of "souvenir-type" items shall be permitted; only a small selection of items bearing the Ladera Winery motif is permitted.
17. This business shall remain distinct from those businesses authorized for operation as a food, beverage or drinking establishment as regulated through the Food & Beverage Establishments Inventory. This permit does not authorize the preparation of food on-site. Food may be offered insofar as it is at no cost to the consumer, is made off-premises and the facilities are approved by Napa County Environmental Management.
18. This approval is contingent on the Winery's continued ability to meet the Code provisions enumerated in Chapter 17.48 of the St. Helena Municipal Codes stipulating that wines for tasting and for sale must be made from a minimum of 75% Napa Valley grapes and must be labeled Napa Valley or be a sub-appellation of the Napa Valley. The applicant shall provide evidence of compliance with this code provision prior to issuance of certificate of occupancy and subject to review and approval by the Planning Director. If, at any time, the applicant is unable to meet this code provision the user permit shall be revoked.
19. The applicant shall maintain a Type 02 ABC license.
20. The applicant shall post a permanent sign at the exit that will state "No Alcohol Can Be Consumed Beyond This Point." The outdoor seating area in which wine is served shall be approved and meet all requirements of the Department of Alcohol and Beverage Control and as required by the Building Code. The outdoor tables and chairs will be brought inside at the close of each business day.
21. The applicant shall comply with all conditions of the Napa County Department of Environmental Management pertaining to glass washing for wine-tasting.
22. Fire equipment shall be inspected annually by the Fire Department.

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Use Permit
December 20, 2016

23. To reduce disturbance of residents in the project vicinity, any construction activities which generate noise that can be heard at the property line of any parcel of real property within the City limits shall be limited to 8:00 a.m. to 5:00 p.m. Monday through Saturday. Delivery of materials/equipment and cleaning and servicing of machines/equipment shall be limited to 7:00 a.m. to 6:00 p.m. Exceptions to these time restrictions may be granted by the Public Works Director for one of the following reasons: (1) inclement weather affecting work, (2) emergency work, or (3) other work, if work and equipment will not create noise that may be unreasonably offensive to neighbors as to constitute a nuisance. The City Engineer must be notified and give approval in advance of such work. No construction activities shall occur on Sundays or federal or local holidays that generate noise that can be heard at the property line of any parcel of real property within the City limits.

Public Works Conditions of Approval

24. Approval of this project shall be subject to the requirements of, and all improvements shall be designed and constructed in accordance with the most current version of the following at the time of improvement plan submittal: Caltrans Standards and Specifications, the City of St. Helena Municipal Code, the St. Helena Water and Sewer Standards, the St. Helena Street, Storm Drain and Sidewalk Standards, and all current federal, state and county codes governing such improvements.
25. Where applicable, the applicant shall be required to obtain an encroachment permit for improvements on public right-of-ways prior to receiving a grading or building permit authorizing site work or construction activities on the site.
26. Where applicable, the applicant shall be required to submit to the requirements for annual inspections of food/beverage service establishments and businesses that handle hazardous wastes for illicit stormwater discharges as required by the State National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges. The annual stormwater illicit discharge inspections are performed and invoiced by Napa County Department of Environmental Management.
27. The applicant and property owner recognize and agree, in lieu of the specific requirements of Chapter 13.12, and the City also agrees, that the unisex toilet facility should feature current water savings technology. They specifically agree that the Public Works Director in his/her discretion shall determine and specify fixtures that represent current water savings technology. At minimum, such fixtures include a dual flush toilet, as determined and specified by the Public Works Director. Faucets that automatically shut-off after a short interval may, in the discretion of the Public Works Director, be specified. The Public Works Director in his/her discretion may specify a heated hand-drying appliance or towels or both, in his/her discretion. The property owner and applicant, upon satisfactory installation of the foregoing, as certified by the Public Works Director or a member of his/her Department, shall not be subject to any in lieu fee. Further, the City shall not accept an in lieu fee in discharge of the specific installation requirements as set forth in this Condition 3.

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December 20, 2016

28. Any new and modified existing water laterals, meters and backflow prevention devices shall be required and constructed in accordance with the requirements of the City of St. Helena's Water Standards.
29. No construction may commence until adequate access to fire water supply is available to building sites as approved by the Fire Chief.
30. All wastewater lines of the proposed development must be connected to the St. Helena sewer system and designed in accordance with the City sewer system standards. Any new fixture units added to the existing building will require upgrade of the sewer lateral to the building, including a sewer cleanout at the property line.
31. Trash areas, dumpsters and recycling containers shall be enclosed and roofed per State and County standards to prevent water run-on to the trash area and water runoff from the area, to contain litter and trash so that it is not dispersed by the wind or run-off during waste removal. In the event that wine or food is disposed in these areas, they shall drain to the sanitary sewer system. An area drain connected to the sanitary sewer shall be installed in the enclosure area and a structural control such as an oil/water separator or sand filter shall be included. No other area shall drain into the trash enclosure. A sign shall be posted prohibiting the dumping of hazardous materials into the sanitary sewer.
32. Where applicable, deteriorating or broken curb, gutter and/or sidewalk along the project frontage shall be replaced per City specifications, extent to be determined by the Public Works Department.
33. Existing streets being cut by new services will require edge grinding and an A.C. overlay per City standards, extent to be determined by the Public Works Department.
34. The applicant shall repair all public improvements that are damaged by the construction process in accordance with Caltrans Standards and Specifications and the City Water/Sewer/Street/Storm Drain/Sidewalk Standards.

Building Department Conditions of Approval

35. A building permit is required for all onsite demolition, construction and/or change of occupancy.
36. The applicant will be required to comply with the codes in effect at the time of building permit issuance.
37. When submitting plans for a building permit, the plans shall include all documentation listed on the building permit application checklist.
38. The applicant shall provide a construction waste management plan with the building permit application.

1234 Adams
Use Permit
December 20, 2016

39. The plans for construction shall include a checklist for compliance with the California Green Buildings Standards Code, mandatory measures. Provide a reference on the checklist indicating where the mandatory measures can be found on the plans.
40. When submitting plans, the title page shall include all information referenced on the building permit application checklist Title Page requirements.
41. Building Permit application materials and plans shall include any documentation pertaining to special loads applicable to the design and the specified section of the code that addresses the condition; special inspections for any systems or components requiring special inspection; requirements for seismic resistance; and a complete list of deferred submittals at time of application. Any deferral of the required submittal items shall have prior approval of the Building Official however deferral of fire sprinkler design is not allowed.

I HEREBY CERTIFY that the foregoing demolition permit, design review, and use permit was duly and regularly approved by the Planning Commission of the City of St. Helena at a regular meeting of said Planning Commission held on October 18, 2016 by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED:

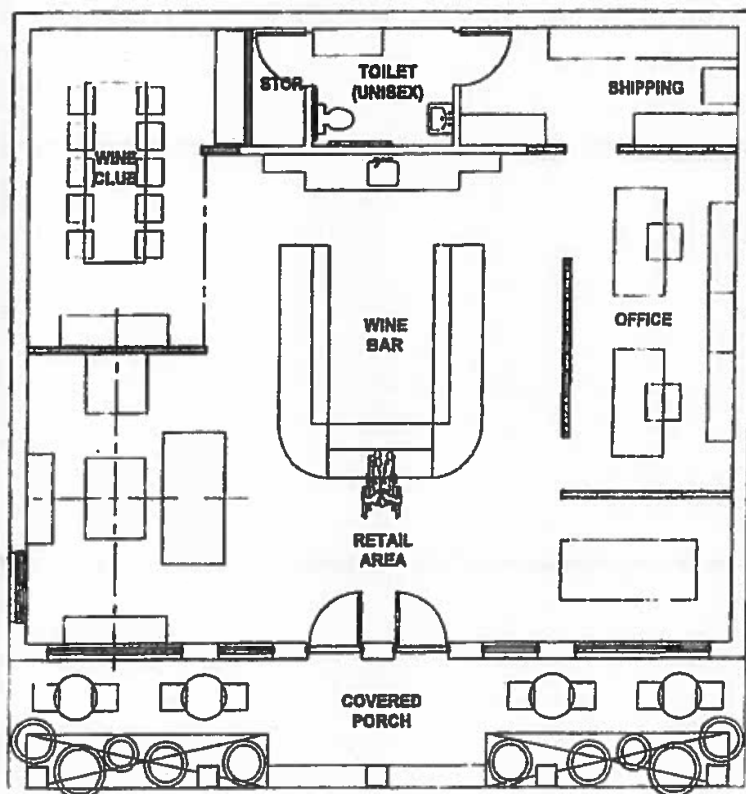
ATTEST:

Grace Kistner
Chair, Planning Commission

Noah Housh
Planning Director

1234 Adams
Use Permit
December 20, 2016

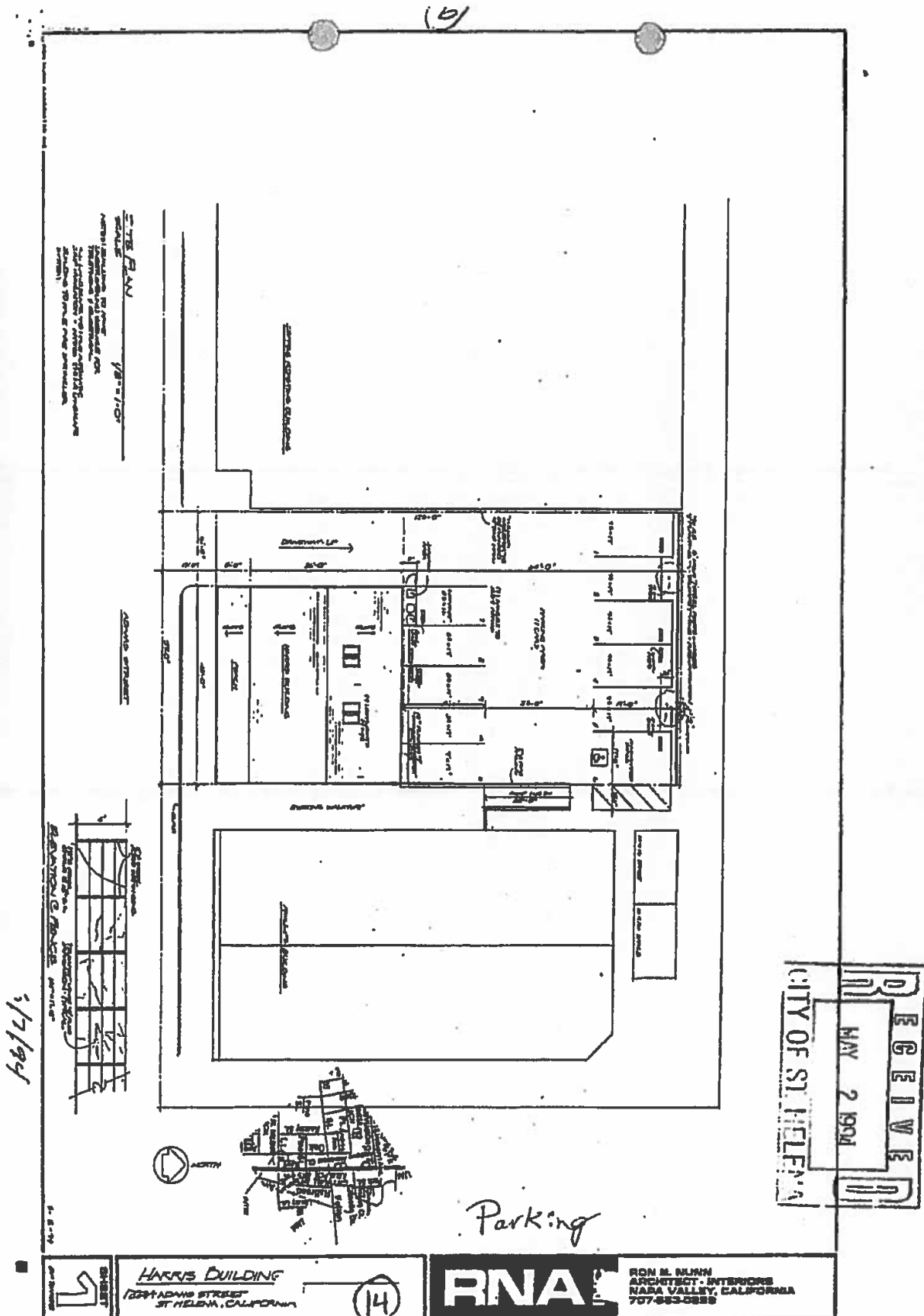
ATTACHMENT 4



FLOOR AREA:
GROSS (WITH PORCH) 1,857 SF
NET (CONDITIONED) 1,548 SF



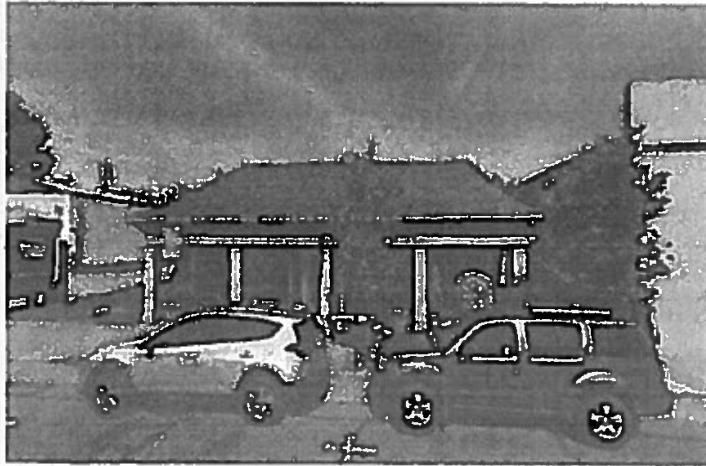
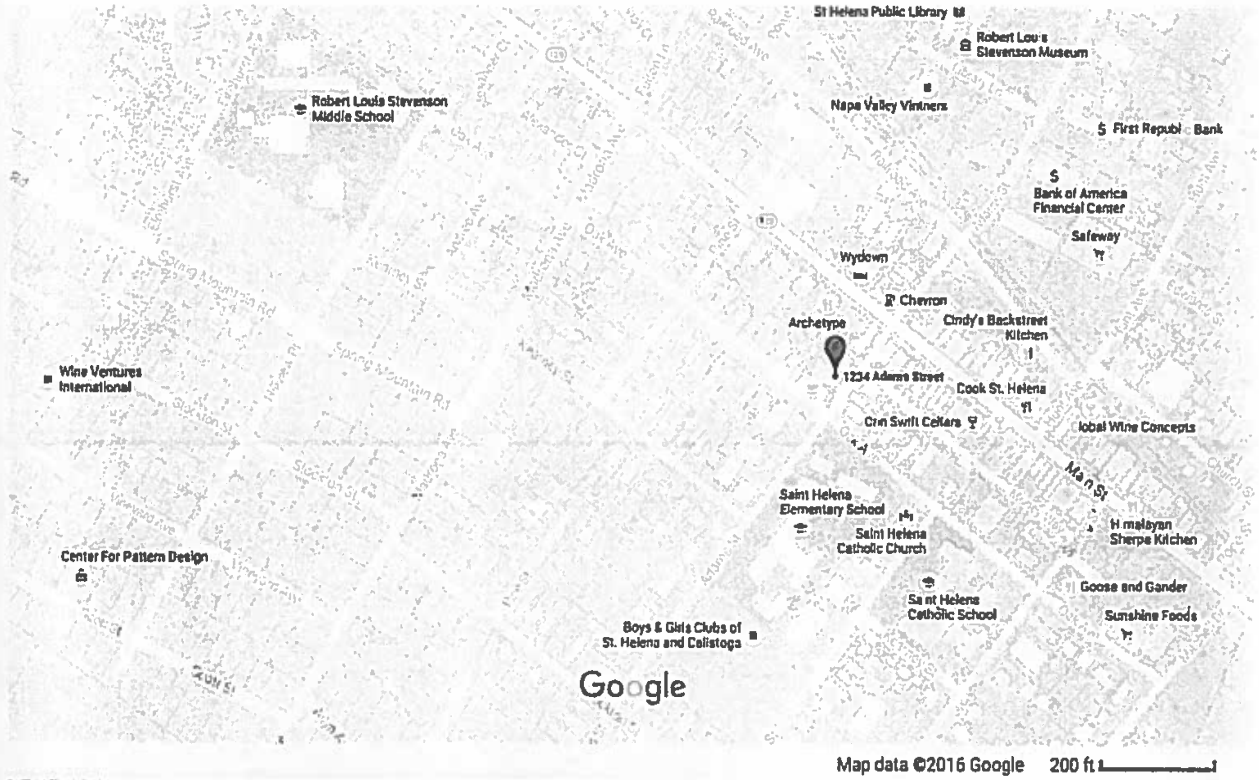
12



1234 Adams St - Google Maps

11/2/16, 2:45 PM

Google Maps 1234 Adams St



1234 Adams St
St Helena, CA 94574

<https://www.google.com/maps/place/1234+Adams+St,+St+Helena,+CA...8c7:0x5125688cd863bb9a!8m2!3d38.5048408!4d-122.4709557!6m1!1e1>

Page 1 of 2

Attachment 5



**Report to the City Council
Council Meeting of January 24, 2017**

Agenda Section: Public Hearing

Subject: Consideration and proposed resolution of an Appeal of the Planning Commission decision to approve a Use Permit for the Ladera Tasting room located at 1234 Adams in the Central business District.

CEQA Status: Categorically Exempt pursuant to Section 15301 of the CEQA Guidelines

Prepared By: Lilly Bianco, Contract Planner

Reviewed By: Noah Housh, Planning and Community Improvement Director

(Handwritten signature: NH)

Approved By: *(Handwritten signature: Steven Palmer)*

Steven Palmer, Director of Public Works,
Acting City Manager

DISCUSSION

On December 20, 2016, The Planning Commission approved a use permit conditionally allowing the Ladera Tasting room to operate out of an existing commercial space located at 1234 Adams Street and in the CB: Central Business zoning district. The commission voted to 2 to 1 (with one commissioner abstaining) to approve the use permit.

As conditioned, the use permit would allow for the operation of a 20 seat wine tasting room with retail sales, accessory administrative office space, and outdoor seating in the existing retail space at 1234 Adams Street. There will be two full time employees and one part time employee. Hours of operation will be between the hours of 10:00 a.m. to 6:00 p.m. seven days a week with special events limited to one per month with the potential for hours to be extended until 9:00 p.m. No exterior modifications were approved as part of the use permit application.

APPLICANT APPEAL

On January 3, 2017 Marina Hoffman filed an appeal of the Planning Commission's decision. In a written statement attached to the appeal application (**Attachment 2**), the appellant provided reasons why they are appealing the Planning Commission's decision

Attachment 5

to approve the Use Permit. A summary of those reasons is provided in italic typeface with staff's response, below. For a comprehensive list of reasons for the appeal please see **Attachment 2**.

- *Proximity to a school. The location of a tasting room proximate to a school would pose safety hazards.*

There is no provision in the Municipal Code that restricts locating tasting rooms proximate to schools and/or other community uses. The CB District conditionally allows wine tasting rooms to the extent that they meet all applicable regulations. The current code does not include any prohibitions on wine tasting rooms proximate to a school or other similar uses, as such; this criterion was not applied to the project when evaluated for consistency with applicable regulations.

- *Noise. Noise impacts were not properly analyzed and in order to adequately understand potential noise impacts, a more robust understanding of the term "event" is needed.*

Under Municipal Code Section 17.48.090 B, entertainment shall be allowed when accessory to an approved use and noise is not audible beyond the confines of the building. As conditioned, the project may not have amplified or acoustic music outdoors. It is assumed that the building envelope would effectively attenuate noise so as to ensure it is not audible beyond the confines of the building. Accordingly, adherence to the adopted conditions of approval would ensure that noise generated by the tasting room, during regular operating hours, or during a once monthly event, would be limited and consistent with what is allowed under the allowances of the zoning code and compatible with the noise levels exhibited by typical uses within St. Helena's CB District. Further, any noise issues resulting from the operation of the proposed use would be addressed under the City's Noise Ordinance (Section 8.24 of the Municipal Code).

- *Local Economy. A tasting room is not local serving.*

As detailed in the Staff Report, tasting rooms are a conditionally allowed use within the Commercial Business District insofar as the use permit is consistent with the policies of the general plan and the purpose of the CB zoning district and complies with the requisite use permit findings enumerated in Code Section 17.168.050.

The intent is for the CB district to remain primarily locally serving in character. New uses which serve *both* local residents and tourists are allowed. Non-local serving uses are *not* allowed. The zoning code specifically identifies uses referred to as "nonlocal-serving or tourist-serving" as those which "would

Attachment 5

generally not be in St. Helena if it were not for the presence of visitors. Tourist-serving business use is generally characterized by a redundancy in merchandise from store to store with goods sold being substantially similar to such goods sold in other major destination points."

As a boutique wine tasting room offering locally produced, high end wines, the Ladera Tasting Room does not readily meet the definition of a non-local/tourist serving business, as defined above. Similarly, the fact that wineries are only allowed one (1) duplicate Type 2 ABC license means that they may only establish one off-premise tasting room, thereby precluding the opportunity for multiple tasting rooms and a redundancy in goods.

Further, as detailed in the General Plan, the proposed local/tourist use is consistent with the following General Plan Goals.

- 2.6.35 Maintain the CBD as the City's social and cultural core and the primary center for retail business.
- 3.4.2 Support the development of a responsible visitor serving component to the City's economy as a valuable source of jobs, tax revenues, and cultural amenities.
- 3.4.3 Give preference to visitor-serving uses whose orientation is toward a more discriminating upscale market consistent with the Valley's reputation as a producer of world class wines, and discourage the introduction of uses that are dependent upon a mass tourist market, while not increasing the total number of tourists.

Accordingly, the General Plan and Municipal Code provide the opportunity for wine tasting rooms and like uses as detailed above insofar as they meet all applicable regulations. The mere fact that the wine tasting room may serve tourists does not by itself make it inconsistent with the applicable regulations. This issue was thoroughly discussed in the Planning Commission staff report and in the staff presentation to the Commission. After reviewing all of the proposed facts, the Commission approved the project, finding it in compliance with the local serving requirements of the General Plan and Zoning Code.

- *Compatibility. The tasting room's location proximate to schools, churches, and residences is inappropriate. Further, the Alcohol and Beverage Control (ABC) maintains the authority to (1) deny an application if it is within the immediate vicinity of churches and hospitals or (2) if the applicant is within 600 feet of schools and public playgrounds or nonprofit youth facilities. Further, the Business and Profession Code Section 23358 D empowers the ABC to deny an application based on public welfare or moral grounds if the main entrance is within 200 feet of a school or church.*

Attachment 5

At present, there is no provision in the St. Helena Municipal Code that restricts locating tasting rooms proximate to schools and/or other community uses. The City's General Plan and Municipal code provide the basis for Staff's recommendations and decisions made by the respective regulatory body. Given that neither the General Plan nor Municipal Code currently include prohibitions on the location of alcohol serving establishments, the City does not have the ability to deny the tasting room based on its location and assuming that it meets all other applicable regulations.

In respect to the ABC laws, the applicant is required to obtain a duplicate Type 2 ABC license. While an ABC license is required as a condition for use permit issuance, enforcement of any applicable ABC laws is left to the ABC and is beyond the City's purview and /or jurisdiction.

- *General Plan Consistency. The project is inconsistent with General Plan policy 2.6.27 "Prohibit commercial uses that are primarily tourist-serving in nature, and that are inconsistent with the community image of St Helena."*

Tasting rooms are a conditionally allowed use within the Commercial Business District. If wine tasting rooms were considered to be in direct conflict with the goals and objectives of the General Plan (e.g. to promote primarily local serving uses) than it is presumed that they would be prohibited and not conditionally allowed. With that, it is understood that tasting rooms may operate as both local and tourists serving uses and are readily consistent with St. Helena's image as a premier wine growing region. This is supported by the Planning Commission's approval of the project, finding it in compliance with the local serving requirements of the General Plan and Zoning Code.

- *Public Safety. The combination of an alcohol serving establishment in an area frequented by vehicles and pedestrians, including children, results in a situation where public safety cannot be ensured.*

The proposed use is consistent with other uses in the CB District including boutique retail shops, artisanal food purveyors, restaurants, and other upscale wine tasting rooms. It is not unusual for a central commercial district to exhibit the combination of visitor types named above and therefore is not determined to constitute an exceptional public safety hazard. Further, in accordance with the Department of Alcoholic Beverage Control (ABC) requirements, all employees must complete an ABC approved alcoholic beverage Service Program prior to the tasting room opening and within 90 days of hire for new employees.

- *Precedent. There is no guarantee that alcohol serving establishments and/or retail businesses would not be further established along Oak Street. The*

Attachment 5

applicant requests an emergency ordinance prohibiting the sale/ consumption of alcohol in areas proximate to sensitive uses and as described by the ABC.

Wine tasting rooms are conditionally allowed uses within the Central Business and Service Commercial Zoning Districts and as such, are reviewed on a case-by-case basis, based on their individual merits and impacts. Any tasting room proposed would be subject to discretionary review in accordance with the respective code provisions. Given the requirements for Use Permit approval for any proposed tasting room use, staff does not find any precedence created by the approval of the Use Permit to allow wine tasting in this location.

Any emergency ordinance governing an individual land use would have to be proposed by the City Council.

- *Parking. There is no parking plan that indicates adequate parking on the site.*

As detailed in the Staff Report (Attachment 3), Chapter 17.124, Parking & Loading Requirements, section 17.124.030 (D)(2) "Establishments with seating for service of food and/or drinks" requires 1 parking space for each four seats (20 proposed) for a total of five required spaces. The parking allocated to the subject project includes five dedicated off-street parking spaces located behind the building and was found to be in compliance with the requirements of the Code by the Planning Commission.

- *Traffic. The vicinity of the subject site is already congested and truck deliveries associated with the wine tasting room would further exacerbate this.*

As a 20 seat tasting room operating from an existing commercial location product deliveries and customer traffic are not expected to exacerbate traffic congestion to a level inconsistent with that currently existing or exhibited by other uses in the CB District.

FISCAL IMPACT

There will be no fiscal impact to the General Fund related to Council action on this item.

RECOMMENDED ACTION

The Planning Commission recommends the City Council consider the appeal, staff report, and all testimony, written and spoken and:

1. Deny the applicant's appeal of the Planning Commission's decision approving a use permit to establish a wine tasting room in the existing commercial space at 1234 Adams Street.

ATTACHMENTS

Attachment 5

- 1. Resolution**
- 2. Appeal Application and written statement**
- 3. Dec 20, 2016 Staff Report and Resolution**
- 4. Project plans**



Report to the City Council
Special Council Meeting of February 14, 2017

Agenda Section: New Business

**Subject: Consideration and proposed approval of a resolution
appointing an applicant to the Planning Commission**

CEQA Not a CEQA project
Determination:

Prepared By: Cindy Black
Cindy Black, City Clerk

Approved By:

Larry Pennell
Larry Pennell, Interim City Manager

BACKGROUND

At the November 8, 2016 General Municipal Election, Planning Commissioner Mary Koberstein was elected to the St. Helena City Council. Mary Koberstein received her oath of office as a City Councilmember at the December 13, 2016 City Council meeting. This action subsequently created a vacancy on the Planning Commission.

DISCUSSION

The City Clerk's office held a recruitment for applicants to apply for the vacant Planning Commission position. The City received applications from Douglas Keller, Robyn Bentley, Robert V. Homsy, David Knudsen, Thomas "Scott" Diaz, John Ponte and John S. Anderson for consideration of appointment.

FISCAL IMPACT

There is no fiscal impact.

RECOMMENDED ACTION

Per resolution 2013-26 Council Rules of Procedure appointments shall be made by the Mayor and subject to the City Council approval.

ATTACHMENTS

Attachment 1 Applicants
Attachment 2 Resolution



RECEIVED
PLANNING DEPARTMENT

JAN 26 2017

City of St. Helena

CITY HALL, 1480 MAIN STREET
ST. HELENA, CALIFORNIA 94574

(707) 968-2792

www.sthelenacity.com

APPLICATION FOR APPOINTMENT

Note: Your application will be copied for the City Council and made available to the press and public.

Board/Committee/Commission to which you are applying:

PLANNING COMMISSION

Name: DOUGLAS D. KELLER

Home Address: 1250 PEPPERTREE CIRCLE, ST. HELENA, CA 94574

Mailing Address: SAHE

Occupation: RETIRED ATTORNEY

Business Address: SAHE

Home Telephone: (707) 963-3905 ^{CELL} Business Telephone: [REDACTED]

E-mail: DD KELLER 1 @ GMAIL.COM

Please indicate if above numbers can be made available to the public upon request: NOT CELL PHONE

Are you a resident of St. Helena? YES If yes, how long have you lived in St. Helena? 6 YRS. PART TIME

Current occupation (within last 12 months) RETIRED ATTORNEY ^{2 MOS FULLTIME}
6-12 WKS UP IN ST. HELENA

Business interests in last 12 months: SECURITIES TRADING; SELLING
BUYING REAL PROPERTY

Previous Committee/Commission Experience:

PEPPERTREE HOMEOWNERS ASSOC., ST. HELENA

Education/Experience: A resume may be attached containing this and any other information that would be helpful in evaluating your application.

ST. HELENA HIGH SCHOOL; UNIV. OF THE PACIFIC (JUSTICES
MANAGEMENT & ACCOUNTING); BOYD HALL SCHOOL OF LAW;
27 YEARS INSURANCE LAW & ADMINISTRATIVE LAW (INCLUDING ADMINISTRATION
LAW JUDGE)

Professional and/or community service activities:

BOARD MEMBER; PROJECT OPEN HAND

Local government related experience: _____

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute

WISH TO GET INVOLVED IN ST. HELENA POLITICS. HAVING WITNESSED
ST. HELENA CHANGE OVER 4 DECADES, I THINK I CAN ADD SOME PERSONAL
PERSPECTIVE & PROTECTION TO LONG-TIME RESIDENTS WHILE BEING SENSITIVE
TO THE NEED FOR MORE HOUSING TO TENANTS.

Names, addresses, and phone numbers of three individuals familiar with your background:

NANCY [REDACTED]
TIM KLEIN
BOB PESTON

Appointments to this position may require you to file a Conflict of Interest Disclosure Statement, which is of public record.

Signature of Applicant

Date

Nov. 25, 2017

If you have any questions regarding the appointment procedure, please telephone the City Clerk at (707) 968-2742.

Please return the completed application to:

City of St. Helena
 City Clerk
 1480 Main Street
 St. Helena, CA, 94574

CITY HALL, 1480 MAIN STREET
ST. HELENA, CALIFORNIA 94574
(707) 968-2792

APPLICATION FOR APPOINTMENT

Note: Your application will be copied for the City Council and made available to the press and public.

Committee/Commission to which you are applying:

The St. Helena Planning Commission

Name: **Robyn Bentley**

Home Address: **1738 Stockton Street St. Helena CA 94574**

Mailing Address: **Same**

Occupation: **Owner/Broker WINE COUNTRY CONSULTANTS**

Business Address: **1485 Main St. #301 St. Helena**

Home Telephone: **707 477 8420** Business Telephone: **Same**

E-mail: **Bentley@winecc.net**

Please indicate if above numbers can be made available to the public upon request: **Yes**

Are you a resident of St. Helena? **Yes** __ If yes, how long have you lived in St. Helena?
24 years

Current occupation (within last 12 months) **Real Estate Broker in CA, OR & WA.**

Business interests in last 12 months: **Please see attached resume**

Previous Committee/Commission Experience: **Please see attached resume**

Education/Experience: A resume may be attached containing this and any other information that would be helpful in evaluating your application.

Please see attached resume

Professional and/or community service activities:

Please see attached resume

Local government related experience: None To Date

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute

My intention is to give back to the hometown I feel blessed to be a part of for the past 24 years. I raised two children, Jordan & Ross Bentley, in the St. Helena school system and will have four grandchildren attending over the next 20 years. My background as a real estate professional in this community, for the past 23 years, I believe makes me uniquely qualified to serve my fellow citizens. I understand the process as well as the rewards & frustrations and believe I bring a calm intellect & integrity to any and all challenges in my personal & professional life. My intention is to serve and serve well the City of St. Helena.

Names, addresses, and phone numbers of three individuals familiar with your background:

1) Donna Oldford

2) Rob Mondavi J

3) Kim Walsh / 16

Appointments to this position may require you to file a Conflict of Interest Disclosure Statement, which is of public record.

Signature of Applicant

Date

1/30/17

If you have any questions regarding the appointment procedure, please telephone the City Clerk at (707) 968-2742.

Please return the completed application to:

City of St. Helena

City Clerk

1480 Main Street

St. Helena, CA, 94574



ROBYN BENTLEY

(707) 477-8420 / bentley@winecc.net / www.winecc.net

SUMMARY

Executive professional with over thirty years of experience in marketing and sales. Proven ability to remain positive, flexible and calm while successfully leading projects to completion. Highly effective strategist, problem solver and decision maker. Excellent communication, interpersonal, negotiation and analytical skills.

Children's Trust Fund of Oregon, Board Member 2007 – 2011; Community Resources for Children, Board Member 2000 – 2005; RLS Middle School, PTA Treasurer 1999; Saint Helena Elementary School, Silent Auction Chair 1996; March of Dimes, Croquet Classic Co-Chair 1994 & 1995; Perry Center, Silent Art Auction Chair 1990; Edgewood Children's Center, fundraiser for annual Crystal Ball, 1986 – 1989.

PROFESSIONAL EXPERIENCE

Wine Country Consultants International, Real Estate Broker, Saint Helena, California 2007 – Present
 Founder and President of consulting brokerage firm specializing in, vineyard, wineries and vacant land representing buyers and sellers in California, Oregon, Washington, Montana and Idaho.

Morgan Lane, Real Estate Broker, Saint Helena, California 1994 – 2006
 Transaction activity includes residential, commercial, vineyard and vacant land representing buyers and sellers. Managerial experience includes serving as Broker of Record and company manager.

Waverly Children's Home, Community Relations Coordinator, Portland, Oregon 1991 – 1993
 Responsibilities included fundraising in all forms and first-line communication with board and guild members; management of all public relations and donation activities; management of data entry and constituency database computer operations; writing of all solicitation material and monthly newsletter; and design and development of all marketing material.

Macy's California, Buyer, Men's Fashion & Athletic Footwear, San Francisco, California 1980 – 1986
 Positions held include: Manager, Intimate Apparel Department; First Assistant Buyer, American Designer Department; Senior Assistant Buyer, Men's Footwear & Rainwear Department (served as the rainwear buyer); Group Sales Manager (responsible for one-third of the sales departments at the Macy's Santa Rosa store); Buyer, Men's Fashion and Athletic Footwear.

EDUCATION

Bachelor of Science, Business Administration, Augustana College, Rock Island, Illinois 1979

CITY HALL, 1480 MAIN STREET
ST. HELENA, CALIFORNIA 94574
(707) 968-2792
www.sthelenacity.com

APPLICATION FOR APPOINTMENT

Note: Your application will be copied for the City Council and made available to the press and public.

Committee/Commission to which you are applying:

Planning Commission

Name: Robert V. Homsy

Home Address: 1370 Grove Court

Mailing Address: 1111 Chiles Avenue, Saint Helena, CA 94574

Occupation: Retired Chemical Engineer/Decision Analyst

Business Address: N/A

Home Telephone: 510-734-8808 Business Telephone: N/A

E-mail: bhomsy@gmail.com

Please indicate if above numbers can be made available to the public upon request: Yes

Are you a resident of St. Helena? Yes. If yes, how long have you lived in St. Helena? 6 mo

Current occupation (within last 12 months) Retired

Business interests in last 12 months: Real estate

Previous Committee/Commission Experience: None

Education/Experience: A resume may be attached containing this and any other information that would be helpful in evaluating your application.

(All Chemical Engineering): BS: UC, Berkeley (1967), MS: MIT (1968), Ph.D. UC, Berkeley (1974).

Work Experience: Systems Analysis, International Security, Arms Control in various branches of the federal government

Professional and/or community service activities:
American Institute of Chemical Engineers

Local government related experience: None

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute

I am interested in the big picture of how our community continues to evolve with particular concern about traffic, foot access, integrated planning. I would like to give back to the City by way of appreciation in ways that my background would best lend itself to service.

Names, addresses, and phone numbers of three individuals familiar with your background:

David Epley,

Shams Kairy,

John Dewey,

Appointments to this position may require you to file a Conflict of Interest Disclosure Statement, which is of public record.

Signature of Applicant ☐

January 30, 2017

Date

If you have any questions regarding the appointment procedure, please telephone the City Clerk at (707) 968-2742.

Please return the completed application to:
City of St. Helena
City Clerk
1480 Main Street
St. Helena, CA, 94574



CITY HALL, 1480 MAIN STREET
ST. HELENA, CALIFORNIA 94574
(707) 968-2792
www.sthelenacity.com

APPLICATION FOR APPOINTMENT

Note: Your application will be copied for the City Council and made available to the press and public.

Board/Committee/Commission to which you are applying:

Planning

Name: David Knudsen

Home Address: 1721 Pine St 94574

Mailing Address: —

Occupation: software

Business Address: P.O. Box 4302 Napa, CA 94558

Home Telephone: [REDACTED] Business Telephone: [REDACTED]

E-mail: dknudsen@outlook.com

Please indicate if above numbers can be made available to the public upon request: no

Are you a resident of St. Helena? Yes If yes, how long have you lived in St. Helena? 10 yrs

Current occupation (within last 12 months) see attached

Business interests in last 12 months: see attached

Previous Committee/Commission Experience: see attached

Education/Experience: A resume may be attached containing this and any other information that would be helpful in evaluating your application.

see attached

Professional and/or community service activities:

see attached

Local government related experience:

see attached

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute

see attached

Names, addresses, and phone numbers of three individuals familiar with your background:

Lester Hardy

Chris Hougie

Trecy Sweeney

Appointments to this position may require you to file a Conflict of Interest Disclosure Statement, which is of public record.

Signature of Applicant

Date

1-30-17

If you have any questions regarding the appointment procedure, please telephone the City Clerk at (707) 968-2742.

Please return the completed application to:

City of St. Helena

City Clerk

1480 Main Street

St. Helena, CA, 94574

David Knudsen info

January 2017

I grew up in Boulder and also have lived in two Colorado resort towns: Steamboat Springs and Telluride. I graduated with a B.A. in Economics from Wesleyan in 1984 and an M.B.A. from Yale in 1991. I have traveled extensively and have work experience in both Europe and Asia.

I began in financial and economic consulting, have worked in finance activities, and my primary work-life has been in software development. I have been based in Boston, SF, and Silicon Valley, with a stint in Japan. I'm currently Chief Data Officer at 140.32 LLC dba Machina—a quantitative data analysis start-up I co-founded with local Mark Nelson in 2010, and am also Manager of Trimode Capital LLC.

I'm married to Sarah Lonsdale, a co-founder of the design blog Remodelista.com and most recently co-author of *Foraged Flora*. We have two children—one a graduate of St. Helena High, the second a sophomore there. We've lived here for 10 years, first on Arrowhead and on Adams, where we rented, and now currently on Pine.

Community-wise, I've been involved as a citizen before the Tree and the Parks & Recreation Committees and before St. Helena Unified's Facilities Committee and School Board on a couple different matters. I also captained a tennis team at Crane Park for several years.

I'm interested in serving on the commission to be civic-minded and to give an even-handed approach to planning matters before the city. My philosophy would be to treat all equally before the commission and also to make sure that neighborhood voices are heard. The guidelines provide some latitude, and the commission should be fair in its process and decisions.



RECEIVED
PLANNING DEPARTMENT

JAN 03 2017

City of St. Helena

CITY HALL, 1480 MAIN STREET
ST. HELENA, CALIFORNIA 94574
(707) 968-2792
www.sthelenacity.com

APPLICATION FOR APPOINTMENT

Note: Your application will be copied for the City Council and made available to the press and public.

Board/Committee/Commission to which you are applying:

Planning Commission

Name: Thomas "Scott" Diaz

Home Address: 1405 Magnolia Ave, Saint Helena, CA 94574

Mailing Address: same

Occupation: VP of Marketing - Wilson Daniels

Business Address: 1201 Dowdell Ln., Saint Helena, CA 94574

Home Telephone: 310-871-1166 Business Telephone: 707-815-2756 cell

E-mail: tscottdiaz@yahoo.com

Please indicate if above numbers can be made available to the public upon request: Home or Business cell

Are you a resident of St. Helena? yes If yes, how long have you lived in St. Helena? Since October 2015

Current occupation (within last 12 months) Marketing professional for wine sales and marketing company

Business interests in last 12 months: Working mostly with import wineries, work w/ some domestic wineries

Previous Committee/Commission Experience:

None

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute

My family and I have lived in Napa Valley for nine years. Over that time I have become familiar with the history of the region. I have developed an appreciation for the transformation of the valley through the historic 1968 Agricultural Preservation.

My appreciation and respect for this zoning measure and the people who drove its passage are my reason for wanting to be a part of the City of Saint Helena Planning Commission.

From my current role I will bring strong decision-making, expectation management and leadership skills to the Planning Commission.

My planning decisions will balance the spirit of the Ag Preserve with an understanding that reasonable modernization improves city revenue and quality of life for residents and visitors.

SCOTT DIAZ

1405 Magnolia Ave., St. Helena, CA 94574 | 310-871-1166 | tscottdiaz@yahoo.com

VICE PRESIDENT OF MARKETING

Experience spans a diverse range of wine industry sectors including supplier, importer and sales and marketing agency

Results-focused wine marketing professional with a history of developing strategic plans that increase sales through the three-tier system and enhance brand awareness. Accomplishments include driving double digit depletion growth in consecutive years while increasing margins by 20%

Areas of Expertise:

- | | | |
|----------------------------|------------------------------|----------------------------|
| ■ Strategic Brand Planning | ■ Project Management | ■ Budget Management |
| ■ Team Leadership | ■ Pricing Strategy & Margins | ■ Strategic Partnerships |
| ■ P&L Management | ■ Category Analysis | ■ New Business Development |

PROFESSIONAL EXPERIENCE

WILSON DANIELS LTD., St. Helena, CA
Vice President of Marketing

2008 to Present

- Schramsberg Vineyards ■ Ponzi Vineyards ■ Champagne Gosset ■ Castello di Volpaia ■ Chateau Gassier ■ Elvio Cogno
■ Lancaster Estate ■ Hyde de Villaine ■ Mount Nelson ■ Royal Tokaji ■ Arista Winery ■ Château Simard ■ Dal Forno
■ Silverado Vineyards ■ Pierre Sparr ■ Davies Vineyards ■ Domaine Laroche ■ Double Eagle ■ Kumeu River ■ RouteStock

Hand-picked to manage a marketing team of 6 covering a portfolio of 32 luxury and premium import and domestic wineries

Overview: Promoted to Vice President of Marketing from Marketing Director following superior performance, a demonstration of strong leadership and an ability to focus on high priority initiatives

- Oversee the development and implementation of strategic brand plans, standards and programs
- Assume responsibility for brand and department P&L results
- Develop winery revenue and volumetric goals
- Increase the overall impact and visibility of the marketing department through the development of meaningful sales priorities, programs and tools
- Inspire marketing team to continually develop and achieve professional growth goals
- Establish and strengthen ongoing relationships with suppliers and key trade personnel
- Launch new wine brands within the three tier system
- Developed brand strategies during the recession to put suppliers in a favorable long-term position while competitors were focusing on the short-term

SCOTT DIAZ

Page 2

KORBEL CHAMPAGNE CELLARS – HECK ESTATES, Beverly Hills, CA
Brand Manager

2006 to 2008

■ Kenwood Vineyards ■ Valley of the Moon Winery ■ Lake Sonoma Winery ■ Korbel Brandy

Managed all marketing projects for four wine brands with a total marketing budget of \$1.2M and sales exceeding 1 million cases annually. Led brand management team of four

Overview: Developed Kenwood Vineyards and Korbel Brandy's first brand repositioning in 20+ years

- Developed and implemented traditional strategic brand plans and standards for all wineries
- Created culture of accountability with project management tools ensuring that each project was tracked from start to finish
- Managed marketing budgets and projects for POS, packaging changes, advertising, programs, events and sponsorships
- Led all rebranding efforts, line extension projects and new product development

TGIC IMPORTERS, Woodland Hills, CA
Marketing Director

2005 to 2006

Provided marketing solutions for a wide range of winery clients leading team of 4 with project budgets of up to \$500K

Overview: Successfully managed top brands from the Southern Hemisphere and led new wine brand launches

- Supervised Marketing, Creative Services and Public Relations Departments
- Managed product development of TGIC proprietary brands and import portfolio which included New World brands Montes, Santa Ema, Bodega Norton, Pascual Toso and Achaval-Ferrer

Early Career:

Advertising Sales Planner, MTV Networks - VIACOM, Santa Monica, CA, 2002 to 2005

Advertising Sales Planner, E! Entertainment Television - Comcast, Los Angeles, CA, 1998 - 2002

EDUCATION & CREDENTIALS

BS, Accounting, University of Colorado at Boulder - Leeds School of Business

Certifications: Champagne Master Level Program - French Wine Society – 2016, current enrolled

Certified Specialist of Wine (CSW) - Society of Wine Educators – 2014

Bordeaux Master Level Program Certificate - French Wine Society – 2011

WSET Level 2 Intermediate Certificate in Wines & Spirits – 2007

Certified Wine Professional - Culinary Institute of America – 2005

Education/Experience: A resume may be attached containing this and any other information that would be helpful in evaluating your application.

University of Colorado - Leeds School of Business, Accounting
See resume for work experience

Professional and/or community service activities:

Only professional activities

Local government related experience: None

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute

See attachment

Names, addresses, and phone numbers of three individuals familiar with your background:

Julianne Beard
Kimberly Bowden
Lisa Cleaver

Appointments to this position may require you to file a Conflict of Interest Disclosure Statement, which is of public record.

[Signature]
 Signature of Applicant

1/1/17
 Date

If you have any questions regarding the appointment procedure, please telephone the City Clerk at (707) 968-2742.

Please return the completed application to:

City of St. Helena
 City Clerk
 1480 Main Street
 St. Helena, CA, 94574



City of St Helena, City Hall
Received

JAN 09 2017

1480 Main St.
St Helena, CA 94574

CITY HALL, 1480 MAIN STREET
ST. HELENA, CALIFORNIA 94574
(707) 968-2792
www.sthelenacity.com

APPLICATION FOR APPOINTMENT

Note: Your application will be copied for the City Council and made available to the press and public.

Committee/Commission to which you are applying: Planning Commission

Name: John Ponte

Home Address: 2690 Pinot Way St. Helena

Mailing Address: 2690 Pinot Way St. Helena

Occupation: Retired

Business Address: N/A

Home Telephone: 707.967.8234 *Business Telephone:* N/A

E-mail: john.ponte@att.net

Please indicate if above numbers can be made available to the public upon request: Yes

Are you a resident of St. Helena? Yes

If yes, how long have you lived in St. Helena? Twenty years

Current occupation (within last 12 months) N/A

Business interests in last 12 months: None

Previous Committee/Commission Experience: As a member, various countywide, regional and statewide committees on the staff level including joint Bay Areawide committees and joint multi-county committees. As staff, significant experience serving boards of elected officials and appointed citizens' committees and commissions.

Education/Experience: A resume may be attached containing this and any other information that would be helpful in evaluating your application.

Bachelor of Arts in Chemistry, California State University, Stanislaus
Bachelor of Arts in Psychology, California State University, Stanislaus
Master of Public Administration, California State University, Stanislaus

Professional and/or community service activities:

Kiwanis (1998- , President 2001-02, Chair Kiwanis Foundation 2003-04 and 2016-)
St. Helena Star Editorial Board (2007-)
Native Sons of the Golden West (1999-)

Local government related experience: Twenty years of local/countywide/regional experience in transportation planning, programming and operations, with fourteen years in the Napa communities.

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute.

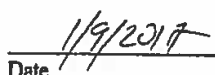
I admire the people and the community in which we live and have a desire to serve our community. The best way for me to serve is applying what I learned in two decades in government. With an understanding of planning and its principles, knowledge of how local governments operate including the quasi-judicial role of a planning commission and a knowledge base of the City coming up to speed should be a short process.

Names, addresses, and phone numbers of three individuals familiar with your background:

Bill Savidge 11 [REDACTED]
Shannon Kuleto [REDACTED]
Christopher Hill [REDACTED]

Appointments to this position may require you to file a Conflict of Interest Disclosure Statement, which is of public record.


Signature of Applicant


Date

If you have any questions regarding the appointment procedure, please telephone the City Clerk at (707) 968-2742.

Please return the completed application to:
City of St. Helena
City Clerk
1480 Main Street
St. Helena, CA, 94574

John Ponte

2690 Pinot Way
St. Helena, California 94574
(707) 967-8234
john.ponte@att.net

EDUCATION

Masters of Public Administration - California State University, Stanislaus
Bachelor of Arts in Chemistry - California State University, Stanislaus
Bachelor of Arts in Psychology - California State University, Stanislaus

WORK EXPERIENCE

- 1/93 to 12/07: Deputy Executive Director, Napa County Transportation and Planning Agency
Responsible for staff supervision in the transit, finance and planning divisions, responsible for the creation of the congestion management program/countywide transportation plan, interface with state and regional transportation entities, responsible for countywide programming in regional, state and federal transportation planning and programming documents including Trancas/29 interchange, Jamieson Canyon widening, 29/12 intersection auxiliary lane, and 29 channelization, moderator for the countywide technical advisory committee, joint oversight with partner Solano Transportation Authority of areawide traffic projection model, clearinghouse/problem solver for transportation issues of member agencies, supervise agency budget of up to ten million dollars. Retired December 30, 2007.
- 2/90 to 1/93: Principal Planner (Transportation), Solano Transportation Authority
Responsible for all day-to-day operations of the agency under the guidance of a part-time director. Staff for six committees including four citizens' advisory committees. Sole author of the first Congestion Management Program for Solano County, created the countywide Abandoned Vehicle Abatement Authority, administered the countywide paratransit service, coordinated countywide proposals for state and federal transportation funding programs and documents, author of grant proposals for transportation studies and projects.

John Ponte
Page 2

- 10/88 to 2/90: Associate Planner, San Joaquin Council of Governments
Served as staff to the countywide Bicycle Advisory Committee, assisted in the creation of the Regional Transportation Improvement Program, the Regional Transportation Plan, and various other state and regional transportation plans and programs, assisted with the modification, maintenance and operation of the countywide transportation computer model, staff for the countywide Transportation Development Act public unmet transit needs review process.
- 5/88 to 10/88: Planning Assistant, City of Oakdale
General city planning duties under the direction of the Department head.
- 10/77 to 9/86: Research Associate, Shell Agricultural Chemical Company
Synthesized organic compounds for screening as potential herbicides, insecticides and fungicides.

COMMUNITY SERVICE

Kiwanis (1998- , President 2001-02, Chair Kiwanis Foundation 2003-04 and 2016-)
St. Helena Star Editorial Board (2007-)
Native Sons of the Golden West (1999-)



RECEIVED
PLANNING DEPARTMENT

JAN 13 2017

City of St. Helena

CITY HALL, 1480 MAIN STREET
ST. HELENA, CALIFORNIA 94574

(707) 968-2792

www.sthelenacity.com

APPLICATION FOR APPOINTMENT

Note: Your application will be copied for the City Council and made available to the press and public.

Committee/Commission to which you are applying:

Planning Commission

Name: John S. Anderson

Home Address: 1880 Spring Mountain Rd.

Mailing Address: _____

Occupation: Chocolatier

Business Address: 1367 Main St

Home Telephone: 707-967-8313 Business Telephone: 707-963-8413

E-mail: john@woodhousechocolate.com

Please indicate if above numbers can be made available to the public upon request: Yes

Are you a resident of St. Helena? Yes If yes, how long have you lived in St. Helena? 19yrs

Current occupation (within last 12 months) Owner, Woodhouse Chocolate

Business interests in last 12 months: See above.

Previous Committee/Commission Experience:

Board of Directors - Stags Leap District

Board of Directors - Tower Rd Wine Storage

Education/Experience: A resume may be attached containing this and any other information that would be helpful in evaluating your application.

See attached.

Professional and/or community service activities:

We donate BBQ parties to local charities to be sold at fundraisers.

Local government related experience: None.

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute

See attached.

Names, addresses, and phone numbers of three individuals familiar with your background:

Terry Davis, b

Oliver Caldwell

Marcus Robbin

Appointments to this position may require you to file a Conflict of Interest Disclosure Statement, which is of public record.



Signature of Applicant

11/13/17

Date

If you have any questions regarding the appointment procedure, please telephone the City Clerk at (707) 968-2742.

Please return the completed application to:

City of St. Helena

City Clerk

1480 Main Street

St. Helena, CA, 94574

John S. Anderson

1880 Spring Mountain Rd, Saint Helena, CA 94574 | (707) 479-2619 | john@woodhousechocolate.com

Objective

To serve as a Planning Commissioner for the city of St. Helena, CA.

Education

BACHELOR OF ARTS | 1984 | CLAREMONT MCKENNA COLLEGE

- Major: Political Science
- Minor: Economics

CERTIFICATE | 1986 | CHRISTIE'S FINE ARTS COURSE

- Major: Art History

MBA | 2003 | UNIVERSITY OF CALIFORNIA, DAVIS

- Major: Management

Skills & Abilities

MANAGEMENT

- I have been the manager of some enterprise since shortly after graduating from college. First as a department manager at Macy's and soon the Managing Director of S. Anderson and Woodhouse. Over the decades, I have developed the ability to build and, hopefully, inspire a cohesive team. I have also developed an ability to settle conflicts and satisfy disgruntled members of the public.

TECHNOLOGY

- I am skilled in the implementation and operation of computers and their peripherals as well as the standard selection of business programs. Graphics programs are a particular area of expertise.

Experience

MANAGING DIRECTOR | S. ANDERSON VINEYARD | 1986 - 2002

- Starting as Assistant Manager and soon becoming Managing Director I oversaw all aspects of a small family winery.

OWNER | WOODHOUSE CHOCOLATE | 2004 - PRESENT

- I run the day to day business operations of a nationally known chocolate kitchen and store.

Please explain your reasons for wishing to serve on this committee/commission and how you feel that you may contribute

St. Helena is a vibrant and diverse community that provides a unique and special life experience to its citizens. As with many special places, maintaining a balance between visitors and local interests will be of even greater importance as we move into the future. I believe that my experience as a longtime resident and as a business owner will enable me to bring a balanced view to the issues that our town must face. As neighboring communities aggressively court new businesses and residents, Saint Helena will be pushed to maintain its local charm while still catering to the traveler. I believe that properly managed, commerce can thrive in our community, provide jobs, local taxes and enhance the lifestyle that all our citizens enjoy, no matter their income or interest.

CITY OF ST. HELENA

RESOLUTION NO. 2017-

APPOINTING A MEMBER TO THE ST. HELENA PLANNING COMMISSION

RECITALS

- A. The Planning Commission is comprised of five members; and
- B. At the November 8, 2016 General Municipal Election, Planning Commissioner Mary Koberstein was elected to the St. Helena City Council; and
- C. The City held a recruitment for applicants to apply for the vacant Planning Commission position; and
- D. Protocol calls for appointments to be made by the Mayor and approval by the City Council.

RESOLUTION

NOW, THEREFORE, the City Council of the City of St. Helena resolves as follows:

- 1. The Mayor hereby appoints _____ to the vacant Planning Commission term which expires June 30, 2020.

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017, by the following vote:

Mayor Galbraith: _____
Vice Mayor White: _____
Councilmember Dohring: _____
Councilmember Ellsworth: _____
Councilmember Koberstein: _____

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk



Report to the City Council
Council Meeting of February 14, 2017

Agenda Section: New Business

Subject: Consideration and proposed Approval of a Resolution for a Low Income Subsidy Program for Water and Wastewater Customers; and

- a. Rescind Resolution 2006-44 Authorizing Low Income Water and Wastewater Rates; or**
- b. Provide Additional Direction on the Creation of a Revised Policy**

CEQA Status: Not a CEQA project

Prepared By: Tracey Perkosky, Grants and Finance Manager

Approved By: Larry Pennell, Interim City Manager

BACKGROUND

During the January 24, 2017 City Council meeting, staff requested direction on the elements for a revised policy to provide rate subsidies from the General Fund for low income water and wastewater customers (Attachment 1). There was discussion on how any proposed percentage reduction could impact extremely low and very low customers versus using broader income categories such as those from the PG&E CARE rate program. Council was also concerned about the administrative time required for City staff to implement and monitor any proposed program. Council will address requiring water conservation measures or drought surcharges as needed. Council also inquired if the program could be limited to City residents only and the City Attorney subsequently advised staff that there is no legal impediment. Council also recommended a limit of \$80,000 per year from the General Fund and moving up to \$100,000 towards FY 22/23.

DISCUSSION

Based on the feedback during the January 24, 2017 Council meeting staff drafted a proposed policy. This policy can either be adopted via resolution during this meeting or additional direction can be provided.

Water and wastewater rates compared against affordability is a complex task. For example, one must account for items such as household size, lot size, amenities on site such as private clothes washers or dishwashers in multi-unit dwellings, landscaping, peak/non-peak rates, winter average for wastewater, water or wastewater only, etc. The guidelines for multi-family are particularly challenging as the possible combinations are

nearly limitless between size of the meter and number of units. A range is shown from the possible combinations of a high number of units to a lower number of units. Since the guidelines for affordability include both base and usage rates, staff ran scenarios for households of 2 and 4 members and used peak water usage rates. These scenarios used the income levels from the CARE rate program through PG&E and the Official State Limits for Napa County from the Department of Housing and Community Development (HCD). The current proposed income limits are:

Number of Persons in Household	Total Gross Annual Household Income
1-2	\$35,000 or less*
3	\$40,320 or less
4	\$48,600 or less
5	\$56,880 or less
6	\$65,160 or less
7	\$73,460 or less
8	\$81,780 or less
9	\$90,100 or less
10	\$98,420 or less
Each additional person, add	\$8,320

In addition, staff determined that different discounts helped to get individual customers to closer to the 2.5% of income level versus 2.5% of median income.

Single Family - CARE	50%
Single Family - Extremely Low	80%
Single Family - Very Low	55%
Multi-Family - CARE	0-22%
Multi-Family - Extremely Low	40-80%
Multi-Family - Very Low	0-32%
Mobile Home - CARE	20%
Mobile Home - Extremely Low	20%
Mobile Home - Extremely Low	10%

To alleviate the staff time required to verify household's information, it would be beneficial use the qualification for PG&E's CARE rate as much as possible. According to the U.S. Census, St. Helena has 676 households whose annual income is under \$34,999. Staff does not currently have the capacity to complete a project of this magnitude, if all were eligible. Therefore, it is recommended to offer a flat rate that will help all low-income customers but without determining each one on a case-by-case basis. After a review of the percentages and the underlying dollar amounts, staff is recommending continuing the discount of 50% on water and/or wastewater depending on services provided. This will offer relief to most customers. The usage of this program will not prevent extremely low

income households from seeking out other relief programs such as those offered through non-profit organizations.

Since this is a more advanced calculation based on current poverty guidelines, water/wastewater usage, and rates, staff is recommending that the percentage be re-evaluated yearly beginning in June 2018. Any recommendations for a change in the percentage would be approved by Council. Income limits for eligibility would be updated in May for PG&E and December for HCD.

The potential cost to the General Fund based on using a 50% discount on both water and wastewater with participation by 85 single family homes, 15 multi-family homes, and 125 mobile homes is:

	Remainder of FY 16/17	FY 17/18
85 Single Family	\$ 23,271.30	\$ 65,453.40
15 Multi-Family	\$ 2,118.15	\$ 6,742.44
125 Mobile Home	\$ 19,773.75	\$ 45,012.60
Potential General Fund Impact	\$ 45,163.20	\$ 117,208.44

If this pattern of program participants is accurate, then additional funds beyond \$80,000 in the first year and \$90,000 in the second year will be needed. However, it is very challenging to anticipate participation since this is the first year that users shared water and electric meters are eligible. Staff recommends monitoring the program and providing updates to Council as needed on participation, funds available and outreach.

FISCAL IMPACT

As stated in the policy, Council may increase the maximum annual amount, and any impacts will be considered at that time. The minimum proposal is an additional \$45,000 for the remainder of FY 16/17 and \$90,000 for FY 17/18.

RECOMMENDED ACTION

Staff recommends the City Council adopt the resolution for the revised subsidy program for low income water and wastewater funds.

ATTACHMENTS

1. Staff Report from January 24, 2017 Meeting
2. Resolution with Policy Attached as Exhibit A

Attachment 1



Report to the City Council
Council Meeting of January 24, 2017

Agenda Section: New Business

Subject: Provide Direction on Revised Policy to Provide Rate Subsidies from the General Fund for Low Income Water and Wastewater Customers

CEQA Status: Not a CEQA project

Prepared By: Tracey Perkosky, Grants & Finance Manager

Approved By:

Steven Palmer, Director of Public Works,
Acting City Manager

BACKGROUND

With the rate change in water and wastewater rates, Council directed staff at the November 29 and December 13, 2016 meetings to bring the item back to the Council for discussion prior to the creation of a new water and wastewater low income discount policy.

Current Program

In 2006, the City Council passed Resolution 2006-44 (Attachment 1) which authorized a 50% reduction in water and wastewater bi-monthly fixed service charges. When billing was converted to monthly, the 50% reduction was given monthly to eligible customers without the adoption of a revised resolution. This program is only available to single family residences and not shared meters such as apartment complexes and mobile or manufactured homes. Currently, there are 66 customers receiving the low income discount, with an average annual impact to the General Fund of \$30,200.

Similar Programs

A survey of nearby water providers showed a range of similar programs. The City of Napa gives a \$4.75 bimonthly discount (\$2.38 per month) and participants must be enrolled in PG&E's CARE program. The San Jose Water Company (which is governed by the PUC and not municipally run) offers a 15% discount on the total water bill or about \$8.27 per month. San Jose Water also uses the PG&E CARE program as the income verification. The City of Calistoga offers water customers a discount of 20% to base and water usage

Attachment 1

up to 35 units bi-monthly or about \$50 per bill. The City of Santa Rosa offers 50% off the water and sewer base rates (\$17 per month) and accepts applications until funds are exhausted. Santa Rosa maintains a wait list and applicants are required to attend financial counseling sessions. The Town of Yountville does not offer any discount.

DISCUSSION

Possible State Requirements for Low Income Ratepayers

In October 2015, AB401 was signed into law and directs the State Water Resources Control Board, the Board of Equalization and other agencies to begin to develop a framework for municipal water agencies to provide assistance to low income customers whose income does not exceed 200% of the poverty rate. In 2018, the first draft guidelines will be available for public review. In the coming years, it is possible that St. Helena may be subject to the new state regulations in lieu of our own program.

Poverty Guidelines & Water Affordability

There is no single definition of poverty in the United States as many federal agencies use varying factors to determine poverty. Household poverty calculations include all individuals living in a household and not a single beneficiary. Water affordability is typically measured as a percentage of median household income. The California Department of Health defines water affordability as 1.5% of annual median household income and the U.S. Environmental Protection Agency considers the threshold to be 2-2.5% for both water and wastewater. Households who pay above this amount are considered to be paying a cost that is a high burden.

Generally speaking the City's new rates are affordable, however extremely low, very low and low income residents may be burdened based on household income, family size and usage.

One common source of poverty guidelines is the U.S. Department of Health and Human Services (HHS). These gross income levels are not adjusted by region.

Chart 1: 2017 HHS Poverty Guidelines

Persons	Amount	200% of Poverty level
1	\$11,880.00	\$23,760.00
2	\$16,020.00	\$32,040.00
3	\$20,160.00	\$40,320.00
4	\$24,300.00	\$48,600.00
5	\$28,440.00	\$56,880.00
6	\$32,580.00	\$65,160.00
7	\$36,730.00	\$73,460.00
8	\$40,890.00	\$81,780.00
add \$4,160 per person for families above 8 persons		

Attachment 1

The California Department of Housing and Community Development (HCD) issues poverty guidelines which are regionally based to include higher housing or transportation costs. HCD uses categories of Extremely Low, Very Low, Low and Moderate Income.

Chart 2: 2016 Official State Income Limits for Napa County for Low Income Categories
Napa County (4-Person Area Median Income: \$86,100)

Income Category	Number of Persons in Household							
	1	2	3	4	5	6	7	8
Extremely Low	\$18,350	\$21,000	\$23,600	\$26,200	\$28,440	\$32,580	\$36,730	\$40,890
Very Low	\$30,600	\$35,000	\$39,350	\$43,700	\$47,200	\$50,700	\$54,200	\$57,700
Low	\$48,950	\$55,950	\$62,950	\$69,900	\$75,500	\$81,100	\$86,700	\$92,300

PG&E offers low income residents the "CARE" rate which is an energy discount based on the number of individuals and the total gross household income. Many water agencies use CARE eligibility as the income requirements for their subsidy programs. These guidelines are valid through May 31, 2017.

Chart 3: PG&E CARE Rate Income Guidelines

Persons	Gross Annual Household Income
1-2	\$32,040 or less
3	\$40,320 or less
4	\$48,600 or less
5	\$56,880 or less
6	\$65,160 or less
7	\$73,460 or less
8	\$81,780 or less
9	\$90,100 or less
10	\$98,420 or less
Each additional person, add \$8,320	

With the various income guidelines for Low Income, staff is seeking direction on which classification(s) and/or sources should be included in the policy.

Potential Policy Elements

The St. Helena City Council has many options for creating a new low income water and wastewater rate reduction policy. The following options are not an inclusive list, and other items may be added.

1. Qualifying Customers:
 - a. Consider all incomes of all household members in analysis for program eligibility, not solely the account holder.
 - b. Determine which Poverty Guidelines will be used
 - i. HHS Poverty Guidelines at 200% (Chart 1)
 - ii. Official State Income Limits (Chart 2)

Attachment 1

iii. PG&E CARE Income Guidelines (Chart 3)

2. Discount (Subsidy) Amount:

- a. Discount all program participants at a flat rate, such as 25%
- b. Discount program participants according to their income category of extremely low, very low or low income (Chart 2), for example:
 - i. Extremely low income receives a 50% discount
 - ii. Very Low Income receives a 30% discount.
 - iii. Low Income receives a 15% discount.

Chart 4: Monthly Base Fees for Water and Wastewater Combined with Various Discounts for 2017

	No discount	15%	20%	25%	30%	35%	40%	45%	50%
SF up to 1" Meter	\$91.26	\$77.57	\$73.01	\$68.45	\$63.88	\$59.32	\$32.97	\$50.19	\$45.63
Multi-Family w/ 1" meter	\$72.29	\$61.45	\$57.84	\$54.22	\$50.60	\$46.99	\$43.37	\$39.76	\$36.15
Vineyard Valley*	\$50.03	\$42.52	\$40.03	\$37.52	\$35.03	\$32.52	\$30.02	\$27.52	\$25.02

* Vineyard Valley water rate calculated by adding base fee for 6" and 2" meters and dividing by 212 homes

Chart 5: Monthly Base Fees for Water and Wastewater Combined with Various Discounts for 2022

	No Discount	15%	20%	25%	30%	35%	40%	45%	50%
SF up to 1" Meter	\$148.50	\$126.23	\$118.80	\$111.37	\$103.95	\$96.53	\$89.10	\$81.68	\$74.26
Multi-Family w/ 1" meter	\$118.79	\$100.97	\$95.04	\$89.09	\$83.15	\$77.22	\$71.27	\$65.34	\$59.40
Vineyard Valley*	\$80.27	\$68.22	\$64.21	\$60.20	\$56.19	\$52.17	\$48.16	\$44.15	\$40.14

* Vineyard Valley water rate calculated by adding base fee for 6" and 2" meters and dividing by 212 homes

3. Create Incentive Programs:

- a. Require participation in the water neutrality list.
- b. City fund 100% of water saving devices and water efficiency improvements items such as low flow toilets, shower heads, faucet aerators, low water plants, etc., for participants in the low income discount program.
- c. Develop a water audit program for participants to provide with water saving suggestions.

4. Other Program Elements:

- a. Smooth out payments over a year by averaging the usage portion of the bills to improve affordability during the summer when bills tend to be higher.

Attachment 1

- b. Remind customers with past due notices about hardship agreements (payment plans) to reduce fees incurred for late payment, turn on/off and door hanger fees.
- c. Consider annual cap of subsidy amount from the General Fund.

The delivery method of the subsidy for eligible low income customers will vary due to legal limitations. For a single family home or tenant where the water meter is not shared, the subsidy will be provided as an on-bill credit. For multi-family or mobile home parks, where the units are not individually metered, the City will seek to enter into a voluntary agreement with the landlord/property management company and the tenant so that any subsidy is directly credited to the tenant's rent or monthly bill. In situations where an agreement is not possible, a monthly reimbursement check will be issued to the tenant.

General Fund Impact

Any subsidy provided to low income ratepayers will come from the General Fund as the City does not impose a surcharge for low income assistance or have revenue sources of income to fund the low income discount program.

To help understand different discount amounts and the impact to the General Fund, Chart 6 was created. Due to the possible variations, staff used the following assumptions:

1. All water rates were calculated based on a Single Family 1" meter or smaller, and Single Family Wastewater rates, with the exception of Vineyard Valley Mobile Home Park.
2. Vineyard Valley Mobile Home Park rates average the two water meters (6" and 2" sizes) on the property and divides it by 212 homes to determine the water base rate. The Wastewater rate is Mobile Home.
3. 85 enrollees who are in Single Family Homes.
4. 140 enrollees who are in a Mobile Home Park (Vineyard Valley).

Chart 6: Total General Fund Impact, by Fiscal Year and Percentage Discount on Water and Wastewater Base Fees

	2017 (6 months)	2018	2019	2020	2021	2022
15%	\$13,286	\$30,983	\$38,398	\$40,358	\$41,646	\$42,947
20%	\$17,714	\$41,311	\$51,198	\$53,811	\$55,528	\$57,263
25%	\$22,143	\$51,639	\$63,264	\$67,264	\$69,410	\$71,579
30%	\$26,571	\$61,967	\$76,797	\$80,716	\$83,292	\$85,894
35%	\$31,000	\$72,295	\$89,597	\$94,169	\$97,175	\$100,210
40%	\$35,428	\$82,622	\$102,396	\$107,622	\$111,057	\$114,526
45%	\$39,857	\$92,950	\$115,195	\$121,075	\$124,939	\$128,842
50%	\$44,285	\$103,278	\$127,995	\$134,527	\$138,821	\$143,157

Enhanced Marketing and Outreach Program

Attachment 1

Regardless of the program elements, staff proposes an enhanced marketing effort to notify residents of the program. This will include bill inserts, email, mailings, community meetings, and more. Low Income rate information will also be included with water conservation information.

All marketing materials and outreach will be bilingual in English and Spanish.

Conclusion

Staff is seeking direction on which policy elements and discounts rate should be included in the final policy which will be brought back to Council for approval.

FISCAL IMPACT

For FY 2016-2017, any amount of the subsidy was not budgeted and will be required to come from General Fund Reserves under a separate request to City Council. Any future fiscal year subsidies will be budgeted as part of the annual budget adoption process.

RECOMMENDED ACTION

Provide direction on a policy for rate subsidies for low income water and wastewater customers:

- Income Guidelines
- Discount Amount on Water and Wastewater
- Policy Elements

ATTACHMENTS

1. Resolution 2006-44 Authorizing Low Income Water and Wastewater Rates

Attachment 1
Attachment 1

CITY OF ST. HELENA

RESOLUTION No. 2006-44

**AUTHORIZING LOW INCOME WATER AND
WASTEWATER RATES.**

RECITALS

- A. On January 10, 2006, the City Council directed staff to devise a water and wastewater utility rate reduction program for income-qualified City of St. Helena utility customers.
- B. Staff determined that a rate reduction could be applied to the bi-monthly Fixed Service Charges.
- C. A rate reduction in bi-monthly Fixed Services Charges would need to be paid from interest income or the general fund so that standard rate customers would not be required to subsidize the rate reduction.
- D. Residents of apartment complexes with a single water meter are not eligible for this program.
- E. The criteria to establish income eligibility is a copy of the resident's telephone bill reflecting life line rates. A new copy is to be submitted annually to continue the reduced rate. The reduction will take effect on the utility bill after the customer submits proof of qualification.
- F. The Fixed Services Charges for water will be reduced by 50% and the Fixed Services Charges for wastewater will be reduced by 50% for income-qualified utility customers.

RESOLUTION

NOW, THEREFORE, the City of St. Helena resolves as follows:

Staff is authorized to implement the low income utility rates in the manner and at the rates described above.

Approved at a Regular Meeting of the St. Helena City Council on March 28, 2006, by the following vote:

Ayes: Councilmembers Potter, Sklar, Novak, Mayor Britton

Noes: None

Absent: Councilmember Schoch

APPROVED:


Delford Britton, Mayor

ATTEST:


Delia Guijosa, City Clerk



\\SH\\Data\\Admin\\Delia\\Resolutions\\low income utility program reso.doc

Attachment 2

CITY OF ST. HELENA

RESOLUTION NO. 2017-

**Resolution Authorizing Rescinding Resolution 2006-44
and Approving Revised Policy on Subsidies for Low
Income Water and Wastewater Rates**

RECITALS

- A. The City of St. Helena desires to update its program to provide subsidies to low income water and wastewater customers; and
- B. In order to approve a new Council Policy, Resolution 2006-44 must be rescinded; and
- C. Rate reductions will be applied to the water and wastewater base rates according to the policy.

RESOLUTION

The City Council of the City of St. Helena hereby resolves as follows:

- 1. To rescind Resolution 2006-44.
- 2. Approve a revised policy for subsidies for low income water and wastewater customers, attached as "Exhibit A".

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017, by the following vote:

Mayor Galbraith:	_____
Vice Mayor White:	_____
Councilmember Dohring:	_____
Councilmember Ellsworth	_____
Councilmember Koberstein:	_____

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk

Attachment 2 Exhibit A

 City of St. Helena Council Policy		Policy Type Council
		Reso No.
		Page 1 of 4
Policy Title		Approved by City Manager
Effective Date February 15, 2017	Supersedes: Resolution 2006-44	Policy Section
		Policy Number

PURPOSE

The St. Helena City Council desires to offer financial assistance to low-income water and/or wastewater customers.

POLICY**1. Eligibility**

- a. Receive water and/or wastewater services from the City of St. Helena
- b. Meet the income guidelines outlined in Section 3
- c. Provide copy of PG&E bill showing CARE rate for water/wastewater account holder or provide income documentation to City for approval
- d. Customer must live (primary residence) at the address at which the discount applies
- e. Customer must account for all sources of qualifying *household* income (see Section 2)
 - i. Qualification is based on the total gross income of everyone living in the household
- f. Customer must notify the City of St Helena Water Department when no longer eligible
- g. Eligibility is renewed annually in June
- h. For residential customers only (single family, multi-family and mobile/manufactured homes)

2. Income Verification

- a. To ensure consistency with the PG&E CARE Program income requirements, the City will request the same income information and back-up documents as the PG &E CARE program
- b. Customers must black out any account numbers or Social Security numbers
- c. Customers must provide income information for *all* members of the household. This information may include several of the documents listed below:

Attachment 2 Exhibit A

Policy Title			
Effective Date	Supersedes:	Policy Section	Policy Number

If you or someone in your household participates in	You should send in a copy of:
Public Assistance Programs	Award letter(s) OR letter of participation in the program(s)
Medicaid/Medi-Cal, Supplemental Security Income (SSI), CalFresh/SNAP (Food Stamps), LIHEAP, WIC, Healthy Families A & B, Cal WORKs (TANF), National School Lunch Program (NSLP), Bureau of Indian Affairs General Assistance, Head Start Income Eligible (Tribal Only)	

If you or someone in your household receives income from:	You should send in a copy of:
Wages, Salaries, Tips, Commissions	Two most recent consecutive check stubs, W2 or IRS 1040 Form
Pensions, Social Security, SSP, SSDI, Disability Payments, Workers Compensation, Unemployment Benefits, VA Benefits, Foster Care Payments	Award letter(s), two most recent consecutive check stubs or the most recent bank statement (to show direct deposit)
School Grants, Scholarships, Other Aid	Award letter(s) OR two most recent consecutive check stubs
Insurance and/or Legal Settlements	Settlement documents
Child and/or Spousal Support	Court documents OR two most recent consecutive check stubs
Farm Income	First page of IRS form 1040
Interest and/or Dividends from Savings, Stocks, Bonds, Mutual Funds	IRS Form 1040 or IRS Form 1099(s) or three consecutive bank statements
401K or IRA withdrawals or Annuities	Investment account statement(s), IRS Form 1040 or IRS Form 1099
Capital Gains	Investment account statement(s), IRS Form 1040 or IRS Form 1099
Rental and/or Royalty Income	IRS Form 1040 AND Schedule E for rental Income
Profit from Self-Employment	IRS Form 1040 and Schedule C
Gambling/Lottery Winnings	Determined on a case-by-case basis
Union Strike Fund Benefits	Two most recent consecutive benefit check stubs
Cash Income (when you have not filed federal or state taxes)	Signed letter detailing type of work, estimated monthly amount of cash payment, employer name and phone number
Monetary gifts, none of the examples apply, or if you do not receive any income	Signed letter explaining the current source(s) of income used to support your household.

3. Gross Income Limits

- a. The City will use the most current income limit information from the PG&E Care Program (updated in May) and/or the CA Department of Housing and Community Development Official State Income Limits for Napa County (updated in December) for the extremely low

Attachment 2 Exhibit A

Policy Title			
Effective Date	Supersedes:	Policy Section	Policy Number

and very low categories. The highest income limit shall apply. As of February 14, 2017 the income limits are:

Number of Persons in Household	Total Gross Annual Household Income
1-2	\$35,000 or less*
3	\$40,320 or less
4	\$48,600 or less
5	\$56,880 or less
6	\$65,160 or less
7	\$73,460 or less
8	\$81,780 or less
9	\$90,100 or less
10	\$98,420 or less
Each additional person, add	\$8,320

*Incomes between \$32,041 and \$35,000 are not eligible through PG&E CARE but do qualify under this program. Income verification must be completed by the City

4. Discount Amount

- Customers will receive a discount of 50% off the base rate of water and/or wastewater services.
- This will be reviewed by staff annually on or before June 30, beginning June 30, 2018 to determine suitability. Any changes will be approved by the City Council.

5. Eligibility Renewal

- Renewal information must be received by the City before June 30 annually
- Participants will be notified by mail to resubmit their eligibility information

6. General Fund Limit and Waitlist

- The maximum General Fund Subsidy will be \$80,000 in FY 16/17 and \$90,000 in FY 17/18. Future maximum amounts will be determined as part of the annual budget process.
- Higher amounts can be authorized by City Council during the FY.
- Staff will provide information on projected subsidy expenses during each Finance Department Quarterly Report
- If customer demand exceeds projected General Fund subsidy, a waitlist will be created
- Waitlist is first come-first served when funds become available.
 - If wait exceeds 6 months, customers must re-submit income eligibility information

7. Subsidy Distribution

- When the owner and the account holder are the same individual, a monthly bill credit will be issued.
- When the owner and the account holder are not the same individual or in the case of a shared meter then one of the following will occur:
 - If a written agreement is signed by the City, owner and account holder - a monthly bill credit is directly given to the account holder who must then pass this to the tenant via a reduced utility bill or rent reduction
 - If a written agreement is not possible - the City will issue a monthly check to the account holder following the receipt of payment of the monthly utility bill.

Attachment 2 Exhibit A

Policy Title			
Effective Date	Supersedes:	Policy Section	Policy Number

- iii. All subsidies must be given to the eligible tenant and not spread across all tenants.
- iv. Tenants can notify the City if subsidies are not being properly applied, at which point the City will notify the account holder and issue a monthly check to the tenant.

c. Definitions

- i. Owner – is the legal property owner of a parcel
- ii. Account holder – is the name on a water and/or wastewater account
- iii. Tenant – is a leaseholder of a house, apartment, condominium or similar residential dwelling OR the owner of an individual mobile/manufactured home in a mobile home park.

8. Program Acceptance

- a. Customers may apply at any time, however they may be placed on a waitlist based on funding availability.
- b. Customers will provide income eligibility information to the City who has to up to 60 days to provide a determination.
- c. Subsidies will be distributed as listed in Section 7.
- d. For customers described in Section 7(b), additional time may be required for written agreements before subsidy can be distributed.

9. Marketing and Outreach

- a. The City will attempt to reach all eligible customers about the program including:
 - i. Creating partnerships to share information
 - ii. Brochures at City Hall, Library, Non Profits and other gathering places
 - iii. Bill Inserts
 - iv. Website and/or Email notification
 - v. Community Presentations
 - vi. Farmer's Market
 - vii. Bilingual outreach

10. Policy Review

- a. This is a revised methodology for calculating subsidies for low income customers. This policy should be reviewed prior to June 30, 2018 for consistency with applicable state laws, income levels and discount rates.

11. Transition Period

- a. With Council adoption of this policy on February 14, 2017
 - i. Members of the program created under Resolution 2006-44 will have 60 days to re-verify their eligibility (last checked in January 2015). Notices will be sent to all enrollees. If information is not received by June 30th, then the discount will be discontinued. Any household may re-apply at any time and will be added to the program as funds are available.
 - ii. Marketing materials will be available on Tuesday, February 21, 2017



Adopt Resolution for Low Income Subsidy Program for Water & Wastewater OR Provide Direction on Policy Changes

By: Tracey Perkosky, Grants & Finance Manager

Finance Department

February 14, 2017



Background

- Council provided general direction on policy elements on 1/24
 - Keep administration costs & impact low
 - Consider maximum annual General Fund contribution
 - Evaluate impacts on Extremely Low and Very Low income customers
 - Possible to design program for City residents only?
 - Focus on base rates only; will consider usage and/or drought surcharge at a later date



Calculation Challenges

- Affordability calculations are, in part, based on household size
- Is customer at high or low end of income range?
- Usage varies based on lifestyle, landscaping, amenities, and household size
- For water monthly charges, the per dwelling cost varies based on the number of mobile homes/apartments/ condos on a parcel:
 - 6 inch meter with 173 units is \$7.24 per unit
 - 6 inch meter with 50 units \$25.05 per unit
 - 3 inch meter with 95 units is \$4.35 per unit
 - 1.5 inch meter with 26 units is \$5.44 per unit
 - 1 inch meter with 2 units is \$40.04 per unit

(uses rates for 2/8/2017 billing period)



Calculation Assumptions

- Used the maximum income in a category
 - CARE Income Guidelines
 - Official State Income Limits for Napa County for Extremely Low and Low Income categories
- Ran scenarios using 2 persons and 4 persons in household
- Used peak water usage rates
- High water conservation to save money & low outdoor irrigation
- Winter average for sewer was the same as water usage



Discount Range

Single Family - CARE	50%
Single Family - Extremely Low	80%
Single Family - Very Low	55%
Multi-Unit - CARE	0 to 22%
Multi-Unit - Extremely Low	40% to 80%
Multi-Unit - Very Low	0 to 32%
Mobile Home - CARE	20%
Mobile Home - Extremely Low	20%
Mobile Home - Extremely Low	10%



Proposed Income Guidelines

*Reflects Low
Income Range for
Official State
Income Limits for
Napa County

Persons	Gross Annual Household Income
1-2	\$35,000 or less*
3	\$40,320 or less
4	\$48,600 or less
5	\$56,880 or less
6	\$65,160 or less
7	\$73,460 or less
8	\$81,780 or less
9	\$90,100 or less
10	\$98,420 or less
Each additional person, add \$8,320	



Example of Water & Wastewater Base Fees with 50% Discount Rates - 2017

	SF up to 1" meter	Multi-Family (3" meter & 95 units)	Multi-Family (1.5" & 26 units)	Multi-Family (1" & 2 units)	Multi-Family (6" & 50 units)	Multi-Family (3" meter & 22 units)	Multi-Family (1" meter, & 4 units)	Multi-Family (2" meter & 11 units)	Mobile Home (6" meter, 2" meter and 212 units)
50% Discount	\$45.63	\$16.71	\$17.26	\$34.56	\$27.06	\$23.92	\$24.55	\$24.31	\$25.02
No Discount	\$91.26	\$33.42	\$34.52	\$69.11	\$54.12	\$47.85	\$49.09	\$48.63	\$50.03

Monthly cost per dwelling unit with 2/8/17 rates



Proposed Program Elements

- Receive water/wastewater from City of St. Helena
- Meet income guidelines (revised annually)
- Discount is at primary residence
- Provide PG&E CARE eligibility or income documentation
- Qualification is based on gross *household* income
- Eligibility renewed annually in June (beginning in 2018)
- Residential customers only



Proposed Program Elements

- Receive 50% discount off base rate (monthly charges) for water and/or wastewater
- General Fund limit of \$80,000 in FY 16/17 and \$90,000 in FY 17/18; Council can authorize increase during any FY with a budget amendment
- Quarterly projections on funds/usage provided with each Finance Quarterly Report
- Waitlist created if demand exceeds funds
- Customers can apply at any time



Proposed Program Elements

- City has up to 60 days to make a determination
- Subsidy distributed via bill credit or monthly check after payment is received based on customer ownership or required contract
- Customers who require a contract may require additional time for written agreements before subsidy can be distributed
- Subsidies must go to individual tenant and not distributed among a complex as a whole



Transition Period

Assuming adoption tonight

- Current enrollees will receive letter and have 60 days to re-verify eligibility
- Marketing materials available on Tuesday, February 21
- Begin working with legal counsel on templates for agreements
- Begin marketing and outreach



Enhanced Marketing and Outreach

- Create marketing and outreach program
 - Bill inserts
 - Email
 - Mailings
 - Community Meetings
 - Farmers Market
 - Coordinate with Water Conservation efforts
 - Bilingual – English and Spanish
 - Develop partnerships with local non-profits



General Fund Impact

- Proposed Impact for FY 17/18 is \$80,000
 - \$22,628 from General Fund as of 12/31/2016
- Proposed Impact for FY 18/19 is \$90,000
- Council can increase General Fund contributions at any time with a budget amendment



Approve resolution adopting new policy
and rescind resolution 2006-44

OR

Provide direction for additional changes



Report to the City Council
Council Meeting of February 14, 2017

Agenda Section: New Business

Subject: Consideration and proposed approval of a resolution authorizing the following:

1. An immediate partial payback to the General Fund from Water and Wastewater Funds for the loans established by Resolutions 2010-62 and 2010-63. The amount to be paid will be equal to the amount owed for the low income subsidy from 2008 to December 31, 2016. The amount to be paid from the Water Fund to the General Fund would be \$63,906.67 and the amount to be paid from the Wastewater Fund to the General Fund would be \$80,848.73.
2. A transfer to the Water and Wastewater Funds from the General Fund for the amount owed for the low income subsidy from 2008 to December 31, 2016. The amount to be transferred is \$63,906.67 from the Water Fund to the General fund and \$80,848.73 from the Wastewater Fund to the General Fund.

CEQA Status: Not a CEQA project

Prepared By: April Mitts, Finance Director

Approved By: Larry Pennell, Interim City Manager

BACKGROUND

On June 22, 2010 City Council approved the following resolutions:

1. Resolution 2010-62 authorizing a loan from the General Fund to the Water Fund for \$138,613 at 1.5% interest for a term not to exceed 5 years (Attachment 1); and
2. Resolution 2010-63 authorizing a loan from the General Fund to the Wastewater Fund for \$178,040 at 1.5% interest for a term not to exceed 5 years (Attachment 2).

Per each resolution annual payments were to be made from the Water Fund and the Wastewater Fund with the final payment in 2015 to the respective funds.

Upon further research, it was found the annual payment for each loan was only paid in fiscal years 2012 and 2013. Payments have not been made since that time. Table 1

provides a summary of the amounts still owed to the General Fund from the Water and Wastewater Funds.

Table 1

Fund	Total Payment	Principal	Interest
Water	\$86,519.18	\$83,974.52	\$2,544.65
Wastewater	\$111,128.65	\$107,860.20	\$3,268.45

On March 28, 2006 City Council approved Resolution No. 2006-44 authorizing low income water and wastewater rates (Attachment 3). Recital C states the rate reduction would need to be paid from interest income or the General Fund so that standard rate customers would not be required to subsidize the rate reduction. Staff, working with the City Attorney's office, determined use of Water and Wastewater interest income is not in compliance with Proposition 218; therefore the entire amount must be subsidized by the General Fund. Upon further research it was found the transfer from the General Fund to the Water and Wastewater Funds had not taken place per City Council direction. City staff is able to calculate the amount owed to the Water and Wastewater Funds back to the implementation of the current financial software system (Springbrook) which was in 2008. Table 2 provides a summary of the amounts identified as owed to the Water and Wastewater Funds from the General Fund for the low income subsidy through December 31, 2016.

Table 2

From 101 to:	Amount
Water	\$63,906.67
Wastewater	\$80,848.73

DISCUSSION

In order to resolve both of these items staff is requesting City Council authorize the following:

1. An immediate partial payback to the General Fund from Water and Wastewater Funds for the loans established by Resolutions 2010-62 and 2010-63. The amount to be paid will be equal to the amount owed for the low income subsidy from 2008 to December 31, 2016. The amount to be paid from the Water Fund to the General Fund would be \$63,906.67 and the amount to be paid from the Wastewater Fund to the General Fund would be \$80,848.73. The amount paid would be applied to principal and interest using the breakdown shown in Table 3 which follows the original payback schedule:

Table 3

	Payment Date	Total Payment	Principal	Interest	Amount to be Paid in FY 17
WATER	1/25/2017	\$ 28,982.50	\$ 27,716.46	\$ 1,266.04	
	1/25/2017	\$ 28,982.50	\$ 28,132.20	\$ 850.30	
	1/25/2017	\$ 5,941.67	\$ 5,941.67		\$ 63,906.67
SEWER	1/25/2017	\$ 37,226.26	\$ 35,600.11	\$ 1,626.16	
	1/25/2017	\$ 37,226.26	\$ 36,134.11	\$ 1,092.15	
	1/25/2017	\$ 6,396.20	\$ 6,396.20		\$ 80,848.73

2. A transfer to the Water and Wastewater Funds from the General Fund for the amount owed for the low income subsidy from 2008 to December 31, 2016. The amount to be transferred is \$63,906.67 from the Water Fund to the General fund and \$80,848.73 from the Wastewater Fund to the General Fund, at shown previously in Table 1. All future subsidy payments will be included in the annual budget and transfers will be done on a quarterly basis. Transfer amounts will be included in the Finance Directors quarterly staff reports to City Council. The estimated amount needed for the remainder of FY 16/17 is included in the mid-year budget adjustment report.
3. Establishment of new loan terms for a quick payback to the General Fund from the Water and Wastewater Funds for the remaining amount owed (principal and interest) with no additional interest accrued from the original loan agreements. As required in Resolutions 2010-62 and 2010-63 each loan term would not exceed 5 years. Since repayment has not been done for four years, staff is recommending the City Council place in the FY 2017/18 budget the final payoff amount from the Water and Wastewater Funds to the General Fund. The final payoff amounts are shown in Table 4.

Table 4

	Payment Date	Total Payment	Principal	Interest
WATER	7/1/2017	\$ 22,612.52	\$ 22,184.19	\$ 428.31
SEWER	7/1/2017	\$ 30,279.92	\$ 29,729.78	\$ 550.14

FISCAL IMPACT

There is no net fiscal impact for FY 2016/17 to the General, Water, and Wastewater Funds. The transactional impact would be as following:

1. Increase in General Fund Revenues of \$144,755.40
2. Increase in General Fund Expenses of \$144,755.40
3. Increase in Water Fund Revenues of \$63,906.67

4. Increase in Water Fund Expenses of \$63,906.67
5. Increase in Wastewater Fund Revenues of \$80,848.73
6. Increase in Wastewater Expenses of \$80,848.73

The fiscal impact for FY 2017/18 would be as follows:

1. Increase in General Fund Revenues of \$52,892.44
2. Increase in Water Expenses of \$22,612.52
3. Increase in Wastewater Expenses of \$30,279.92

RECOMMENDED ACTION

Staff recommends the City Council adopt the following Resolutions:

ATTACHMENTS

1. Attachment 1 – Resolution No. 2010-62 Approving Internal Loan from General Fund to Water Enterprise in the Amount of \$163,613
2. Attachment 2 – Resolution No. 2010-63 Approving Internal Loan from General Fund to Sewer Enterprise in the Amount of \$178,040
3. Attachment 3 – Resolution No. 2006-44 Authorizing Low Income Water and Wastewater Rates
4. Attachment 4 – Resolution No. 2017-_____

Attachment 1

CITY OF ST. HELENA

RESOLUTION NO. 2010-62

**APPROVING INTERNAL LOAN FROM GENERAL FUND TO WATER
ENTERPRISE IN THE AMOUNT OF \$138,613**

RECITALS

- A. The Water enterprise needs funding for a new SCADA system.
- B. The General fund is able to loan the Water Enterprise needed funds for a five year period at 1.5% interest.

RESOLUTION

NOW, THEREFORE, the City Council of the City of St. Helena resolves as follows:

- 1. The General Fund will loan the Water Enterprise \$138,613.
- 2. The term will not exceed five years.
- 3. Interest will accrue at the rate of 1.5%
- 4. Annual payments will be made in the amount of \$28,982.50 with the final payment in 2015 in the amount of \$28,554.19

Approved at a Regular Meeting of the St. Helena City Council on June 22, 2010, by the following vote:

AYES: Councilmembers Schoch, Crull, Sanchez, Sklar, Mayor Britton

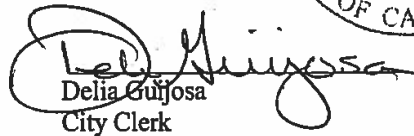
NOES: None

ABSENT: None

APPROVED:


Delford Britton
Mayor

ATTEST:


Delia Gujosa
City Clerk



Attachment 2

CITY OF ST. HELENA

RESOLUTION NO. 2010-63

**APPROVING INTERNAL LOAN FROM GENERAL FUND TO SEWER
ENTERPRISE IN THE AMOUNT OF \$178,040**

RECITALS

- A. The Sewer Enterprise needs funding for regulatory compliance.
- B. The General Fund is able to loan the Sewer Enterprise needed funds for a five year period at 1.5% interest.

RESOLUTION

NOW, THEREFORE, the City Council of the City of St. Helena resolves as follows:

- 1. The General Fund will loan the Sewer Enterprise \$178,040.
- 2. The term will not exceed five years.
- 3. Interest will accrue at the rate of 1.5%.
- 4. Annual payments will be made in the amount of \$37,226.26 with the final payment in 2015 in the amount of \$36,676.12.

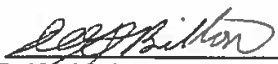
Approved at a Regular Meeting of the St. Helena City Council on June 22, 2010, by the following vote:

AYES: Councilmembers Schoch, Crull, Sanchez, Sklar, Mayor Britton

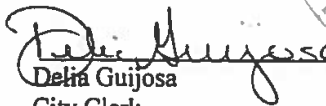
NOES: None

ABSENT: None

APPROVED:


Delford Britton
Mayor

ATTEST:


Delia Guijosa
City Clerk



Attachment 3

CITY OF ST. HELENA

RESOLUTION NO. 2006-44

**AUTHORIZING LOW INCOME WATER AND
WASTEWATER RATES.**

RECITALS

- A. On January 10, 2006, the City Council directed staff to devise a water and wastewater utility rate reduction program for income-qualified City of St. Helena utility customers.
- B. Staff determined that a rate reduction could be applied to the bi-monthly Fixed Service Charges.
- C. A rate reduction in bi-monthly Fixed Services Charges would need to be paid from interest income or the general fund so that standard rate customers would not be required to subsidize the rate reduction.
- D. Residents of apartment complexes with a single water meter are not eligible for this program.
- E. The criteria to establish income eligibility is a copy of the resident's telephone bill reflecting life line rates. A new copy is to be submitted annually to continue the reduced rate. The reduction will take effect on the utility bill after the customer submits proof of qualification.
- F. The Fixed Services Charges for water will be reduced by 50% and the Fixed Services Charges for wastewater will be reduced by 50% for income-qualified utility customers.

RESOLUTION

NOW, THEREFORE, the City of St. Helena resolves as follows:

Staff is authorized to implement the low income utility rates in the manner and at the rates described above.

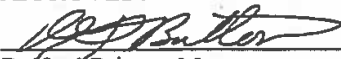
Approved at a Regular Meeting of the St. Helena City Council on March 28, 2006, by the following vote:

Ayes: Councilmembers Potter, Sklar, Novak, Mayor Britton

Noes: None

Absent: Councilmember Schoch

APPROVED:


DeFord Britton, Mayor

ATTEST:


Delia Guijosa, City Clerk



Attachment 4

CITY OF ST. HELENA

RESOLUTION NO. 2017-____

RESOLUTION AUTHORIZING THE FOLLOWING: (A) AN IMMEDIATE PARTIAL PAYBACK TO THE GENERAL FUND FROM WAER AND WASTEWATER FUNDS FOR THE LOANS ESTABLISHED BY RESOLUTIONS 2010-62 AND 2010-63. THE AMOUNT TO BE PAID WILL BE EQUAL TO THE AMOUNT OWNED FOR THE LOW INCOME SUBSIDY FROM 2008 TO DECEMBER 31, 2016. THE AMOUNT TO BE PAID FROM WTH WATER FUND TO THE GENERAL FUND IS \$63,906.67 AND THE AMOUNT TO BE PAID FROM THE WASTEWATER FUND TO THE GENERAL FUND IS \$80,848.73. (B) A TRANSFER TO THE WATER AND WASTEWATER FUNDS FROM THE GENERAL FUND FOR THE AMOUNT OWED FOR THE LOW INCOME SUBSIDY FROM 2008 TO DECEMBER 31, 2016. THE AMOUNT TO BE TRANSFERRED IS \$63,906.67 FROM THE WATER FUND TO THE GENERAL FUND AND \$80,848.73 FROM THE WASTEWATER FUND TO THE GENERAL FUND.

RECITALS

WHEREAS, on June 22, 2010, City Council approved Resolutions 2010-62 and 2010-63 authorizing a loan from the General Fund to the Water and Wastewater Funds for a term to not exceed five (5) years;

WHEREAS, City staff discovered the annual payment for each loan was only paid in fiscal years 2012 and 2013 and has not been made since;

WHEREAS, on March 28, 2006 City Council approved Resolution 2006-44 authorizing low income water and wastewater rates;

WHEREAS, the subsidy for the low income water and wastewater rates was to come from the General Fund;

WHEREAS, City staff discovered the transfer from the General Fund to the Water and Wastewater Funds for the low income subsidy has never taken place; and

WHEREAS, staff recommend certain adjustments to the General Fund, Water Fund, and Wastewater Fund take place to rectify the two items listed above.

RESOLUTION

The City Council of the City of St. Helena hereby resolves as follows:

General Fund

1. An immediate partial payback to the General Fund from the Water and Wastewater Funds for loans established by Resolutions 2010-62 and 2010-63 in the amount of \$144,755.40.

2. A transfer to from the General Fund to the Water Fund of \$63,906.67 for low income subsidy payments from 2008 to December 31, 2016.
3. A transfer from the General Fund to the Wastewater Fund of \$80,848.73 for low income subsidy payments from 2008 to December 31, 2016.

Water Fund

1. An immediate partial payback from the Water Fund to the General Fund for loans established by Resolutions 2010-62 in the amount of \$63,906.67.
2. A transfer to from the General Fund to the Water Fund of \$63,906.67 for low income subsidy payments from 2008 to December 31, 2016.

Waste Water

1. An immediate partial payback from the Wastewater Fund to the General Fund for loans established by Resolutions 2010-63 in the amount of \$80,848.73.
2. A transfer to from the General Fund to the Wastewater Fund of \$80,848.73 for low income subsidy payments from 2008 to December 31, 2016.

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017, by the following vote:

Mayor Galbraith: _____
Vice Mayor White: _____
Councilmember Dohring: _____
Councilmember Koberstein: _____
Councilmember Ellsworth: _____

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk



Report to the City Council
Council Meeting February 14, 2017

Agenda Section: New Business

Subject: Fiscal Year 2016/17 2nd Quarter Finance Report and Proposed Consideration of Resolution Approving Mid-Year Budget Adjustments for FY 2016/17

CEQA Status: Not a CEQA Project

Prepared By: April Mitts, Finance Director

Approved By: Larry Pennell, Interim City Manager

BACKGROUND

Municipal Code Title 2, §2.24.030 states the Director of Finance shall deliver to the City Manager and to the Council at a regularly scheduled Council meeting a budget report showing the budget status at the end of the preceding quarter. The Q2 Quarterly report is combined with the mid-year budget report/adjustments.

After conducting a review of the status of the City's budget as of December 31, 2016, this report is presented to provide an overview of revenues and expenses at mid-year as they relate to various funds. The City has traditionally amended its budget during the year as new and updated information becomes available, or at various times during the year to appropriate funds for expenses that were not anticipated at the time the budget was adopted.

Staff has prepared the following for Council:

1. Mid-Year Summary of Revenues and Expenses for FY 2016/17
2. Proposed Mid-Year Budget Adjustments
3. FY 2016/17 Q2 List of Checks over \$100,000

DISCUSSION / FISCAL IMPACT

The intent of this report is to highlight the conclusions of the mid-year budget analysis, while focusing on the funds over which the City Council has discretion. The report is broken down into four different Fund Types – General Fund, Water Fund, Waste Water Fund, and Other Funds. Most budget adjustment requests to the General Fund (101) are small; however, there are two larger requests which are discussed below.

The first request is a transfer from General Fund Reserves (101) to the Measure A Fund (235) of \$526,805 to cover the FY 16/17 State Revolving Fund (SRF) payment. As stated in the September 13, 2016 staff report to City Council (Attachment 1), the regular payment to SRF was due in November 2016 for \$526,805 and the FY 16/17 budget anticipated funds to be received through a drawdown of Measure A funds to cover this payment. The staff report included a list of the sequential events that must take place to drawdown additional Measure A funds. The events include: (1) completion of the forensic audit, (2) completion of the audit of previous Measure A expenditures with the County of Napa, (3) submission of qualifying expenditures to the Flood Control District and the Measure A Financial Oversight Committee (FOC) – via the County of Napa, and (4) a contract amendment to include SRF repayment as an allowable expenditure. At that time staff advised City Council that if a drawdown from Measure A cannot be done prior to close of FY 16/17 use of General Fund Reserves would be necessary to cover the FY 16/17 payment. It is anticipated the Forensic Audit will be complete by March and it is at that point that City staff can proceed with the audit of previous Measure A expenditures. Timing will not allow for a drawdown of Measure A funds in this fiscal year, therefore a transfer from the General Funds reserves to the Measure A fund of \$526,805 is required. Staff will try to include this expense/timeframe as part of the Measure A amendment so these funds can be reimbursed to the General Fund; however, there is no guarantee this can happen.

The second request is use of General Fund Reserves (101) of \$190,000 for increased attorney costs associated with the following: (1) costs for general contract services, (2) costs associated with increased Public Records Requests which require attorney review, and (3) \$50,000 for increased legal costs associated with Short Term Rental enforcement. The total increase to the City Attorney's budget will be \$190,000; however, \$50,000 is neutral as the costs are recuperated through legal cost recovery as a result of Short Term Rental enforcement and is noted as an increase in revenue.

GENERAL FUND

REVENUES

General Fund Revenues – December 31, 2016 Balances and Budget Adjustments

General Fund revenue received from July 1, 2016 through December 31, 2016 for Fiscal Year (FY) 2016/17 is \$5,044,838. General Fund revenue is divided into the following categories: (1) Property Tax, (2) Sales Tax, (3) Transient Occupancy Tax (TOT), (4) Other Taxes, (5) Licenses and Permits, (6) Fines and Forfeits, (7) Intergovernmental, (8) Interest and Rents, and (9) Charges for Services and Miscellaneous. The primary contributors to General Fund revenues are Property Tax, Sales Tax, and TOT. Chart 1 is a summary of how much has been collected in FY 2016/17 through December 31, 2016 and Chart 2 is a summary of the General Fund Revenue Adjustments based on collections through December 31, 2016 and forecasts.

Chart 1 – Summary of Revenue Collection through December 31, 2016

Revenue Source	2016/17 Adopted Budget	2016/17 Adjusted Budget	Collected Through 12/31/2016	% of Revenues Collected
Property Tax	\$3,843,537	\$3,843,537	\$2,319,339	60%
Sales Tax	\$2,821,674	\$2,821,674	\$908,397	32%
TOT	\$2,264,285	\$2,264,285	\$944,276	42%
Other Taxes	\$288,660	\$288,660	\$61,668	21%
Licenses & Permits	\$581,935	\$581,935	\$366,288	63%
Fines & Forfeits	\$55,500	\$55,500	\$14,778	27%
Intergovernmental	\$58,755	\$58,755	\$65,004	111%
Interest & Rents	\$191,200	\$191,200	\$83,220	44%
Charges for Services & Misc.	\$485,485	\$487,485	\$281,869	58%
TOTALS	\$10,591,030	\$10,593,030	\$5,044,838	48%

During FY 2016/17 Q2 48% of General Fund revenues have been collected. The following is a summary of each revenue source:

1. Property Tax revenue estimates are slightly higher than last year at the same time. FY 15/16 Q2 reported 58% received as compared with 60% of the revenues received to date for FY 16/17 Q2. It is estimated Property Tax revenues will be \$100,000 higher than initially anticipated. Revenue estimates for Property Taxes are being increased by \$100,000. Additionally, revenues for In Lieu VLF are being increased by \$40,000 due to an increase in receipts received.
2. Sales Tax – FY 16/17 Q2 reported at 32% collected compared to FY 15/16 Q2 reported amount of 28%. Revenue projections provided by Muniservices on February 2, 2017 estimate sales tax revenues to be \$65,000 higher than the original projections. In addition, sales tax revenues are anticipated to increase during FY 16/17 Q4 due to the passage of Measure D. Revenue estimates for Sales Taxes are being increased by \$315,000.
3. TOT revenue estimates are at 42% of what was projected for FY 16/17. The initial TOT estimates included the opening of Los Alcobas in January 2017. It is now anticipated opening on February 21, 2017. Revenue estimates for this category are being decreased by \$75,000 due to the delay in the opening of Los Alcobas.
4. Other Taxes revenue estimates are on target for the projected revenues for FY 16/17. Although Chart 1 indicates 21% of Other Taxes being collected, this is on target with amounts collected at FY 15/16 Q2.
5. License and Permit revenues are slightly higher than estimated primarily due to an increase in building activity compared to FY 15/16. While 63% of the estimated revenue has been collected no increase to this budget category will be made.
6. Fines and Forfeits revenue estimates are lower than expected. FY 15/16 Q2 reported amount received to date at 56% compared to FY 16/17 Q2 reported as 27%. The

revenue estimates for this category are being decreased by \$20,000 due to mid-year collection being lower than anticipated for Vehicle Code Fines.

7. Intergovernmental revenue estimates exceed original budget primarily due to reimbursement for Fire Department Strike Teams. While there are additional revenues for this category they are not being increased at this time. A budget adjustment for both revenues and expenses will be brought before City Council once all FY 16/17 strike team reimbursements are received.
8. Interest and Rents revenue estimates for FY 16/17 Q2 are at 44%. This is slightly lower than what was collected for FY 15/16 Q2. Although this is slightly lower, no revenue adjustments are being done at this time.
9. Charges for Services & Miscellaneous revenue estimates for FY 16/17 Q2 are at 58%. Revenue increases for this category are outlined below:
 - o Legal Cost Recovery (101-3320) – Revenues are increased by \$50,000 for revenue associated with enforcement of Short Term Rentals. This increase is neutral and is offset by additional legal expenses related to enforcement.
 - o Other Revenue (101-3470) – Revenues are increased by \$1,677 for the following: (1) proceeds of the Harvest Festival Pet Parade to go directly to Wappo Dog Park - \$677. An increase in expenses in the Park Fund is included in the budget adjustments. (2) Increase for a grant received from Northnet for library staff training - \$1,000. An increase in expenses for the Library is included in the budget adjustments.

Chart 2 – Summary of General Fund Revenue Adjustments

Revenue Source	2016/17 Adopted Budget	2016/17 Adjusted Budget	Collected Through 12/31/2016	Projected 6/30/16	Variance
Property Tax	\$3,843,537	\$3,843,537	\$2,319,339	\$3,983,537	\$140,000
Sales Tax	\$2,821,674	\$2,821,674	\$908,397	\$3,136,674	\$315,000
TOT	\$2,264,285	\$2,264,285	\$944,276	\$2,189,285	(\$75,000)
Other Taxes	\$288,660	\$288,660	\$61,668	\$288,660	-
Licenses & Permits	\$581,935	\$581,935	\$366,288	\$581,935	-
Fines & Forfeits	\$55,500	\$55,500	\$14,778	\$35,500	(\$20,000)
Intergovernmental	\$58,755	\$58,755	\$65,004	\$58,755	-
Interest & Rents	\$191,200	\$191,200	\$83,220	\$191,200	-
Charges for Services & Misc.	\$485,485	\$487,485	\$281,869	\$539,162	\$51,677
TOTALS	\$10,591,030	\$10,593,030	\$5,044,838	\$11,004,707	\$411,677

EXPENSES

General Fund Expenses – December 31, 2016 Balances and Budget Adjustments

- Measure A – a transfer from the General Fund Reserves to Measure A (235) of \$526,805 is being requested to cover the FY 16/17 payment of the State Revolving Fund Loan. As stated earlier in this report this is due to the City not being able to request a drawdown of Measure A funds prior to the close of FY 16/17.

- Non-Departmental –
 - A budget increase of \$3,000 to 101-4000-2408 is requested for leak adjustments. Any leak adjustments must be paid for by the General Fund and quarterly will be transferred from the General Fund to the Water Other Revenue – account 561-3470-0000 to offset bill credits given to customers.
 - Information Technology (IT) – A budget increase of \$1,445 to account #101-4000-2335 for additional IT needs.
- City Manager/Clerk –
 - A budget increase of \$5,000 to 101-4200-2145 is requested for costs associated with a contract amendment for \$5,000 with ECS Imaging, Inc. which was approved via Resolution 2016-155 (Attachment 2) at the November 29, 2016 City Council meeting. The staff report indicated the \$5,000 would be taken from General Fund Reserves; however, it was discovered this was not specified in the Resolution giving authorization of this adjustment. This budget increase is a clean-up item for a previously authorized contract and authorization of expenses.
- Attorney – a total budget increase of \$190,000 is being requested. The increase is due to several factors and is itemized below. One item is budget neutral as it is offset by additional revenues being collected. The total net effect to the General Fund reserves is \$140,000. This is due to an increase in Public Records Requests which require attorney review (\$40,000) and general municipal requests of the City Attorney's office (\$100,000). The addition of the \$100,000 for general municipal services is in line with the FY15/16 adopted budget.
 - A budget increase of \$50,000 to account #101-4400-2130 for costs associated with enforcement of Short Term Rentals. This increase is budget neutral and is offset by additional legal cost recovery revenues.
 - A budget increase of \$100,000 to account #101-4400-2130 for costs associated with general contract services.
 - A budget increase of \$40,000 to account #101-4400-2130 for costs associated with Public Records Requests.
- Library –
 - A budget increase of \$1,000 to account #101-4600-2155 for library training provided for by a grant from Northnet. The increase in expense is offset by an increase in revenues.
 - A budget increase of \$1,890 to account #101-4600-2145 for the Napa Valley Now! Membership fee. This amount was not included in the FY 16/17 adopted budget.
- Police –
 - A budget increase of \$35,000 to account #101-4900-2630 to purchase a police vehicle for the Chief of Police for replacement of the Ford Fusion.
 - A budget increase of \$1,500 to account #101-4900-2215 for new chairs for the Police Department.
 - A budget increase of \$1,000 to account #101-4900-2212 for a new computer for the Police Department.

- Public Works
 - Parks – A budget increase of \$10,677 is requested for: (1) improvements to Wappo Dog Park of \$677 to account #101-5027-2215. This expense increase is offset by an increase in revenues from the Harvest Festival Pet Parade where the proceeds were to go directly to benefiting Wappo Dog Park. (2) Unanticipated employment expenses of \$10,000 to account #101-5027-2071

Chart 3 - Summary of General Fund Expenses by Department and Budget Requests:

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Non-Departmental	\$1,284,754	\$1,288,760	\$431,940	34%	\$1,293,205	\$4,445
City Council	\$172,180	\$172,179	\$49,229	29%	\$172,179	-
City Manager's Office	\$661,648	\$724,348	\$344,954	48%	\$729,348	\$5,000
Finance	\$352,380	\$414,854	\$159,495	38%	\$414,854	-
City Attorney	\$582,037	\$582,037	\$269,075	46%	\$772,037	\$190,000
Planning & Building	\$976,373	\$1,010,021	\$385,517	38%	\$1,010,021	-
Library	\$842,179	\$842,177	\$390,801	46%	\$845,067	\$2,890
Recreation	\$175,265	\$175,264	\$53,437	30%	\$175,264	-
Fire	\$769,827	\$786,623	\$415,852	53%	\$786,623	-
Police	\$3,083,531	\$3,083,531	\$1,516,169	49%	\$3,121,031	\$37,500
Public Works	\$1,740,856	\$1,822,221	\$624,873	34%	\$1,832,898	\$10,677
TOTAL	\$10,641,030	\$10,902,015	\$4,641,342	43%	\$11,152,527	\$250,512

Chart 4 – Schedule of Transfers

From	To	Amount
101	235 (Measure A)	\$526,805
TOTAL FROM 101:		\$526,805

TRANSFER FROM GENERAL FUND RESERVES PER CITY COUNCIL ACTION

Transfer from Reserves – Through December 31, 2016. One item was adopted by City Council authorizing the use of General Fund Reserves. Chart 5 is a summary of the item and the amount authorized.

Chart 5 – Summary of Use of General Fund Reserves

Resolution No.	Date	Item	Amount from Reserves
Resolutions Passed – Through December 31, 2016			
2016-106	8/9/16	Limited Term Full-Time Admin. Records Assist.	\$61,406
TOTAL TRANSFER FROM GF RESERVES THROUGH 1/26/2016			\$61,406

GENERAL FUND SUMMARY

Chart 6 is a summary of each of the categories described in the General Fund section of this report.

Chart 6 – Summary of General Fund Revenues/Expenses

	2016/17 Adopted Budget	2016/17 Adjusted Budget	Projected 6/30/17	Variance
General Fund Revenues	\$10,591,030	\$10,593,030	\$11,004,707	\$411,677
General Fund Expenses	\$10,641,030	\$10,902,015	\$11,152,527	(\$250,512)
Transfer to Measure A (235) for SRF Debt Payment				(\$526,805)
Net to General Fund				(\$365,640)

GENERAL FUND NET POSITION

Chart 7 – General Fund Net Position

Estimated GF Reserves (total) @ 6/30/16	\$3,411,025
Estimated Revenues	\$11,004,707
Estimated Expenses	(\$11,152,57)
Use of Reserves for SRF Payment	(\$526,805)
Estimated Reserves @ 6/30/17	\$2,736,400
Estimated Reserve Percentage	25%

WATER FUND (561)**Water (561) – December 31, 2016 Balances and Budget Adjustments****REVENUES**

Water fund revenues for the first two quarters of FY 16/17 are on track compared to initial estimates.

- The recent adoption of Resolution No. 2016-163 established a revised schedule for water rates. There will be revenue increase to the Water fund and staff is recommending an increase of \$790,000 for the remainder of FY 2016/17 to the Water system.
- A budget revenue increase of \$3,000 is requested for leak adjustments. Any leak adjustments must be paid for by the General Fund and quarterly the amount granted from leak adjustments will be transferred from the General Fund to the Water Other Revenue – account 561-3470-0000 to offset bill credits given to customers.

Chart 8 – Summary of Water Fund Revenues

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Water (561)	\$3,783,308	\$3,783,308	\$2,146,555	57%	\$4,576,308	\$793,000

EXPENSES

- Administration -
 - Information Technology (IT) –
 - A budget increase of \$1,445 to account #561-4000-2335 for additional IT needs.
 - Attorney –
 - A budget increase of \$135,000 to account #561-4400-2132 for litigation costs associated with a challenge the City's operation of the Bell Canyon Reservoir.
- Water Treatment –
 - A budget increase of \$3,500 to account #561-5034-2030 to cover necessary overtime costs

SUMMARY

Chart 9 – Summary of Water Expenditures by Department

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Administration	\$2,167,358	\$2,216,438	\$1,324,241	60%	\$2,352,883	\$136,445
Water Distribution	\$685,931	\$ 685,931	\$ 268,641	39%	\$ 685,931	-
Stonebridge Wells	\$85,400	\$95,515	\$34,919	37%	\$95,515	-
Water Treatment	\$2,183,426	\$2,223,006	\$ 778,793	35%	\$ 2,226,506	\$3,500
TOTAL	\$5,122,115	\$5,220,890	\$2,406,594	46%	\$5,360,834	\$139,945

TRANSFER FROM WATER FUND RESERVES PER CITY COUNCIL ACTION

Transfer from Reserves – Through December 31, 2016. One item was adopted by City Council authorizing the use of Water Fund Reserves. Chart 10 is a summary of the item and the amount authorized.

Chart 10 – Summary of Use of Water Fund Reserves

Resolution No.	Date	Item	Amount from Reserves
2016-125	9/13/16	Increase in Contract Amount for Hansford Consulting	\$6,510
TOTAL THROUGH 12/31/2016			\$6,510

WATER FUND SUMMARY

Chart 11 is a summary of each of the categories described in the Water Fund section of this report.

Chart 11 – Summary of Water Fund Revenues/Expenses

	2016/17 Adopted Budget	2016/17 Adjusted Budget	Projected 6/30/17	Variance
Water Fund Revenues	\$3,783,308	\$3,783,308	\$4,576,308	\$793,000
Water Fund Expenses	\$5,122,115	\$5,220,890	\$5,359,389	(\$138,500)
Net to Water Fund				\$654,500

WATER NET POSITION

Chart 12 – Water Fund Net Position (Including Net Pension Liability)

Estimated Water Reserves (total) @ 6/30/16	\$3,850,221
Estimated Revenues	\$4,576,308
Estimated Expenses	(\$5,360,835)
Estimated Reserves @ 6/30/17	\$3,065,694
Estimated Reserve Percentage	57%

Chart 13 – Water Fund Net Position (Excluding Net Pension Liability)

Estimated Water Reserves (total) @ 6/30/16	\$5,093,655
Estimated Revenues	\$4,576,308
Estimated Expenses	(\$5,360,835)
Estimated Reserves @ 6/30/17	\$4,309,128
Estimated Reserve Percentage	80%

WASTE WATER FUND (571)**Waste Water (571) – December 31, 2016 Balances and Budget Adjustments****REVENUES**

- The recent adoption of Resolution No. 2016-164 established a revised schedule for waste water rates. There will be revenue increase to the Waste Water fund and staff is recommending an increase of \$390,000 for the remainder of FY 2016/17 to the waste water system.

Chart 14 – Summary of Waste Water Revenues

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Waste Water (571)	\$2,110,647	\$2,110,647	\$1,001,730	47%	\$2,500,647	\$390,000

EXPENSES

- Administration –
 - Information Technology (IT) – a budget increase of \$1,445 to account #571-4000-2335 for additional IT needs.
- Waste Water Treatment Plant – a budget increase of \$36,500 for the following:
 - \$30,000 to account #571-5029-2020 for a temporary operator at the Waste Water Treatment Plant

- o \$6,500 to account #571-5029-2030 for additional overtime costs associated with staff resignations

SUMMARY

Chart 15 – Summary of Waste Water Expenditures by Department

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Administration	\$1,150,275	\$1,189,458	\$605,398	51%	\$1,190,903	\$1,445
Waste Water Collection	\$133,625	\$133,625	\$58,561	44%	\$133,625	-
Waste Water Treatment	\$774,033	\$790,626	\$368,602	47%	\$827,126	\$36,500
TOTALS	\$2,057,933	\$2,118,709	\$1,035,941	54%	\$2,151,654	\$37,945

TRANSFER FROM WASTE WATER FUND RESERVES PER CITY COUNCIL ACTION
Transfer from Reserves – Through December 31, 2016. One item was adopted by City Council authorizing the use of Waste Water Fund Reserves. Below is a summary of the item and the amount authorized.

Chart 16 – Summary of Use of Waste Water Fund Reserves

Resolution No.	Date	Item	Amount from Reserves
2016-125	9/13/16	Increase in Contract Amount for Hansford Consulting	\$6,510
TOTAL TRANSFER FROM WASTE WATER RESERVES THROUGH 12/31/2016			\$6,510

WASTE WATER FUND SUMMARY

Chart 17 is a summary of each of the categories described in the Waste Water section of this report.

Chart 17 – Summary of Waste Water Fund Revenues/Expenses

	2016/17 Adopted Budget	2016/17 Adjusted Budget	Projected 6/30/17	Variance
Waste Water Fund Revenues	\$2,110,647	\$2,110,647	\$2,500,647	\$390,000
Waste Water Fund Expenses	\$2,057,933	\$2,118,709	\$2,156,654	(\$37,945)
Net to Waste Water Fund				\$352,055

WASTE WATER NET POSITION

Chart 18 – Waste Water Fund Net Position (Including Net Pension Liability)

Estimated Waste Water Reserves (total) @ 6/30/16	(\$109,313)
Estimated Revenues	\$2,500,647
Estimated Expenses	(\$2,151,654)
Estimated Reserves @ 6/30/17	\$348,993
Estimated Reserve Percentage	11%

Chart 19 – Waste Water Fund Net Position (Excluding Net Pension Liability)

Estimated Waste Water Reserves (total) @ 6/30/16	\$719,643
Estimated Revenues	\$2,500,647
Estimated Expenses	(\$2,151,654)
Estimated Reserves @ 6/30/17	\$1,068,636
Estimated Reserve Percentage	50%

OTHER FUNDS**COPS (224) – Budget Adjustments**

A budget revenue increase of \$843 to account #224-3470-0000 for a reimbursement from REMIF for the CalPELRA training for the Chief of Police

A budget expense increase of \$843 to account #224-4900-2155 for the CalPELRA training for the Chief of Police.

State Gas Tax 2107 (227) – Budget Adjustments

A budget expense increase of \$3,000 is requested for account #227-5026-2145 for Caltrans costs for the signals and lighting on Main Street. This line item was not included in the FY 16/17 adopted budget.

Friends and Foundation (380) – Budget Adjustments

ABC license permits are applied for by the Friends and Foundation for various adult events held at the St. Helena Library. The responsibility of obtaining the ABC license permit is the responsibility of the Friends & Foundation and not the City of St. Helena. The FY 16/17 adopted budget included the City of St. Helena paying for the ABC license for these events. In order to correct this a budget expense and a budget revenue decrease of \$450 is being requested, as indicated below. Friends & Foundation is now responsible for obtaining and paying for this permit.

A budget revenue decrease of \$450 is requested for account #380-3470-0000.

A budget expense decrease of \$450 is requested for account #380-4600-2243.

Recreation (289) – Budget Adjustments

A budget expense increase of \$7,000 is requested for the Recreation Department due to a higher number of soccer registrants and the popularity of the martial arts classes.

- o \$4,000 increase to account #289-4728-2215

- o \$3,000 increase to account #289-4728-2145.

The budget expense increases are offset by a revenue increase of \$7,000 to account #289-3430-0000 for the increase in registration fees.

FY 2016/17 Q2 Checks over \$100,000

Per staff recommendations on April 10, 2015, the Chart 19 is a list of Checks over \$100,000 paid in FY2016/17 Q2.

Chart 20 – Summary of FY 16/17 Q2 Checks over \$100,000

Check #	Vendor	Check Date	Check Amount	Notes
96079	SWRCB Accounting Office	10/17/16	\$526,804.64	SRF Loan Payment
96169	City of Napa	10/28/16	\$117,541.50	Monthly Water Agreement
96377	City of Napa	11/16/16	\$107,605.50	Monthly Water Agreement.

RECOMMENDED ACTION

Staff recommends the City Council approve Resolution No. 2017-____ Approving Mid-Year Budget Adjustments for FY 2016-17.

ATTACHMENTS

1. Attachment 1 – City Council Report from September 13, 2016
2. Attachment 2 – City Council Report from November 29, 2016 – ECS Contract
3. Attachment 3 – Resolution No. 2017-____



Attachment 1

Report to the City Council
Council Meeting of September 13, 2016

Agenda Section: New Business

Subject: Report to City Council on the regularly scheduled State Revolving Loan Fund (SRF) payment of \$526,805 for the Comprehensive Flood Control Project for FY 16/17

CEQA Status: Not a CEQA project

Prepared By: April Mitts, Finance Director

Tracey Perkosky, Grant/Finance Manager

Approved By: Jennifer Phillips, City Manager

BACKGROUND

In 2008, the City borrowed \$9.1 million from the State of California – State Water Resources Control Board (SWRCB) to partially finance the Comprehensive Flood Control Project through the State Revolving Loan Fund (SRF). The primary source of repayment is Measure A sales tax revenues. The City made a payment of \$143,922 in 2009 and another payment in the amount of \$327,756 in 2010. In FY 2010-11 the City began making full principal and interest payments in the amount of \$526,804.64 annually. Payments for Fiscal Years (FYs) 14/15 and 15/16 were paid from the General Fund. Other payments have been made through Fund 235. These payments are scheduled to continue through 2028.

DISCUSSION

The regular payment due in November 2016 for the SRF loan is \$526,805. FY 16/17 anticipates revenue from Measure A of \$1,358,000 that will be placed in Fund 235. This revenue is to be used to make the regularly scheduled SRF payment of \$526,805 and an additional principal payment to the SRF debt as Measure A funds were pledged revenues for repayment of the SRF loan. These revenues and expenditures were part of the FY 16/17 adopted budget (page 63 of the adopted FY 16/17 budget).

There are several facets to the process to drawdown additional Measure A funds. The facets include an audit of previous drawdown expenditures, submission of qualifying expenditures to the Flood Control District and the Measure A Financial Oversight Committee (FOC) – via the County of Napa, and finally a contract amendment to include SRF repayment as an allowable expenditure.

Attachment 1

Over the past year the City and County of Napa have been working together to audit previous Measure A drawdowns to ensure the appropriate controls of Measure A finances. Once this audit is complete the City and County will be undertaking the process to qualify the SRF loan as a qualifying expenditure for use of Measure A funds. If this is approved, additional drawdowns can be done and will be used towards paying down the SRF loan.

Due to the complexity of the Comprehensive Flood Control Project ("Project") the City has retained the services of Nigro & Nigro to conduct a forensic audit of the Project financials as well as review of the City's internal control processes, as noted in the January 26, 2016 report to City Council. The review of the Project financials includes analyzing revenues and expenses, contract compliance, and procurement processes and procedures. City staff is currently working with Nigro & Nigro on the audit and anticipate their report will be completed by end of calendar year 2016.

As stated at the August 23, 2016 City Council meeting during the Grant Update, City staff is holding off on submitting paperwork for our required Measure A audit until the forensic accounting firm has had a chance to thoroughly review and vet the information so we are confident that the information we are submitting to them is the most accurate information the City can provide.

During the development of the FY 16/17 budget staff anticipated all required audits and contract amendments would be complete and a drawdown from Measure A would be done prior to November 2016 when the FY 16/17 annual payment is due. This was stated in the March 22, 2016 report to City Council, at the May 4, 2016 Budget Workshop, and at the June 14, 2016 City Council meeting during the final budget presentation. Due to timing of the forensic auditor's report, completion of the audit with the County of Napa, and required amendments the drawdown will not take place in the originally anticipated timeframe but is still expected by the end of FY 16/17; however, this is not guaranteed.

In late October or early November, the City will be making the regular scheduled SRF payment of \$526,805 from Fund 235. Following Generally Accepted Accounting Principles (GAAP) under the accrual basis of accounting, which the City follows, this is allowable and part of normal course of government. Any additional payments to principal will only take place when a Measure A drawdown is received.

Staff is providing this informational item to the City Council to explain that if a drawdown from Measure A cannot be done prior to close of FY 16/17 use of General Fund Reserves or a loan from the General Fund will be necessary as a fund cannot carry a negative balance from one fiscal year to the next. If this is necessary, staff will bring an item back to City Council to either authorize use of General Fund Reserves or authorize a loan from the General Fund to Fund 235 to cover the SRF regular loan payment of \$526,805 being made in November 2016. Use of General Fund Reserves or making a loan from the

Attachment 1

General Fund to Fund 235 will be dependent on where the City is at in the process of the contract amendment with the Flood Control District and the FOC.

FISCAL IMPACT

None at this time; however, if use of General Fund Reserves is necessary, the fiscal impact would be the General Fund reserve level would be at approximately 19%.

RECOMMENDED ACTION

Receive and file.

ATTACHMENTS

None

Attachment 2



Report to the City Council
Council Meeting of November 29, 2016

Agenda Section: Consent

Subject: Consideration and proposed approval of a resolution approving a contract amendment for \$5,000 with ECS Imaging, Inc for additional professional services related to the implementation and file plan set-up of Laserfiche (electronic document imaging software) not to exceed \$29,313.20

CEQA Determination: Not a CEQA Project

Prepared By: Cindy Black, City Clerk

Approved By: Jennifer Phillips, City Manager

BACKGROUND

On August 26, 2014, the City Council authorized the purchase of Laserfiche from ECS Imaging, Inc for a total amount of \$24,313.20. Laserfiche software is a solution for electronic document management which is a paperless solution and utilization improves the retention, preservation and security of important documents and records.

DISCUSSION

Additional services are required to finalize the implementation of Laserfiche. The next step in the process is building the file plan structure for each department. The file plan structure within Laserfiche is key to a successful organized environment. Without the file plan structure there would be no record organization and all department records would be comingled.

ECS and Staff have developed a project plan and timeline to address the City's needs for final implementation, which is detailed in Attachment 2. Staff projects Laserfiche to be fully functioning by the end of March 2017. Once live and functioning each department will populate Laserfiche with records.

One of the City Clerk's goals is to provide additional public access to City records. The City Clerk's office is collaborating with the Planning Department to make records more readily available for public viewing. A computer will be available at the front counter for direct public access to public records within Laserfiche. For example, once all planning

Attachment 2

and building records are scanned into Laserfiche they would be readily available for the public to view.

In the future, the City Clerk's office would like to budget for a Laserfiche public accessibility portal. The portal is a direct weblink from the City's website to Laserfiche. This would allow staff and the community direct website access to scanned records in Laserfiche. The total cost would be about \$31,800 and would cover the weblink, annual maintenance, hardware and professional services.

FISCAL IMPACT

On June 14, 2016, the City Council adopted Fiscal Year 2016/17 City of St. Helena Annual Budget. Mayor Galbraith also requested the City Clerk's unfunded item titled, "Meeting Manager Software (\$6,000) City Clerk Transparency web page" be considered for funding. It was the consensus of the City Council to fund this item. In the spirit of transparency and records being made more readily available to the public the City Clerk is requesting \$5,000 that was earmarked for the transparency page be used to fund the final transition of Laserfiche.

The additional \$5,000 in funding was not part of the FY 2016/17 adopted budget and would come from General Fund Reserves and placed in account 101-4200-2145.

RECOMMENDED ACTION

Adopt the resolution.

ATTACHMENTS

1. Resolution
2. Agreement between the City of St. Helena and ECS Imaging Inc.
3. Amendment #1 for ESC Imaging, Inc.
4. St. Helena Laserfiche Project Plan

Attachment 2

CITY OF ST. HELENA

RESOLUTION NO. 2016-155

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ST. HELENA
AUTHORIZING CONTRACT AMENDMENT FOR \$5,000 WITH ECS IMAGING, INC
FOR ADDITIONAL SERVICES FOR A TOTAL COST NOT TO EXCEED \$29,313.20**

RECITALS

- A. On August 26, 2014, the City Council authorized the purchase of Laserfiche from ECS Imaging, Inc for a total amount of \$24,313.20; and
- B. Laserfiche software is a solution for electronic document management which is a paperless solution and utilization improves the retention, preservation and security of important documents and records; and
- C. Additional services are required to finalize the implementation of Laserfiche; and
- D. ECS and Staff have developed a project plan and timeline to address the City's needs for final implementation, which is detailed in Exhibit A; and

RESOLUTION

The City Council of the City of St. Helena hereby resolves as follows:

- 1. The City Council authorizes the City Manager to approve the contract amendment with ECS Imaging, Inc.

Approved at a Special Meeting of the St. Helena City Council on November 29, 2016 by the following vote:

Mayor Galbraith: Yes
Vice Mayor White: Yes
Councilmember Crull: Yes
Councilmember Dohring: Yes
Councilmember Pitts: Yes

APPROVED:


Alan Galbraith, Mayor

ATTEST:


Cindy Black, City Clerk



Attachment 2
Exhibit A**WORK PLAN FOR ST. HELENA LASERFICHE IMPLEMENTATION****11/7/2016****Helen, Kami, Norm****Included Departments: Finance, HR, PW, Building/Planning, Police, Library, Fire, Parks & Rec**

Date	Activity	Responsible Party
November		
11/07	Complete the work plan	KIS/COSH
11/07 to 11/11	Confirm ECS quote for labor and test software and maintenance	KIS/COSH
11/07 to 11/11	Schedule Dept. File Plan meetings	COSH
11/14 to 11/30	Obtain funding and contract amendment	COSH
December		
12/5 to 12/09	Meet with Departments for file plans	COSH/KIS
12/12	Install test server software	ECS
January		
01/03 to 01/13	ECS configure test server software	ECS/COSH/IT
01/23 to 01/27	Initial operational testing	COSH/KIS
01/30 to 02/03	ECS making any changes necessary	ECS
February		
02/06 to 02/13	Departmental testing; Kami to collect issues request from Department testing	COSH
02/20 to 02/24	ECS to train Kami to create and profile and make additional changes to existing profiles	ECS/COSH/KIS
02/20	Deliver final changes to Kevin (perhaps Kevin does that onsite with Kami)	ECS/COSH
02/20 to 02/24	Kami to test training with Norm	KIS/COSH
02/20 to 02/24	General training all staff	KIS/COSH
March		
03/03 to 03/03	Go live in order of training	COSH
03/20 to 03/24	meet with staff to evaluate how project is going	COSH
03/31		

Attachment 2
Exhibit A

WORK PLAN FOR ST. HELENA LASERFICHE IMPLEMENTATION

11/7/2016

Helen, Kami, Norm

Included Departments: Finance, HR, PW, Building/Planning, Police, Library, Fire, Parks & Rec

Attachment 2

**AMENDMENT #1 TO AGREEMENT FOR CONSULTANT
SERVICES WITH ECS IMAGING, INC FOR PROFESSIONAL SERVICES**

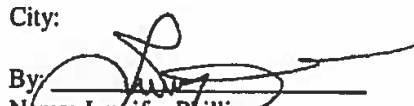
- A. Pursuant to the terms of the written Agreement between City of St. Helena (City) and ECS Imaging, Inc., (Consultant), entered into on September 19, 2014 and approved by the City Council on August 26, 2014, the City entered into a Professional Services Agreement with Consultant (Agreement) to provide Laserfiche software and associated professional services, as provided in more detail in the Agreement, in an amount not to exceed \$24,313.20; and
- B. Consultant has a an implementation team with the necessary expertise to assist the City with developing the file plan structure within Laserfiche; and
- C. City and Consultant desire to amend the Agreement to provide additional professional services, as provided in more detail in the attached November 18, 2016 Consultant Proposal, which is incorporated herein by this reference; and
- D. Amendment No. 1 in the amount of \$5,000.00 to the Agreement for Consultant Services with ECS Imaging is hereby approved; and
- E. With this Amendment No. 1, the total amended Agreement price is not to exceed \$29,313.20.
- F. The Agreement, as modified by this Amendment, constitutes the entire agreement between City and Consultant. Except as expressly set forth in this Amendment No. 1, the Agreement has not been modified, changed, altered, or amended, and is in full force and effect.

IN WITNESS WHEREOF, the parties hereto have accepted, made, and executed this Agreement upon the terms, conditions, and provisions above stated, the day and year first above written.

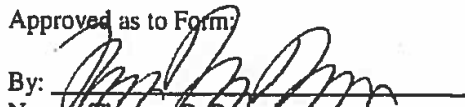
Consultant:

By: _____
Name: _____
Title: _____

City:

By: 
Name: Jennifer Phillips
Title: City Manager

Approved as to Form:

By: 
Name: Thomas B. Brown
Title: City Attorney

Attachment 3

CITY OF ST. HELENA

RESOLUTION NO. 2017-_____

**RESOLUTION APPROVING MID-YEAR
BUDGET ADJUSTMENTS FOR FY 2016/17**

RECITALS

WHEREAS, City staff has conducted a comprehensive review of the City's budget at mid-year;

WHEREAS, the City has traditionally amended its budget during the year as new and updated information becomes available; and

WHEREAS, staff recommend certain adjustments to reflect the updated revenue and expense projections for the General Fund, Water Fund, Waste Water Fund, and Other Funds.

RESOLUTION

The City Council of the City of St. Helena hereby resolves as follows:

General Fund Revenue:

1. Increase to Property Tax: \$100,000
2. Increase to In Lieu VLF: \$40,000
3. Increase to Sales Tax: \$315,000
4. Decrease to TOT: (\$75,000)
5. Decrease to Fines & Forfeits: (\$20,000)
6. Increase to Legal Cost Recovery: \$50,000
7. Increase to Other Revenue: \$1,677

General Fund Expenditures:

1. Transfer from the General Fund Reserves to Fund 235: \$526,805
2. Increase to Non-Departmental: \$4,445
3. Increase to City Manager/Clerk: \$5,000
4. Increase to Attorney: \$190,000

5. Increase to Library: \$2,890
6. Increase to Police: \$37,500
7. Increase to Parks: \$10,677

Water Fund Revenues:

1. Increase Revenues: \$793,000

Water Fund Expenses:

1. Increase to City Manager/Clerk/IT: \$1,445
2. Increase to Attorney Litigation: \$135,000
3. Increase to Water Treatment: \$3,500

Waste Water Revenues:

1. Increase Revenue: \$390,000

Waste Water Fund Expenses:

1. Increase to City Manager/Clerk/IT: \$1,445
2. Increase to Waste Water Treatment Plant: \$36,500

COPS (224)

1. Budget revenue increase: \$843
2. Budget expense increase: \$843

State Gas Tax 2107 (227)

1. Budget expense increase: \$3,000

Friends & Foundation (380)

1. Budget revenue decrease: \$450
2. Budget expense decrease: \$450

Recreation (289)

1. Budget revenue increase: \$7,000
2. Budget expense increase: \$7,000

Approved at a Regular Meeting of the St. Helena City Council on February 14, 2017, by the following vote:

Mayor Galbraith: _____
Vice Mayor White: _____
Councilmember Dohring: _____
Councilmember Koberstein: _____

Councilmember Ellsworth: _____

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Black, City Clerk



FY 2016/17 Mid Year Budget Review

By: April Mitts, Finance Director

Finance Department

February 14, 2017 City Council Meeting



Overview of Revenues - General Fund

- General Fund Revenue Categories:
 - Property Tax
 - Sales Tax
 - Transient Occupancy Tax (TOT)
 - Other Taxes
 - Licenses and Permits
 - Fines & Forfeits
 - Intergovernmental
 - Interest & Rents
 - Charges for Services and Misc.



Overview of Revenues - General Fund

GENERAL FUND REVENUES AS OF DECEMBER 31, 2016

Revenue Source	2016/17 Adopted Budget	2016/17 Adjusted Budget	Collected Through 12/31/2016	% of Revenues Collected
Property Tax	\$3,843,537	\$3,843,537	\$2,319,339	60%
Sales Tax	\$2,821,674	\$2,821,674	\$908,397	32%
TOT	\$2,264,285	\$2,264,285	\$944,276	42%
Other Taxes	\$288,660	\$288,660	\$61,668	21%
Licenses & Permits	\$581,935	\$581,935	\$366,288	63%
Fines & Forfeits	\$55,500	\$55,500	\$14,778	27%
Intergovernmental	\$58,755	\$58,755	\$65,004	111%
Interest & Rents	\$191,200	\$191,200	\$83,220	44%
Charges for Services & Misc.	\$485,485	\$487,485	\$281,869	58%
TOTALS	\$10,591,030	\$10,593,030	\$5,044,838	48%



Overview of Revenues - General Fund

GENERAL FUND REVENUE ADJUSTMENTS

- Property Tax – increase by \$100,000
- In-Lieu Vehicle License Fee – increase by \$40,000
- Sales Tax – increase by \$315,000
- TOT – decrease by (\$75,000)
- Fines & Forfeits – decrease by (\$20,000)
- Charges for Services & Miscellaneous – increase by \$52,677



Overview of Revenues - General Fund

GENERAL FUND REVENUE ADJUSTMENTS AS OF DECEMBER 31, 2016

Revenue Source	2016/17 Adjusted Budget	Projected 6/30/16	Variance
Property Tax	\$3,843,537	\$3,983,537	\$140,000
Sales Tax	\$2,821,674	\$3,136,674	\$315,000
TOT	\$2,264,285	\$2,189,285	(\$75,000)
Other Taxes	\$288,660	\$288,660	-
Licenses & Permits	\$581,935	\$581,935	-
Fines & Forfeits	\$55,500	\$35,500	(\$20,000)
Intergovernmental	\$58,755	\$58,755	-
Interest & Rents	\$191,200	\$191,200	-
Charges for Services & Misc.	\$487,485	\$539,162	\$51,677
TOTALS	\$10,593,030	\$11,004,707	\$411,677



Overview of Expenses - General Fund

GENERAL FUND EXPENSES AS OF DECEMBER 31, 2016

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	% of Budget Realized
Non-Departmental	\$1,284,754	\$1,288,760	\$431,940	34%
City Council	\$172,180	\$172,179	\$49,229	29%
City Manager's Office	\$661,648	\$724,348	\$344,954	48%
Finance	\$352,380	\$414,854	\$159,495	38%
City Attorney	\$582,037	\$582,037	\$269,075	46%
Planning & Building	\$976,373	\$1,010,021	\$385,517	38%
Library	\$842,179	\$842,177	\$390,801	46%
Recreation	\$175,265	\$175,264	\$53,437	30%
Fire	\$769,827	\$786,623	\$415,852	53%
Police	\$3,083,531	\$3,083,531	\$1,516,169	49%
Public Works	\$1,740,856	\$1,822,221	\$624,873	34%
TOTAL	\$10,641,030	\$10,902,015	\$4,641,342	43%



Overview of Expenses - General Fund

GENERAL FUND EXPENSE ADJUSTMENTS

- Non-Departmental – increase of \$4,445
 - Leak Adjustments - \$3,000
 - Information Technology - \$1,445
- City Manager/Clerk – increase of \$5,000
 - ECS Contract Amendment approved via Resolution 2016-155
- Attorney – increase of \$190,000
 - \$50,000 for costs associated with STR Enforcement
 - \$100,000 for general contract services
 - \$40,000 for costs associated with Public Records Requests



Overview of Expenses - General Fund

GENERAL FUND EXPENSE ADJUSTMENTS

- Library – Increase of \$2,890
 - \$1,000 for library training – grant received
 - \$1,890 for the Napa Valley Now! Membership fee
- Police – Increase of \$37,500
 - \$35,000 for a new vehicle for the Chief of Police
 - \$1,500 for new chairs
 - \$1,000 for a new computer
- Public Works – Increase of \$10,677
 - \$10,000 for unanticipated Unemployment Expenses
 - \$677 for improvements to Wappo Dog Park – offset by revenues



Overview of Expenses - General Fund

GENERAL FUND EXPENSE ADJUSTMENTS

- Measure A – a transfer from the General Fund Reserves to Measure A (235) to cover the FY 16/17 payment to SRF
 - Measure A drawdown timeline
 - Completion of the Forensic Audit
 - Completion of the audit of previous Measure A expenditures with the County of Napa
 - Submission of qualifying expenditures to the Flood Control District and the Measure A FOC – via the County of Napa
 - Approval of a contract amendment to include SRF repayment as an allowable expenditure



Overview of Expenses - General Fund

GENERAL FUND EXPENSES BY DEPARTMENT AND BUDGET REQUESTS

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	Projected 6/30/17	Variance
Non-Departmental	\$1,284,754	\$1,288,760	\$431,940	\$1,293,205	\$4,445
City Council	\$172,180	\$172,179	\$49,229	\$172,179	-
City Manager's Office	\$661,648	\$724,348	\$344,954	\$729,348	\$5,000
Finance	\$352,380	\$414,854	\$159,495	\$414,854	-
City Attorney	\$582,037	\$582,037	\$269,075	\$772,037	\$190,000
Planning & Building	\$976,373	\$1,010,021	\$385,517	\$1,010,021	-
Library	\$842,179	\$842,177	\$390,801	\$845,067	\$2,890
Recreation	\$175,265	\$175,264	\$53,437	\$175,264	-
Fire	\$769,827	\$786,623	\$415,852	\$786,623	-
Police	\$3,083,531	\$3,083,531	\$1,516,169	\$3,121,031	\$37,500
Public Works	\$1,740,856	\$1,822,221	\$624,873	\$1,832,898	\$10,677
Transfer from General Fund Reserves to Measure A (235)					\$526,805
TOTAL REQUESTS	\$10,641,030	\$10,902,015	\$4,641,342	\$11,152,527	\$777,317



Overview of General Fund

SUMMARY OF GENERAL FUND REVENUES/EXPENSES

	2016/17 Adopted Budget	2016/17 Adjusted Budget	Projected 6/30/17	Variance
General Fund Revenues	\$10,591,030	\$10,593,030	\$11,004,707	\$411,677
General Fund Expenses	\$10,641,030	\$10,902,015	\$11,152,527	(\$250,512)
Transfer to Measure A (235) for SRF Debt Payment				(\$526,805)
Net to General Fund				(\$365,640)

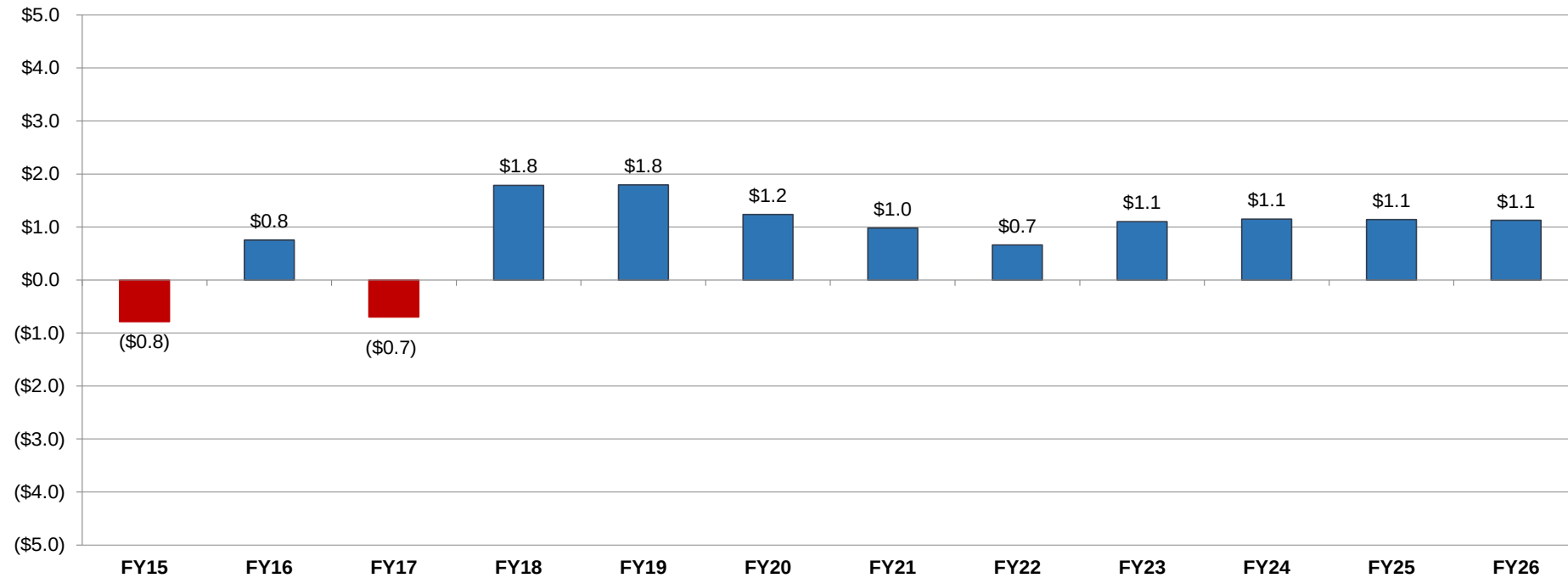


General Fund Net Position

Estimated GF Balance (total) @ 6/30/16	\$3,411,025
Estimated Revenues	\$11,004,707
Estimated Expenses	(\$11,152,527)
Use of Reserves for SRF Payment	(\$526,805)
Estimated Reserves @ 6/30/17	\$2,736,400
Estimated Reserve Percentage	25%



General Fund LRFF Baseline – Net Operating Revenues





Overview of Revenues – Water Fund

WATER FUND REVENUES AS OF DECEMBER 31, 2016

Department	2016/17 Adopted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Water (561)	\$3,783,308	\$2,146,555	57%	\$4,576,308	\$793,000

- Revenue increase of \$790,000 due to the adoption of Resolution 2016-163
- Revenue increase of \$3,000 for leak adjustments – from General Fund



Overview of Expenses – Water Fund

WATER FUND EXPENSES AS OF DECEMBER 31, 2016

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Administration	\$2,167,358	\$2,216,438	\$1,324,241	60%	\$2,352,883	\$136,445
Water Distribution	\$685,931	\$ 685,931	\$ 268,641	39%	\$ 685,931	-
Stonebridge Wells	\$85,400	\$95,515	\$34,919	37%	\$95,515	-
Water Treatment	\$2,183,426	\$2,223,006	\$ 778,793	35%	\$ 2,226,506	\$3,500
TOTAL	\$5,122,115	\$5,220,890	\$2,406,594	46%	\$5,360,834	\$139,945

- Administration – increase of \$136,445
 - Information Technology – increase of \$1,445 for additional IT needs
 - Attorney –increase of \$135,000 for litigation costs associated with a challenge to the City’s operation of the Bell Canyon Reservoir
- Water Treatment – budget increase of \$3,500 to cover necessary overtime costs



Overview of Water Fund

SUMMARY OF WATER FUND REVENUES/EXPENSES

	2016/17 Adopted Budget	2016/17 Adjusted Budget	Projected 6/30/17	Variance
Water Fund Revenues	\$3,783,308	\$3,783,308	\$4,576,308	\$793,000
Water Fund Expenses	\$5,122,115	\$5,220,890	\$5,359,389	(\$138,500)
Net to Water Fund				\$654,500



Water Fund Net Position

WATER FUND NET POSITION INCLUDING NET PENSION LIABILITY

Estimated Water Balance (total) @ 6/30/16		\$3,850,221
Estimated Revenues	\$4,576,308	
Estimated Expenses	(\$5,360,835)	
Estimated Balance @ 6/30/17		\$3,065,694
Estimated Reserve Percentage		57%



Water Fund Net Position

WATER FUND NET POSITION EXCLUDING NET PENSION LIABILITY

Estimated Water Balance (total) @ 6/30/16		\$5,093,655
Estimated Revenues	\$4,576,308	
Estimated Expenses	(\$5,360,835)	
Estimated Balance @ 6/30/17		\$4,309,128
Estimated Reserve Percentage		80%



Overview of Revenues – Wastewater Fund

WASTEWATER FUND REVENUES AS OF DECEMBER 31, 2016

Department	2016/17 Adopted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Waste Water (571)	\$2,110,647	\$1,001,730	47%	\$2,500,647	\$390,000

- Revenue increase of \$390,000 due to the adoption of Resolution 2016-164



Overview of Expenses – Wastewater Fund

WASTEWATER FUND EXPENSES AS OF DECEMBER 31, 2016

Department	2016/17 Adopted Budget	2016/17 Adjusted Budget	Actual 12/31/16	% of Budget Realized	Projected 6/30/17	Variance
Administration	\$1,150,275	\$1,189,458	\$605,398	51%	\$1,190,903	\$1,445
Waste Water Collection	\$133,625	\$133,625	\$58,561	44%	\$133,625	-
Waste Water Treatment	\$774,033	\$790,626	\$368,602	47%	\$827,126	\$36,500
TOTALS	\$2,057,933	\$2,118,709	\$1,035,941	54%	\$2,151,654	\$37,945



Overview of Expenses – Wastewater Fund

WASTEWATER FUND EXPENSES AS OF DECEMBER 31, 2016

- Administration –
 - Information Technology – increase of \$1,445 for additional IT needs
- Wastewater Treatment – budget increase of \$36,500
 - \$30,000 for a temporary operator at the Waste Water Treatment Plant
 - \$6,500 for additional overtime costs associated with staff resignations



Overview of Wastewater Fund

SUMMARY OF WASTEWATER FUND REVENUES/EXPENSES

	2016/17 Adopted Budget	2016/17 Adjusted Budget	Projected 6/30/17	Variance
Waste Water Fund Revenues	\$2,110,647	\$2,110,647	\$2,500,647	\$390,000
Waste Water Fund Expenses	\$2,057,933	\$2,118,709	\$2,156,654	(\$37,945)
Net to Waste Water Fund				\$352,055



Wastewater Fund Net Position

WASTEWATER FUND NET POSITION INCLUDING NET PENSION LIABILITY

Estimated Waste Water Balance (total) @ 6/30/16		(\$109,313)
Estimated Revenues	\$2,500,647	
Estimated Expenses	(\$2,151,654)	
Estimated Balance @ 6/30/17		\$348,993
Estimated Reserve Percentage		11%



Wastewater Fund Net Position

WASTEWATER FUND NET POSITION EXCLUDING NET PENSION LIABILITY

Estimated Waste Water Balance (total) @ 6/30/16		\$719,643
Estimated Revenues	\$2,500,647	
Estimated Expenses	(\$2,151,654)	
Estimated Balance @ 6/30/17		\$1,068,636
Estimated Reserve Percentage		50%



Other Funds

OTHER FUND ADJUSTMENTS

- COPS (224)
 - Revenue and expense increase of \$843 for CalPELRA training
- State Gas Tax 2107 (227)
 - Expense increase of \$3,000 for Caltrans costs for signals and lighting on main street
- Friends and Foundation (380)
 - Revenue and expense decrease of \$450 for ABC Permits
- Recreation (289)
 - Revenue and expense increase of \$7,000 for increased registrations to recreation programs



FY 16/17 Q2 Checks over \$100,000

Check #	Vendor	Check Date	Check Amount	Notes
96079	SWRCB Accounting Office	10/17/16	\$526,804.64	SRF Loan Payment
96169	City of Napa	10/28/16	\$117,541.50	Monthly Water Agreement
96377	City of Napa	11/16/16	\$107,605.50	Monthly Water Agreement



Staff recommends the City Council
approve the Resolution Approving the
Mid-Year Budget Adjustments for FY
16/17



Questions?