



City of St. Helena
Special City Council Meeting
Monday, September 18, 2017 @ 6:00 PM
Vintage Hall Board Room - Second Floor
465 Main Street, St. Helena

Page

1. CALL TO ORDER
2. ROLL CALL
Mayor: Alan Galbraith, Vice Mayor: Peter White, City Council: Paul Dohring, Geoff Ellsworth and Mary Koberstein
3. PUBLIC COMMENT:
Under California law, public comments at special meetings are limited to subjects on the agenda only. Therefore public comment will take place during consideration of the item. Each person's comments shall be limited to 3 minutes.
4. CONSENT ITEMS

4.1. Consideration and proposed approval of:

3 - 16

1. A Resolution authorizing a Third Amendment to the contract with Hansford Economic Consulting for an amount not to exceed \$18,235 to complete the revision of the utility rate study dated October 31, 2016 and adopted on November 29, 2016; and
2. A Resolution authorizing a not-to-exceed amount of \$18,235 to be taken from the Water and Wastewater Funds Net Position for the Third Amendment with Hansford Economic Consulting to complete the revision of the utility rate study dated October 31, 2016 and adopted on November 29, 2016.

CEQA Determination: Exempt from the requirements of CEQA under the "General Rule", Section 15061 (b)(3), in that it can be seen with certainty that the proposed action will have no impact on the environment.

Prepared By: April Mitts, Finance Director

Recommendation:

Staff recommends adopting:

1. Approval of Resolution No. 2017-___ approving use of Water and Wastewater Fund Net Position for a total of \$_____ split equally between the funds.
2. Approval of Resolution No. 2017-___ approving the Third Amendment to the contract with Hansford Economic Consulting to complete the revision of the utility rate study.

[Staff Report](#)

5. NEW BUSINESS

- 5.1. Review, Discussion, and Direction to Staff on which Rate Model to Proceed with for the Establishment of New Utility Rates for the City of St. Helena

17 - 111

CEQA Determination: Exempt from the requirements of CEQA under the "General Rule", Section 15061 (b)(3), in that it can be seen with certainty that the proposed action will have no impact on the environment.

Prepared By: April Mitts, Finance Director

Recommendation:

Review, discuss and provide direction

[Staff Report](#)

[Handout](#)

[Presentation](#)

6. ADJOURNMENT

The next Regular City Council meeting is scheduled for September 26, 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 September 12, 2017.



Cindy Tzaopoulos, 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.



Report to the City Council
Council Meeting of September 18, 2017

Agenda Section: **CONSENT**

Subject: Consideration and proposed approval of:

1. A Resolution authorizing a Third Amendment to the contract with Hansford Economic Consulting for an amount not to exceed \$18,235 to complete the revision of the utility rate study dated October 31, 2016 and adopted on November 29, 2016; and
2. A Resolution authorizing a not-to-exceed amount of \$18,235 to be taken from the Water and Wastewater Funds Net Position for the Third Amendment with Hansford Economic Consulting to complete the revision of the utility rate study dated October 31, 2016 and adopted on November 29, 2016.

CEQA Determination: Exempt from the requirements of CEQA under the “General Rule”, Section 15061 (b)(3), in that it can be seen with certainty that the proposed action will have no impact on the environment.

Prepared By: April Mitts, Finance Director

Reviewed By: Mark Prestwich, City Manager

Approved By: Mark Prestwich, City Manager

BACKGROUND

On February 28, 2017, City Council approved Resolution No. 2017-26, the second amendment to the contract with Hansford Economic Consulting for an amount not to exceed \$32,792 for additional technical support regarding the October 31, 2016 rate study and November 29, 2016 adopted rates. This additional analysis consisted of: (1) development of rate models associated with various debt to cash scenarios, and (2) refinement of rate model equity among ratepayer classifications. As a result, all funds

currently authorized for the HEC contract have been expended. However, additional services are required in order to complete work related to the possible modification of water and wastewater rates.

DISCUSSION

Table 1 provides a summary of expenses per task through September 3, 2017.

Table 1 – Summary of Expenses

TASK		AMOUNT BUDGETED	AMOUNT SPENT
1	Prepare Memorandum	\$3,800	\$0
2	Attend Informational Meetings	\$4,015	\$4,015
3	Ad Hoc Committee Materials & Presentations	\$7,215	\$7,848
4	Run Additional Financial Scenarios	\$7,975	\$12,605
5	Conduct Public Presentation/Workshop	\$3,450	\$3,450
6	Contingency (15%)	\$3,968	\$3,938
	Reimbursable Costs	\$2,368	\$850
	TOTAL	\$32,705	\$31,855

Table 2 provides the estimate of remaining costs to complete the scope of services.

Table 2 – Amendment #3 Estimated Expenses.

Task	2017 billing rates	Hansford	Gustafson	Clerical	Total Estimated Cost
		\$165	\$95	\$75	
Task 1 Complete Financial Scenarios		22.0	16.0	0.0	\$5,150
Task 2 Attend Council Meeting September 18th		10.0	10.0	0.0	\$2,600
Task 3 Revisions per Council Feedback		12.0	8.0	0.0	\$2,740
Task 4 Memorandums of Changes for Water and Wastewater		10.0	8.0	5.0	\$2,785
Task 5 Attend Two Additional Public Meetings		20.0	10.0	0.0	\$4,250
Total Estimated Staff Cost					\$17,525
Estimated Reimbursable Costs [1]					\$710
Total Estimated Cost					\$18,235

Note: HEC reserves the right to move budget between tasks as necessary to complete the scope of work up to the authorized budget amount.

[1] Includes 3 trips to St Helena:

Mileage @ Fed. Reimbursement rate	\$590
Meals	\$120
Total Estimated Reimbursable Costs	\$710

As a result, staff is recommending City Council approve the Third Amendment to the contract with HEC for an additional amount not to exceed \$18,235 (Attachment 4).

Table 3 provides a summary of the contract to date including proposed Amendment No. 3.

Table 3

Agreements	Details	Resolution No.	Amount
Original Agreement	Initial Rate Study	2015-136	\$48,350
Amendment #1	Additional work for Initial Rate Study	2016-125	\$13,020
Amendment #2	Analysis of Rates Adopted 11/29/16	2017-26	\$32,792
Amendment #3	Additional analysis of Rates Adopted 11/29/16	n/a	\$18,235
		TOTAL	\$112,397

FISCAL IMPACT

The fiscal impact for the Third Amendment to the contract with HEC will not exceed \$18,235 and will be split equally from the Water and Wastewater Fund Net Positions.

RECOMMENDED ACTION

1. Approval of Resolution No. 2017-___ approving the Third Amendment to the contract with Hansford Economic Consulting to complete the revision of the utility rate study.
2. Approval of Resolution No. 2017-___ approving use of Water and Wastewater Fund Net Position for a total of \$18,235 split equally between the funds.

ATTACHMENTS

[Attachment 1 - HEC quote Amendment #2](#)

[Attachment 2 - Resolution Approving Third Amendment to HEC Contract](#)

[Attachment 3 - Resolution for Use of Water and Wastewater Net Position](#)

[Attachment 4 - HEC quote Amendment #3](#)

Attachment 1

February 21, 2017

April Mitts, Finance Director
1480 Main St.
St. Helena, CA

Subject: Water and Wastewater Rate Studies Review

Dear April:

It has been a great privilege to work on the City of St. Helena (City) water and wastewater rates update. New rates were adopted by City Council November 29, 2016.

As of January, 2017 the City has a new City Council (some continuing members and some new). The new City Council has approved further work to be undertaken on the rate studies. The additional work includes review of the studies, engaging a public financial consultant, forming a new ad hoc committee, and potentially revising rates prior to November 2017. HEC has prepared the following scope of services to assist the City with these efforts.

SCOPE OF SERVICES

The proposed scope of services includes the following tasks:

Task 1. Prepare Memorandum

As part of the review of the rate studies, HEC will provide further information and explanation of rate study elements that the City would like further clarification on. In particular, HEC will provide greater depth of explanation on the functional allocation used to allocate costs among customer groups so that it is clear that the rates adopted by City Council are defensible and upholdable. The memorandum may be prepared before or after Task 2 (meetings with City staff and City Council members).

Task 2: Attend Informational Meetings

HEC will meet with City staff and City Council members on an individual basis to review the rate studies; discussing all key elements. HEC anticipates conducting these meetings over the course of one day in St. Helena. These meetings may occur before or after tasks 3 and 4.

Task 3: Ad Hoc Committee Materials and Presentations

The City is forming a new ad hoc committee to review the water and wastewater rate study. The City is also engaging a public financial consultant to advise the ad hoc committee on available financing options for the capital improvement projects, and other key assumptions of the study.

In this task HEC will work with the City's financial consultant and the ad hoc committee and may make changes to the water and wastewater rate models based on their input and

direction. Presentation materials, communications, and other aspects necessary to coordinate efforts with the ad hoc committee and the financial consultant will be conducted under this task. HEC has included two trips to St. Helena for this task.

Task 4: Run Additional Financial Scenarios

Additional financial scenarios may be generated as a result of discussions under Task 3. Such scenarios may include more debt financing, for example. HEC will run additional scenarios as asked, and summarize findings in a Power Point format. Note that because it is unknown at this point how many scenarios need to be run, and the extent of the changes to the model, the budget associated with this task is difficult to estimate.

Task 5: City Council Presentation/Workshop

After discussing rate study key elements and assumptions with individuals, HEC will attend a council meeting, which will likely be in workshop format. At the workshop, HEC will review all of the rate study items that the City Council members requested clarification on, and answer any further questions.

Task 6: Contingency

It is difficult to know the extent of the work necessary for tasks 1 through 5 at this stage, and particularly Task 4. As ad hoc committee members and/or City Council members ask questions, the nature of work needed may change. HEC recommends providing a contingency of 15% in the scope of services for changing needs as they arise.

ESTIMATED BUDGET

Table 1 on the following page summarizes the estimated cost based on HEC's understanding of the work to be completed.

HEC looks forward to continuing to work with the City. Please review this proposal and call me with any questions or comments.

Sincerely,



Catherine R. Hansford
HANSFORD ECONOMIC CONSULTING

Page 3 of 3
February 21, 2017

Table 1
Estimated Cost

Task		2017 billing rates	Hansford \$165	Kirkpatrick \$120	Gustafson \$95	Clerical \$75	Total Estimated Cost
Task 1	Prepare Memorandum		15.0	0.0	10.0	5.0	\$3,800
Task 2	Attend Informational Meetings		14.0	0.0	14.0	5.0	\$4,015
Task 3	Ad Hoc Committee Materials & Presentations		24.0	24.0	0.0	5.0	\$7,215
Task 4	Run Additional Financial Scenarios		20.0	20.0	20.0	5.0	\$7,975
Task 5	Conduct Public Presentation/Workshop		10.0	0.0	15.0	5.0	\$3,450
Task 6	Contingency (15%)						\$3,968
Total Estimated Staff Cost							\$30,423
Estimated Reimbursable Costs [1]							\$2,368
Total Estimated Cost							\$32,792

Note: HEC reserves the right to move budget between tasks as necessary to complete the scope of work up to the authorized budget amount.

[1]	Includes 5 trips to St Helena:	
	Mileage @ Fed. Reimbursement rate	\$968
	Lodging (3 nights/2 persons)	\$1,200
	Meals	\$200
	Total Estimated Reimbursable	\$2,368

Attachment 2

CITY OF ST. HELENA

RESOLUTION NO. 2017-____

**RESOLUTION APPROVING THE THIRD
AMENDMENT TO THE CONTRACT WITH
HANSFORD ECONOMIC CONSULTING
FOR AN AMOUNT NOT TO EXCEED
\$18,235 TO COMPLETE THE REVISION
OF THE UTILITY RATE STUDY DATED
OCTOBER 31, 2016 AND ADOPTED ON
NOVEMBER 29, 2016**

RECITALS

WHEREAS, on February 28, 2017 City Council approved Resolution No 2017-26 approving the Second Amendment to the contract with Hansford Economic Consulting to provide additional analysis and revision of the Utility Rate Study dated October 31, 2016 and adopted on November 29, 2016; and

WHEREAS, analysis continues to be done and a Third Amendment to the contract with Hansford Economic Consulting is needed; and

WHEREAS, the City desires to employ Consultant to furnish additional services relating to the revision of the utility rate study dated October 31, 2016 and prepared by Hansford Economic Consulting.

RESOLUTION

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

1. The City approves the Third Amendment to the contract with Hansford Economic Consultant for an additional \$18,235; and
2. The City Council authorizes the City Manager to execute the agreement on behalf of the City.

Approved at a Special Meeting of the St. Helena City Council on September 18, 2017, by the following vote:

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

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Tzaopoulos, City Clerk

Attachment 3

CITY OF ST. HELENA

RESOLUTION NO. 2017-____

**RESOLUTION APPROVING USE OF
WATER NET POSITION OF \$9,117.50 AND
USE OF WASTEWATER NET POSITION
OF \$9,117.50 FOR A TOTAL OF \$18,235
FOR THE THIRD AMENDMENT TO THE
CONTRACT WITH HANSFORD
ECONOMIC CONSULTING TO
COMPLETE THE REVISION OF THE
UTILITY RATE STUDY DATED OCTOBER
31, 2016 AND ADOPTED ON NOVEMBER
29, 2016**

RECITALS

WHEREAS, on February 28, 2017 City Council approved Resolution No 2017-26 approving the Second Amendment to the contract with Hansford Economic Consulting to provide additional analysis and revision of the Utility Rate Study dated October 31, 2016 and adopted on November 29, 2016; and

WHEREAS, analysis continues to be done and a Third Amendment to the contract with Hansford Economic Consulting is needed; and

WHEREAS, the additional costs for the Third Amendment was not a budgeted item in FY 17/18; and

WHEREAS, funds needed to complete this analysis must be taken from the Water and Wastewater Funds Net Position.

RESOLUTION

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

1. Use of \$9,117.50 from the Water Fund Net Position for additional analysis of the October 31, 2016 rate study; and

2. Use of \$9,117.50 from the Wastewater Fund Net Position for additional analysis of the October 31, 2016 rate study.

Approved at a Special Meeting of the St. Helena City Council on September 18, 2017,
by the following vote:

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

APPROVED:

ATTEST:

Alan Galbraith, Mayor

Cindy Tzaopoulos, City Clerk

Attachment 4

**THIRD AMENDMENT
TO PROFESSIONAL SERVICES AGREEMENT
WITH HANSFORD ECONOMIC CONSULTING**

This Third Amendment to Professional Services Agreement ("Agreement") dated November 10, 2015 ("Agreement") is made as of this 12th day of September, 2017 by and between the City of St. Helena, a municipal corporation ("City"), and Hansford Economic Consulting. ("Consultant").

RECITALS

- A. On November 10, 2015 the City and Consultant entered into the Agreement for Consultant to provide a Utility Rate Study for a total amount not to exceed \$48,350 per Resolution No. 2015-136; and
- B. The data and pertinent information from the City's customer and water use data base information was difficult to extract in a usable format and it took the consultant a significant amount of time to clean-up the data provided from staff; and
- C. As the consultant became more familiar with the circumstances in St. Helena both staff and the consultant determined that additional review and modeling work would need to be done; and
- D. On September 13, 2016 the First Amendment to the Consultants Contract was approved per Resolution No. 2016-125 authorizing additional work in a not exceed amount of \$13,020, and the total to be paid to the Consultant shall not exceed \$61,370; and
- E. The Contract period shall extend until the time new rates are implemented, and the rate study is complete.
- F. On February 14, 2017, the Second Amendment to the Consultants Contract was approved per Resolution 2017-26 authorizing additional services as it relates to the utility rates adopted on November 29, 2016 in a not to exceed amount of \$32,792, and the total to be paid to the Consultant shall not exceed \$94,162; and
- G. The City Council approved at its September 12, 2017 meeting to continue to retain Consultant for services as it relates to the utility rates adopted on November 29, 2016; and
- H. The Third Amendment shall not exceed \$18,235, and the total to be paid to the Consultant shall not exceed \$112,397.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and of the mutual covenants

Attachment 4

and agreements herein contained, for good and valuable consideration, the adequacy of which is hereby acknowledged, the parties agree to amend the Agreement to include Scope of Services which are included as Attachment A to the Second Amendment.

All other terms of the Agreement shall remain in full force and effect.

Entered as of the day and year first above stated.

CONSULTANT:

Hansford Economic Consulting
PO Box 10384
Truckee, CA 96162

Signatures of Authorized Persons:

By: _____

Print Name: _____

Title: _____

CITY OF ST. HELENA

a Municipal Corporation

By: _____

Print
Name: _____

Director, _____ Department

Title: _____

APPROVED AS TO FORM:

City Attorney

ATTEST:

City Clerk

Attachments:

Exhibit A, "Scope of Services"

Attachment 4

September 6, 2017

April Mitts
Finance Director
City of St. Helena
1480 Main St.
St. Helena, CA 94574

Subject: City of St. Helena Water and Wastewater Rate Study Review

Dear April:

It has been a great privilege to work on the City of St. Helena (City) water and wastewater rate study review (the Project).

Hansford Economic Consulting (HEC) has been working with the ad hoc committee, City Council, City staff and other consultants to ensure that the updated rate schedules meet the City's short and long term financial goals, while equitably sharing costs to customers.

The City Council originally approved a budget of \$32,792 for HEC's services in February 2017 to work on the utility rates review. At the time that the City asked HEC for a proposal to conduct the utility rates review, it was unknown how many meetings would be held, and what recommendations the ad hoc committee would give to Council, and ultimately what HEC would be modeling and preparing as a result of City Council direction. HEC provided a best estimate of cost at that time; however, as of September 3, 2017, the budget has been exhausted and there is still work to do to adopt revised rates in November 2017.

ESTIMATED BUDGET TO COMPLETE

Table 1 on the following page provides the estimate of remaining cost to complete the scope of services. If Council does not want Catherine Hansford present or be available for questions at the public hearing (Task 5) then the Task 5 costs can be halved and only two-thirds of the estimated reimbursable costs would be included in the budget. In addition, Task 4 has not been expressly asked for by Council; HEC has included this to memorialize the changes made for the City. If Council does not want any write-up of the changes then the cost for Task 4 can be eliminated.

This letter respectfully requests an amendment to authorize up to a maximum of \$18,235 additional budget to complete the Project.

Attachment 4

Table 1
Estimated Budget to Complete Project

Task		2017 billing rates	Hansford \$165	Gustafson \$95	Clerical \$75	Total Estimated Cost
Task 1	Complete Financial Scenarios		22.0	16.0	0.0	\$5,150
Task 2	Attend Council Meeting September 18th		10.0	10.0	0.0	\$2,600
Task 3	Revisions per Council Feedback		12.0	8.0	0.0	\$2,740
Task 4	Memorandums of Changes for Water and Wastewater		10.0	8.0	5.0	\$2,785
Task 5	Attend Two Additional Public Meetings		20.0	10.0	0.0	\$4,250
Total Estimated Staff Cost						\$17,525
Estimated Reimbursable Costs [1]						\$710
Total Estimated Cost						\$18,235
Note: HEC reserves the right to move budget between tasks as necessary to complete the scope of work up to the authorized budget amount.						
[1]	Includes 3 trips to St Helena:					
	Mileage @ Fed. Reimbursement rate		\$590			
	Meals		\$120			
	Total Estimated Reimbursable Costs		\$710			

Please review this request and call with any questions or comments. HEC looks forward to continuing work with the City to ensure that the Project is successful.

Sincerely,



Catherine R. Hansford
HANSFORD ECONOMIC CONSULTING



Report to the City Council
Council Meeting of September 18, 2017

Agenda Section: New Business

Subject: Review, Discussion, and Direction to Staff on which Rate Model to Proceed with for the Establishment of New Utility Rates for the City of St. Helena

CEQA Determination: Exempt from the requirements of CEQA under the “General Rule”, Section 15061 (b)(3), in that it can be seen with certainty that the proposed action will have no impact on the environment.

Prepared By: April Mitts, Finance Director

Reviewed By: Mark Prestwich, City Manager

Approved By: Mark Prestwich, City Manager

BACKGROUND

On November 29, 2016, City Council adopted new utility rates for the City of St. Helena. Following adoption of the new rates City Council provided direction to form an Ad Hoc Water and Wastewater Committee with the direction to review the Water and Wastewater Study dated October 31, 2016 and make recommendations to the Council for revisions to the Study and possible adjustments to the rates adopted by the City Council on November 29, 2016. The Utility Rate Ad Hoc Committee presented their recommendations to City Council at a Special Meeting held on June 19, 2017. At this meeting City Council discussed each recommendation and provided direction to staff and the City’s consultant Hansford Economic Consulting (HEC) to complete the utility rate revisions with analysis of models that consider increased use of debt financing. On August 22, 2017, the Council also discussed approaches to improve equity among rate payers.

DISCUSSION

The rate models presented include City Council directed 1:3-1:5 ratio of debt service, desired cash balances for each enterprise fund, cash/debt financing strategy over 20 and 30-year debt schedules. The increased use of debt financing in the 20 and 30-year

models and utilizing the desired debt ratio results in a cumulative reduction to residential water and wastewater bills of approximately \$2,000 to \$4,300 over a five-year period.

It is important to note the revised rate models include updated estimates for capital projects. These changes reduced Water capital expenses by \$5.28 million and increased Wastewater expenses by approximately \$1 million. These modifications were due to updated project costs, use of General Fund revenues towards the removal of Upper York Creek Dam, removal of projects completed in Fiscal Year (FY) 2017, and removal of several Water CIP projects that will not start prior to FY 2022 - beyond the five-year rate study period.

The ten (10) rate models being presented are outlined in Table 1 and Table 2 below. A summary of Calculated Water and Wastewater Rate Options can be found in Attachment 1 and detailed information for each model can be found in the attachment identified below. Attachments 2-10 provide further analysis by user types. Businesses and members of the public can contact the Finance Department for an estimated analysis on their individual utility bill.

Table – 1 WATER SYSTEM

Option #	ITEM	ATTACHMENT
W - 1	20-year Debt Scenario	2
W - 2	30-year Debt Scenario	3
W - 3	Reallocated Capacity - 20-year Debt Scenario	4
W - 4	Reallocated Capacity - 30-year Debt Scenario	4
W - 5	1.3 Debt Coverage - 20-year Debt Scenario	5
W - 6	1.3 Debt Coverage - 30-year Debt Scenario	6

Table 2 – WASTEWATER SYSTEM

Option #	ITEM	ATTACHMENT
WW - 7	20-year Debt Scenario	7
WW - 8	30-year Debt Scenario	8
WW - 9	1.3 Debt Coverage - 20-year Debt Scenario	9
WW - 10	1.3 Debt Coverage - 30-year Debt Scenario	10

All rate models include the current rate, the rate change which was scheduled for 11/8/2017, and the proposed rate adjustments which will take place on 12/8/2017 and annually through 11/8/2022.

Two additional rate models were contemplated but required further analysis that could not be completed within the timeline desired by the City Council and current HEC budget. These included adding additional categories for Winery (pre-treated) as well as creating a new water classification for base capacity charges based on water agreements. Staff recommends both of these approaches be considered in the next rate study review, typically done every 3-5 years.

Water Rates

Rate models using a 20-year amortization and 30-year amortization were run for the Water system and it was determined there was no difference in the monthly base and rate fee between the two models. The interest savings from the 20-year to 30-year amortization is estimated to be \$2.96 million.

Wastewater Rates

Rate models using a 20-year amortization and 30-year amortization were run for the Wastewater system. The interest savings from the 20-year to 30-year amortization model is estimated to be \$6.5 million.

FISCAL IMPACT

Financial impacts are discussed throughout the report.

RECOMMENDED ACTION

Staff is seeking direction and feedback from City Council on which rate models to proceed with for the establishment of new utility rates for the City of St. Helena.

ATTACHMENTS

[Attachment 1 - Summary of Calculated Water and Wastewater Rate Scenarios](#)

[Attachment 2 - Water System 20-year debt scenario](#)

[Attachment 3 - Water System 30-year debt scenario](#)

[Attachment 4 - Water System Reallocation of capacity](#)

[Attachment 5 - Water System 1.3 Debt Ratio 20-year](#)

[Attachment 6 - Water System 1.3 Debt Ratio 30-year](#)

[Attachment 7 - Wastewater 20-year debt scenario](#)

[Attachment 8 - Wastewater 30-year debt scenario](#)

[Attachment 9 - Wastewater 1.3 debt ratio 20-year debt scenario](#)

[Attachment 10 - Wastewater 1.3 debt ratio 30-year debt scenario](#)

Attachment 1

Summary of Calculated Water and Wastewater Rate Scenarios

Option W – 1 Water 20-year Debt Scenario

Option W – 2 Water 30-year Debt Scenario

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge		Monthly Charges per Meter					
5/8", 3/4" & SF 1"	\$43.22	\$51.71	\$54.17	\$56.20	\$61.36	\$65.63	\$69.89
1"	\$80.08	\$96.76	\$95.91	\$100.44	\$110.68	\$119.41	\$128.22
1.5"	\$141.67	\$172.02	\$165.65	\$174.36	\$193.07	\$209.25	\$225.64
2"	\$215.12	\$261.84	\$248.86	\$262.56	\$291.43	\$316.53	\$342.00
3"	\$413.06	\$503.54	\$472.90	\$500.00	\$556.00	\$604.96	\$654.72
4"	\$640.46	\$780.29	\$729.79	\$772.11	\$858.79	\$934.75	\$1,011.98
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,507.16	\$1,678.44	\$1,828.74	\$1,981.63
Private Fire Protection		Monthly Charges per Fire Service Pipe					
4"	\$8.47	\$9.92	\$11.22	\$11.39	\$12.18	\$12.77	\$13.33
6"	\$24.59	\$28.81	\$32.59	\$33.07	\$35.39	\$37.09	\$38.73
8"	\$52.41	\$61.40	\$69.45	\$70.48	\$75.41	\$79.05	\$82.53
Raw Water <i>per Gallon</i>	\$0.00273	\$0.00320	\$0.00313	\$0.00335	\$0.00359	\$0.00379	\$0.00397
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.84	\$6.15	\$6.33	\$6.50
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.50	\$6.84	\$7.04	\$7.23
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.17	\$6.49	\$6.69	\$6.87
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.86	\$7.22	\$7.44	\$7.63

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Attachment 1

Summary of Calculated Water and Wastewater Rate Scenarios

Option W – 3 Water Reallocated Capacity 20-year Debt Scenario

Option W – 4 Water Reallocated Capacity 30-year Debt Scenario

Charges	Current	Adopted 11/8/2017	Rates Effective*				
			12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
SF Residential Service Charge			Monthly Charges per Meter				
5/8"	\$43.22	\$51.71	\$50.91	\$52.73	\$57.47	\$61.38	\$65.27
1"	\$43.22	\$51.71	\$51.45	\$53.28	\$58.04	\$61.97	\$65.87
1.5"	\$141.67	\$172.02	\$149.35	\$157.01	\$173.66	\$188.01	\$202.53
2"	\$215.12	\$261.84	\$222.77	\$234.81	\$260.37	\$282.54	\$305.01
3"	\$413.06	\$503.54	\$420.71	\$444.50	\$493.89	\$536.99	\$580.74
4"	\$640.46	\$780.29	\$648.25	\$685.39	\$761.74	\$828.53	\$896.39
6"	\$1,252.50	\$1,528.85	\$1,260.09	\$1,333.72	\$1,484.34	\$1,616.31	\$1,750.46
All Other Customers Service Charge							
5/8"	\$43.22	\$51.71	\$54.17	\$56.20	\$61.36	\$65.63	\$69.89
1"	\$80.08	\$96.76	\$95.91	\$100.44	\$110.68	\$119.41	\$128.22
1.5"	\$141.67	\$172.02	\$165.65	\$174.36	\$193.07	\$209.25	\$225.64
2"	\$215.12	\$261.84	\$248.86	\$262.56	\$291.43	\$316.53	\$342.00
3"	\$413.06	\$503.54	\$472.90	\$500.00	\$556.00	\$604.96	\$654.72
4"	\$640.46	\$780.29	\$729.79	\$772.11	\$858.79	\$934.75	\$1,011.98
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,507.16	\$1,678.44	\$1,828.74	\$1,981.63
Industrial Customers Service Charge							
5/8"	\$43.22	\$51.71	\$74.23	\$77.52	\$85.22	\$91.75	\$98.32
1"	\$80.08	\$96.76	\$146.05	\$153.76	\$170.35	\$184.72	\$199.29
1.5"	\$141.67	\$172.02	\$265.92	\$281.00	\$312.42	\$339.87	\$367.78
2"	\$215.12	\$261.84	\$409.29	\$433.18	\$482.38	\$525.52	\$569.43
3"	\$413.06	\$503.54	\$793.76	\$841.24	\$937.91	\$1,022.93	\$1,109.57
4"	\$640.46	\$780.29	\$1,231.14	\$1,305.29	\$1,455.52	\$1,587.82	\$1,722.68
6"	\$1,252.50	\$1,528.85	\$2,425.87	\$2,573.53	\$2,871.90	\$3,134.88	\$3,403.03
Private Fire Protection			Monthly Charges per Fire Service Pipe				
4"	\$8.47	\$9.92	\$11.22	\$11.39	\$12.18	\$12.77	\$13.33
6"	\$24.59	\$28.81	\$32.59	\$33.07	\$35.39	\$37.09	\$38.73
8"	\$52.41	\$61.40	\$69.45	\$70.48	\$75.41	\$79.05	\$82.53
Raw Water per Gallon	\$0.00273	\$0.00320	\$0.00313	\$0.00335	\$0.00359	\$0.00379	\$0.00397
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.84	\$6.15	\$6.33	\$6.50
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.50	\$6.84	\$7.04	\$7.23
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.17	\$6.49	\$6.69	\$6.87
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.86	\$7.22	\$7.44	\$7.63

Source: HEC.

mk sum

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Attachment 1

Summary of Calculated Water and Wastewater Rate Scenarios

Option W – 5 Water 1.3 Debt Ratio 20-year Debt Scenario

Option W – 6 Water 1.3 Debt Ratio 30-year Debt Scenario

Table 1

Calculated Water Rates through Fiscal Year Ending 2022

DRAFT

20-year Debt Scenario

30-year Debt Scenario

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge							
			Monthly Charges per Meter				
5/8", 3/4" & SF 1"	\$43.22	\$51.71	\$54.17	\$55.45	\$58.68	\$63.34	\$67.61
1"	\$80.08	\$96.76	\$95.91	\$99.09	\$105.83	\$115.23	\$124.01
1.5"	\$141.67	\$172.02	\$165.65	\$172.02	\$184.61	\$201.90	\$218.22
2"	\$215.12	\$261.84	\$248.86	\$259.03	\$278.62	\$305.38	\$330.73
3"	\$413.06	\$503.54	\$472.90	\$493.29	\$531.61	\$583.69	\$633.17
4"	\$640.46	\$780.29	\$729.79	\$761.82	\$821.36	\$902.08	\$978.87
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,486.93	\$1,604.81	\$1,764.43	\$1,916.41
Private Fire Protection							
			Monthly Charges per Fire Service Pipe				
4"	\$8.47	\$9.92	\$11.22	\$11.23	\$11.64	\$12.31	\$12.89
6"	\$24.59	\$28.81	\$32.59	\$32.62	\$33.81	\$35.77	\$37.44
8"	\$52.41	\$61.40	\$69.45	\$69.52	\$72.05	\$76.23	\$79.78
Raw Water <i>per Gallon</i>	\$0.00273	\$0.00320	\$0.00313	\$0.00332	\$0.00347	\$0.00365	\$0.00383
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.76	\$5.87	\$6.11	\$6.28
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.40	\$6.53	\$6.79	\$6.98
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.09	\$6.20	\$6.45	\$6.64
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.77	\$6.89	\$7.17	\$7.38

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Attachment 1

Summary of Calculated Water and Wastewater Rate Scenarios

Option WW – 7 Wastewater 20-year Debt Scenario

Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$57.69	\$58.10	\$63.07	\$65.30	\$68.41
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.70	\$4.73	\$5.13	\$5.32	\$5.57
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$80.06	\$80.63	\$87.52	\$90.63	\$94.95
1"	\$102.42	n.a.	n.a.	\$200.16	\$201.59	\$218.81	\$226.56	\$237.37
1.5"	\$202.92	n.a.	n.a.	\$400.31	\$403.17	\$437.62	\$453.13	\$474.74
2"	\$323.53	n.a.	n.a.	\$640.50	\$645.08	\$700.19	\$725.01	\$759.58
3"	\$604.94	n.a.	n.a.	\$1,280.99	\$1,290.15	\$1,400.39	\$1,450.01	\$1,519.16
4"	\$1,006.96	n.a.	n.a.	\$2,001.55	\$2,015.86	\$2,188.11	\$2,265.64	\$2,373.69
6"	\$2,012.00	n.a.	n.a.	\$4,003.10	\$4,031.72	\$4,376.22	\$4,531.29	\$4,747.39
Use Charge per HCF								
	<i>every month</i>	<i>avg. winter month</i>	<i>avg. winter month</i>	<i>Rate applied to metered water use each month [1]</i>				
Car Wash	\$2.85	n.a.	n.a.	\$3.24	\$3.27	\$3.55	\$3.67	\$3.85
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.61	\$3.63	\$3.95	\$4.09	\$4.28
Commercial [2]	\$3.64	n.a.	n.a.	\$4.26	\$4.29	\$4.66	\$4.82	\$5.05
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$11.45	\$11.53	\$12.52	\$12.96	\$13.58
Laundry	\$3.34	n.a.	n.a.	\$3.72	\$3.75	\$4.07	\$4.21	\$4.41
Mixed Retail	\$6.79	n.a.	n.a.	\$7.16	\$7.21	\$7.83	\$8.11	\$8.49
Lodging with Food	\$8.75	n.a.	n.a.	\$8.59	\$8.66	\$9.40	\$9.73	\$10.19
Lodging without Food	\$4.35	n.a.	n.a.	\$4.66	\$4.69	\$5.10	\$5.28	\$5.53
Restaurant	\$11.68	n.a.	n.a.	\$11.35	\$11.43	\$12.41	\$12.85	\$13.46
Napa Valley College	\$3.64	n.a.	n.a.	\$3.55	\$3.57	\$3.88	\$4.02	\$4.21
Service Station	\$4.70	n.a.	n.a.	\$4.91	\$4.94	\$5.36	\$5.55	\$5.82
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.54	\$4.57	\$4.96	\$5.13	\$5.38
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.09	\$22.90	\$23.70	\$24.83
Schools	\$3.17	n.a.	n.a.	\$1.76	\$1.78	\$1.93	\$2.00	\$2.09

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.
Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

Attachment 1

Summary of Calculated Water and Wastewater Rate Scenarios

Option WW – 8 Wastewater 30-year Debt Scenario

Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$56.10	\$56.50	\$58.93	\$60.91	\$63.66
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.92	\$4.96	\$5.17	\$5.34	\$5.58
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$77.86	\$78.41	\$81.78	\$84.54	\$88.34
1"	\$102.42	n.a.	n.a.	\$194.64	\$196.03	\$204.46	\$211.35	\$220.86
1.5"	\$202.92	n.a.	n.a.	\$389.29	\$392.07	\$408.92	\$422.69	\$441.71
2"	\$323.53	n.a.	n.a.	\$622.86	\$627.31	\$654.27	\$676.31	\$706.74
3"	\$604.94	n.a.	n.a.	\$1,245.72	\$1,254.62	\$1,308.54	\$1,352.62	\$1,413.49
4"	\$1,006.96	n.a.	n.a.	\$1,946.43	\$1,960.35	\$2,044.59	\$2,113.46	\$2,208.57
6"	\$2,012.00	n.a.	n.a.	\$3,892.86	\$3,920.69	\$4,089.18	\$4,226.93	\$4,417.14
Use Charge per HCF								
	<i>every month</i>	<i>avg. winter month</i>	<i>avg. winter month</i>	<i>Rate applied to metered water use each month [1]</i>				
Car Wash	\$2.85	n.a.	n.a.	\$3.40	\$3.42	\$3.57	\$3.69	\$3.86
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.78	\$3.81	\$3.97	\$4.11	\$4.29
Commercial [2]	\$3.64	n.a.	n.a.	\$4.46	\$4.50	\$4.69	\$4.85	\$5.07
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$12.00	\$12.09	\$12.61	\$13.03	\$13.62
Laundry	\$3.34	n.a.	n.a.	\$3.90	\$3.93	\$4.09	\$4.23	\$4.42
Mixed Retail	\$6.79	n.a.	n.a.	\$7.51	\$7.56	\$7.88	\$8.15	\$8.52
Lodging with Food	\$8.75	n.a.	n.a.	\$9.01	\$9.07	\$9.46	\$9.78	\$10.22
Lodging without Food	\$4.35	n.a.	n.a.	\$4.89	\$4.92	\$5.13	\$5.30	\$5.54
Restaurant	\$11.68	n.a.	n.a.	\$11.90	\$11.98	\$12.50	\$12.92	\$13.50
Napa Valley College	\$3.64	n.a.	n.a.	\$3.72	\$3.75	\$3.91	\$4.04	\$4.22
Service Station	\$4.70	n.a.	n.a.	\$5.14	\$5.18	\$5.40	\$5.58	\$5.83
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.75	\$4.79	\$4.99	\$5.16	\$5.39
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.09	\$21.99	\$22.73	\$23.75
Schools	\$3.17	n.a.	n.a.	\$1.85	\$1.86	\$1.94	\$2.01	\$2.10

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.
Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

Attachment 1

Summary of Calculated Water and Wastewater Rate Scenarios

Option WW – 9 Wastewater 1.3 Debt Ration 20-year debt scenario

Calculated Wastewater Rates				20-year Debt Scenario				
Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$60.96	\$61.92	\$60.13	\$62.75	\$73.19
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.23	\$4.30	\$4.17	\$4.36	\$5.08
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$84.60	\$85.93	\$83.45	\$87.09	\$101.57
1"	\$102.42	n.a.	n.a.	\$211.50	\$214.82	\$208.62	\$217.73	\$253.94
1.5"	\$202.92	n.a.	n.a.	\$423.01	\$429.64	\$417.24	\$435.46	\$507.87
2"	\$323.53	n.a.	n.a.	\$676.81	\$687.43	\$667.58	\$696.73	\$812.59
3"	\$604.94	n.a.	n.a.	\$1,353.62	\$1,374.86	\$1,335.16	\$1,393.46	\$1,625.19
4"	\$1,006.96	n.a.	n.a.	\$2,115.04	\$2,148.22	\$2,086.19	\$2,177.28	\$2,539.35
6"	\$2,012.00	n.a.	n.a.	\$4,230.07	\$4,296.45	\$4,172.38	\$4,354.56	\$5,078.70
Use Charge per HCF								
	every month	avg. winter month	avg. winter month	Rate applied to metered water use each month [1]				
Car Wash	\$2.85	n.a.	n.a.	\$2.92	\$2.97	\$2.88	\$3.01	\$3.51
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.25	\$3.30	\$3.21	\$3.35	\$3.90
Commercial [2]	\$3.64	n.a.	n.a.	\$3.84	\$3.90	\$3.79	\$3.95	\$4.61
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$10.32	\$10.48	\$10.18	\$10.62	\$12.39
Laundry	\$3.34	n.a.	n.a.	\$3.35	\$3.40	\$3.31	\$3.45	\$4.02
Mixed Retail	\$6.79	n.a.	n.a.	\$6.45	\$6.55	\$6.36	\$6.64	\$7.75
Lodging with Food	\$8.75	n.a.	n.a.	\$7.74	\$7.87	\$7.64	\$7.97	\$9.30
Lodging without Food	\$4.35	n.a.	n.a.	\$4.20	\$4.27	\$4.14	\$4.32	\$5.04
Restaurant	\$11.68	n.a.	n.a.	\$10.23	\$10.39	\$10.09	\$10.53	\$12.28
Napa Valley College	\$3.64	n.a.	n.a.	\$3.20	\$3.25	\$3.15	\$3.29	\$3.84
Service Station	\$4.70	n.a.	n.a.	\$4.42	\$4.49	\$4.36	\$4.55	\$5.31
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.09	\$4.15	\$4.03	\$4.21	\$4.91
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.27	\$20.65	\$21.55	\$25.14
Schools	\$3.17	n.a.	n.a.	\$1.59	\$1.61	\$1.57	\$1.64	\$1.91

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.

Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

Attachment 1

Summary of Calculated Water and Wastewater Rate Scenarios

Option WW – 10 Wastewater 1.3 Debt Ratio 30-year debt scenario

Calculated Wastewater Rates				30-year Debt Scenario				
Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$61.09	\$56.95	\$56.82	\$59.44	\$70.83
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.21	\$3.93	\$3.92	\$4.10	\$4.89
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$84.78	\$79.04	\$78.86	\$82.50	\$98.31
1"	\$102.42	n.a.	n.a.	\$211.95	\$197.61	\$197.15	\$206.24	\$245.77
1.5"	\$202.92	n.a.	n.a.	\$423.89	\$395.21	\$394.30	\$412.48	\$491.53
2"	\$323.53	n.a.	n.a.	\$678.23	\$632.34	\$630.88	\$659.97	\$786.45
3"	\$604.94	n.a.	n.a.	\$1,356.46	\$1,264.68	\$1,261.76	\$1,319.95	\$1,572.90
4"	\$1,006.96	n.a.	n.a.	\$2,119.46	\$1,976.07	\$1,971.50	\$2,062.42	\$2,457.65
6"	\$2,012.00	n.a.	n.a.	\$4,238.93	\$3,952.13	\$3,943.01	\$4,124.83	\$4,915.31
Use Charge per HCF								
	every month	avg. winter month	avg. winter month	Rate applied to metered water use each month [1]				
Car Wash	\$2.85	n.a.	n.a.	\$2.91	\$2.71	\$2.71	\$2.83	\$3.37
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.24	\$3.02	\$3.01	\$3.15	\$3.75
Commercial [2]	\$3.64	n.a.	n.a.	\$3.82	\$3.56	\$3.56	\$3.72	\$4.43
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$10.27	\$9.58	\$9.56	\$10.00	\$11.91
Laundry	\$3.34	n.a.	n.a.	\$3.34	\$3.11	\$3.10	\$3.25	\$3.87
Mixed Retail	\$6.79	n.a.	n.a.	\$6.42	\$5.99	\$5.98	\$6.25	\$7.45
Lodging with Food	\$8.75	n.a.	n.a.	\$7.71	\$7.19	\$7.17	\$7.50	\$8.94
Lodging without Food	\$4.35	n.a.	n.a.	\$4.18	\$3.90	\$3.89	\$4.07	\$4.85
Restaurant	\$11.68	n.a.	n.a.	\$10.18	\$9.50	\$9.47	\$9.91	\$11.81
Napa Valley College	\$3.64	n.a.	n.a.	\$3.18	\$2.97	\$2.96	\$3.10	\$3.69
Service Station	\$4.70	n.a.	n.a.	\$4.40	\$4.10	\$4.09	\$4.28	\$5.10
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.07	\$3.79	\$3.79	\$3.96	\$4.72
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$19.53	\$19.49	\$20.39	\$24.29
Schools	\$3.17	n.a.	n.a.	\$1.58	\$1.48	\$1.47	\$1.54	\$1.84

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.

Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

Attachment 2

W – 1 Water 20-year Debt Scenario

Table 1
Calculated Water Rates through Fiscal Year Ending 2022
20-year Debt Scenario

DRAFT

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge							
			Monthly Charges per Meter				
5/8", 3/4" & SF 1"	\$43.22	\$51.71	\$54.17	\$56.20	\$61.36	\$65.63	\$69.89
1"	\$80.08	\$96.76	\$95.91	\$100.44	\$110.68	\$119.41	\$128.22
1.5"	\$141.67	\$172.02	\$165.65	\$174.36	\$193.07	\$209.25	\$225.64
2"	\$215.12	\$261.84	\$248.86	\$262.56	\$291.43	\$316.53	\$342.00
3"	\$413.06	\$503.54	\$472.90	\$500.00	\$556.00	\$604.96	\$654.72
4"	\$640.46	\$780.29	\$729.79	\$772.11	\$858.79	\$934.75	\$1,011.98
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,507.16	\$1,678.44	\$1,828.74	\$1,981.63
Private Fire Protection							
			Monthly Charges per Fire Service Pipe				
4"	\$8.47	\$9.92	\$11.22	\$11.39	\$12.18	\$12.77	\$13.33
6"	\$24.59	\$28.81	\$32.59	\$33.07	\$35.39	\$37.09	\$38.73
8"	\$52.41	\$61.40	\$69.45	\$70.48	\$75.41	\$79.05	\$82.53
Raw Water <i>per Gallon</i>	\$0.00273	\$0.00320	\$0.00313	\$0.00335	\$0.00359	\$0.00379	\$0.00397
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.84	\$6.15	\$6.33	\$6.50
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.50	\$6.84	\$7.04	\$7.23
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.17	\$6.49	\$6.69	\$6.87
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.86	\$7.22	\$7.44	\$7.63

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Attachment 2
W – 1 Water 20-year Debt Scenario

Table 2
Projected Water Fund Cash Flow
20-year Debt Scenario

DRAFT

Revenues and Expenses	Billing Period Beginning										flow	
	2018 Year 1 12/8/2017	2019 Year 2 11/8/2018	2020 Year 3 11/8/2019	2021 Year 4 11/8/2020	2022 Year 5 11/8/2021	2023 Year 6 11/8/2022	2024 Year 7 11/8/2023	2025 Year 8 11/8/2024	2026 Year 9 11/8/2025	2027 Year 10 11/8/2026		
Revenue												
Water Sales [1]	\$5,650,000	\$6,045,500	\$6,468,685	\$6,824,463	\$7,148,625	\$7,363,083	\$7,583,976	\$7,811,495	\$8,045,840	\$8,287,215		
Investment Earnings	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		
Finance Charges	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925		
Other Revenue	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206		
Meter Replacement Fee	\$47,612	\$49,139	\$50,715	\$52,341	\$54,019	\$55,750	\$57,537	\$59,381	\$61,283	\$63,247		
Total Revenues	\$5,771,744	\$6,168,770	\$6,593,531	\$6,950,935	\$7,276,775	\$7,492,964	\$7,715,644	\$7,945,007	\$8,181,254	\$8,424,593		
Operating Expenses	\$4,564,287	\$4,618,788	\$4,887,310	\$5,225,440	\$5,300,431	\$5,552,796	\$5,819,093	\$6,100,227	\$6,397,172	\$6,710,977		
Net Revenue before Debt Service and System Rehabilitation	\$1,207,456	\$1,549,982	\$1,706,221	\$1,725,495	\$1,976,344	\$1,940,168	\$1,896,551	\$1,844,779	\$1,784,082	\$1,713,616		
Debt Service	\$995,416	\$1,168,336	\$1,165,873	\$1,164,857	\$1,324,932	\$1,321,576	\$1,322,052	\$1,320,941	\$1,319,515	\$1,314,037		
Debt Service Coverage [2]	1.21	1.33	1.46	1.48	1.49	1.47	1.43	1.40	1.35	1.30		
Net Revenue	\$212,040	\$381,646	\$540,348	\$560,638	\$651,412	\$618,592	\$574,499	\$523,838	\$464,567	\$399,579		
Beginning Balance [3]	\$9,736,527	\$8,141,052	\$5,126,106	\$5,666,453	\$6,096,345	\$6,183,835	\$6,478,260	\$6,788,464	\$6,570,418	\$6,270,260		
Net Revenue	\$212,040	\$381,646	\$540,348	\$560,638	\$651,412	\$618,592	\$574,499	\$523,838	\$464,567	\$399,579		
PAYGO Capital Projects	(\$1,807,515)	(\$3,396,593)	\$0	(\$130,746)	(\$563,922)	(\$324,167)	(\$264,294)	(\$741,885)	(\$764,726)	(\$788,270)		
Ending Balance	\$8,141,052	\$5,126,106	\$5,666,453	\$6,096,345	\$6,183,835	\$6,478,260	\$6,788,464	\$6,570,418	\$6,270,260	\$5,881,569		
Months of Operating Expenses in Reserve [4]	21.4	13.3	13.9	14.0	14.0	14.0	14.0	12.9	11.8	10.5		

Source: City of St. Helena and HEC.

[1] Rates for FY 2018 calculated as 5 months of current rates plus 7 months of rates implemented December 2017. Rates for all future fiscal years calculated as 4 months of the rates implemented in February of the prior fiscal year plus 8 months of the rates implemented in November of the current fiscal year.

[2] Minimum debt service coverage is 1.20; target is 1.30 to 1.50.

[3] Estimated beginning balance for the operating and capital funds combined per the City 2017/18 Budget.

[4] Target is 10-14 months of operating expenses.

Attachment 2
W – 1 Water 20-year Debt Scenario

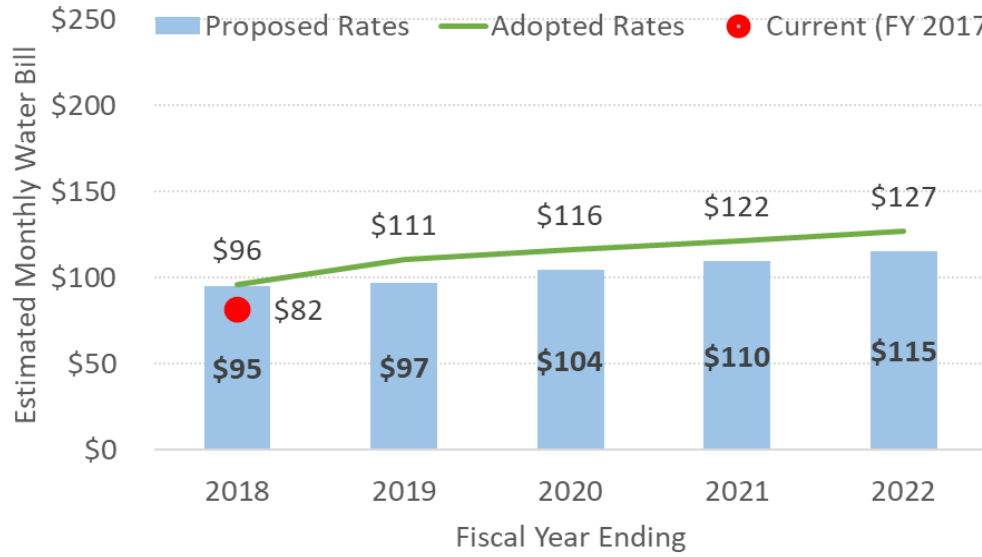
Table 4
Estimated Ten-Year Schedule of Water Capital Improvements in Future \$'s
20-year Debt Scenario

DRAFT

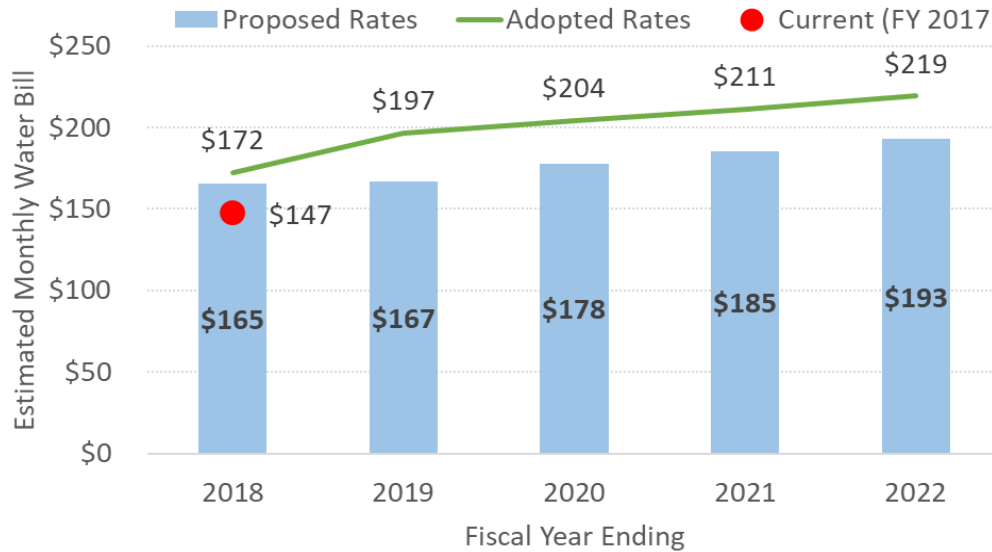
Project	Total Cost Less Existing Funding	Fiscal Year Ending						
		2018	2019	2020	2021	2022	2023	2024
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
[2]								
Estimated Project Costs (Future \$'s) [1]								
York Creek Upper Dam Removal/Mitigation	\$97,250	\$47,888	\$49,362	\$0	\$0	\$0	\$0	\$0
Meadowood Tank Upgrades	\$391,596	\$0	\$391,596	\$0	\$0	\$0	\$0	\$0
Bell Canyon Reservoir Improvements	\$1,016,061	\$0	\$0	\$0	\$0	\$1,016,061	\$0	\$0
Dwyer Road Booster	\$907,741	\$0	\$0	\$487,900	\$419,840	\$0	\$0	\$0
Bell Valve House Valve Replacement	\$593,950	\$0	\$0	\$0	\$0	\$593,950	\$0	\$0
Holmes Tank Upgrade	\$1,458,730	\$7,542	\$0	\$0	\$1,451,188	\$0	\$0	\$0
Bell Canyon Creek Flow Measurement	\$556,341	\$12,750	\$543,591	\$0	\$0	\$0	\$0	\$0
Sludge Handling Program	\$159,379	\$0	\$0	\$159,379	\$0	\$0	\$0	\$0
Tank 2 Rehabilitation	\$771,244	\$60,000	\$711,244	\$0	\$0	\$0	\$0	\$0
Pump Station Upgrades	\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0
Lower York Creek Dam Rehab	\$538,562	\$190,695	\$0	\$0	\$0	\$0	\$0	\$347,8
Bell Canyon Intake Tower Replacement	\$2,469,822	\$923,640	\$1,546,182	\$0	\$0	\$0	\$0	\$0

Attachment 2
W – 1 Water 20-year Debt Scenario

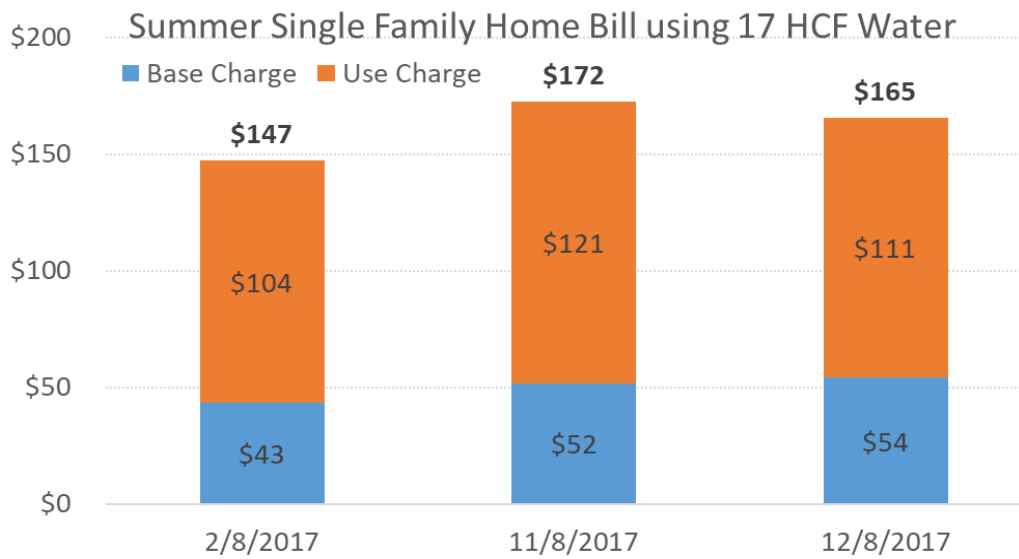
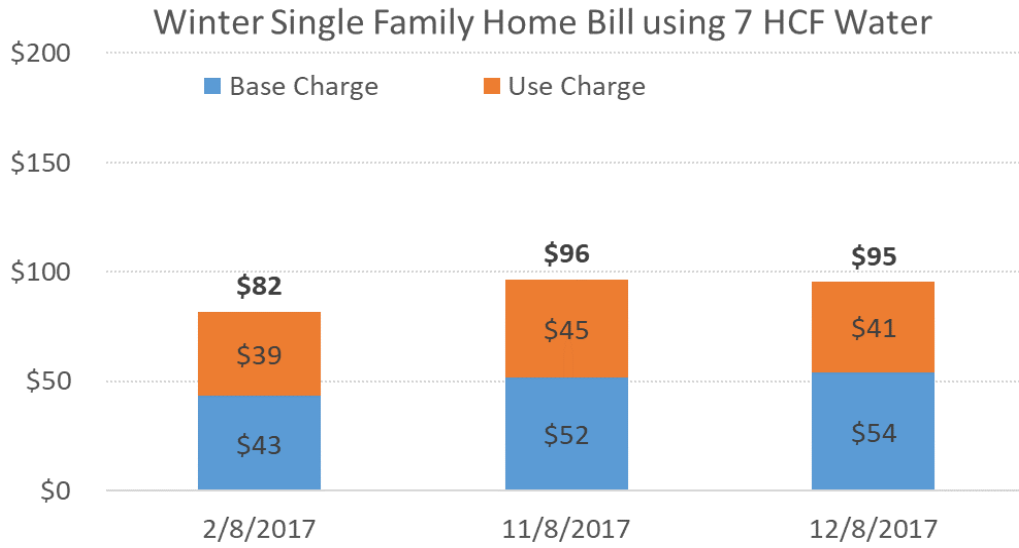
Winter Single Family Home Bill using 7 HCF Water



Summer Single Family Home Bill using 17 HCF Water

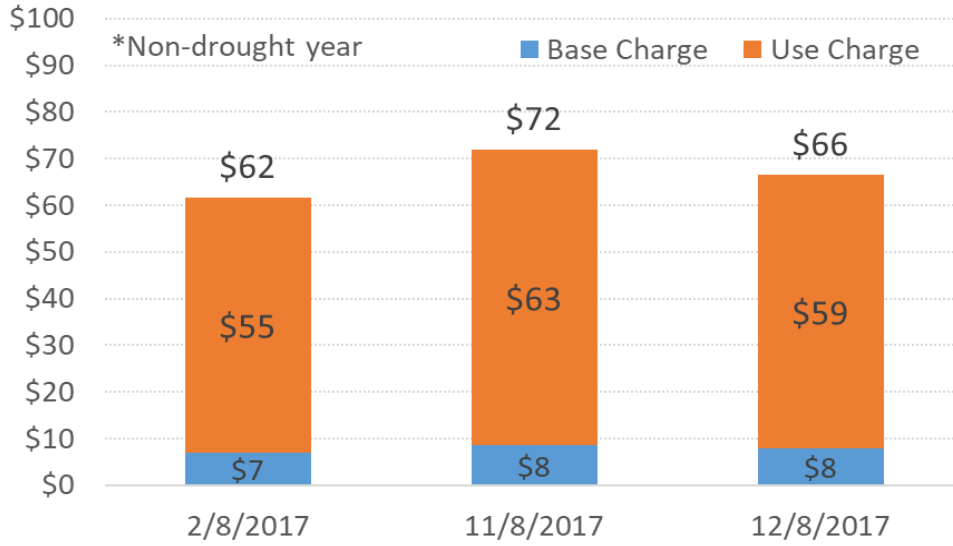


Attachment 2
W – 1 Water 20-year Debt Scenario

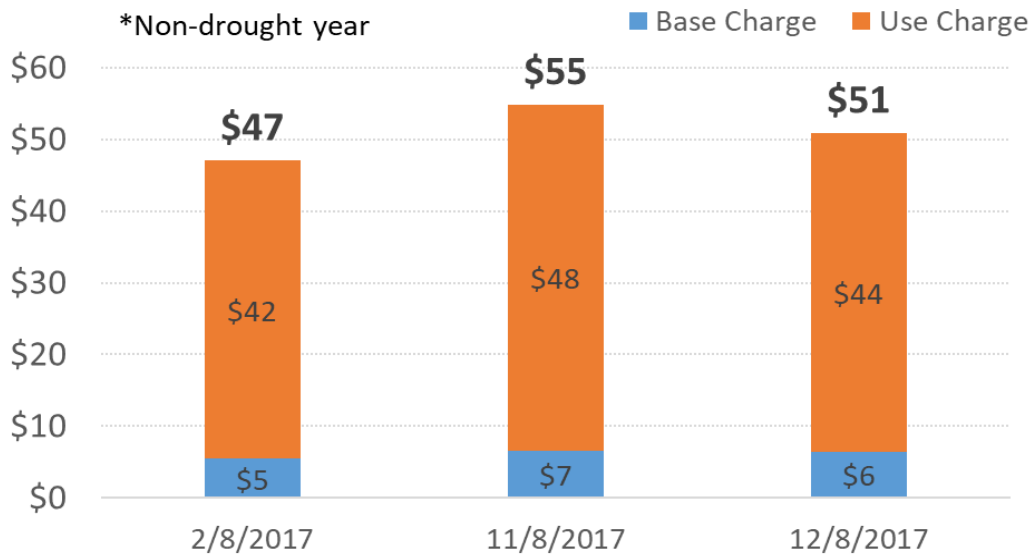


Attachment 2
W – 1 Water 20-year Debt Scenario

Mobile Home Park (211 units) Average Year-Round Bill, Per Unit

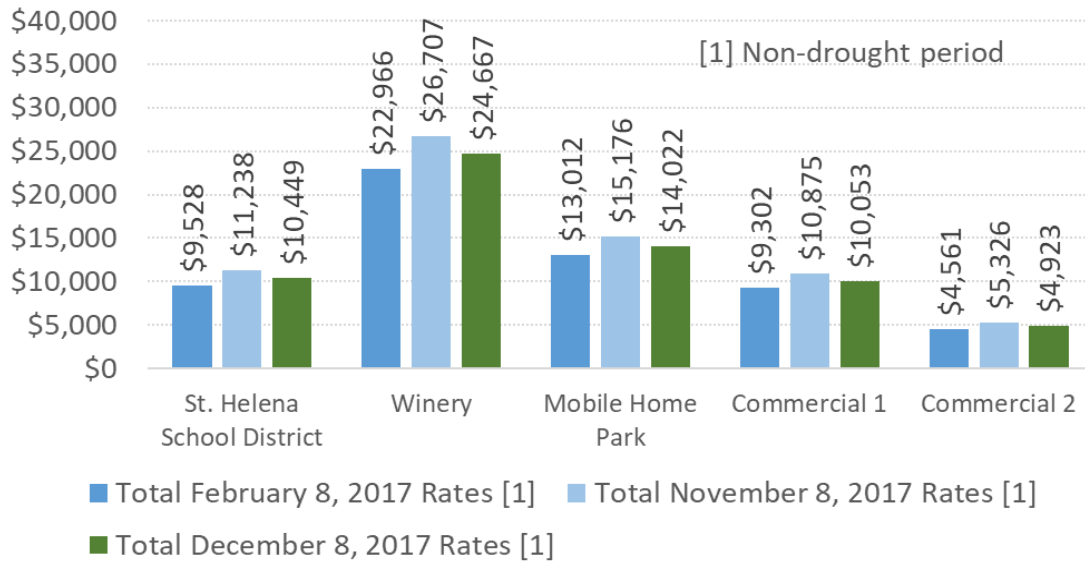


Apartment Complex (26 units) Average Year-Round Bill, Per Unit

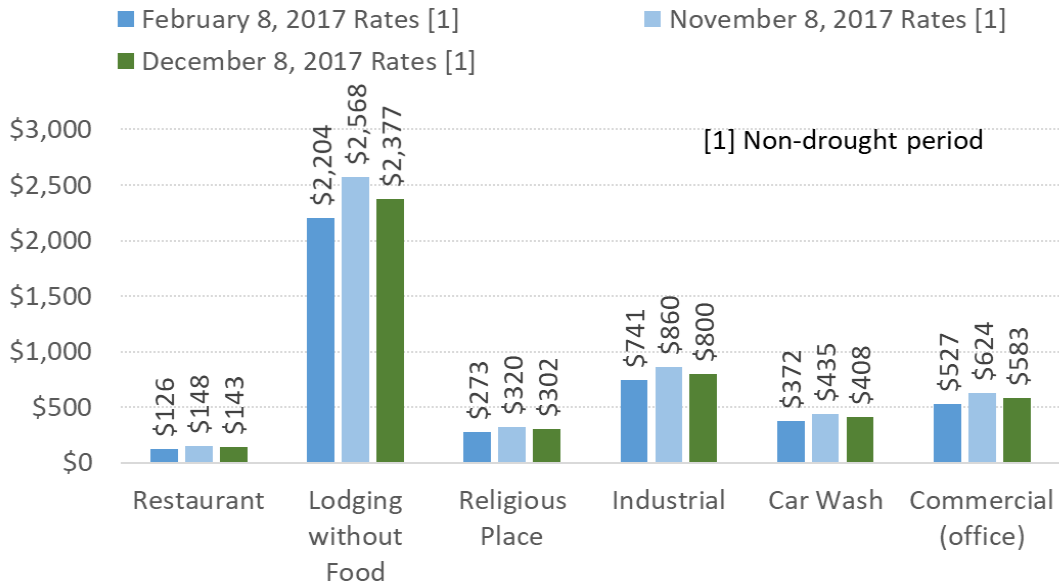


Attachment 2
W – 1 Water 20-year Debt Scenario

Large Water Users Monthly Bill Impact



Sample of Non-Residential Water Users Bill Impact



Attachment 3

W – 2 Water 30-year Debt Scenario

Table 1
Calculated Water Rates through Fiscal Year Ending 2022
30-year Debt Scenario

DRAFT

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge							
Monthly Charges per Meter							
5/8", 3/4" & SF 1"	\$43.22	\$51.71	\$54.17	\$56.20	\$61.36	\$65.63	\$69.89
1"	\$80.08	\$96.76	\$95.91	\$100.44	\$110.68	\$119.41	\$128.22
1.5"	\$141.67	\$172.02	\$165.65	\$174.36	\$193.07	\$209.25	\$225.64
2"	\$215.12	\$261.84	\$248.86	\$262.56	\$291.43	\$316.53	\$342.00
3"	\$413.06	\$503.54	\$472.90	\$500.00	\$556.00	\$604.96	\$654.72
4"	\$640.46	\$780.29	\$729.79	\$772.11	\$858.79	\$934.75	\$1,011.98
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,507.16	\$1,678.44	\$1,828.74	\$1,981.63
Private Fire Protection							
Monthly Charges per Fire Service Pipe							
4"	\$8.47	\$9.92	\$11.22	\$11.39	\$12.18	\$12.77	\$13.33
6"	\$24.59	\$28.81	\$32.59	\$33.07	\$35.39	\$37.09	\$38.73
8"	\$52.41	\$61.40	\$69.45	\$70.48	\$75.41	\$79.05	\$82.53
Raw Water <i>per Gallon</i>	\$0.00273	\$0.00320	\$0.00313	\$0.00335	\$0.00359	\$0.00379	\$0.00397
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.84	\$6.15	\$6.33	\$6.50
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.50	\$6.84	\$7.04	\$7.23
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.17	\$6.49	\$6.69	\$6.87
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.86	\$7.22	\$7.44	\$7.63

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Attachment 3
W – 2 Water 30-year Debt Scenario

Table 3
Projected Water Fund Cash Flow
30-year Debt Scenario

DRAFT

Revenues and Expenses	2018 Year 1 12/8/2017	2019 Year 2 11/8/2018	2020 Year 3 11/8/2019	2021 Year 4 11/8/2020	2022 Year 5 11/8/2021	2023 Year 6 11/8/2022	2024 Year 7 11/8/2023	2025 Year 8 11/8/2024	2026 Year 9 11/8/2025	2027 Year 10 11/8/2026
Revenue										
Water Sales [1]	\$5,650,000	\$6,045,500	\$6,468,685	\$6,824,463	\$7,148,625	\$7,363,083	\$7,583,976	\$7,811,495	\$8,045,840	\$8,287,215
Investment Earnings	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Finance Charges	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925
Other Revenue	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206
Meter Replacement Fee	\$47,612	\$49,139	\$50,715	\$52,341	\$54,019	\$55,750	\$57,537	\$59,381	\$61,283	\$63,247
Total Revenues	\$5,771,744	\$6,168,770	\$6,593,531	\$6,950,935	\$7,276,775	\$7,492,964	\$7,715,644	\$7,945,007	\$8,181,254	\$8,424,593
Operating Expenses										
Net Revenue before Debt Service and System Rehabilitation	\$4,564,287	\$4,618,788	\$4,887,310	\$5,225,440	\$5,300,431	\$5,552,796	\$5,819,093	\$6,100,227	\$6,397,172	\$6,710,977
Debt Service										
Debt Service Coverage [2]	\$1,207,456	\$1,549,982	\$1,706,221	\$1,725,495	\$1,976,344	\$1,940,168	\$1,896,551	\$1,844,779	\$1,784,082	\$1,713,616
	\$995,416	\$1,185,886	\$1,183,423	\$1,182,407	\$1,358,894	\$1,355,539	\$1,356,015	\$1,354,904	\$1,353,477	\$1,347,999
	1.21	1.31	1.44	1.46	1.45	1.43	1.40	1.36	1.32	1.27
Net Revenue	\$212,040	\$364,096	\$522,798	\$543,088	\$617,450	\$584,629	\$540,536	\$489,875	\$430,605	\$365,617
Beginning Balance [3]	\$9,736,527	\$8,141,052	\$5,108,555	\$5,631,353	\$6,043,695	\$6,097,222	\$6,357,685	\$6,633,926	\$6,381,917	\$6,047,796
Net Revenue	\$212,040	\$364,096	\$522,798	\$543,088	\$617,450	\$584,629	\$540,536	\$489,875	\$430,605	\$365,617
PAYGO Capital Projects	(\$1,807,515)	(\$3,396,593)	\$0	(\$130,746)	(\$563,922)	(\$324,167)	(\$264,294)	(\$741,885)	(\$764,726)	(\$788,270)
Ending Balance	\$8,141,052	\$5,108,555	\$5,631,353	\$6,043,695	\$6,097,222	\$6,357,685	\$6,633,926	\$6,381,917	\$6,047,796	\$5,625,143
Months of Operating Expenses in Reserve [4]	21.4	13.3	13.8	13.9	13.8	13.7	13.7	12.6	11.3	10.1

Source: City of St. Helena and HEC.

[1] Rates for FY 2018 calculated as 5 months of current rates plus 7 months of rates implemented December 2017. Rates for all future fiscal years calculated as 4 months of the rates implemented in February of the prior fiscal year plus 8 months of the rates implemented in November of the current fiscal year.

[2] Minimum debt service coverage is 1.20; target is 1.30 to 1.50.

[3] Estimated beginning balance for the operating and capital funds combined per the City 2017/18 Budget.

[4] Target is 10-14 months of operating expenses.

Attachment 3
W – 2 Water 30-year Debt Scenario

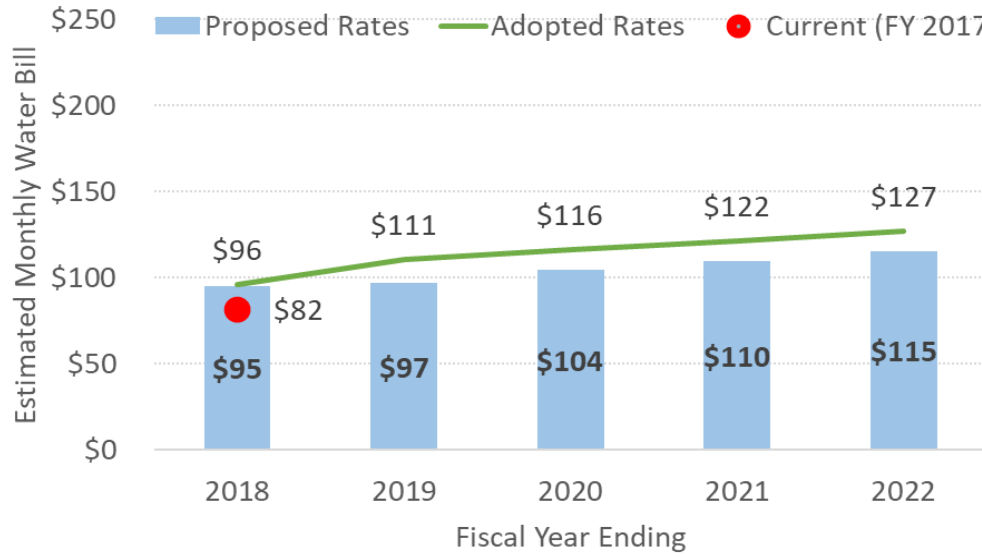
Table 4
Estimated Ten-Year Schedule of Water Capital Improvements in Future \$'s
30-year Debt Scenario

DRAFT

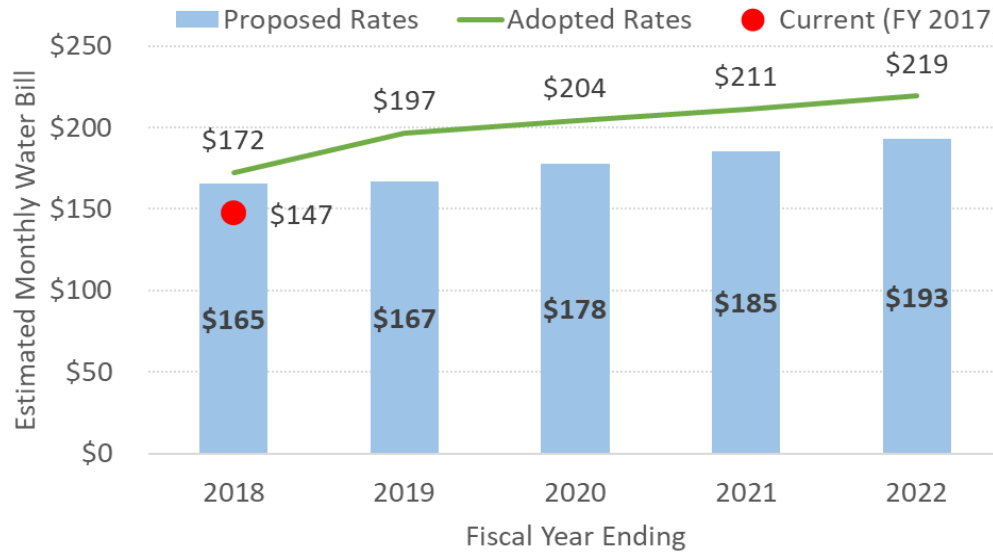
Project	Total Cost Less Existing Funding	Fiscal Year Ending						
		2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7
[2]								
Estimated Project Costs (Future \$'s) [1]								
York Creek Upper Dam Removal/Mitigation	\$97,250	\$47,888	\$49,362	\$0	\$0	\$0	\$0	\$0
Meadowood Tank Upgrades	\$391,596	\$0	\$391,596	\$0	\$0	\$0	\$0	\$0
Bell Canyon Reservoir Improvements	\$1,016,061	\$0	\$0	\$0	\$0	\$1,016,061	\$0	\$0
Dwyer Road Booster	\$907,741	\$0	\$0	\$487,900	\$419,840	\$0	\$0	\$0
Bell Valve House Valve Replacement	\$593,950	\$0	\$0	\$0	\$0	\$593,950	\$0	\$0
Holmes Tank Upgrade	\$1,438,730	\$7,542	\$0	\$0	\$1,451,188	\$0	\$0	\$0
Bell Canyon Creek Flow Measurement	\$556,341	\$12,750	\$543,591	\$0	\$0	\$0	\$0	\$0
Sludge Handling Program	\$159,379	\$0	\$0	\$159,379	\$0	\$0	\$0	\$0
Tank 2 Rehabilitation	\$771,244	\$60,000	\$711,244	\$0	\$0	\$0	\$0	\$0
Pump Station Upgrades	\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0
Lower York Creek Dam Rehab	\$538,562	\$190,695	\$0	\$0	\$0	\$0	\$0	\$347.8
Bell Canyon Intake Tower Replacement	\$2,469,822	\$923,640	\$1,546,182	\$0	\$0	\$0	\$0	\$0

Attachment 3
W – 2 Water 30-year Debt Scenario

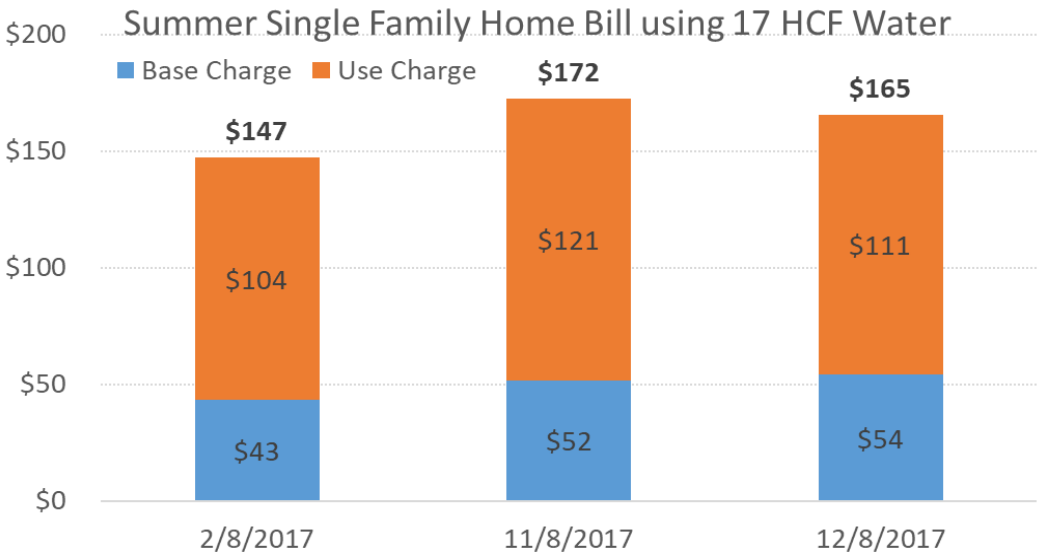
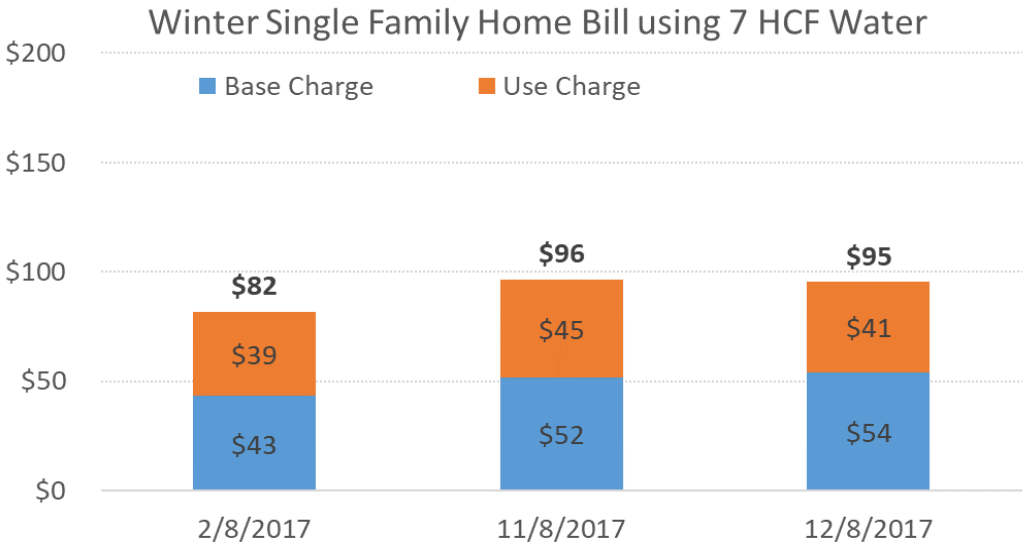
Winter Single Family Home Bill using 7 HCF Water



Summer Single Family Home Bill using 17 HCF Water

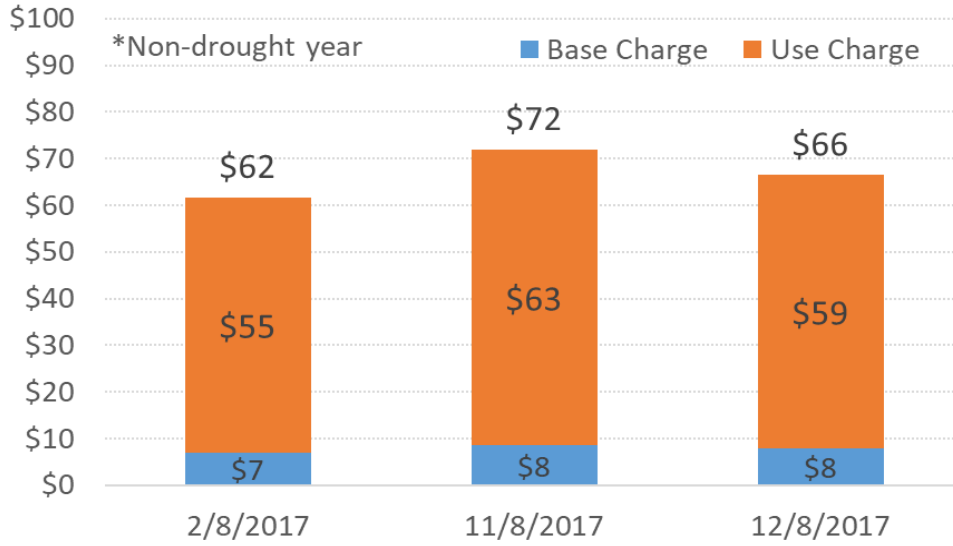


Attachment 3
W – 2 Water 30-year Debt Scenario

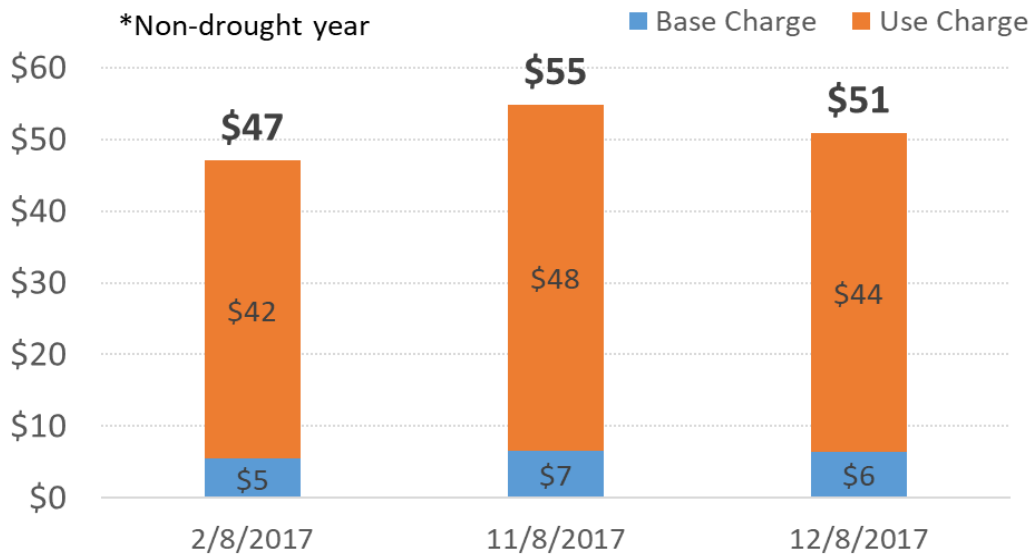


Attachment 3
W – 2 Water 30-year Debt Scenario

Mobile Home Park (211 units) Average Year-Round Bill, Per Unit

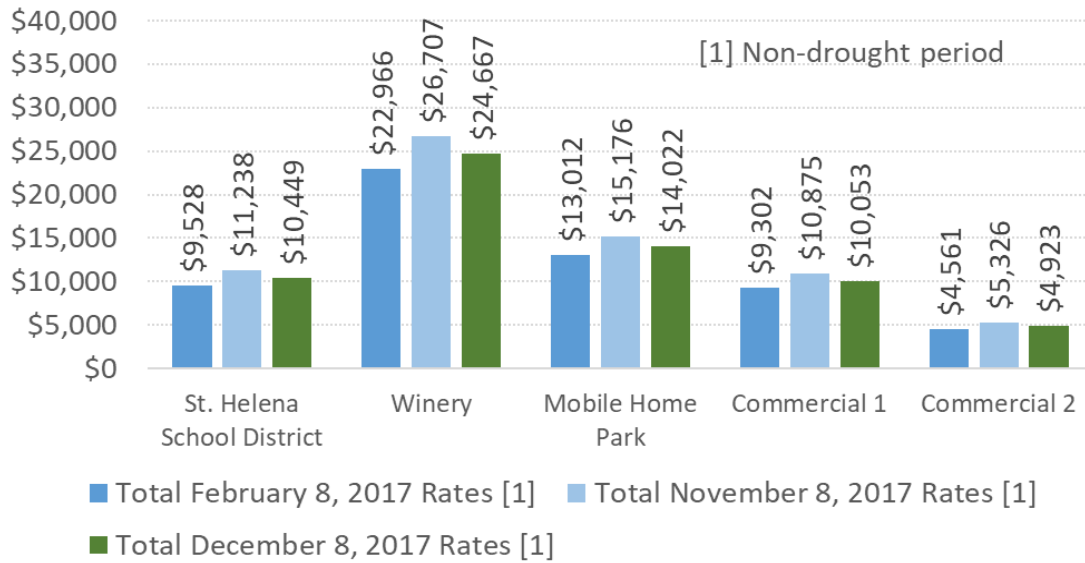


Apartment Complex (26 units) Average Year-Round Bill, Per Unit

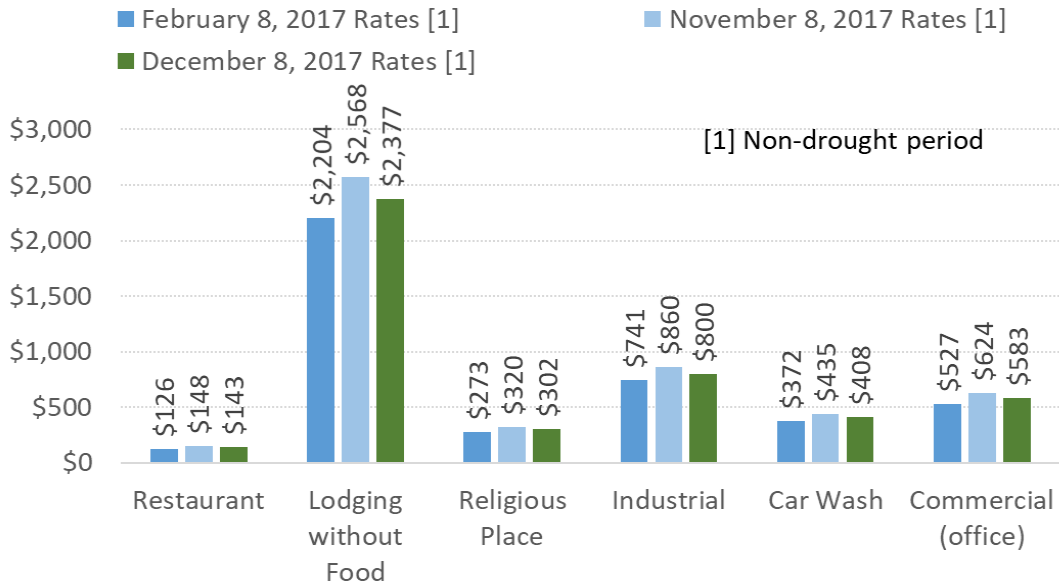


Attachment 3
W – 2 Water 30-year Debt Scenario

Large Water Users Monthly Bill Impact



Sample of Non-Residential Water Users Bill Impact



Attachment 4

W – 3 Water Reallocated Capacity – 20-year Debt Scenario

W – 4 Water Reallocated Capacity – 30-year Debt Scenario

REALLOCATED CAPACITY COSTS MODEL RESULTS

Table 5

Calculated Water Rates through Fiscal Year Ending 2022 - Reallocated Capacity
 20-year Debt Scenario
 30-year Debt Scenario

DRAFT

Charges	Current	Adopted 11/8/2017	Rates Effective*				
			12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
SF Residential Service Charge			Monthly Charges per Meter				
5/8"	\$43.22	\$51.71	\$50.91	\$52.73	\$57.47	\$61.38	\$65.27
1"	\$43.22	\$51.71	\$51.45	\$53.28	\$58.04	\$61.97	\$65.87
1.5"	\$141.67	\$172.02	\$149.35	\$157.01	\$173.66	\$188.01	\$202.53
2"	\$215.12	\$261.84	\$222.77	\$234.81	\$260.37	\$282.54	\$305.01
3"	\$413.06	\$503.54	\$420.71	\$444.50	\$493.89	\$536.99	\$580.74
4"	\$640.46	\$780.29	\$648.25	\$685.39	\$761.74	\$828.53	\$896.39
6"	\$1,252.50	\$1,528.85	\$1,260.09	\$1,333.72	\$1,484.34	\$1,616.31	\$1,750.46
All Other Customers Service Charge							
5/8"	\$43.22	\$51.71	\$54.17	\$56.20	\$61.36	\$65.63	\$69.89
1"	\$80.08	\$96.76	\$95.91	\$100.44	\$110.68	\$119.41	\$128.22
1.5"	\$141.67	\$172.02	\$165.65	\$174.36	\$193.07	\$209.25	\$225.64
2"	\$215.12	\$261.84	\$248.86	\$262.56	\$291.43	\$316.53	\$342.00
3"	\$413.06	\$503.54	\$472.90	\$500.00	\$556.00	\$604.96	\$654.72
4"	\$640.46	\$780.29	\$729.79	\$772.11	\$858.79	\$934.75	\$1,011.98
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,507.16	\$1,678.44	\$1,828.74	\$1,981.63
Industrial Customers Service Charge							
5/8"	\$43.22	\$51.71	\$74.23	\$77.52	\$85.22	\$91.75	\$98.32
1"	\$80.08	\$96.76	\$146.05	\$153.76	\$170.35	\$184.72	\$199.29
1.5"	\$141.67	\$172.02	\$265.92	\$281.00	\$312.42	\$339.87	\$367.78
2"	\$215.12	\$261.84	\$409.29	\$433.18	\$482.38	\$525.52	\$569.43
3"	\$413.06	\$503.54	\$793.76	\$841.24	\$937.91	\$1,022.93	\$1,109.57
4"	\$640.46	\$780.29	\$1,231.14	\$1,305.29	\$1,455.52	\$1,587.82	\$1,722.68
6"	\$1,252.50	\$1,528.85	\$2,425.87	\$2,573.53	\$2,871.90	\$3,134.88	\$3,403.03
Private Fire Protection			Monthly Charges per Fire Service Pipe				
4"	\$8.47	\$9.92	\$11.22	\$11.39	\$12.18	\$12.77	\$13.33
6"	\$24.59	\$28.81	\$32.59	\$33.07	\$35.39	\$37.09	\$38.73
8"	\$52.41	\$61.40	\$69.45	\$70.48	\$75.41	\$79.05	\$82.53
Raw Water per Gallon	\$0.00273	\$0.00320	\$0.00313	\$0.00335	\$0.00359	\$0.00379	\$0.00397
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.84	\$6.15	\$6.33	\$6.50
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.50	\$6.84	\$7.04	\$7.23
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.17	\$6.49	\$6.69	\$6.87
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.86	\$7.22	\$7.44	\$7.63

Source: HEC.

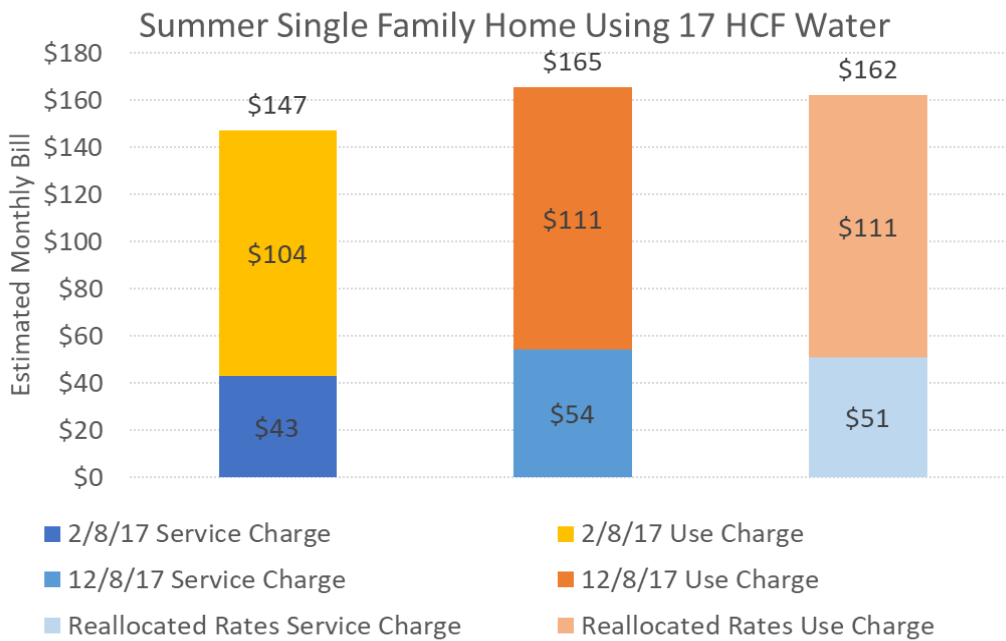
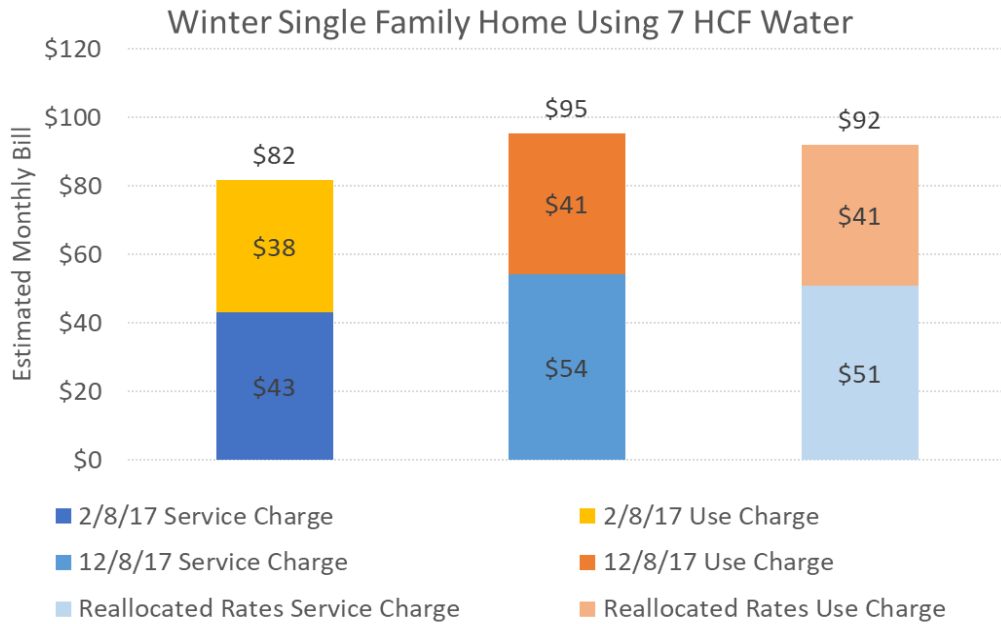
mk sum

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Attachment 4

W – 3 Water Reallocated Capacity – 20-year Debt Scenario

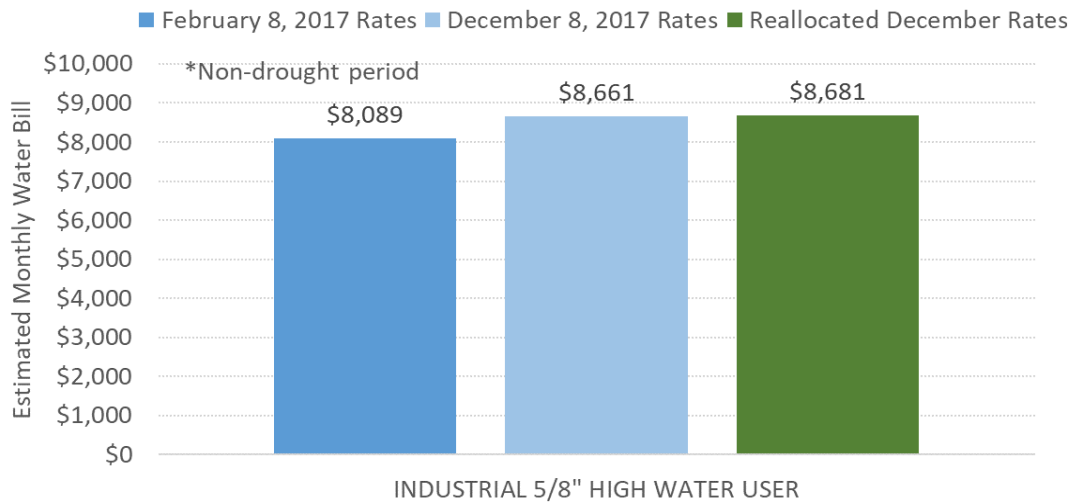
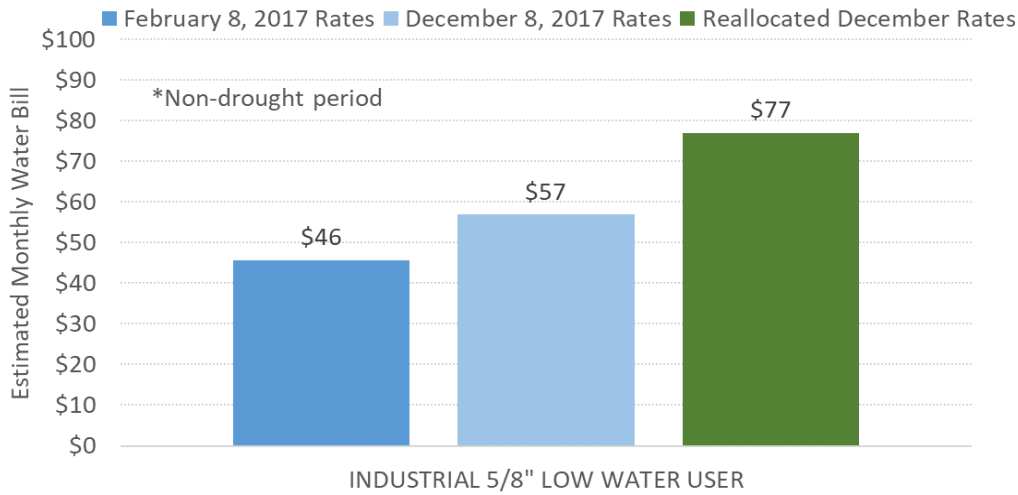
W – 4 Water Reallocated Capacity – 30-year Debt Scenario



Attachment 4

W – 3 Water Reallocated Capacity – 20-year Debt Scenario

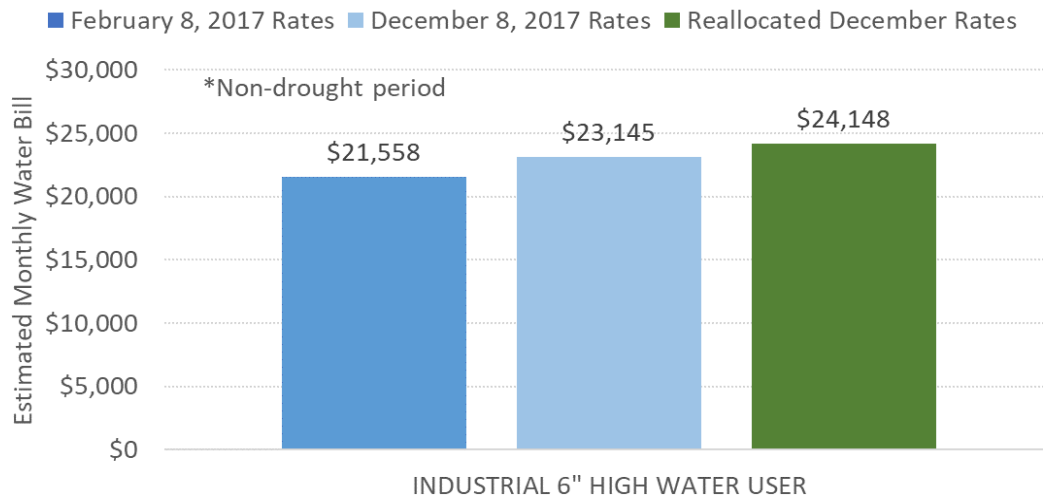
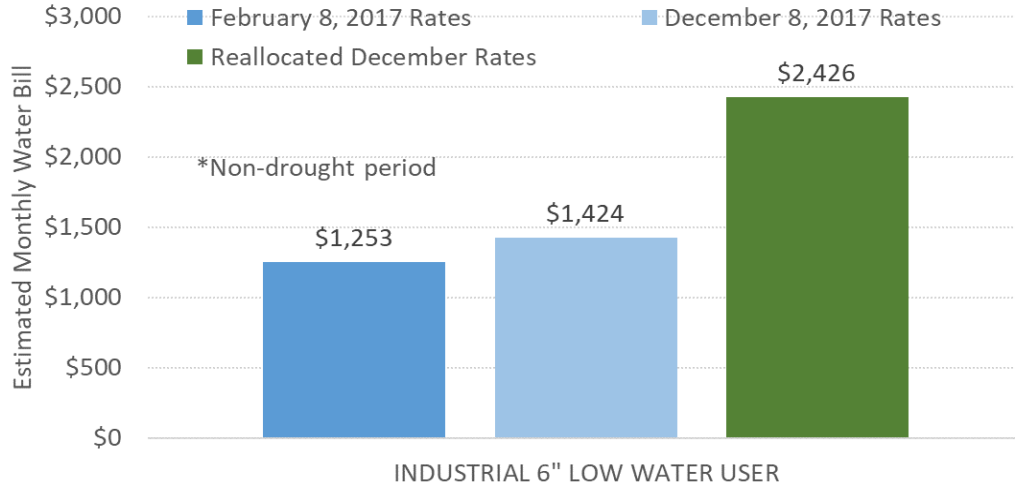
W – 4 Water Reallocated Capacity – 30-year Debt Scenario



Attachment 4

W – 3 Water Reallocated Capacity – 20-year Debt Scenario

W – 4 Water Reallocated Capacity – 30-year Debt Scenario



Attachment 5

W – 5 Water 1.3 Debt Coverage – 20-year Debt Scenario

Table 1
Calculated Water Rates through Fiscal Year Ending 2022

DRAFT

20-year Debt Scenario

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge							
Monthly Charges per Meter							
5/8", 3/4" & SF 1"	\$43.22	\$51.71	\$54.17	\$55.45	\$58.68	\$63.34	\$67.61
1"	\$80.08	\$96.76	\$95.91	\$99.09	\$105.83	\$115.23	\$124.01
1.5"	\$141.67	\$172.02	\$165.65	\$172.02	\$184.61	\$201.90	\$218.22
2"	\$215.12	\$261.84	\$248.86	\$259.03	\$278.62	\$305.38	\$330.73
3"	\$413.06	\$503.54	\$472.90	\$493.29	\$531.61	\$583.69	\$633.17
4"	\$640.46	\$780.29	\$729.79	\$761.82	\$821.36	\$902.08	\$978.87
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,486.93	\$1,604.81	\$1,764.43	\$1,916.41
Private Fire Protection							
Monthly Charges per Fire Service Pipe							
4"	\$8.47	\$9.92	\$11.22	\$11.23	\$11.64	\$12.31	\$12.89
6"	\$24.59	\$28.81	\$32.59	\$32.62	\$33.81	\$35.77	\$37.44
8"	\$52.41	\$61.40	\$69.45	\$69.52	\$72.05	\$76.23	\$79.78
Raw Water <i>per Gallon</i>	\$0.00273	\$0.00320	\$0.00313	\$0.00332	\$0.00347	\$0.00365	\$0.00383
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.76	\$5.87	\$6.11	\$6.28
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.40	\$6.53	\$6.79	\$6.98
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.09	\$6.20	\$6.45	\$6.64
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.77	\$6.89	\$7.17	\$7.38

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Attachment 5

W – 5 Water 1.3 Debt Coverage – 20-year Debt Scenario

Table 2

DRAFT												20-year Debt Scenario	
Revenues and Expenses		2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10		
Revenue		Billing Period Beginning											
		12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021	11/8/2022	11/8/2023	11/8/2024	11/8/2025	11/8/2026		
Water Sales [1]		\$5,650,000	\$5,988,701	\$6,251,302	\$6,585,402	\$6,906,266	\$7,152,926	\$7,417,036	\$7,830,969	\$8,123,501	\$8,429,764		
Investment Earnings		\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		
Finance Charges		\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925		
Other Revenue		\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206		
Meter Replacement Fee		\$47,612	\$49,139	\$50,715	\$52,341	\$54,019	\$55,750	\$57,537	\$59,381	\$61,283	\$63,247		
Total Revenues		\$5,771,744	\$6,111,971	\$6,376,148	\$6,711,874	\$7,034,416	\$7,282,807	\$7,548,704	\$7,964,481	\$8,258,915	\$8,567,142		
Operating Expenses		\$4,564,287	\$4,618,788	\$4,887,310	\$5,225,440	\$5,300,431	\$5,552,796	\$5,819,093	\$6,100,227	\$6,397,172	\$6,710,977		
Net Revenue before Debt Service and System Rehabilitation		\$1,207,456	\$1,493,183	\$1,488,838	\$1,486,434	\$1,733,985	\$1,730,011	\$1,729,611	\$1,864,253	\$1,861,743	\$1,856,165		
Debt Service		\$995,416	\$1,147,723	\$1,145,260	\$1,144,245	\$1,334,244	\$1,330,889	\$1,331,365	\$1,434,041	\$1,432,615	\$1,427,137		
Debt Service Coverage [2]		1.21	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30		
Net Revenue		\$212,040	\$345,460	\$343,578	\$342,189	\$399,741	\$399,122	\$398,246	\$430,212	\$429,128	\$429,028		
Beginning Balance [3]		\$9,736,527	\$8,141,052	\$5,089,920	\$4,887,309	\$5,225,439	\$5,300,431	\$5,552,795	\$5,819,090	\$6,100,225	\$6,397,170		
Net Revenue		\$212,040	\$345,460	\$343,578	\$342,189	\$399,741	\$399,122	\$398,246	\$430,212	\$429,128	\$429,028		
PAYGO Capital Projects		(\$1,807,515)	(\$3,396,593)	(\$546,188)	(\$4,059)	(\$324,749)	(\$146,758)	(\$131,950)	(\$149,078)	(\$132,184)	(\$115,223)		
Ending Balance		\$8,141,052	\$5,089,920	\$4,887,309	\$5,225,439	\$5,300,431	\$5,552,795	\$5,819,090	\$6,100,225	\$6,397,170	\$6,710,975		
Months of Operating Expenses in Reserve [4]		21.4	13.2	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		
Source: City of St. Helena and HEC.													
flow													

Source: City of St. Helena and HEC.

[1] Rates for FY 2018 calculated as 5 months of current rates plus 7 months of rates implemented December 2017. Rates for all future fiscal years calculated as 4 months of the rates implemented in February of the prior fiscal year plus 8 months of the rates implemented in November of the current fiscal year.

[2] Minimum debt service coverage is 1.20; target is 1.30 to 1.50.

[3] Estimated beginning balance for the operating and capital funds combined per the City 2017/18 Budget.

[4] Target is 10-14 months of operating expenses.

Attachment 5

W – 5 Water 1.3 Debt Coverage – 20-year Debt Scenario

Table 4

City of St. Helena Water Rate Study										20-year Debt Scenario		
Estimated Ten-Year Schedule of Water Capital Improvements in Future \$'s												
Project	Total Cost Less Existing Funding	Fiscal Year Ending										
		2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10	
[2]												
Estimated Project Costs (Future \$'s) [1]												
York Creek Upper Dam Removal/Mitigation	\$97,250	\$47,888	\$49,362	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Meadowood Tank Upgrades	\$391,596	\$0	\$391,596	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bell Canyon Reservoir Improvements	\$1,016,061	\$0	\$0	\$0	\$0	\$1,016,061	\$0	\$0	\$0	\$0	\$0	\$0
Dwyer Road Booster	\$907,741	\$0	\$0	\$487,900	\$419,840	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bell Valve House Valve Replacement	\$593,950	\$0	\$0	\$0	\$0	\$593,950	\$0	\$0	\$0	\$0	\$0	\$0
Holmes Tank Upgrade	\$1,458,730	\$7,542	\$0	\$0	\$1,451,188	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bell Canyon Creek Flow Measurement	\$556,341	\$12,750	\$543,591	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sludge Handling Program	\$159,379	\$0	\$0	\$159,379	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tank 2 Rehabilitation	\$771,244	\$60,000	\$711,244	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pump Station Upgrades	\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lower York Creek Dam Rehab	\$538,562	\$190,695	\$0	\$0	\$0	\$0	\$347,867	\$0	\$0	\$0	\$0	\$0
Bell Canyon Intake Tower Replacement	\$2,469,822	\$923,640	\$1,546,182	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WTP Condition Assessment	\$164,285	\$0	\$0	\$0	\$164,285	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Spill Containment at Bell Creek Intake	\$75,000	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SCADA Improvements (Rutherford & Holmes)	\$159,379	\$0	\$0	\$159,379	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Spill Containment at Stonebridge Well	\$75,000	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Upgrade Rutherford Pump Station	\$529,675	\$0	\$51,539	\$478,136	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Remove Restriction at Rutherford PS	\$153,079	\$50,000	\$103,079	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Update GIS Maps of Water System	\$53,126	\$0	\$0	\$53,126	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Master Plan Update	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replace Mains < 6-inch Diameter	\$4,828,303	\$0	\$0	\$0	\$438,095	\$677,374	\$698,229	\$719,726	\$741,885	\$764,726	\$788,270	\$788,270
Bell Canyon Spillway Stability Assessment	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bell Canyon Phreatic Surface Monitoring and Assessment	\$65,000	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Estimated Project Costs (Future \$'s)	\$15,513,523	\$1,957,515	\$3,396,593	\$1,337,919	\$2,473,409	\$2,287,384	\$698,229	\$1,067,593	\$741,885	\$764,726	\$788,270	\$788,270
less Ops Cash funded	\$367,412	\$150,000	\$0	\$53,126	\$164,285	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net CIP Project Costs (Future \$'s)	\$15,146,111	\$1,807,515	\$3,396,593	\$1,284,793	\$2,309,123	\$2,287,384	\$698,229	\$1,067,593	\$741,885	\$764,726	\$788,270	\$788,270
Debt-Funded	\$8,391,814	\$0	\$0	\$738,605	\$2,305,064	\$1,962,635	\$551,471	\$935,643	\$592,807	\$632,542	\$673,047	\$673,047
Cash Funded	\$6,754,297	\$1,807,515	\$3,396,593	\$546,188	\$4,059	\$324,749	\$146,758	\$131,950	\$149,078	\$132,184	\$115,223	\$115,223
Total Debt and Cash Funded	\$15,146,111	\$1,807,515	\$3,396,593	\$1,284,793	\$2,309,123	\$2,287,384	\$698,229	\$1,067,593	\$741,885	\$764,726	\$788,270	\$788,270
Source: City of St. Helena and HEC.												
[1] Estimated costs increased by historical Engineering News Record Construction Cost Index 20-year average increase.												
[2] Total Cost Less Existing Funding = Total Cost - Existing Bonds - Existing Grants												
future c/p												

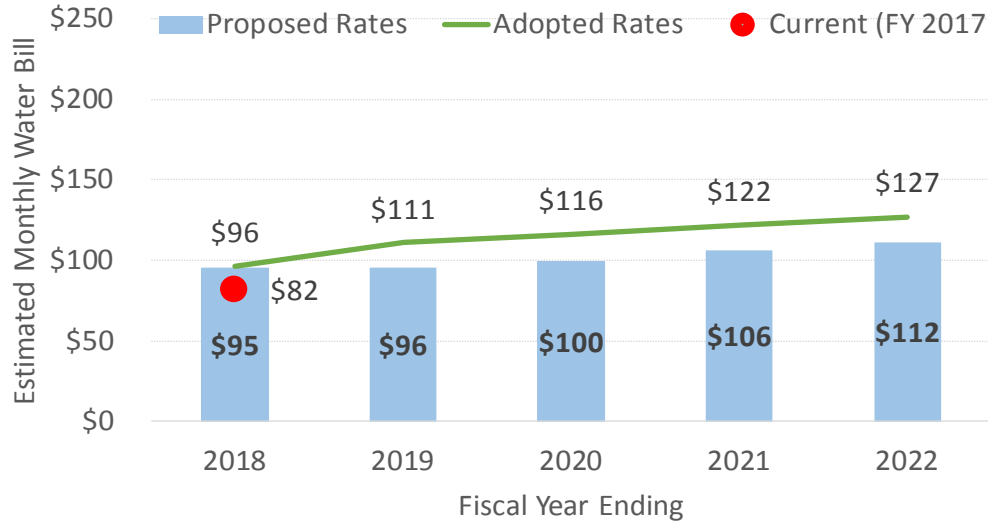
Source: City of St. Helena and HEC.

[1] Estimated costs increased by historical Engineering News Record Construction Cost Index 20-year average increase.

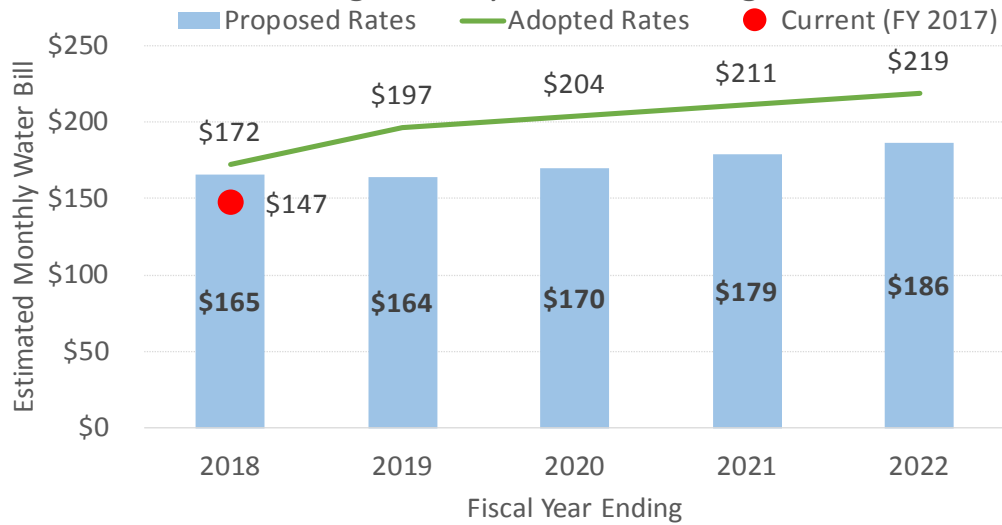
[2] Total Cost Less Existing Funding = Total Cost - Existing Bonds - Existing Grants

Attachment 5
W – 5 Water 1.3 Debt Coverage – 20-year Debt Scenario

Winter Single Family Home Bill using 7 HCF Water



Summer Single Family Home Bill using 17 HCF Water



Attachment 6

W – 6 Water 1.3 Debt Coverage 30-year Debt Scenario

Table 1

Calculated Water Rates through Fiscal Year Ending 2022

DRAFT

30-year Debt Scenario

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge							
Monthly Charges per Meter							
5/8", 3/4" & SF 1"	\$43.22	\$51.71	\$54.17	\$55.45	\$58.68	\$63.34	\$67.61
1"	\$80.08	\$96.76	\$95.91	\$99.09	\$105.83	\$115.23	\$124.01
1.5"	\$141.67	\$172.02	\$165.65	\$172.02	\$184.61	\$201.90	\$218.22
2"	\$215.12	\$261.84	\$248.86	\$259.03	\$278.62	\$305.38	\$330.73
3"	\$413.06	\$503.54	\$472.90	\$493.29	\$531.61	\$583.69	\$633.17
4"	\$640.46	\$780.29	\$729.79	\$761.82	\$821.36	\$902.08	\$978.87
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,486.93	\$1,604.81	\$1,764.43	\$1,916.41
Private Fire Protection							
Monthly Charges per Fire Service Pipe							
4"	\$8.47	\$9.92	\$11.22	\$11.23	\$11.64	\$12.31	\$12.89
6"	\$24.59	\$28.81	\$32.59	\$32.62	\$33.81	\$35.77	\$37.44
8"	\$52.41	\$61.40	\$69.45	\$69.52	\$72.05	\$76.23	\$79.78
Raw Water <i>per Gallon</i>	\$0.00273	\$0.00320	\$0.00313	\$0.00332	\$0.00347	\$0.00365	\$0.00383
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.76	\$5.87	\$6.11	\$6.28
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.40	\$6.53	\$6.79	\$6.98
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.09	\$6.20	\$6.45	\$6.64
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.77	\$6.89	\$7.17	\$7.38

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Attachment 6

W – 6 Water 1.3 Debt Coverage 30-year Debt Scenario

Table 3

City of St. Helena Water Rate Study Projected Water Fund Cashflow		DRAFT										30-year Debt Scenario	
Revenues and Expenses	Billing Period Beginning	2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10		
Revenue													
Water Sales [1]		\$5,650,000	\$5,988,701	\$6,251,302	\$6,585,402	\$6,906,266	\$7,152,926	\$7,417,036	\$7,830,969	\$8,123,501	\$8,429,764		
Investment Earnings		\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000		
Finance Charges		\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925	\$31,925		
Other Revenue		\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206	\$17,206		
Meter Replacement Fee		\$47,612	\$49,139	\$50,715	\$52,341	\$54,019	\$55,750	\$57,537	\$59,381	\$61,283	\$63,247		
Total Revenues		\$5,771,744	\$6,111,971	\$6,376,148	\$6,711,874	\$7,034,416	\$7,282,807	\$7,548,704	\$7,964,481	\$8,258,915	\$8,567,142		
Operating Expenses		\$4,564,287	\$4,618,788	\$4,887,310	\$5,225,440	\$5,300,431	\$5,552,796	\$5,819,093	\$6,100,227	\$6,397,172	\$6,710,977		
Net Revenue before Debt Service and System Rehabilitation		\$1,207,456	\$1,493,183	\$1,488,838	\$1,486,434	\$1,733,985	\$1,730,011	\$1,729,611	\$1,864,253	\$1,861,743	\$1,856,165		
Debt Service		\$995,416	\$1,163,323	\$1,160,860	\$1,159,845	\$1,368,882	\$1,365,526	\$1,366,002	\$1,479,604	\$1,478,177	\$1,472,699		
Debt Service Coverage [2]		1.21	1.28	1.28	1.28	1.27	1.27	1.27	1.26	1.26	1.26		
Net Revenue		\$212,040	\$329,860	\$327,978	\$326,589	\$365,103	\$364,485	\$363,609	\$384,649	\$383,566	\$383,466		
Beginning Balance [3]		\$9,736,527	\$8,141,052	\$5,074,319	\$4,856,109	\$5,178,639	\$5,218,992	\$5,436,720	\$5,668,378	\$5,903,950	\$6,155,332		
Net Revenue		\$212,040	\$329,860	\$327,978	\$326,589	\$365,103	\$364,485	\$363,609	\$384,649	\$383,566	\$383,466		
PAYGO Capital Projects		(\$1,807,515)	(\$3,396,593)	(\$546,188)	(\$4,059)	(\$324,749)	(\$146,758)	(\$131,950)	(\$149,078)	(\$132,184)	(\$115,223)		
Ending Balance		\$8,141,052	\$5,074,319	\$4,856,109	\$5,178,639	\$5,218,992	\$5,436,720	\$5,668,378	\$5,903,950	\$6,155,332	\$6,423,575		
Months of Operating Expenses in Reserve [4]		21.4	13.2	11.9	11.9	11.8	11.7	11.7	11.6	11.5	11.5		

Source: City of St. Helena and HEC.

[1] Rates for FY 2018 calculated as 5 months of current rates plus 7 months of rates implemented December 2017. Rates for all future fiscal years calculated as 4 months of the rates implemented in February of the prior fiscal year plus 8 months of the rates implemented in November of the current fiscal year.

[2] Minimum debt service coverage is 1.20; target is 1.30 to 1.50.

[3] Estimated beginning balance for the operating and capital funds combined per the City 2017/18 Budget.

[4] Target is 10-14 months of operating expenses.

Attachment 6

W – 6 Water 1.3 Debt Coverage 30-year Debt Scenario

Table 4

DRAFT											
30-year Debt Scenario											
Project	Total Cost Less Existing Funding	Fiscal Year Ending									
		2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10
[2]											
Estimated Project Costs (Future \$'s) [1]											
York Creek Upper Dam Removal/Mitigation	\$97,250	\$47,888	\$49,362	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Meadowood Tank Upgrades	\$391,596	\$0	\$391,596	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bell Canyon Reservoir Improvements	\$1,016,061	\$0	\$0	\$0	\$0	\$1,016,061	\$0	\$0	\$0	\$0	\$0
Dwyer Road Booster	\$907,741	\$0	\$0	\$487,900	\$419,840	\$0	\$0	\$0	\$0	\$0	\$0
Bell Valve House Valve Replacement	\$593,950	\$0	\$0	\$0	\$0	\$593,950	\$0	\$0	\$0	\$0	\$0
Holmes Tank Upgrade	\$1,458,730	\$7,542	\$0	\$0	\$1,451,188	\$0	\$0	\$0	\$0	\$0	\$0
Bell Canyon Creek Flow Measurement	\$556,341	\$12,750	\$543,591	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sludge Handling Program	\$159,379	\$0	\$0	\$159,379	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tank 2 Rehabilitation	\$771,244	\$60,000	\$711,244	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pump Station Upgrades	\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Lower York Creek Dam Rehab	\$538,562	\$190,695	\$0	\$0	\$0	\$0	\$347,867	\$0	\$0	\$0	\$0
Bell Canyon Intake Tower Replacement	\$2,469,822	\$923,640	\$1,546,182	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
WTP Condition Assessment	\$164,285	\$0	\$0	\$0	\$164,285	\$0	\$0	\$0	\$0	\$0	\$0
Spill Containment at Bell Creek Intake	\$75,000	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SCADA Improvements (Rutherford & Holmes)	\$159,379	\$0	\$0	\$159,379	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Spill Containment at Stonebridge Well	\$75,000	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Upgrade Rutherford Pump Station	\$529,675	\$0	\$51,539	\$478,136	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Remove Restriction at Rutherford PS	\$153,079	\$50,000	\$103,079	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Update GIS Maps of Water System	\$53,126	\$0	\$0	\$53,126	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Master Plan Update	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replace Mains < 6-Inch Diameter	\$4,828,303	\$0	\$0	\$0	\$438,095	\$677,374	\$698,229	\$719,726	\$741,885	\$764,726	\$788,270
Bell Canyon Spillway Stability Assessment	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bell Canyon Phreatic Surface Monitoring and Assessment	\$65,000	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Estimated Project Costs (Future \$'s)	\$15,513,523	\$1,957,515	\$3,396,593	\$1,337,919	\$2,473,409	\$2,287,384	\$698,229	\$1,067,593	\$741,885	\$764,726	\$788,270
less Ops Cash funded	\$367,412	\$150,000	\$0	\$53,126	\$164,285	\$0	\$0	\$0	\$0	\$0	\$0
Net CIP Project Costs (Future \$'s)	\$15,146,111	\$1,807,515	\$3,396,593	\$1,284,793	\$2,309,123	\$2,287,384	\$698,229	\$1,067,593	\$741,885	\$764,726	\$788,270
Debt-Funded	\$8,391,814	\$0	\$0	\$738,605	\$2,305,064	\$1,962,635	\$551,471	\$935,643	\$592,807	\$632,542	\$673,047
Cash Funded	\$6,754,297	\$1,807,515	\$3,396,593	\$546,188	\$4,059	\$324,749	\$146,758	\$131,950	\$149,078	\$132,184	\$115,223
Total Debt and Cash Funded	\$15,146,111	\$1,807,515	\$3,396,593	\$1,284,793	\$2,309,123	\$2,287,384	\$698,229	\$1,067,593	\$741,885	\$764,726	\$788,270
future c/p											
Source: City of St. Helena and HEC.											
[1] Estimated costs increased by historical Engineering News Record Construction Cost Index 20-year average increase.											
[2] Total Cost Less Existing Funding = Total Cost - Existing Bonds - Existing Grants											

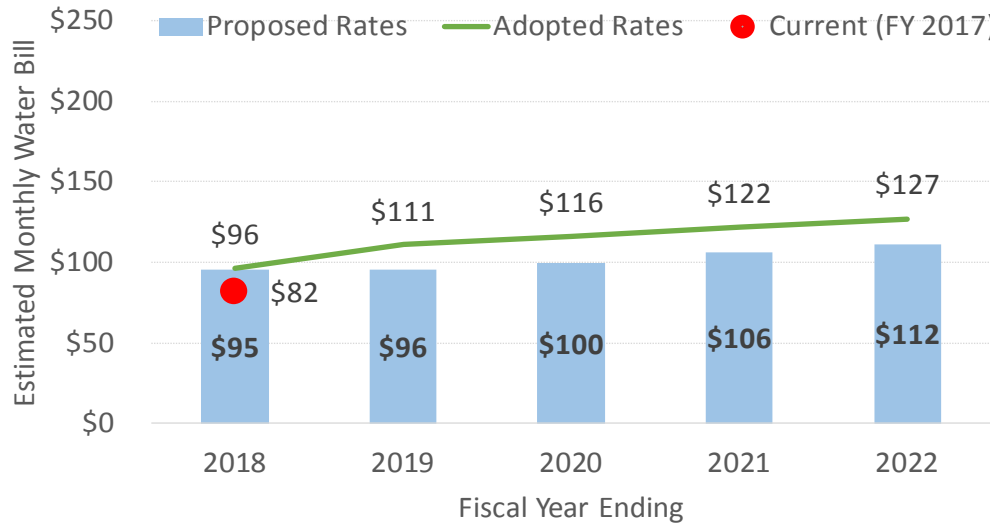
Source: City of St. Helena and HEC.

[1] Estimated costs increased by historical Engineering News Record Construction Cost Index 20-year average increase.

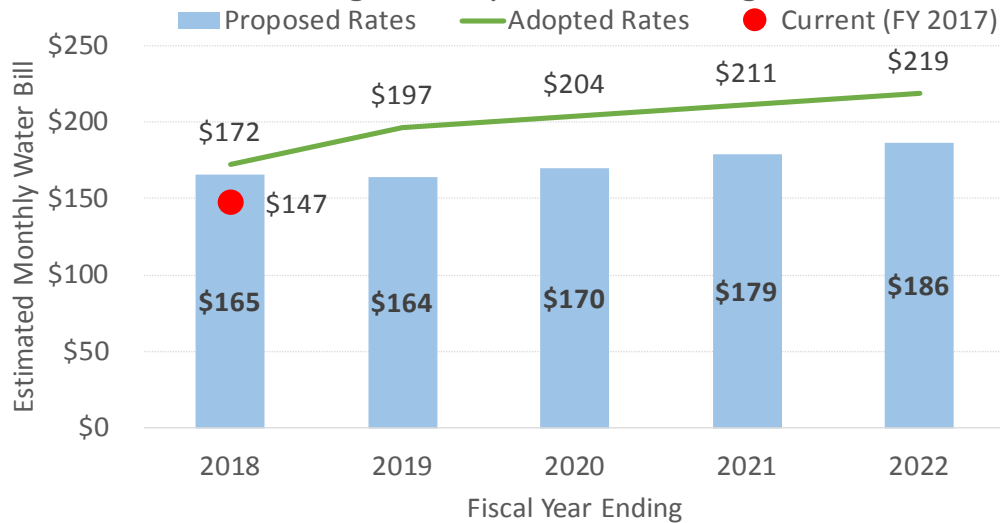
[2] Total Cost Less Existing Funding = Total Cost - Existing Bonds - Existing Grants

future cip

Winter Single Family Home Bill using 7 HCF Water



Summer Single Family Home Bill using 17 HCF Water



Attachment 7
WW – 7 Wastewater 20-year Debt Scenario

Table 1
Calculated Wastewater Rates
20-year Debt Scenario

DRAFT

Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$57.69	\$58.10	\$63.07	\$65.30	\$68.41
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.70	\$4.73	\$5.13	\$5.32	\$5.57
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$80.06	\$80.63	\$87.52	\$90.63	\$94.95
1"	\$102.42	n.a.	n.a.	\$200.16	\$201.59	\$218.81	\$226.56	\$237.37
1.5"	\$202.92	n.a.	n.a.	\$400.31	\$403.17	\$437.62	\$453.13	\$474.74
2"	\$323.53	n.a.	n.a.	\$640.50	\$645.08	\$700.19	\$725.01	\$759.58
3"	\$604.94	n.a.	n.a.	\$1,280.99	\$1,290.15	\$1,400.39	\$1,450.01	\$1,519.16
4"	\$1,006.96	n.a.	n.a.	\$2,001.55	\$2,015.86	\$2,188.11	\$2,265.64	\$2,373.69
6"	\$2,012.00	n.a.	n.a.	\$4,003.10	\$4,031.72	\$4,376.22	\$4,531.29	\$4,747.39
Use Charge per HCF								
	<i>every month</i>	<i>avg. winter month</i>	<i>avg. winter month</i>	<i>Rate applied to metered water use each month [1]</i>				
Car Wash	\$2.85	n.a.	n.a.	\$3.24	\$3.27	\$3.55	\$3.67	\$3.85
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.61	\$3.63	\$3.95	\$4.09	\$4.28
Commercial [2]	\$3.64	n.a.	n.a.	\$4.26	\$4.29	\$4.66	\$4.82	\$5.05
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$11.45	\$11.53	\$12.52	\$12.96	\$13.58
Laundry	\$3.34	n.a.	n.a.	\$3.72	\$3.75	\$4.07	\$4.21	\$4.41
Mixed Retail	\$6.79	n.a.	n.a.	\$7.16	\$7.21	\$7.83	\$8.11	\$8.49
Lodging with Food	\$8.75	n.a.	n.a.	\$8.59	\$8.66	\$9.40	\$9.73	\$10.19
Lodging without Food	\$4.35	n.a.	n.a.	\$4.66	\$4.69	\$5.10	\$5.28	\$5.53
Restaurant	\$11.68	n.a.	n.a.	\$11.35	\$11.43	\$12.41	\$12.85	\$13.46
Napa Valley College	\$3.64	n.a.	n.a.	\$3.55	\$3.57	\$3.88	\$4.02	\$4.21
Service Station	\$4.70	n.a.	n.a.	\$4.91	\$4.94	\$5.36	\$5.55	\$5.82
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.54	\$4.57	\$4.96	\$5.13	\$5.38
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.09	\$22.90	\$23.70	\$24.83
Schools	\$3.17	n.a.	n.a.	\$1.76	\$1.78	\$1.93	\$2.00	\$2.09

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.

Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

Attachment 7
WW – 7 Wastewater 20-year Debt Scenario

Table 3
Projected Wastewater Fund Cash Flow
20-year Debt Scenario

DRAFT

Revenues and Expenses	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Operating Revenues	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Charges for Services [1]	\$3,134,929	\$3,558,144	\$3,913,959	\$4,129,227	\$4,335,688	\$4,465,759	\$4,599,731	\$4,737,723	\$4,879,855	\$5,026,251
Growth in Services	\$4,852	\$5,507	\$6,058	\$6,391	\$6,711	\$6,912	\$7,119	\$7,333	\$7,553	\$7,780
Total Sewer Sales	\$3,139,781	\$3,563,651	\$3,920,017	\$4,135,618	\$4,342,399	\$4,472,671	\$4,606,850	\$4,745,056	\$4,887,408	\$5,034,031
Investment Earnings	\$4,613	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Finance Charges	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754
Sewer Connection Fee	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Operating Revenues	\$3,167,148	\$3,585,405	\$3,941,771	\$4,157,372	\$4,364,152	\$4,494,425	\$4,628,604	\$4,766,810	\$4,909,162	\$5,055,784
Operating Expenses	\$2,378,968	\$2,350,625	\$2,426,345	\$2,561,219	\$2,704,213	\$2,855,872	\$3,016,782	\$3,187,572	\$3,368,920	\$3,561,558
Operating Revenue before Capital Improvements and Debt Service	\$788,180	\$1,234,780	\$1,515,426	\$1,596,153	\$1,659,939	\$1,638,552	\$1,611,822	\$1,573,238	\$1,540,241	\$1,494,226
Debt Service	\$253,904	\$916,905	\$912,927	\$912,598	\$1,132,680	\$1,130,400	\$1,132,694	\$1,128,948	\$1,129,735	\$1,133,754
<i>Debt Service Coverage [2]</i>	3.1	1.3	1.7	1.7	1.5	1.4	1.4	1.4	1.4	1.3
Net Revenues (Deficit)	\$534,276	\$317,875	\$602,499	\$683,555	\$527,259	\$508,152	\$479,128	\$450,290	\$410,506	\$360,472
Beginning Fund Balance [3]	\$2,408,652	\$1,041,768	\$1,318,411	\$1,371,430	\$1,613,605	\$1,665,481	\$1,703,811	\$1,877,056	\$2,141,874	\$2,361,199
Net Revenues (Deficit)	\$534,276	\$317,875	\$602,499	\$683,555	\$527,259	\$508,152	\$479,128	\$450,290	\$410,506	\$360,472
PAYGO Capital Projects	(\$1,901,160)	(\$41,232)	(\$549,480)	(\$441,380)	(\$475,383)	(\$469,822)	(\$305,883)	(\$185,471)	(\$191,181)	(\$197,067)
Ending Fund Balance	\$1,041,768	\$1,318,411	\$1,371,430	\$1,613,605	\$1,665,481	\$1,703,811	\$1,877,056	\$2,141,874	\$2,361,199	\$2,524,604
<i>Months of Operating Expenses in Reserve [4]</i>	5.3	6.7	6.8	7.6	7.4	7.2	7.5	8.1	8.4	8.5

Source: HEC.

[1] Rates for FY 2018 calculated as 5 months of current rates plus 7 months of rates implemented December 2017. Rates for all future fiscal years calculated as 4 months of the rates implemented the prior November plus 8 months of the rates implemented in November of the current fiscal year.

[2] Minimum debt service coverage is 1.20; target is 1.30 to 1.50.

[3] Estimated beginning balance for the operating and capital funds combined per the City 2017/18 Budget.

[4] Target is 6-8 months of operating expenses.

Attachment 7
WW – 7 Wastewater 20-year Debt Scenario

DRAFT

Table 5
Wastewater Capital Improvements Schedule in Future \$'s - 20-year Debt Scenario

Project	Funding Source	Total Cost	2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10
Estimated Project Costs (Future \$'s) [1]												
Sewer Collection System												
Replace 1% of Sewer Mains Annually	Cash/Debt	\$1,725,834	\$150,000	\$154,618	\$159,379	\$164,285	\$169,343	\$174,557	\$179,931	\$185,471	\$191,181	\$197,067
Crinella Pump Station Upgrades	Cash/Debt	\$528,882	\$0	\$77,309	\$451,573	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Add Sewer Pump Stations to SCADA	Cash/Debt	\$167,657	\$0	\$0	\$0	\$54,762	\$112,896	\$0	\$0	\$0	\$0	\$0
Wet Weather Flow Monitoring	Ops Cash	\$51,539	\$0	\$51,539	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Update GIS Maps of Sewer System	Ops Cash	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sewer Master Plan	Ops Cash	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replace Rodding Machine	Ops Cash	\$41,232	\$0	\$41,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CCTV Program	Ops Cash	\$174,583	\$15,000	\$15,462	\$15,938	\$16,429	\$16,934	\$17,456	\$17,993	\$18,547	\$19,118	\$19,707
Subtotal Sewer Collection		\$2,887,728	\$365,000	\$340,160	\$626,889	\$235,476	\$299,173	\$192,013	\$197,925	\$204,018	\$210,300	\$216,774
Treatment Plant												
WWTP Upgrades Ph. 1	Cash/Debt	\$8,233,628	\$1,386,406	\$3,371,707	\$3,475,515	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reclamation Field Improvements	Cash/Debt/Impact Fees	\$1,451,692	\$28,840	\$700,936	\$722,516	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pond 2 & 3 Levee	Cash/Debt	\$121,847	\$60,000	\$61,847	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Facilities Automation	Cash/Debt	\$144,000	\$144,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Well	Cash/Debt	\$65,000	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sludge Removal	Cash/Debt	\$152,309	\$75,000	\$77,309	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Recycled Water Feasibility Study	Cash/Debt/Impact Fees	\$84,672	\$0	\$0	\$0	\$0	\$84,672	\$0	\$0	\$0	\$0	\$0
Temp Trailer at WRF	Cash/Debt	\$30,441	\$8,000	\$3,092	\$3,188	\$3,286	\$3,387	\$3,491	\$5,998	\$0	\$0	\$0
Replace WRF Operations Building and Shop	Cash/Debt	\$3,449,538	\$0	\$0	\$0	\$109,524	\$1,128,957	\$2,211,058	\$0	\$0	\$0	\$0
Upgrade Chemical Storage Facilities	Cash/Debt	\$581,857	\$0	\$0	\$0	\$0	\$0	\$581,857	\$0	\$0	\$0	\$0
Phase 2 WWTP Upgrades	Cash/Debt	\$458,745	\$0	\$0	\$0	\$109,524	\$112,896	\$116,371	\$119,954	\$0	\$0	\$0
Subtotal Treatment Plant		\$14,773,730	\$1,766,446	\$4,214,892	\$4,201,219	\$222,333	\$1,329,511	\$2,312,778	\$125,952	\$0	\$0	\$0
Total Estimated Project Costs (Future \$'s)												
Operating Costs		\$17,661,458	\$2,131,646	\$4,555,052	\$4,828,107	\$457,809	\$1,629,084	\$3,104,791	\$323,877	\$204,018	\$210,300	\$216,774
Impact Fee Funded		\$424,123	\$215,000	\$67,001	\$15,938	\$16,429	\$16,934	\$17,456	\$17,993	\$18,547	\$19,118	\$19,707
Net Project Costs		\$16,854,206	\$1,901,160	\$4,297,403	\$4,635,174	\$441,380	\$1,612,150	\$3,087,335	\$305,883	\$185,471	\$191,181	\$197,067
Debt Funded		\$12,096,145	\$0	\$4,256,171	\$4,085,694	\$0	\$1,136,767	\$2,617,513	\$0	\$0	\$0	\$0
Cash Funded		\$4,758,061	\$1,901,160	\$41,232	\$549,480	\$441,380	\$475,383	\$469,822	\$305,883	\$185,471	\$191,181	\$197,067
Total Debt and Cash Funded [2]		\$16,854,206	\$1,901,160	\$4,297,403	\$4,635,174	\$441,380	\$1,612,150	\$3,087,335	\$305,883	\$185,471	\$191,181	\$197,067

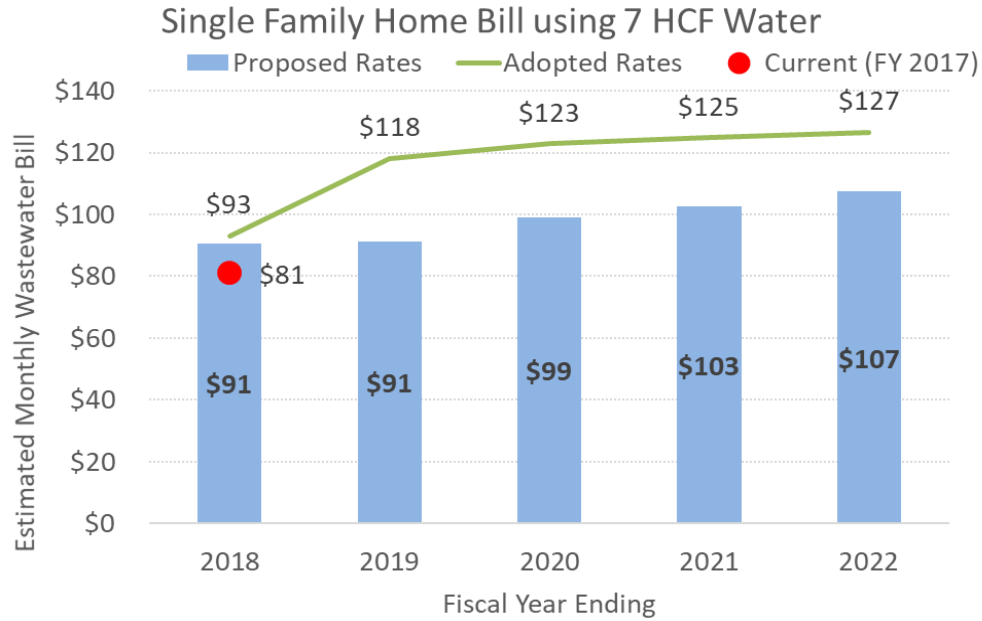
Source: City of St. Helena and HEC.

[1] Estimated costs increased by historical ENR Construction Cost Index 20 year average increase.

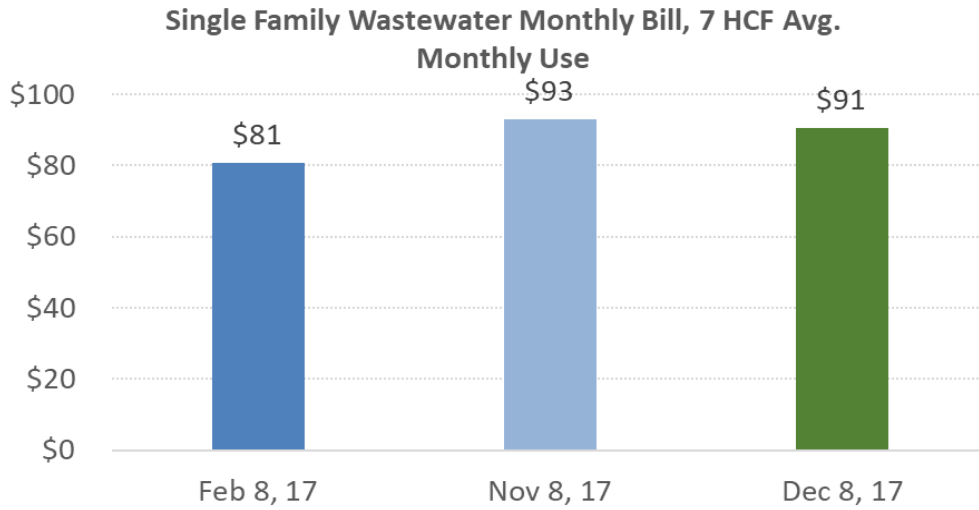
[2] Totals do not exactly match due to rounding.

Attachment 7
WW – 7 Wastewater 20-year Debt Scenario

20-year Debt Scenario

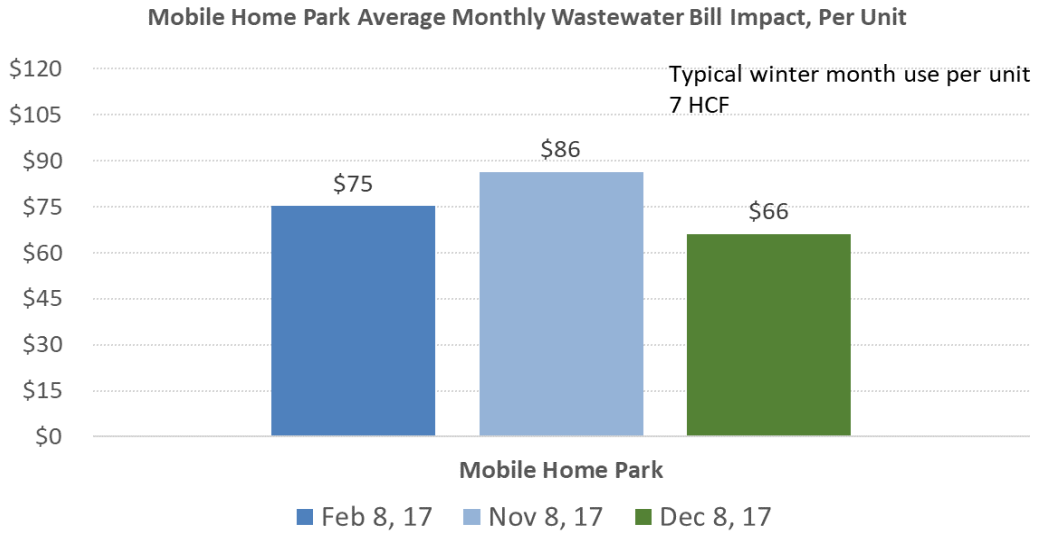


20-year Debt Scenario

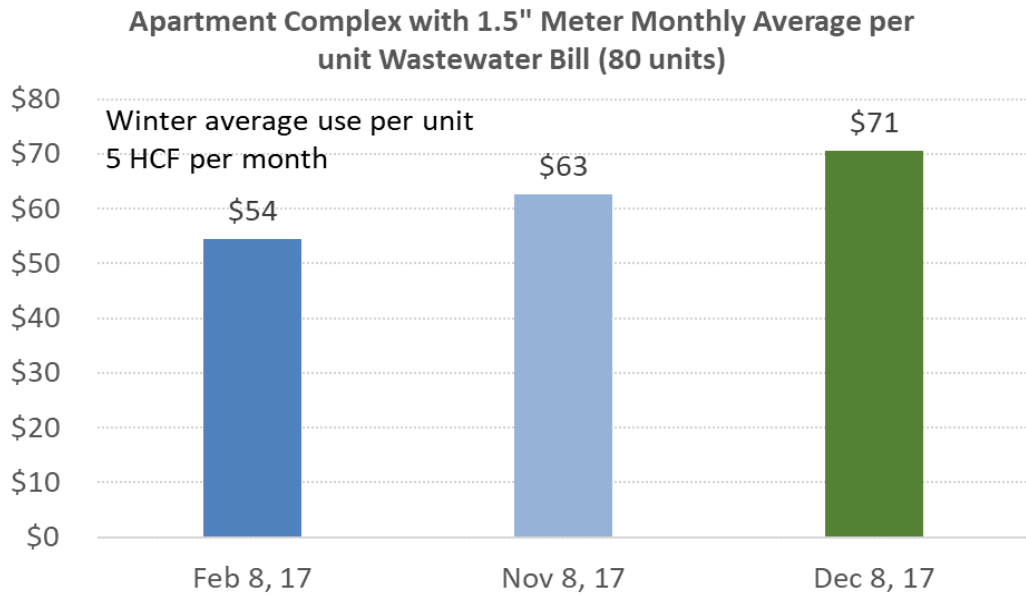


Attachment 7
WW – 7 Wastewater 20-year Debt Scenario

20-year Debt Scenario

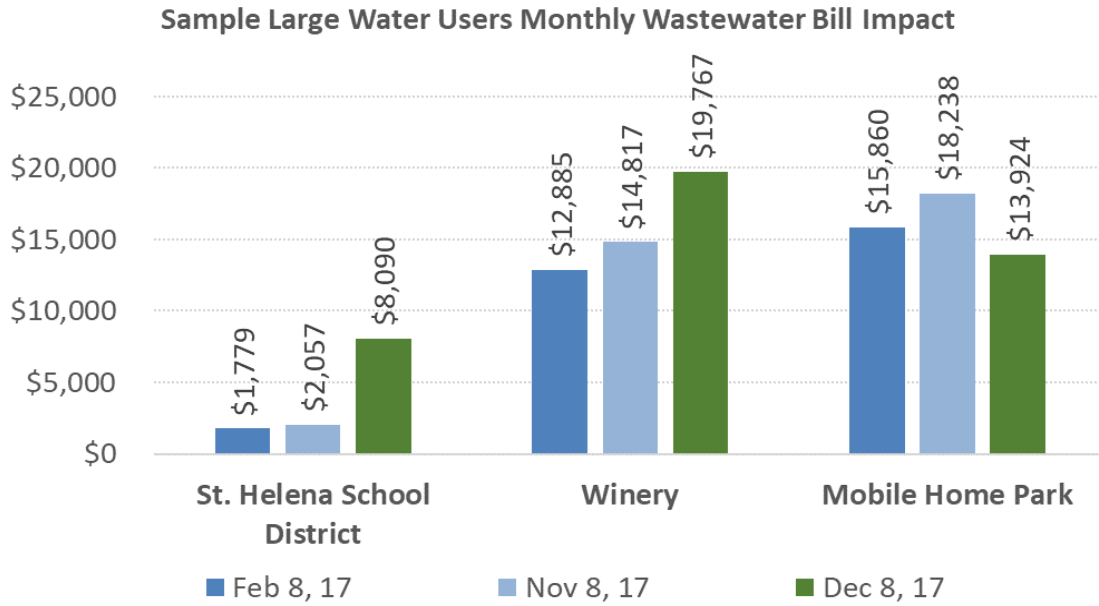


20-year Debt Scenario

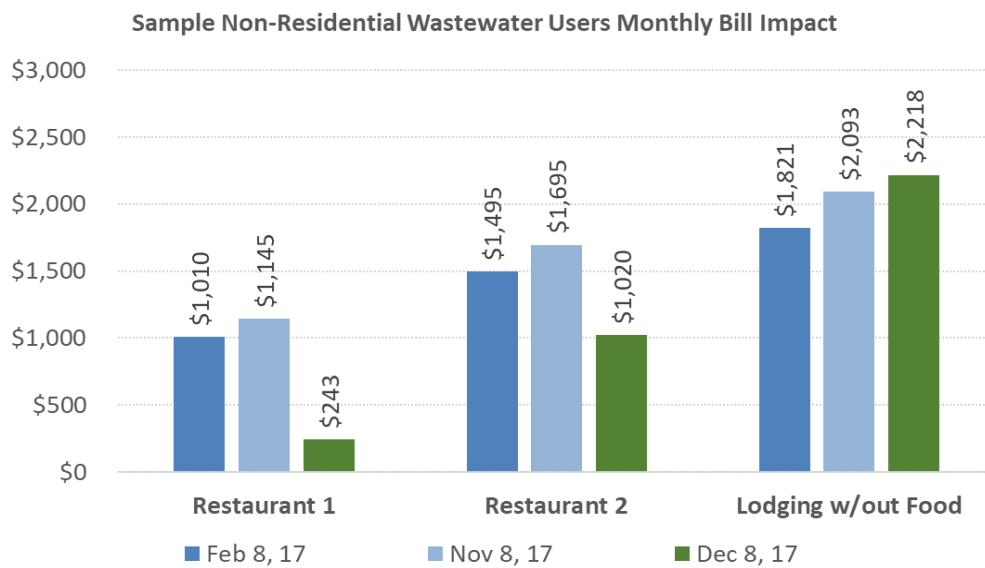


Attachment 7
WW – 7 Wastewater 20-year Debt Scenario

20-year Debt Scenario

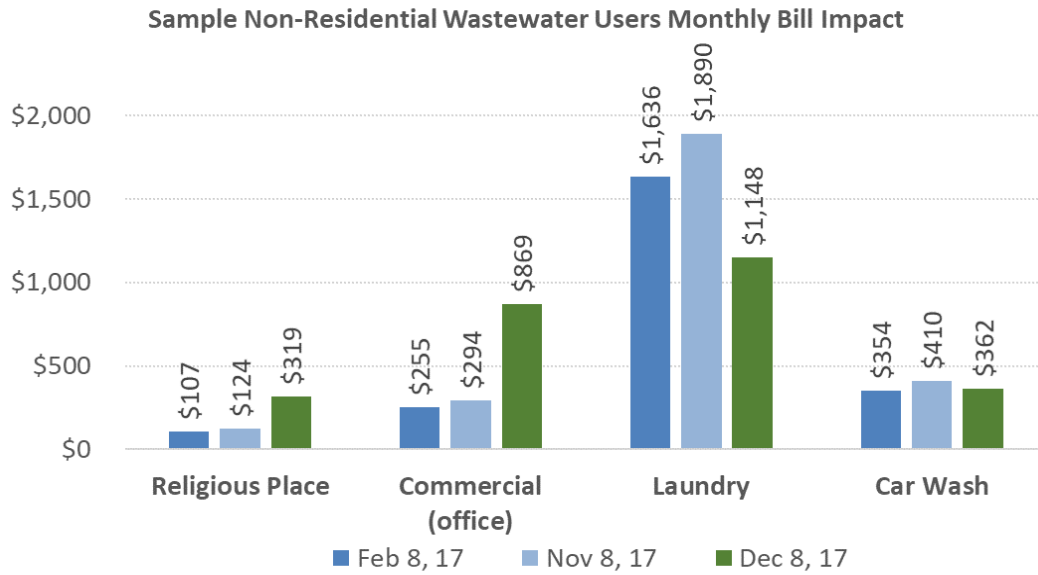


20-year Debt Scenario



Attachment 7
WW – 7 Wastewater 20-year Debt Scenario

20-year Debt Scenario



Attachment 8
WW – 8 Wastewater 30-year Debt Scenario

Table 2
Calculated Wastewater Rates
30-year Debt Scenario

DRAFT

Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$56.10	\$56.50	\$58.93	\$60.91	\$63.66
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.92	\$4.96	\$5.17	\$5.34	\$5.58
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$77.86	\$78.41	\$81.78	\$84.54	\$88.34
1"	\$102.42	n.a.	n.a.	\$194.64	\$196.03	\$204.46	\$211.35	\$220.86
1.5"	\$202.92	n.a.	n.a.	\$389.29	\$392.07	\$408.92	\$422.69	\$441.71
2"	\$323.53	n.a.	n.a.	\$622.86	\$627.31	\$654.27	\$676.31	\$706.74
3"	\$604.94	n.a.	n.a.	\$1,245.72	\$1,254.62	\$1,308.54	\$1,352.62	\$1,413.49
4"	\$1,006.96	n.a.	n.a.	\$1,946.43	\$1,960.35	\$2,044.59	\$2,113.46	\$2,208.57
6"	\$2,012.00	n.a.	n.a.	\$3,892.86	\$3,920.69	\$4,089.18	\$4,226.93	\$4,417.14
Use Charge per HCF								
	<i>every month</i>	<i>avg. winter month</i>	<i>avg. winter month</i>	<i>Rate applied to metered water use each month [1]</i>				
Car Wash	\$2.85	n.a.	n.a.	\$3.40	\$3.42	\$3.57	\$3.69	\$3.86
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.78	\$3.81	\$3.97	\$4.11	\$4.29
Commercial [2]	\$3.64	n.a.	n.a.	\$4.46	\$4.50	\$4.69	\$4.85	\$5.07
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$12.00	\$12.09	\$12.61	\$13.03	\$13.62
Laundry	\$3.34	n.a.	n.a.	\$3.90	\$3.93	\$4.09	\$4.23	\$4.42
Mixed Retail	\$6.79	n.a.	n.a.	\$7.51	\$7.56	\$7.88	\$8.15	\$8.52
Lodging with Food	\$8.75	n.a.	n.a.	\$9.01	\$9.07	\$9.46	\$9.78	\$10.22
Lodging without Food	\$4.35	n.a.	n.a.	\$4.89	\$4.92	\$5.13	\$5.30	\$5.54
Restaurant	\$11.68	n.a.	n.a.	\$11.90	\$11.98	\$12.50	\$12.92	\$13.50
Napa Valley College	\$3.64	n.a.	n.a.	\$3.72	\$3.75	\$3.91	\$4.04	\$4.22
Service Station	\$4.70	n.a.	n.a.	\$5.14	\$5.18	\$5.40	\$5.58	\$5.83
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.75	\$4.79	\$4.99	\$5.16	\$5.39
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.09	\$21.99	\$22.73	\$23.75
Schools	\$3.17	n.a.	n.a.	\$1.85	\$1.86	\$1.94	\$2.01	\$2.10

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.

Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

Attachment 8
WW – 8 Wastewater 30-year Debt Scenario

Table 4
Projected Wastewater Fund Cash Flow
30-year Debt Scenario

DRAFT

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
Revenues and Expenses											
Operating Revenues											
Charges for Services [1]	\$3,134,929	\$3,558,144	\$3,807,215	\$3,978,539	\$4,157,573	\$4,282,301	\$4,410,770	\$4,543,093	\$4,679,386	\$4,819,767	
Growth in Services	\$4,852	\$5,507	\$5,893	\$6,158	\$6,435	\$6,628	\$6,827	\$7,032	\$7,243	\$7,460	
Total Sewer Sales	\$3,139,781	\$3,563,651	\$3,813,108	\$3,984,697	\$4,164,008	\$4,288,929	\$4,417,597	\$4,550,125	\$4,686,629	\$4,827,227	
Investment Earnings	\$4,613	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Finance Charges	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	
Sewer Connection Fee	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Operating Revenues	\$3,167,148	\$3,585,405	\$3,834,861	\$4,006,451	\$4,185,762	\$4,310,683	\$4,439,351	\$4,571,878	\$4,708,382	\$4,848,981	
Operating Expenses	\$2,378,968	\$2,350,625	\$2,426,345	\$2,561,219	\$2,704,213	\$2,855,872	\$3,016,782	\$3,187,572	\$3,368,920	\$3,561,558	
Operating Revenue before Capital Improvements and Debt Service	\$788,180	\$1,234,780	\$1,408,517	\$1,445,232	\$1,481,549	\$1,454,810	\$1,422,569	\$1,384,306	\$1,339,462	\$1,287,423	
Debt Service	\$253,904	\$733,280	\$733,002	\$736,560	\$978,892	\$981,038	\$977,869	\$979,348	\$980,498	\$980,304	
<i>Debt Service Coverage [2]</i>	3.1	1.7	1.9	2.0	1.5	1.5	1.5	1.4	1.4	1.3	
Net Revenues (Deficit)	\$534,276	\$501,500	\$675,515	\$708,672	\$502,657	\$473,772	\$444,700	\$404,958	\$358,964	\$307,119	
Beginning Fund Balance [3]	\$2,408,652	\$1,041,768	\$1,502,036	\$1,371,265	\$1,638,556	\$1,664,807	\$1,702,852	\$1,841,668	\$2,061,156	\$2,228,938	
Net Revenues (Deficit)	\$534,276	\$501,500	\$675,515	\$708,672	\$502,657	\$473,772	\$444,700	\$404,958	\$358,964	\$307,119	
PAYGO Capital Projects	(\$1,901,160)	(\$41,232)	(\$806,286)	(\$441,380)	(\$476,406)	(\$435,727)	(\$305,883)	(\$185,471)	(\$191,181)	(\$197,067)	
Ending Fund Balance	\$1,041,768	\$1,502,036	\$1,371,265	\$1,638,556	\$1,664,807	\$1,702,852	\$1,841,668	\$2,061,156	\$2,228,938	\$2,338,989	
<i>Months of Operating Expenses in Reserve [4]</i>	5.3	7.7	6.8	7.7	7.4	7.2	7.3	7.8	7.9	7.9	

Source: HEC.

[1] Rates for FY 2018 calculated as 5 months of current rates plus 7 months of rates implemented December 2017. Rates for all future fiscal years calculated as 4 months of the rates implemented the prior November plus 8 months of the rates implemented in November of the current fiscal year.

[2] Minimum debt service coverage is 1.20; target is 1.30 to 1.50.

[3] Estimated beginning balance for the operating and capital funds combined per the City 2017/18 Budget.

[4] Target is 6-8 months of operating expenses.

Attachment 8
WW – 8 Wastewater 30-year Debt Scenario

Table 6
Wastewater Capital Improvements Schedule in Future \$'s
30-year Debt Scenario

DRAFT

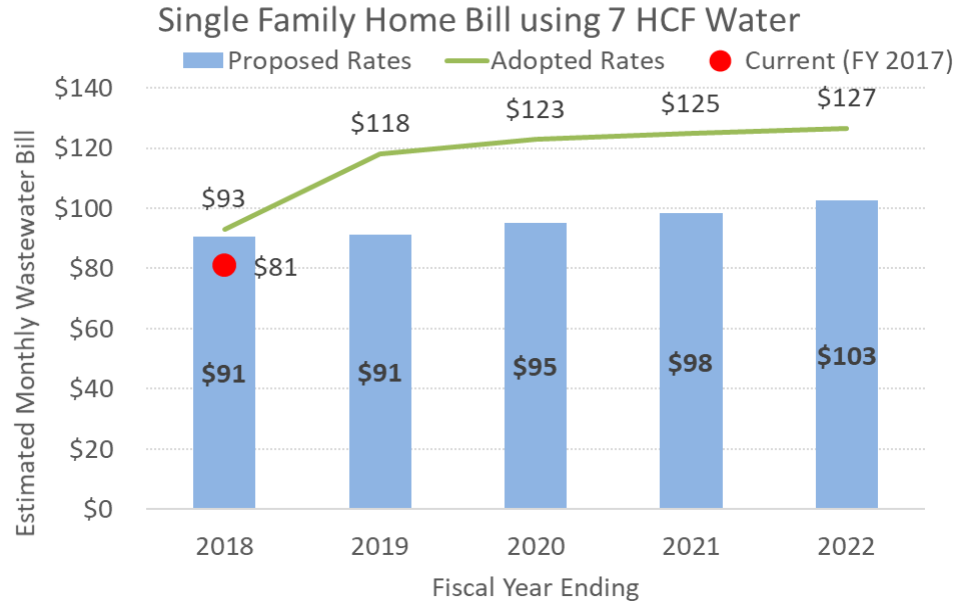
Project	Funding Source	Total Cost	2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10
Estimated Project Costs (Future \$'s) [1]												
Sewer Collection System												
Replace 1% of Sewer Mains Annually	Cash/Debt	\$1,725,834	\$150,000	\$154,618	\$159,379	\$164,285	\$169,343	\$174,557	\$179,931	\$185,471	\$191,181	\$197,067
Crinella Pump Station Upgrades	Cash/Debt	\$528,882	\$0	\$77,309	\$451,573	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Add Sewer Pump Stations to SCADA	Cash/Debt	\$167,657	\$0	\$0	\$0	\$54,762	\$112,896	\$0	\$0	\$0	\$0	\$0
Wet Weather Flow Monitoring	Ops Cash	\$51,539	\$0	\$51,539	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Update GIS Maps of Sewer System	Ops Cash	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sewer Master Plan	Ops Cash	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replace Rodding Machine	Ops Cash	\$41,232	\$0	\$41,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CCTV Program	Ops Cash	\$172,583	\$15,000	\$15,462	\$15,938	\$16,429	\$16,934	\$17,456	\$17,993	\$18,547	\$19,118	\$19,707
Subtotal Sewer Collection		\$2,887,728	\$365,000	\$340,160	\$626,889	\$235,476	\$299,173	\$192,013	\$197,925	\$204,018	\$210,300	\$216,774
Treatment Plant												
WWTP Upgrades Ph. 1	Cash/Debt	\$8,233,628	\$1,386,406	\$3,371,707	\$3,475,515	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reclamation Field Improvements	Cash/Debt/Impact Fees	\$1,451,692	\$28,240	\$700,936	\$722,516	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pond 2 & 3 Levee	Cash/Debt	\$121,847	\$60,000	\$61,847	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Facilities Automation	Cash/Debt	\$144,000	\$144,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Well	Cash/Debt	\$65,000	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sludge Removal	Cash/Debt/Impact Fees	\$152,309	\$75,000	\$77,309	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Recycled Water Feasibility Study	Cash/Debt	\$84,672	\$0	\$0	\$0	\$84,672	\$0	\$0	\$0	\$0	\$0	\$0
Temp Trailer at WRF	Cash/Debt	\$30,441	\$8,000	\$3,092	\$3,188	\$3,286	\$3,387	\$3,491	\$5,998	\$0	\$0	\$0
Replace WRF Operations Building and Shop	Cash/Debt	\$3,449,538	\$0	\$0	\$0	\$109,524	\$1,128,957	\$2,211,058	\$0	\$0	\$0	\$0
Upgrade Chemical Storage Facilities	Cash/Debt	\$581,857	\$0	\$0	\$0	\$0	\$0	\$581,857	\$0	\$0	\$0	\$0
Phase 2 WWTP Upgrades	Cash/Debt	\$458,745	\$0	\$0	\$0	\$109,524	\$112,896	\$116,371	\$119,954	\$0	\$0	\$0
Subtotal Treatment Plant		\$14,773,730	\$1,766,646	\$4,214,892	\$4,201,219	\$222,333	\$1,329,911	\$2,912,778	\$125,952	\$0	\$0	\$0
Total Estimated Project Costs (Future \$'s)		\$17,661,458	\$2,131,646	\$4,555,052	\$4,828,107	\$457,809	\$1,629,084	\$3,104,791	\$323,877	\$204,018	\$210,300	\$216,774
Operating Costs		\$424,123	\$215,000	\$67,001	\$15,938	\$16,429	\$16,934	\$17,456	\$17,993	\$18,547	\$19,118	\$19,707
Impact Fee Funded		\$383,129	\$15,486	\$190,648	\$176,996	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Project Costs		\$16,854,206	\$1,901,160	\$4,297,403	\$4,635,174	\$441,380	\$1,612,150	\$3,087,335	\$305,883	\$185,471	\$191,181	\$197,067
Debt Funded		\$11,872,411	\$0	\$4,256,171	\$3,828,888	\$0	\$1,135,744	\$2,651,608	\$0	\$0	\$0	\$0
Cash Funded		\$4,981,795	\$1,901,160	\$41,232	\$806,286	\$441,380	\$476,406	\$435,727	\$305,883	\$185,471	\$191,181	\$197,067
Total Debt and Cash Funded [2]		\$16,854,206	\$1,901,160	\$4,297,403	\$4,635,174	\$441,380	\$1,612,150	\$3,087,335	\$305,883	\$185,471	\$191,181	\$197,067

future cap

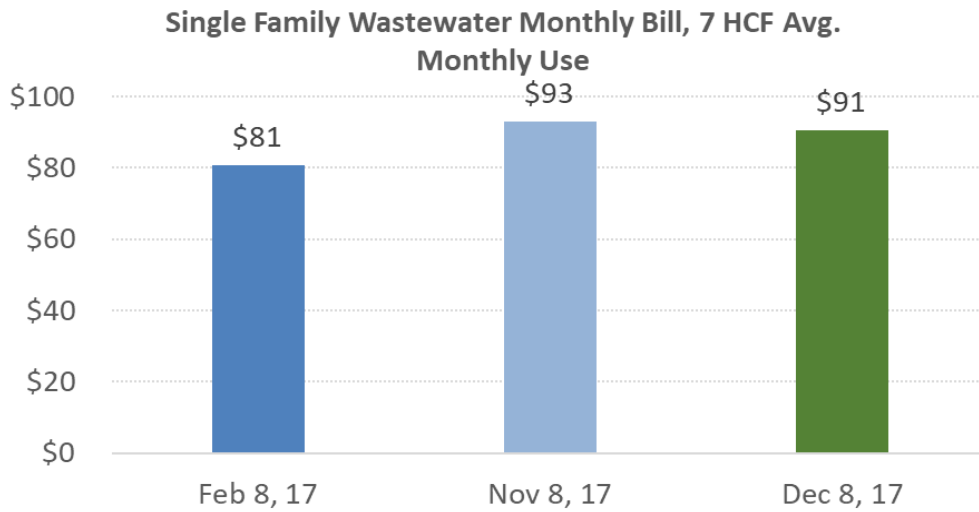
Source: City of St. Helene and JEC.
[1] Estimated costs increased by historical ENR Construction Cost Index 20 year average increase.
[2] Totals do not exactly match due to rounding.

Attachment 8
WW – 8 Wastewater 30-year Debt Scenario

30-year Debt Scenario

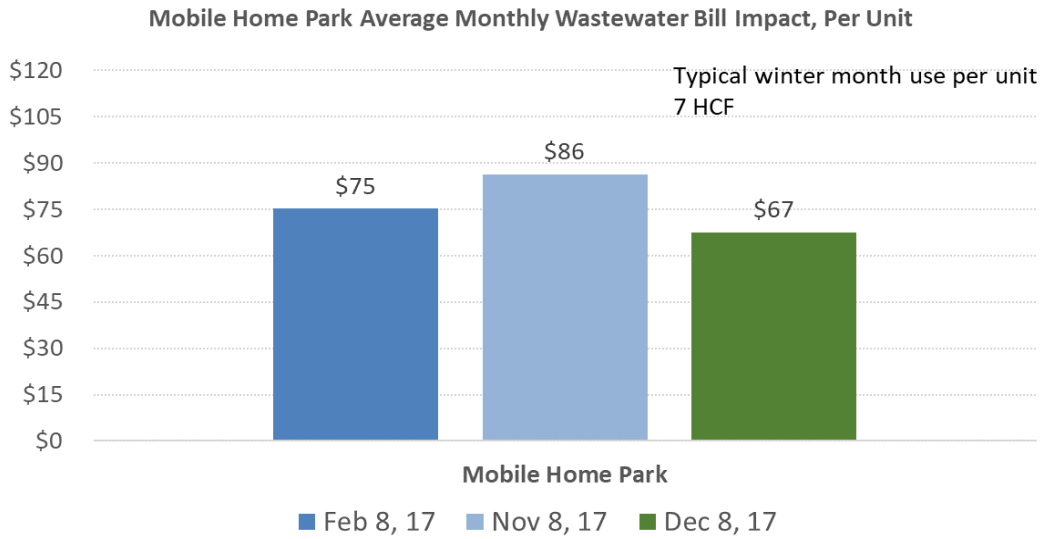


30-year Debt Scenario

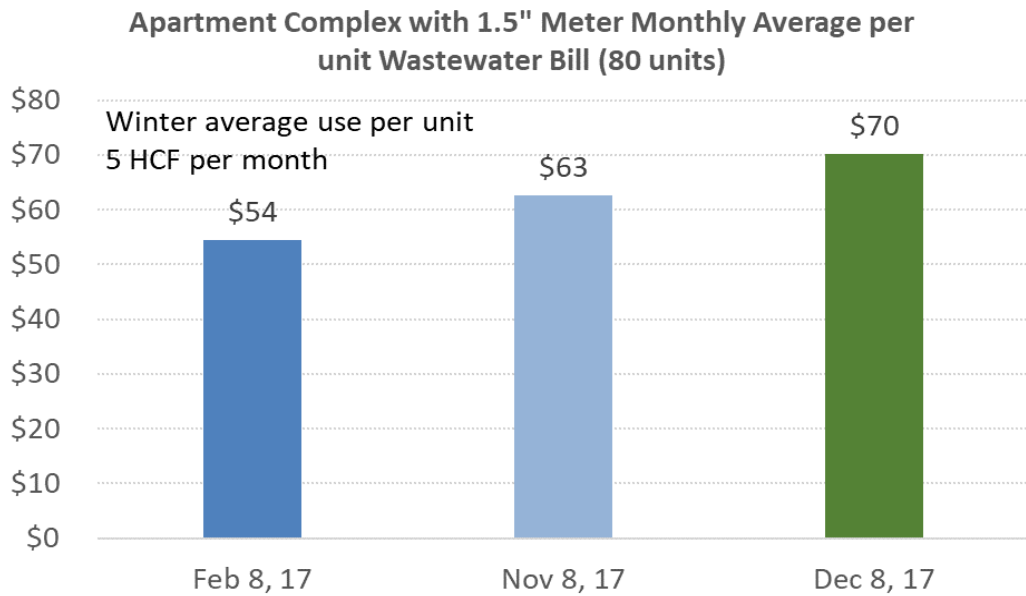


Attachment 8
WW – 8 Wastewater 30-year Debt Scenario

30-year Debt Scenario

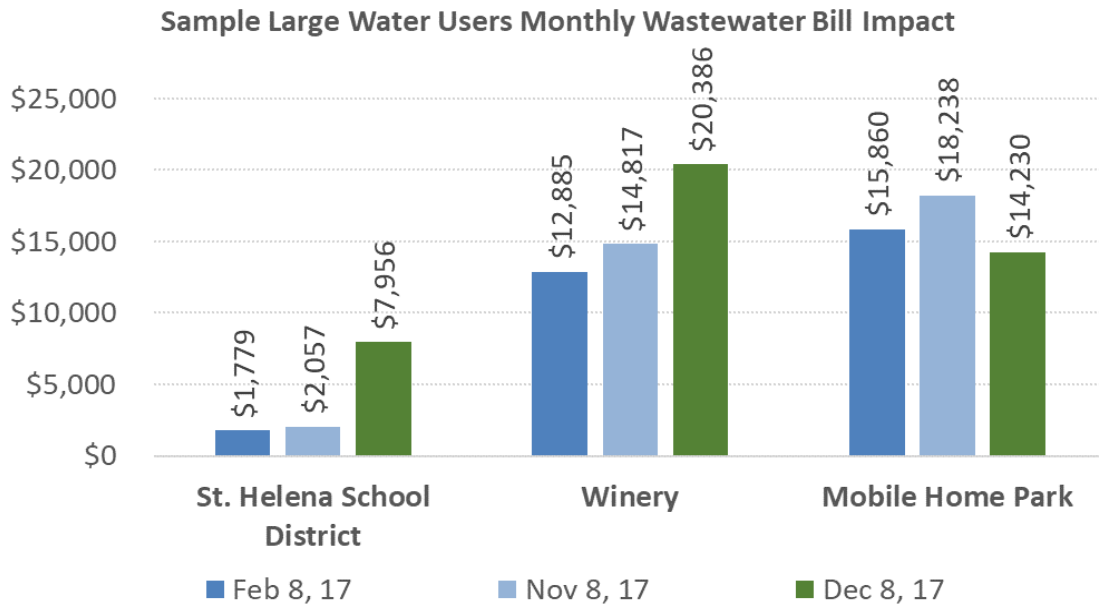


30-year Debt Scenario



Attachment 8
WW – 8 Wastewater 30-year Debt Scenario

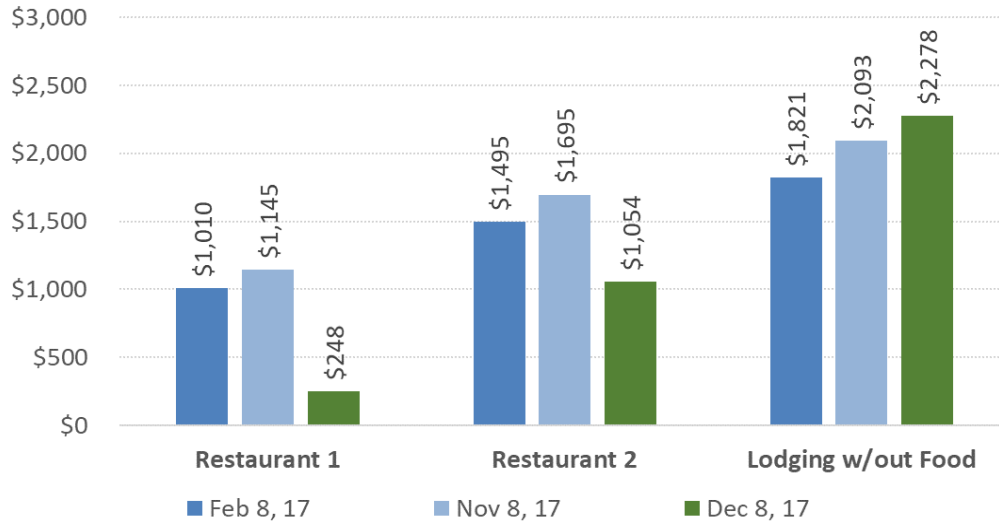
30-year Debt Scenario



Attachment 8
WW – 8 Wastewater 30-year Debt Scenario

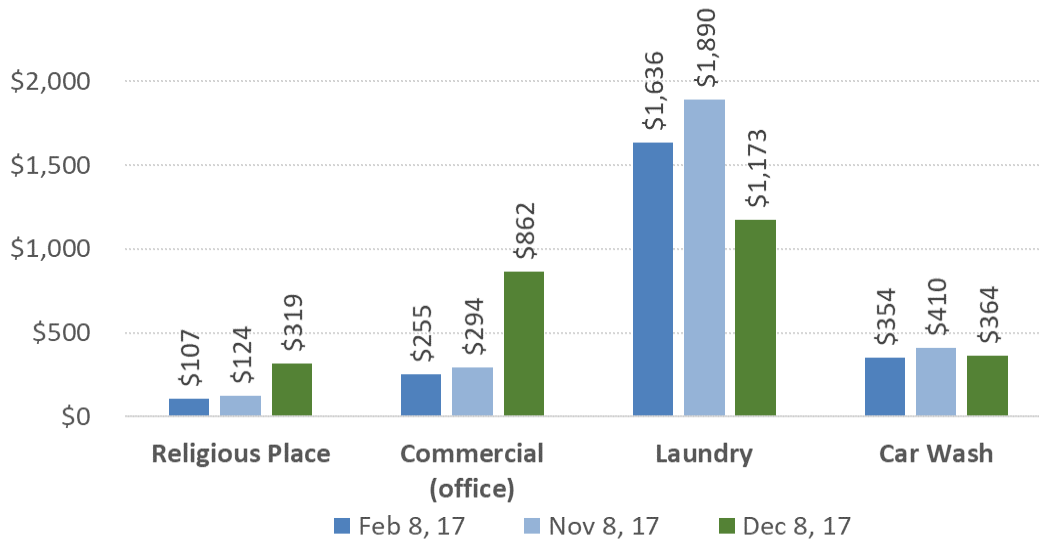
30-year Debt Scenario

Sample Non-Residential Wastewater Users Monthly Bill Impact



30-year Debt Scenario

Sample Non-Residential Wastewater Users Monthly Bill Impact



Attachment 9

WW – 9 Wastewater 1.3 Debt Coverage 20-year Debt Scenario

Table 1

DRAFT

Calculated Wastewater Rates				20-year Debt Scenario				
Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$60.96	\$61.92	\$60.13	\$62.75	\$73.19
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.23	\$4.30	\$4.17	\$4.36	\$5.08
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$84.60	\$85.93	\$83.45	\$87.09	\$101.57
1"	\$102.42	n.a.	n.a.	\$211.50	\$214.82	\$208.62	\$217.73	\$253.94
1.5"	\$202.92	n.a.	n.a.	\$423.01	\$429.64	\$417.24	\$435.46	\$507.87
2"	\$323.53	n.a.	n.a.	\$676.81	\$687.43	\$667.58	\$696.73	\$812.59
3"	\$604.94	n.a.	n.a.	\$1,353.62	\$1,374.86	\$1,335.16	\$1,393.46	\$1,625.19
4"	\$1,006.96	n.a.	n.a.	\$2,115.04	\$2,148.22	\$2,086.19	\$2,177.28	\$2,539.35
6"	\$2,012.00	n.a.	n.a.	\$4,230.07	\$4,296.45	\$4,172.38	\$4,354.56	\$5,078.70
Use Charge per HCF								
	every month	avg. winter month	avg. winter month	Rate applied to metered water use each month [1]				
Car Wash	\$2.85	n.a.	n.a.	\$2.92	\$2.97	\$2.88	\$3.01	\$3.51
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.25	\$3.30	\$3.21	\$3.35	\$3.90
Commercial [2]	\$3.64	n.a.	n.a.	\$3.84	\$3.90	\$3.79	\$3.95	\$4.61
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$10.32	\$10.48	\$10.18	\$10.62	\$12.39
Laundry	\$3.34	n.a.	n.a.	\$3.35	\$3.40	\$3.31	\$3.45	\$4.02
Mixed Retail	\$6.79	n.a.	n.a.	\$6.45	\$6.55	\$6.36	\$6.64	\$7.75
Lodging with Food	\$8.75	n.a.	n.a.	\$7.74	\$7.87	\$7.64	\$7.97	\$9.30
Lodging without Food	\$4.35	n.a.	n.a.	\$4.20	\$4.27	\$4.14	\$4.32	\$5.04
Restaurant	\$11.68	n.a.	n.a.	\$10.23	\$10.39	\$10.09	\$10.53	\$12.28
Napa Valley College	\$3.64	n.a.	n.a.	\$3.20	\$3.25	\$3.15	\$3.29	\$3.84
Service Station	\$4.70	n.a.	n.a.	\$4.42	\$4.49	\$4.36	\$4.55	\$5.31
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.09	\$4.15	\$4.03	\$4.21	\$4.91
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.27	\$20.65	\$21.55	\$25.14
Schools	\$3.17	n.a.	n.a.	\$1.59	\$1.61	\$1.57	\$1.64	\$1.91

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.

Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

Attachment 9

WW – 9 Wastewater 1.3 Debt Coverage 20-year Debt Scenario

Table 3

Projected Wastewater Fund Cash Flow	20-year Debt Scenario											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027		
Revenues and Expenses												
Operating Revenues												
Charges for Services [1]	\$3,134,929	\$3,579,462	\$3,654,450	\$3,786,914	\$4,258,245	\$4,404,741	\$4,566,309	\$4,735,932	\$4,915,926	\$5,111,286		
Growth in Services	\$4,852	\$5,540	\$5,656	\$5,861	\$6,591	\$6,818	\$7,068	\$7,330	\$7,609	\$7,911		
Total Sewer Sales	\$3,139,781	\$3,585,002	\$3,660,106	\$3,792,775	\$4,264,836	\$4,411,559	\$4,573,377	\$4,743,262	\$4,923,535	\$5,119,197		
Investment Earnings	\$4,613	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Finance Charges	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754		
Sewer Connection Fee	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
Total Operating Revenues	\$3,167,148	\$3,606,756	\$3,681,860	\$3,814,529	\$4,286,590	\$4,433,312	\$4,595,130	\$4,765,016	\$4,945,288	\$5,140,951		
Operating Expenses	\$2,378,968	\$2,350,625	\$2,426,345	\$2,561,219	\$2,704,213	\$2,855,872	\$3,016,782	\$3,187,572	\$3,368,920	\$3,561,558		
Operating Revenue before Capital Improvements and Debt Service	\$788,180	\$1,256,131	\$1,255,515	\$1,253,310	\$1,582,376	\$1,577,440	\$1,578,348	\$1,577,444	\$1,576,368	\$1,579,393		
Debt Service	\$253,904	\$966,017	\$966,190	\$964,798	\$1,216,855	\$1,213,038	\$1,213,794	\$1,213,535	\$1,212,548	\$1,214,817		
<i>Debt Service Coverage [2]</i>	3.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3		
Net Revenues (Deficit)	\$534,276	\$290,114	\$289,325	\$288,512	\$365,521	\$364,402	\$364,554	\$363,909	\$363,820	\$364,576		
Beginning Fund Balance [3]	\$2,408,652	\$1,041,768	\$1,290,650	\$1,414,999	\$1,493,358	\$1,576,439	\$1,664,813	\$1,758,719	\$1,937,157	\$2,109,796		
Net Revenues (Deficit)	\$534,276	\$290,114	\$289,325	\$288,512	\$365,521	\$364,402	\$364,554	\$363,909	\$363,820	\$364,576		
PAYGO Capital Projects	(\$1,901,160)	(\$41,232)	(\$164,976)	(\$210,153)	(\$282,441)	(\$276,028)	(\$270,647)	(\$185,471)	(\$191,181)	(\$197,067)		
Ending Fund Balance	\$1,041,768	\$1,290,650	\$1,414,999	\$1,493,358	\$1,576,439	\$1,664,813	\$1,758,719	\$1,937,157	\$2,109,796	\$2,277,304		
<i>Months of Operating Expenses in Reserve [4]</i>	5.3	6.6	7.0	7.0	7.0	7.0	7.0	7.3	7.5	7.7		

Source: HEC.

[1] Rates for FY 2018 calculated as 5 months of current rates plus 7 months of rates implemented December 2017. Rates for all future fiscal years calculated as 4 months of the rates implemented the prior November plus 8 months of the rates implemented in November of the current fiscal year.

[2] Minimum debt service coverage is 1.20; target is 1.30 to 1.50.

[3] Estimated beginning balance for the operating and capital funds combined per the City 2017/18 Budget.

[4] Target is 6-8 months of operating expenses.

Attachment 9

WW – 9 Wastewater 1.3 Debt Coverage 20-year Debt Scenario

Table 5

DRAFT

Wastewater Capital Improvements Schedule in Future \$'s											UNAF I			20-year Debt Scenario		
Project	Funding Source	Total Cost	2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10				
Annual Increase 3.1%																
Estimated Project Costs (Future \$'s) [1]																
Sewer Collection System																
Replace 1% of Sewer Mains Annually	Cash/Debt	\$1,725,834	\$150,000	\$154,618	\$159,379	\$164,285	\$169,343	\$174,557	\$179,931	\$185,471	\$191,181	\$197,067				
Crinella Pump Station Upgrades	Cash/Debt	\$528,882	\$0	\$77,309	\$451,573	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Add Sewer Pump Stations to SCADA	Cash/Debt	\$167,657	\$0	\$0	\$0	\$54,762	\$112,896	\$0	\$0	\$0	\$0	\$0				
Wet Weather Flow Monitoring	Ops Cash	\$51,539	\$0	\$51,539	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Update GIS Maps of Sewer System	Ops Cash	\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Sewer Master Plan	Ops Cash	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Replace Rodding Machine	Ops Cash	\$41,232	\$0	\$41,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
CCTV Program	Ops Cash	\$172,583	\$15,000	\$15,462	\$15,938	\$16,429	\$16,934	\$17,456	\$17,993	\$18,547	\$19,118	\$19,707				
Subtotal Sewer Collection		\$2,887,728	\$365,000	\$340,160	\$626,889	\$235,476	\$299,173	\$192,013	\$197,925	\$204,018	\$210,300	\$216,774				
Treatment Plant																
WWTP Upgrades Ph. 1	Cash/Debt	\$8,233,628	\$1,386,406	\$3,371,707	\$3,475,515	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
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Pond 2 & 3 Levee	Cash/Debt	\$121,847	\$60,000	\$61,847	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Facilities Automation	Cash/Debt	\$144,000	\$144,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
New Well	Cash/Debt	\$65,000	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Sludge Removal	Cash/Debt/Impact Fees	\$152,309	\$75,000	\$77,309	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Recycled Water Feasibility Study	Cash/Debt	\$84,672	\$0	\$0	\$0	\$0	\$84,672	\$0	\$0	\$0	\$0	\$0				
Temp Trailer at WRF	Cash/Debt	\$30,441	\$8,000	\$3,092	\$3,188	\$3,286	\$3,387	\$3,491	\$5,998	\$0	\$0	\$0				
Replace WRF Operations Building and Shop	Cash/Debt	\$3,449,538	\$0	\$0	\$0	\$109,524	\$1,128,957	\$2,211,058	\$0	\$0	\$0	\$0				
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Phase 2 WWTP Upgrades	Cash/Debt	\$458,745	\$0	\$0	\$0	\$109,524	\$112,896	\$116,371	\$119,954	\$0	\$0	\$0				
Subtotal Treatment Plant		\$14,773,730	\$1,766,646	\$4,214,892	\$4,201,219	\$222,333	\$1,329,911	\$2,912,778	\$125,952	\$0	\$0	\$0				
Total Estimated Project Costs (Future \$'s)																
Operating Costs		\$17,661,458	\$2,131,646	\$4,555,052	\$4,828,107	\$457,809	\$1,629,084	\$3,104,791	\$323,877	\$204,018	\$210,300	\$216,774				
Impact Fee Funded		\$424,123	\$215,000	\$67,001	\$15,938	\$16,429	\$16,934	\$17,456	\$17,993	\$18,547	\$19,118	\$19,707				
Impact Fee Funded		\$383,129	\$15,486	\$190,648	\$176,996	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
Net Project Costs		\$16,854,206	\$1,901,160	\$4,297,403	\$4,635,174	\$441,380	\$1,612,150	\$3,087,335	\$305,883	\$185,471	\$191,181	\$197,067				
Debt-Funded		\$13,133,848	\$0	\$4,256,171	\$4,470,198	\$231,227	\$1,329,709	\$2,811,307	\$35,236	\$0	\$0	\$0				
Cash Funded		\$3,720,358	\$1,901,160	\$41,232	\$164,976	\$210,153	\$282,441	\$276,028	\$270,647	\$185,471	\$191,181	\$197,067				
Total Debt and Cash Funded [2]		\$16,854,206	\$1,901,160	\$4,297,403	\$4,635,174	\$441,380	\$1,612,150	\$3,087,335	\$305,883	\$185,471	\$191,181	\$197,067				
Source: City of St. Helena and HEC.																
[1] Estimated costs increased by historical ENR Construction Cost Index 20 year average increase.																
[2] Totals do not exactly match due to rounding.																
Future cap																

Source: City of St. Helena and HEC.

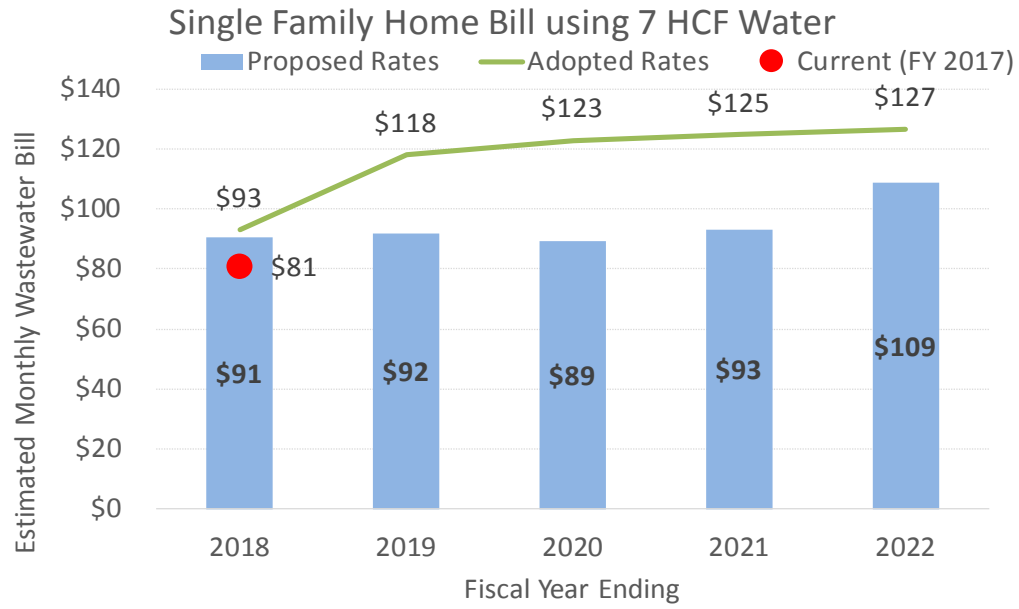
[1] Estimated costs increased by historical ENR Construction Cost Index 20 year average increase.

[2] Totals do not exactly match due to rounding.

future cap

WW – 9 Wastewater 1.3 Debt Coverage 20-year Debt Scenario

20-year Debt Scenario



Attachment 10

WW – 10 Wastewater 1.3 Debt Coverage 30-year Debt Scenario

Table 2

DRAFT

Calculated Wastewater Rates				30-year Debt Scenario				
Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$61.09	\$56.95	\$56.82	\$59.44	\$70.83
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.21	\$3.93	\$3.92	\$4.10	\$4.89
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$84.78	\$79.04	\$78.86	\$82.50	\$98.31
1"	\$102.42	n.a.	n.a.	\$211.95	\$197.61	\$197.15	\$206.24	\$245.77
1.5"	\$202.92	n.a.	n.a.	\$423.89	\$395.21	\$394.30	\$412.48	\$491.53
2"	\$323.53	n.a.	n.a.	\$678.23	\$632.34	\$630.88	\$659.97	\$786.45
3"	\$604.94	n.a.	n.a.	\$1,356.46	\$1,264.68	\$1,261.76	\$1,319.95	\$1,572.90
4"	\$1,006.96	n.a.	n.a.	\$2,119.46	\$1,976.07	\$1,971.50	\$2,062.42	\$2,457.65
6"	\$2,012.00	n.a.	n.a.	\$4,238.93	\$3,952.13	\$3,943.01	\$4,124.83	\$4,915.31
Use Charge per HCF								
	<i>every month</i>	<i>avg. winter month</i>	<i>avg. winter month</i>	<i>Rate applied to metered water use each month [1]</i>				
Car Wash	\$2.85	n.a.	n.a.	\$2.91	\$2.71	\$2.71	\$2.83	\$3.37
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.24	\$3.02	\$3.01	\$3.15	\$3.75
Commercial [2]	\$3.64	n.a.	n.a.	\$3.82	\$3.56	\$3.56	\$3.72	\$4.43
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$10.27	\$9.58	\$9.56	\$10.00	\$11.91
Laundry	\$3.34	n.a.	n.a.	\$3.34	\$3.11	\$3.10	\$3.25	\$3.87
Mixed Retail	\$6.79	n.a.	n.a.	\$6.42	\$5.99	\$5.98	\$6.25	\$7.45
Lodging with Food	\$8.75	n.a.	n.a.	\$7.71	\$7.19	\$7.17	\$7.50	\$8.94
Lodging without Food	\$4.35	n.a.	n.a.	\$4.18	\$3.90	\$3.89	\$4.07	\$4.85
Restaurant	\$11.68	n.a.	n.a.	\$10.18	\$9.50	\$9.47	\$9.91	\$11.81
Napa Valley College	\$3.64	n.a.	n.a.	\$3.18	\$2.97	\$2.96	\$3.10	\$3.69
Service Station	\$4.70	n.a.	n.a.	\$4.40	\$4.10	\$4.09	\$4.28	\$5.10
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.07	\$3.79	\$3.79	\$3.96	\$4.72
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$19.53	\$19.49	\$20.39	\$24.29
Schools	\$3.17	n.a.	n.a.	\$1.58	\$1.48	\$1.47	\$1.54	\$1.84

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.

Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

Attachment 10

WW – 10 Wastewater 1.3 Debt Coverage 30-year Debt Scenario

Table 4

DRAFT

Projected Wastewater Fund Cash Flow												30-year Debt Scenario								
Revenues and Expenses	2018		2019		2020		2021		2022		2023		2024		2025		2026		2027	
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
Operating Revenues																				
Charges for Services [1]	\$3,134,929	\$3,371,479	\$3,444,958	\$3,576,484	\$4,085,665	\$4,239,014	\$4,400,805	\$4,570,335	\$4,750,630	\$4,942,352										
Growth in Services	\$4,852	\$5,218	\$5,332	\$5,536	\$6,324	\$6,561	\$6,812	\$7,074	\$7,353	\$7,650										
Total Sewer Sales	\$3,139,781	\$3,376,697	\$3,450,290	\$3,582,020	\$4,091,989	\$4,245,575	\$4,407,617	\$4,577,409	\$4,757,983	\$4,950,002										
Investment Earnings	\$4,613	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0										
Finance Charges	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754	\$21,754										
Sewer Connection Fee	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0										
Total Operating Revenues	\$3,167,148	\$3,398,451	\$3,472,044	\$3,603,773	\$4,113,742	\$4,267,329	\$4,429,370	\$4,599,163	\$4,779,737	\$4,971,755										
Operating Expenses	\$2,378,968	\$2,350,625	\$2,426,345	\$2,561,219	\$2,704,213	\$2,855,872	\$3,016,782	\$3,187,572	\$3,368,920	\$3,561,558										
Operating Revenue before Capital Improvements and Debt Service	\$788,180	\$1,047,826	\$1,045,699	\$1,042,555	\$1,409,529	\$1,411,456	\$1,412,588	\$1,411,591	\$1,410,816	\$1,410,197										
Debt Service	\$253,904	\$806,480	\$805,252	\$802,860	\$1,084,930	\$1,085,863	\$1,086,482	\$1,086,485	\$1,086,185	\$1,084,542										
Debt Service Coverage [2]	3.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3										
Net Revenues (Deficit)	\$534,276	\$241,346	\$240,447	\$239,695	\$324,599	\$325,593	\$326,106	\$325,106	\$324,631	\$325,655										
Beginning Fund Balance [3]	\$2,408,652	\$1,041,768	\$1,241,882	\$1,414,353	\$1,492,175	\$1,575,201	\$1,663,317	\$1,756,873	\$1,896,507	\$2,029,957										
Net Revenues (Deficit)	\$534,276	\$241,346	\$240,447	\$239,695	\$324,599	\$325,593	\$326,106	\$325,106	\$324,631	\$325,655										
PAYGO Capital Projects	(\$1,901,160)	(\$41,232)	(\$67,976)	(\$161,873)	(\$241,573)	(\$237,477)	(\$232,550)	(\$185,471)	(\$191,181)	(\$197,067)										
Ending Fund Balance	\$1,041,768	\$1,241,882	\$1,414,353	\$1,492,175	\$1,575,201	\$1,663,317	\$1,756,873	\$1,896,507	\$2,029,957	\$2,158,545										
Months of Operating Expenses in Reserve [4]	5.3	6.3	7.0	7.0	7.0	7.0	7.1	7.1	7.2	7.3										
Source: HEC.																				

Source: HEC.

[1] Rates for FY 2018 calculated as 5 months of current rates plus 7 months of rates implemented December 2017. Rates for all future fiscal years calculated as 4 months of the rates implemented the prior November plus 8 months of the rates implemented in November of the current fiscal year.

[2] Minimum debt service coverage is 1.20; target is 1.30 to 1.50.

[3] Estimated beginning balance for the operating and capital funds combined per the City 2017/18 Budget.

[4] Target is 6-8 months of operating expenses.

Attachment 10

WW – 10 Wastewater 1.3 Debt Coverage 30-year Debt Scenario

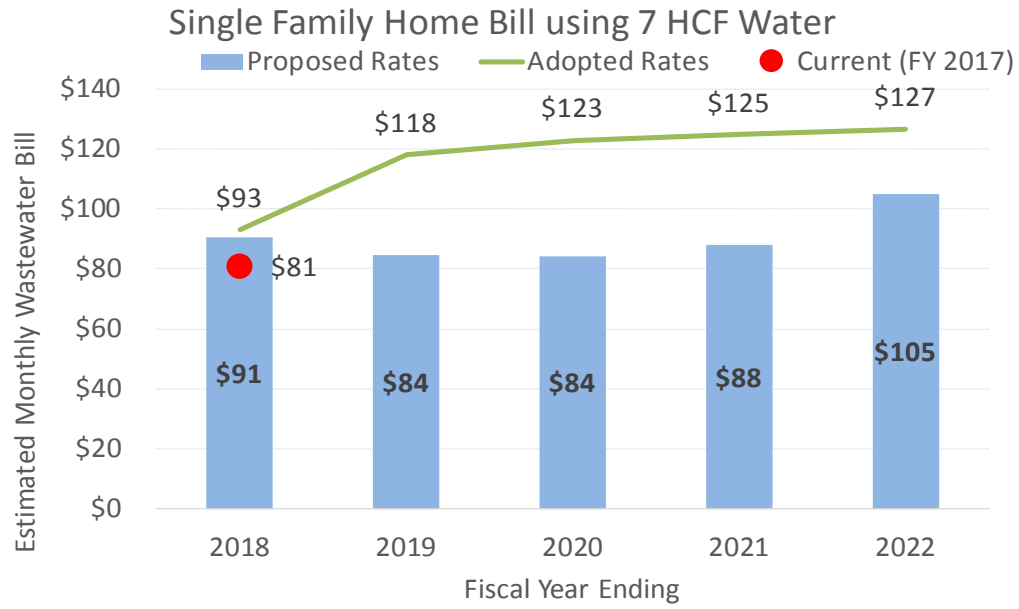
Table 6

DRAFT

Wastewater Capital Improvements Schedule in Future \$'s													
Project	Funding Source	Total Cost	UNAFI										
			2018 Year 1	2019 Year 2	2020 Year 3	2021 Year 4	2022 Year 5	2023 Year 6	2024 Year 7	2025 Year 8	2026 Year 9	2027 Year 10	2028 Year 11
Estimated Project Costs (Future \$'s) [1]													
Annual Increase 3.1%													
Sewer Collection System													
Cash/Debt		\$1,725,834	\$150,000	\$154,618	\$159,379	\$164,285	\$169,343	\$174,557	\$179,931	\$185,471	\$191,181	\$197,067	
Cash/Debt		\$328,882	\$0	\$77,309	\$451,573	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash/Debt		\$167,657	\$0	\$0	\$0	\$54,762	\$112,896	\$0	\$0	\$0	\$0	\$0	
Ops Cash		\$51,539	\$0	\$51,539	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Ops Cash		\$50,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Ops Cash		\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Ops Cash		\$41,232	\$0	\$41,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Ops Cash		\$172,583	\$15,000	\$15,462	\$15,938	\$16,429	\$16,934	\$17,456	\$17,993	\$18,547	\$19,118	\$19,707	
Ops Cash		\$2,887,728	\$365,000	\$340,160	\$626,889	\$235,476	\$299,173	\$192,013	\$197,925	\$204,018	\$210,300	\$216,774	
Subtotal Sewer Collection													
Treatment Plant													
Cash/Debt		\$8,233,628	\$1,386,406	\$3,371,707	\$3,475,515	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash/Debt/Impact Fees		\$1,451,692	\$28,240	\$700,936	\$722,216	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash/Debt		\$121,847	\$60,000	\$61,847	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash/Debt		\$144,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash/Debt		\$65,000	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash/Debt		\$152,309	\$75,000	\$77,309	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash/Debt/Impact Fees		\$84,672	\$0	\$0	\$0	\$84,672	\$0	\$0	\$0	\$0	\$0	\$0	
Cash/Debt		\$30,441	\$8,000	\$3,092	\$3,188	\$3,286	\$3,387	\$3,491	\$5,998	\$0	\$0	\$0	
Cash/Debt		\$3,449,538	\$0	\$0	\$0	\$109,524	\$1,128,957	\$2,211,058	\$0	\$0	\$0	\$0	
Cash/Debt		\$581,857	\$0	\$0	\$0	\$0	\$0	\$581,857	\$0	\$0	\$0	\$0	
Cash/Debt		\$468,745	\$112,896	\$0	\$0	\$109,524	\$112,896	\$116,371	\$119,954	\$123,537	\$127,120	\$130,703	
Cash/Debt		\$14,773,730	\$1,766,646	\$4,214,892	\$4,201,219	\$222,333	\$1,329,911	\$2,912,778	\$1,255,952	\$0	\$0	\$0	
Subtotal Treatment Plant													
Total Estimated Project Costs (Future \$'s)													
Operating Costs		\$17,661,458	\$2,131,646	\$4,555,052	\$4,828,107	\$457,809	\$1,629,084	\$3,104,791	\$323,877	\$204,018	\$210,300	\$216,774	
Impact Fee Funded		\$424,123	\$215,000	\$67,001	\$15,938	\$16,429	\$16,934	\$17,456	\$17,993	\$18,547	\$19,118	\$19,707	
Net Project Costs		\$16,854,209	\$1,901,160	\$4,297,403	\$4,635,174	\$441,380	\$1,612,150	\$3,087,335	\$305,883	\$185,471	\$191,181	\$197,067	
Debt-Funded		\$13,396,644	\$0	\$4,256,171	\$4,567,198	\$279,507	\$1,370,577	\$2,849,858	\$73,333	\$0	\$0	\$0	
Cash Funded		\$3,457,562	\$1,901,160	\$41,232	\$67,976	\$161,873	\$241,573	\$237,477	\$232,550	\$185,471	\$191,181	\$197,067	
Total Debt and Cash Funded [2]		\$16,854,206	\$1,901,160	\$4,297,403	\$4,635,174	\$441,380	\$1,612,150	\$3,087,335	\$305,883	\$185,471	\$191,181	\$197,067	
Source: City of St. Helena and HEC.													
[1] Estimated costs increased by historical ENR Construction Cost Index 20 year average increase.													
[2] Totals do not exactly match due to rounding.													
Future cap													

WW – 10 Wastewater 1.3 Debt Coverage 30-year Debt Scenario

30-year Debt Scenario



Water Rate Options

Option #	ITEM
W - 1	20-year Debt Scenario
W - 2	30-year Debt Scenario
W - 3	Reallocated Capacity - 20-year Debt Scenario
W - 4	Reallocated Capacity - 30-year Debt Scenario
W - 5	1.3 Debt Coverage - 20-year Debt Scenario
W - 6	1.3 Debt Coverage - 30-year Debt Scenario
W - 7	Reallocated Capacity – 1.3 Debt Coverage 20-year Debt Scenario
W - 8	Reallocated Capacity – 1.3 Debt Coverage 30-year Debt Scenario

Current Water Rates

Charges	Billing Period Beginning *						
	Current	2/8/2017	11/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge							
5/8", 3/4" & SF 1"	\$27.52	\$43.22	\$51.71	\$60.59	\$64.78	\$68.91	\$73.27
1"	\$63.80	\$80.08	\$96.76	\$114.44	\$123.35	\$132.22	\$141.61
1.5"	\$124.12	\$141.67	\$172.02	\$204.36	\$221.14	\$237.94	\$255.72
2"	\$196.50	\$215.12	\$261.84	\$311.76	\$337.99	\$364.27	\$392.10
3"	\$365.51	\$413.06	\$503.54	\$600.40	\$651.86	\$703.51	\$758.21
4"	\$607.01	\$640.46	\$780.29	\$930.11	\$1,010.10	\$1,090.44	\$1,175.54
6"	\$1,210.18	\$1,252.50	\$1,528.85	\$1,825.17	\$1,983.80	\$2,143.19	\$2,312.05
Private Fire Protection							
4"	\$4.00	\$8.47	\$9.92	\$11.38	\$11.89	\$12.36	\$12.86
6"	\$6.00	\$24.59	\$28.81	\$33.05	\$34.53	\$35.91	\$37.34
8"	\$8.00	\$52.41	\$61.40	\$70.43	\$73.57	\$76.52	\$79.58
Raw Water <i>per Gallon</i>	\$0.00267	\$0.00273	\$0.00320	\$0.00367	\$0.00383	\$0.00398	\$0.00414
TREATED WATER USE CHARGES PER HCF							
NON-DROUGHT PERIOD	[1]						
Off-Peak (Nov-Apr)		\$5.50	\$6.37	\$7.19	\$7.37	\$7.54	\$7.71
Peak (May-Oct)		\$6.11	\$7.09	\$8.00	\$8.20	\$8.38	\$8.58
DROUGHT PERIOD	[1]						
Off-Peak (Nov-Apr)		\$5.81	\$6.73	\$7.60	\$7.79	\$7.97	\$8.15
Peak (May-Oct)		\$6.46	\$7.49	\$8.45	\$8.66	\$8.86	\$9.06

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

[1] Current Rate Structure rates as follows:

Tiers by customer category (in hcf):	Tier 1	Tier 2		Tier 1	Tier 2
Single family	0-14	15+	Non-residential <=1"	0-36	37+
Multi-family	0-5	6+	Non-residential 1.5"	0-120	121+
			Non-residential 2"	0-192	193+
Price per HCF	\$4.48	\$6.74	Non-residential 3"	0-360	361+
Price per HCF - Landscape Irrigation	\$5.22		Non-residential 4"	0-600	601+
			Non-residential 6"	0-1,250	1,251+
			Non-residential 8"	0-1,920	1,921+

W-1 Water 20-Year Debt Scenario / W-2 Water 30-Year Debt Scenario

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge		Monthly Charges per Meter					
5/8", 3/4" & SF 1"	\$43.22	\$51.71	\$54.17	\$56.20	\$61.36	\$65.63	\$69.89
1"	\$80.08	\$96.76	\$95.91	\$100.44	\$110.68	\$119.41	\$128.22
1.5"	\$141.67	\$172.02	\$165.65	\$174.36	\$193.07	\$209.25	\$225.64
2"	\$215.12	\$261.84	\$248.86	\$262.56	\$291.43	\$316.53	\$342.00
3"	\$413.06	\$503.54	\$472.90	\$500.00	\$556.00	\$604.96	\$654.72
4"	\$640.46	\$780.29	\$729.79	\$772.11	\$858.79	\$934.75	\$1,011.98
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,507.16	\$1,678.44	\$1,828.74	\$1,981.63
Private Fire Protection		Monthly Charges per Fire Service Pipe					
4"	\$8.47	\$9.92	\$11.22	\$11.39	\$12.18	\$12.77	\$13.33
6"	\$24.59	\$28.81	\$32.59	\$33.07	\$35.39	\$37.09	\$38.73
8"	\$52.41	\$61.40	\$69.45	\$70.48	\$75.41	\$79.05	\$82.53
Raw Water <i>per Gallon</i>	\$0.00273	\$0.00320	\$0.00313	\$0.00335	\$0.00359	\$0.00379	\$0.00397
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.84	\$6.15	\$6.33	\$6.50
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.50	\$6.84	\$7.04	\$7.23
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.17	\$6.49	\$6.69	\$6.87
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.86	\$7.22	\$7.44	\$7.63

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Reallocated Capacity Costs

W-3 Water 20-Year Debt Scenario / W-4 Water 30-Year Debt Scenario

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
SF Residential Service Charge							
		Monthly Charges per Meter					
5/8"	\$43.22	\$51.71	\$50.91	\$52.73	\$57.47	\$61.38	\$65.27
1"	\$43.22	\$51.71	\$51.45	\$53.28	\$58.04	\$61.97	\$65.87
1.5"	\$141.67	\$172.02	\$149.35	\$157.01	\$173.66	\$188.01	\$202.53
2"	\$215.12	\$261.84	\$222.77	\$234.81	\$260.37	\$282.54	\$305.01
3"	\$413.06	\$503.54	\$420.71	\$444.50	\$493.89	\$536.99	\$580.74
4"	\$640.46	\$780.29	\$648.25	\$685.39	\$761.74	\$828.53	\$896.39
6"	\$1,252.50	\$1,528.85	\$1,260.09	\$1,333.72	\$1,484.34	\$1,616.31	\$1,750.46
All Other Customers Service Charge							
5/8"	\$43.22	\$51.71	\$54.17	\$56.20	\$61.36	\$65.63	\$69.89
1"	\$80.08	\$96.76	\$95.91	\$100.44	\$110.68	\$119.41	\$128.22
1.5"	\$141.67	\$172.02	\$165.65	\$174.36	\$193.07	\$209.25	\$225.64
2"	\$215.12	\$261.84	\$248.86	\$262.56	\$291.43	\$316.53	\$342.00
3"	\$413.06	\$503.54	\$472.90	\$500.00	\$556.00	\$604.96	\$654.72
4"	\$640.46	\$780.29	\$729.79	\$772.11	\$858.79	\$934.75	\$1,011.98
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,507.16	\$1,678.44	\$1,828.74	\$1,981.63
Industrial Customers Service Charge							
5/8"	\$43.22	\$51.71	\$74.23	\$77.52	\$85.22	\$91.75	\$98.32
1"	\$80.08	\$96.76	\$146.05	\$153.76	\$170.35	\$184.72	\$199.29
1.5"	\$141.67	\$172.02	\$265.92	\$281.00	\$312.42	\$339.87	\$367.78
2"	\$215.12	\$261.84	\$409.29	\$433.18	\$482.38	\$525.52	\$569.43
3"	\$413.06	\$503.54	\$793.76	\$841.24	\$937.91	\$1,022.93	\$1,109.57
4"	\$640.46	\$780.29	\$1,231.14	\$1,305.29	\$1,455.52	\$1,587.82	\$1,722.68
6"	\$1,252.50	\$1,528.85	\$2,425.87	\$2,573.53	\$2,871.90	\$3,134.88	\$3,403.03
Private Fire Protection							
		Monthly Charges per Fire Service Pipe					
4"	\$8.47	\$9.92	\$11.22	\$11.39	\$12.18	\$12.77	\$13.33
6"	\$24.59	\$28.81	\$32.59	\$33.07	\$35.39	\$37.09	\$38.73
8"	\$52.41	\$61.40	\$69.45	\$70.48	\$75.41	\$79.05	\$82.53
Raw Water per Gallon	\$0.00273	\$0.00320	\$0.00313	\$0.00335	\$0.00359	\$0.00379	\$0.00397
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.84	\$6.15	\$6.33	\$6.50
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.50	\$6.84	\$7.04	\$7.23
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.17	\$6.49	\$6.69	\$6.87
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.86	\$7.22	\$7.44	\$7.63

Source: HEC.

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* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

1.3 Debt Coverage

W-5 Water 20-Year Debt Scenario / W-6 Water 30-Year Debt Scenario

Table 1
Calculated Water Rates through Fiscal Year Ending 2022

DRAFT

20-year Debt Scenario
30-year Debt Scenario

Charges	Current	Adopted 11/8/2017	Rates Effective*				
			12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Service Charge			Monthly Charges per Meter				
5/8", 3/4" & SF 1"	\$43.22	\$51.71	\$54.17	\$55.45	\$58.68	\$63.34	\$67.61
1"	\$80.08	\$96.76	\$95.91	\$99.09	\$105.83	\$115.23	\$124.01
1.5"	\$141.67	\$172.02	\$165.65	\$172.02	\$184.61	\$201.90	\$218.22
2"	\$215.12	\$261.84	\$248.86	\$259.03	\$278.62	\$305.38	\$330.73
3"	\$413.06	\$503.54	\$472.90	\$493.29	\$531.61	\$583.69	\$633.17
4"	\$640.46	\$780.29	\$729.79	\$761.82	\$821.36	\$902.08	\$978.87
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,486.93	\$1,604.81	\$1,764.43	\$1,916.41
Private Fire Protection			Monthly Charges per Fire Service Pipe				
4"	\$8.47	\$9.92	\$11.22	\$11.23	\$11.64	\$12.31	\$12.89
6"	\$24.59	\$28.81	\$32.59	\$32.62	\$33.81	\$35.77	\$37.44
8"	\$52.41	\$61.40	\$69.45	\$69.52	\$72.05	\$76.23	\$79.78
Raw Water <i>per Gallon</i>	\$0.00273	\$0.00320	\$0.00313	\$0.00332	\$0.00347	\$0.00365	\$0.00383
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.76	\$5.87	\$6.11	\$6.28
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.40	\$6.53	\$6.79	\$6.98
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.09	\$6.20	\$6.45	\$6.64
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.77	\$6.89	\$7.17	\$7.38

Source: HEC.

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Reallocated Capacity Costs – 1.3 Debt Ratio

W-7 Water 20-Year Debt Scenario / W-8 Water 30-Year Debt Scenario

Charges	Current	Adopted	Rates Effective*				
		11/8/2017	12/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
SF Residential Service Charge		Monthly Charges per Meter					
5/8"	\$43.22	\$51.71	\$50.91	\$52.03	\$54.98	\$59.24	\$63.14
1"	\$43.22	\$51.71	\$51.45	\$52.58	\$55.55	\$59.83	\$63.75
1.5"	\$141.67	\$172.02	\$149.35	\$154.91	\$166.06	\$181.42	\$195.88
2"	\$215.12	\$261.84	\$222.77	\$231.66	\$248.95	\$272.61	\$294.98
3"	\$413.06	\$503.54	\$420.71	\$438.55	\$472.26	\$518.14	\$561.66
4"	\$640.46	\$780.29	\$648.25	\$676.29	\$728.64	\$799.66	\$867.14
6"	\$1,252.50	\$1,528.85	\$1,260.09	\$1,315.87	\$1,419.36	\$1,559.58	\$1,692.95
All Other Customers Service Charge							
5/8"	\$43.22	\$51.71	\$54.17	\$55.45	\$58.68	\$63.34	\$67.61
1"	\$80.08	\$96.76	\$95.91	\$99.09	\$105.83	\$115.23	\$124.01
1.5"	\$141.67	\$172.02	\$165.65	\$172.02	\$184.61	\$201.90	\$218.22
2"	\$215.12	\$261.84	\$248.86	\$259.03	\$278.62	\$305.38	\$330.73
3"	\$413.06	\$503.54	\$472.90	\$493.29	\$531.61	\$583.69	\$633.17
4"	\$640.46	\$780.29	\$729.79	\$761.82	\$821.36	\$902.08	\$978.87
6"	\$1,252.50	\$1,528.85	\$1,423.17	\$1,486.93	\$1,604.81	\$1,764.43	\$1,916.41
Industrial Customers Service Charge							
5/8"	\$43.22	\$51.71	\$74.23	\$76.48	\$81.49	\$88.53	\$95.09
1"	\$80.08	\$96.76	\$146.05	\$151.68	\$162.85	\$178.20	\$192.71
1.5"	\$141.67	\$172.02	\$265.92	\$277.20	\$298.64	\$327.85	\$355.62
2"	\$215.12	\$261.84	\$409.29	\$427.33	\$461.07	\$506.91	\$550.56
3"	\$413.06	\$503.54	\$793.76	\$829.87	\$896.50	\$986.74	\$1,072.84
4"	\$640.46	\$780.29	\$1,231.14	\$1,287.73	\$1,391.50	\$1,531.84	\$1,665.85
6"	\$1,252.50	\$1,528.85	\$2,425.87	\$2,538.76	\$2,745.09	\$3,023.95	\$3,290.37
Private Fire Protection		Monthly Charges per Fire Service Pipe					
4"	\$8.47	\$9.92	\$11.22	\$11.23	\$11.64	\$12.31	\$12.89
6"	\$24.59	\$28.81	\$32.59	\$32.62	\$33.81	\$35.77	\$37.44
8"	\$52.41	\$61.40	\$69.45	\$69.52	\$72.05	\$76.23	\$79.78
Raw Water per Gallon	\$0.00273	\$0.00320	\$0.00313	\$0.00332	\$0.00347	\$0.00365	\$0.00383
TREATED WATER USE CHARGES							
NON-DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.50	\$6.37	\$5.88	\$5.76	\$5.87	\$6.11	\$6.28
Peak (May-Oct)	\$6.11	\$7.09	\$6.54	\$6.40	\$6.53	\$6.79	\$6.98
DROUGHT PERIOD							
Off-Peak (Nov-Apr)	\$5.81	\$6.73	\$6.21	\$6.09	\$6.20	\$6.45	\$6.64
Peak (May-Oct)	\$6.46	\$7.49	\$6.91	\$6.77	\$6.89	\$7.17	\$7.38

Source: HEC.

mk sum

* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.

Wastewater Rate Options

Option #	ITEM
WW - 7	20-year Debt Scenario
WW - 8	30-year Debt Scenario
WW - 9	1.3 Debt Coverage - 20-year Debt Scenario
WW - 10	1.3 Debt Coverage - 30-year Debt Scenario

Current Wastewater Rates							
Customer Category		Fiscal Year Ending					
		2017	2018	2019	2020	2021	2022
Billing Period Beginning * ----->		2/8/2017	11/8/2017	11/8/2018	11/8/2019	11/8/2020	11/8/2021
Residential							
Single Family	monthly per unit	\$48.04	\$55.24	\$70.13	\$73.03	\$74.18	\$75.23
Multi-Family	monthly per unit	\$29.07	\$33.42	\$42.43	\$44.18	\$44.88	\$45.52
Mobile Homes	monthly per unit	\$43.11	\$49.57	\$62.93	\$65.53	\$66.56	\$67.51
Residential Rate per HCF	per HCF	\$4.69	\$5.39	\$6.84	\$7.12	\$7.23	\$7.34
Schools Flat Rate per Student	monthly per student	\$1.40	\$1.62	\$2.15	\$2.21	\$2.26	\$2.28
Non-Residential							
Car Wash	monthly per account	\$209.93	\$243.25	\$328.36	\$336.45	\$343.13	\$346.45
Religious Places/Community Centers	monthly per account	\$35.34	\$40.85	\$54.06	\$55.68	\$56.71	\$57.34
Commercial [1]	monthly per account	\$62.70	\$72.20	\$92.64	\$96.19	\$97.78	\$99.09
Groceries and Mortuaries	monthly per account	\$433.93	\$492.12	\$552.00	\$595.15	\$599.41	\$613.71
Laundry	monthly per account	\$970.94	\$1,121.45	\$1,475.85	\$1,522.21	\$1,549.87	\$1,567.76
Mixed Retail w/ Food	monthly per account	\$541.20	\$617.30	\$730.21	\$775.32	\$783.78	\$799.17
Motel with Food	monthly per account	\$2,617.64	\$2,978.36	\$3,444.90	\$3,681.23	\$3,715.59	\$3,795.12
Motel without Food	monthly per account	\$642.15	\$738.08	\$933.28	\$972.87	\$987.93	\$1,002.28
Restaurant	monthly per account	\$840.03	\$952.80	\$1,070.03	\$1,153.27	\$1,161.63	\$1,189.23
Napa Valley College	monthly per account	\$2,889.93	\$3,341.62	\$4,436.77	\$4,565.57	\$4,651.20	\$4,701.87
Service Station	monthly per account	\$93.25	\$107.06	\$134.07	\$140.12	\$142.20	\$144.37
Winery Production (Merryvale/Spottswoode)	monthly per account	\$989.21	\$1,116.93	\$1,199.98	\$1,310.53	\$1,315.85	\$1,351.87
Sutter Home Winery	monthly per account	\$876.04	\$1,007.39	\$1,278.85	\$1,331.67	\$1,352.66	\$1,371.89
Car Wash	per HCF	\$3.43	\$3.97	\$5.36	\$5.49	\$5.60	\$5.65
Religious Places/Community Centers	per HCF	\$3.72	\$4.30	\$5.69	\$5.86	\$5.97	\$6.03
Commercial [1]	per HCF	\$4.27	\$4.92	\$6.31	\$6.55	\$6.66	\$6.75
Groceries and Mortuaries	per HCF	\$10.30	\$11.68	\$13.10	\$14.12	\$14.22	\$14.56
Laundry	per HCF	\$3.81	\$4.40	\$5.79	\$5.97	\$6.08	\$6.15
Mixed Retail w/ Food	per HCF	\$6.73	\$7.68	\$9.08	\$9.64	\$9.75	\$9.94
Motel with Food	per HCF	\$7.91	\$9.00	\$10.41	\$11.12	\$11.23	\$11.47
Motel without Food	per HCF	\$4.59	\$5.27	\$6.67	\$6.95	\$7.06	\$7.16
Restaurant	per HCF	\$10.18	\$11.54	\$12.96	\$13.97	\$14.07	\$14.41
Napa Valley College	per HCF	\$3.67	\$4.24	\$5.63	\$5.79	\$5.90	\$5.97
Service Station	per HCF	\$4.82	\$5.53	\$6.93	\$7.24	\$7.35	\$7.46
Winery Production (Merryvale/Spottswoode)	per HCF	\$17.31	\$19.55	\$21.00	\$22.93	\$23.03	\$23.66
Sutter Home Winery	per HCF	\$4.50	\$5.17	\$6.57	\$6.84	\$6.95	\$7.04
Source: HEC.							
* Dates reflect the current billing cycle; if the billing cycle date changes so will these effective dates.							
[1] Commercial includes City buildings.							

Wastewater Rates Prior to November 29, 2016 Adopted Rates			
City of St. Helena Wastewater Rates			
	Current to	CPI Increase =	January 2016
	12/31/15	2.6% (2)	
Single Family Residential			
Monthly Service Charge	\$ 46.15	\$ 1.20	\$ 47.35
Usage Rate (\$/HCF of winter water use) (1)	\$ 3.84	\$ 0.10	\$ 3.94
Multi-Family and Non-Residential			
Monthly Service Charge			
5/8" meter	\$ 41.05	\$ 1.07	\$ 42.12
1" meter	\$ 99.82	\$ 2.60	\$ 102.42
1 1/2" meter	\$ 197.78	\$ 5.14	\$ 202.92
2" meter	\$ 315.33	\$ 8.20	\$ 323.53
3" meter	\$ 589.61	\$ 15.33	\$ 604.94
4" meter	\$ 981.44	\$ 25.52	\$ 1,006.96
6" meter	\$ 1,961.01	\$ 50.99	\$ 2,012.00
Usage Rate (\$/HCF of water usage)			
Multi-Family Residential	\$ 3.84	\$ 0.10	\$ 3.94
Car Wash	\$ 2.78	\$ 0.07	\$ 2.85
Schools	\$ 3.09	\$ 0.08	\$ 3.17
Laundry/Laundromat	\$ 3.26	\$ 0.08	\$ 3.34
Churches	\$ 3.55	\$ 0.09	\$ 3.64
City Buildings	\$ 3.55	\$ 0.09	\$ 3.64
Commercial - General	\$ 3.55	\$ 0.09	\$ 3.64
Winery - Sutter Home	\$ 4.16	\$ 0.11	\$ 4.27
Motels w/o Food	\$ 4.24	\$ 0.11	\$ 4.35
Service Sta./Auto Repair	\$ 4.58	\$ 0.12	\$ 4.70
Mixed Retail w/ Food	\$ 6.62	\$ 0.17	\$ 6.79
Motels w/ Food	\$ 8.53	\$ 0.22	\$ 8.75
Restaurant	\$ 11.38	\$ 0.30	\$ 11.68
Grocery	\$ 11.57	\$ 0.30	\$ 11.87
Mortuary	\$ 11.57	\$ 0.30	\$ 11.87
Winery - Merryvale	\$ 20.41	\$ 0.53	\$ 20.94
Winery - Spottswoode	\$ 20.41	\$ 0.53	\$ 20.94

WW-7 Wastewater 20-Year Debt Scenario

Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$57.69	\$58.10	\$63.07	\$65.30	\$68.41
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.70	\$4.73	\$5.13	\$5.32	\$5.57
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$80.06	\$80.63	\$87.52	\$90.63	\$94.95
1"	\$102.42	n.a.	n.a.	\$200.16	\$201.59	\$218.81	\$226.56	\$237.37
1.5"	\$202.92	n.a.	n.a.	\$400.31	\$403.17	\$437.62	\$453.13	\$474.74
2"	\$323.53	n.a.	n.a.	\$640.50	\$645.08	\$700.19	\$725.01	\$759.58
3"	\$604.94	n.a.	n.a.	\$1,280.99	\$1,290.15	\$1,400.39	\$1,450.01	\$1,519.16
4"	\$1,006.96	n.a.	n.a.	\$2,001.55	\$2,015.86	\$2,188.11	\$2,265.64	\$2,373.65
6"	\$2,012.00	n.a.	n.a.	\$4,003.10	\$4,031.72	\$4,376.22	\$4,531.29	\$4,747.35
Use Charge per HCF								
	every month	avg. winter month	avg. winter month	Rate applied to metered water use each month [1]				
Car Wash	\$2.85	n.a.	n.a.	\$3.24	\$3.27	\$3.55	\$3.67	\$3.85
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.61	\$3.63	\$3.95	\$4.09	\$4.28
Commercial [2]	\$3.64	n.a.	n.a.	\$4.26	\$4.29	\$4.66	\$4.82	\$5.05
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$11.45	\$11.53	\$12.52	\$12.96	\$13.58
Laundry	\$3.34	n.a.	n.a.	\$3.72	\$3.75	\$4.07	\$4.21	\$4.41
Mixed Retail	\$6.79	n.a.	n.a.	\$7.16	\$7.21	\$7.83	\$8.11	\$8.45
Lodging with Food	\$8.75	n.a.	n.a.	\$8.59	\$8.66	\$9.40	\$9.73	\$10.15
Lodging without Food	\$4.35	n.a.	n.a.	\$4.66	\$4.69	\$5.10	\$5.28	\$5.55
Restaurant	\$11.68	n.a.	n.a.	\$11.35	\$11.43	\$12.41	\$12.85	\$13.46
Napa Valley College	\$3.64	n.a.	n.a.	\$3.55	\$3.57	\$3.88	\$4.02	\$4.21
Service Station	\$4.70	n.a.	n.a.	\$4.91	\$4.94	\$5.36	\$5.55	\$5.82
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.54	\$4.57	\$4.96	\$5.13	\$5.38
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.09	\$22.90	\$23.70	\$24.85
Schools	\$3.17	n.a.	n.a.	\$1.76	\$1.78	\$1.93	\$2.00	\$2.05

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.
Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

WW-8 Wastewater 30-Year Debt Scenario

Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$56.10	\$56.50	\$58.93	\$60.91	\$63.66
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.92	\$4.96	\$5.17	\$5.34	\$5.58
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$77.86	\$78.41	\$81.78	\$84.54	\$88.34
1"	\$102.42	n.a.	n.a.	\$194.64	\$196.03	\$204.46	\$211.35	\$220.86
1.5"	\$202.92	n.a.	n.a.	\$389.29	\$392.07	\$408.92	\$422.69	\$441.71
2"	\$323.53	n.a.	n.a.	\$622.86	\$627.31	\$654.27	\$676.31	\$706.74
3"	\$604.94	n.a.	n.a.	\$1,245.72	\$1,254.62	\$1,308.54	\$1,352.62	\$1,413.49
4"	\$1,006.96	n.a.	n.a.	\$1,946.43	\$1,960.35	\$2,044.59	\$2,113.46	\$2,208.57
6"	\$2,012.00	n.a.	n.a.	\$3,892.86	\$3,920.69	\$4,089.18	\$4,226.93	\$4,417.14
Use Charge per HCF								
	every month	avg. winter month	avg. winter month	Rate applied to metered water use each month [1]				
Car Wash	\$2.85	n.a.	n.a.	\$3.40	\$3.42	\$3.57	\$3.69	\$3.86
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.78	\$3.81	\$3.97	\$4.11	\$4.29
Commercial [2]	\$3.64	n.a.	n.a.	\$4.46	\$4.50	\$4.69	\$4.85	\$5.07
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$12.00	\$12.09	\$12.61	\$13.03	\$13.62
Laundry	\$3.34	n.a.	n.a.	\$3.90	\$3.93	\$4.09	\$4.23	\$4.42
Mixed Retail	\$6.79	n.a.	n.a.	\$7.51	\$7.56	\$7.88	\$8.15	\$8.52
Lodging with Food	\$8.75	n.a.	n.a.	\$9.01	\$9.07	\$9.46	\$9.78	\$10.22
Lodging without Food	\$4.35	n.a.	n.a.	\$4.89	\$4.92	\$5.13	\$5.30	\$5.54
Restaurant	\$11.68	n.a.	n.a.	\$11.90	\$11.98	\$12.50	\$12.92	\$13.50
Napa Valley College	\$3.64	n.a.	n.a.	\$3.72	\$3.75	\$3.91	\$4.04	\$4.22
Service Station	\$4.70	n.a.	n.a.	\$5.14	\$5.18	\$5.40	\$5.58	\$5.83
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.75	\$4.79	\$4.99	\$5.16	\$5.39
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.09	\$21.99	\$22.73	\$23.75
Schools	\$3.17	n.a.	n.a.	\$1.85	\$1.86	\$1.94	\$2.01	\$2.10

Source: City of St. Helena and HEC.

calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.
Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

WW-9 Wastewater 1.3 Coverage - 20-Year Debt Scenario

Calculated Wastewater Rates				20-year Debt Scenario				
Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$60.96	\$61.92	\$60.13	\$62.75	\$73.19
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.23	\$4.30	\$4.17	\$4.36	\$5.08
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$84.60	\$85.93	\$83.45	\$87.09	\$101.57
1"	\$102.42	n.a.	n.a.	\$211.50	\$214.82	\$208.62	\$217.73	\$253.94
1.5"	\$202.92	n.a.	n.a.	\$423.01	\$429.64	\$417.24	\$435.46	\$507.87
2"	\$323.53	n.a.	n.a.	\$676.81	\$687.43	\$667.58	\$696.73	\$812.59
3"	\$604.94	n.a.	n.a.	\$1,353.62	\$1,374.86	\$1,335.16	\$1,393.46	\$1,625.19
4"	\$1,006.96	n.a.	n.a.	\$2,115.04	\$2,148.22	\$2,086.19	\$2,177.28	\$2,539.35
6"	\$2,012.00	n.a.	n.a.	\$4,230.07	\$4,296.45	\$4,172.38	\$4,354.56	\$5,078.70
Use Charge per HCF								
	every month	avg. winter month	avg. winter month	Rate applied to metered water use each month [1]				
Car Wash	\$2.85	n.a.	n.a.	\$2.92	\$2.97	\$2.88	\$3.01	\$3.51
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.25	\$3.30	\$3.21	\$3.35	\$3.90
Commercial [2]	\$3.64	n.a.	n.a.	\$3.84	\$3.90	\$3.79	\$3.95	\$4.61
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$10.32	\$10.48	\$10.18	\$10.62	\$12.39
Laundry	\$3.34	n.a.	n.a.	\$3.35	\$3.40	\$3.31	\$3.45	\$4.02
Mixed Retail	\$6.79	n.a.	n.a.	\$6.45	\$6.55	\$6.36	\$6.64	\$7.75
Lodging with Food	\$8.75	n.a.	n.a.	\$7.74	\$7.87	\$7.64	\$7.97	\$9.30
Lodging without Food	\$4.35	n.a.	n.a.	\$4.20	\$4.27	\$4.14	\$4.32	\$5.04
Restaurant	\$11.68	n.a.	n.a.	\$10.23	\$10.39	\$10.09	\$10.53	\$12.28
Napa Valley College	\$3.64	n.a.	n.a.	\$3.20	\$3.25	\$3.15	\$3.29	\$3.84
Service Station	\$4.70	n.a.	n.a.	\$4.42	\$4.49	\$4.36	\$4.55	\$5.31
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.09	\$4.15	\$4.03	\$4.21	\$4.91
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$21.27	\$20.65	\$21.55	\$25.14
Schools	\$3.17	n.a.	n.a.	\$1.59	\$1.61	\$1.57	\$1.64	\$1.91

Source: City of St. Helena and HEC. calc rates

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.
Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.

WW-10 Wastewater 1.3 Coverage - 30-Year Debt Scenario

Calculated Wastewater Rates				30-year Debt Scenario				
Land Use	Old Rates Effective	Current 2/8/2017	Adopted 11/8/2017	2018 12/8/2017	2019 11/8/2018	2020 11/8/2019	2021 11/8/2020	2022 11/8/2021
Residential								
Single Family Flat Monthly Charge per Unit	\$47.35	\$48.04	\$55.24	\$61.09	\$56.95	\$56.82	\$59.44	\$70.83
Use Charge per HCF	\$3.94	\$4.69	\$5.39	\$4.21	\$3.93	\$3.92	\$4.10	\$4.89
Non-Residential								
Flat Monthly Charge per Account								
5/8"	\$42.12	n.a.	n.a.	\$84.78	\$79.04	\$78.86	\$82.50	\$98.31
1"	\$102.42	n.a.	n.a.	\$211.95	\$197.61	\$197.15	\$206.24	\$245.77
1.5"	\$202.92	n.a.	n.a.	\$423.89	\$395.21	\$394.30	\$412.48	\$491.53
2"	\$323.53	n.a.	n.a.	\$678.23	\$632.34	\$630.88	\$659.97	\$786.45
3"	\$604.94	n.a.	n.a.	\$1,356.46	\$1,264.68	\$1,261.76	\$1,319.95	\$1,572.90
4"	\$1,006.96	n.a.	n.a.	\$2,119.46	\$1,976.07	\$1,971.50	\$2,062.42	\$2,457.65
6"	\$2,012.00	n.a.	n.a.	\$4,238.93	\$3,952.13	\$3,943.01	\$4,124.83	\$4,915.31
Use Charge per HCF								
	every month	avg. winter month	avg. winter month	Rate applied to metered water use each month [1]				
Car Wash	\$2.85	n.a.	n.a.	\$2.91	\$2.71	\$2.71	\$2.83	\$3.37
Religious Places/Community Centers	\$3.64	n.a.	n.a.	\$3.24	\$3.02	\$3.01	\$3.15	\$3.75
Commercial [2]	\$3.64	n.a.	n.a.	\$3.82	\$3.56	\$3.56	\$3.72	\$4.43
Groceries and Mortuaries	\$11.87	n.a.	n.a.	\$10.27	\$9.58	\$9.56	\$10.00	\$11.91
Laundry	\$3.34	n.a.	n.a.	\$3.34	\$3.11	\$3.10	\$3.25	\$3.87
Mixed Retail	\$6.79	n.a.	n.a.	\$6.42	\$5.99	\$5.98	\$6.25	\$7.45
Lodging with Food	\$8.75	n.a.	n.a.	\$7.71	\$7.19	\$7.17	\$7.50	\$8.94
Lodging without Food	\$4.35	n.a.	n.a.	\$4.18	\$3.90	\$3.89	\$4.07	\$4.85
Restaurant	\$11.68	n.a.	n.a.	\$10.18	\$9.50	\$9.47	\$9.91	\$11.81
Napa Valley College	\$3.64	n.a.	n.a.	\$3.18	\$2.97	\$2.96	\$3.10	\$3.69
Service Station	\$4.70	n.a.	n.a.	\$4.40	\$4.10	\$4.09	\$4.28	\$5.10
Winery Pre-Treated	\$4.27	n.a.	n.a.	\$4.07	\$3.79	\$3.79	\$3.96	\$4.72
Winery Non-Treated [3]	\$20.94	n.a.	n.a.	\$20.94	\$19.53	\$19.49	\$20.39	\$24.29
Schools	\$3.17	n.a.	n.a.	\$1.58	\$1.48	\$1.47	\$1.54	\$1.84

Source: City of St. Helena and HEC. calc rate

[1] Amount applied to wineries according to measured wastewater flow entering the system, which may or may not equal metered water use.
Payment calculations for flow entering the wastewater system will be conducted on a semi-annual or annual basis.

[2] Commercial includes City buildings.

[3] Currently none.



Revised Utility Rate Analysis

By:

Mark Prestwich, City Manager

April Mitts, Finance Director



Today's Goals

- Discuss financial model results
- Identify Council preferred approach
- Confirm utility rate adjustment calendar



Debt – Ken Dieker

General Debt Assumptions

- Market Interest Rates as of September 11, 2017
- Costs of Issuance
- No bond insurance / credit enhancement
- Cash funded reserve fund (lesser of the three tests)
- Debts are layered and with level or declining debt service over time

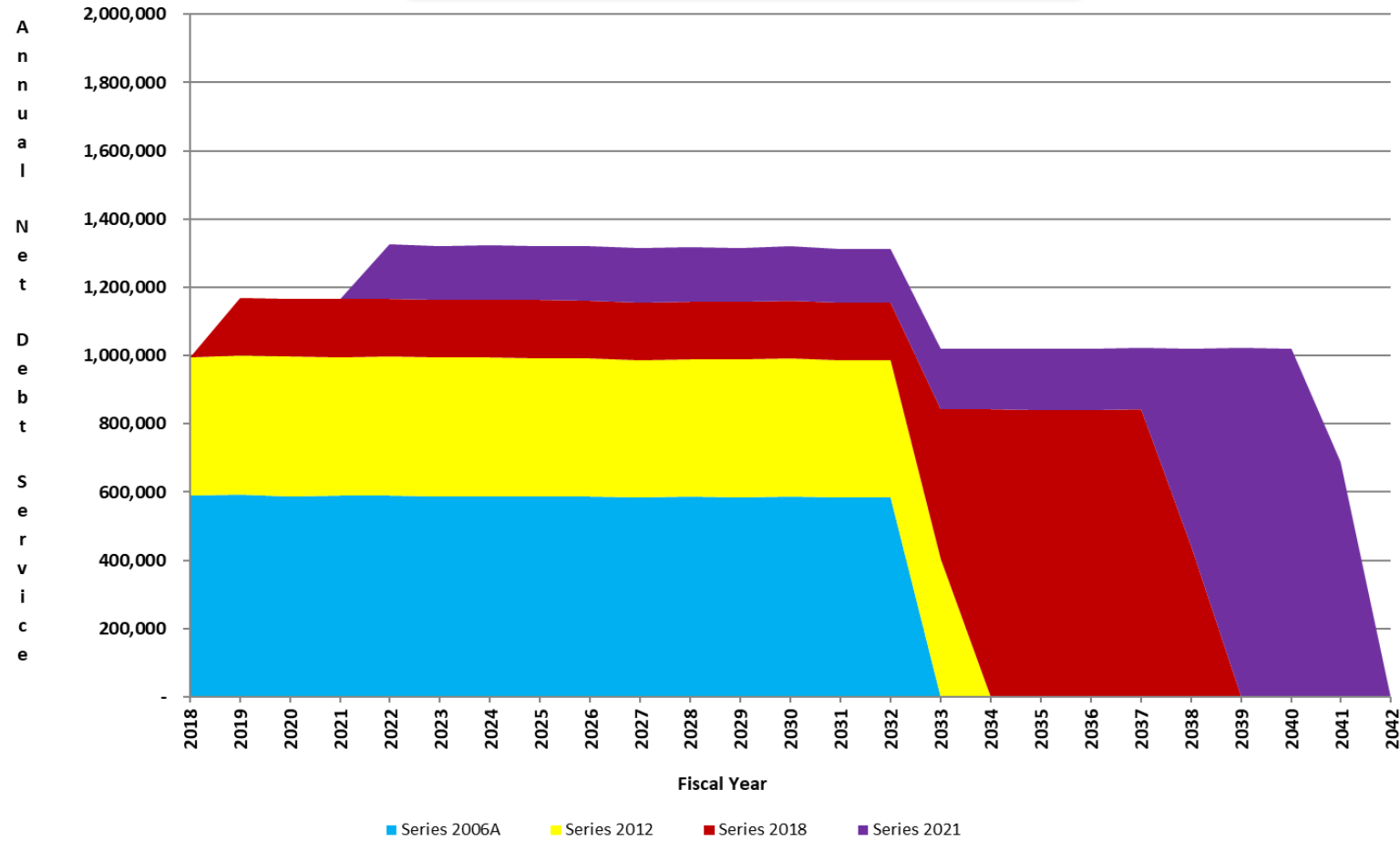


Water System Debt Assumptions 20 and 30-Year Amortization

- Significant beginning cash balance
- Cash used to fund capital projects in 2018 and 2019
- Rates based on providing debt service coverage as soon as possible to get back into compliance with the rate covenant
- Target debt service coverage 1.30x to 1.50x
- Target cash balance each year 10-14 months

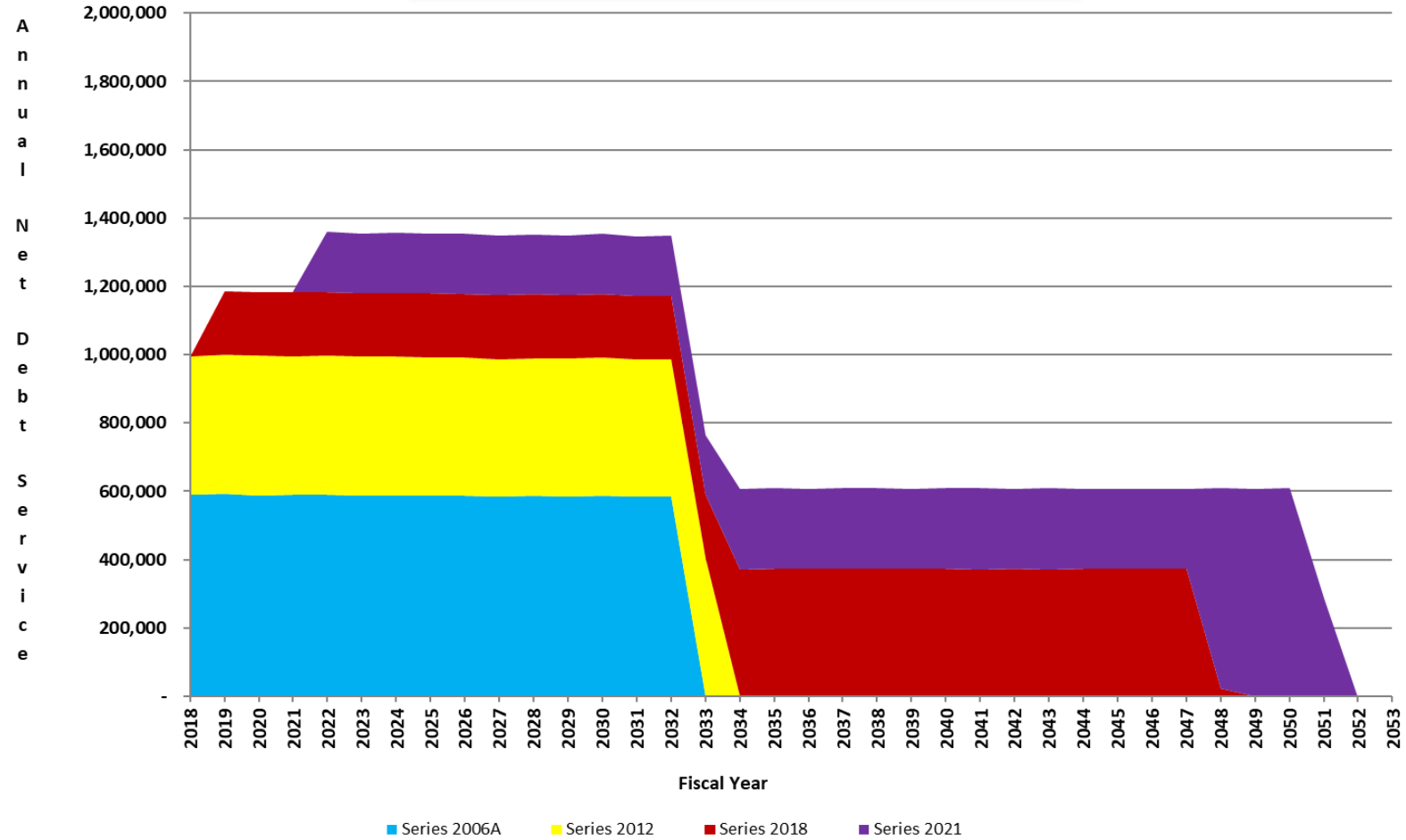


**City of St. Helena, California
Water Enterprise Fund
Parity Obligations Net Debt Service (20 Yr)**





**City of St. Helena, California
Water Enterprise Fund
Parity Obligations Net Debt Service (30 Yr)**



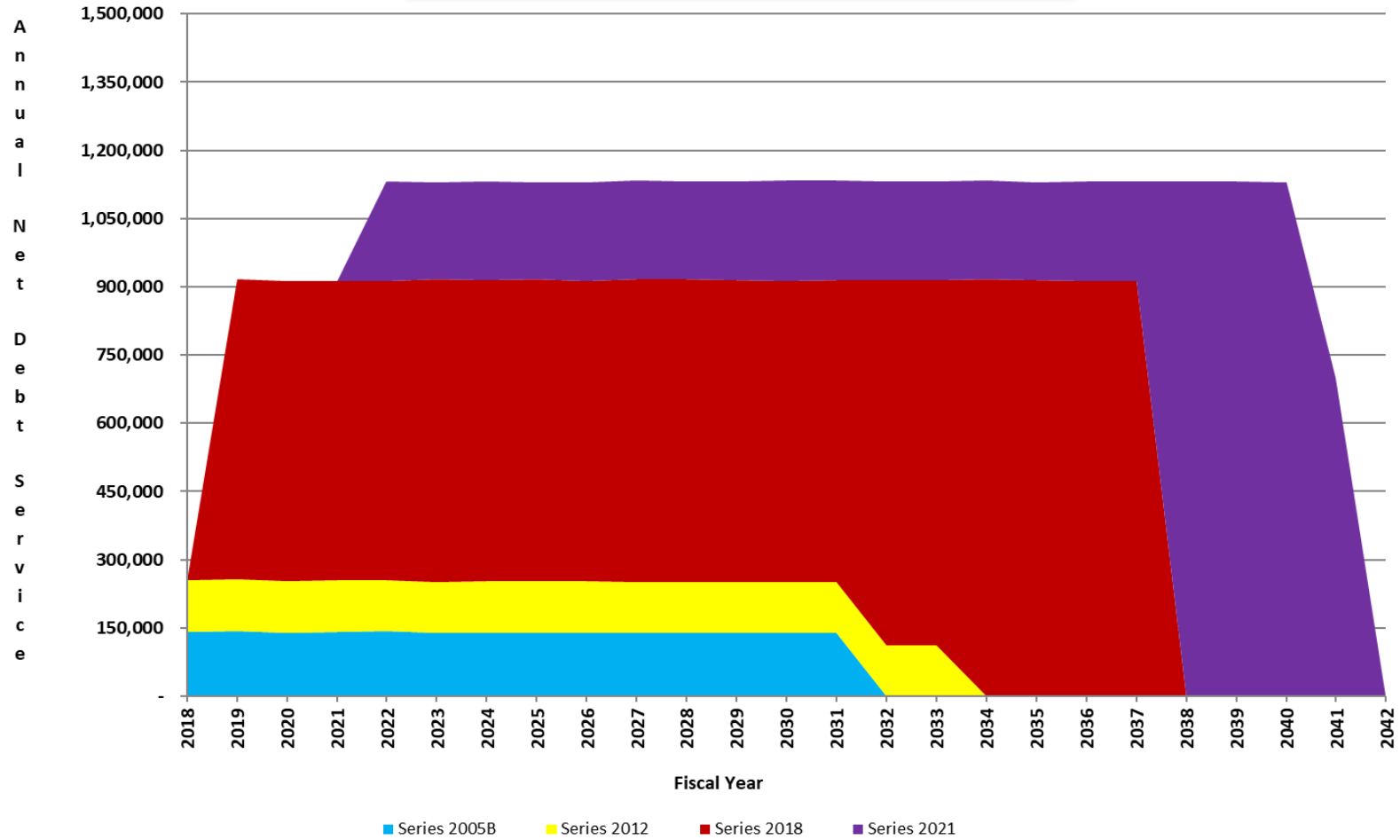


Wastewater System Debt Assumptions 20 and 30-Year Amortization

- Relatively low beginning cash balance
- Cash used to fund capital projects in 2018
- Rates based on building reserve balances to target level
- Target debt service coverage 1.30x to 1.50x
- Target cash balance each year 6-8 months
- Debt service coverage creeps up since primarily debt funding capital projects and need to fund cash for reserves.
- Coverage drops back down upon issuance of second series.

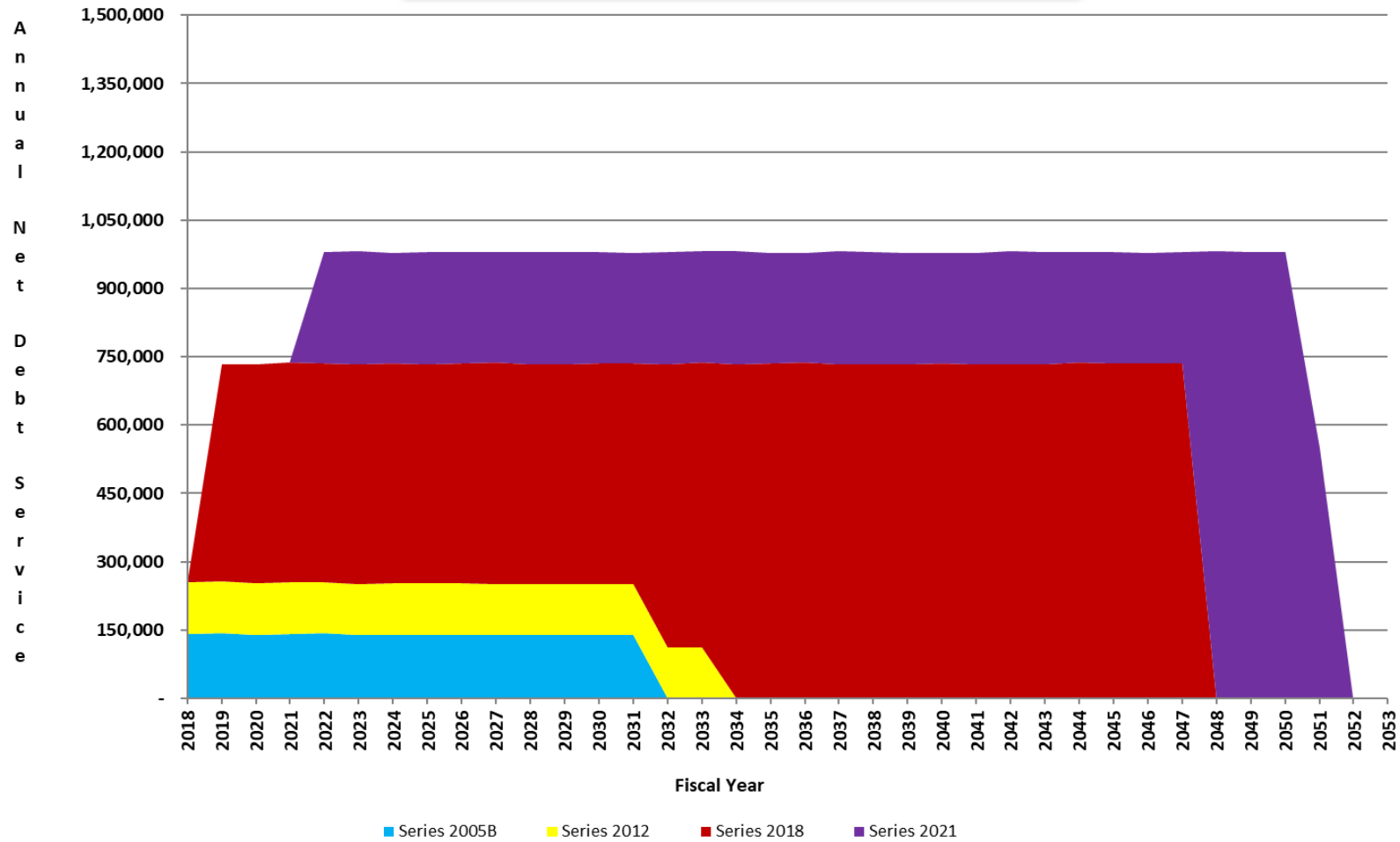


**City of St. Helena, California
Sewer Enterprise Fund
Parity Obligations Net Debt Service (20 Yr)**





**City of St. Helena, California
Sewer Enterprise Fund
Parity Obligations Net Debt Service (30 Yr)**





Water/Wastewater System 1.3x Scenarios

1.3x Debt Scenarios

- Increased borrowing amounts over recommended options
- Provides some early rate relief but overall higher revenue requirements by end of pro forma period
- Continuous narrow coverage could put downward pressure on ratings which could raise borrowing costs



Water/Wastewater System 1.3x Scenarios

1.3x Debt Scenarios - Examples

<u>Wastewater</u>		<u>20 Yr</u>	<u>30 Yr</u>
Rec:	Debt	\$13,870	\$13,450
	Change in Rev Req	1.603	1.538
1.3x	Debt	\$15,040	\$15,150
	Change in Rev Req	1.630	1.577
<u>Water</u>		<u>20 Yr</u>	<u>30 Yr</u>
Rec:	Debt	\$7,320	\$7,265
	Change in Rev Req	1.460	1.460
1.3x	Debt	\$9,650	\$9,595
	Change in Rev Req	1.484	1.484



Water and Wastewater Financing Plans

Questions / Discussion



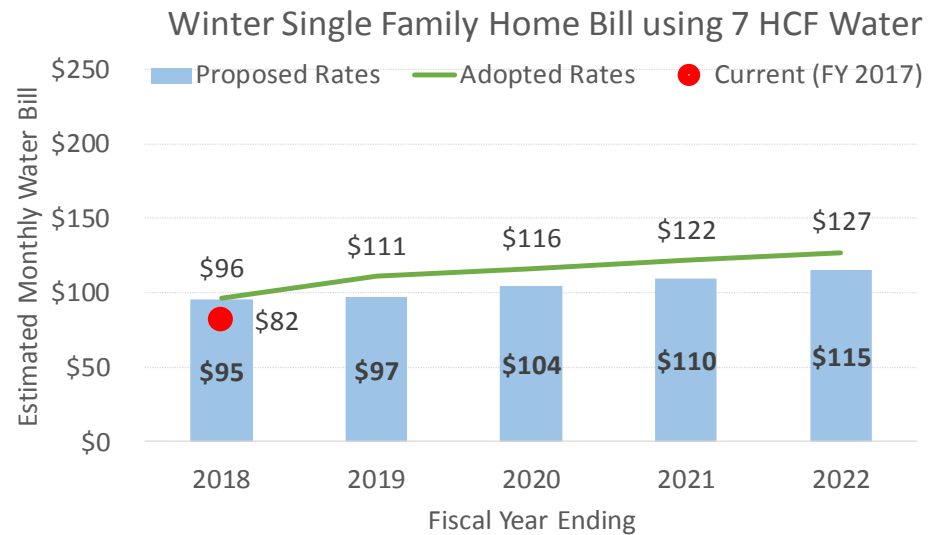
WATER: Summary of Changes

- Updated Financial Model with Most Recent City Financial Data
 - Projections based on 2018 budget
- Updated CIP Costs
 - York Creek Upper Dam Project \$1.6M paid by General Fund
 - Reflects City 2018 Budget and planned next 4 Years of CIP
- Calculated Rates to Meet Council Criteria:
 - Debt Service Coverage 1.3 to 1.5 every year (1.2 FY 18)
 - Optimal cash/debt ratios and layering of debt
 - Cash Reserves 10 to 14 months of operating expenses – eliminates sinking fund for rehabilitation costs

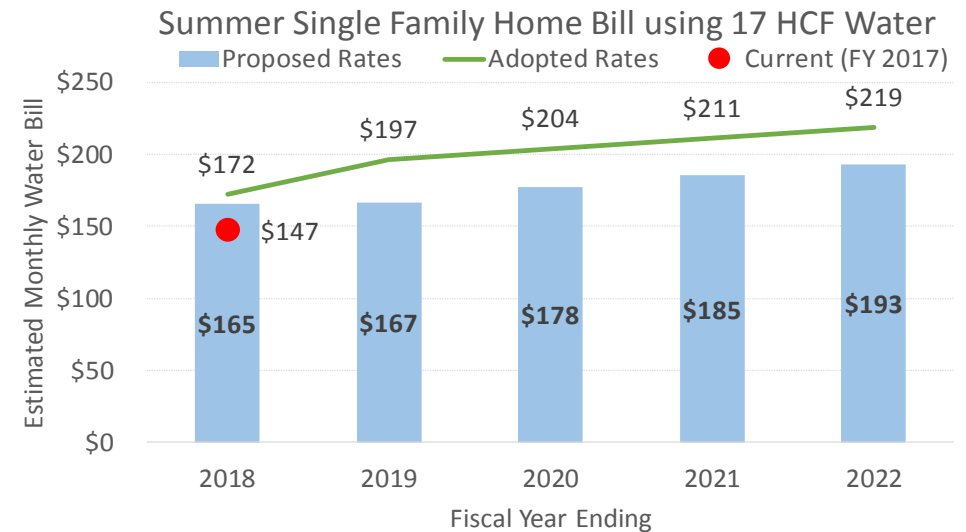


WATER: Single Family Home Bill Impact 20-Year & 30-Year Debt Scenarios

Typical **Winter** Bill: 7 HCF



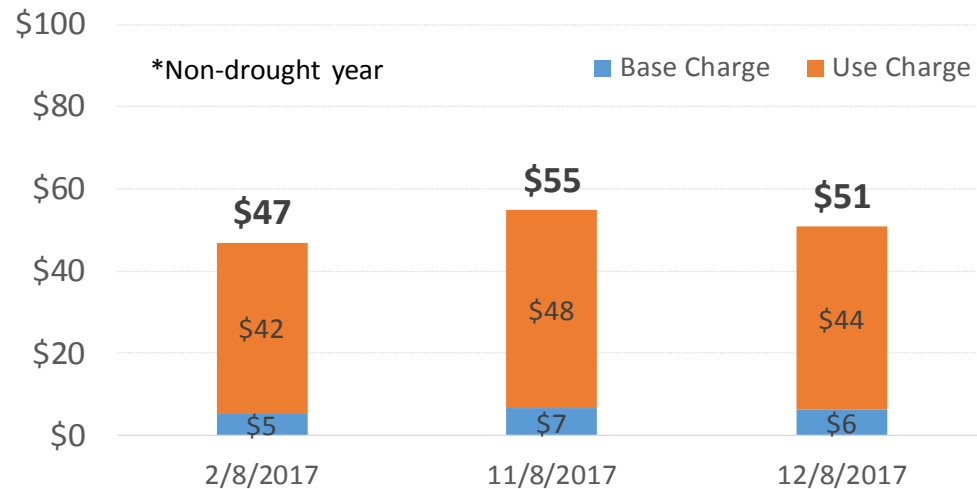
Typical **Summer** Bill: 17 HCF



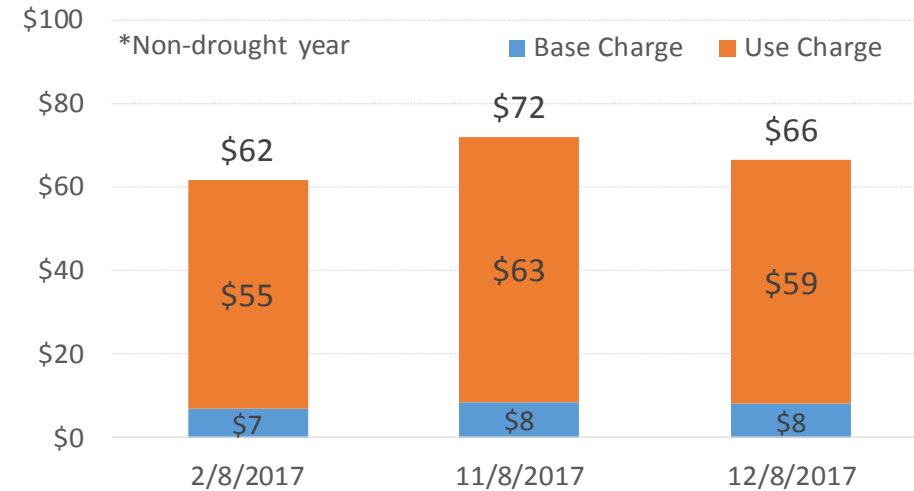


WATER: Mobile Homes and Apartments Average Monthly Bill Impacts 20-Year & 30-Year Debt Scenarios

Apartment, Per Unit

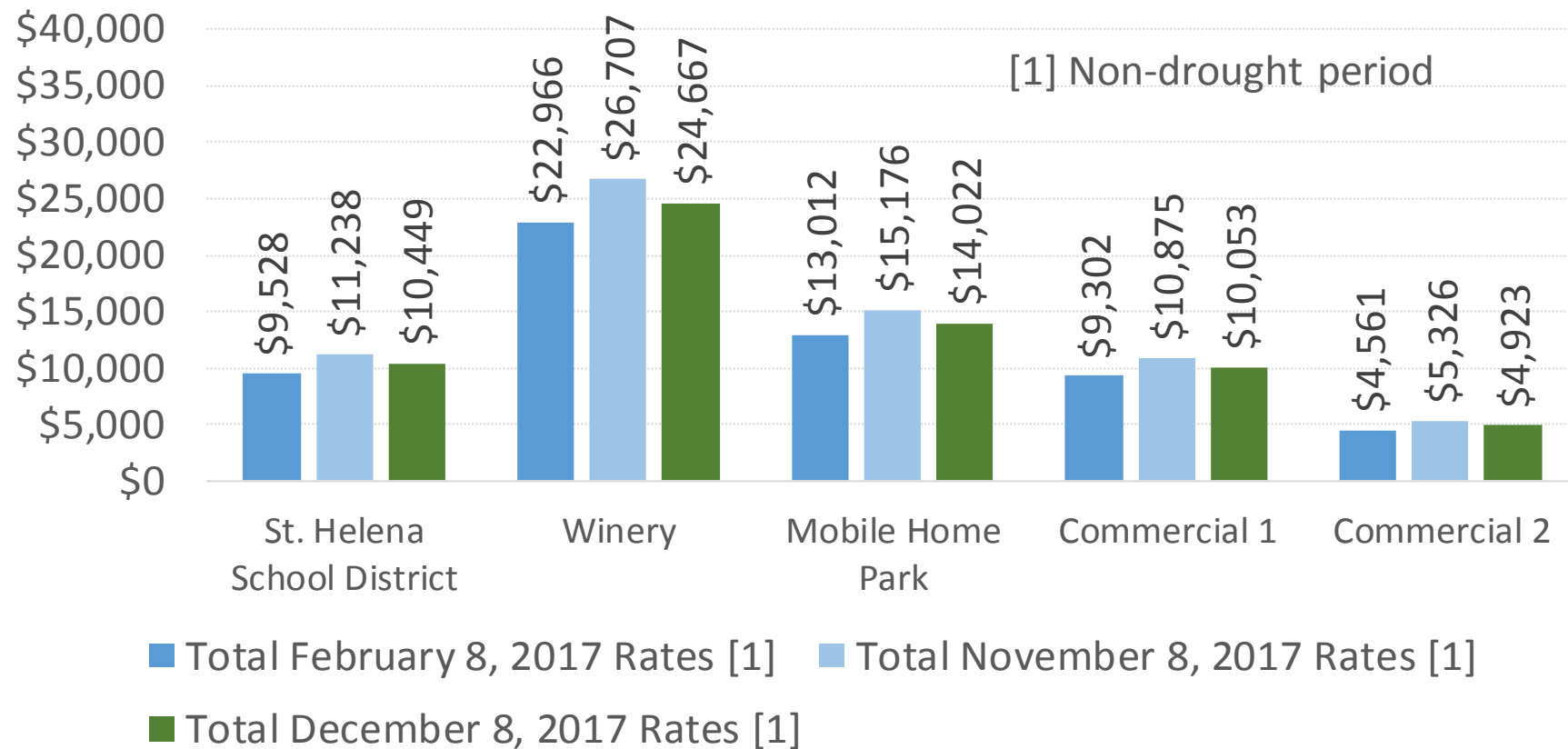


Mobile Home, Per Unit



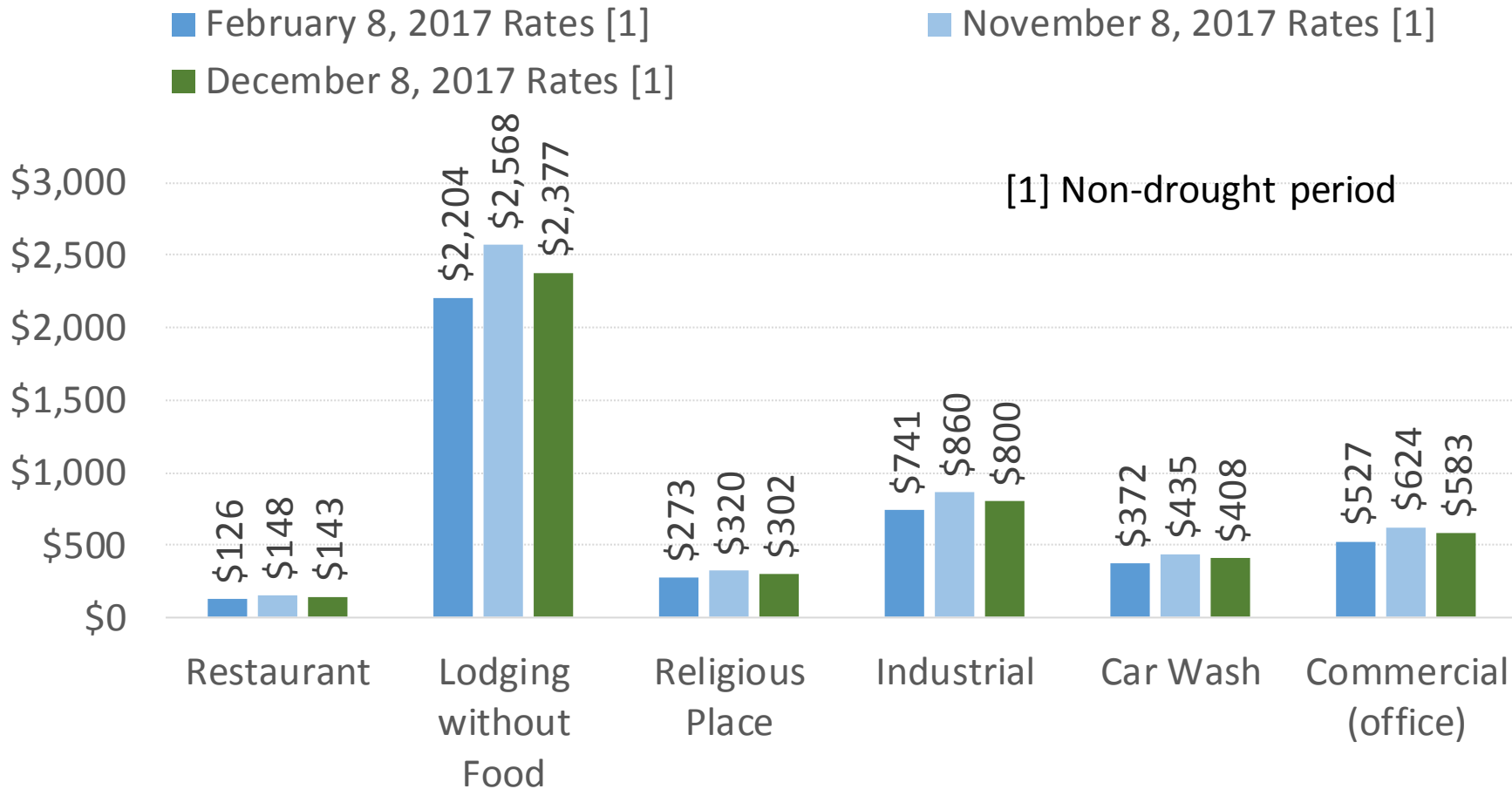


WATER: Large Users Bill Impact 20-Year & 30-Year Debt Scenarios





WATER: Sample Non-Residential Bill Impacts 20-Year & 30-Year Debt Scenarios





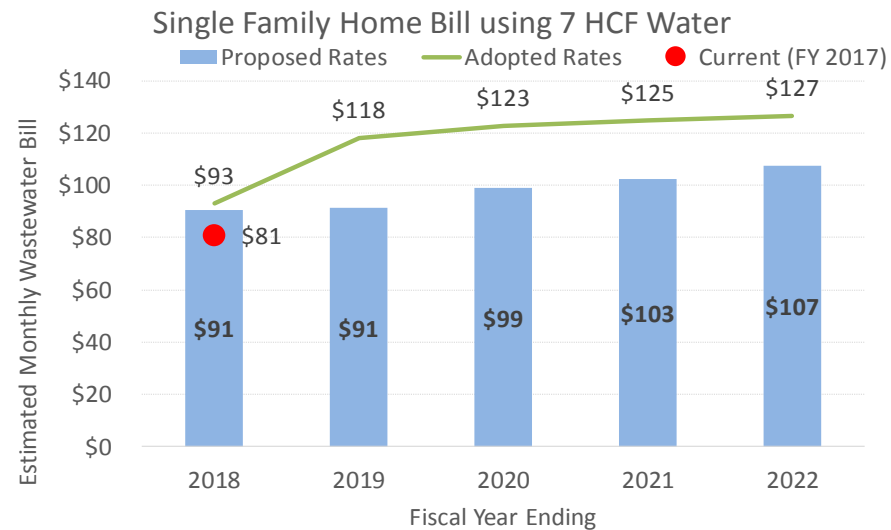
WASTEWATER: Summary of Changes

- Updated Financial Model with Most Recent City Financial Data
 - Projections based on 2018 budget
- Updated CIP Costs
 - Reflects City 2018 Budget and planned next 4 Years of CIP
 - Includes increased costs for Phase 1 WWTP Upgrades
- Calculated Rates to Meet Council Criteria:
 - Debt Service Coverage 1.3 to 1.5 every year
 - Optimal cash/debt ratios and layering of debt
 - Cash Reserves 6 to 8 months of operating expenses – eliminates sinking fund for rehabilitation costs
- Revised Rate Structure
 - Service Charges based on meter size
 - Customer category labeling changes

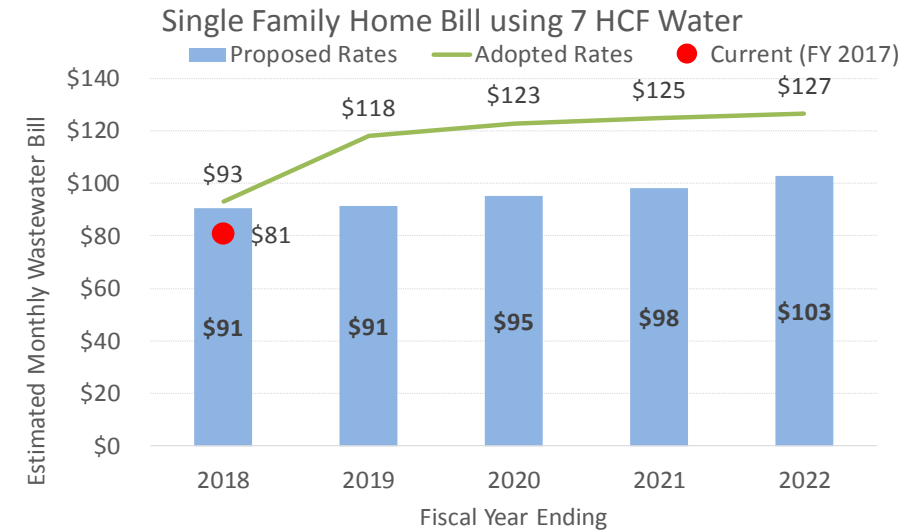


WASTEWATER: Single Family Home Bill Impact

20-Year Debt Scenario



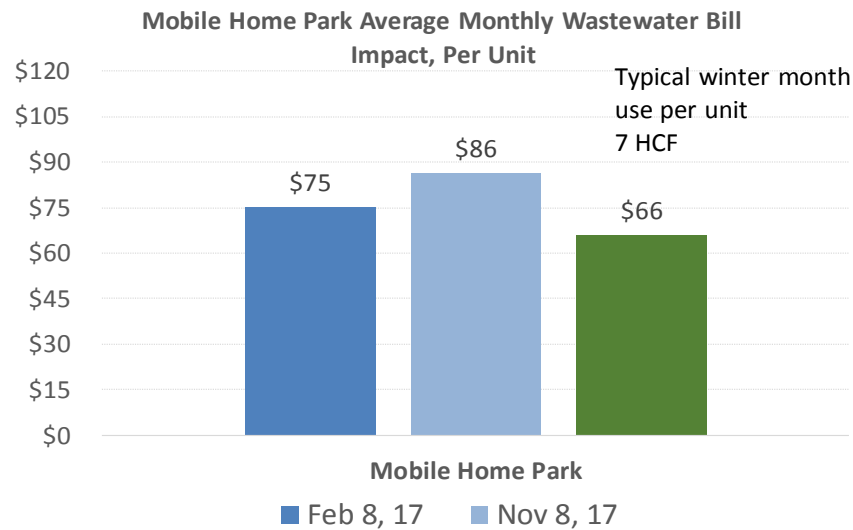
30-Year Debt Scenario



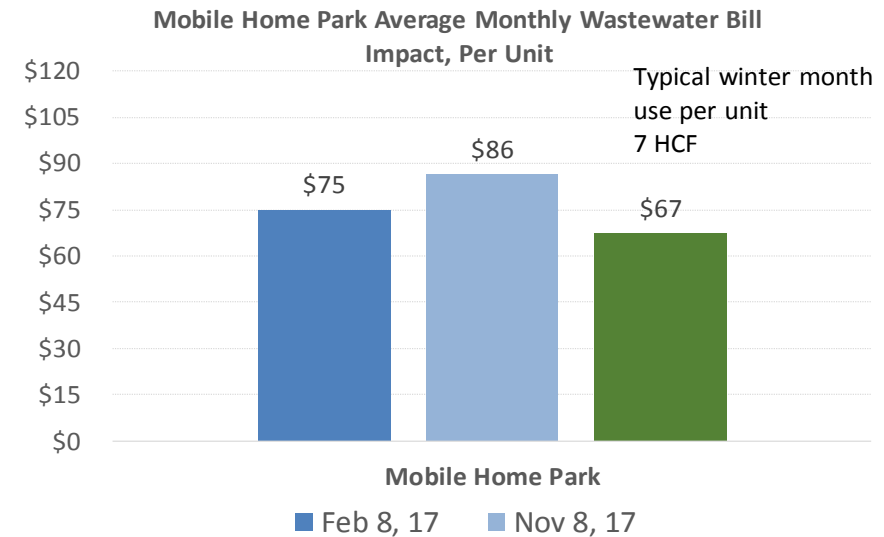


WASTEWATER: Mobile Homes Per Unit Average Monthly Bill Impacts

20-Year Debt Scenario



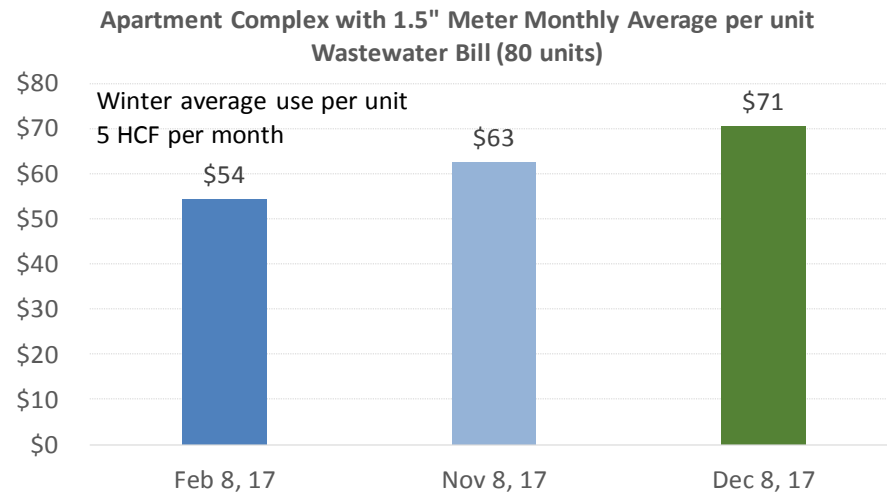
30-Year Debt Scenario



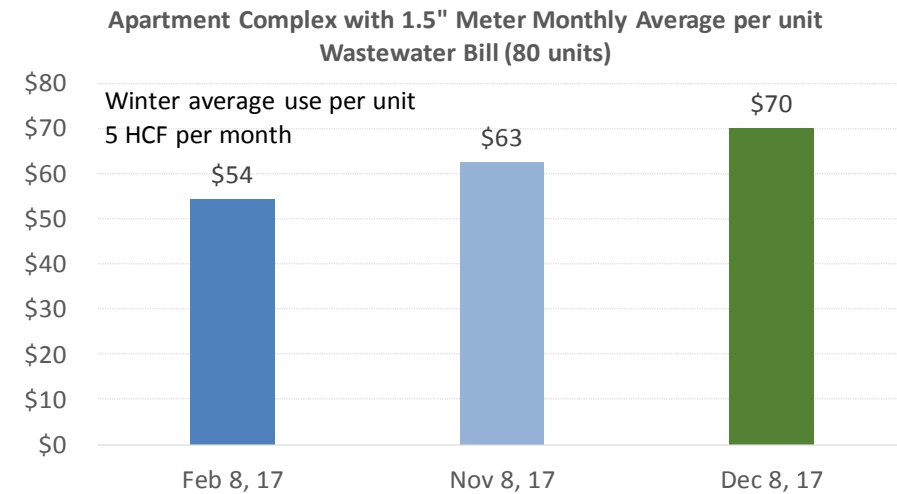


WASTEWATER: Apartment Per Unit Average Monthly Bill Impacts

20-Year Debt Scenario



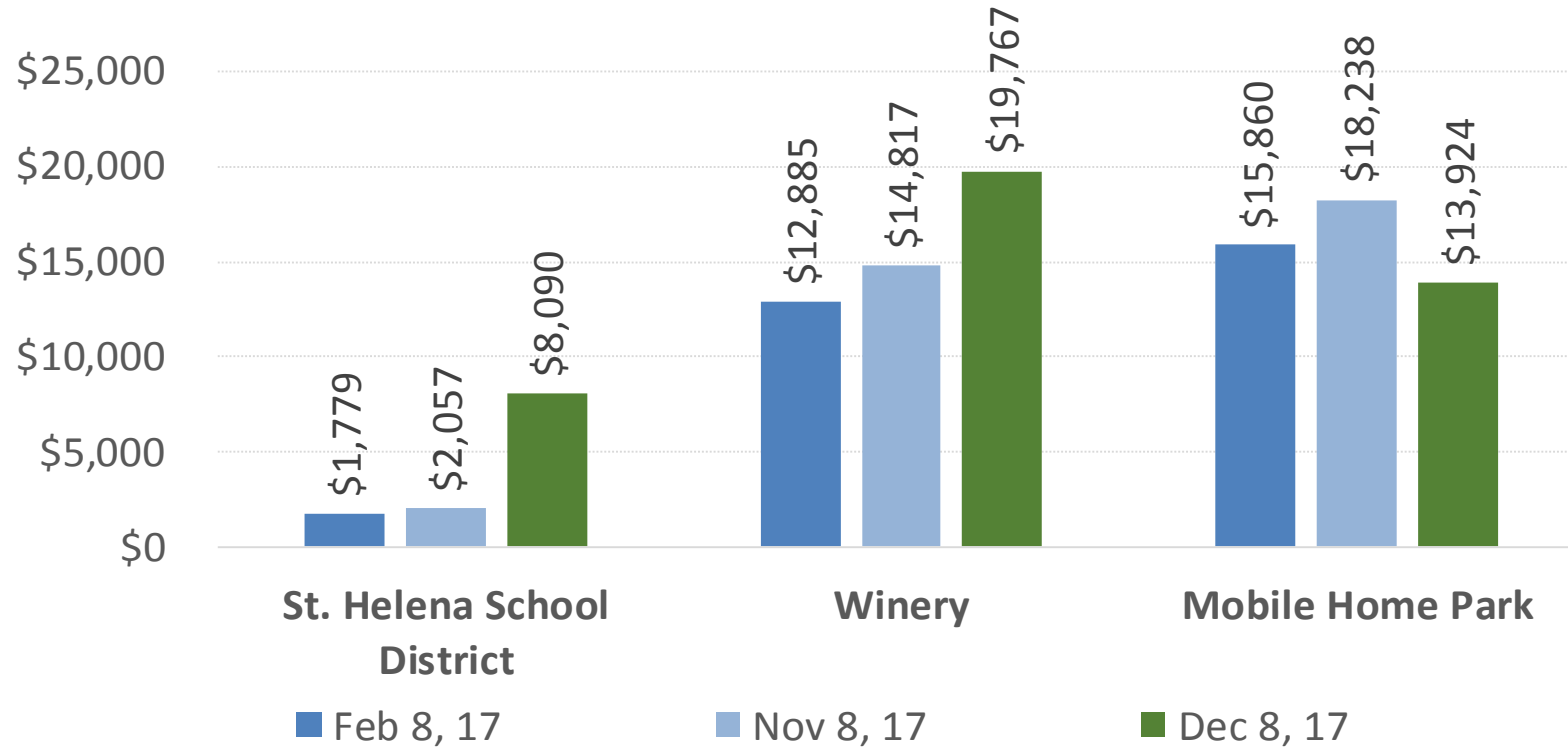
30-Year Debt Scenario





WASTEWATER: Large Users Average Monthly Bill Impact – 20-Year Debt Scenario

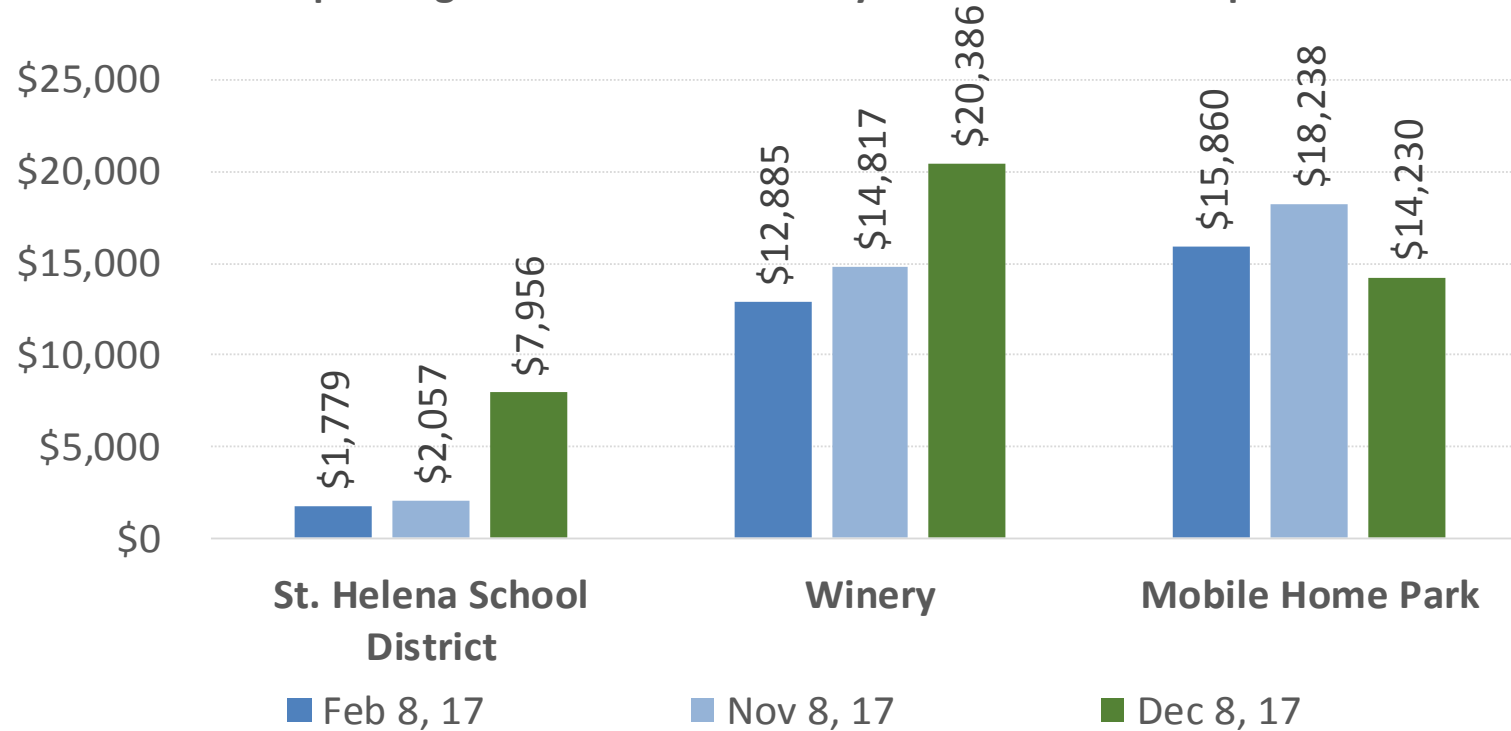
Sample Large Water Users Monthly Wastewater Bill Impact





WASTEWATER: Large Users Average Monthly Bill Impact – 30-Year Debt Scenario

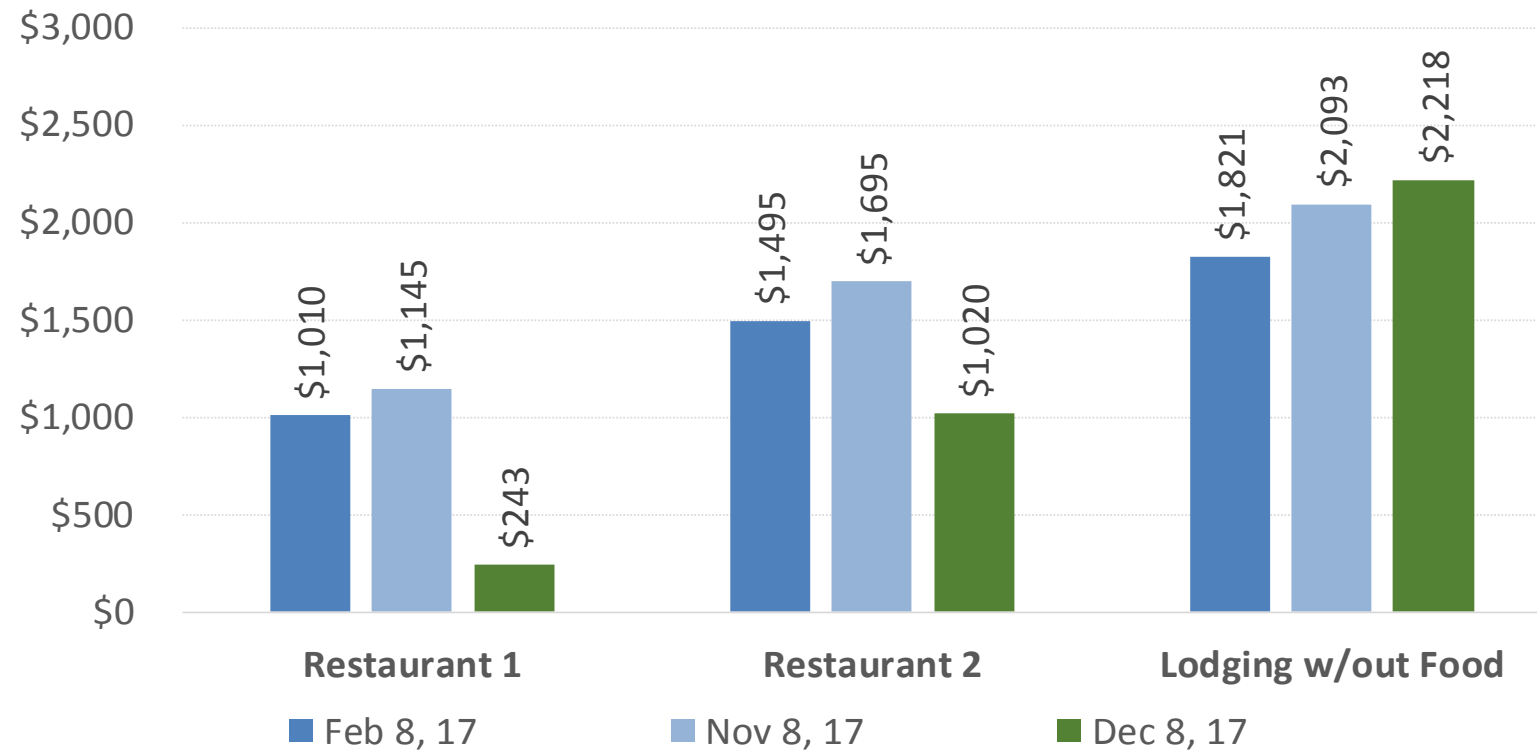
Sample Large Water Users Monthly Wastewater Bill Impact





WASTEWATER: Non-Residential Average Monthly Bill Impacts – 20-Year Debt Scenario

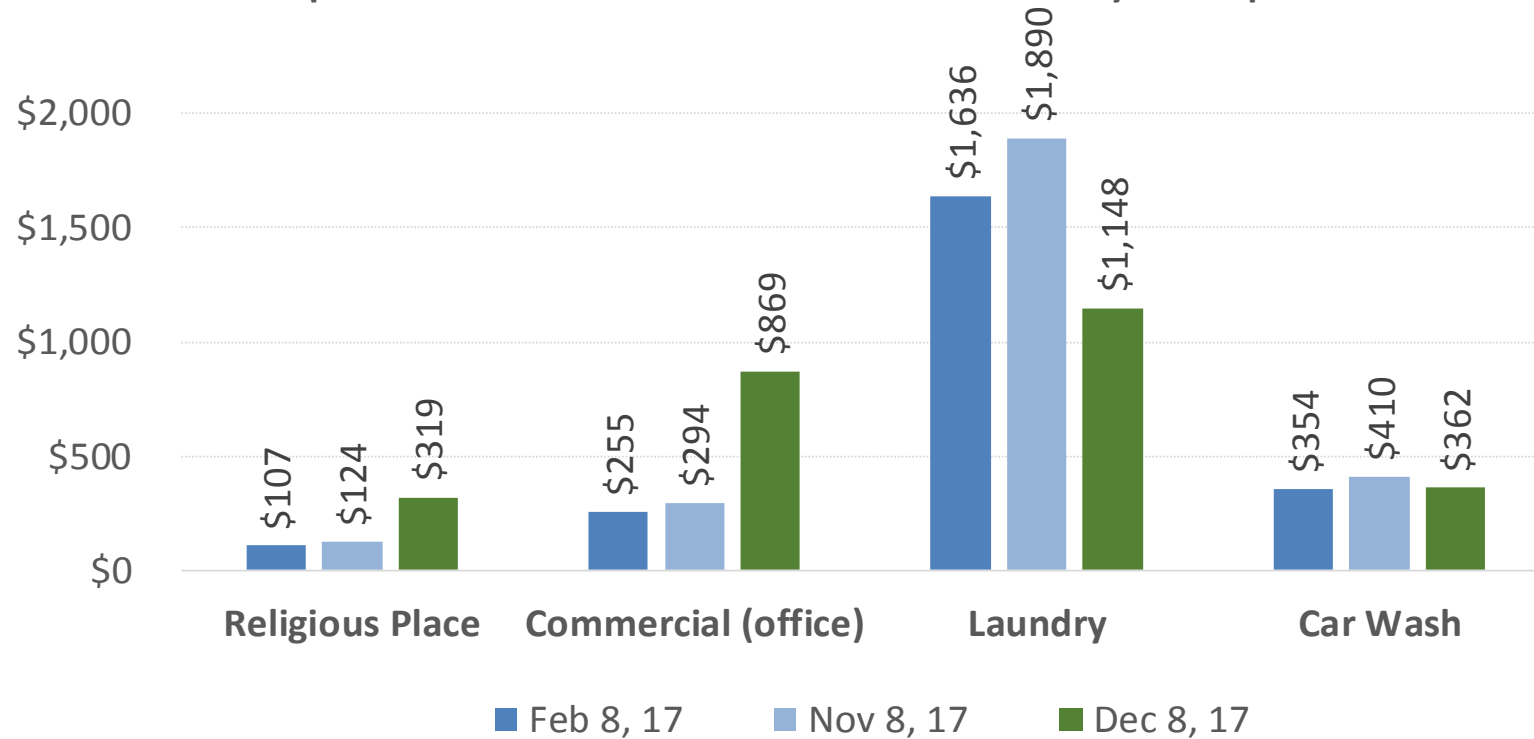
Sample Non-Residential Wastewater Users Monthly Bill Impact





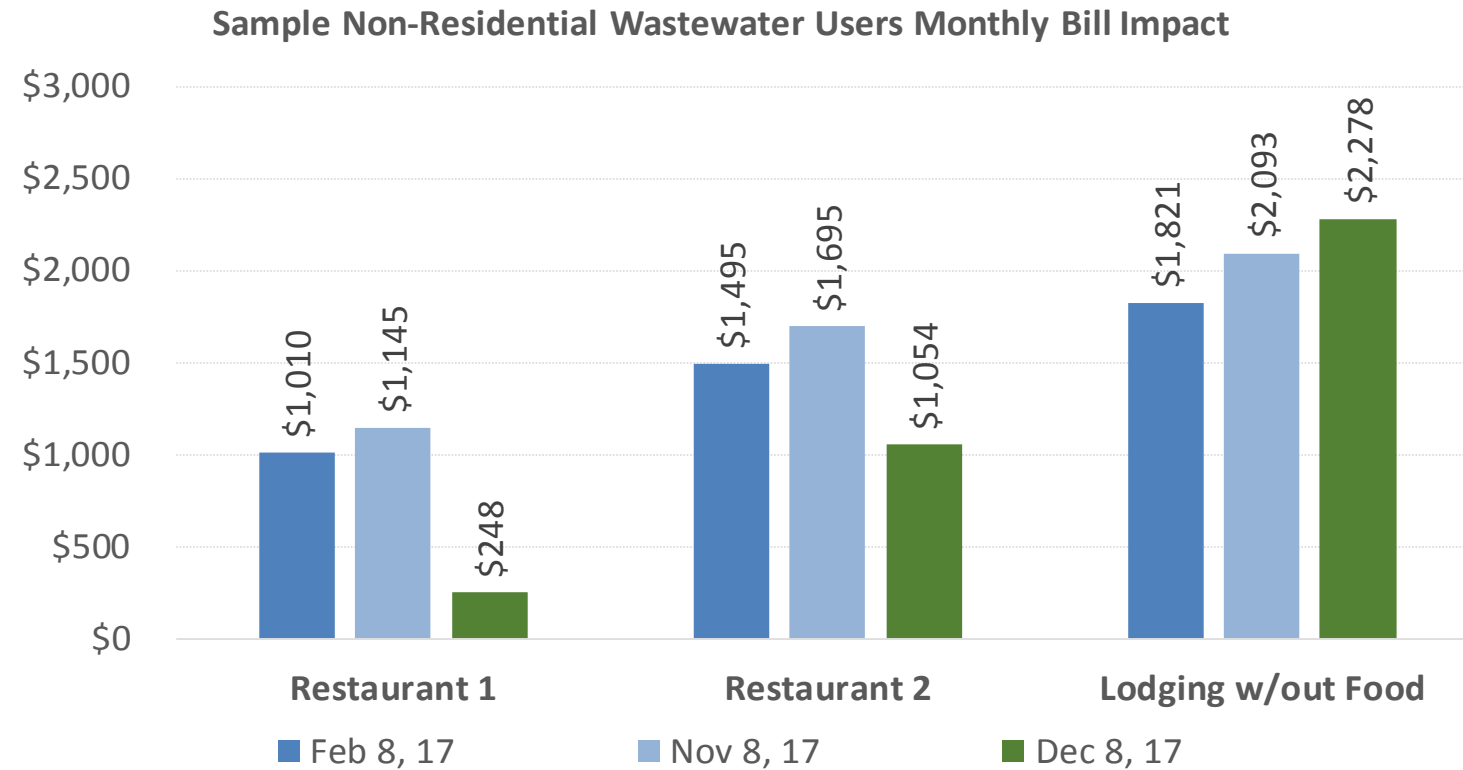
WASTEWATER: Non-Residential Average Monthly Bill Impacts – 20-Year Debt Scenario

Sample Non-Residential Wastewater Users Monthly Bill Impact



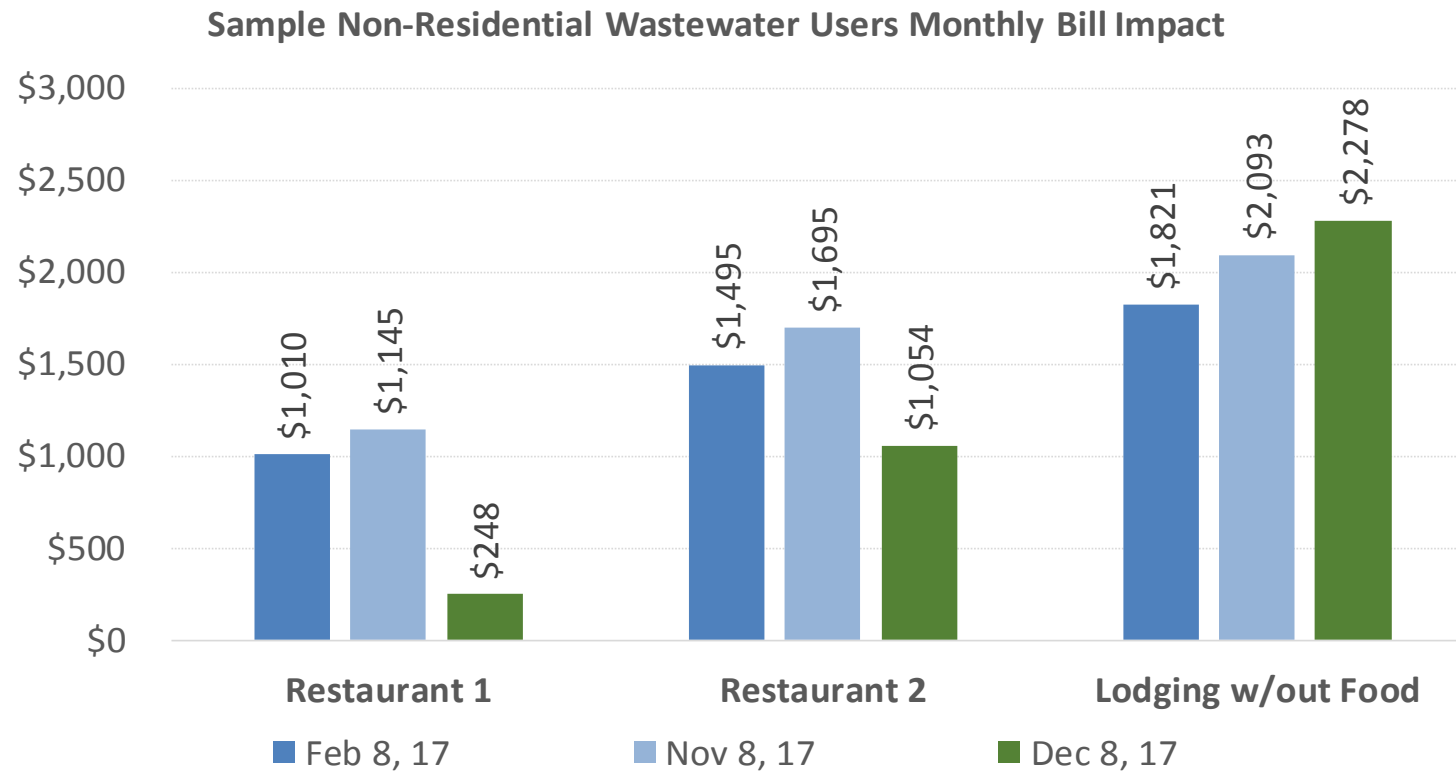


WASTEWATER: Non-Residential Average Monthly Bill Impacts – 30-Year Debt Scenario





WASTEWATER: Non-Residential Average Monthly Bill Impacts – 30-Year Debt Scenario





Decision Points

- What is the Council's preferred **debt ratio**?
(1.3) or (1.3-1.5)
- Preferred **amortization period**?
(20-years vs. 30-years)
- Whether to **reallocate service** (capacity)?
charges on water users



Planning Calendar

Date	Milestone
9/12/2017	City published rate model results
9/18/2017	Special City Council Meeting to review results & options
9/26/2017	City Council selects new rates
10/6/2017	Proposition 218 Notice deadline to mail
10/10/2017	City Council postpones November rate adjustment
End of November	City Council adopt new rates
12/8/2017	New utility rates take effect