



**HUMBOLDT COMMUNITY SERVICES DISTRICT
BOARD OF DIRECTORS
REGULAR SCHEDULED MEETING**

AGENDA

DATE: Tuesday, March 28, 2023

TIME: 5:00 p.m.

LOCATION: 5055 Walnut Drive, Eureka, CA

The HCSD Boardroom is open to the public during open session segment(s) of the meeting. This meeting will also be held by Zoom video/teleconference, per Government Code Section 54953(b). If you cannot attend in person and would like to speak on an agenda item including Public Participation, please join through the Zoom website (<https://zoom.us>) entering Meeting ID 850 5713 7356 and Passcode 545764. Access may also be achieved via telephone only by dialing 1-669-900-9128.

A. ROLL CALL

Directors Benzonelli, Gardiner, Hansen, Matteoli, Ryan

B. PLEDGE OF ALLEGIANCE

C. CONSENT CALENDAR

1. Approval of March 28, 2023 Agenda *Pgs 1-2*
2. Approval of Minutes of the Regular Meeting of March 14, 2023 *Pgs 3-5*

D. REPORTS

1. General Manager
 - a) District Update *Pgs 7-17*
2. Engineering Department
 - a) Engineering Status *Pgs 19*
3. Superintendent
 - a) January/February 2023 Operations/Maintenance *Pg 21*
 - b) February 2023 Construction Operations *Pg 23*

4. Finance Department

- a) February 2023 Budgetary Statement
- b) Update to the State Low Income Household Water Assistance Program (LIHWAP)

Pgs 25-34

Pg 35

5. Legal Counsel

6. Director Reports

7. Other

E. PUBLIC PARTICIPATION **

**Members of the public will be given the opportunity to comment on items not on the agenda. Please use the information set forth above to participate via Zoom. The Board requests that speakers please state their name and where they are from, be clear, concise and limit their communications to 3 to 5 minutes. At the conclusion of all oral communications, the Board or staff may choose to briefly respond with information in response to comments; however, the Brown Act prohibits discussion of matters not on the published agenda. Matters requiring discussion, or action, will be placed on a future agenda.

F. NON-AGENDA

G. NEW BUSINESS

- 1. Consideration of Accepting Recommended Draft Water and Sewer Rate Study *Pgs 37-154* and Proceeding with Prop. 218 Noticing Process
- 2. Request for Appointment of an AdHoc Committee to Assist with City of Eureka *Pg 155* Contract Negotiations

H. OLD BUSINESS

I. ADJOURNMENT

Next Res: 2023-05

Next Ord: 2023-01

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Brenda Franklin at (707) 443-4558, ext. 210. Notification 48 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to this meeting (28 CFR 35.102 – 35.104 ADA Title II).

Pursuant to §54957.5(a) of the California Government Code, any public record writings relating to an agenda item for an open session of a regular meeting of the Board of Directors, not otherwise exempt from public disclosure, are available for public inspection upon request at the District offices located at 5055 Walnut Drive, Monday through Friday (holidays excepted) during regular business hours.

DRAFT – MINUTES OF THE REGULAR MEETING
OF THE BOARD OF DIRECTORS OF THE
HUMBOLDT COMMUNITY SERVICES DISTRICT

The Board of Directors of the Humboldt Community Services District met in Regular Session at 5:00 p.m. on Tuesday, March 14, 2023, at 5055 Walnut Drive, Eureka, California with public participation available via Zoom tele/video conference.

A. CALL TO ORDER AND ROLL CALL

Present upon roll call were Directors Benzonelli, Hansen, Matteoli, and Ryan. Director Gardiner was absent. Staff in attendance: General Manager Williams (GM), Finance Manager Montag (FM), and Assistant Engineer Adams (AE).

B. PLEDGE OF ALLEGIANCE

President Benzonelli invited those present to join in the Pledge of Allegiance.

C. CONSENT CALENDAR

1. Approval of the March 14, 2023 Agenda
2. Approval of Minutes of the Regular Meeting of February 28, 2023

Public Comment: None

DIRECTOR MATTEOLI MOVED, DIRECTOR RYAN SECONDED, TO ACCEPT AND APPROVE THE MARCH 14, 2023 CONSENT CALENDAR. MOTION CARRIED UPON THE FOLLOWING ROLL CALL VOTE:

AYES: BENZONELLI, HANSEN, MATTEOLI, RYAN
NOES: NONE
ABSENT: GARDINER

D. REPORTS

1. General Manager
 - a) District Update
 - McKay Ranch Subdivision – The County approved an agreement with Kramer Properties for a subdivision of approximately 81 acres potentially bringing 320 residential units and 22,000 square feet of commercial space to the area. The property is adjacent to the District and will require annexation in order to provide water and wastewater services. Upon receipt of Kramer Properties legal property description and \$5,000 deposit to cover fees, the annexation can move forward. Additionally, Kramer Properties will be required to enter into a water and sewer mainline extension agreement with the District, construct 250,000 gallons of water storage at the Ridgewood Tank Site, and upsize a section of pipe along Walnut Drive between Holly and Cypress.

DRAFT – MINUTES OF THE REGULAR MEETING
OF THE BOARD OF DIRECTORS OF THE
HUMBOLDT COMMUNITY SERVICES DISTRICT
MARCH 14, 2023

- State of Emergency – California’s Governor proclaimed a State of Emergency to support storm response and relief efforts which includes the 200-gallon sewer spill of March 14.
- Earthquake Recovery – Staff continues to move through the CalOES process for Disaster Recovery Funds and will meet with representatives later in the week.
- District Tour – A District facilities tour for Directors Benzonelli and Ryan is scheduled for March 24. City of Eureka Management extended an offer to the HCSD Directors to provide a tour of the Wastewater Treatment Plant.

2. Engineering

a) Engineering Status

- Hemlock Sewer Reversal – summarized the project that will connect the North Cutten neighborhood to the Martin Slough Interceptor.
- Paving Projects Within the District – Staff is soliciting quotes from local contractors under the CUPCAA Informal Bidding Process to complete resurfacing of the roadways affected by water main replacement projects on Christian Lane, Tower Drive and two locations where watermain breaks damaged County pavement on Park Street.

4. Finance Department

a) February 2023 Check Register

Prior to addressing the Check Register, FM informed the Board of the utility billing delinquency status. Due to conditions preventing traditional collection methods during the COVID pandemic, the District’s past due accounts reached \$881,000. Since that time the District has received \$340,146 through the State Arrearages Program and another \$69,750 through a program known as LIHWAP through the local Redwood Community Action Agency. \$168,000 in delinquency is not collectible as customers no longer hold an account with the District. If the District is unable to collect through property tax, the accounts will be forwarded to collection. This leaves an outstanding balance of \$316,000 wherein 212 accounts representing \$238,000 are in payment plans leaving a \$78,000 balance that staff continues to pursue. A recent modification to LIHWAP guidelines allows for low-income ratepayers to apply for one-time assistance of up to \$2,000 to apply toward future charges.

FM then addressed the Check Register advising February was a standard expenditure month with a few additional expenses related to generator rental during the earthquake and those charges will be included in the CalOES Application for Emergency Response. Director Benzonelli questioned the Martin Slough payment of \$88,800 wherein FM advised it is a twice per year bond finance repayment.

6. Director Reports

Director Benzonelli advised she will attend a core community benefit team to talk about the wind power project at the Humboldt Area Foundation on March 15 at 3 p.m.

G. PUBLIC PARTICIPATION - None

H. NEW BUSINESS

1. Consideration of Adoption of Resolution 2023-04 Designating District Staff as Agents of the District for Matters Pertaining to Disaster Assistance and Hazard Mitigation with California Governor’s Office of Emergency Services (CalOES)

GM summarized the necessity to update the District’s designation of staff authorized to execute all assurances and agreements with the CalOES in order to continue to pursue open and future Disaster Relief and Hazard Mitigation Grants for another three years.

PUBLIC COMMENT:None

IT WAS THEN MOVED BY DIRECTOR HANSEN, SECONDED BY DIRECTOR RYAN, TO ADOPT RESOLUTION 2023-04 DESIGNATING THE DISTRICT’S GENERAL MANAGER, SUPERINTENDENT, AND FINANCE MANAGER AS AUTHORIZED AGENTS FOR MATTERS PERTAINING TO DISASTER ASSISTANCE AND HAZARD MITIGATION WITH CalOES. MOTION CARRIED UPON THE FOLLOWING ROLL CALL VOTE:

AYES: BENZONELLI, HANSEN, MATTEOLI, RYAN
NOES: NONE
ABSENT: GARDINER

J. ADJOURNMENT

There being no further business, IT WAS MOVED BY DIRECTOR MATTEOLI, SECONDED BY DIRECTOR GARDINER, TO ADJOURN. MOTION CARRIED UPON THE FOLLOWING ROLL CALL VOTE:

AYES: BENZONELLI, HANSEN, MATTEOLI, RYAN
NOES: NONE
ABSENT: GARDINER

THE BOARD ADJOURNED ITS REGULAR MEETING OF MARCH 14, 2023 AT 5:29 P.M.

Submitted, Board Secretary

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

MEMORANDUM

TO: Board of Directors
FROM: Terrence Williams, General Manager
DATE: March 24, 2023
SUBJECT: General Manager Report for March 28, 2023 Board Meeting

Elk River Wastewater Treatment Plant Draft NPDES Permit and Rescission of the 2016 Cease and Desist Order

On March 10, 2023, staff from the Regional Water Board wrote notification letters regarding the NPDES permit for the Elk River Wastewater Treatment Plant and the 2016 Cease and Desist Order (Order Number R1-2016-0012). The address line in these letters indicate that they were sent certified mail to the City of Eureka. The carbon copy line indicates that the letters were sent via email to several other people including myself, the General Manager of the Humboldt Community Services District.

On March 15, while attending the Humboldt Bay Municipal Water District's Municipal Customers Meeting, I was approached by Brian Gerving, Public Works Director for the City of Eureka who indicated that the Water Board had posted a Draft NPDES permit to their website without notifying the City of Eureka. While the storyline seemed odd, I accepted the information from Brian at face value and appreciated the effort at transparency.

On March 21, I received emails from staff at the Water Board with the notification letters and the Draft NPDES permit attached. The March 21 emails indicated that there was a technical snafu and electronic delivery didn't occur as planned. I have included the notification letters and the Draft Order to Rescind the 2016 Cease and Desist in this packet for your convenience. The Draft NPDES Permit is 197 pages so I didn't include it in the Board packet. If you would like to review the Draft Permit it can be found on the Water Board's website:

https://www.waterboards.ca.gov/northcoast/board_decisions/tentative_orders/

There will be a public meeting/hearing tentatively scheduled for October 5 and 6 at the Eureka City Hall regarding the Draft NPDES Permit and the rescission of the 2016 Cease and Desist Order. The Water Board will accept written comments regarding these items until 5pm on April 24, 2023.

Despite the confusion regarding the dissemination of this information from the Water Board, I am happy to report that communication with City staff seems to be improving. Here's to progress!

North Coast Regional Water Quality Control Board

March 10, 2023

Mr. Michael Hansen
City of Eureka
531 K Street
Eureka, CA 95501
mphansen@ci.eureka.ca.gov

Certified 7021 0950 0001 6500 0776

Dear Mr. Hansen:

Subject: Rescission of Cease and Desist Order No. R1-2016-0012, as Modified
by Order No. R1-2020-0020

File: City of Eureka, Elk River Wastewater Treatment Plant, WDID No.
1B83147OHUM, NPDES Permit No. CA0024449, CW-223010

The draft Rescission Order, Order No. R1-2023-0021 (Draft Order) for the City of Eureka, Elk River Wastewater Treatment Plant (Facility) is available for public review and comment.

The Draft Order can be viewed on the [Tentative Orders | California Northcoast Regional Water Quality Control Board](#).

The Regional Water Board will be considering the Draft Order and the draft National Pollutant Discharge Elimination System (NPDES) Order No. R1-2023-0016 (Draft Permit) at the October 2023 Board Meeting. The Rescission Order will rescind Cease and Desist Order No. R1-2016-0012, as modified by Order No. R1-2020-0020 (CDO), and the Draft Permit will include compliance schedules that will effectively replace the CDO, carrying forward the requirements to complete tasks to come into compliance with the *Enclosed Bays and Estuaries Plan* (EBEP) discharge prohibition and the discharge of untreated or partially treated waste (Bypass Prohibition).

A public meeting to consider comments and objections to the proposed permit is scheduled for the Regional Water Board's **October 5-6, 2023** Board Meeting, or as announced in the Regional Water Board's agenda. This public meeting is currently scheduled to take place in-person and via video and teleconference at 531 K Street, Room 208, Eureka, CA 95501, but the format may be changed in the future. Please

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follow the North Coast Regional Water Quality Control Board website for information on how to participate in the meeting and any updates regarding this agenda item. Live video and audio broadcasts of the public hearing will be available via the internet and can be accessed at the CalEPA Public Meeting Live Webcasts page (<https://video.calepa.ca.gov/>). The public hearing will be recorded.

Please be aware that dates and venues may change. You can access the current agenda for changes in dates at our [website](#). At the hearing, the Regional Water Board will consider whether to affirm, reject, or modify the proposed WDRs.

In order for the Regional Water Board to consider any written evidentiary material concerning this hearing, any documents, including written comments, technical reports and other evidentiary material, must be submitted to the Regional Water Board email at NorthCoast@waterboards.ca.gov attention: Justin McSmith by 5:00 p.m. on **April 24, 2023**. All documents that are received timely will be distributed to the Regional Water Board members and interested persons. These records will also become a permanent part of the administrative record for this public hearing.

Except at the discretion of the Regional Water Board Chair, written material received after the above date will not be accepted. If the Chair chooses to accept late written material, that material will not be incorporated into the administrative record if doing so would prejudice any party or the Board. The Chair may choose to modify this rule upon a showing of severe hardship (California Code of Regulations, Title 23, sections 648.1 and 648.4).

The Regional Water Board will accept written and oral comments and evidence regarding this item. Written comments and evidence must be submitted to the Regional Water Board by **April 24, 2023**. Oral comments or testimony at the hearing may summarize or explain timely submitted, or late-accepted written evidence but shall not introduce new evidence. The time limit for oral testimony or comments will be set by the Regional Water Board Chair and are subject to change. These time limits normally allow no more than 20 minutes each for Regional Water Board staff and Dischargers. Other interested persons may also provide testimony at this public hearing. However, any testimony given by someone other than staff or the Dischargers, is limited to 5 minutes. A timer may be used, and speakers are expected to honor time limits. Where speakers can be grouped by affiliation or interest, such groups will be expected to select a spokesperson to avoid unnecessary or repetitive testimony.

The Proposed Permit and related documents are available at the [Regional Water Board's website for tentative orders for Board decisions](#). Additionally, the Proposed Permit and file may be inspected or copied at the Regional Water Board office, 5550 Skylane Boulevard, Suite A, Santa Rosa, California. To make an appointment for file review, you may call the Regional Water Board office at (707) 576-2220.

You may contact me at Justin.McSmith@waterboards.ca.gov or (707) 576-2082, if you have any questions.

Sincerely,



Justin McSmith
Water Resource Control Engineer

230310_JCM_er_Eureka_Rescission_TransLtr

cc: Sunny Elliott, U.S. EPA, Region 9, CWA Standards and Permits Office (WTR-5),
Elliott.Sunny@epa.gov
Brian Gerving, City of Eureka, bgerving@ci.eureka.ca.gov
Terrence Williams, Humboldt Community Services District,

North Coast Regional Water Quality Control Board

**California Regional Water Quality Control Board
North Coast Region
Order No. R1-2023-0021
Rescission of Cease and Desist Order No. R1-2016-0012 as
modified by Order No. R1-2020-0020
for the
CITY OF EUREKA ELK RIVER
WASTEWATER TREATMENT PLANT
NPDES NO. CA0024449
WDID NO. 1B82151OHUM
Humboldt County**

The California Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board) finds that:

1. The City of Eureka (Permittee) owns and operates the Elk River Wastewater Treatment Plant (Facility), a publicly owned treatment works (POTW). The Facility has an average dry weather treatment capacity of 5.24 mgd, a peak dry weather treatment capacity of 8.6 mgd, and a peak wet weather secondary treatment capacity of 12 mgd. Wastewater entering the facility undergoes primary treatment with mechanical bar screens, grit removal, and primary clarification. Biological secondary treatment is accomplished using two trickling filters, followed by secondary clarification, and chlorine disinfection. The chlorinated effluent is stored in a holding pond then dechlorinated and discharged at Discharge Point 001 to Humboldt Bay in conjunction with ebb tide cycles.
2. On June 16, 2016, the Regional Water Board adopted WDR Order No. R1-2016-0001, NPDES Permit No. CA0024449 (2016 NPDES Permit) for the Permittee.
3. Concurrently with this Cease and Desist Order rescission, the Regional Water Board will consider adoption of a renewed NPDES Permit, Order No. R1-2023-0016 (2023 NPDES Permit).
4. On June 20, 2016, the Regional Water Board adopted Cease and Desist Order (CDO) No. R1-2016-0012, which established compliance schedules, and specific actions and milestones that lead to future compliance with Discharge Prohibitions III.A. and III.E. in the 2016 NPDES Permit. Specifically, the CDO required the Permittee to implement specific actions to come into compliance with the *Enclosed Bays and Estuaries Plan* (EBEP) discharge prohibition and the

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discharge of untreated or partially treated waste (Bypass Prohibition). On June 18, 2020, the Regional Water Board adopted Order No. R1-2020-0020 modifying the CDO to extend certain compliance dates.

5. The Regional Water Board proposes to establish compliance schedules in the 2023 NPDES Permit. The 2023 NPDES Permit will effectively replace the CDO, carrying forward certain existing tasks in the CDO, while incorporating updated tasks and new dates, where appropriate.
6. Regional Water Board action to rescind Cease and Desist Order No. R1-2016-0012 as modified by Order No. R1-2020-0020 is exempt from provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) in accordance with Title 14, California Code of Regulations, Sections 15061(b)(3) and 15301.

THEREFORE, IT IS HEREBY ORDERED that Cease and Desist Order No. R1-2016-0012 as amended by Order No. R1-2020-0020 is rescinded.

Ordered by _____
Valerie M. Quinto
Executive Officer

230224_Eureka_CDO_Rescission_DRAFT

North Coast Regional Water Quality Control Board

March 10, 2023

Mr. Michael Hansen
City of Eureka
531 K Street
Eureka, CA 95501
mphansen@ci.eureka.ca.gov

Certified 7021 0950 0001 6500 0752

Dear Mr. Hansen:

Subject: Renewal of National Pollutant Discharge Elimination System Permit

File: City of Eureka, Elk River Wastewater Treatment Plant, WDID No. 1B83147OHUM, NPDES Permit No. CA0024449, CW-223010

The draft National Pollutant Discharge Elimination System (NPDES) permit and Waste Discharge Requirements (WDRs), Order No. R1-2023-0016 (Draft Order) for the City of Eureka, Elk River Wastewater Treatment Plant (Facility) is available for public review and comment.

The Draft Order can be viewed on the [Tentative Orders | California Northcoast Regional Water Quality Control Board](#).

Although the Draft Order is lengthy, it is important that you review the entire document to ensure that you become familiar with the requirements, identify any requirements that you need help understanding, and identify any potential inaccuracies prior to permit adoption by the Regional Water Board. The Draft Order includes several important changes from the current Order, Order No. R1-2016-0001, as follows:

- 1. Ammonia Impact Ratio.** The effluent limitation for ammonia nitrogen has been replaced with an ammonia impact ratio (AIR) limitation. (Draft Order section 4.1.1) For an explanation of the ammonia impact ratio, please refer to section 4.3.3.1.4 of the Draft Order Fact Sheet.
- 2. Acute Toxicity Effluent Limitations.** Reasonable potential for acute aquatic toxicity is present, therefore effluent limitations for acute aquatic toxicity have been included as required by the new Toxicity Provisions. (Draft Order Section 4.1.1.4)
- 3. Chronic Toxicity Effluent Limitations.** The new Toxicity Provisions require that chronic aquatic toxicity effluent limitations be included for dischargers authorized to discharge at a rate equal to or greater than 5.0 MGD and are required to have a

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federal pretreatment program pursuant to 40 C.F.R Part 403. As such, effluent limitations for chronic toxicity have been included as required by the new Toxicity Provisions. (Draft Order Section 4.1.1.5)

4. **Reasonable Potential.** WQBELs for Copper and TCDD equivalents were removed and not included in the Draft Order as the reasonable potential analysis (RPA) results indicate that reasonable potential no longer exists. (Draft Order section 4.1.1.1)
5. **Reasonable Potential.** A WQBEL for alpha-Endosulfan was included in the Draft Order as the reasonable potential analysis (RPA) results indicate that reasonable potential for alpha-Endosulfan exists. Additionally, an updated AMEL for cyanide has been included in the Draft Permit. (Draft Order section 4.1.1.1)
6. **Bacteria Effluent Limitations.** Effluent limitations for enterococci bacteria have been included in the Draft Permit to ensure that bacterial water quality objectives for water contact recreation are maintained throughout the receiving water. (Draft Order section 4.1.1.3.2)
7. **Revised Receiving Water Limitations.** Modified receiving water limitations for Dissolved Oxygen has been included to implement the 2016 amendments to the Basin Plan have been included in the Draft Order. (Draft Order section 5.1.1)
8. **Bacteria Provisions.** Updated receiving water limitations for bacteria have been included to implement new bacteria provisions in the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California that were adopted by the State Water Board on August 7, 2018. (Draft Order section 5.1.18)
9. **Humboldt Bay Management plan.** A requirement for the permittee to notify the California Department of Public Health Preharvest Shellfish Unit of any pollution events that are a result of the Permittee's discharge which may pose a threat or adversely affect water and shellfish quality in Humboldt Bay (Draft Order section 6.3.5.2)
10. **Compliance Schedules.** Compliance schedules are included in the Draft Permit to allow a method for compliance with Discharge Prohibitions 3.1 and 3.5. (Draft Order Section 6.3.6)
11. **Compliance Determination Language.** New and updated compliance determination language has been added to Section 7 of the Draft Order that addresses:
 - a. Compliance with bacteriological limitations. (Draft Order section 7.8)

- b. Compliance with the chronic and acute toxicity requirements. (Draft Order section 7.9)
- c. Compliance with the Ammonia Impact Ratio. (Draft Order sections 7.12 and 7.13)

12. Monitoring and Reporting Requirements. Changes to the monitoring and reporting requirements have been made as follows:

- a. New language to ensure that all monitoring is conducted using sufficiently sensitive methods in accordance with U.S. EPA's Sufficiently Sensitive Methods Rule which became effective September 18, 2015. (Draft MRP section 1.5)
- b. New effluent and receiving water monitoring requirements for *enterococci* bacteria to verify that enterococci bacteria effluent limitations result in achievement of Statewide Bacteria Standards. (Draft MRP sections 4.1.1 and 8.1.1)
- c. New effluent water monitoring requirements for alpha-Endosulfan to assess compliance with the effluent limitations for alpha-Endosulfan. (Draft MRP section 4.1.1)
- d. New receiving water monitoring requirements for priority pollutants to collect data needed to determine if reasonable potential exists for any priority pollutant water quality objective. (Draft MRP section 8.1.1)
- e. The effluent monitoring frequency requirement for chronic aquatic toxicity has been increased from a quarterly to monthly to meet the minimum allowed monitoring frequency identified within the new Toxicity Provisions. (Draft MRP section 4.1.1)
- f. The Whole Effluent Toxicity Testing Requirements included in the monitoring and reporting program have been updated significantly to reflect the new Toxicity Provisions. (Draft MRP section 5)
- g. New visual monitoring requirements for monitoring locations EFF-001 and RSW-001 have been included to assess compliance with narrative receiving water limitations contained in the section 5 of the Draft Order. (Draft MRP section 9.6)
- h. The Special Studies section of the permit has been relocated from the Order to the MRP.

Note that Table E-9, Reporting Requirements for Special Provision Reports, in the monitoring and reporting program summarizes significant reporting requirements that are embedded throughout the permit. These reporting requirements are in addition to

the routine self-monitoring reports that are addressed in MRP section 10, Reporting Requirements, of the Draft MRP. Please carefully review Table E-9. Again, we encourage and appreciate your thorough review of the Draft Order.

A public meeting to consider comments and objections to the proposed permit is scheduled for the Regional Water Board's **October 5-6, 2023** Board Meeting, or as announced in the Regional Water Board's agenda. This public meeting is currently scheduled to take place in-person and via video and teleconference at 531 K Street, Room 208, Eureka, CA 95501, but the format may be changed in the future. Please follow the North Coast Regional Water Quality Control Board website for information on how to participate in the meeting and any updates regarding this agenda item.

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can be grouped by affiliation or interest, such groups will be expected to select a spokesperson to avoid unnecessary or repetitive testimony.

The Proposed Permit and related documents are available at the [Regional Water Board's website for tentative orders for Board decisions](#). Additionally, the Proposed Permit and file may be inspected or copied at the Regional Water Board office, 5550 Skylane Boulevard, Suite A, Santa Rosa, California. To make an appointment for file review, you may call the Regional Water Board office at (707) 576-2220.

You may contact me at Matthew.Herman@waterboards.ca.gov or (707) 576-2082, if you have any questions.

Sincerely,

 Digitally signed by
Matthew Herman
Date: 2023.03.10
16:08:21 -08'00'

Matthew Herman, P.E.
Water Resource Control Engineer

230310_MTH_Eureka_ProposedNPDES_TransLtr

cc: Sunny Elliott, U.S. EPA, Region 9, CWA Standards and Permits Office (WTR-5),
Elliott.Sunny@epa.gov
Brian Gerving, City of Eureka, bgerving@ci.eureka.ca.gov
Terrence Williams, Humboldt Community Services District,

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

Engineering Memorandum

TO: Board of Directors

FROM: Benjamin Adams, Assistant Engineer

DATE: March 24, 2023

SUBJECT: Engineering Dept. Status Report for March 28, 2023 Board Meeting

Coordination with Outside Agencies

A section of parking lane and sidewalk approximately 100 feet long on the East side of F Street has subsided approximately 4 feet. The area is directly across from the F Street sewer lift station (SLS) and above the Hartman SLS. District Water and Sewer infrastructure in F street is located West of the F street center line. District Water and Sewer infrastructure in Hartman Lane is approximately 75 feet North of the affected area. District infrastructure within F Street and Hartman Lane does not appear to be affected at this time, all systems are functioning as normal.

District Engineering staff compiled and provided as-built and record drawings of District infrastructure in the vicinity of the affected area to the County's Engineering staff as they begin planning their project to remedy the subsidence.

There is a City of Eureka water main located on the East side of F Street, within the affected area. District Operations staff met with City Operations staff to discuss paths forward if the conditions deteriorate further.

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service to our customers

BOARD MEMORANDUM

To: H.C.S.D. Board of Directors
From: Tim Latham, District Superintendent
Date: March 22, 2023
Subject: January/February 2023 Operations/Maintenance Report

The Operations/Maintenance Department was busy in January and February with a variety of projects. In addition to the standard operation and maintenance of District facilities, crews continued to do station maintenance and assisted with customer service. All of the stationary and portable generators were tested in order to ensure proper operation in the time of need.

Sewer related business included cleaning 16,318 feet of sewer main line and 785 feet of sewer lateral line, and filming 385 feet of sewer main line and 580 feet of sewer lateral line all in various areas throughout the District, cleaning sewer wet wells at the Hidden Meadows sewer lift station, and responding to sewer lateral line issues on Tess Court, Fern Street and Burns Drive.

Water related business included troubleshooting a pump related issue at the South Bay well, assisting Humboldt Bay Municipal Water District (HBMWD) with removing the Truesdale water booster station flow meter for annual calibration, installing gutters and painting the new South Bay pump building, installing water sampling stations at the Lentell Road, Mitchell Road and Kluck Lane water booster stations, lowering the radio antenna wires to the ground as part of the Donna Drive Hydro-tank Replacement Project and taking TTHM and HAA5 water distribution system samples as required by the State Water Resources Control Board – Division of Drinking Water (SWRCB-DDW).

Other business included responding to multiple power outages, responding to the January 1, 2023 Browns Road water main line break which was reported earlier, responding to multiple storm related issues, and continued preparations for multiple upcoming Capital Improvement Projects.

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service to our customers

BOARD MEMORANDUM

To: H.C.S.D. Board of Directors
From: Tim Latham, District Superintendent
Date: March 22, 2023
Subject: February 2023 Construction Operations Report

General business for the month of February included water service line leak repairs on Myrtle Avenue and Excelsior Road, water service line replacements due to leaks on “E” Street and Westgate Drive, replacing broken angle meter stops on Erie Street and Glenwood Street, replacing a leaking water meter on Blackberry Lane, relocating a water service on Cedar Street, installing a new water service on Mitchell Road, replacing the saddles, corporation stops and air relief valves on the Elk River water main line crossing, replacing a water main line valve can on Cummings Road, concrete repairs throughout the Fields Landing area, and repairing a sewer lateral line and raising the cleanout to grade on Tess Court.

Other business included performing vehicle and equipment maintenance, water meter reading, customer service orders, landscape maintenance, and working on the sidewalks in front of the District office as part of the District Office ADA Improvement Project.

HUMBOLDT COMMUNITY SERVICES DISTRICT
BUDGETARY STATEMENT OF REVENUES AND EXPENSES
FOR ENTIRE DISTRICT

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance	Note
OPERATING REVENUE							
Metered Water Sales	5,449,000	386,144	3,486,681	3,632,667	(145,986)	(4.0)	
Water Charges - Pass Through	-	-	-	-	-	-	
Sewer Service Charges	5,280,000	432,659	3,483,131	3,520,000	(36,869)	(1.0)	
Sewer Service Charges - Pass Through	1,500,000	128,687	1,042,060	1,000,000	42,060	4.2	
Water & Sewer Construction Fees	47,000	308	25,909	31,333	(5,424)	(17.3)	
Account Fees	35,000	9,823	43,449	23,333	20,116	86.2	
Reimbursable Maintenance Fees	1,000	-	25	667	(642)	(96.3)	1
Miscellaneous	2,000	-	1,043	1,333	(291)	(21.8)	1
TOTAL OPERATING REVENUE	12,314,000	957,621	8,082,448	8,209,333	(126,885)	(1.5)	
NON-OPERATING REVENUE							
Capital Connection Fees	180,000	7,221	77,343	120,000	(42,657)	(35.5)	1
Interest/General	30,000	-	-	20,000	(20,000)	(100.0)	1
Discounts Earned	2,000	187	1,106	1,333	(227)	(17.1)	1
Sales: Fixed Assets/Scrap Metal	15,700	-	43	10,467	(10,424)	(99.6)	1
Bad Debt Recovery	10,000	390	699	6,667	(5,967)	(89.5)	1
Property Taxes & Assessments	354,000	-	-	236,000	(236,000)	(100.0)	1
Insurance Rebate	20,000	-	-	13,333	(13,333)	(100.0)	1
Other Non-Operating Revenue	-	-	237	-	237	-	
TOTAL NON-OPERATING REVENUE	611,700	7,798	79,428	407,800	(328,372)	(80.5)	1
TOTAL DISTRICT REVENUE	12,925,700	965,419	8,161,876	8,617,133	(455,257)	(5.3)	
OPERATING EXPENSES							
Wages Direct	1,635,000	124,550	1,010,323	1,090,000	79,677	7.3	
Benefits: PERS	503,000	41,336	330,991	335,333	4,342	1.3	
Group Ins	1,235,000	88,086	687,306	823,333	136,027	16.5	
Workers Comp Ins	23,500	-	15,537	15,667	130	0.8	2
FICA/Medicare	117,000	9,608	78,329	78,000	(329)	(0.4)	
Misc Benefits	500	60	420	333	(87)	(26.0)	
Total Wages and Benefits	3,514,000	263,638	2,122,906	2,342,667	219,761	9.4	
Less: wages & ben charged to Capital Proj.	(175,676)	(17,435)	(211,244)	(117,117)	94,127	(80.4)	
Total Operating Wages and benefits	3,338,324	246,203	1,911,662	2,225,549	313,887		
Water Purchase HBMWD	1,075,000	89,095	707,400	716,667	9,267	1.3	
Water Purchase Eureka	810,000	60,055	553,302	540,000	(13,302)	(2.5)	
Sewage Treatment Operations & Maint.	1,495,000	134,733	1,077,864	996,667	(81,197)	(8.1)	
Water/Sewer Analysis	15,000	614	9,043	10,000	957	9.6	
Supplies/ Construction	159,500	15,328	88,575	106,333	17,758	16.7	
Supplies/ Office-Administration	15,000	1,835	9,656	10,000	345	3.4	
Supplies/ Engineering	2,500	-	527	1,667	1,140	68.4	
Supplies/ Maintenance	100,000	1,618	44,750	66,667	21,917	32.9	
Invoicing	57,000	3,505	35,326	38,000	2,674	7.0	
Temporary Labor	61,200	17,460	69,882	40,800	(29,082)	(71.3)	3
Repairs & Maintenance/Trucks	55,000	9,776	35,447	36,667	1,219	3.3	
Equipment Rental	5,000	-	-	3,333	3,333	100.0	
Building & Grounds Maintenance	30,000	3,477	19,380	20,000	620	3.1	
Electrical Power	295,800	28,787	236,737	197,200	(39,537)	(20.0)	4
Street Lights	70,000	5,711	52,827	46,667	(6,161)	(13.2)	4
Telephone	18,000	1,043	9,581	12,000	2,419	20.2	
Postage	3,000	(2)	2,520	2,000	(520)	(26.0)	5
Freight	500	-	4,466	333	(4,133)	(1,239.8)	6
Chemicals	10,000	21	8,008	6,667	(1,342)	(20.1)	7
Liability Insurance	62,000	-	81,315	41,333	(39,981)	(96.7)	8

HUMBOLDT COMMUNITY SERVICES DISTRICT
BUDGETARY STATEMENT OF REVENUES AND EXPENSES
FOR ENTIRE DISTRICT

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance	Note
Legal	70,000	367	34,669	46,667	11,998	25.7	
Accounting	13,000	6,718	16,103	8,667	(7,436)	(85.8)	9
Engineering	1,000	-	570	667	96	14.5	13
Other Professional Services	118,000	-	7,281	78,667	71,385	90.7	
Bank Service Charges	28,000	825	13,660	18,667	5,007	26.8	
Transportation	75,738	3,780	47,609	50,492	2,883	5.7	
Office Equip. Maintenance	7,000	305	1,786	4,667	2,881	61.7	
Computer Software Maintenance	45,000	130	29,139	30,000	861	2.9	
Memberships & Subscriptions	24,800	50	20,820	16,533	(4,286)	(25.9)	10
Bad Debts & Minimum Balance Writeoff	50,000	-	175	33,333	33,159	99.5	
Conference & Continuing Ed	34,500	-	10,321	23,000	12,679	55.1	
Certifications	3,500	-	1,811	2,333	522	22.4	
State/County & LAFCO Fees and Charges	40,000	384	34,570	26,667	(7,903)	(29.6)	11
Hydraulic Water Model Maintenance	6,000	-	-	4,000	4,000	100.0	
Elections Expense	15,000	-	-	10,000	10,000	100.0	
Human Resources	21,000	80	4,819	14,000	9,181	65.6	
Miscellaneous	12,000	907	7,197	8,000	803	10.0	
Director's Fees	16,000	1,200	8,100	10,667	2,567	24.1	
TOTAL OPERATING EXPENSES	8,258,362	634,005	5,196,897	5,505,575	308,678	5.6	
LONG TERM DEBT PAYMENTS							
Safe Drinking Water Bond	177,429	-	-	118,286	118,286	100.0	12
2012 CIP & Refi.	203,766	-	203,766	135,844	(67,922)	(50.0)	12
Davis-Grunsky Loan	6,049	-	5,838	4,033	(1,805)	(44.8)	12
VacCon Truck Loan	117,441	-	117,441	78,294	(39,147)	(50.0)	12
2014 Wastewater Revenue Bonds	484,175	-	134,588	322,783	188,196	58.3	12
New Long-Term Debt	(340,000)	-	-	(226,667)	(226,667)	100.0	12
TOTAL LONG TERM DEBT PAYMENTS	648,860	-	461,632	432,573	(29,058)	(6.7)	12
CAPITALIZED EXPENDITURES							
Vehicles, Rolling Stock & Equipment	340,000	9,448	46,241	226,667	180,426	79.6	
Building, Yard & Paving Improvements	94,000	12,879	72,842	62,667	(10,175)	(16.2)	
Capital Improvements Water	1,617,700	32,304	333,022	1,078,467	745,445	69.1	
Capital Improvements Sewer	865,000	1,165	105,226	576,667	471,441	81.8	
Engineering & Studies	-	6,010	43,631	-	(43,631)	-	13
District Design Standards	-	-	1,840	-	(1,840)	-	
TOTAL CAPITAL EXPENDITURES	2,916,700	61,805	602,802	1,944,467	1,341,665	69.0	
OTHER							
City of Eureka Projects: Treatment Plant	1,135,000	-	-	756,667	756,667	100.0	
TOTAL City of Eureka Projects	1,135,000	-	-	756,667	756,667	100.0	
Interfund Transfers In	-	-	-	-	-	-	
Interfund Transfers Out	-	-	-	-	-	-	
BUDGET SURPLUS (DEFICIT)	(33,222)	269,608	1,900,546	(22,148)	1,922,694	8,681.1	

HUMBOLDT COMMUNITY SERVICES DISTRICT
SUMMARY BUDGETARY STATEMENT OF REVENUE AND EXPENSES
FOR ENTIRE DISTRICT

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance
OPERATING REVENUE & EXPENSES						
TOTAL OPERATING REVENUE	12,314,000	957,621	8,082,448	8,209,333	(126,885)	(1.5)
TOTAL OPERATING EXPENSES	(8,258,362)	(634,005)	(5,196,897)	(5,505,575)	308,678	5.6
NET SURPLUS/(DEFICIT) FROM OPERATIONS	4,055,638	323,616	2,885,551	2,703,759	181,793	6.7
NON-OPERATING REVENUE & EXPENSES						
TOTAL NON-OPERATING REVENUE	611,700	7,798	79,428	407,800	(328,372)	(80.5)
TOTAL LONG TERM DEBT SERVICE	(648,860)	-	(461,632)	(432,573)	(29,058)	(6.7)
SURPLUS/(DEFICIT) BEFORE CAPITAL EXPENDITURES	4,018,478	331,413	2,503,348	2,678,985	(117,521)	(4.4)
HCSD CAPITAL IMPROVEMENT EXPENDITURES	(2,916,700)	(61,805)	(602,802)	(1,944,467)	1,341,665	69.0
CITY of EUREKA PROJECT REIMBURSEMENT	(1,135,000)	-	-	(756,667)	756,667	100.0
NEW DEBT ISSUE						
NET INTERFUND TRANSFERS IN/OUT		-	-			
BUDGET SURPLUS (DEFICIT)	<u>(33,222)</u>	<u>269,608</u>	<u>1,900,546</u>	<u>(22,148)</u>	<u>1,922,694</u>	<u>8,681.1</u>

HUMBOLDT COMMUNITY SERVICES DISTRICT
BUDGETARY STATEMENT OF REVENUES AND EXPENSES
Water Fund

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance
OPERATING REVENUE						
Metered Water Sales	5,449,000	386,144	3,486,681	3,632,667	(145,986)	(4.0)
Water Pass Through	-	-	-	-	-	-
Water Construction Fees	35,000	308	25,875	23,333	2,542	10.9
Account Fees	19,950	5,599	24,766	13,300	11,466	86.2
Inspection Fees	-	-	-	-	-	-
Reimbursable Maintenance Fees	800	-	25	533	(508)	(95.3)
Miscellaneous	1,000	-	372	667	(294)	(44.2)
TOTAL OPERATING REVENUE	5,505,750	392,051	3,537,719	3,670,500	(132,781)	(3.6)
NON-OPERATING REVENUE						
Water Capital Connection Fees	90,000	4,263	55,774	60,000	(4,226)	(7.0)
Interest/General	23,547	-	-	15,698	(15,698)	(100.0)
Discounts Earned	1,280	107	630	853	(223)	(26.1)
Sales:Fixed Assets/Scrap Metal	8,844	-	24	5,896	(5,872)	(99.6)
Bad Debt Recovery	5,700	222	399	3,800	(3,401)	(89.5)
FW/MR Assessment	4,000	-	-	2,667	(2,667)	(100.0)
Other Non-Operating Revenue	-	-	-	-	-	-
TOTAL NON-OPERATING REVENUE	133,371	4,592	56,827	88,914	(32,087)	(36.1)
TOTAL DISTRICT REVENUE	5,639,121	396,643	3,594,546	3,759,414	(164,868)	(4.4)
OPERATING EXPENSES						
Wages Direct	768,450	55,842	458,720	512,300	53,580	10.5
Wages & Benefits: Allocated	623,298	52,288	394,554	415,532	20,978	5.0
Benefits: PERS	181,080	8,418	65,502	120,720	55,218	45.7
Group Ins	382,850	24,211	218,555	255,233	36,678	14.4
Workers Comp Ins	12,690	-	8,587	8,460	(127)	(1.5)
FICA/Medicare	54,990	4,263	35,075	36,660	1,585	4.3
Misc Benefits	-	-	-	-	-	-
Total Wages and Benefits	2,023,358	145,022	1,180,993	1,348,905	167,913	12.4
Less: wages & ben charged to Capital Proj.	(130,000)	(6,616)	(117,025)	(86,667)	30,358	(35.0)
Total Operating Wages and benefits	1,893,358	138,405	1,063,968	1,262,239	198,270	15.7
Water Purchase HBMWD	1,075,000	89,095	707,400	716,667	9,267	1.3
Water Purchase Eureka	810,000	60,055	553,302	540,000	(13,302)	(2.5)
Water Analysis	7,500	614	9,043	5,000	(4,043)	(80.9)
Supplies/ Construction	118,030	12,631	71,701	78,687	6,986	8.9
Supplies/Office-Administration	4,500	1,046	4,918	3,000	(1,918)	(63.9)
Supplies/ Engineering	1,425	-	299	950	652	68.6
Supplies/ Maintenance	50,000	871	26,027	33,333	7,306	21.9
Temporary Labor	31,744	9,952	39,833	21,163	(18,670)	(88.2)
Repairs & Maintenance/Trucks	30,800	5,573	19,444	20,533	1,090	5.3
Equipment Rental	3,700	-	-	2,467	2,467	100.0
Building & Grounds Maintenance	1,800	292	2,363	1,200	(1,163)	(97.0)
Electrical Power	162,690	14,986	142,806	108,460	(34,346)	(31.7)
Telephone	5,760	-	-	3,840	3,840	100.0
Postage	1,290	(1)	206	860	654	76.1
Freight	285	-	44	190	146	76.8
Chemicals	10,000	21	8,008	6,667	(1,342)	(20.1)
Engineering	390	-	325	260	(65)	(25.0)
Other Professional Services	23,600	-	-	15,733	15,733	100.0
Transportation	43,171	2,154	27,137	28,781	1,644	5.7
Office Equip. Maintenance	1,050	-	108	700	592	84.6
Computer Software Maintenance	21,600	-	15,822	14,400	(1,422)	(9.9)
Memberships & Subscriptions	1,488	-	1,402	992	(410)	(41.3)
Bad Debts & Minimum Balance Writeoff	28,500	-	100	19,000	18,900	99.5
Conference & Continuing Ed	12,075	-	1,325	8,050	6,725	83.5
Certifications	1,050	-	331	700	369	52.7
State/County & LAFCO Fees and Charges	13,600	-	28,527	9,067	(19,460)	(214.6)
Hydraulic Water Model Maintenance	6,000	-	-	4,000	4,000	100.0

HUMBOLDT COMMUNITY SERVICES DISTRICT
BUDGETARY STATEMENT OF REVENUES AND EXPENSES
Water Fund

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance
Human Resources	8,190	-	-	5,460	5,460	100.0
Miscellaneous	2,640	-	68	1,760	1,692	96.1
General & Admin Expense Allocation	262,094	12,380	156,415	174,729	18,314	10.5
TOTAL OPERATING EXPENSES	4,633,330	348,074	2,881,963	3,088,887	206,924	6.7
LONG TERM DEBT PAYMENTS						
Safe Drinking Water Bond	177,429	-	-	118,286	118,286	100.0
2012 CIP & Refi.	26,166	-	-	17,444	17,444	100.0
Davis-Grunsky Loan	6,049	-	5,838	4,033	(1,805)	(44.8)
TOTAL LONG TERM DEBT PAYMENTS	209,644	-	5,838	139,763	133,925	95.8
CAPITALIZED EXPENDITURES						
Vehicles/Rolling Stock/Capital Equipment	-	-	-	-	-	-
Building & Yard Improvements	-	-	-	-	-	-
Capital Improvements Water	1,617,700	31,415	293,454	1,078,467	785,013	72.8
Engineering & Studies	-	-	-	-	-	-
TOTAL CAPITAL EXPENDITURES	1,617,700	31,415	293,454	1,078,467	785,013	72.8
INTERFUND TRANSFERS IN	-	-	-	-	-	-
BUDGET SURPLUS (DEFICIT)	(821,553)	17,154	413,292	(547,702)	960,994	175.5

HUMBOLDT COMMUNITY SERVICES DISTRICT
BUDGETARY STATEMENT OF REVENUES AND EXPENSES
Sewer Fund

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance
OPERATING REVENUE						
Sewer Service Charges	5,280,000	432,659	3,483,131	3,520,000	(36,869)	(1.0)
Sewer Service Charges - Pass Through	1,500,000	128,687	1,042,060	1,000,000	42,060	4.2
Sewer Construction Fees	12,000	-	34	8,000	(7,966)	(99.6)
Account Fees	15,050	4,224	18,683	10,033	8,650	86.2
Inspection Fees	-	-	150	-	150	-
Reimbursable Maintenance Fees	200	-	-	133	(133)	(100.0)
Miscellaneous	1,000	-	48	667	(618)	(92.7)
TOTAL OPERATING REVENUE	6,808,250	565,570	4,544,107	4,538,833	5,274	0.1
NON-OPERATING REVENUE						
Sewer Capital Connection Fees	90,000	2,958	21,569	60,000	(38,431)	(64.1)
Interest/General	6,453	-	-	4,302	(4,302)	(100.0)
Discounts Earned	720	80	476	480	(4)	(0.9)
Sales: Fixed Assets/Scrap Metal	6,856	-	18	4,571	(4,552)	(99.6)
Bad Debt Recovery	4,300	168	301	2,867	(2,566)	(89.5)
Other Non-Operating Revenue	-	-	-	-	-	-
TOTAL NON-OPERATING REVENUE	108,329	3,206	22,363	72,219	(49,856)	(69.0)
TOTAL DISTRICT REVENUE	6,916,579	568,776	4,566,470	4,611,053	(44,582)	(1.0)
OPERATING EXPENSES						
Wages Direct	474,150	34,524	279,232	316,100	36,868	11.7
Wages & Benefits: Allocated	623,297	52,288	394,554	415,531	20,977	5.0
Benefits: PERS	115,690	4,843	39,514	77,127	37,613	48.8
Group Ins	234,650	14,672	134,921	156,433	21,512	13.8
Workers Comp Ins	7,755	-	5,137	5,170	33	0.6
FICA/Medicare	35,100	2,636	21,408	23,400	1,992	8.5
Misc Benefits	-	-	-	-	-	-
Total Wages and Benefits	1,490,642	108,963	874,765	993,761	118,996	12.0
Less: wages & ben charged to Capital Proj.	(45,676)	(1,165)	(27,072)	(30,451)	(3,379)	11.1
Total Operating Wages and benefits	1,444,966	107,798	847,694	963,311	115,617	12.0
Sewage Treatment: Operating & Maint.	1,495,000	134,733	1,077,864	996,667	(81,197)	(8.1)
Sewer Analysis	7,500	-	-	5,000	5,000	100.0
Supplies/ Construction	41,470	2,697	16,875	27,647	10,772	39.0
Supplies/ Office-Administration	4,500	789	3,710	3,000	(710)	(23.7)
Supplies/ Engineering	1,075	-	225	717	491	68.6
Supplies/ Maintenance	50,000	747	18,723	33,333	14,611	43.8
Temporary Labor	19,456	7,508	30,049	12,971	(17,079)	(131.7)
Repairs & Maintenance/Trucks	24,200	4,204	16,004	16,133	130	0.8
Equipment Rental	1,300	-	-	867	867	100.0
Building & Grounds Maintenance	1,500	220	1,783	1,000	(783)	(78.3)
Electrical Power	70,992	7,495	43,872	47,328	3,456	7.3
Telephone	2,880	-	-	1,920	1,920	100.0
Postage	960	(1)	169	640	471	73.6
Freight	215	-	4,422	143	(4,279)	(2,985.0)
Legal	-	-	-	-	-	-
Engineering	100	-	245	67	(179)	(267.8)
Other Professional Services	23,600	-	519	15,733	15,214	96.7
Transportation	32,567	1,625	20,472	21,711	1,239	5.7
Office Equip. Maintenance	770	-	82	513	432	84.1

HUMBOLDT COMMUNITY SERVICES DISTRICT
BUDGETARY STATEMENT OF REVENUES AND EXPENSES
Sewer Fund

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance
Computer Software Maintenance	16,200	-	11,936	10,800	(1,136)	(10.5)
Memberships & Subscriptions	992	-	1,058	661	(396)	(59.9)
Bad Debts & Minimum Balance Writeoff	21,500	-	-	14,333	14,333	100.0
Conference & Continuing Ed	15,180	-	948	10,120	9,172	90.6
Certifications	805	-	125	537	412	76.7
State/County & LAFCO Fees and Charges	7,200	-	5,659	4,800	(859)	(17.9)
Human Resources	6,090	-	-	4,060	4,060	100.0
Miscellaneous	1,920	-	126	1,280	1,154	90.1
General & Admin Expense Allocation	262,094	12,380	156,415	174,729	18,314	10.5
TOTAL OPERATING EXPENSES	3,555,032	280,196	2,258,975	2,370,021	111,046	4.7
LONG TERM DEBT PAYMENTS						
2014 Wastewater Revenue Bonds	484,175	-	134,588	322,783	188,196	58.3
2012 CIP & Refi.	177,600	-	-	118,400	118,400	100.0
VacCon Truck Loan	117,441	-	117,441	78,294	(39,147)	(50.0)
Debt Service: Allocated	-	-	-	-	-	-
TOTAL LONG TERM DEBT PAYMENTS	779,216	-	252,028	519,477	267,449	51.5
CAPITALIZED EXPENDITURES						
Vehicles/Rolling Stock/Capital Equipment	-	-	-	-	-	-
Building, Yard & Paving Improvements	-	-	-	-	-	-
Capital Improvements Sewer	865,000	1,165	105,226	576,667	471,441	81.8
Engineering & Studies	-	-	2,284	-	(2,284)	-
TOTAL CAPITAL EXPENDITURES	865,000	1,165	107,510	576,667	469,157	81.4
OTHER						
City of Eureka Projects:						
Treatment Plant	1,135,000	-	-	756,667	756,667	100.0
Martin Slough	-	-	-	-	-	-
TOTAL OTHER	1,135,000	-	-	756,667	756,667	100.0
BUDGET SURPLUS (DEFICIT)	582,331	287,416	1,947,957	388,221	1,559,737	(401.8)

HUMBOLDT COMMUNITY SERVICES DISTRICT
BUDGETARY STATEMENT OF REVENUES AND EXPENSES
General Fund

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance
OPERATING REVENUE						
Interest (will be allocated to w/s @ y/e)	-	-	237	-	237	-
Miscellaneous	-	-	622	-	622	-
TOTAL OPERATING REVENUE	-	-	859	-	859	-
NON-OPERATING REVENUE						
Property Taxes	350,000	-	-	233,333	(233,333)	(100.0)
Insurance Rebate	20,000	-	-	13,333	(13,333)	(100.0)
Miscellaneous Income	-	-	-	-	-	-
TOTAL NON-OPERATING REVENUE	370,000	-	-	246,667	(246,667)	(100.0)
TOTAL DISTRICT REVENUE	370,000	-	859	246,667	(245,807)	(99.7)
OPERATING EXPENSES						
Wages Direct	392,400	34,184	272,370	261,600	(10,770)	(4.1)
Benefits: PERS	206,230	28,075	225,976	137,487	(88,489)	(64.4)
Group Ins	617,500	49,203	333,830	411,667	77,837	18.9
Workers Comp Ins	3,055	-	1,813	2,037	223	11.0
FICA/Medicare	26,910	2,708	21,847	17,940	(3,907)	(21.8)
Misc Benefits	500	60	420	333	(87)	(26.0)
Total Wages and Benefits	1,246,595	114,230	856,256	831,063	(25,192)	(3.0)
Less: wages & ben charged to Capital Proj.	-	(9,654)	(67,148)	-	67,148	-
Less: Allocated to Water and Sewer Funds	(1,246,595)	(104,576)	(789,108)	(831,063)	(41,956)	5.0
Total Unallocated Wages and Benefits	-	-	-	-	-	-
Supplies/ Construction	-	-	-	-	-	-
Supplies/ Administration	6,000	-	1,027	4,000	2,973	74.3
Supplies/ Engineering	-	-	3	-	(3)	-
Supplies/ Maintenance	-	-	-	-	-	-
Invoicing	57,000	3,505	35,326	38,000	2,674	7.0
Web Payment Portal	-	-	-	-	-	-
Temporary Labor	10,000	-	-	6,667	6,667	100.0
Repairs & Maintenance/Trucks	-	-	-	-	-	-
Equipment Rental	-	-	-	-	-	-
Building & Grounds Maintenance	26,700	2,965	15,233	17,800	2,567	14.4
Electrical Power	62,118	6,307	50,059	41,412	(8,647)	(20.9)
Street Lights	70,000	5,711	52,827	46,667	(6,161)	(13.2)
Telephone	9,360	1,043	9,581	6,240	(3,341)	(53.5)
Postage	750	-	2,145	500	(1,645)	(329.0)
Freight	-	-	-	-	-	-
Liability Insurance	62,000	-	80,273	41,333	(38,940)	(94.2)
Legal Services	70,000	367	34,669	46,667	11,998	25.7
Accounting	13,000	6,718	16,103	8,667	(7,436)	(85.8)
Engineering	510	-	-	340	340	100.0
Other Professional Services	70,800	-	6,762	47,200	40,438	85.7
Bank Service Charges	28,000	800	10,529	18,667	8,138	43.6
Transportation	-	-	-	-	-	-
Office Equip. Maintenance	5,180	305	1,596	3,453	1,857	53.8
Computer Software Maintenance	7,200	130	1,381	4,800	3,419	71.2
Memberships & Subscriptions	22,320	50	18,360	14,880	(3,480)	(23.4)
Bad Debts & Minimum Balance Writeoff	-	-	-	-	-	-
Conference & Continuing Ed	7,245	-	8,048	4,830	(3,218)	(66.6)
Certifications	1,645	-	1,355	1,097	(258)	(23.6)

HUMBOLDT COMMUNITY SERVICES DISTRICT
BUDGETARY STATEMENT OF REVENUES AND EXPENSES
General Fund

February 2023

	Budgeted 2022-23	Current Month-to-Date	Actual Year-to-Date	Budgeted Year-to-Date	Y.T.D. Variance Actual to Budget	% Variance
State/County & LAFCO Fees and Charges	19,200	384	384	12,800	12,416	97.0
Elections Expense	15,000	-	-	10,000	10,000	100.0
Human Resources	6,720	80	4,819	4,480	(339)	(7.6)
Miscellaneous	7,440	907	7,078	4,960	(2,118)	(42.7)
Director's Fees	16,000	1,200	8,100	10,667	2,567	24.1
General & Admin Expense Allocation	(524,188)	(24,759)	(312,830)	(349,459)	(36,629)	10.5
TOTAL OPERATING EXPENSES	70,000	5,711	52,827	46,667	(6,161)	(13.2)
LONG TERM DEBT PAYMENTS						
2014 PGE Energy Efficiency Loan	-	-	-	-	-	-
2012 CIP & Refi	-	-	203,766	-	(203,766)	-
New Financing	(340,000)	-	-	(226,667)	(226,667)	100.0
Less: Allocated to Water & Sewer Funds	-	-	-	-	-	-
TOTAL LONG TERM DEBT PAYMENTS	(340,000)	-	203,766	(226,667)	(430,432)	189.9
CAPITALIZED EXPENDITURES						
Vehicles/Rolling Stock/Capital Equipment	340,000	9,448	46,241	226,667	180,426	79.6
Building, Yard & Paving Improvements	94,000	12,879	72,842	62,667	(10,175)	(16.2)
Engineering & Studies	-	6,010	41,347	-	(41,347)	-
District Design Standards	-	-	1,840	-	(1,840)	-
TOTAL CAPITAL EXPENDITURES	434,000	28,337	162,270	289,333	127,063	
INTERFUND TRANSFER OUT		-	-	-		
BUDGET SURPLUS (DEFICIT)	206,000	(34,048)	(418,004)	137,333	(555,337)	(404.4)

**Humboldt Community Services District
Notes
February 2023**

Note 1 - Non Operating and Miscellaneous Revenue

Most non-operating and Miscellaneous income occurs occasionally throughout the year, or at the very end of the fiscal year.

Note 2 - Workers Comp insurance

Workers comp expenses are billed to the district in quarterly installments. Worker's comp expenses are expected to match budgeted amount for full fiscal year.

Note 3 - Temporary Labor

Temporary labor costs have increased due to difficulties in finding suitable permanent applicants. Increased temporary labor costs have been more than offset by reductions in regular District wage expenses

Note 4 - Electrical Power (District use and Street Lighting)

District electrical usage is consistent with previous annual usage (2.2% increase in power consumed). Increase in costs are due to rates increases from PGE.

Note 5 - Postage

Postage is purchased in bulk. Purchase of \$2,500 in postage in October is expected to be only bulk postage purchase for the fiscal year.

Note 6 - Freight

Shipping cost for sewer pump for repair. Not anticipated in budget

Note 7 - Chemicals

Large order of treatment chemicals ordered to ensure adequate stock on hand with anticipated future shipping delays.

Note 8 - Liability Insurance

While The District has anticipated an increase in Liability insurance premiums due to general inflationary and COLA increases, insurance premiums have increased more than originally anticipated. In a letter sent by ACWA/JPIA in October, it was explained that ACWA/JPIA has been able to keep such insurance increases to a minimum over the years, cost increases have necessitated an increase in rates at this time. Staff has confirmed that Liability insurance costs from ACWA/JPIA have remaining surprisingly stable over the past 15 years, even at times when increases would be expected.

Note 9 - Accounting

Accounting expenses are due to expenses from the regular annual audit.

Note 10 - Memberships and subscriptions

Annual membership dues for JPIA. Expenses for remainder of year will be minimal and total expense for the year are expected to be in line with budget amount.

Note 11 - State/County & LAFCO Fees and Charges

Annual water system fees to State Water Resources control board paid in January. Total expenditures for year will be in line with budgeted amount.

Note 12 - Debt Service

Loan Payments are made throughout the year. The total expenditures by the end of the year will match budget amounts.

Note 13 - Engineering

Engineering Expense - a/c 6810 - Operating Expense
Water Fund

Eng Bid Advertising		
Times Standard		570
Total posted to 6810	-	570

Note 1 - Non Operating and Misc YTD

Engineering & Studies - a/c 9040 - Capital Improvement Projects

Non Engineering Costs Posted to 9040		
Rate Study	6,010	41,347
Hartman SLS		2,284
Grand Total posted to 9040	6,010	43,631

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

MEMORANDUM

To : Board of Directors

From: Michael Montag, Finance Manager/District Treasurer

Date: March 28, 2023

Subject: Information regarding assistant programs and past due accounts

The District has received information regarding an update to the Low Income Household Water Assistance Program (LIHWAP). The LIHWAP program is a federally funded program which the District has participated in since June 2022. This program provides one-time assistance to ratepayers in need, based primarily on income eligibility requirements. Previously, this program allowed for payment assistance only towards Water and Wastewater charges already billed. The program has recently been updated to allow the payments to apply to future expected charges in addition to previously billed charges. District staff provides information regarding the LIHWAP program to all ratepayers who are past due as well as to people who inquire about available assistance programs. Since the program began, the District has received \$69,750 in assistance applied directly towards ratepayer account balances, and assistance payment continue to be processed and received.

In addition to the LIHWAP program, the District previously received funds toward ratepayer account balances from the California Water and Wastewater Arrearage program. Unlike the LIHWAP program, which requires ratepayers to apply directly through Redwood Community Action Agency, the California Water and Wastewater arrearage program allowed the District to apply for funds on behalf of all ratepayers with a past due balance. The District received \$340,146 in assistance payment from the California State Arrearage Program.

The assistance programs as well as the payment plan option that the District offers has helped the district reduce the customer arrearages significantly. As of January 2021, ratepayer accounts had a total of \$881,000 in past due charges. Of that total, \$168,500 is from ratepayers who no longer hold active accounts with the District. While payment of those balances will be pursued, those balances are currently considered “uncollectable” due to the low expected chance of payment.

After the assistance program payments that have been received, removal of the uncollectable amount, and regular customer payments, the District now has a remaining total of past due accounts of \$316,600. Out of that total, \$238,400 is from accounts that are currently in a Payment plan and are actively making payments towards their past due balance. This leaves \$78,200 in current ratepayer past due account balances that have not set up a plan for repayment and are likely to end up as uncollectable.

This information was presented verbally during the March 14th board meeting and is being re-presented during this meeting in order to ensure proper recordkeeping.

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

AGENDA REPORT

For HCSD Board of Directors Regular Meeting of: March 28, 2023

AGENDA ITEM: G.1.

TITLE: Consideration of Accepting Recommended Draft Water and Sewer Rate Study and Proceeding with Prop. 218 Noticing Process

PRESENTED BY: Terrence Williams, General Manager

Recommendation:

Review Draft Rate Study Report and Receive Presentation of Rate Study Effort. Accept Recommended Rates and Authorize Staff to Initiate Proposition 218 Noticing and Public Hearing Process by Roll Call Vote

Summary:

District staff has been working diligently with financial consultant NBS to develop an updated rate study for FY 2023-24 through FY 2028-29. The Draft Rate Study Report is included in this Board packet for your review. Significant highlights are:

1. Water Rate Calculations

- Historically, District rates have been designed to collect 50% of necessary funds from fixed fees and 50% from consumption. The current rate structure follows that model. The proposed rates were designed with the intention of encouraging conservation by shifting the design to collect 40% of the necessary revenue from fixed rates and 60% from volumetric consumption. This results in a slightly lower monthly charge to ratepayers using 1-2 units of water with a higher monthly charge to ratepayers using greater than 3 units of water while still building reserves for capital improvement projects (CIP). See Figure 12 on Page 15 of the attached study.
- Water rates will remain comparable to City of Eureka rates as reflected in Figure 13 also found on Page 15 of the attached study.
- In accordance with Board direction, residential customers required to install water meters greater than 5/8" but not more than 1" meters to meet mandated fire codes are afforded the same fixed meter rate charge.
- Reserves necessary to fund planned CIP are projected to increase satisfactorily without the need to borrow against future ratepayers.

2. Wastewater (Sewer) Rate Calculations

- Planning for necessary improvements at the GEAWP (Greater Eureka Area Wastewater Project) treatment plant as well as the District's Distribution system is quite a challenge. During the next five-year period anticipated expenses exceed \$13 Million. In order to minimize incurring debt on future ratepayer's backs, it is prudent to attempt to collect the needed funds from existing customers.
- Three components make up charges for wastewater service:
 - a) Monthly Fixed Customer Service Charge per account
 - b) Monthly Fixed Service Charge per Living Unit
 - c) Monthly Volumetric Charge based upon the customer winter average calculated from usage during the months of December through March each year.
- Current rates collect 66% from volumetric and 34% from fixed charges. This is because we are currently carrying large City of Eureka Passthrough charges on the volumetric usage. The proposed rates collect 60% of revenue from volumetric and 40% from fixed charges. As reflected in Figure 22 on Page 22, the revised formula results in an approximate 14% increase for each of the next five years. The average monthly bill for a customer with a winter average of 5 units (748 gallons per unit), will see an increase from roughly \$68.47 to \$84.72 per month.

3. Water Connection Fees

- Water Connection Fees are based upon meter size. As with Water Rates above, residential customers required to utilize a meter greater than 5/8" and up to to 1" for fire protection purposes will now be charged the same connection fee.
- The cost basis utilized to determine the appropriate value to new development consists of existing system buy-in, future system maintenance/improvements, and allocation of outstanding long-term debt.
- The updated fee for a 5/8" meter is proposed to increase from \$3,045 to \$6,098 or 50%

4. Sewer Connection Fees

- Sewer Connection Fees are based upon the classification of customer, and EDU's (equivalent dwelling units). This segment of the study is based the current 6,526 sewer connections in the system which translates into 8,004 EDU's. The vast majority of connections are single family residential which count for 1 EDU regardless of the size of home.
- As with Water connection Fees, the cost basis considers existing system buy-in, future system maintenance/improvements, and allocation of outstanding long-term debt.

- The proposed maximum calculated sewer connection cost is \$10,260 per single-family housing – one EDU. Currently the corresponding fee is \$2,958.

Please accept the proposed rates and Draft Rate Study Report followed by authorizing District staff to initiate the Proposition 218 process. The Prop. 218 process consists of legal review of the proposed rates, public notices of the proposed rates with instructions regarding how to protest the rates, public hearings, and finally adoption of the proposed rates.

Once the Draft Rate Study Report has been accepted, the report and supporting material will be sent to legal counsel for qualification. Once legal review is complete, the public noticing can begin. The first step will be a letter to all ratepayers and property owners. Proposition 218 requires a minimum of 45 days public notice before the rates are officially adopted. The public hearing schedule will be included in the public notices along with protest instructions. Once the District has held two public hearings on this subject and the number of protests are less than 50%+1 of affected rate payers, the District Board can then adopt the new rates.

Fiscal Impact:

\$12M annually



HUMBOLDT COMMUNITY SERVICES DISTRICT

Draft Report for:

Water and Wastewater Rate and Connection Fee Study

March 2023

OFFICE LOCATIONS:

Temecula – Corporate Headquarters
32605 Temecula Parkway, Suite 100
Temecula, CA 92592

San Francisco – Regional Office
870 Market Street, Suite 1223
San Francisco, CA 94102

www.nbsgov.com

Prepared by:



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Section 1. EXECUTIVE SUMMARY

Background and Purpose

BACKGROUND

The Humboldt Community Services District (HCSD or District) was created in 1952 to provide water and wastewater service to the unincorporated areas of Eureka over a 15 square-mile service area. The District currently serves a population of about 20,000, including about 7,700 water connections and 6,500 wastewater connections. The District provides water distribution and storage and purchases water from the Humboldt Bay Municipal Water District (HBMWD), but also produces about 25 percent of its supply from three District-owned wells. The wastewater utility is primarily a collection system, with treatment provided by the City of Eureka; the District owns approximately 32 percent of the City's treatment plant capacity.

Periodically, due to increases in operating and capital improvement costs and in particular the sewer treatment costs paid to the City of Eureka, the District must reexamine the revenue requirements needed to maintain its infrastructure and continue to provide the level of service its customers expect.

Because of the interconnected water and wastewater systems, this rate study was performed concurrently with the City's water and wastewater rate study. The District last performed a water and wastewater rate study in 2017. The District retained NBS in February 2022 to initiate a rate study for both utilities as well as evaluate water and wastewater connection fees.¹

The District's Board of Directors will conduct a public workshop and direct District staff whether to proceed with the Proposition 218 rate adoption process.

PURPOSE

The purpose of this report is three-fold: (1) it provides a summary of the wastewater and water rate study information which the District Board of Directors will rely on for their decision whether to adopt new rates for the next five-years, (2) it documents this analysis for the purpose of complying with Proposition 218 requirements (Prop 218), commonly referred to as the "right to vote on new taxes" act, and (3) it assists the District in its effort to communicate transparently with the residents and businesses it serves.

The proposed water and wastewater rates and connection fees were developed by reviewing and confirming the District's broader rate-related goals and objectives. This included key financial objectives and ensuring that the new rates continue to reflect the District's unique characteristics and provide for the long-term financial stability of the District.

In developing proposed rates, NBS and District staff worked cooperatively in developing study results. The District reviewed initial results, provided NBS with feedback and direction, and plans on ultimately approving the water and wastewater rates once an appropriate Prop 218 public hearing has been conducted.

¹ Connection fees are more accurately called "System Capacity Fees" since they reflect the cost that new customers should pay for their share of capacity in the District's water and sewer systems.

Key Findings

REVENUE REQUIREMENTS AND PROJECTED RATES

The District's water and wastewater utilities both need to complete ongoing and planned capital improvement projects while at the same time maintaining healthy reserves. To accomplish this, annual increases in rate revenue collected from customers over the next five years are recommended for both utilities², as follows:

- Water – Thirteen percent (13%) in Years 1 through 5 (FY 2023/24 through FY 2027/28).
- Wastewater – Fourteen percent (14%) in Years 1 through 3 (FY 2023/24 through FY 2025/26) and 12 percent in Years 4 and 5 (FY 2026/27 and FY 2027/28).

WATER RATES

Due to the District's abundant water supply sources, more conservation-oriented tiered rates would be difficult under Prop 218, and the District should continue with its current uniform (i.e., single-tier) rate design. However, the proposed rates would collect more revenue from volumetric charges (60 percent vs. the current 50 percent). Water customers will continue to pay a combination of fixed monthly charges that are higher for larger meters, plus a uniform volumetric rate.

The water utility's rate increases are largely driven by the cost of capital improvements. In fact, the District has determined that it would like to build capital reserves to help fund significant capital improvement costs in years 6 – 10 of the financial plan. The result is that there need to be larger rate increases in years 1 – 5 than would otherwise be needed. Additionally, the District wants to fund capital projects from rates rather than using debt, which also means rates will be higher in the short term but lower in the long-term.

The proposed rates are, therefore, essentially geared to fund District's operating and capital improvement costs over the next ten years. Although significant increases are proposed, customer bills under the recommended water rates are still reasonable when compared with other communities in the region.

WASTEWATER RATES

The current wastewater rate design was largely retained, and wastewater customers will continue to be charged a monthly fixed service charge per living unit, a monthly customer service charge per account, and a volumetric charge based on their average winter water consumption.

Like water rates, wastewater rates are largely driven by the costs of capital improvements that include both District collection system repair and replacement projects and contributions to the City of Eureka for treatment related capital costs. The City's capital projects planned over the next 10 years will require the District to build significant reserves for capital projects after FY 2027/28.

The District's plan is to begin building reserves to levels that cover the next five years and position the District to be able to pay for the capital projects through FY 2032/33. The District prefers this approach because these capital costs are primarily repair and replacement projects for existing system assets that

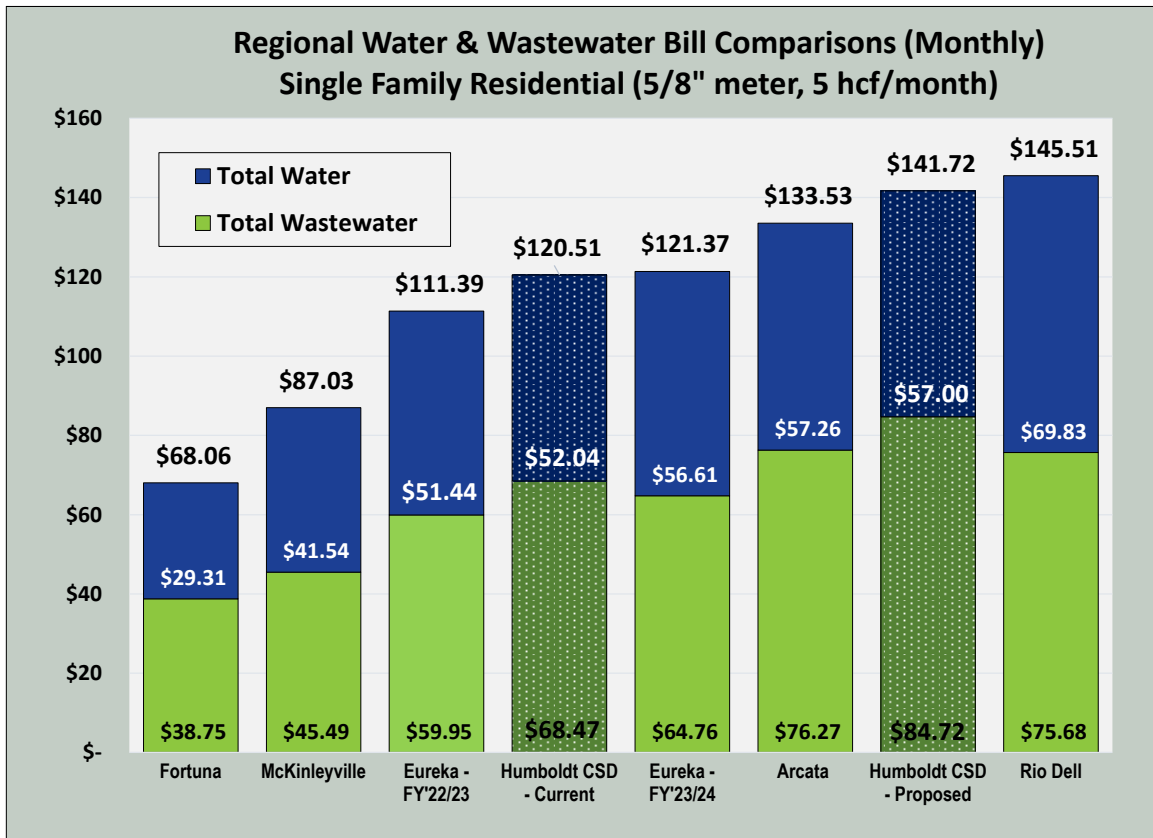
² More specifically, these are increases in the total rate revenue; the rates increase for each customer class reflect cost allocation factors that result in some rates being more or less than the annual increases noted here.

would more equitably be funded by existing customers rather than issuing new debt that would unfairly burden future customers.

As with water rates, although significant increases are recommended, customer bills under the recommended wastewater rates are still reasonable when compared with other communities in the region.

Figure 1 below shows the monthly combined water and wastewater bill for a typical single-family customer in the District compared to monthly bills in other communities.

FIGURE 1. REGIONAL RATE COMPARISONS



Study Recommendations

Although the Board has not yet taken action on the proposed water and wastewater rates, NBS recommends they select the proposed alternatives and direct staff to proceed with Prop 218 noticing procedures. NBS also recommends the District take the following measures:

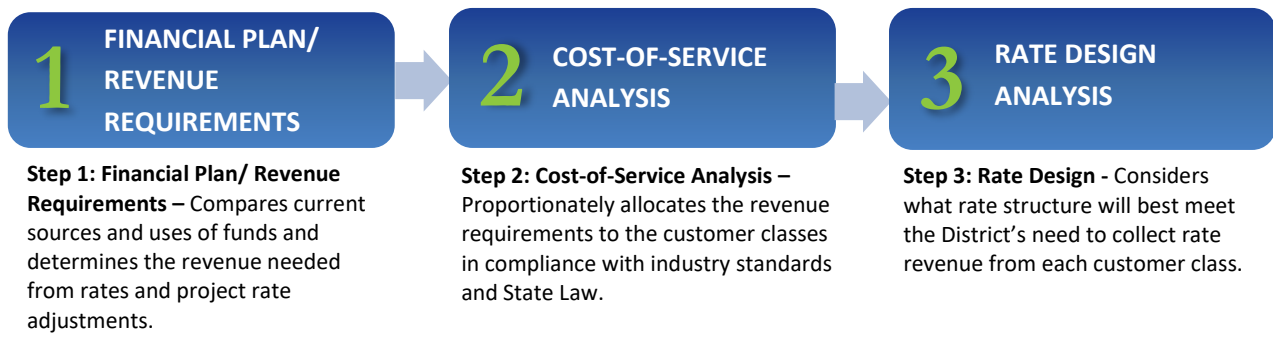
- Conduct a legal review of the proposed rates.
- Mail out Prop 218 protest instructions (per District guidelines), allowing a protest period of at least 45 days.
- Adopt the rates proposed in this report (assuming there is no majority protest of the rates).

The next section discusses rate study methodology.

Section 2. OVERVIEW OF THE STUDY METHODOLOGY

A comprehensive rate study such as this one typically include three components: (1) preparation of a financial plan, which identifies the net revenue requirements for the utility; (2) analysis of the cost to serve each customer class, and (3) the rate structure design. These steps are shown in **Figure 2** and are intended to follow industry standards and reflect the fundamental principles of cost-of-service ratemaking embodied in the American Water Works Association (AWWA) Principles of Water Rates, Fees, and Charges³, also referred to as Manual M1.

FIGURE 2. PRIMARY COMPONENTS OF A RATE STUDY



This methodology also addresses requirements under Proposition 218 that rates not exceed the cost of providing the service and be proportionate to the cost of providing service for all customers. In terms of the chronology of the study, these three steps represent the order they were performed in this Study for both utilities.

The analyses were performed with data the District provided including historical, current and projected revenues, expenditures, customer accounts and water consumption, and other operational and capital cost data.

Rate Design Criteria

Water and sewer rates are used to equitably recover costs from customers and to send proper price signals about the actual cost of providing service. These objectives are typically addressed through the rate structure design, which encompasses both the amount of revenue collected and the way in which it is collected from customers.

Several criteria are typically considered in setting rates and developing sound rate structures. The fundamentals of this process have been documented in a number of rate-setting manuals. For example, the foundation for evaluating rate structures is generally credited to James C. Bonbright in the *Principles of Public Utility Rates*⁴, which outlines pricing policies, theories, and economic concepts along with various

³ *Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1, AWWA, seventh edition, 2017.*

⁴ *James C. Bonbright; Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates, (Arlington, VA: Public Utilities Report, Inc., Second Edition, 1988), p. 383-384.*

rate designs. The other common industry standard is the American Water Works Association's (AWWA) Manual M1.

The following is a simplified list of the attributes of a sound rate structure, which apply to water and wastewater utilities:

- Rates should be easy to understand from the customer's perspective.
- Rates should be easy to administer from the utility's perspective.
- Rates should promote the efficient allocation of the resource.
- Rates should be equitable and non-discriminating (i.e., cost based).
- There should be continuity in the ratemaking philosophy over time.
- Other utility policies should be considered (e.g., encouraging conservation and economic development).
- Rates should consider the customer's ability to pay.
- Rates should provide month-to-month and year to year revenue stability.

Rate Structure Terminology

One of the most fundamental points in considering rate structures is the relationship between fixed and variable costs. The vast majority of water and wastewater rate structures contain a fixed or minimum charge, and a volumetric charge.

The District's rate design criteria reflect the characteristics of the District's utilities. Capital and operational reserve funding targets used in this study have been established with the input of District staff in order to meet specific utility objectives. The following discussion describes general industry rate-study practices in California and principals that were reflected in the recommended rates.

FIXED CHARGES

Fixed charges can be called base charges, minimum monthly charges, customer charges, fixed meter charges, etc. Although fixed charges are typically a significant percentage of the utility's overall cost structure, utilities rarely collect 100% of their fixed costs through fixed charges. In general, customers prefer that charges include a volumetric component, as there is an inherent and widely recognized equity in a "pay-for-what-you-use" philosophy.

For a water utility, fixed charges typically increase by meter size. For example, a customer with a 2" meter may have a fixed meter charge that is eight times greater than the 5/8" meter charge based on the meter's maximum flow rate.⁵ Because a large portion of water utilities' costs are typically related to meeting capacity requirements, reflecting the capacity demands of each meter size is important in establishing equitable fixed charges for customers.

VARIABLE (CONSUMPTION-BASED) CHARGES

In contrast, variable costs such as the cost of purchased water, electricity used in pumping water, and chemicals used in the water and wastewater treatment facilities tend to change with the quantity of water produced (or wastewater effluent treated). For water utilities, variable charges are generally based on

⁵ These are typically referred to as "hydraulic capacity factors" that represent the relative capacity required in the water system. See American Water Works Association, *Water Meters – Selection, Installation, Testing and Maintenance, M6 Manual, Table 5-3.*

metered consumption and charged on a dollar-per-unit cost (per 100 cubic feet, or hcf, in the District’s case).

There are significant variations in the basic philosophy of variable charge rate alternatives. Under a uniform (single tier) water rate structure, the cost per unit does not change with consumption, and provides a simple and straightforward approach from the perspective of customer understanding and rate administration/billing. A similar volumetric rate is often used for wastewater utilities to reflect the flow-related costs (i.e., sewage effluent) as well as the costs of treating the level of wastewater “strength” (i.e., the amount of biochemical oxygen demand (BOD) and total suspended solids (TSS) constituents).

KEY FINANCIAL ASSUMPTIONS

The following are the key assumptions used in the water and wastewater rate analyses:

- **Funding Capital Projects** – The analysis for both utilities assumes:
 - Capital costs will be funded with rate revenue vs. issuing debt.
 - Connection fee revenue, to the extent that it is accrued in future years, will be available to help fund upgrades and capacity expansion-related capital costs.
 - All capital projects listed in the financial plans are District projections (for District projects) or projections provided by the City (for City treatment-related projects).
- **Reserve Targets for Water and Wastewater** – Reserves for operations and capital needs are set at levels established by District staff and District Board. Reserve targets used in the analysis are as follows:
 - Operating & Maintenance Reserve – Minimum reserve target of 60 days (typical industry standard target is 90 days), and a maximum reserve target of 180 days of O&M expenses.
 - Water Capital Rehabilitation and Replacement Reserve – Minimum reserve target of five percent of net asset values and a maximum Year 1 reserve target of \$2 million based on the projected capital cost over the next 10 years, inflated by CPI annually.
 - Sewer Capital Rehabilitation and Replacement Reserve – Minimum reserve target of five percent of net asset values and a maximum Year 1 reserve target of about \$8 million based on the projected capital cost over the next 10 years, inflated by CPI annually.
- **Pass Through Charges** – Increases to purchased water and wastewater treatment costs above what is proposed for the next five years in the adopted rate study may be addressed using pass-through charges, which are intended to keep rates lower while still allowing for recovering additional costs charged by wholesale water or wastewater treatment providers. In the District’s case, this includes purchased water costs from Humboldt Bay Municipal Water District and the City of Eureka, and wastewater treatment costs from City of Eureka. Pass through charges will be calculated by an adopted formula⁶ and charged as a \$/hcf surcharge for both water and wastewater billed consumption.
- **Inflation and Growth Projections** – Inflation and growth projections are applied equally to the water and wastewater utilities. NBS provided advice based on our professional experience, industry

⁶ Pass through charge structure is designed to adhere to California Government Code 53756. District is required to provide at least a 30-day notice to customers for implementation or adjustments to the pass through charges.

practices, and analysis of Bureau of Labor Statistics data for the area. As a result of working collaboratively with District staff, the following inflation and growth projections were used in this study:

- General inflation is 3 percent annually.
- Customer growth is 0 percent annually.
- Labor cost inflation is 4 percent annually.
- Energy cost inflation is 25 percent in Year 1 and 3 percent annually thereafter.
- Chemical cost inflation is 5 percent annually.

For the purpose of the water and sewer rate studies, we have assumed a zero percent growth rate to be conservative by not relying on additional rate revenue from future growth. However, for the connection fee analyses, we have assumed the growth shown in the District's Urban Water Management Plan.⁷

The next two sections discuss the water and wastewater rate studies in further detail.

⁷ Source: UWMP 2013 Final.pdf, page 6.

Section 3. WATER RATE STUDY

Developing Recommended Water Rates

The water rate analysis was undertaken with a few specific objectives in mind, including:

- Generating sufficient additional revenue needed to meet projected funding requirements,
- Providing revenue stability,
- Providing equity among customer classes,
- Incorporating projected water consumption levels.

NBS developed several water rate alternatives as requested by District staff over the course of this study. All rate structure alternatives were developed using industry standards and cost-of-service principles. District staff, with input from the Board of Directors, selected the rate alternative recommended in this report. The following are the basic components included in this analysis:

- **Developing Cost Allocations:** The water revenue requirements were “functionalized” into three categories: (1) fixed capacity costs; (2) variable (or volume-based) costs; and (3) customer service costs. Each of these functional costs has a distinct allocation factor used to determine revenue requirements by customer class.
- **Determining Revenue Requirements by Customer Class⁸:** Revenue requirements for each customer class were determined based on allocation factors such as water consumption, capacity peaking factors, and number of accounts by meter size. For example, volume-related costs are allocated based on the water consumption for each class, while customer costs are allocated based on number of accounts. Once the costs are allocated and the revenue requirement for each customer class is determined, collecting these revenue requirements from each customer class is addressed in the rate design task.
- **Rate Design and Fixed vs. Variable Costs:** Fixed costs, such as capacity-related and infrastructure costs, billing, and general administrative costs, are typically collected through a fixed monthly charge, while variable costs such as pumping and purchased water costs are typically collected through volumetric charges. The District’s current fixed and variable costs are approximately 53 percent fixed and 47 percent variable, and current water rates collect about 48 percent from fixed charges and 52 percent from volumetric rates. However, California law⁹ and industry practices are flexible on these percentages, so several rate design alternatives were evaluated.

Because of the District’s desire to promote water conservation, District staff preferred a rate structure alternative that recovers 60 percent of rate revenue from volumetric rates (vs. the current rate design, which is only intended to collect 50 percent) and 40 percent from fixed charges. This 60/40 alternative is the proposed rate alternative.

⁸ In the District’s case, meter sizes serve as customer classes for the water utility while more traditional customer classes, such as single-family, multi-family, and commercial classes were used for the wastewater utility.

⁹ For example, AB 2882 allows a variety of conservation-oriented rate structures, including tiered water rates, and the California Water Efficiency Council (formerly the California Urban Water Conservation Council) recommends recovering a minimum of 70 percent of rate revenue through volume-based rates. However, water utilities generally develop their own policy and conservation objectives.

Water Utility Revenue Requirements

It is important for municipal utilities to maintain reasonable reserves in order to handle emergencies, fund capital improvements as well as working capital, maintain a good credit rating, and generally follow sound financial management practices. Rate increases are governed by the need to meet these objectives as follows:

- **Meeting Operating Costs:** For Fiscal Years 2023/24 through 2027/28, the net revenue requirement (i.e., total annual O&M expenses, debt service, and rate-funded capital costs less non-rate revenues) is estimated to be approximately \$5.5 million to \$11.7 million. If no rate increases are implemented, current revenue will not be sufficient to cover these costs.
- **Maintaining Adequate Reserves:** The District’s reserves are a critical component in maintaining the financial health of the utility. Normal fluctuations in expenses and rate revenue as well as emergency costs are part of standard practices in the industry.
- **Maintaining Adequate Bond Coverage:** The District is required by its bond covenants for its 1988 and 2012 water bonds¹⁰ to maintain debt-service coverage ratios of at least 1.20. It is projected that, with the recommended rate increases, the District will meet the 1.20 debt coverage ratios for the five-year planning period.

Figure 3 summarizes the sources and uses of funds and net revenue requirements for the next five years and includes the recommended annual rate increases. A summary of the water utility’s proposed 5-year financial plan, which is included in Appendix B – Water Rate Study Summary Tables, includes revenue requirements, reserve funds, revenue sources, proposed rate increases, and the District’s capital improvement program.

FIGURE 3. SUMMARY OF WATER REVENUE REQUIREMENTS

Summary of Sources and Uses of Funds and Net Revenue Requirements	Budget	5-Year Prop 218 Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Water Funds						
Rate Revenue Under Prevailing Rates	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000
Non-Rate Revenues	118,344	118,344	118,344	118,344	118,344	118,344
Interest Earnings	74,151	48,584	55,317	61,454	80,081	92,744
Total Sources of Funds	\$ 5,392,495	\$ 5,366,928	\$ 5,373,661	\$ 5,379,798	\$ 5,398,425	\$ 5,411,088
Uses of Water Funds						
Personnel Expenses	\$ 1,859,749	\$ 1,934,139	\$ 2,011,504	\$ 2,091,964	\$ 2,175,643	\$ 2,262,669
Purchased Water	1,941,550	1,999,797	2,059,790	2,121,584	2,185,232	2,250,789
Operating Expenses	866,422	892,666	919,711	947,580	976,299	1,005,894
Debt Service	209,605	94,623	5,906	5,905	-	-
Rate-Funded Capital Expenses	1,889,741	759,710	1,486,655	1,514,372	2,658,911	6,384,502
Total Use of Funds	\$ 6,767,066	\$ 5,680,935	\$ 6,483,567	\$ 6,681,405	\$ 7,996,085	\$ 11,903,853
Net Revenue Requirement²	\$ 6,574,572	\$ 5,514,008	\$ 6,309,906	\$ 6,501,607	\$ 7,797,659	\$ 11,692,765
Surplus (Deficiency) before Rate Increase	\$ (1,374,572)	\$ (314,008)	\$ (1,109,906)	\$ (1,301,607)	\$ (2,597,659)	\$ (6,492,765)
Additional Revenue from Rate Increases ¹	-	\$676,000	\$1,439,880	\$2,303,064	\$3,278,463	\$4,380,663
Surplus (Deficiency) after Rate Increase	\$ (1,374,572)	\$ 361,992	\$ 329,974	\$ 1,001,457	\$ 680,803	\$ (2,112,102)
Total Rate Revenue after Rate Increase	\$ 5,200,000	\$ 5,876,000	\$ 6,639,880	\$ 7,503,064	\$ 8,478,463	\$ 9,580,663
Projected Annual Rate Increase	0.00%	13.00%	13.00%	13.00%	13.00%	13.00%

1. Assumes new rates are implemented July of each year of rate period.

2. Total Use of Funds less non-rate revenues and interest earnings. This is the annual amount needed from water rates.

Figure 4 and **Figure 5** summarize the projected reserve fund balances and reserve targets. However, there is more complex story behind these projections. Because of the District’s history of deferred maintenance,

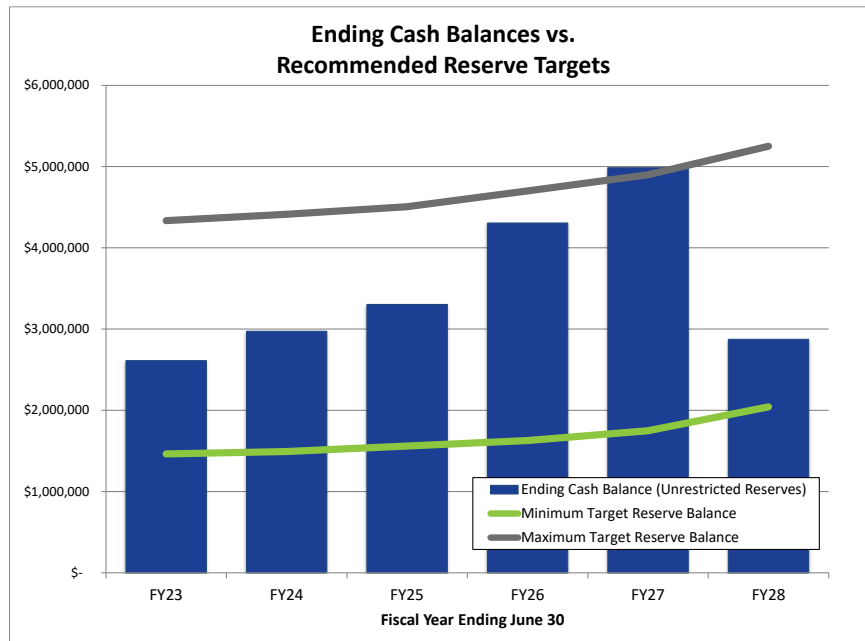
¹⁰ These bonds are paid in full in FY 2023/24, after which the District’s Davis-Grunsky Loan does not have a coverage requirement.

which is the result of keeping rates too low, some of the planned CIP projects will go from planned replacements to emergency projects when failures occur; this will accelerate the rate of capital spending once more funding is available. While this will move some expenses into the nearer term, others are likely to be delayed until later. The net result will likely be an overall smoothing of the ending balances over the five-year rate adoption period.

FIGURE 4. SUMMARY OF WATER RESERVE FUNDS

Beginning Reserve Fund Balances and Recommended Reserve Targets	Budget	5-Year Prop 218 Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Operating Reserve						
Ending Balance	\$ 778,000	\$ 804,000	\$ 832,000	\$ 860,000	\$ 890,000	\$ 920,000
Recommended Minimum Target	778,000	804,000	832,000	860,000	890,000	920,000
Recommended Maximum Target	2,334,000	2,413,000	2,496,000	2,581,000	2,669,000	2,760,000
Capital Rehabilitation & Replacement Reserve						
Ending Balance	\$ 1,834,029	\$ 2,170,022	\$ 2,471,996	\$ 3,445,453	\$ 4,096,256	\$ 1,954,154
Recommended Minimum Target	684,800	689,700	729,000	767,500	858,600	1,122,000
Recommended Maximum Target	2,000,000	2,000,000	2,010,000	2,120,000	2,230,000	2,490,000
Total Ending Balance	\$ 2,612,029	\$ 2,974,022	\$ 3,303,996	\$ 4,305,453	\$ 4,986,256	\$ 2,874,154
Total Recommended Minimum Target	\$ 1,462,800	\$ 1,493,700	\$ 1,561,000	\$ 1,627,500	\$ 1,748,600	\$ 2,042,000
Total Recommended Maximum Target	\$ 4,334,000	\$ 4,413,000	\$ 4,506,000	\$ 4,701,000	\$ 4,899,000	\$ 5,250,000

FIGURE 5. ENDING RESERVE FUND BALANCES



Characteristics of Water Customers by Class

Water customer characteristics are used in allocating costs in the cost-of-service analysis. The District’s most recent data by customer class includes the consumption data in **Figure 6**, peaking factors in **Figure 7**, and the total number of accounts in **Figure 8**. In allocating net revenue requirements to individual customer classes, consumption data is used to allocate volumetric-related costs while peaking factors are used to allocate system capacity-related costs and number of accounts are used to allocate customer service-related costs. More details on this process are provided below in the cost-of-service section.

FIGURE 6. WATER CONSUMPTION BY CUSTOMER CLASS

Customer Class	FY 2020/21 Volume (hcf) ¹	Percent of Total Volume
Residential	530,468	79.8%
Multi-Family Residential	46,099	6.9%
Mobile Home Park	29,578	4.5%
Commercial Light	44,753	6.7%
Commercial Medium	2,450	0.4%
Commercial Heavy	10,076	1.5%
Construction Meter	1,020	0.2%
Total	664,444	100%

1. Consumption data is based on the HCSD's billing data.

FIGURE 7. PEAKING FACTORS BY CUSTOMER CLASS

Customer Class	Average Monthly Use (hcf)	Peak Monthly Use (hcf) ¹	Peak Monthly Factor	Max Month Capacity Factor
Residential	44,206	57,858	1.31	79.5%
Multi-Family Residential	3,842	4,540	1.18	6.2%
Mobile Home Park	2,465	2,755	1.12	3.8%
Commercial Light	3,729	5,082	1.36	7.0%
Commercial Medium	204	275	1.35	0.4%
Commercial Heavy	840	1,841	2.19	2.5%
Construction Meter	85	464	5.46	0.6%
Total	55,370	72,815	1.32	100%
Fire Service	0	0	n.a.	0.0%
Total	55,370	72,815	1.32	100%

1. Based on peak monthly data (peak day data not available).

FIGURE 8. NUMBER OF ACCOUNTS BY CUSTOMER CLASS

Customer Class	Number of Meters ¹	Percent of Total
Residential	6,968	90.4%
Multi-Family Residential	465	6.0%
Mobile Home Park	11	0.1%
Commercial Light	234	3.0%
Commercial Medium	3	0.0%
Commercial Heavy	23	0.3%
Construction Meter	6	0.1%
Total	7,710	100.0%
Fire Service	58	0.7%
Total	7,768	100.7%

1. Meter Count data is based on the HCSD's billing data for June 2021.

Cost of Service Analysis – Water

As previously noted in Figure 2, the purpose of the cost-of-service analysis is to fairly and equitably allocate annual water utility revenue requirements to *customer classes*, while the rate design determines the actual rates *within each customer class*. The first step of separating costs into commodity-, capacity-, and customer-related cost classifications is based on their functional purpose in the water utility: results are summarized in **Figure 9**, while more detailed fixed and variable allocations are shown in Appendix B.

FIGURE 9. SUMMARY OF FIXED AND VARIABLE RATE REVENUE REQUIREMENTS

Classification Components	Fixed & Variable Cost Allocations	Adjusted Net Revenue Requirements	
		40% Fixed / 60% Variable	
Commodity-Related Costs	Variable	\$ 3,525,600	60.0%
Capacity-Related Costs	Fixed	2,085,980	35.5%
Customer-Related Costs	Fixed	264,420	4.5%
Net Revenue Requirement		\$ 5,876,000	100%

The next step is to allocate these commodity-related, capacity-related, and customer-related costs to each customer class based on the allocation factors previously shown in Figure 6 through Figure 8, as follows:

- Water consumption (Figure 6) is used to allocate commodity-related variable costs shown in **Figure 10**. For example, single-family commodity-related costs are 79.8% of \$3.52 million, or \$2.81 million.¹¹
- Peaking factors (Figure 7) are used to allocate the capacity-related costs shown in **Figure 10**; single-family capacity-related costs are 79.5% of \$2.08 million capacity-related costs, or \$1.65 million.
- Number of meters (Figure 8) are used to allocate the customer-related costs shown in **Figure 10**; single-family customer-related costs are 90.4% of \$264,420, or \$238,973.

The results of this cost allocation process are summarized in Figure 10:

FIGURE 10. SUMMARY OF ADJUSTED RATE REVENUE REQUIREMENTS BY CUSTOMER CLASS

Customer Classes	Classification Components			Cost of Service Net Rev. Req'ts	% of COS Net Revenue Req'ts
	Commodity-Related Costs	Capacity-Related Costs	Customer-Related Costs		
Residential	\$ 2,814,711	\$ 1,657,497	\$ 238,973	\$ 4,711,181	80.2%
Multi-Family Residential	244,605	130,060	15,948	390,613	6.6%
Mobile Home Park	156,944	78,924	377	236,245	4.0%
Commercial Light	237,463	145,587	8,025	391,076	6.7%
Commercial Medium	13,000	7,878	103	20,981	0.4%
Commercial Heavy	53,464	52,740	789	106,993	1.8%
Construction Meter	5,412	13,293	206	18,911	0.3%
Total Net Revenue Requirement	\$ 3,525,600	\$ 2,085,980	\$ 264,420	\$ 5,876,000	100%
<i>Total Net Revenue Requirement by Classification Component</i>	<i>VARIABLE</i> \$3,525,600	<i>FIXED</i> \$2,350,400		\$5,876,000	

As previously shown in Figure 3, the projected rate revenue collected in FY 2023/24 from new rates would be \$676,000, which assumes rates are effective beginning in July 2023. When added to the expected rate revenue from current rates (i.e., \$5.2 million), the projected rate revenue in FY 2023/24 is \$5.876 million, as shown in Figure 10.

Proposed Water Rates

Figure 11 compares the current and proposed rates for FY 2023/24 through 2027/28. Cost-of-service adjustments are reflected in the FY 2023/24 rates; thereafter rate increases are applied on an across-the-board basis. Appendix B provides more detail on the development of the proposed water rates.

¹¹ In each of these examples, there are more decimal places used in the calculations than indicated in the numbers shown here. Because of this, results shown may not exactly duplicate the actual calculation.

As shown in Figure 11, residential 5/8-inch through 1-inch meters now have the same fixed charge. This is because, as District staff have noted, fire sprinkler code requires many single-family homes to upsize their meters from 5/8-inch to 3/4- or even 1-inch meters, even though their expected consumption is the same as any other single-family customer. Because of this, 3/4- and 1-inch residential meters are considered equivalent to older 5/8-inch residential meters in this analysis. Many other water districts in California have made similar adjustments when building codes require larger meters to avoid penalizing those customers for these unrelated code requirements.

FIGURE 11. CURRENT AND PROPOSED WATER RATES FISCAL YEAR 2023/24 – 2027/28

Water Rate Schedule	Current Rates	Proposed Rates (40% Fixed/60% Variable)				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Fixed Service Charge (by Meter Size)						
Monthly Fixed Service Charges:						
Residential 5/8-, 3/4-, and 1-inch ¹	\$26.46	\$23.55	\$26.61	\$30.07	\$33.98	\$38.40
5/8 inch	\$26.46	\$23.55	\$26.61	\$30.07	\$33.98	\$38.40
3/4 inch	\$38.42	\$33.90	\$38.30	\$43.28	\$48.91	\$55.27
1 inch	\$62.34	\$54.59	\$61.68	\$69.70	\$78.76	\$89.00
1 1/2 inch	\$122.13	\$106.32	\$120.14	\$135.76	\$153.40	\$173.35
2 inch	\$193.89	\$168.39	\$190.28	\$215.02	\$242.97	\$274.56
3 inch	\$385.23	\$333.93	\$377.34	\$426.39	\$481.82	\$544.46
4 inch	\$600.49	\$1,037.45	\$1,172.32	\$1,324.72	\$1,496.93	\$1,691.53
6 inch	\$1,198.44	\$1,658.20	\$1,873.77	\$2,117.36	\$2,392.61	\$2,703.65
Volumetric Charges for All Water Consumed						
Uniform Rate (per hcf)	\$4.06	\$5.31	\$6.00	\$6.78	\$7.66	\$8.66

1. Fixed charges for 5/8-, 3/4-, and 1-inch *single-family residential* meters are the same.

Comparison of Current and Proposed Monthly Bills

SINGLE-FAMILY WATER CUSTOMERS

Figure 12 compares monthly water bills under the current and proposed rates, for single-family residential customers, in the first year of the rate adjustment plan. **Figure 13** compares current and proposed typical single-family monthly water bills compared to other communities.

FIGURE 12. MONTHLY WATER BILL COMPARISON FOR SFR CUSTOMERS

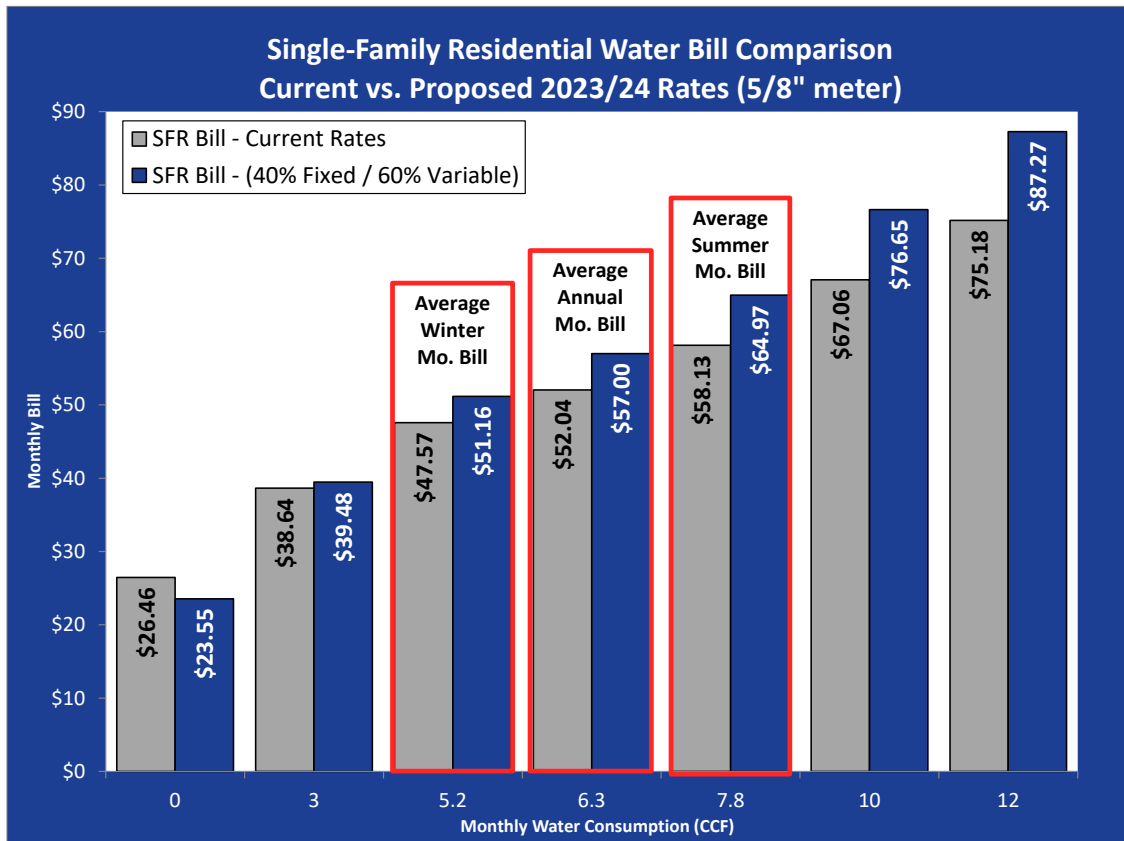
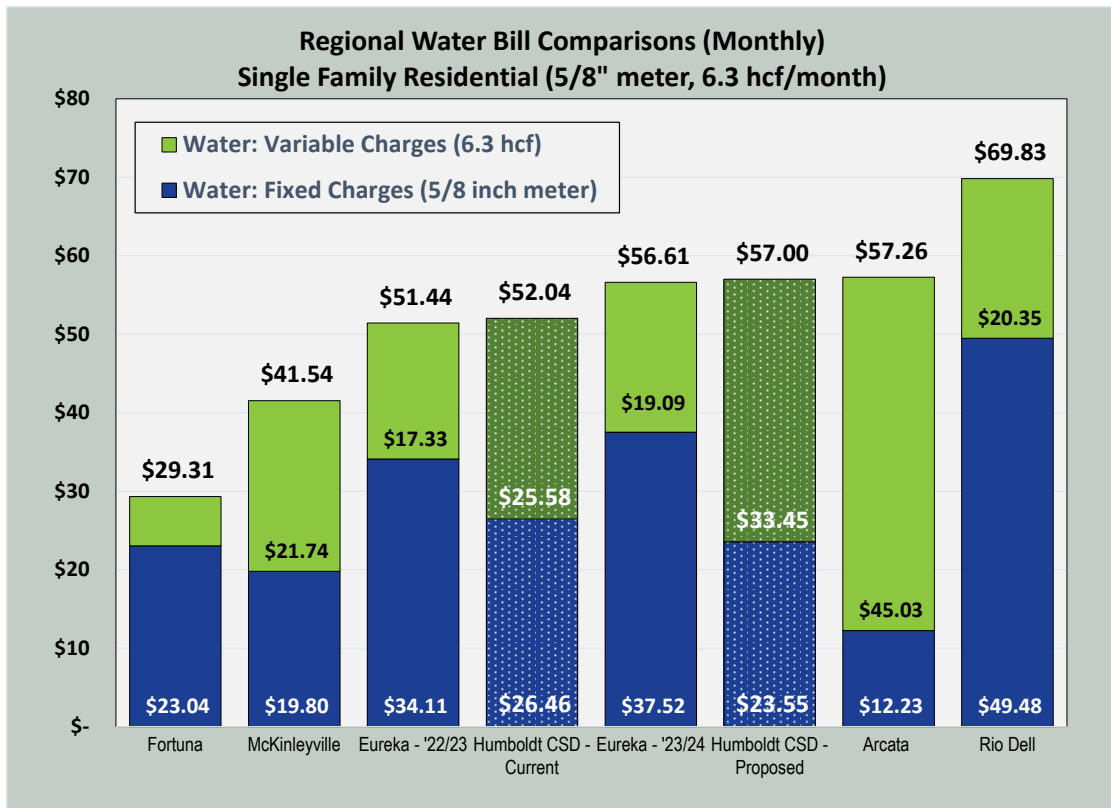


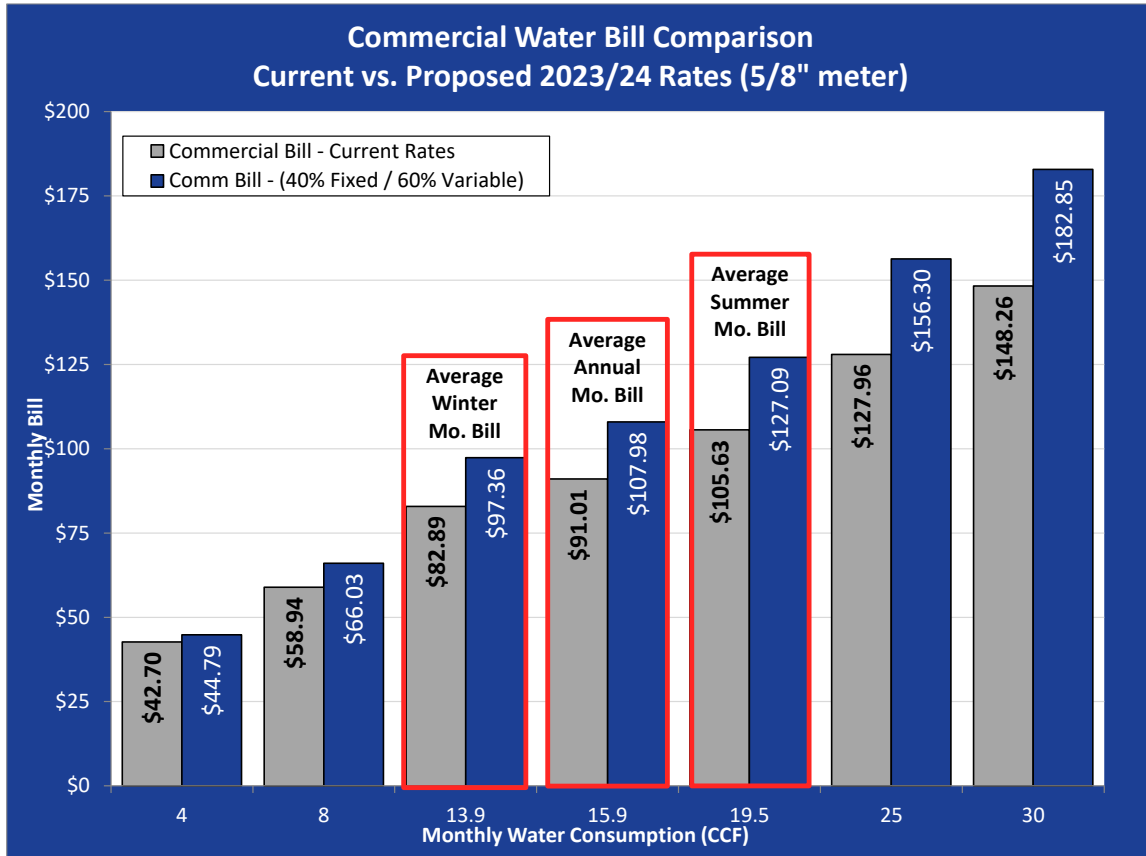
FIGURE 13. MONTHLY WATER BILL COMPARISON WITH OTHER COMMUNITIES



COMMERCIAL WATER CUSTOMERS

Commercial customers are currently subject to the same fixed monthly charges by meter size and uniform volumetric rate as single-family customers. **Figure 14** compares current and proposed monthly bills for commercial customers with a 5/8-inch meter at various levels of consumption, in the first year of the rate adjustment plan.

FIGURE 14. MONTHLY WATER BILL COMPARISON FOR COMMERCIAL USERS



Section 4. WASTEWATER RATE STUDY

Developing Recommended Wastewater Rates

The wastewater rate study focused on key objectives similar to those considered in the water rate study, with the overriding concern being maintaining the financial health of the utility.

Similar wastewater rate tasks were performed, including (1) developing functional cost allocations, (2) developing revenue requirements by customer class, and (3) determining rates within customer classes. Detailed tables showing the step-by-step development of the analysis are presented in Appendix C – Wastewater Rate Summary Tables.

Wastewater Utility Revenue Requirements

To identify the wastewater utility's long-term financial needs, including funding for capital improvement projects, NBS developed a 10-year financial plan that forecasts wastewater revenues, expenditures, and projected reserves. This plan is based on the District's current operating budget for the utility, discussions with District staff, and related information such as debt service schedules and capital improvement plans. This financial plan addresses four primary objectives:

- **Meeting Operating Costs:** The wastewater utility must generate enough revenue to cover the expenses of wastewater operations, including administration, maintenance, and the collection system. Wastewater treatment plant services are contracted with the City of Eureka and accounted for in the District's annual budget as an operating cost.
- **Meeting Capital Improvement Costs:** The wastewater utility plans to adequately fund necessary capital improvements, which includes roughly \$26 million in planned capital improvements for FY 2023/24 through the end of FY 2027/28. The District's 32.1 percent share of the City of Eureka's wastewater treatment plant improvement costs account for a large portion of the District's capital improvement costs.
- **Maintaining Adequate Reserves:** The District's reserves are a critical component in maintaining the financial health of the utility. Normal fluctuations in expenses and rate revenue as well as emergency costs are part of standard practices in the industry.
- **Maintaining Adequate Bond Coverage:** The District is required by its bond covenant to maintain a debt service coverage ratio of at least 1.20 for the outstanding Wastewater Revenue Bonds, 2014 Series, and the 2012 loan for the Martin Slough Refinancing. The Utility is projected to meet this coverage requirement through FY 2027/28.

In FY 2023/24, the net revenue requirement of approximately \$7 million are sufficient to cover annual operating expenditures, debt service payments, and planned capital improvement costs. However, capital improvements this year are only \$2.7 million, while the longer term capital improvement (over the next 10 years) average \$8.3 million per year to pay for both the District's neglected collection system projects as well as City treatment-related projects. Because of this, rate increases are needed to fund these costs and maintain positive reserve balances.

Figure 15 summarizes the sources and uses of funds and net revenue requirements for the next five years and includes the recommended annual rate increases. **Figure 16** summarizes the utility's projected reserve funds and target balances.

FIGURE 15. SUMMARY OF WASTEWATER REVENUE REQUIREMENTS

Summary of Sources and Uses of Funds and Net Revenue Requirements	Budget	5-Year Prop 218 Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Sources of Wastewater Funds						
Rate Revenue Under Prevailing Rates	\$ 5,620,572	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372
Sewer Pass Through	\$ 1,447,800	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Rate Revenues	89,576	89,576	89,576	89,576	89,576	89,576
Interest Earnings	64,358	71,657	79,474	94,937	126,899	193,234
Total Sources of Funds	\$ 7,222,306	\$ 7,229,606	\$ 7,237,422	\$ 7,252,886	\$ 7,284,847	\$ 7,351,182
Uses of Wastewater Funds						
Personnel Expenses	\$ 1,421,035	\$ 1,477,877	\$ 1,536,992	\$ 1,598,471	\$ 1,662,410	\$ 1,728,907
Sewage Treatment O&M	1,523,600	1,584,544	1,647,926	1,713,843	1,782,397	1,853,692
Operating Expenses	616,491	634,212	652,464	671,264	690,628	710,573
Debt Service	779,216	780,616	781,616	782,216	662,425	664,613
Rate-Funded Capital Expenses	2,489,510	2,724,391	3,917,426	4,184,642	3,593,750	8,316,563
Total Use of Funds	\$ 6,829,852	\$ 7,201,639	\$ 8,536,424	\$ 8,950,436	\$ 8,391,609	\$ 13,274,348
Net Revenue Requirement¹	\$ 6,675,919	\$ 7,040,406	\$ 8,367,374	\$ 8,765,923	\$ 8,175,134	\$ 12,991,538
Surplus (Deficiency) before Rate Increase	\$ 392,454	\$ 27,966	\$ (1,299,002)	\$ (1,697,550)	\$ (1,106,762)	\$ (5,923,166)
Additional Revenue from Rate Increases ²	-	989,572	2,117,684	3,403,732	4,660,385	6,067,836
Surplus (Deficiency) after Rate Increase	\$ 392,000	\$ 1,018,000	\$ 819,000	\$ 1,706,000	\$ 3,554,000	\$ 145,000
Total Rate Revenue after Rate Increase	\$ 7,068,372	\$ 8,057,945	\$ 9,186,057	\$ 10,472,105	\$ 11,728,757	\$ 13,136,208
Projected Annual Rate Increase	0.00%	14.00%	14.00%	14.00%	12.00%	12.00%

1. Total Use of Funds less non-rate revenues. This is the annual amount needed from wastewater rates.

2. Assumes new rates are implemented July of each year of rate period.

FIGURE 16. SUMMARY OF WASTEWATER RESERVE FUNDS

Beginning Reserve Fund Balances and Recommended Reserve Targets	Budget	5-Year Prop 218 Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Un-Restricted Reserves						
Operating & Capital Replacement Reserve						
Ending Balance	\$ 593,500	\$ 616,100	\$ 639,600	\$ 663,900	\$ 689,200	\$ 715,500
Recommended Minimum Target	593,500	616,100	639,600	663,900	689,200	715,500
Recommended Maximum Target	1,780,600	1,848,300	1,918,700	1,991,800	2,067,700	2,146,600
Capital Rehabilitation & Replacement Reserve						
Ending Balance	\$ 3,259,035	\$ 3,656,674	\$ 4,464,550	\$ 6,158,626	\$ 9,699,702	\$ 6,180,778
Recommended Minimum Target	1,086,100	1,185,600	1,340,000	1,502,800	1,632,000	2,163,400
Recommended Maximum Target	8,000,000	8,240,000	8,490,000	8,740,000	9,000,000	9,270,000
Total Ending Balance	\$ 3,852,535	\$ 4,272,774	\$ 5,104,150	\$ 6,822,526	\$ 10,388,902	\$ 6,896,278
Total Recommended Minimum Target	\$ 1,679,600	\$ 1,801,700	\$ 1,979,600	\$ 2,166,700	\$ 2,321,200	\$ 2,878,900
Total Recommended Maximum Target	\$ 9,780,600	\$ 10,088,300	\$ 10,408,700	\$ 10,731,800	\$ 11,067,700	\$ 11,416,600

A summary of the entire 10-year financial plan, showing revenue requirements, revenue sources (including rate revenue), and necessary rate increases is presented in Appendix C, along with a summary of the District’s capital improvement program.

Cost of Service Analysis – Wastewater

The wastewater cost-of-service analysis is where annual revenue requirements are fairly and equitably allocated to customer classes. In contrast to the District’s water customer classes, the District’s wastewater customer classes are represented by type of customer: residential, multi-family, and commercial.

The key factors used in the wastewater cost-of-service analysis include the estimated effluent (flow) going to the wastewater treatment plant, the effluent strengths (BOD and TSS), and customer-related costs (e.g., billing and administrative costs). Actual wastewater flow data from 2021 was used.

Figure 17 shows how the volume allocation factors were developed, which are the percentages of annual consumption and estimated flow by various types of customers.

FIGURE 17. SUMMARY OF ESTIMATED FLOW TO TREATMENT PLANT

Customer Class	FY'20/21 Mo. Winter-Avg. Based Billable Vol. (HCF) ²	FY'20/21 Annualized Vol. Based on Winter-Avg. (Billable Vol.)	% of Total Consumption
Residential	29,062	348,738	75.4%
Multi-Family Residential	3,447	41,358	8.9%
Mobile Home Park/Trailer Park	1,740	20,877	4.5%
Commercial Light	3,125	37,497	8.1%
Commercial Medium	178	2,136	0.5%
Commercial Heavy	1,003	12,039	2.6%
Grand Total:	38,554	462,645	100.0%

1. Consumption data is based on the HCSD's FY 2020/21 customer data.

2. Monthly Billable Volume is equal to the 4-month Average Winter Consumption (December-March).

Customer Class Effluent Strengths – Effluent strength factors for individual customer classes are estimated using the general industry guidelines¹². The estimated effluent strengths by customer class are described below.

- Residential customers, including single-family, multi-family and mobile homes, are estimated to have BOD and TSS strength factors of 200 mg/l.
- Commercial customers have strength factors ranging from lower to higher than residential users, reflecting three strength-related classes (low-, medium-, and high-strength users).

Figure 18 and Figure 19 summarize the BOD and TSS strength characteristics and allocation percentages of the utility's wastewater customer classes.

FIGURE 18. SUMMARY OF ANNUAL FLOW AND STRENGTH (BOD) CHARACTERISTICS BY CUSTOMER CLASS:

Customer Class	FY'20/21 Annualized Vol. (Billable Vol.) (HCF)	Adjusted Annual Volume Total (HCF)	Annual Flow (gallons = HCF x 748 gal/HCF)	Biochemical Oxygen Demand (BOD)				
				Average Strength Factor (mg/l) ¹	Calculated BOD (lbs./yr.)	Adjusted BOD (lbs./yr.)	Percent of Total	
Residential	348,738	372,577	278,706,371	200	464,882	500,265	71.0%	
Multi-Family Residential	41,358	44,185	33,052,716	200	55,132	59,328	8.4%	
Mobile Home Park/Trailer Park	20,877	22,304	16,684,597	200	27,830	29,948	4.3%	
Commercial Light	37,497	40,060	29,967,061	200	49,985	53,789	7.6%	
Commercial Medium	2,136	2,282	1,707,060	435	6,193	6,664	0.9%	
Commercial Heavy	12,039	12,862	9,621,395	630	50,553	54,400	7.7%	
Grand Total:	462,645	494,271	369,739,200		654,575	704,395		
<i>Target, from WWTP Data²</i>		<i>494,271</i>	<i>Flow (HCF/yr.)</i>			<i>704,395</i>	<i>BOD (lbs./yr.)</i>	
			<i>1.07</i>	<i>Flow Adj. Factor</i>			<i>1.076</i>	<i>BOD Adj. Factor</i>

1. Average strength factors for BOD and TSS are derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G.

2. Reported in City of Eureka's Sewer Rate Study, concurrent with this rate study.

¹² The State Water Resources Control Council (SWRCB) Revenue Program Guidelines, Appendix G, page G-21 "Commercial User Strength Characteristics," were used for this purpose.

The “adjustments” shown in these tables are mass-balance adjustments to the billable volumes and resulting pounds of BOD and TSS so that they match the actual data from treatment plant records. While these adjustments do not alter the allocation percentages, they demonstrate that field records of system flows are reasonable estimates of the actual performance of the treatment plant.

FIGURE 19. SUMMARY OF ANNUAL FLOW AND STRENGTH (TSS) CHARACTERISTICS BY CUSTOMER CLASS:

Customer Class	FY'20/21 Annualized Vol. (Billable Vol.) (HCF)	Adjusted Annual Volume Total (HCF)	Annual Flow (gallons = HCF x 748 gal/HCF)	Total Suspended Solids (TSS)			
				Average Strength Factor (mg/l) ¹	Calculated TSS (lbs./yr.)	Adjusted TSS (lbs./yr.)	Percent of Total
Residential	348,738	372,577	278,706,371	200	464,882	461,118	71.0%
Multi-Family Residential	41,358	44,185	33,052,716	200	55,132	54,686	8.4%
Mobile Home Park/Trailer Park	20,877	22,304	16,684,597	200	27,830	27,605	4.3%
Commercial Light	37,497	40,060	29,967,061	200	49,985	49,580	7.6%
Commercial Medium	2,136	2,282	1,707,060	435	6,193	6,143	0.9%
Commercial Heavy	12,039	12,862	9,621,395	630	50,553	50,143	7.7%
Grand Total:	462,645	494,271	369,739,200		654,575	649,275	
<i>Target, from WWTP Data²</i>		494,271	<i>Flow (HCF/yr.)</i>			649,275	<i>TSS (lbs./yr.)</i>
			<i>1.07 Flow Adj. Factor</i>				<i>0.992 TSS Adj. Factor</i>

1. Average strength factors for BOD and TSS are derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G.
2. Reported in City of Eureka's Sewer Rate Study, concurrent with this rate study.

Figure 20 compares the total number of accounts and living units (depending on how customers are billed) by customer class. Figure 21 then summarizes the total rate revenue requirements by customer class resulting from the cost-of-service cost allocation process and the cost allocation factors shown in Figure 17 through Figure 20. Cost classification components include volume, strength-related (BOD and TSS) and customer-related costs and are represented both as a dollar amount and as a percentage of total net revenue requirements.

FIGURE 20. SUMMARY OF WASTEWATER CUSTOMER ACCOUNTS AND EDU'S

Customer Class	Number of Accounts (Meters)	Actual No. of Living Units (From '20/21 Customer Data)	Avg. Annual Winter Consumption per Living Unit	Avg. Winter Water Use as a % of SFR ^{1,2}	Equiv. Living Units based on SFR Winter Consumption ³	Percent of Consumption-Based Total (EDU/LU Equivalents)
Residential	5,842	5,998	58.14	100%	5,998	74.9%
Multi-Family Residential	415	965	42.84	74%	711	8.9%
Mobile Home Park/Trailer Park	10	598	34.89	60%	359	4.5%
Commercial Light	235	644	58.26	100%	644	8.0%
Commercial Medium	3	37	57.73	100%	37	0.5%
Commercial Heavy	21	255	47.14	100%	255	3.2%
Grand Total:	6,526	8,498	--	--	8,004	100.0%

1. Average winter water use per Living Unit as a % of SFR avg. winter water use.
2. Consistent with the last rate study, the commercial class living units from the customer data are assumed to reflect equivalent living units.
3. Number of equivalent single-family living units based on average winter water use.

FIGURE 21. SUMMARY OF ADJUSTED RATE REVENUE REQUIREMENTS BY CUSTOMER CLASS

Customer Class	Cost Classification Components				Cost-of-Service Net Revenue	% of COS Net Rev. Reqts. (2023/24)
	Volume	Treatment/Strength		Customer Related		
		BOD	TSS			
Net Revenue Requirements¹	\$ 4,587,608	\$ 1,584,886	\$ 1,584,886	\$ 300,565	\$ 8,057,945	--
	56.9%	19.7%	19.7%	3.7%	100.0%	--
Residential	\$ 3,458,102	\$ 1,125,593	\$ 1,125,593	\$ 269,062	\$ 5,978,350	74.2%
Multi-Family Residential	410,108	133,488	133,488	19,113	696,197	8.6%
Mobile Home Park/Trailer Park	207,017	67,383	67,383	461	342,244	4.2%
Commercial Light	371,822	121,026	121,026	10,823	624,697	7.8%
Commercial Medium	21,181	14,995	14,995	138	51,309	0.6%
Commercial Heavy	119,379	122,401	122,401	967	365,147	4.5%
	\$ 4,587,608	\$ 1,584,886	\$ 1,584,886	\$ 300,565	\$ 8,057,945	100%

1. Revenue requirement for each customer class is determined by multiplying the revenue requirement from each cost classification by the allocation factors for each customer class.

As shown in Figure 21, the total rate revenue expected to be collected in FY 2023/24 would be approximately \$8.1 million.

How these costs are then collected from fixed and volumetric charges within each customer class is part of the rate design analysis, the third study component previously shown in Figure 2.

Current vs. Proposed Wastewater Rates

Currently, the District’s wastewater rates consist of a small fixed monthly account charge, a fixed monthly base charge per living unit (which varies by customer class), and a volumetric rate (which also varies by customer class). Although rates currently collect 66 percent of rate revenue from volumetric rates and 34 percent from fixed charges, current rates were originally designed to collect 60 percent from volumetric and 40 percent from fixed charges based on FY 2014/15 data. Additionally, other conditions have changed since then -- most notably there have been significant increases in the City’s capital expenses which were then passed on to the District.

The proposed rates now collect 60 percent of revenue requirements from volumetric rates and 40 percent from fixed charges. This, along with the removal of the pass-through charge from volumetric rates, the 14 percent increase in revenue requirements, and changes in consumption patterns since the previous rate study, resulted in higher fixed charges and relatively smaller increases in volumetric rates.

Figure 22 shows the current and proposed wastewater rates through FY 2027/28. To improve accounting efficiency certain customer classes are grouped as follows:

- Trailer Parks are included in the Mobile Home customer class.
- Separate Laundry Facility accounts are included in the Commercial – Light Strength class.
- Public Facilities, Schools, Religious & Non-Profit, Fairgrounds, and Commercial Power Plants customer classes are included in the Commercial – Light Strength class.

FIGURE 22. CURRENT AND PROPOSED WASTEWATER RATES FISCAL YEAR 2023/24 – 2027/28

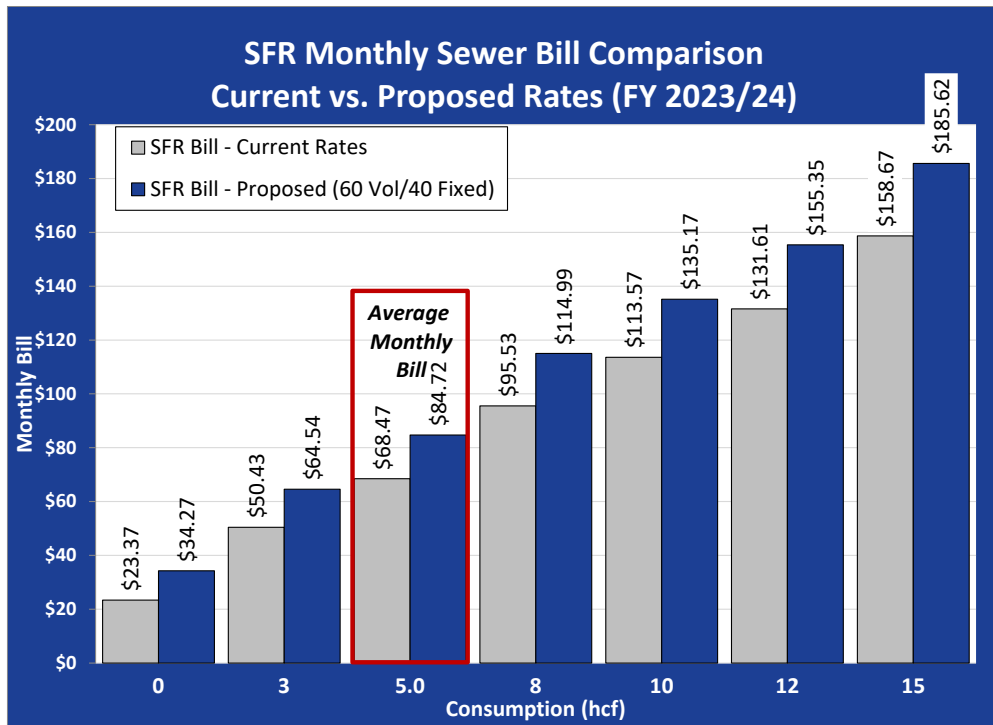
Sewer Rate Schedule	Current Rates	Recommended Monthly Fixed Sewer Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<i>Projected Increase in Rate Revenue per Financial Plan:</i>		14.00%	14.00%	14.00%	14.00%	14.00%
Monthly Fixed Service Charge						
Customer Service Charge Per Account	\$4.28	\$3.84	\$4.38	\$5.00	\$5.70	\$6.50
Monthly Fixed Service Charge Per Living Unit (LU)						
Residential:						
Single Family Residential (1-3)	\$19.09	\$30.43	\$34.70	\$39.56	\$45.10	\$51.42
Multi-Family (4 or more)	\$15.27	\$22.42	\$25.56	\$29.14	\$33.22	\$37.88
Mobile Homes	\$16.61	\$18.26	\$20.82	\$23.74	\$27.07	\$30.86
Trailer Parks	\$16.61	\$18.26	\$20.82	\$23.74	\$27.07	\$30.86
Commercial:						
Commercial - Light Strength (< 370 mg/liter)	\$19.09	\$30.43	\$34.70	\$39.56	\$45.10	\$51.42
Commercial - Medium Strength (370-500 mg/liter)	\$19.09	\$30.43	\$34.70	\$39.56	\$45.10	\$51.42
Commercial - Heavy Strength (>500 mg/liter)	\$19.09	\$30.43	\$34.70	\$39.56	\$45.10	\$51.42
Volumetric Charge (\$/HCF)^{1,2}						
	(Includes Passthrough) ⁴					
Residential³						
Single Family Residential (1-3)	\$9.02	\$10.09	\$11.51	\$13.13	\$14.97	\$17.07
Multi-Family (4 or more)	\$9.02	\$10.09	\$11.51	\$13.13	\$14.97	\$17.07
Mobile Homes	\$9.02	\$10.09	\$11.51	\$13.13	\$14.97	\$17.07
Trailer Parks	\$9.02	\$10.09	\$11.51	\$13.13	\$14.97	\$17.07
Commercial³						
Commercial - Light Strength (< 370 mg/liter)	\$10.79	\$10.10	\$11.52	\$13.14	\$14.98	\$17.08
Commercial - Medium Strength (370-500 mg/liter)	\$11.97	\$17.63	\$20.10	\$22.92	\$26.13	\$29.79
Commercial - Heavy Strength (>500 mg/liter)	\$13.26	\$22.50	\$25.65	\$29.25	\$33.35	\$38.02

1. One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons.
2. Rate is charged based on the monthly average winter water use of the previous calendar year (December - March) for each account.
3. Volumetric Charges apply to each unit (hcf) billed to all customer classes.
4. Current Volumetric Charges include passthrough adjustments; that additional revenue has been incorporated into both fixed and volumetric charges going forward.

SINGLE-FAMILY WASTEWATER CUSTOMERS

Figure 23 compares typical single-family monthly wastewater bills in year one of the adjusted rate plan.

FIGURE 23. MONTHLY SINGLE-FAMILY WASTEWATER BILL COMPARISON



We note that these bill comparisons reflect shifting the pass-through charges (which are currently included in volumetric rates) into the revenue requirements and, through the rate design, now collects 60 percent of rate revenue from volumetric rates and 40 percent from fixed charges.

Figure 24 compares typical single-family monthly wastewater bills with other communities. The sewer bills for typical District customers are about 30 percent higher than for City customer for two primary reasons:

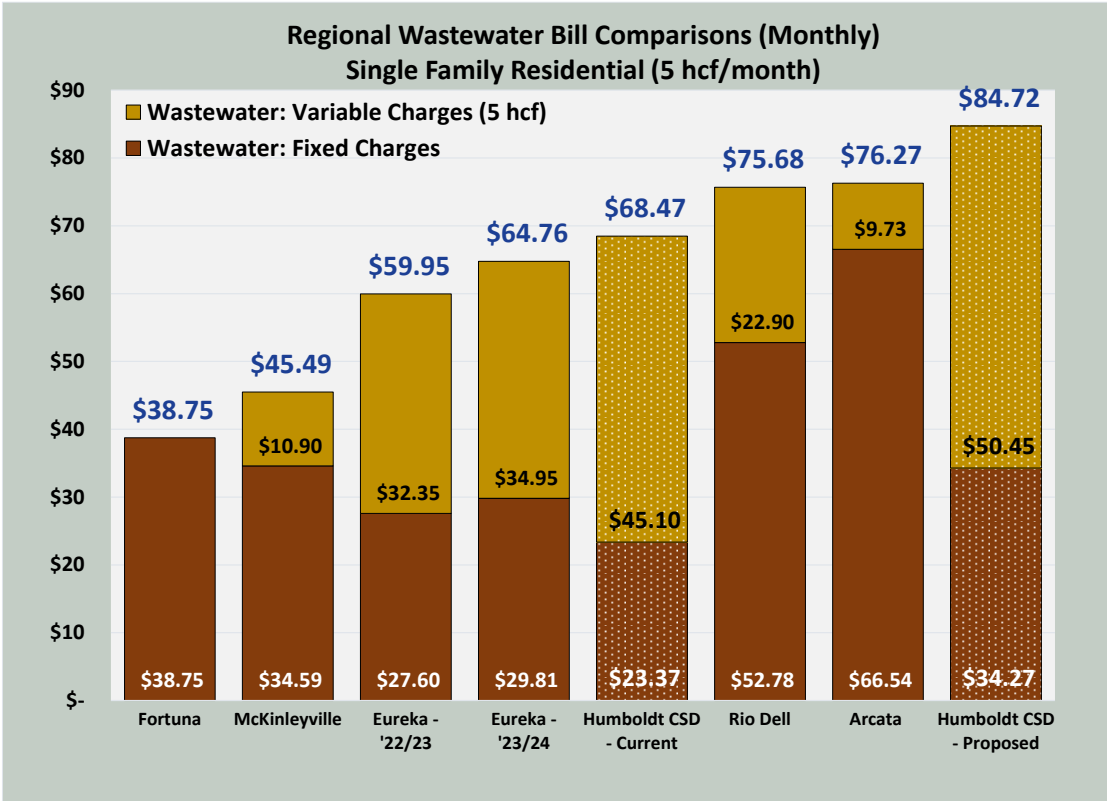
- 1. City Costs Are Spread Over More Customers** – The City has about 13,332 “housing equivalent units” (HEUs) whereas the District has about 8,004 “equivalent living units” (ELUs).¹³ The greater number of City units tends to spread costs over more customers.
- 2. District Capital Costs are Higher** – Assuming HEUs and ELUs are the same, an apples-to-apples comparison of capital costs-per-HEU for the five-year rate period (FY 2023/24 through FY 2027/28) show the District’s rate-funded capital cost are about 80 percent higher than the City’s:
 - City Costs: \$20.6 million¹⁴ of rate-funded capital costs = \$4.11 million/year
 - City Costs: \$4.11 million/year ÷ 13,332 HEUs = \$308/HEU/year
 - District Costs: \$22.7 million¹⁵ of rate-funded capital costs = \$4.55 million/year
 - District Costs: \$4.55 million/year ÷ 8,004 HEUs = \$568/HEU/year
 - $(\$568/\text{District HEU}) \div (\$308/\text{City HEU}) = 1.84$ (i.e., the District’s average costs are 84% higher than the City’s)

¹³ The City’s HEUs are equivalent to a single family home; the District’s equivalent living units (ELUs) are also equivalent single-family homes based on average winter water use for single-family customers. Therefore, we consider City HEUs and District ELUs to be approximately the same for the purpose of this comparison.

¹⁴ From the City’s rate study report, Figure 15 and Sewer Appendix Table 1.

¹⁵ From Figure 15.

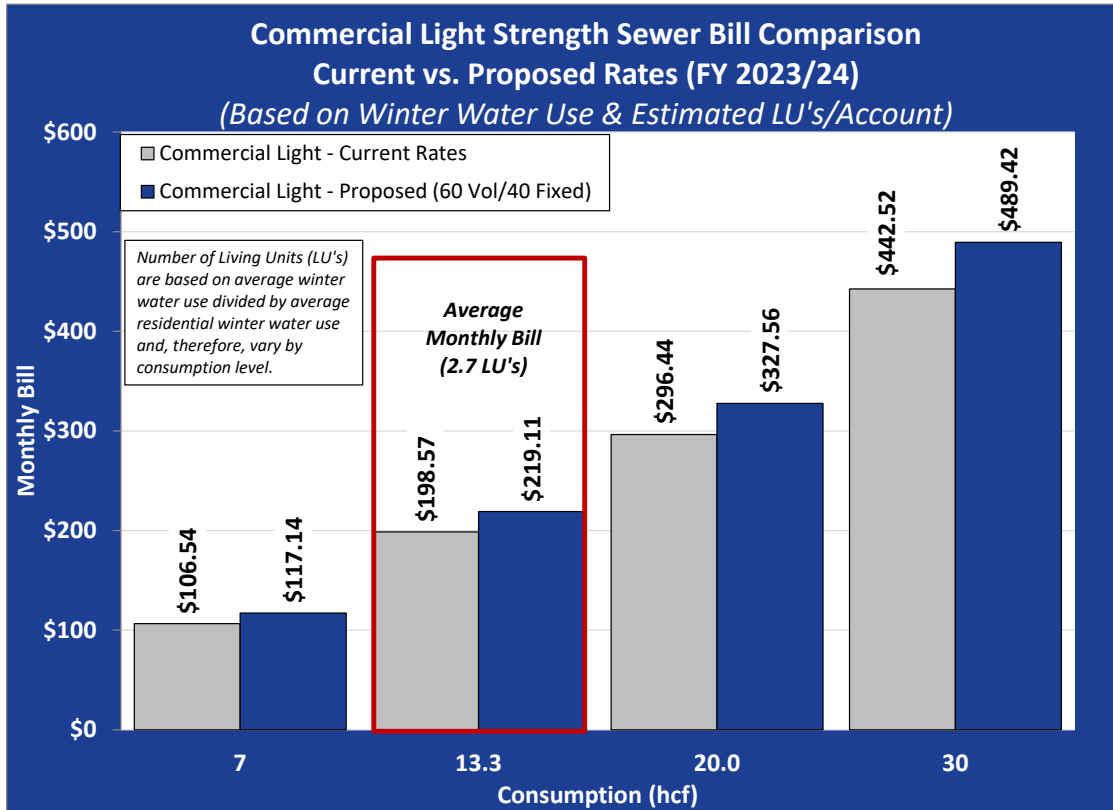
FIGURE 24. MONTHLY SINGLE-FAMILY WASTEWATER BILL COMPARISON WITH OTHER COMMUNITIES



COMMERCIAL WASTEWATER CUSTOMERS

Figure 25 compares typical light-strength commercial monthly wastewater bills in year one¹⁶.

FIGURE 25. MONTHLY LIGHT-STRENGTH COMMERCIAL WASTEWATER BILL COMPARISON



The bills under the proposed rates in this figure reflect moving the pass-through charges currently included in volumetric rates into the total revenue requirements. Also, Figure 25 uses the estimated number of living units, which is the average winter consumption divided by the average winter consumption for residential customers. Typical monthly bills will be different on a case-by-case basis (i.e., commercial sewer customers will need to use their individual living units and winter consumption when comparing their monthly bills under the current vs. proposed rates).

¹⁶ Commercial light customer bills were used because they have 235 of 259 sewer accounts (over 90 percent of the total).

Section 5. CONNECTION FEE BACKGROUND, PURPOSE AND METHODOLOGY

Background and Purpose

Connection fees are one-time fees intended to reflect the cost of existing infrastructure and planned improvements available to new services, and place new utility customers on equal basis from a financial perspective with existing customers. Once new customers are added to the system, they then incur the obligation to pay the same service charges or water and sewer rates that existing customers pay. The next few sections summarize the results of the analysis and present the updated maximum connection fees that could be imposed on new or upsized connections.

Connection Fee Methodology

Connection fees imposed by the District are subject to California’s Mitigation Fee Act (“Act”), embodied in Government Code 66000 et seq., which the State Legislature passed, starting with Assembly Bill 1600 in 1989. The Act prescribes how public agencies may impose development impact fees, including water and sewer connection fees. The connection fees presented herein are calculated with the intent of complying with the Act and are based on typical industry methodologies.

In its simplest form, connection fees (for utilities they are often also referred to as developer fees, capacity fees, or system development charges) are calculated by dividing the costs allocated to future development by the number of units of new development:

- Costs of planned future facilities and improvements required to serve new development are those that can be allocated to future development.
- The number of new units (i.e., growth) are those units projected to occur within the timeframe covered by the connection fee analysis.

Connection fee revenues may not be used for annual operations or maintenance of existing or new facilities. The cost of the public facilities analyzed do not include the operational costs of these facilities, which, over their useful life, may be quite substantial, and will be borne by customers connected to the system at the time of operation.

Another fundamental premise of connection fees is that the burden of the fees cannot exceed the actual cost of the public facilities needed to serve the development paying the fee, including costs associated with administering the fee program. In addition, fee revenues can only be used for their intended purposes and the Act has specific accounting and reporting requirements both annually and after every five-year period for the use of fee revenues.

Facility Standards, Level of Service, and Deficiencies

The words “standard” and “level of service” are used (at times interchangeably) to describe the level of investment in capital facilities that are needed to serve water and sewer customers reliably. A standard is defined as the adopted policy, or benchmark, that the District currently provides or intends to achieve for any particular facility. On the other hand, level of service (LOS) refers to the actual level of benefit that the

current population experiences. Level of service may be different from the standard for a given facility. If the existing LOS is less than the standard, a deficiency exists for that facility.

New development alone cannot be required to improve the LOS provided by those facilities that serve both new and existing development¹⁷. State law limits connection fees to the cost of maintaining services for new development at the same LOS as existing development.

Mitigation Fee Act and Required Findings

The Mitigation Fee Act establishes requirements for imposing connection fees, including necessary funding for the ongoing administration of connection fee programs. It also requires local governments to document the following when adopting a connection fee:

- Identify the purpose of the fee.
- Identify the use of fee revenues.
- Determine a reasonable relationship exists between the fee's use and the type of development paying the fee.
- Determine a reasonable relationship exists between the need for the fee and the type of development paying the fee.
- Determine a reasonable relationship exists between the amount of the fee and the cost of the facility attributable to development paying the fee.

Together, these items constitute a “nexus study” when documented and presented in a report. This report provides the required documentation for the above findings and the determinations that establish the basis for the recommended fees.

Fee Updates

This connection fee study and the recommended fees assume a given level of development activity over the study period based on the best available data. The development that actually occurs may result in both different impacts and fee revenues than those that are calculated in this study. For that reason, regular updates are recommended to adjust the connection fees to match the needs created by the rate of actual development.

The following sections discuss the development of the water and sewer connection fees.

17 New development can, and often does fund facilities beyond those covered by connection fees through “developer agreements” between the new development and the public utility. In some cases, developers may be required to provide these additional facilities as a condition of development. However, those types of developer agreements are outside the scope of this report, and not considered a part of the connection fee programs addressed herein.

Section 6. WATER CONNECTION FEE STUDY

Introduction

Various methodologies have been and are currently used to calculate water connection fees. The most common are:

- The value of existing (historical) system assets, often called a “buy-in” methodology.
- The value of planned future improvements, also called the “incremental” or “system development” methodology.
- A combination of these two approaches.

This analysis uses the combination approach, which requires new customers to pay both their fair share of existing system assets as well as their share of the planned future capital improvements needed to provide them with capacity in the District’s water system. As a result, new customers connecting to the District’s water system would enter as equal participants with current users regarding their financial commitment and obligations to the utility.

In calculating the water connection fees, the replacement-cost-new-less-depreciation (RCNLD) value of existing system assets was used to calculate the buy-in component of the connection fee. The Handy Whitman Index of Public Utility Construction Costs¹⁸, which is a regionally specific construction cost index that tracks water utility construction costs, was used to estimate the replacement value of the existing system assets. We believe this is an accurate inflation index and appropriate for both water and sewer utilities.

A detailed summary of the water utility’s connection fee calculations is included in Appendix D – Water Connection Fee Study Summary Tables.

Existing Connections and Projected Future Growth

Larger meters have the potential to use more of the water system’s capacity, compared to smaller meters. The potential capacity used is proportional to the maximum hydraulic flow through each meter size as established by the American Water Works Association (AWWA) hydraulic capacity ratios. The AWWA capacity ratios (also known as Flow Factors) used in this study are shown in the fourth column of **Figure 26**.

Since meters larger than the typical residential meter (in this case a 5/8-inch) have a greater potential peak demand than a 5/8-inch meter, a “hydraulic capacity factor” is calculated by dividing the maximum capacity or flow of large meters by the capacity of the base meter size (the most common residential meter size).

The flow factors shown in Figure 26 are the ratio of potential flow through each meter size compared to the flow through a 5/8-inch meter and is used to compare the capacities of the larger meters. For example, column 4 in Figure 26 shows the hydraulic capacity of a two-inch meter is 8 times that of a 5/8-inch meter. As a result, while there are currently 7,704 connections, there are 8,616 equivalent meter units.

¹⁸ *The Handy-Whitman index of public utility construction costs*. Baltimore, MD: Whitman, Requardt and Associates, 2017. Print.

FIGURE 26. METER EQUIVALENTS – WATER

Meter Size	Existing Potable Water Meters ¹	Meter Equivalence		Potable Water Meter Equivalent Units
		Maximum Flow (gpm) ²	Flow Factor for 5/8 inch Base Meter	
5/8 Inch	7,312	20	1.00	7,312
3/4 Inch	200	30	1.50	300
1 Inch	124	50	2.50	310
1 1/2 Inch	33	100	5.00	165
2 Inch	22	160	8.00	176
3 Inch	8	320	16.00	128
4 Inch	1	500	25.00	25
6 Inch	4	1,000	50.00	200
Total	7,704			8,616

1. Per District utility billing data, as of the June 2021 billing period. Excludes Fire meters and Construction meters.

2. Source: AWWA M1, Table B-2. Assumes displacement meters for 1 1/2" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters. Badger Model 25 (5/8); Model 35 (3/4); and Model 55 (1") meters and their specs have maximum flow 5 gpm higher for each of these three meter sizes (per District records).

The actual number of meters by size is multiplied by the corresponding flow factor to calculate the total number of equivalent meters, which is used as a proxy for the potential demand that each customer can place on the water system. A significant portion of a water system’s peak capacity, and in turn, the utility’s fixed capital costs, are related to meeting system capacity requirements. Therefore, the connection fee for a new service will be proportional to the service’s meter equivalent units.

The state now requires fire suppression systems in all new single-family home construction. Based on District system pressures, this could require a 5/8-inch meter up to a 1-inch meter. However, the expected use within single-family homes does not change because of this requirement, and the District's policy is to charge all new residential connections the same capacity fee vs. a fee based on the actual meter size.

The District’s capital improvement plans provide the basis for defining the costs of planned future capital assets. Based on the District’s customer growth projections, there will be approximately 0.33 percent annual growth in the water system. The result, as shown in **Figure 27**, is that the District expects 259 new equivalent meters by 2032.

FIGURE 27. PROJECTED CUSTOMER GROWTH – WATER

Demographic Statistics ^{1,2}	2020 Existing Total	Projected Service Total (2032)	Change (EMUs)	Allocation Factors	
			Number of Units	Existing Services	Future Services
SFR Meter Equivalent Units (EMUs) ³	8,616	8,875	259	97.1%	2.9%

1. Demands for potable water (current and projected) from the District's 2020 UWPM.

2. Customer growth in meter equivalents is proportionate to the demands for potable water projections.

3. Per District utility billing data, as of the September 2016 billing period. Excludes Fire meters and Construction meters.

Existing and Planned Future Assets

The water utility’s capital assets include existing assets and planned capital improvements (i.e., the buy-in and incremental assets). Existing assets are often valued using “book value” (i.e., original cost less depreciation). However, replacement costs provide a more accurate estimate of these asset values. Ideally, replacement values would reflect the actual field condition of the assets (i.e., whether they are behind or ahead of the depreciation curve based on actual condition rather than just the remaining years of expected

life¹⁹). Since this information was not available for this study, the estimated replacement-cost-new-less-depreciation value (or RCNLD) was developed as the cost basis for the new connection fees.

In this analysis, assets that have exceeded their useful life (as defined in the District’s asset records) were considered to have no remaining value. The resulting RCNLD value of existing assets are summarized in **Figure 28** as the System Buy-In Cost Basis.

FIGURE 28. SUMMARY OF EXISTING WATER ASSET VALUES

Asset Category	Original Values ¹		Book Value	Replacement Values (System Buy-in Cost Basis) ²	Allocation Basis (%) ⁴			Distribution of Cost Basis (\$)	
	Asset Cost	Depreciation to Date			Exclude from Analysis	Existing Services	Future Services	Existing Services	Future Services
Water Fund									
Autos And Trucks	\$ 3,018,856	\$ 1,936,933	\$1,081,923	\$ 559,276	0.0%	97.1%	2.9%	\$ 543,057	\$ 16,219
Buildings	1,009,029	674,256	334,773	394,394	0.0%	97.1%	2.9%	382,956	11,437
Communications Equipment	84,828	64,653	20,175	15,134	0.0%	97.1%	2.9%	14,695	439
Computer Hardware	64,736	64,736	-	-	0.0%	97.1%	2.9%	-	-
Computer Software	221,647	212,047	9,600	5,938	0.0%	97.1%	2.9%	5,766	172
Land And Land Improvements	474,470	-	474,470	241,811	0.0%	97.1%	2.9%	234,798	7,013
Land And Right Of Way - Water - Fw/Mr	1,300	-	1,300	741	0.0%	97.1%	2.9%	720	21
Land And Right Of Way- Water - Original District	113,322	-	113,322	113,322	0.0%	97.1%	2.9%	110,036	3,286
Land And Right Of Way-Sewer - Humboldt Hill	15,000	-	15,000	-	0.0%	97.1%	2.9%	-	-
Land And Right Of Way-Water - Humboldt Hill	81,777	-	81,777	81,777	0.0%	97.1%	2.9%	79,406	2,372
Machinery And Equipment	951,620	602,343	349,276	266,239	0.0%	97.1%	2.9%	258,518	7,721
Office Equipment	10,258	10,258	-	-	0.0%	97.1%	2.9%	-	-
Small Tools	6,273	6,273	-	-	0.0%	97.1%	2.9%	-	-
Telemetry Equipment	367,056	342,895	24,161	14,163	0.0%	97.1%	2.9%	13,752	411
Water Pumping And Distribution: Fw/Mr	4,826,019	3,679,431	1,146,588	3,091,220	0.0%	97.1%	2.9%	3,001,575	89,645
Water Pumping And Distribution: Humboldt Hill	5,102,635	4,123,235	979,400	2,499,269	0.0%	97.1%	2.9%	2,426,790	72,479
Water Pumping And Distribution: Original	11,906,629	9,451,832	2,454,797	5,560,155	0.0%	97.1%	2.9%	5,398,911	161,244
Water Source: Humboldt Hill	753,418	439,555	313,863	564,437	0.0%	97.1%	2.9%	548,069	16,369
Water Source: Original	1,252,992	1,205,825	47,166	133,085	0.0%	97.1%	2.9%	129,226	3,859
Total Capital Facilities & Equipment	\$ 30,261,864	\$22,814,273	\$7,447,590	\$ 13,540,962	--	97.1%	2.9%	\$ 13,148,274	\$ 392,688

1. The source of the original asset cost and depreciation to date is the Asset Data and Acquired Date provided by the District staff in source file: *Depreciation Schedule 6-30-2015.xls* and *Depreciation Schedule 6-30-2016.xls*.

2. Replication values are calculated by escalating the remaining original values (i.e., book values from District's fixed asset report) to 2022 values using inflation factors from the Handy-Whitman Index of Public Utility Construction Costs, for Water Utility Construction, Pacific Region.

3. Cost basis for consideration is calculated as replication value less accumulated depreciation.

4. Refer to Exhibit 1: proportionate allocation between existing and future users.

5. Assets have no remaining value, therefore allocation is 0% to existing and future users.

6. Assets are 100% allocated to Sewer, and therefore excluded from existing and future water users.

Most of the RCNLD costs were allocated to existing users based on the 97.1 percent allocation factor shown in Figure 27 (and 2.9 percent allocation factor for future users – with some assets excluded). The resulting allocation of exiting system assets to existing and future users is approximately \$0.4 million.

As noted earlier, the capital improvement costs are the estimated cost of planned future improvements (in 2022 dollars). The planned improvements used to calculate the system development component of the connection fee are summarized in **Figure 29**; based on the 2.9 percent allocation factor, future customers were allocated approximately \$1.1 million of these future capital project costs.

¹⁹ Some fully depreciated assets may have remaining useful life. However, it would require field inspection of these assets to determine what the remaining life is. This level of analysis is beyond most utility's capabilities and/or is cost prohibitive.

FIGURE 29. PLANNED WATER ASSET VALUES ALLOCATED TO FUTURE CUSTOMERS

Planned Capital Improvements	Current Cost Estimate (\$2022) ¹	System Development Cost Basis for Consideration ²	% Allocation		Existing Services	Future Services
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)		
WATER MAIN LINE REPLACEMENTS (\$100.00/LF)	\$20,921,657	\$ 20,921,657	96.9%	3.1%	\$ 20,272,684	\$ 648,973
WATER PUMPING FACILITY UPGRADES	12,998,771	12,998,771	97.1%	2.9%	12,621,807	376,964
VEHICLES/ROLLING STOCK/EQUIPMENT	1,245,000	1,245,000	97.1%	2.9%	1,208,895	36,105
BUILDING, YARD & PAVING IMPROVEMENTS	350,500	350,500	97.1%	2.9%	340,336	10,165
Total	\$35,515,928	\$ 35,515,928	97.0%	3.0%	\$ 34,443,721	\$ 1,072,207

1. Capital project costs were provided by HCSD Staff in source file: 2016-17 CIP.pdf.
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

Adjustments to the Cost Basis

Before the connection fees are developed, two adjustments were applied to the cost basis to account for existing cash reserves and outstanding debt. Existing cash reserves are treated as an asset since existing customers contributed them and they are available to pay for capital and/or operating costs of the water utility. The cash reserves are, in a sense, no different from any other system asset. Using the 2.9 percent allocation factor from Figure 27, the allocation of cash reserves to future users is approximately \$130,000 as shown in **Figure 30**.

FIGURE 30. CASH RESERVES ALLOCATED TO FUTURE WATER CUSTOMERS

Water Cash Reserves	Beginning Cash ²	% Allocation		\$ - Allocation	
		Existing Users	Future Users	Existing Users	Future Users
Operating Reserve	\$ 3,555,048	97.1%	2.9%	\$ 3,451,952	\$ 103,096
Capital Rehabilitation & Replacement Reserve	916,907	97.1%	2.9%	890,317	26,590
Connection Fee Reserve	-	97.1%	2.9%	-	-
Cash Net of Unspent Capacity Fees	\$ 4,471,955	97.1%	2.9%	\$ 4,342,269	\$ 129,687

2. The beginning cash balance is found in source file: *Cast Account Balances.xlsx*

There was also a credit to the cost basis related to outstanding bonds. This credit was included because some existing assets were at least partially funded with revenue bonds that will be paid in future years by the “existing customers” at that time. Since new connections pay their share of existing asset values, including the remaining outstanding debt on those same assets would be double counting the asset values in the connection fees. Therefore, credit is given in the connection fee calculation for the value of future principal, to avoid double-charging new customers for bond-funded assets. **Figure 31** shows that the credit provided to future users in the connection fee development is approximately \$0.52 million.

FIGURE 31. OUTSTANDING DEBT ALLOCATED TO FUTURE WATER CUSTOMERS

Bond Issue	Outstanding Principal	% Allocation ¹		\$ - Allocation		Total
		Existing Users	Future Users	Existing Users	Future Users	
1988 Freshwater/Mitchell Road Clean Water Bond	\$ 422,957	97.1%	2.9%	410,691	12,266	422,957
Davis-Grunsky Loan, \$166,000	\$ 27,769	97.1%	2.9%	26,964	805	27,769
2012 Refinance of 1981 Bond	\$ 73,069	97.1%	2.9%	70,950	2,119	73,069
Grand Total	\$ 523,795	97.1%	2.9%	\$ 508,605	\$ 15,190	\$ 523,795

1. Outstanding bond principal is allocated to existing and future services based on projected growth in the system.

Calculated Water Connection Fees

The sum of the existing and planned asset values (that is, the system buy-in and system development costs), along with the adjustments for existing cash reserves and outstanding principal payments, defines the total cost basis allocated to future customers, as shown in **Figure 32**.

FIGURE 32. SUMMARY OF COST BASIS FOR FUTURE WATER CUSTOMERS

System Asset Values Allocated to Future Development	
<i>System Asset Values Allocated to New Development</i>	
Existing System Buy-In ²	\$ 392,688
Future System Expansion ³	1,072,207
Total: Existing & Future System Costs	\$ 1,464,895
<i>Adjustments to Cost Basis:</i>	
Cash Reserves	\$ 129,687
Outstanding Long-Term Debt (Principal) Allocated to Future Users	(15,190)
Total: Adjustments to Cost Basis	\$ 114,497
Total Adjusted Cost Basis for New Development	\$ 1,579,391

1. Refer to Exhibit 1 (Demographics) for growth projections.
2. Refer to Exhibits 2 and 3 for detail of existing assets.
3. Refer to Exhibit 5 for detail related to planned assets.
4. Equivalent Meters include 5/8-, 3/4- and 1-inch meters.

The total adjusted cost basis is then divided by the number of future customers (in meter equivalents) expected to connect to the system (previously in Figure 26) to calculate the fee shown in **Figure 33**.

FIGURE 33. SUMMARY OF COSTS ALLOCATED TO FUTURE WATER CUSTOMERS & NEW CONNECTION FEES

Summary of Costs Allocated to Connection Fees	Adjusted System Cost Basis	Planned Additional EDU's (thru 2032)	Maximum Connection Fee
Current Water Connection Fee Per 5/8-Inch Meter ¹			\$3,045
Maximum Water Connection Per Equivalent Meter ²	\$ 1,579,391	259	\$6,098

1. Current Capacity Fees differentiate between 5/8-, 3/4- and 1-inch meters.
2. Equivalent Meters now include 5/8-, 3/4- and 1-inch meters for single-family only. All others are by meter size.

Based on this methodology and the assumptions used in this analysis, the new connection fees for each meter size are shown in **Figure 34**. These updated connection fees represent the maximum fees that the District could charge for new water connections by meter size. As previously noted, because of fire-sprinkler regulations, single-family connection fees should be the same for 5/8-, 3/4-, and 1-inch meters.

FIGURE 34. UPDATED WATER CONNECTION FEES

Meter Size	Current Connection Fees	Updated Maximum Connection Fee Per Meter Size ¹
Residential (5/8, 3/4, and 1-inch)	\$3,045	\$6,098
Non-Residential		
5/8 Inch	\$3,045	\$6,098
3/4 Inch	\$4,263	\$9,147
1 Inch	\$6,699	\$15,245
1 1/2 Inch	\$12,180	\$30,490
2 Inch	\$19,488	\$48,784
3 Inch	\$38,976	\$97,568
4 Inch	\$60,900	\$152,450
6 Inch	\$121,800	\$304,900

1. Source: AWWA M1, Table B-2.. Assumes displacement meters for 5/8" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters.

Water Connection Fee Findings Statements

The new water connection fees calculated in this report are based on regulatory requirements and generally accepted industry standards, and are further documented in Appendix D. This study makes the following findings:

- The purpose of the District’s water connection fee is to ensure that new and upsized connections reimburse and/or mitigate a reasonable portion of the District’s planned capital investments. These investments benefit and/or are necessary to accommodate increased demand for water services.
- The District uses connection fee proceeds to fund capital investments in the water system, which include the future design and construction of planned facilities.
- All parcels seeking permission to connect to the District’s water system are subject to the water connection fee, payment of which is a condition of connection approval. Figure 26 identifies the total number of projected future water customers.
- Connection fees for new water customers vary depending on the size of the water meter serving the connection. Meter size is generally proportionate to the demands a parcel places on the water utility system, specifically the peaking requirements related to the meter size.
- Figure 26 illustrates the equivalency factors (or hydraulic capacity factors) differentiating meter sizes, based on their maximum continuous flow. Of the meters currently connected to the system, 95 percent are 5/8-inch meters, although the District has a policy of assigning an equivalency factor of 1.0 to all residential 5/8-inch meters through 1-inch meters. The number of equivalent meters for larger meters are calculated based on the 5/8-inch meters.
- The District has made investments in water infrastructure and, because infrastructure deteriorates over time, will need to plan to continue to invest in its infrastructure. These investments make possible the availability and continued reliable provision of utility service of high-quality water sufficient to meet the demands of the District’s customers.
- Without capital investment in existing facilities, the water system capacity available to serve the needs of customer in the future would be uncertain. Without planned investments in future

facilities, water service would not be sustainable at the level of service currently enjoyed by these customers. The total value of planned water system assets that are attributable to serving future connections, should they occur, is identified in Figure 29.

- Connection fees are derived directly from the value of capital investments in existing and planned water facilities.
- Figure 33 identifies the water infrastructure cost per 5/8-inch meters through 1-inch meters for new water connections, resulting in connection fee unit cost of **\$6,098** per equivalent meter. Figure 33 shows the new connection fees for larger meters.
- Upon payment of a connection fee, a new customer incurs the obligation to pay the same ongoing service rates as existing customers, regardless of the date of connection to the systems or the actual start of service. Connection fees ensure that, over time, ongoing service rates are not disproportionately burdened by the costs to provide service to future customers.

Section 7. SEWER CONNECTION FEE STUDY

Introduction

The same methodology used to calculate the District’s water connection fees was used for the sewer connection fees (i.e., a combination of the buy-in and incremental cost methods). This combination approach requires new customers to pay their fair share of both existing system assets and planned future capital improvements needed to provide them with capacity in the District’s sewer system. As a result, new customers connecting to the District’s sewer system would enter as equal participants regarding their financial commitment and obligations to the utility.

The sewer connection fees used the replacement-cost-new-less-depreciation (RCNLD) value of existing system assets to calculate the buy-in component of the connection fee. The Handy Whitman Index of Public Utility Construction Costs¹⁸, which is a regionally specific construction index that tracks water utility construction costs, was used to estimate the replacement value of the existing system assets. We believe this is an accurate inflation index and can be used for sewer utilities.

A detailed summary of the sewer utility’s connection fee calculations is included in Appendix E – Sewer Connection Fee Study Summary Tables.

Existing Connections and Projected Future Growth

Different types of customers have the potential to use more of the system’s capacity depending on the flow and the strength of effluent. The potential capacity demanded is therefore proportional to the type of customer (i.e., residential, low-, medium-, or high-strength commercial). The third column in **Figure 35** represents the number of Equivalent Dwelling Units (EDUs) that are in the District’s sewer system. One EDU is equivalent to the sanitary sewer flows of a single-family residential home.

FIGURE 35. EQUIVALENT DWELLING UNITS – SEWER

Customer Class	Existing Sewer Connections ¹	Consumption Based EDU/Living Unit Equivalents
Residential	5,842	5,998
Multi-Family Residential	415	711
Mobile Home Park	10	359
Commercial - Light Strength	235	644
Commercial - Medium Strength	3	37
Commercial - High Strength	21	255
Total	6,526	8,004

1. Per District utility billing data, as of the June 2021 billing period.

The number of EDUs is used as a proxy for the potential demand that each customer can place on the sewer system. A significant portion of a sewer system’s capacity, and in turn, the utility’s fixed capital costs are related to meeting system capacity requirements. Therefore, the connection fee for a new service will be proportional to the number of EDUs.

The result of this analysis, summarized in **Figure 36**, is that while there are currently 6,526 connections to the District’s sewer system, there are 8,004 EDUs.

The District’s sewer capital improvement plans are the basis for defining the costs of planned future capital assets through Fiscal Year 2031/32. Like the water connection fee analysis, the sewer connection fee analysis assumes there will also be approximately 0.33 percent annual growth in the sewer system. The result, as shown in **Figure 36**, are the expected 241 new 5/8-inch equivalent housing units (EDUs) over the next 10 years.

FIGURE 36. PROJECTED CUSTOMER GROWTH – SEWER

Demographic Statistics	Existing Total ¹	Projected Service Total ² (FY 2031/32)	Number of Add'l. Units	Allocation Factors	
				Existing Services	Future Services
Equivalent Living Units	8,004	8,245	241	97.1%	2.9%

1. Consumption-based EDUs per District utility billing data, as of the June 2021 billing period.

2. Customer growth is preliminarily estimated at 0.33% per year.

(Note: previously the water connection fee section showed a projection of 259 additional water equivalent meters. The Water system currently has 8,616 equivalent meters (excluding fire service) compared to 8,004 equivalent living units for sewer. Therefore, even though the assumed growth rate for both systems is 0.33 percent, projected additional units will be different for water vs. sewer.)

Existing and Planned Future Assets

The sewer utility’s capital assets include existing assets and planned capital improvements (i.e., the buy-in and incremental assets). As with the water connection fee, the estimated replacement costs (RCNLD value) were developed as the cost basis for the new sewer connection fees.

After adjustments to account for assets that were considered to have no remaining value, the resulting RCNLD value of existing assets are summarized in **Figure 37** as the System Replacement Values.

FIGURE 37. SUMMARY OF EXISTING SEWER ASSET VALUES

Asset Category	Original Values ¹		Book Value	Replacement Values (System Buy-in Cost Basis) ²	Allocation Basis (%) ⁴		Distribution of Cost Basis (\$) ⁵	
	Asset Cost	Depreciation to Date			Existing Services	Future Services	Existing Services	Future Services
Sewer Fund								
Autos And Trucks	\$ 3,018,856	\$ 1,936,933	\$ 1,081,923	\$ 910,276	97.1%	2.9%	\$ 883,878	\$ 26,398
Buildings	1,009,029	674,256	334,773	297,525	97.1%	2.9%	288,897	8,628
Communications Equipment	84,828	64,653	20,175	11,417	97.1%	2.9%	11,086	331
Computer Hardware	64,736	64,736	-	-	97.1%	2.9%	-	-
Computer Software	221,647	212,047	9,600	5,938	97.1%	2.9%	5,766	172
Land And Land Improvements	474,470	-	474,470	232,659	97.1%	2.9%	225,911	6,747
Land And Right Of Way - Water - Fw/Mr	1,300	-	1,300	598	97.1%	2.9%	581	17
Land And Right Of Way- Water - Original District	113,322	-	113,322	-	97.1%	2.9%	-	-
Land And Right Of Way-Sewer - Humboldt Hill	15,000	-	15,000	15,000	97.1%	2.9%	14,565	435
Land And Right Of Way-Water - Humboldt Hill	81,777	-	81,777	-	97.1%	2.9%	-	-
Machinery And Equipment	951,620	602,343	349,276	200,847	97.1%	2.9%	195,023	5,825
Office Equipment	10,258	10,258	-	-	97.1%	2.9%	-	-
Sewer Collection: Humboldt Hill	3,166,423	2,164,732	1,001,691	2,219,291	97.1%	2.9%	2,154,931	64,359
Sewer Collection: Original	25,376,228	12,331,233	13,044,995	18,998,289	97.1%	2.9%	18,447,339	550,950
Small Tools	6,273	6,273	-	-	97.1%	2.9%	-	-
Telemetry Equipment	367,056	342,895	24,161	12,765	97.1%	2.9%	12,395	370
Total Capital Facilities & Equipment	\$ 34,962,823	\$ 18,410,360	\$ 16,552,462	\$ 22,904,606	97.1%	2.9%	\$ 22,240,372	\$ 664,234

1. Source of original asset cost/depreciation is Asset Data and Acquired Date, from District staff, files: *Depreciation Schedule 6-30-2015.xls* and *Depreciation Schedule 6-30-2016.xls*.

2. Replication values are calculated by escalating the remaining original values (i.e., book values from District's fixed asset report) to 2022 values using inflation factors from the Handy-Whitman Index of Public Utility Construction Costs, for Water Utility Construction, Pacific Region.

3. Cost basis for consideration is calculated as replication value less accumulated depreciation.

4. Refer to Exhibit 1: proportionate allocation between existing and future users.

5. Assets have no remaining value, therefore allocation is 0% to existing and future users.

6. Assets are 100% allocated to Sewer, and therefore excluded from existing and future water users.

Most of the RCNLD costs were allocated to existing users based on the 97.1 percent allocation factor shown in Figure 36 (and 2.9 percent allocation factor for future users). The resulting allocation of existing system assets to future users shown in Figure 37 is approximately \$664,000.

The estimated cost of planned future improvements (in 2022 dollars) used to calculate the system development component of the connection fee are summarized in **Figure 38**; based on the 2.1 percent allocation factor, future customers were allocated approximately \$1.97 million of these future capital project costs.

FIGURE 38. PLANNED ASSET VALUES ALLOCATED TO FUTURE SEWER CUSTOMERS

Facility / Equipment	Current Cost Estimate (\$2022) ¹	% Allocation		Distribution of Cost Basis (\$)	
		Existing Services	Future Services	Existing Services	Future Services
SEWER FACILITIES	\$ 2,882,000	97.1%	2.9%	\$ 2,798,422	\$ 83,578
MAIN EXTENSION & REPLACEMENTS	38,681,043	97.1%	2.9%	37,559,292	1,121,750
VEHICLES / EQUIPMENT	1,245,000	97.1%	2.9%	1,208,895	36,105
BUILDING, YARD & PAVING IMPROVEMENTS	350,500	97.1%	2.9%	340,336	10,165
CITY OF EUREKA CIP CONTRIBUTIONS	24,915,652	97.1%	2.9%	24,193,098	722,554
Total	\$ 68,074,194	97.1%	2.9%	\$ 66,100,043	\$ 1,974,152

1. Capital project costs were provided by HCSD Staff in source files: 20220518_22-23CIP_DRAFT.xlsx
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

Adjustments to the Cost Basis

Two adjustments were made to the cost basis to account for existing cash reserves and outstanding debt. Existing cash reserves are treated as an asset since they are no different than other system assets. As summarized in **Figure 39**, approximately \$70,000 of the existing cash reserves of \$2.3 million were allocated to future customers, based on the 2.9 percent allocation factor.

FIGURE 39. CASH RESERVES ALLOCATED TO FUTURE SEWER CUSTOMERS

Sewer Cash Reserves	Beginning Cash ¹	% Allocation		\$ - Allocation	
		Existing Users	Future Users	Existing Users	Future Users
Operating Reserve Fund	\$ 2,159,148	97.1%	2.9%	\$ 2,096,533	\$ 62,615
Capital R&R Reserve Fund	\$ 217,222	97.1%	2.9%	\$ 210,922	\$ 6,299
Connection Fee Reserve Fund	\$ -	97.1%	2.9%	\$ -	\$ -
Total Beginning Cash	\$ 2,376,369	97.1%	2.9%	\$ 2,307,455	\$ 68,915
Cash Net of Unspent Capacity Fees	\$ 2,376,369	97.1%	2.9%	\$ 2,307,455	\$ 68,915

1. The beginning cash balances are found in source file: Cast Account Balances.xlsx

Some existing assets were at least partially funded with revenue bonds that will be paid in future years by ratepayers.²⁰ Therefore, to avoid double charging new connections, this outstanding bond principal is excluded from the cost basis so that new customers don't pay it in both the connection fee and then again in rates they will be charged once they become existing ratepayers. **Figure 40** shows this credit is approximately \$235,000.

²⁰ That is, future bond repayment is assumed to be made by ratepayers, not connection fee reserves.

FIGURE 40. OUTSTANDING DEBT ALLOCATED TO FUTURE SEWER CUSTOMERS

Bond Issue	% Allocation ¹		\$ - Allocation	
	Existing Users	Future Users	Existing Users	Future Users
2014 Wastewater Revenue Bonds, \$8,500,000	97.1%	2.9%	\$ 5,801,725	\$ 173,275
2012 Refinancing for Martin Slough Project, \$2,372,000	97.1%	2.9%	1,555,424	46,454
VacCon Installment Sale	97.1%	2.9%	533,162	15,923
Grand Total	97.1%	2.9%	\$ 7,890,311	\$ 235,653

1. Outstanding bond principal is allocated to existing and future services based on projected growth in the system.

Calculated Sewer Connection Fees

Figure 41 shows the cost basis allocated to future customers (existing and planned asset values, along with the adjustments for existing cash reserves and outstanding principal payments) is about \$7.9 million.

FIGURE 41. SUMMARY OF COST BASIS FOR FUTURE SEWER CUSTOMERS

System Asset Values Allocated to Future Development	
<i>System Asset Values Allocated to New Development</i>	
Existing System Buy-In ²	\$ 664,234
Future System Expansion ³	1,974,152
Total: Existing & Future System Costs	\$ 2,638,385
<i>Adjustments to Cost Basis:</i>	
Cash Reserves	\$ 68,915
Outstanding Long-Term Debt (Principal) Allocated to Future Users	(235,653)
Total: Adjustments to Cost Basis	\$ (166,738)
Total Adjusted Cost Basis for New Development	\$ 2,471,647

1. Refer to Exhibit 1 (Demographics) for growth projections.

2. Refer to Exhibits 2 and 3 for detail of existing assets.

3. Refer to Exhibit 5 for detail related to planned assets.

This cost basis is then divided by the number of future customers (in EDUs) to calculate the maximum fee per EDU that the District could charge for new sewer connections, as shown in Figure 42. This maximum fee also serves as the basis for determining the connection fees paid by non-standards customers (i.e., by determining the number of EDUs using the single-family EDU as a baseline).

FIGURE 42. CALCULATION OF NEW SEWER CONNECTION FEES

Summary of Costs Allocated to Connection Fees	Adjusted System Cost Basis	Planned Additional EDU's (thru 2032)	Maximum Connection Fee
Current Sewer Connection Fee Per EDU ¹			\$2,958
Maximum Sewer Connection Per EDU	\$ 2,471,647	241	\$10,260

1. EDU = Equivalent Dwelling Unit or typical single family residential customer.

Sewer Connection Fee Findings Statements

The new sewer connection fees calculated in this report are based on regulatory requirements and generally accepted industry standards, and are further documented in Appendix E. This study makes the following findings:

- The purpose of the District's sewer connection fee is to ensure that new connections reimburse and/or mitigate a reasonable portion of the District's planned capital investments. These investments benefit and/or are necessary to accommodate increased demand for sewer service.
- The District uses connection fee proceeds to fund capital investments in the sewer system, which include the future design and construction of planned facilities.
- All parcels seeking permission to connect to the District's sewer system are subject to the sewer connection fee, payment of which is a condition of connection approval.
- Connection fees for new sewer customers vary depending on the estimated number of EDU's the connection will serve, which is generally proportionate to the demands a parcel places on the sewer utility system. Figure 36 illustrates the future number of EDU's, along with the number currently connected to the system.
- The District has made investments in sewer infrastructure and, because infrastructure deteriorates over time, will need to plan to continue to invest further in its infrastructure. These investments make possible the availability and continued reliable provision of utility service sufficient to meet the demands of customers in the District's service area.
- Without capital investment in existing and future facilities, the sewer system capacity available to serve the needs of customer in the future would be uncertain and continued sewer service at the level currently enjoyed by users would not be sustainable. Figure 41 identifies the total value of existing and planned sewer system assets attributable to future connections, should they occur. Connection fees are derived from the value of these existing and planned sewer system investments.
- Figure 42 identifies the calculated unit cost of **\$10,260** for the sewer infrastructure cost per single-family housing equivalent unit (EDU) for a new sewer connection.
- Upon payment of a connection fee, a new customer incurs the obligation to pay the same ongoing service rates as existing customers, regardless of the date of connection to the systems or the actual start of service. Connection fees ensure that, over time, ongoing service rates are not disproportionately burdened by the costs to provide service to future customers.

Section 8. RECOMMENDATIONS AND NEXT STEPS

Consultant Recommendations

This rate study reflects input from District staff and the Board of Directors and is intended to comply with general industry standards and meet the requirements of Proposition 218, including public hearings and protest balloting requirements.²¹ Below are the next steps required to adopt and implement these rates. As a part of this process, NBS recommends the District take the following actions:

- **Implement Recommended Levels of Rate Increases and Proposed Rates:** Based on successfully meeting the Proposition 218 balloting requirements, the District's Board of Directors should implement the rate increases and rate structures recommended in this report for both utilities for the next five years (see Figures 11 and 22). These rate increases are necessary to ensure the continued financial health of the District's water and wastewater utilities.
- **Adopt Reserve Fund Targets:** NBS recommends the Board of Directors adopt and strive to meet at least the recommended minimum reserve fund targets described in this report for each utility. The District should periodically evaluate reserve fund levels in light of the significant capital improvement costs planned for both utilities.
- **Implement New Connection Fees:** Based on the analysis presented in this report, the District Board should implement the new connection fees recommended in this report (see Figures 33 and 41).

Next Steps

ANNUALLY REVIEW RATES AND REVENUE

Any time an agency adopts new utility rates, particularly when facing significant capital costs and recent unforeseen expenditures, those new rates should be closely monitored over the next several years to ensure the revenue generated is sufficient to meet the annual revenue requirements. Changing economic and consumption patterns underscore the need for this review, as well as potential and unseen changing revenue requirements, particularly those related to capital improvement and repair and replacement costs that can significantly affect annual cash flows.

PRINCIPAL ASSUMPTIONS AND CONSIDERATIONS

In preparing this report and the recommendations included herein, NBS has relied on a number of principal assumptions and considerations with regard to financial matters, including the District's utility budgets, capital improvement plans, customer accounts, water consumption records. This information and these assumptions were provided by sources we believe to be reliable, although NBS has not independently verified this data.

While we believe NBS' use of such information and assumptions is reasonable for the purpose of this report and its recommendations, some assumptions will invariably not materialize as stated herein or may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected.

²¹ Per the District's procedures, the District will mail out protest instructions to customers of record (not protest ballots) informing them how to submit a protest under Prop 218 regulations.

Section 9. APPENDIX A - ABBREVIATIONS & ACRONYMS²²

AAF	Average Annual Flow
AF	Acre Foot, equal to 435.6 HCF/CCF or 325,851 gallons
Alt.	Alternative
Avg.	Average
AWWA	American Water Works Association
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
CA	Customer
CAP	Capacity
CCF	Hundred Cubic Feet (same as HCF); equal to 748 gallons
CCI	Construction Cost Index
COD	Chemical Oxygen Demand
COM	Commodity
Comm.	Commercial
COS	Cost of Service
COSA	Cost of Service Analysis
CPI	Consumer Price Index
CIP	Capital Improvement Program
DU	Dwelling Unit
Excl.	Exclude
ENR	Engineering News Record
EDU	Equivalent Dwelling Unit
Exp.	Expense
FP	Fire Protection
FY	Fiscal Year (e.g., July 1st to June 30th)
FY 2016/17	July 1, 2016 through June 30, 2017
GPD	Gallons per Day
GPM	Gallons per Minute
HCF	Hundred Cubic Feet; equal to 748 gallons or 1 CCF
Ind.	Industrial
Irr.	Irrigation
LAIF	Local Agency Investment Fund
Lbs.	Pounds
MFR	Multi-Family Residential
MGD	Million Gallons per Day
MG/L	Milligrams per Liter
Mo.	Month
Muni.	Municipal
NH3	Ammonia
NPV	Net Present Value
N/A	Not Available or Not Applicable
O&M	Operational & Maintenance Expenses
Prop 13	Proposition 13 (1978) – Article XIII A of the California Constitution which limits taxes on real property to 1% of the full cash value of such property.
Prop 218	Proposition 218 (1996) – State Constitutional amendment expanded restrictions of local government revenue collections.
Req't	Requirement
Res.	Residential

²² This appendix identifies abbreviations and acronyms that may be used in this report. This appendix has not been viewed, arranged, or edited by an attorney, nor should it be relied on as legal advice. The intent of this appendix is to support the recognition and analysis of this report. Any questions regarding clarification of this document should be directed to staff or an attorney specializing in this particular subject matter.

Appendix A, continued

Rev.	Revenue
RTS	Readiness-to-Serve
R&R	Rehabilitation & Replacement
SFR	Single Family Residential
SRF Loan	State Revolving Fund Loan
SWRCB	State Water Resources Control Council
TSS / SS	Total Suspended Solids
V. / Vs. /vs.	Versus
WWTP	Wastewater Treatment Plant

Section 10. **APPENDIX B – WATER RATE SUMMARY TABLES**

WATER RATE STUDY

Financial Plan and Reserve Projections

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY ¹	Budget	5-Year Prop 218 Period					Projected			
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
Sources of Water Funds										
Rate Revenue										
Water Service Charge	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000
Non-Rate Revenue:										
Water Pass Through ²	-	-	-	-	-	-	-	-	-	-
Fees	99,800	99,800	99,800	99,800	99,800	99,800	99,800	99,800	99,800	99,800
Miscellaneous	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
Non-Operating Revenues	16,744	16,744	16,744	16,744	16,744	16,744	16,744	16,744	16,744	16,744
Interest/General	74,151	48,584	55,317	61,454	80,081	92,744	53,459	50,924	58,864	78,662
Total Sources of Funds	\$ 5,392,495	\$ 5,366,928	\$ 5,373,661	\$ 5,379,798	\$ 5,398,425	\$ 5,411,088	\$ 5,371,803	\$ 5,369,268	\$ 5,377,208	\$ 5,397,006
Uses of Water Funds										
OPERATING EXPENSES:										
Personnel Expenses	\$ 1,859,749	\$ 1,934,139	\$ 2,011,504	\$ 2,091,964	\$ 2,175,643	\$ 2,262,669	\$ 2,353,176	\$ 2,447,303	\$ 2,545,195	\$ 2,647,002
Purchased Water ²	1,941,550	1,999,797	2,059,790	2,121,584	2,185,232	2,250,789	2,318,312	2,387,862	2,459,497	2,533,282
Operating Expenses	866,422	892,666	919,711	947,580	976,299	1,005,894	1,036,393	1,067,822	1,100,212	1,133,590
Subtotal: Operating Expenses	4,667,720	4,826,601	4,991,006	5,161,129	5,337,174	5,519,352	5,707,881	5,902,986	6,104,904	6,313,875
Other Expenditures:										
Existing Debt Service	\$ 209,605	\$ 94,623	\$ 5,906	\$ 5,905	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Debt Service	-	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses	1,889,741	759,710	1,486,655	1,514,372	2,658,911	6,384,502	6,576,037	6,773,318	6,976,517	7,185,813
Subtotal: Other Expenditures	\$ 2,099,346	\$ 854,334	\$ 1,492,561	\$ 1,520,277	\$ 2,658,911	\$ 6,384,502	\$ 6,576,037	\$ 6,773,318	\$ 6,976,517	\$ 7,185,813
Total Uses of Water Funds	\$ 6,767,066	\$ 5,680,935	\$ 6,483,567	\$ 6,681,405	\$ 7,996,085	\$ 11,903,853	\$ 12,283,917	\$ 12,676,304	\$ 13,081,421	\$ 13,499,688
plus: Revenue from Rate Increases ³	-	676,000	1,439,880	2,303,064	3,278,463	4,380,663	6,775,829	7,733,895	8,768,607	9,327,351
Annual Surplus/(Deficit)	\$ (1,374,572)	\$ 361,992	\$ 329,974	\$ 1,001,457	\$ 680,803	\$ (2,112,102)	\$ (136,285)	\$ 426,859	\$ 1,064,393	\$ 1,224,669
Net Rev. Req't. (Total Uses less Non-Rate Rev.)	\$ 6,574,572	\$ 5,514,008	\$ 6,309,906	\$ 6,501,607	\$ 7,797,659	\$ 11,692,765	\$ 12,112,114	\$ 12,507,036	\$ 12,904,213	\$ 13,302,682
Total Rate Revenue After Rate Increases	\$ 5,200,000	\$ 5,876,000	\$ 6,639,880	\$ 7,503,064	\$ 8,478,463	\$ 9,580,663	\$ 11,975,829	\$ 12,933,895	\$ 13,968,607	\$ 14,527,351
Projected Annual Rate Revenue Increase	0.00%	13.00%	13.00%	13.00%	13.00%	13.00%	25.00%	8.00%	8.00%	4.00%
Cumulative Increase from Annual Rev. Increases	0.00%	13.00%	27.69%	44.29%	63.05%	84.24%	130.30%	148.73%	168.63%	179.37%
Debt Coverage After Rate Increase⁴	3.46	4.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1. Revenues and expenses for FY 2021/22 are budgeted in source file: 2020-21 and 2021-22 Budget-Final.xlsx

2. Assumption includes a Pass-Through charge for additional purchased water; inflation rate set to 0.0%.

3. Assumes new rates are implemented October 1, 2022.

4. The District's 1988 and 2012 revenue bonds are paid in full in FY'23/23; the remaining debt service for the Davis-Grunsky Loan does not have a coverage requirement.

Financial Plan and Reserve Projections

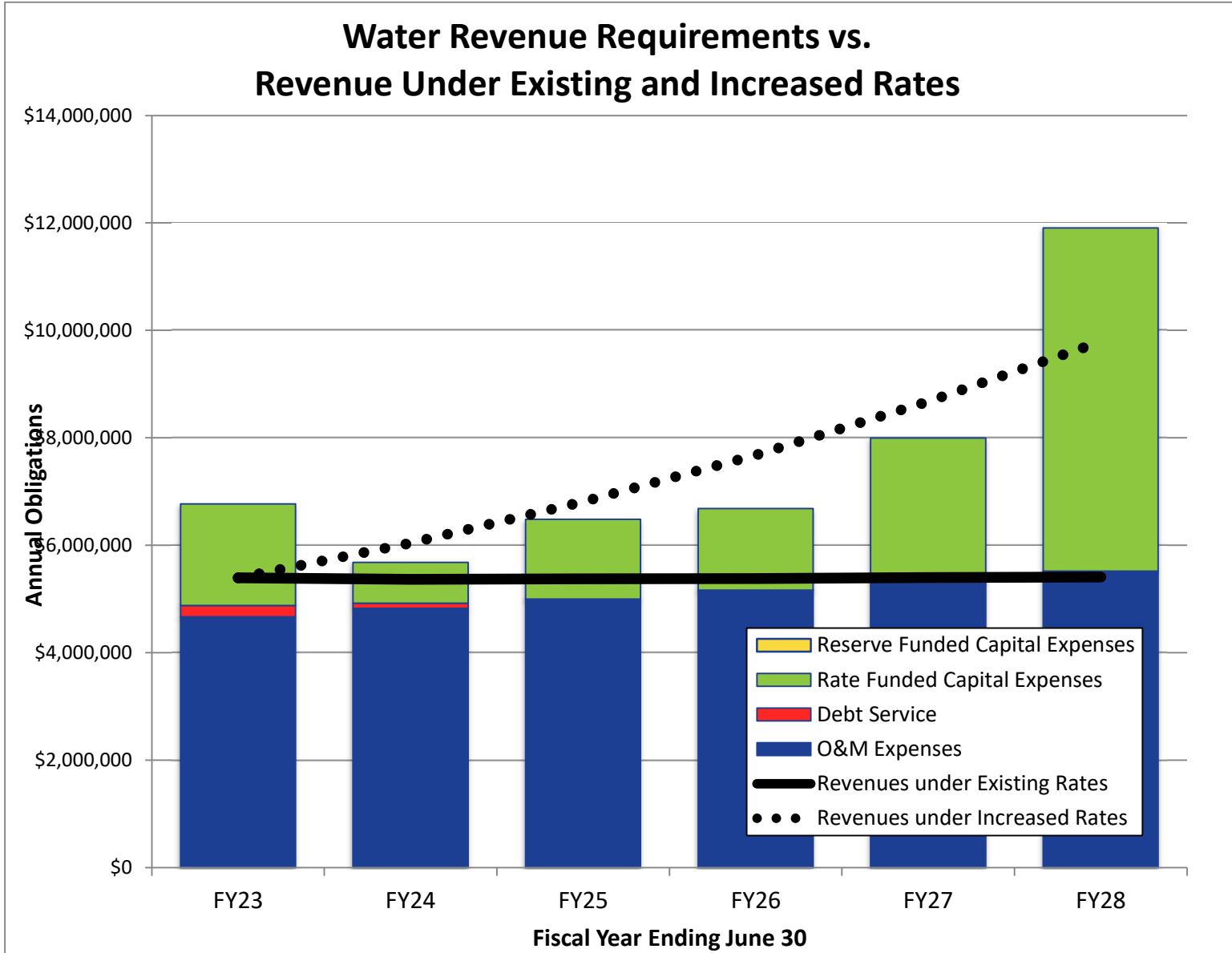
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TABLE 2 : RESERVE FUND SUMMARY

SUMMARY OF CASH ACTIVITY UN-RESTRICTED RESERVES	Budget	5-Year Prop 218 Period					Projected			
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
Total Beginning Cash¹										
Unrestricted Reserves										
Operating Reserve										
Beginning Reserve Balance ²	\$ 752,000	\$ 778,000	\$ 804,000	\$ 832,000	\$ 860,000	\$ 890,000	\$ 920,000	\$ 951,000	\$ 984,000	\$ 1,017,000
Plus: Net Cash Flow (After Rate Increases)	(1,374,572)	361,992	329,974	1,001,457	680,803	(2,112,102)	(136,285)	426,859	1,064,393	1,224,669
Plus: Transfer of Debt Reserve Surplus	-	-	-	-	-	-	-	-	-	-
Plus: Transfer of Capital R&R Reserve Surplus	1,400,572	-	-	-	-	2,142,102	167,285	-	-	-
Less: Transfer Out to Capital Replacement Reserve	-	(335,992)	(301,974)	(973,457)	(650,803)	-	-	(393,859)	(1,031,393)	(1,189,669)
Ending Operating Reserve Balance	\$ 778,000	\$ 804,000	\$ 832,000	\$ 860,000	\$ 890,000	\$ 920,000	\$ 951,000	\$ 984,000	\$ 1,017,000	\$ 1,052,000
Minimum Target Ending Balance (60 days of O&M)	\$ 778,000	\$ 804,000	\$ 832,000	\$ 860,000	\$ 890,000	\$ 920,000	\$ 951,000	\$ 984,000	\$ 1,017,000	\$ 1,052,000
Maximum Target Ending Balance (180 days of O&M)	\$ 2,334,000	\$ 2,413,000	\$ 2,496,000	\$ 2,581,000	\$ 2,669,000	\$ 2,760,000	\$ 2,854,000	\$ 2,951,000	\$ 3,052,000	\$ 3,157,000
Capital Rehabilitation & Replacement Reserve										
Beginning Reserve Balance ³	\$ 3,234,601	\$ 1,834,029	\$ 2,170,022	\$ 2,471,996	\$ 3,445,453	\$ 4,096,256	\$ 1,954,154	\$ 1,786,869	\$ 2,180,728	\$ 3,212,121
Plus: Grant Proceeds	-	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	-	335,992	301,974	973,457	650,803	-	-	393,859	1,031,393	1,189,669
Less: Use of Reserves for Operating Reserve	(1,400,572)	-	-	-	-	(2,142,102)	(167,285)	-	-	-
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	-	-	-
Ending Capital Rehab & Replacement Reserve Balance	\$ 1,834,029	\$ 2,170,022	\$ 2,471,996	\$ 3,445,453	\$ 4,096,256	\$ 1,954,154	\$ 1,786,869	\$ 2,180,728	\$ 3,212,121	\$ 4,401,790
Capital R&R Reserve (5% of Net Assets)	\$ 684,800	\$ 689,700	\$ 729,000	\$ 767,500	\$ 858,600	\$ 1,122,000	\$ 1,381,400	\$ 1,637,100	\$ 1,889,800	\$ 2,139,700
Maximum Target Ending Balance (\$2M)	\$ 2,000,000	\$ 2,000,000	\$ 2,010,000	\$ 2,120,000	\$ 2,230,000	\$ 2,490,000	\$ 3,250,000	\$ 4,000,000	\$ 4,740,000	\$ 5,470,000
Ending Balance - Excl. Restricted Reserves	\$ 2,612,029	\$ 2,974,022	\$ 3,303,996	\$ 4,305,453	\$ 4,986,256	\$ 2,874,154	\$ 2,737,869	\$ 3,164,728	\$ 4,229,121	\$ 5,453,790
Min. Target Ending Balance -Excl. Restricted Reserves	\$ 1,462,800	\$ 1,493,700	\$ 1,561,000	\$ 1,627,500	\$ 1,748,600	\$ 2,042,000	\$ 2,332,400	\$ 2,621,100	\$ 2,906,800	\$ 3,191,700
Ending Surplus/(Deficit) Compared to Reserve Targets	\$ 1,149,229	\$ 1,480,322	\$ 1,742,996	\$ 2,677,953	\$ 3,237,656	\$ 832,154	\$ 405,469	\$ 543,628	\$ 1,322,321	\$ 2,262,090
Restricted Reserves										
Connection Fee Reserve										
Beginning Reserve Balance	\$ 90,000	\$ 181,674	\$ 371,053	\$ 563,955	\$ 760,444	\$ 960,589	\$ 1,164,455	\$ 1,372,114	\$ 1,583,636	\$ 1,799,091
Plus: Interest Earnings	1,674	3,379	6,902	10,490	14,144	17,867	21,659	25,521	29,456	33,463
Plus: Capacity Fee Revenue (Reflects Updated Conn. Fee)	90,000	186,000	186,000	186,000	186,000	186,000	186,000	186,000	186,000	186,000
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	-	-	-
Ending Connection Fee Fund Balance	\$ 181,674	\$ 371,053	\$ 563,955	\$ 760,444	\$ 960,589	\$ 1,164,455	\$ 1,372,114	\$ 1,583,636	\$ 1,799,091	\$ 2,018,554
Debt Reserve										
Beginning Reserve Balance ⁵	\$ 277,166	\$ 282,321	\$ 287,572	\$ 292,921	\$ 298,370	\$ 303,919	\$ 309,572	\$ 315,330	\$ 321,195	\$ 327,170
Plus: Reserve Funding from New Debt Obligations	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	5,155	5,251	5,349	5,448	5,550	5,653	5,758	5,865	5,974	6,085
Less: Transfer of Surplus to Operating Reserve	-	-	-	-	-	-	-	-	-	-
Ending Debt Reserve Balance	\$ 282,321	\$ 287,572	\$ 292,921	\$ 298,370	\$ 303,919	\$ 309,572	\$ 315,330	\$ 321,195	\$ 327,170	\$ 333,255
Target Ending Balance	\$ 209,605	\$ 94,623	\$ 5,906	\$ 5,905	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Interest Earnings Rate⁶	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%

1. The District currently maintains one fund for water and sewer operations.
 2. The beginning Operating Reserve balance is found in source file: *Cast Account Balances.xlsx*
 3. The beginning Capital Rehab and Replacement balance is found in source file: *Cast Account Balances.xlsx*
 4. The beginning Bond Project Reserve balance is assumed to be zero.
 5. The beginning Debt Reserve balance is found in source file: *Cast Account Balances.xlsx*
 6. City's actual or budgeted interest earnings are used in analysis for unrestricted reserves in FY 2021/22. For 2022/23 and beyond, interest earning rates are estimated at the 3-year average (FY '17/18 - '19/20) for funds invested in LAIF, per the California Treasurer's Office website, for the restricted reserves.
 Source: <https://www.treasurer.ca.gov/pmia-laif/historical/annual.asp>.

CHART 1

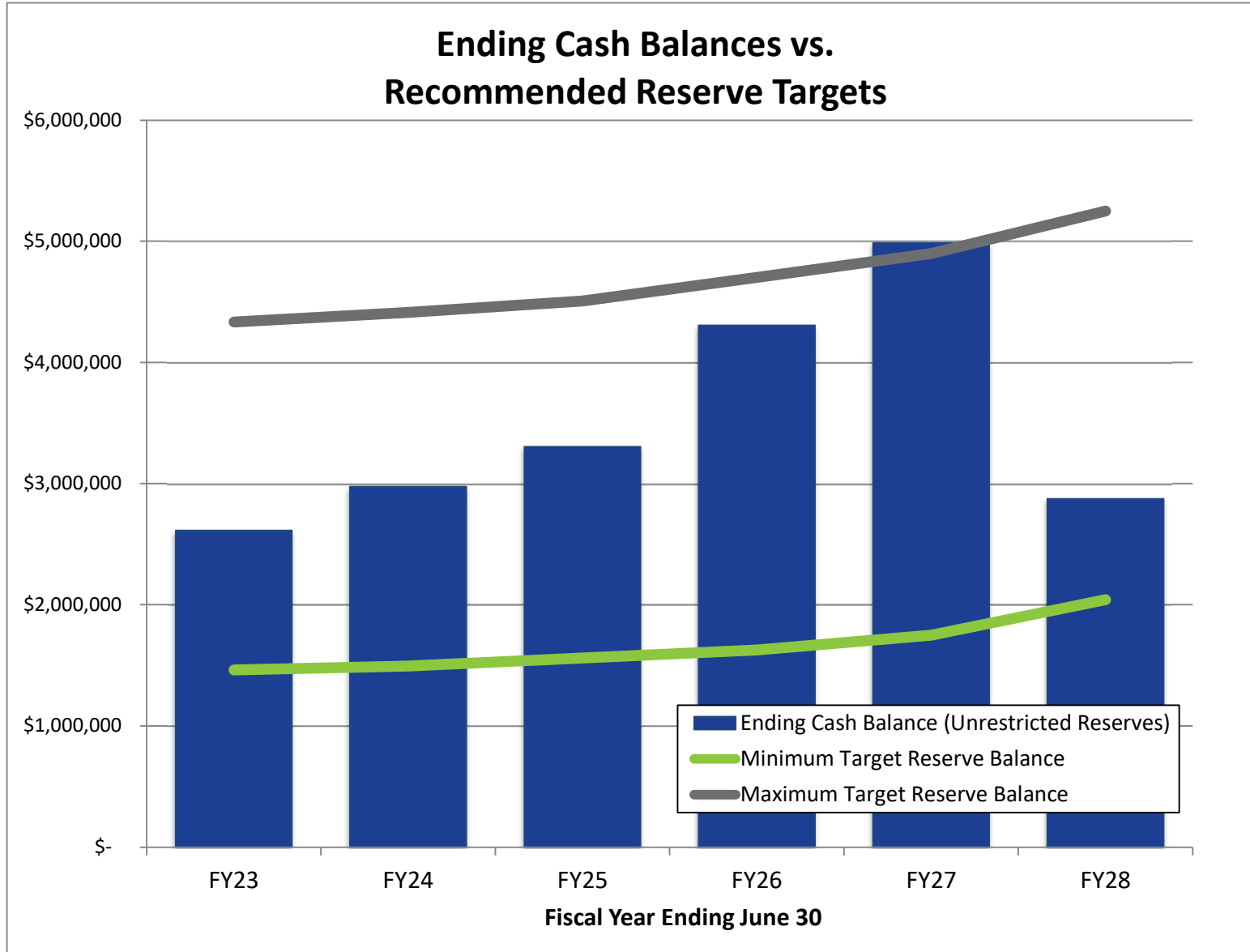


HUMBOLDT COMMUNITY SERVICES DISTRICT
 WATER RATE STUDY

Rate Adjustment Charts and Report Tables

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

CHART 2

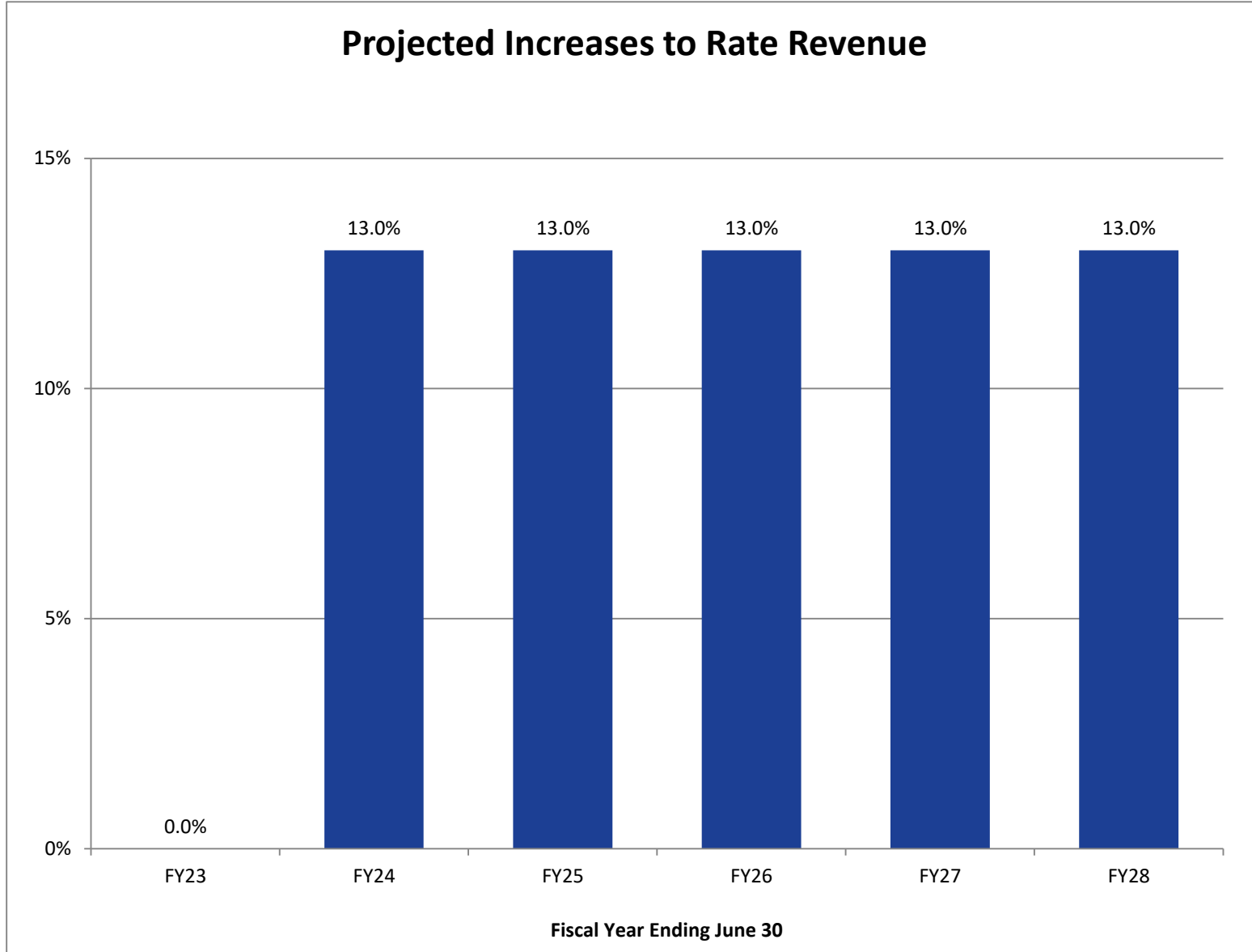


HUMBOLDT COMMUNITY SERVICES DISTRICT
WATER RATE STUDY

Rate Adjustment Charts and Report Tables

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

CHART 3



WATER RATE STUDY

Operating Revenue and Expenses

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 3 : REVENUE FORECAST

DESCRIPTION ¹	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Operating Revenue												
Metered Water Sales	1	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000
Water Pass Through	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Construction Fees	1	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Account Fees	1	\$ 79,800	\$ 79,800	\$ 79,800	\$ 79,800	\$ 79,800	\$ 79,800	\$ 79,800	\$ 79,800	\$ 79,800	\$ 79,800	\$ 79,800
Reimbursable Maintenance	1	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800
Miscellaneous	1	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Non-Operating Revenue												
Water Capital Connection Fees	1	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000
Interest/General	See FP	\$ 32,966	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Discounts Earned	1	\$ 1,280	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sale of Fixed Assets	1	\$ 8,844	\$ 8,844	\$ 8,844	\$ 8,844	\$ 8,844	\$ 8,844	\$ 8,844	\$ 8,844	\$ 8,844	\$ 8,844	\$ 8,844
Bad Debt Recovery	1	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700	\$ 5,700
FW/MR Assessment	1	\$ 140,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Non-Operating Revenue	1	\$ 2,200	\$ 2,200	\$ 2,200	\$ 2,200	\$ 2,200	\$ 2,200	\$ 2,200	\$ 2,200	\$ 2,200	\$ 2,200	\$ 2,200
TOTAL: REVENUE		\$ 5,582,590	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344

TABLE 4 : REVENUE SUMMARY

Water Service Charge	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000	\$ 5,200,000
Water Pass Through	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fees	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800	\$ 99,800
Miscellaneous	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800	\$ 1,800
Connection Fees	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000
Non-Operating Revenues	\$ 158,024	\$ 16,744	\$ 16,744	\$ 16,744	\$ 16,744	\$ 16,744	\$ 16,744	\$ 16,744	\$ 16,744	\$ 16,744	\$ 16,744	\$ 16,744
Interest/General	\$ 32,966	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL REVENUE	\$ 5,582,590	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344	\$ 5,408,344

WATER RATE STUDY

Operating Revenue and Expenses

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 5 : OPERATING EXPENSE FORECAST

DESCRIPTION ^{1,2}	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Personnel Expenses												
Wages: Operation	3	\$ 1,180,110	\$ 1,227,314	\$ 1,276,407	\$ 1,327,463	\$ 1,380,562	\$ 1,435,784	\$ 1,493,216	\$ 1,552,944	\$ 1,615,062	\$ 1,679,665	\$ 1,746,851
PERS	3	\$ 165,600	\$ 172,224	\$ 179,113	\$ 186,277	\$ 193,729	\$ 201,478	\$ 209,537	\$ 217,918	\$ 226,635	\$ 235,700	\$ 245,128
UI	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Group Insurance	3	\$ 375,100	\$ 390,104	\$ 405,708	\$ 421,936	\$ 438,814	\$ 456,367	\$ 474,621	\$ 493,606	\$ 513,350	\$ 533,884	\$ 555,240
Workers Comp	3	\$ 12,420	\$ 12,917	\$ 13,433	\$ 13,971	\$ 14,530	\$ 15,111	\$ 15,715	\$ 16,344	\$ 16,998	\$ 17,678	\$ 18,385
FICA / Medicare	3	\$ 54,990	\$ 57,190	\$ 59,477	\$ 61,856	\$ 64,331	\$ 66,904	\$ 69,580	\$ 72,363	\$ 75,258	\$ 78,268	\$ 81,399
Misc. Benefits	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Expenses												
Water Purchase HBMWD ^{3,4}	4	\$ 1,075,000	\$ 1,107,250	\$ 1,140,468	\$ 1,174,682	\$ 1,209,922	\$ 1,246,220	\$ 1,283,606	\$ 1,322,114	\$ 1,361,778	\$ 1,402,631	\$ 1,444,710
Water Purchase Eureka ^{3,4}	4	\$ 810,000	\$ 834,300	\$ 859,329	\$ 885,109	\$ 911,662	\$ 939,012	\$ 967,182	\$ 996,198	\$ 1,026,084	\$ 1,056,866	\$ 1,088,572
Water/Sewer Analysis	2	\$ 15,000	\$ 15,450	\$ 15,914	\$ 16,391	\$ 16,883	\$ 17,389	\$ 17,911	\$ 18,448	\$ 19,002	\$ 19,572	\$ 20,159
Supplies/Construction	2	\$ 99,160	\$ 102,135	\$ 105,199	\$ 108,355	\$ 111,605	\$ 114,954	\$ 118,402	\$ 121,954	\$ 125,613	\$ 129,381	\$ 133,263
Supplies / Office-Admin	2	\$ 5,700	\$ 5,871	\$ 6,047	\$ 6,229	\$ 6,415	\$ 6,608	\$ 6,806	\$ 7,010	\$ 7,221	\$ 7,437	\$ 7,660
Supplies Engineering	2	\$ 1,425	\$ 1,468	\$ 1,512	\$ 1,557	\$ 1,604	\$ 1,652	\$ 1,702	\$ 1,753	\$ 1,805	\$ 1,859	\$ 1,915
Supplies/Maintenance	2	\$ 48,750	\$ 50,213	\$ 51,719	\$ 53,270	\$ 54,869	\$ 56,515	\$ 58,210	\$ 59,956	\$ 61,755	\$ 63,608	\$ 65,516
Temp Labor - Maintenance	2	\$ 11,544	\$ 11,890	\$ 12,247	\$ 12,614	\$ 12,993	\$ 13,383	\$ 13,784	\$ 14,198	\$ 14,624	\$ 15,062	\$ 15,514
Temp Labor - Construction	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Temp Labor - Customer Service/Finance	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repairs & Maint: Trucks	2	\$ 30,800	\$ 31,724	\$ 32,676	\$ 33,656	\$ 34,666	\$ 35,706	\$ 36,777	\$ 37,880	\$ 39,017	\$ 40,187	\$ 41,393
Building & Grounds Maint	2	\$ 1,920	\$ 1,978	\$ 2,037	\$ 2,098	\$ 2,161	\$ 2,226	\$ 2,293	\$ 2,361	\$ 2,432	\$ 2,505	\$ 2,580
Electrical Power	5	\$ 162,690	\$ 167,571	\$ 172,598	\$ 177,776	\$ 183,109	\$ 188,602	\$ 194,260	\$ 200,088	\$ 206,091	\$ 212,274	\$ 218,642
Street Lights	5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	2	\$ 6,080	\$ 6,262	\$ 6,450	\$ 6,644	\$ 6,843	\$ 7,048	\$ 7,260	\$ 7,478	\$ 7,702	\$ 7,933	\$ 8,171
Equipment Rental	2	\$ 3,700	\$ 3,811	\$ 3,925	\$ 4,043	\$ 4,164	\$ 4,289	\$ 4,418	\$ 4,551	\$ 4,687	\$ 4,828	\$ 4,972
Property Lease	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Postage	2	\$ 1,290	\$ 1,329	\$ 1,369	\$ 1,410	\$ 1,452	\$ 1,495	\$ 1,540	\$ 1,587	\$ 1,634	\$ 1,683	\$ 1,734
Freight	2	\$ 285	\$ 294	\$ 302	\$ 311	\$ 321	\$ 330	\$ 340	\$ 351	\$ 361	\$ 372	\$ 383
Chemicals	6	\$ 12,000	\$ 12,600	\$ 13,230	\$ 13,892	\$ 14,586	\$ 15,315	\$ 16,081	\$ 16,885	\$ 17,729	\$ 18,616	\$ 19,547
Liability Insurance	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Legal	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounting	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Engineering	2	\$ 390	\$ 402	\$ 414	\$ 426	\$ 439	\$ 452	\$ 466	\$ 480	\$ 494	\$ 509	\$ 524
Other Professional Services	2	\$ 7,600	\$ 7,828	\$ 8,063	\$ 8,305	\$ 8,554	\$ 8,810	\$ 9,075	\$ 9,347	\$ 9,627	\$ 9,916	\$ 10,214
Bank Service Charges	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transportation	7	\$ 34,200	\$ 35,226	\$ 36,283	\$ 37,371	\$ 38,492	\$ 39,647	\$ 40,837	\$ 42,062	\$ 43,324	\$ 44,623	\$ 45,962
Office Equip / Maint	2	\$ 2,100	\$ 2,163	\$ 2,228	\$ 2,295	\$ 2,364	\$ 2,434	\$ 2,508	\$ 2,583	\$ 2,660	\$ 2,740	\$ 2,822
Computer Software Maintenance	2	\$ 21,600	\$ 22,248	\$ 22,915	\$ 23,603	\$ 24,311	\$ 25,040	\$ 25,792	\$ 26,565	\$ 27,362	\$ 28,183	\$ 29,029
Memberships & Subscriptions	2	\$ 1,338	\$ 1,378	\$ 1,419	\$ 1,462	\$ 1,506	\$ 1,551	\$ 1,598	\$ 1,646	\$ 1,695	\$ 1,746	\$ 1,798
Bad Debts & Min Bal write-off	2	\$ 114,000	\$ 117,420	\$ 120,943	\$ 124,571	\$ 128,308	\$ 132,157	\$ 136,122	\$ 140,206	\$ 144,412	\$ 148,744	\$ 153,206
Conferences & Continuing Ed	2	\$ 7,000	\$ 7,210	\$ 7,426	\$ 7,649	\$ 7,879	\$ 8,115	\$ 8,358	\$ 8,609	\$ 8,867	\$ 9,133	\$ 9,407
Certifications	2	\$ 1,620	\$ 1,669	\$ 1,719	\$ 1,770	\$ 1,823	\$ 1,878	\$ 1,934	\$ 1,992	\$ 2,052	\$ 2,114	\$ 2,177
State/County & LAFCO Fees & Charges	2	\$ 17,000	\$ 17,510	\$ 18,035	\$ 18,576	\$ 19,134	\$ 19,708	\$ 20,299	\$ 20,908	\$ 21,535	\$ 22,181	\$ 22,847
Hydraulic Water Model Maintenance	2	\$ 6,000	\$ 6,180	\$ 6,365	\$ 6,556	\$ 6,753	\$ 6,956	\$ 7,164	\$ 7,379	\$ 7,601	\$ 7,829	\$ 8,063
Elections Expense	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Human Resources	2	\$ 7,800	\$ 8,034	\$ 8,275	\$ 8,523	\$ 8,779	\$ 9,042	\$ 9,314	\$ 9,593	\$ 9,881	\$ 10,177	\$ 10,483
Miscellaneous	2	\$ 1,980	\$ 2,039	\$ 2,101	\$ 2,164	\$ 2,229	\$ 2,295	\$ 2,364	\$ 2,435	\$ 2,508	\$ 2,583	\$ 2,661
General & Admin Expense Allocation	2	\$ 217,981	\$ 224,520	\$ 231,256	\$ 238,194	\$ 245,340	\$ 252,700	\$ 260,281	\$ 268,089	\$ 276,132	\$ 284,416	\$ 292,948
GRAND TOTAL: WATER EXPENSES		\$ 4,514,173	\$ 4,667,720	\$ 4,826,601	\$ 4,991,006	\$ 5,161,129	\$ 5,337,174	\$ 5,519,352	\$ 5,707,881	\$ 5,902,986	\$ 6,104,904	\$ 6,313,875

WATER RATE STUDY

Operating Revenue and Expenses

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 6 : FORECASTING ASSUMPTIONS

INFLATION FACTORS	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Customer Growth	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Cost Inflation	2	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Labor Cost Inflation	3	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Water Purchases ⁴	4	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Energy	5	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Chemicals	6	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Fuel	7	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
No Escalation	8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenues for FY 2021/22 are budgeted in source file: 2020-21 and 2021-22 Budget-Final.xlsx

2. Expenses for FY 2021/22 are budgeted in source file: 2020-21 and 2021-22 Budget-Final.xlsx

3. This line item is allocated 100% to the Water System.

4. Water Purchases are inflated at 3% from sources and the District may implement pass-through as costs increase for purchased water.

WATER RATE STUDY

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 8 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Budget		5-Year Prop 218 Period					Projected			
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
Funding Sources:											
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-	-
Use of Capital Rehab. and Replacement Reserve	293,907	-	-	-	-	-	-	-	-	-	-
Rate Revenue	937,023	1,889,741	759,710	1,486,655	1,514,372	2,658,911	6,384,502	6,576,037	6,773,318	6,976,517	7,185,813
Total Sources of Capital Funds	\$ 1,230,930	\$ 1,889,741	\$ 759,710	\$ 1,486,655	\$ 1,514,372	\$ 2,658,911	\$ 6,384,502	\$ 6,576,037	\$ 6,773,318	\$ 6,976,517	\$ 7,185,813
Uses of Capital Funds:											
Total Project Costs	\$ 1,230,930	\$ 1,889,741	\$ 759,710	\$ 1,486,655	\$ 1,514,372	\$ 2,658,911	\$ 6,384,502	\$ 6,576,037	\$ 6,773,318	\$ 6,976,517	\$ 7,185,813
Capital Funding Surplus (Deficiency)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SRF Loan Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

WATER RATE STUDY

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 9 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Current-Year Dollars)

Project Description ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
WATER MAIN LINE REPLACEMENTS (\$100.00/LF)											
New Connections	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500					
Christian Lane	\$ 28,359	\$ 35,000									
Water Rate Study	\$ 50,000										
Tower Lane	\$ 5,000	\$ 162,000									
Park Street	\$ 90,000										
18th Street		\$ 243,000									
Stanford Court			\$ 27,000								
Temple Circle			\$ 35,100								
Crane Street			\$ 67,500								
Vista Tie In Phase 1				\$ 189,000							
Shady Lane				\$ 108,000							
Vista Tie In Phase 2					\$ 189,000						
Meadowood					\$ 108,000						
Mitchell Road						\$ 1,190,000					
Beechwood Dr.						\$ 99,900					
Austin Court						\$ 70,200					
AC Water Main Replacement Program							\$ 3,635,920	\$ 3,635,920	\$ 3,635,920	\$ 3,635,920	\$ 3,635,920
WATER PUMPING FACILITY UPGRADES											
AMR Program	\$ 141,000	\$ 141,000	\$ 141,000	\$ 141,000	\$ 141,000	\$ 141,000	\$ 141,000	\$ 141,000	\$ 141,000	\$ 141,000	\$ 141,000
SCADA Upgrade	\$ 25,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000						
Humboldt County ADA Access	\$ -	\$ 5,000									
Water Storage Tanks	\$ 9,281										
South Bay School Backflow Device	\$ -	\$ 15,000									
Donna Drive Hydro-tank	\$ 95,000	\$ 55,000									
Ridgewood Tank	\$ 615,800	\$ 54,200									
Spruce Point Well	\$ 3,490	\$ 30,000									
South Bay well	\$ 10,000	\$ 10,000									
Brier Lane 0.5 MG Tank	\$ 40,000	\$ 660,000									
Hubbard 3rd Pump	\$ 15,000	\$ 35,000									
Truesdale WBS		\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000						
Donna Drive 0.5 MG Tank		\$ 40,000	\$ 30,000	\$ 660,000							
Ridgewood Water Booster Station			\$ 30,000								
18th & Quaker PSV			\$ 30,000								
Walnut Drive 0.5 MG Tank				\$ 40,000	\$ 660,000						
Cummings Road Tank					\$ 40,000	\$ 660,000					
Pigeon Point WBS						\$ 15,000					
Donna Drive WBS						\$ 65,000					
Water Resiliency at Little CA St.							\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Meyers Well							\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Princeton Well							\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Rehabilitate Remaining Tanks							\$ 900,000	\$ 900,000	\$ 900,000	\$ 900,000	\$ 900,000
Subtotal: Capital Improvement Program Costs	\$ 1,135,430	\$ 1,617,700	\$ 493,100	\$ 1,270,500	\$ 1,270,500	\$ 2,248,600	\$ 5,176,920	\$ 5,176,920	\$ 5,176,920	\$ 5,176,920	\$ 5,176,920

WATER RATE STUDY

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 10 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Current-Year Dollars)

Project Description ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BUILDING, YARD & PAVING IMPROVEMENTS											
Office Building Exterior phase 1	\$ 17,500	\$ 25,000									
Yard Paving Repairs	\$ 17,500										
Vehicle Storage Upgrades	\$ 8,000	\$ 5,000									
Office Building and breakroom Roof	\$ 20,000	\$ 10,000									
Office ADA	\$ 7,500	\$ 7,000	\$ 8,000	\$ 10,000							
Office Building Exterior phase 2			\$ 40,000								
Small Truck Garage				\$ 50,000							
Seal Coat Parking Lot					\$ 10,000						
Drying Bed Cover						\$ 15,000					
Future Yard Paving							\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Office and Yard Facility Upgrades											
VEHICLES / EQUIPMENT											
2006 Ford Van	\$ 25,000										
2010 Ford F450 w/Crane		\$ 70,000									
2005 Dodge				\$ 30,000							
2012 Ford 4x4						\$ 30,000					
2010 Peterbilt 7 CY Dump Truck		\$ 100,000									
2004 580 Super M Backhoe					\$ 65,000						
Sewer Camera			\$ 175,000								
Fleet Replacement Program							\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Subtotal: Capital Improvement Program Costs	\$ 95,500	\$ 217,000	\$ 223,000	\$ 90,000	\$ 75,000	\$ 45,000	\$ 170,000	\$ 170,000	\$ 170,000	\$ 170,000	\$ 170,000
Total: CIP Program Costs (Current-Year Dollars)	\$ 1,230,930	\$ 1,834,700	\$ 716,100	\$ 1,360,500	\$ 1,345,500	\$ 2,293,600	\$ 5,346,920	\$ 5,346,920	\$ 5,346,920	\$ 5,346,920	\$ 5,346,920

TABLE 11 : FORECASTING ASSUMPTIONS

Economic Variables	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Annual Construction Cost Inflation, Per Engineering	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cumulative Construction Cost Multiplier from 2022	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30	1.34

1. Capital project costs were provided by HCSD Staff in source files: 20220518_22-23CIP_DRAFT.xlsx

2. Project costs are inflated by 3.0% per year in FY 2022/23 and beyond.

3. For reference purposes, the annual Construction Cost Inflation percentage is the 10 year average change in the Construction Cost Index for 2012-2021 (3.0%). Source: Engineering News Record website (<http://enr.construction.com>).

WATER RATE STUDY

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 12 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year Dollars)

Project Description ^{1,2}	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
WATER MAIN LINE REPLACEMENTS (\$100.00/LF)											
New Connections	\$ 7,500	\$ 7,725	\$ 7,957	\$ 8,195	\$ 8,441	\$ 8,695	\$ -	\$ -	\$ -	\$ -	\$ -
Christian Lane	\$ 28,359	\$ 36,050	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Rate Study	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tower Lane	\$ 5,000	\$ 166,860	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Park Street	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18th Street	\$ -	\$ 250,290	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Stanford Court	\$ -	\$ -	\$ 28,644	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Temple Circle	\$ -	\$ -	\$ 37,238	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Crane Street	\$ -	\$ -	\$ 71,611	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Vista Tie In Phase 1	\$ -	\$ -	\$ -	\$ 206,525	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Shady Lane	\$ -	\$ -	\$ -	\$ 118,015	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Vista Tie In Phase 2	\$ -	\$ -	\$ -	\$ -	\$ 212,721	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Meadowood	\$ -	\$ -	\$ -	\$ -	\$ 121,555	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mitchell Road	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,379,536	\$ -	\$ -	\$ -	\$ -	\$ -
Beechwood Dr.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115,811	\$ -	\$ -	\$ -	\$ -	\$ -
Austin Court	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 81,381	\$ -	\$ -	\$ -	\$ -	\$ -
AC Water Main Replacement Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,341,478	\$ 4,471,723	\$ 4,605,874	\$ 4,744,050	\$ 4,886,372
WATER PUMPING FACILITY UPGRADES											
AMR Program	\$ 141,000	\$ 145,230	\$ 149,587	\$ 154,075	\$ 158,697	\$ 163,458	\$ 168,361	\$ 173,412	\$ 178,615	\$ 183,973	\$ 189,492
SCADA Upgrade	\$ 25,000	\$ 103,000	\$ 106,090	\$ 109,273	\$ 112,551	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Humboldt County ADA Access	\$ -	\$ 5,150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Storage Tanks	\$ 9,281	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
South Bay School Backflow Device	\$ -	\$ 15,450	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Donna Drive Hydro-tank	\$ 95,000	\$ 56,650	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ridgewood Tank	\$ 615,800	\$ 55,826	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Spruce Point Well	\$ 3,490	\$ 30,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
South Bay well	\$ 10,000	\$ 10,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Brier Lane 0.5 MG Tank	\$ 40,000	\$ 679,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hubbard 3rd Pump	\$ 15,000	\$ 36,050	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Truesdale WBS	\$ -	\$ 25,750	\$ 26,523	\$ 27,318	\$ 28,138	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Donna Drive 0.5 MG Tank	\$ -	\$ 41,200	\$ 31,827	\$ 721,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ridgewood Water Booster Station	\$ -	\$ -	\$ 31,827	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18th & Quaker PSV	\$ -	\$ -	\$ 31,827	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Walnut Drive 0.5 MG Tank	\$ -	\$ -	\$ -	\$ 43,709	\$ 742,836	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cummings Road Tank	\$ -	\$ -	\$ -	\$ -	\$ 45,020	\$ 765,121	\$ -	\$ -	\$ -	\$ -	\$ -
Pigeon Point WBS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,389	\$ -	\$ -	\$ -	\$ -	\$ -
Donna Drive WBS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,353	\$ -	\$ -	\$ -	\$ -	\$ -
Water Resiliency at Little CA St.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 238,810	\$ 245,975	\$ 253,354	\$ 260,955	\$ 268,783
Meyers Well	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,108	\$ 184,481	\$ 190,016	\$ 195,716	\$ 201,587
Princeton Well	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,108	\$ 184,481	\$ 190,016	\$ 195,716	\$ 201,587
Rehabilitate Remaining Tanks	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,074,647	\$ 1,106,886	\$ 1,140,093	\$ 1,174,296	\$ 1,209,525
Subtotal: Capital Improvement Program Costs	\$ 1,135,430	\$ 1,666,231	\$ 523,130	\$ 1,388,310	\$ 1,429,959	\$ 2,606,744	\$ 6,181,513	\$ 6,366,958	\$ 6,557,967	\$ 6,754,706	\$ 6,957,347

WATER RATE STUDY

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 13 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year Dollars)

Project Description ^{1,2}	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BUILDING, YARD & PAVING IMPROVEMENTS											
Office Building Exterior phase 1	\$ 17,500	\$ 25,750	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Yard Paving Repairs	\$ 17,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Vehicle Storage Upgrades	\$ 8,000	\$ 5,150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office Building and breakroom Roof	\$ 20,000	\$ 10,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office ADA	\$ 7,500	\$ 7,210	\$ 8,487	\$ 10,927	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office Building Exterior phase 2	\$ -	\$ -	\$ 42,436	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Small Truck Garage	\$ -	\$ -	\$ -	\$ 54,636	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Seal Coat Parking Lot	\$ -	\$ -	\$ -	\$ -	\$ 11,255	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Drying Bed Cover	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,389	\$ -	\$ -	\$ -	\$ -	\$ -
Future Yard Paving	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,881	\$ 24,597	\$ 25,335	\$ 26,095	\$ 26,878
Office and Yard Facility Upgrades	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
VEHICLES / EQUIPMENT											
2006 Ford Van	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2010 Ford F450 w/Crane	\$ -	\$ 72,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2005 Dodge	\$ -	\$ -	\$ -	\$ 32,782	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2012 Ford 4x4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,778	\$ -	\$ -	\$ -	\$ -	\$ -
2010 Peterbilt 7 CY Dump Truck	\$ -	\$ 103,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2004 580 Super M Backhoe	\$ -	\$ -	\$ -	\$ -	\$ 73,158	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sewer Camera	\$ -	\$ -	\$ 185,658	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Replacement Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,108	\$ 184,481	\$ 190,016	\$ 195,716	\$ 201,587
Estimated Future Projects	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Future Projects ⁴	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Capital Improvement Program Costs	\$ 95,500	\$ 223,510	\$ 236,581	\$ 98,345	\$ 84,413	\$ 52,167	\$ 202,989	\$ 209,079	\$ 215,351	\$ 221,811	\$ 228,466
Total: CIP Program Costs (Future-Year Dollars)	\$ 1,230,930	\$ 1,889,741	\$ 759,710	\$ 1,486,655	\$ 1,514,372	\$ 2,658,911	\$ 6,384,502	\$ 6,576,037	\$ 6,773,318	\$ 6,976,517	\$ 7,185,813

HUMBOLDT COMMUNITY SERVICES DISTRICT
 WATER RATE STUDY
 Debt Service

EXHIBIT 3

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 14 : EXISTING DEBT OBLIGATIONS

Annual Repayment Schedules ¹	Budget	5-Year Prop 218 Period					Projected				
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	FY 2031/32
1988 Freshwater/Mitchell Road Clean Water Bond, \$3,399,562.92											
Principal Payment	\$ 165,149	\$ 170,499	\$ 87,308	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Payment	\$ 12,280	\$ 7,030	\$ 1,407	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Annual Debt Service	\$ 177,429	\$ 177,529	\$ 88,715	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Requirement (\$-Amnt above annual payment) ²	\$ 213,035	\$ 213,035	\$ 106,457	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Requirement (total fund balance) ²	\$ 177,529	\$ 177,529	\$ 88,715	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Davis-Grunsky Loan, \$166,000											
Principal Payment	\$ 5,283	\$ 5,415	\$ 5,551	\$ 5,689	\$ 5,831	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Payment	\$ 629	\$ 495	\$ 358	\$ 217	\$ 73	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Annual Debt Service	\$ 5,912	\$ 5,910	\$ 5,909	\$ 5,906	\$ 5,905	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Requirement (\$-Amnt above annual payment) ²	\$ 7,094	\$ 7,092	\$ 7,091	\$ 7,088	\$ 7,086	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Requirement (total fund balance) ²	\$ 5,912	\$ 5,910	\$ 5,909	\$ 5,906	\$ 5,905	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2012 Refinance of 1981 Bond											
Principal Payment	\$ 47,353	\$ 25,716	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Payment	\$ 2,147	\$ 450	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Annual Debt Service	\$ 49,500	\$ 26,166	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Requirement (\$-Amnt above annual payment) ²	\$ 59,400	\$ 31,399	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Requirement (total fund balance) ²	\$ 49,500	\$ 26,166	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

1. File provided by HCSD staff: *Loan Repayment Schedules.xlsx*

2. Coverage requirement assumed to be 120% of annual payment. Reserve Requirement is equal to the maximum annual payment.

TABLE 15 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY WATER RATES

Existing Annual Debt Service	\$ 232,841	\$ 209,605	\$ 94,623	\$ 5,906	\$ 5,905	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Existing Annual Coverage Requirement	\$ 279,529	\$ 251,526	\$ 113,548	\$ 7,088	\$ 7,086	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Existing Debt Reserve Target	\$ 232,941	\$ 209,605	\$ 94,623	\$ 5,906	\$ 5,905	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Existing Rate Schedule

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 4

TABLE 16 : CURRENT WATER RATE SCHEDULE

Fixed Charges	Current Rates FY 2020/21
<i>Meter Size, Residential & Commercial</i>	
5/8 inch	\$26.46
3/4 inch	\$38.42
1 inch	\$62.34
1 1/2 inch	\$122.13
2 inch	\$193.89
3 inch	\$385.23
4 inch	\$600.49
6 inch	\$1,198.44

Volumetric Charges	
<i>Residential & Commercial</i>	
Uniform (per hcf) ²	\$4.06

1. Water rates found in on website, source file: 2021-22 Master Fee Schedule-UPDATE 07-01-2021-Final.pdf
2. One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons.

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 17 : CLASSIFICATION OF EXPENSES

Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2023/24	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
Personnel Expenses							
Wages: Operation	\$ 1,276,407	\$ 446,742	\$ 765,844	\$ 63,820	35.0%	60.0%	5.0%
PERS	\$ 179,113	\$ 62,690	\$ 107,468	\$ 8,956	35.0%	60.0%	5.0%
UI	\$ -	\$ -	\$ -	\$ -	35.0%	60.0%	5.0%
Group Insurance	\$ 405,708	\$ 141,998	\$ 243,425	\$ 20,285	35.0%	60.0%	5.0%
Workers Comp	\$ 13,433	\$ 4,702	\$ 8,060	\$ 672	35.0%	60.0%	5.0%
FICA / Medicare	\$ 59,477	\$ 20,817	\$ 35,686	\$ 2,974	35.0%	60.0%	5.0%
Misc. Benefits	\$ -	\$ -	\$ -	\$ -	35.0%	60.0%	5.0%
Operating Expenses							
Water Purchase HBMW3,4	\$ 1,140,468	\$ 1,140,468	\$ -	\$ -	100.0%	0.0%	0.0%
Water Purchase Eureka3,4	\$ 859,329	\$ 859,329	\$ -	\$ -	100.0%	0.0%	0.0%
Water/Sewer Analysis	\$ 15,914	\$ 3,978	\$ 11,935	\$ -	25.0%	75.0%	0.0%
Supplies/Construction	\$ 105,199	\$ 26,300	\$ 78,899	\$ -	25.0%	75.0%	0.0%
Supplies / Office-Admin	\$ 6,047	\$ -	\$ 3,024	\$ 3,024	0.0%	50.0%	50.0%
Supplies Engineering	\$ 1,512	\$ 756	\$ 756	\$ -	50.0%	50.0%	0.0%
Supplies/Maintenance	\$ 51,719	\$ 12,930	\$ 38,789	\$ -	25.0%	75.0%	0.0%
Temp Labor - Maintenance	\$ 12,247	\$ 3,062	\$ 9,185	\$ -	25.0%	75.0%	0.0%
Temp Labor - Construction	\$ -	\$ -	\$ -	\$ -	25.0%	75.0%	0.0%
Temp Labor - Customer Service/Finance	\$ -	\$ -	\$ -	\$ -	0.0%	20.0%	80.0%
Repairs & Maint: Trucks	\$ 32,676	\$ 6,535	\$ 24,507	\$ 1,634	20.0%	75.0%	5.0%
Building & Grounds Maint	\$ 2,037	\$ 1,018	\$ 917	\$ 102	50.0%	45.0%	5.0%
Electrical Power	\$ 172,598	\$ 138,078	\$ 31,068	\$ 3,452	80.0%	18.0%	2.0%
Street Lights	\$ -	\$ -	\$ -	\$ -	0.0%	90.0%	10.0%
Telephone	\$ 6,450	\$ -	\$ -	\$ 6,450	0.0%	0.0%	100.0%
Equipment Rental	\$ 3,925	\$ 1,178	\$ 2,551	\$ 196	30.0%	65.0%	5.0%
Property Lease	\$ -	\$ -	\$ -	\$ -	0.0%	100.0%	0.0%
Postage	\$ 1,369	\$ -	\$ -	\$ 1,369	0.0%	0.0%	100.0%
Freight	\$ 302	\$ -	\$ -	\$ 302	0.0%	0.0%	100.0%
Chemicals	\$ 13,230	\$ 9,923	\$ 3,308	\$ -	75.0%	25.0%	0.0%
Liability Insurance	\$ -	\$ -	\$ -	\$ -	0.0%	100.0%	0.0%
Legal	\$ -	\$ -	\$ -	\$ -	0.0%	50.0%	50.0%
Accounting	\$ -	\$ -	\$ -	\$ -	0.0%	50.0%	50.0%
Engineering	\$ 414	\$ 186	\$ 186	\$ 41	45.0%	45.0%	10.0%
Other Professional Services	\$ 8,063	\$ -	\$ 4,838	\$ 3,225	0.0%	60.0%	40.0%
Bank Service Charges	\$ -	\$ -	\$ -	\$ -	0.0%	0.0%	100.0%
Transportation	\$ 36,283	\$ 16,327	\$ 16,327	\$ 3,628	45.0%	45.0%	10.0%
Office Equip / Maint	\$ 2,228	\$ 446	\$ 446	\$ 1,337	20.0%	20.0%	60.0%
Computer Software Maintenance	\$ 22,915	\$ 4,583	\$ 4,583	\$ 13,749	20.0%	20.0%	60.0%
Memberships & Subscriptions	\$ 1,419	\$ 497	\$ 497	\$ 426	35.0%	35.0%	30.0%
Bad Debts & Min Bal write-off	\$ 120,943	\$ -	\$ 120,943	\$ -	0.0%	100.0%	0.0%
Conferences & Continuing Ed	\$ 7,426	\$ 1,857	\$ 5,570	\$ -	25.0%	75.0%	0.0%
Certifications	\$ 1,719	\$ -	\$ 1,719	\$ -	0.0%	100.0%	0.0%
State/County & LAFCO Fees & Charges	\$ 18,035	\$ -	\$ 18,035	\$ -	0.0%	100.0%	0.0%
Hydraulic Water Model Maintenance	\$ 6,365	\$ 3,183	\$ 3,183	\$ -	50.0%	50.0%	0.0%
Elections Expense	\$ -	\$ -	\$ -	\$ -	0.0%	0.0%	100.0%
Human Resources	\$ 8,275	\$ 2,896	\$ 2,896	\$ 2,483	35.0%	35.0%	30.0%
Miscellaneous	\$ 2,101	\$ 735	\$ 735	\$ 630	35.0%	35.0%	30.0%
General & Admin Expense Allocation	\$ 231,256	\$ 80,940	\$ 80,940	\$ 69,377	35.0%	35.0%	30.0%
GRAND TOTAL: WATER EXPENSES	\$ 4,826,601	\$ 2,992,152	\$ 1,626,318	\$ 208,132	62.0%	33.7%	4.3%

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 18 : CLASSIFICATION OF EXPENSES, continued

Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Basis of Classification		
	FY 2023/24	(COM)	(CAP)	(CA)	(COM)	(CAP)	(CA)
Debt Service Payments							
1988 Freshwater/Mitchell Road Clean Water Bond,	\$ 88,715	\$ -	\$ 88,715	\$ -	0.0%	100.0%	0.0%
Davis-Grunsky Loan, \$166,000	\$ 5,909	\$ -	\$ 5,909	\$ -	0.0%	100.0%	0.0%
2012 Refinance of 1981 Bond	\$ -	\$ -	\$ -	\$ -	0.0%	100.0%	0.0%
Total Debt Service Payments	\$ 94,623	\$ -	\$ 94,623	\$ -	0.0%	100.0%	0.0%
Capital Expenditures							
Rate Funded Capital Expenses	\$ 759,710	\$ -	\$ 759,710	\$ -	0.0%	100.0%	0.0%
TOTAL REVENUE REQUIREMENTS	\$ 5,680,935	\$ 2,992,152	\$ 2,480,652	\$ 208,132	52.7%	43.7%	3.7%
<i>Less: Non-Rate Revenues</i>							
Operating Revenue							
Metered Water Sales							
Water Pass Through							
Water Construction Fees	\$ (20,000)	\$ (10,534)	\$ (8,733)	\$ (733)	52.7%	43.7%	3.7%
Account Fees	\$ (79,800)	\$ (42,031)	\$ (34,846)	\$ (2,924)	52.7%	43.7%	3.7%
Inspection Fees	\$ -	\$ -	\$ -	\$ -	52.7%	43.7%	3.7%
Reimbursable Maintenance	\$ (800)	\$ (421)	\$ (349)	\$ (29)	52.7%	43.7%	3.7%
Miscellaneous	\$ (1,000)	\$ (527)	\$ (437)	\$ (37)	52.7%	43.7%	3.7%
Non-Operating Revenue							
Water Capital Connection Fees							
Interest/General	\$ (48,584)	\$ (25,589)	\$ (21,215)	\$ (1,780)	52.7%	43.7%	3.7%
Discounts Earned	\$ -	\$ -	\$ -	\$ -	52.7%	43.7%	3.7%
Sale of Fixed Assets	\$ (8,844)	\$ (4,658)	\$ (3,862)	\$ (324)	52.7%	43.7%	3.7%
Sales of Scrap Metal	\$ -	\$ -	\$ -	\$ -	52.7%	43.7%	3.7%
Bad Debt Recovery	\$ (5,700)	\$ (3,002)	\$ (2,489)	\$ (209)	52.7%	43.7%	3.7%
FW/MR Assessment	\$ -	\$ -	\$ -	\$ -	52.7%	43.7%	3.7%
Other Non-Operating Revenue	\$ (2,200)	\$ (1,159)	\$ (961)	\$ (81)	52.7%	43.7%	3.7%
NET REVENUE REQUIREMENTS	\$ 5,514,008	\$ 2,904,231	\$ 2,407,761	\$ 202,016			
<i>Allocation of Revenue Requirements</i>	100.0%	52.7%	43.7%	3.7%			

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 19 : ADJUSTMENTS TO CLASSIFICATION OF EXPENSES

Adjustment for Current Rate Level:	Total	(COM)	(CAP)	(CA)
Test Year (FY 2023/24) Target Rate Rev. After Rate Increases	\$ 5,876,000			
Projected Rate Revenue at Current Rates	\$ 5,200,000			
Test Year (FY 2023/24) Projected Rate Adjustment 13%				
Adjusted Net Revenue Req'ts	\$ 5,876,000	\$ 3,094,892	\$ 2,565,829	\$ 215,278
<i>Percent of Revenue</i>	<i>100.0%</i>	<i>52.67%</i>	<i>43.67%</i>	<i>3.66%</i>

TABLE 20

Rate Alternative #1 Net Revenue Requirements - Allocation of 40% Fixed / 60% Variable	Total Rate Revenue Requirements FY 2023/24	Fixed Costs		
		Variable Costs	Capacity Related Costs	Customer Related Costs
Rate-Design Adjustments to Fixed/Variable %	100.0%	60.0%	35.5%	4.5%
Rate-Design Adjustments to Fixed/Variable (\$)	\$5,876,000	\$3,525,600	\$2,085,980	\$264,420

Variable Charges (Volumetric Rates)	60.0%
Fixed Charges	40.0%

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Water Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 21 : DEVELOPMENT OF THE COMMODITY ALLOCATION FACTOR

Customer Class	FY 2020/21 Volume (hcf) ¹	% Adjustment for Conservation ²	Estimated FY2021/22 Volume Adjusted for Conservation	Percent of Total Volume
Residential	530,468	0%	530,468	79.8%
Multi-Family Residential	46,099	0%	46,099	6.9%
Mobile Home Park	29,578	0%	29,578	4.5%
Commercial Light	44,753	0%	44,753	6.7%
Commercial Medium	2,450	0%	2,450	0.4%
Commercial Heavy	10,076	0%	10,076	1.5%
Construction Meter	1,020	0%	1,020	0.2%
Total	664,444	0%	664,444	100%

1. Consumption data is based on the HCSD's billing data.

Commodity Related Costs: These costs are associated with the total consumption (flow) of water over a specified period of time (e.g. annual).

TABLE 22 : DEVELOPMENT OF THE CAPACITY ALLOCATION FACTOR

Customer Class	Average Monthly Use (hcf)	Peak Monthly Use (hcf) ¹	Peak Monthly Factor	Max Month Capacity Factor
Residential	44,206	57,858	1.31	79.5%
Multi-Family Residential	3,842	4,540	1.18	6.2%
Mobile Home Park	2,465	2,755	1.12	3.8%
Commercial Light	3,729	5,082	1.36	7.0%
Commercial Medium	204	275	1.35	0.4%
Commercial Heavy	840	1,841	2.19	2.5%
Construction Meter	85	464	5.46	0.6%
Total	55,370	72,815	1.32	100%

1. Based on peak monthly data (peak day data not available).

Capacity Related Costs: Costs associated with the maximum demand required at one point in time or the maximum size of facilities required to meet this demand.

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Water Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 23 : DEVELOPMENT OF THE CUSTOMER SERVICE ALLOCATION FACTOR

Customer Class	Number of Meters¹	Percent of Total
Residential	6,968	90.4%
Multi-Family Residential	465	6.0%
Mobile Home Park	11	0.1%
Commercial Light	234	3.0%
Commercial Medium	3	0.0%
Commercial Heavy	23	0.3%
Construction Meter	6	0.1%
Total	7,710	100.0%
Fire Service	58	0.7%
Total	7,768	100.7%

1. Meter Count data is based on the HCSD's billing data for June 2021.

Customer Related Costs: *Costs associated with having a customer on the water system. These costs vary with the addition or deletion of customers on the system. Examples: Meter-reading, Postage and billing.*

HUMBOLDT COMMUNITY SERVICES DISTRICT
 WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 24 : PROPOSED VOLUMETRIC CHARGES

<i>Proposed Rate Alt. 1 (40% Fixed/60% Variable)</i>						
Customer Classes	Number of Meters ¹	Water Consumption (hcf/yr.) ²	Total Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/hcf) ²	Proposed Rate Structure
Residential	6,968	530,468	\$ 2,814,711	47.9%	\$5.310	<i>Uniform</i>
Multi-Family Residential	465	46,099	\$ 244,605	4.2%	\$5.310	<i>Uniform</i>
Mobile Home Park	11	29,578	\$ 156,944	2.7%	\$5.310	<i>Uniform</i>
Commercial Light	234	44,753	\$ 237,463	4.0%	\$5.310	<i>Uniform</i>
Commercial Medium	3	2,450	\$ 13,000	0.2%	\$5.310	<i>Uniform</i>
Commercial Heavy	23	10,076	\$ 53,464	0.9%	\$5.310	<i>Uniform</i>
Construction Meter	6	1,020	\$ 5,412	0.1%	\$5.310	<i>Uniform</i>
Total Potable Water	7,710	664,444	\$ 3,525,600	60%		

1. Consumption data is based on the HCSD's billing data.

2. Uniform commodity rate rounded to the nearest cent.

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 25 : METER EQUIVALENCY FACTORS USED IN FIXED CHARGES CALCULATIONS

Meter Size	Standard Meters		Fire Meters	
	Meter Capacity (gpm) ¹	Equivalency to 5/8 inch	Meter Capacity (gpm) ²	Equivalency to 5/8 inch
	<u>Displacement Meters</u>		<u>Displacement Meters</u>	
5/8 inch	20	1.00	20	1.00
3/4 inch	30	1.50	30	1.50
1 inch	50	2.50	50	2.50
1.5 inch	100	5.00	100	5.00
2 inch	160	8.00	160	8.00
	<u>Compound Class I Meters</u>		<u>Fire Service Type I & II Meters</u>	
3 inch	320	16.00	350	17.50
4 inch	500	25.00	700	35.00
6 inch	1,000	50.00	1,600	80.00
8 inch	1,600	80.00	2,800	140.00
	<u>Turbine Class II Meters</u>			
10 inch	4,200	210.00	4,400	220.00
12 inch	5,300	265.00	N/A	--

1. Per AWWA M-1, Table B-1.

2. Per AWWA M-6, Table 5-3.

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 26 : COST OF SERVICE SUMMARY OF REVENUE REQUIREMENTS

Customer Class	Rate Revenue - FY2020/21		Proposed Rate Alt. 1 (40% Fixed/60% Variable)		
	Rate Revenue	% of Revenue	COS Rev. Req't	% of COS Rev. Req't.	% of FY 2020/21 vs. FY 2023/24
Residential	\$ 4,545,543	82.2%	\$ 4,711,181	80.2%	-2.0%
Multi-Family Residential	\$ 394,922	7.1%	\$ 390,613	6.6%	-0.5%
Mobile Home Park	\$ 152,515	2.8%	\$ 236,245	4.0%	1.3%
Commercial Light	\$ 362,547	6.6%	\$ 391,076	6.7%	0.1%
Commercial Medium	\$ 11,601	0.2%	\$ 20,981	0.4%	0.1%
Commercial Heavy	\$ 58,270	1.1%	\$ 106,993	1.8%	0.8%
Construction Meter	\$ 4,598	0.1%	\$ 18,911	0.3%	0.2%
Total	\$ 5,529,996	100.0%	\$ 5,876,000	100%	0.0%

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 27 : ALLOCATION OF WATER REVENUE REQUIREMENTS

Classification Components	Fixed & Variable Cost Allocations	Proposed Rate Alt. 1	
		Adjusted Net Revenue Requirements	
		40% Fixed / 60% Variable	
Commodity-Related Costs	Variable	\$ 3,525,600	60.0%
Capacity-Related Costs	Fixed	2,085,980	35.5%
Customer-Related Costs	Fixed	264,420	4.5%
Net Revenue Requirement		\$ 5,876,000	100%
Fire-Related Costs		-	0.0%
Net Revenue Requirement		\$ 5,876,000	100%

Adjusted Net Rev. Req'ts.
 60% total variable
 40% total fixed
 100%

TABLE 28 : ALLOCATION OF UNADJUSTED NET REVENUE REQUIREMENTS

Proposed Rate Alt. 1 (40% Fixed/60% Variable)					
Customer Classes	Classification Components			Cost of Service Net Rev. Req'ts	% of COS Net Revenue Req'ts
	Commodity-Related Costs	Capacity-Related Costs	Customer-Related Costs		
Residential	\$ 2,814,711	\$ 1,657,497	\$ 238,973	\$ 4,711,181	80.2%
Multi-Family Residential	244,605	130,060	15,948	390,613	6.6%
Mobile Home Park	156,944	78,924	377	236,245	4.0%
Commercial Light	237,463	145,587	8,025	391,076	6.7%
Commercial Medium	13,000	7,878	103	20,981	0.4%
Commercial Heavy	53,464	52,740	789	106,993	1.8%
Construction Meter	5,412	13,293	206	18,911	0.3%
Total Net Revenue Requirement	\$ 3,525,600	\$ 2,085,980	\$ 264,420	\$ 5,876,000	100%
<i>Total Net Revenue Requirement by Classification Component</i>	<u>VARIABLE</u> \$3,525,600	<u>FIXED</u> \$2,350,400		\$5,876,000	
	60%	36%	5%	100.0%	

HUMBOLDT COMMUNITY SERVICES DISTRICT

WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 29 : CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES

Proposed Rate Alt. 1 (40% Fixed/60% Variable)											
Number of Meters by Class and Size ¹	5/8 inch	3/4 inch	1 inch	1.5 inch	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	Total
Residential	6,962	-	-	4	1	-	1	-	-	-	6,968
Multi-Family Residential	429	4	16	11	2	1	-	2	-	-	465
Mobile Home Park	1	-	1	4	4	1	-	-	-	-	11
Commercial Light	151	27	25	12	13	5	-	1	-	-	234
Commercial Medium	3	-	-	-	-	-	-	-	-	-	3
Commercial Heavy	14	2	1	2	2	1	1	-	-	-	23
Construction Meter	-	-	6	-	-	-	-	-	-	-	6
Total Meters/Accounts	7,560	33	49	33	22	8	2	3	-	-	7,710
Hydraulic Capacity Factor ²	1.00	1.50	2.50	5.00	8.00	16.00	25.00	50.00	80.00	210.00	
Total Equivalent Meters	7,560	50	123	165	176	128	50	150	-	-	8,401
Monthly Fixed Service Charges											
Customer Costs (\$/Acct/month) ³	\$2.86	\$2.86	\$2.86	\$2.86	\$2.86	\$2.86	\$2.86	\$2.86	\$2.86	\$2.86	
Capacity Costs (\$/Acct/month) ⁴	\$20.69	\$31.04	\$51.73	\$103.46	\$165.53	\$331.07	\$517.29	\$1,034.59	\$1,655.34	\$4,345.27	
Total Monthly Meter Charge	\$23.55	\$33.90	\$54.59	\$106.32	\$168.39	\$333.93	\$520.15	\$1,037.45	\$1,658.20	\$4,348.13	
Annual Fixed Costs Allocated to Monthly Meter Charges											
Customer Costs	\$ 264,420										
Capacity Costs	2,085,980										
Total Fixed Meter Costs	\$ 2,350,400										
Annual Revenue from Monthly Meter Charges											
Customer Charges	\$ 259,276	\$ 1,132	\$ 1,680	\$ 1,132	\$ 755	\$ 274	\$ 69	\$ 103	\$ -	\$ -	\$ 264,420
Capacity Charges	1,877,159	12,291	30,417	40,970	43,701	31,783	12,415	37,245	-	-	2,085,980
Total Revenue from Monthly Meter	\$ 2,136,434	\$ 13,423	\$ 32,097	\$ 42,101	\$ 44,456	\$ 32,057	\$ 12,484	\$ 37,348	\$ -	\$ -	\$ 2,350,400

1. Meter by Class and Size are based on June 2021 customer billing data.

2. Source: AWWA Manual M1, "Principles of Water Rates, Fees, and Charges", Table B-1.

3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.

4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

HUMBOLDT COMMUNITY SERVICES DISTRICT
 WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

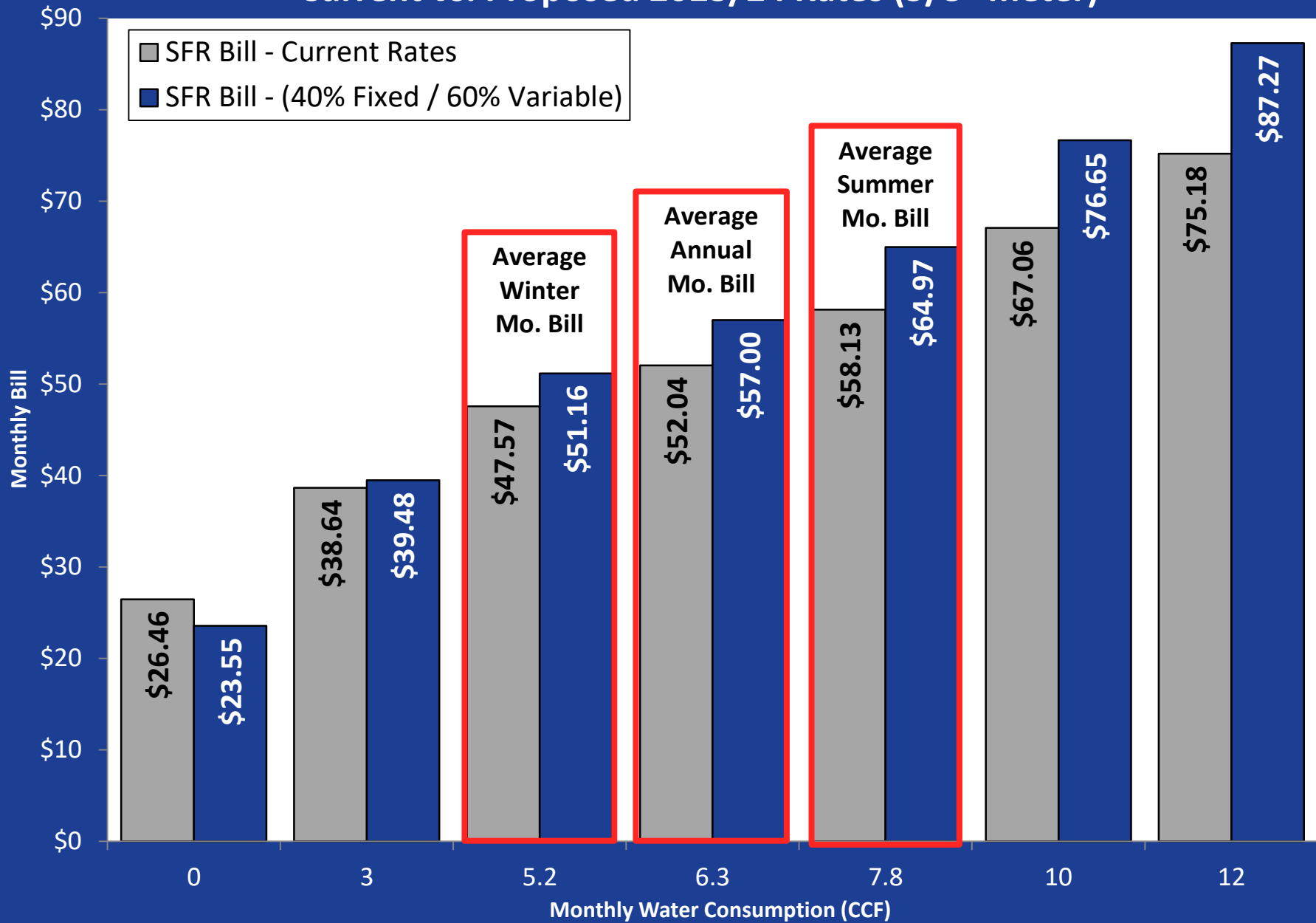
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TABLE 30 : METER EQUIVALENCY FACTORS USED IN FIXED CHARGES CALCULATIONS

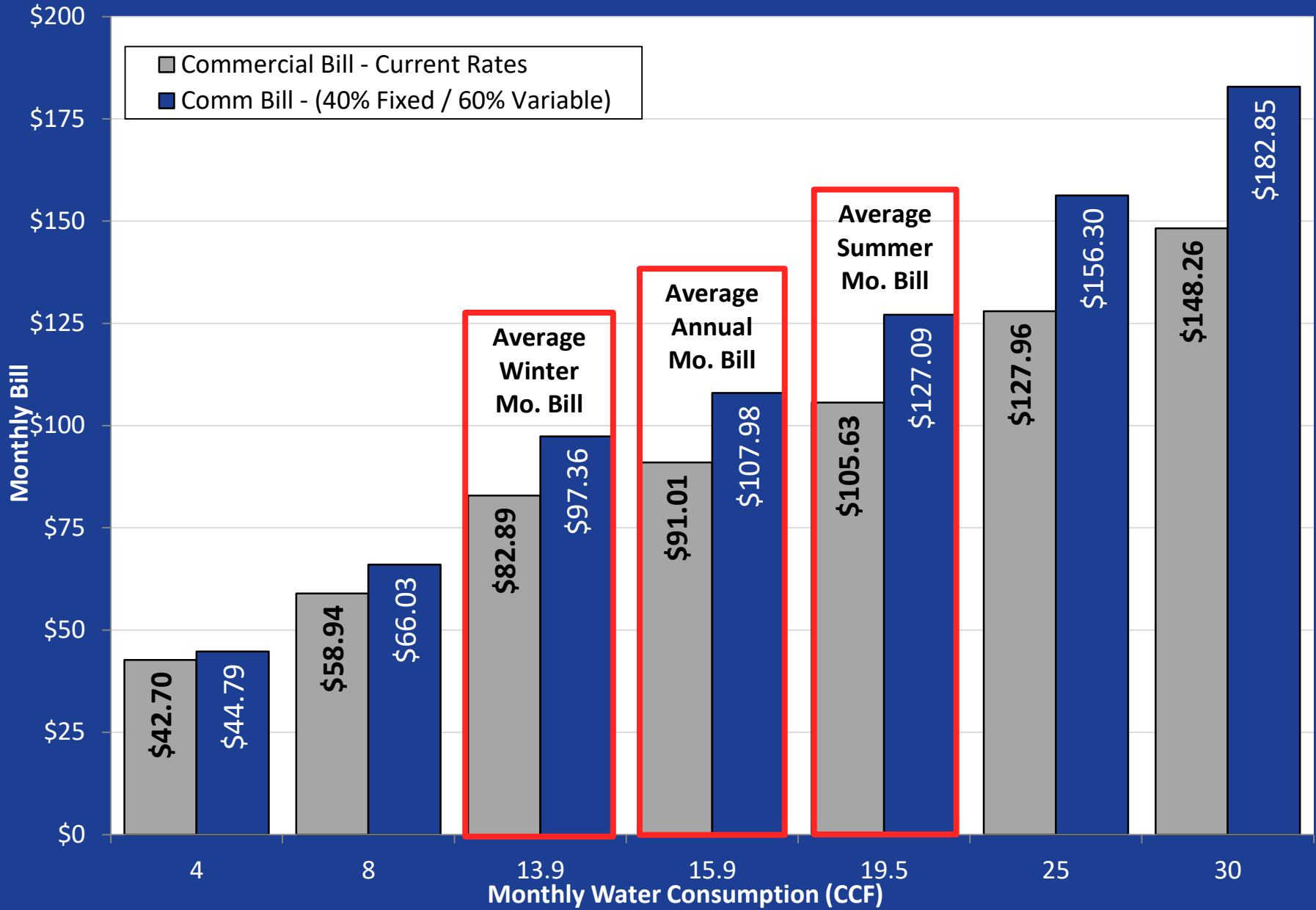
Water Rate Schedule	Current Rates	Proposed Rates (40% Fixed/60% Variable)				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Fixed Service Charge (by Meter Size)						
Monthly Fixed Service Charges:						
Residential 5/8-, 3/4-, and 1-inch ¹	\$26.46	\$23.55	\$26.61	\$30.07	\$33.98	\$38.40
5/8 inch	\$26.46	\$23.55	\$26.61	\$30.07	\$33.98	\$38.40
3/4 inch	\$38.42	\$33.90	\$38.30	\$43.28	\$48.91	\$55.27
1 inch	\$62.34	\$54.59	\$61.68	\$69.70	\$78.76	\$89.00
1 1/2 inch	\$122.13	\$106.32	\$120.14	\$135.76	\$153.40	\$173.35
2 inch	\$193.89	\$168.39	\$190.28	\$215.02	\$242.97	\$274.56
3 inch	\$385.23	\$333.93	\$377.34	\$426.39	\$481.82	\$544.46
4 inch	\$600.49	\$1,037.45	\$1,172.32	\$1,324.72	\$1,496.93	\$1,691.53
6 inch	\$1,198.44	\$1,658.20	\$1,873.77	\$2,117.36	\$2,392.61	\$2,703.65
Volumetric Charges for All Water Consumed						
Uniform Rate (per hcf)	\$4.06	\$5.31	\$6.00	\$6.78	\$7.66	\$8.66

1. Fixed charges for 5/8-, 3/4-, and 1-inch *single-family residential* meters are the same.

Single-Family Residential Water Bill Comparison Current vs. Proposed 2023/24 Rates (5/8" meter)



Commercial Water Bill Comparison Current vs. Proposed 2023/24 Rates (5/8" meter)



Section 11. **APPENDIX C – WASTEWATER RATE SUMMARY TABLES**



SEWER RATE ANALYSIS

Financial Plan and Reserve Projections

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY ¹	Budget	5-Year Prop 218 Period					Projected		
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31
Sources of Sewer Funds									
Sewer Service Charge	\$ 5,620,572	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372	\$ 7,068,372
Sewer Pass Through (Adjusted as Needed Each Year)	1,447,800	-	-	-	-	-	-	-	-
Fees	72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200
Miscellaneous	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Non-Operating Revenues	16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176
Interest Earned	64,358	71,657	79,474	94,937	126,899	193,234	128,271	86,632	73,154
Total Sources of Funds	\$ 7,222,306	\$ 7,229,606	\$ 7,237,422	\$ 7,252,886	\$ 7,284,847	\$ 7,351,182	\$ 7,286,219	\$ 7,244,581	\$ 7,231,103
Uses of Funds									
<u>Operating Expenses</u>									
Personnel Expenses	\$ 1,421,035	\$ 1,477,877	\$ 1,536,992	\$ 1,598,471	\$ 1,662,410	\$ 1,728,907	\$ 1,798,063	\$ 1,869,985	\$ 1,944,785
Sewage Treatment O&M ²	1,523,600	1,584,544	1,647,926	1,713,843	1,782,397	1,853,692	1,927,840	2,004,954	2,085,152
Operating Expenses	616,491	634,212	652,464	671,264	690,628	710,573	731,116	752,275	774,070
<i>Subtotal: Operating Expenses</i>	<i>\$ 3,561,126</i>	<i>\$ 3,696,632</i>	<i>\$ 3,837,381</i>	<i>\$ 3,983,578</i>	<i>\$ 4,135,435</i>	<i>\$ 4,293,172</i>	<i>\$ 4,457,019</i>	<i>\$ 4,627,214</i>	<i>\$ 4,804,006</i>
<u>Other Expenditures</u>									
Existing Debt Service	\$ 779,216	\$ 780,616	\$ 781,616	\$ 782,216	\$ 662,425	\$ 664,613	\$ 661,163	\$ 662,219	\$ 662,594
Future Debt Service (\$10M SRF Loan)	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses	2,489,510	2,724,391	3,917,426	4,184,642	3,593,750	8,316,563	9,925,560	11,825,327	13,076,187
<i>Subtotal: Other Expenditures</i>	<i>\$ 3,268,726</i>	<i>\$ 3,505,007</i>	<i>\$ 4,699,042</i>	<i>\$ 4,966,858</i>	<i>\$ 4,256,175</i>	<i>\$ 8,981,176</i>	<i>\$ 10,586,723</i>	<i>\$ 12,487,546</i>	<i>\$ 13,738,781</i>
Total Uses of Water Funds	\$ 6,829,852	\$ 7,201,639	\$ 8,536,424	\$ 8,950,436	\$ 8,391,609	\$ 13,274,348	\$ 15,043,742	\$ 17,114,760	\$ 18,542,787
plus: Revenue from Rate Increases ³	-	989,572	2,117,684	3,403,732	4,660,385	6,067,836	7,906,905	10,003,444	12,393,498
Contribution to Reserves	\$ 392,454	\$ 1,018,000	\$ 819,000	\$ 1,706,000	\$ 3,554,000	\$ 145,000	\$ 149,000	\$ 133,000	\$ 1,082,000
Net Revenue Req.	\$ 6,675,919	\$ 7,040,406	\$ 8,367,374	\$ 8,765,923	\$ 8,175,134	\$ 12,991,538	\$ 14,825,895	\$ 16,938,552	\$ 18,380,057
Total Rate Revenue After Rate Increases	\$ 7,068,372	\$ 8,057,945	\$ 9,186,057	\$ 10,472,105	\$ 11,728,757	\$ 13,136,208	\$ 14,975,277	\$ 17,071,816	\$ 19,461,870
Projected Annual Rate Revenue Increase	0.00%	14.00%	14.00%	14.00%	12.00%	12.00%	14.00%	14.00%	14.00%
<i>Cumulative Increase from Annual Revenue Increases</i>	<i>0.00%</i>	<i>14.00%</i>	<i>29.96%</i>	<i>48.15%</i>	<i>65.93%</i>	<i>85.84%</i>	<i>111.86%</i>	<i>141.52%</i>	<i>175.34%</i>
<i>Debt Coverage After Rate Increase</i>	<i>1.50</i>	<i>2.30</i>	<i>2.05</i>	<i>3.18</i>	<i>6.36</i>	<i>1.22</i>	<i>1.23</i>	<i>1.20</i>	<i>2.63</i>

1. Revenues and expenses for FY 2021/22 are budgeted in source file: 2020-21 and 2021-22 Budget-Final.xlsx

2. Sewage Treatment O&M assumes additional increases in charges will be a pass-through rate.

3. Assumes new rates are implemented April 1, 2023.

SEWER RATE ANALYSIS

Financial Plan and Reserve Projections

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 2 : RESERVE FUND SUMMARY, UN-RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY	Budget	5-Year Prop 218 Period					Projected		
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31
Total Beginning Cash¹									
Un-Restricted Reserves:									
Operating Reserve									
Beginning Reserve Balance ²	\$ 569,300	\$ 593,500	\$ 616,100	\$ 639,600	\$ 663,900	\$ 689,200	\$ 715,500	\$ 742,800	\$ 771,200
Plus: Net Cash Flow (After Rate Increases)	392,454	1,018,000	819,000	1,706,000	3,554,000	145,000	149,000	133,000	1,082,000
Plus: Transfer of Debt Reserve Surplus	-	1,235	12,376	12,376	12,376	12,376	12,376	12,376	12,376
Plus: Transfer in from Capital R&R Reserve	-	-	-	-	-	-	-	-	-
Less: Transfer Out to Debt Reserve	-	(598,996)	-	-	-	-	-	-	-
Less: Transfer Out to Sinking Fund Reserve	-	-	-	-	-	-	-	-	-
Less: Transfer Out to Capital Replacement Reserve	(368,254)	(397,639)	(807,876)	(1,694,076)	(3,541,076)	(131,076)	(134,076)	(116,976)	(1,064,876)
Ending Operating Reserve Balance	\$ 593,500	\$ 616,100	\$ 639,600	\$ 663,900	\$ 689,200	\$ 715,500	\$ 742,800	\$ 771,200	\$ 800,700
<i>Minimum Target Ending Balance (60 days of O&M)</i>	<i>\$ 593,500</i>	<i>\$ 616,100</i>	<i>\$ 639,600</i>	<i>\$ 663,900</i>	<i>\$ 689,200</i>	<i>\$ 715,500</i>	<i>\$ 742,800</i>	<i>\$ 771,200</i>	<i>\$ 800,700</i>
<i>Maximum Target Ending Balance (180 days of O&M)</i>	<i>\$ 1,780,600</i>	<i>\$ 1,848,300</i>	<i>\$ 1,918,700</i>	<i>\$ 1,991,800</i>	<i>\$ 2,067,700</i>	<i>\$ 2,146,600</i>	<i>\$ 2,228,500</i>	<i>\$ 2,313,600</i>	<i>\$ 2,402,000</i>
Capital Rehabilitation & Replacement Reserve									
Beginning Reserve Balance ³	\$ 2,890,781	\$ 3,259,035	\$ 3,656,674	\$ 4,464,550	\$ 6,158,626	\$ 9,699,702	\$ 6,180,778	\$ 3,914,854	\$ 3,161,830
Plus: Grant Proceeds	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	368,254	397,639	807,876	1,694,076	3,541,076	131,076	134,076	116,976	1,064,876
Less: Use of Reserves for Operating Reserve	-	-	-	-	-	-	-	-	-
Less: Use of Reserves for Capital Projects	-	-	-	-	-	(3,650,000)	(2,400,000)	(870,000)	-
Ending Capital Rehab & Replacement Reserve Balance	\$ 3,259,035	\$ 3,656,674	\$ 4,464,550	\$ 6,158,626	\$ 9,699,702	\$ 6,180,778	\$ 3,914,854	\$ 3,161,830	\$ 4,226,706
<i>Capital R&R Reserve (5% of Net Assets)</i>	<i>\$ 1,086,100</i>	<i>\$ 1,185,600</i>	<i>\$ 1,340,000</i>	<i>\$ 1,502,800</i>	<i>\$ 1,632,000</i>	<i>\$ 2,163,400</i>	<i>\$ 2,696,300</i>	<i>\$ 3,231,200</i>	<i>\$ 3,768,400</i>
<i>Maximum Target Ending Balance (\$5M)</i>	<i>\$ 8,000,000</i>	<i>\$ 8,240,000</i>	<i>\$ 8,490,000</i>	<i>\$ 8,740,000</i>	<i>\$ 9,000,000</i>	<i>\$ 9,270,000</i>	<i>\$ 9,550,000</i>	<i>\$ 9,840,000</i>	<i>\$ 10,140,000</i>
Ending Balance - Excl. Restricted Reserves	\$ 3,852,535	\$ 4,272,774	\$ 5,104,150	\$ 6,822,526	\$ 10,388,902	\$ 6,896,278	\$ 4,657,654	\$ 3,933,030	\$ 5,027,406
Min. Target Ending Balance -Excl. Restricted Reserves	\$ 1,679,600	\$ 1,801,700	\$ 1,979,600	\$ 2,166,700	\$ 2,321,200	\$ 2,878,900	\$ 3,439,100	\$ 4,002,400	\$ 4,569,100
Ending Surplus/(Deficit) Compared to Reserve Targets	\$ 2,172,935	\$ 2,471,074	\$ 3,124,550	\$ 4,655,826	\$ 8,067,702	\$ 4,017,378	\$ 1,218,554	\$ (69,370)	\$ 458,306

SEWER RATE ANALYSIS

Financial Plan and Reserve Projections

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

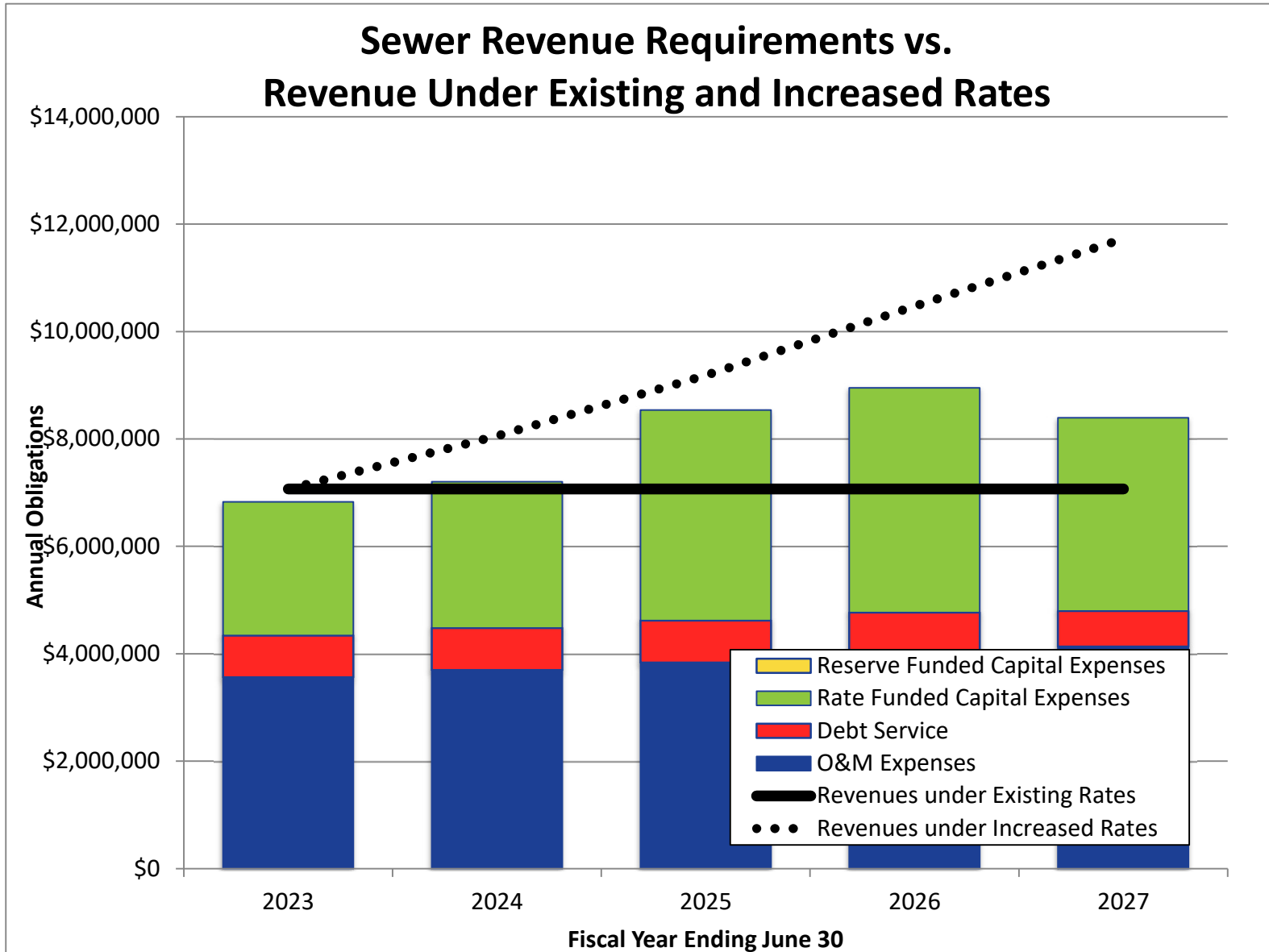
TABLE 3 : RESERVE FUND SUMMARY, RESTRICTED RESERVES

SUMMARY OF CASH ACTIVITY	Budget	5-Year Prop 218 Period					Projected		
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31
Restricted Reserves:									
Connection Fee Reserve									
Beginning Reserve Balance	\$ 90,000	\$ 181,674	\$ 405,053	\$ 632,587	\$ 864,353	\$ 1,100,430	\$ 1,340,898	\$ 1,585,839	\$ 1,835,336
Plus: Interest Earnings	1,674	3,379	7,534	11,766	16,077	20,468	24,941	29,497	34,137
Plus: Capacity Fee Revenue (Reflects Updated Conn. Fees)	90,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000	220,000
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-	-	-
Ending Connection Fee Fund Balance	\$ 181,674	\$ 405,053	\$ 632,587	\$ 864,353	\$ 1,100,430	\$ 1,340,898	\$ 1,585,839	\$ 1,835,336	\$ 2,089,473
Target Ending Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bond Project Fund									
Beginning Reserve Balance ⁴	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: SRF Loan Funding Proceeds	-	-	-	-	-	-	-	-	-
Plus: Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Less: Use of Bond & Loan Funds for Capital Projects	-	-	-	-	-	-	-	-	-
Ending Bond Project Fund Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Target Ending Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Debt Reserve									
Beginning Reserve Balance ⁵	\$ 65,167	\$ 66,379	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375
Plus: Reserve Funding from Future Debt Obligations	-	-	-	-	-	-	-	-	-
Plus: Reserve Funding from Excess Operating Funds	-	598,996	-	-	-	-	-	-	-
Plus: Interest Earnings	1,212	1,235	12,376	12,376	12,376	12,376	12,376	12,376	12,376
Less: Transfer of Surplus to Operating Reserve	-	(1,235)	(12,376)	(12,376)	(12,376)	(12,376)	(12,376)	(12,376)	(12,376)
Ending Debt Reserve Balance	\$ 66,379	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375
Target Ending Balance	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375
Ending Balance - Restricted Reserves	\$ 248,053	\$ 1,070,428	\$ 1,297,962	\$ 1,529,728	\$ 1,765,805	\$ 2,006,273	\$ 2,251,214	\$ 2,500,711	\$ 2,754,848
Min. Target Ending Balance - Restricted Reserves	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375
Ending Surplus/(Deficit) Compared to Reserve Targets	\$ (417,322)	\$ 405,053	\$ 632,587	\$ 864,353	\$ 1,100,430	\$ 1,340,898	\$ 1,585,839	\$ 1,835,336	\$ 2,089,473
Annual Interest Earnings Rate⁶	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%	1.86%

- The District currently maintains one fund for water and sewer operations.
- The beginning Operating Reserve balance is found in source file: *Cast Account Balances.xlsx*
- The beginning Capital Rehab and Replacement balance is found in source file: *Cast Account Balances.xlsx*
- The beginning Bond Project Reserve balance is assumed to be zero.
- The beginning Debt Reserve balance is found in source file: *Cast Account Balances.xlsx*
- City's actual or budgeted interest earnings are used in analysis for unrestricted reserves in FY 2021/22. For 2022/23 and beyond, interest earning rates are estimated at the 3-year average (FY '17/18 - '19/20) for funds invested in LAIF, per the California Treasurer's Office website, for the restricted reserves.
Source: <https://www.treasurer.ca.gov/pmia-laif/historical/annual.asp>.

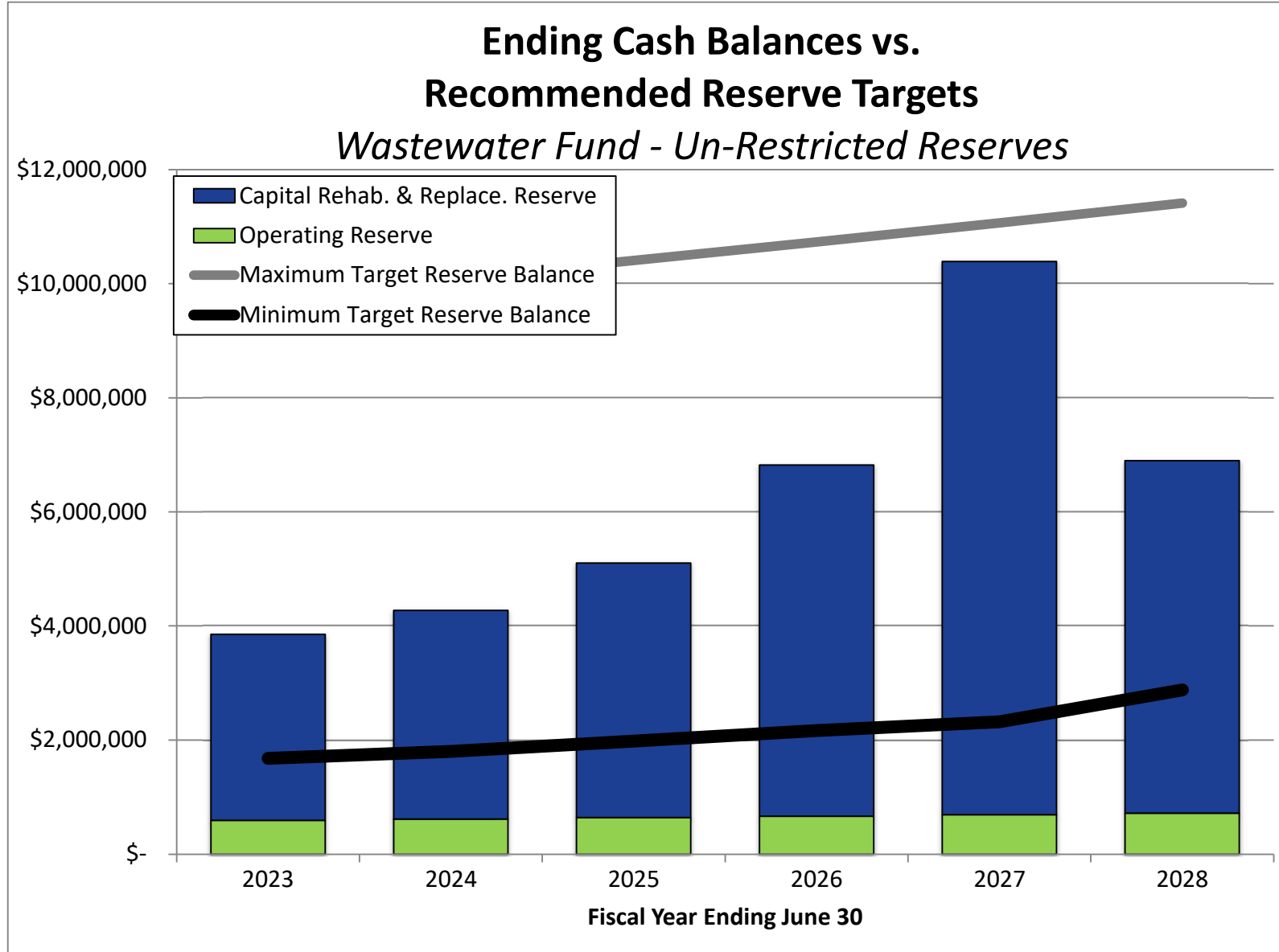
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CHART 1



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CHART 2



Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

CHART 3

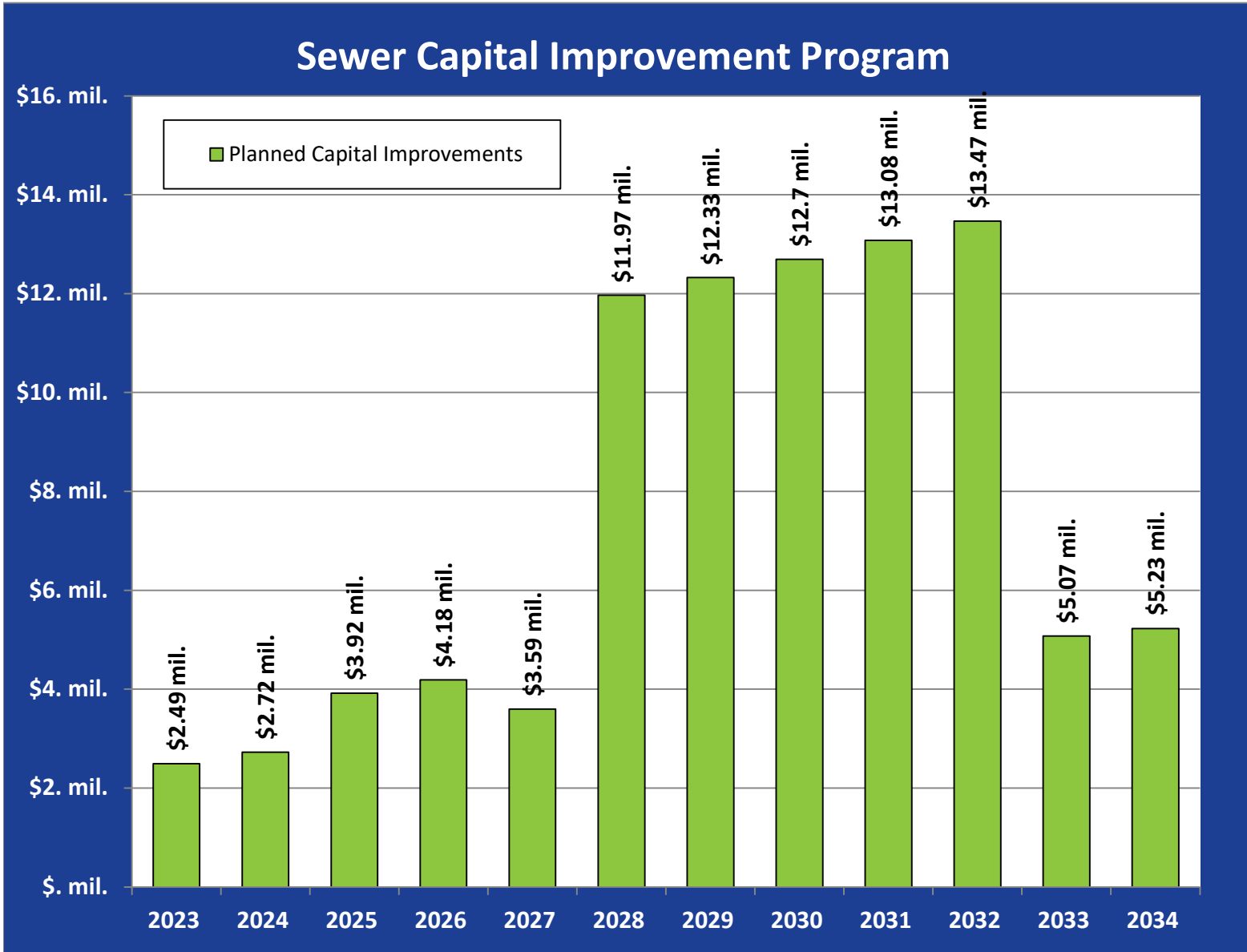
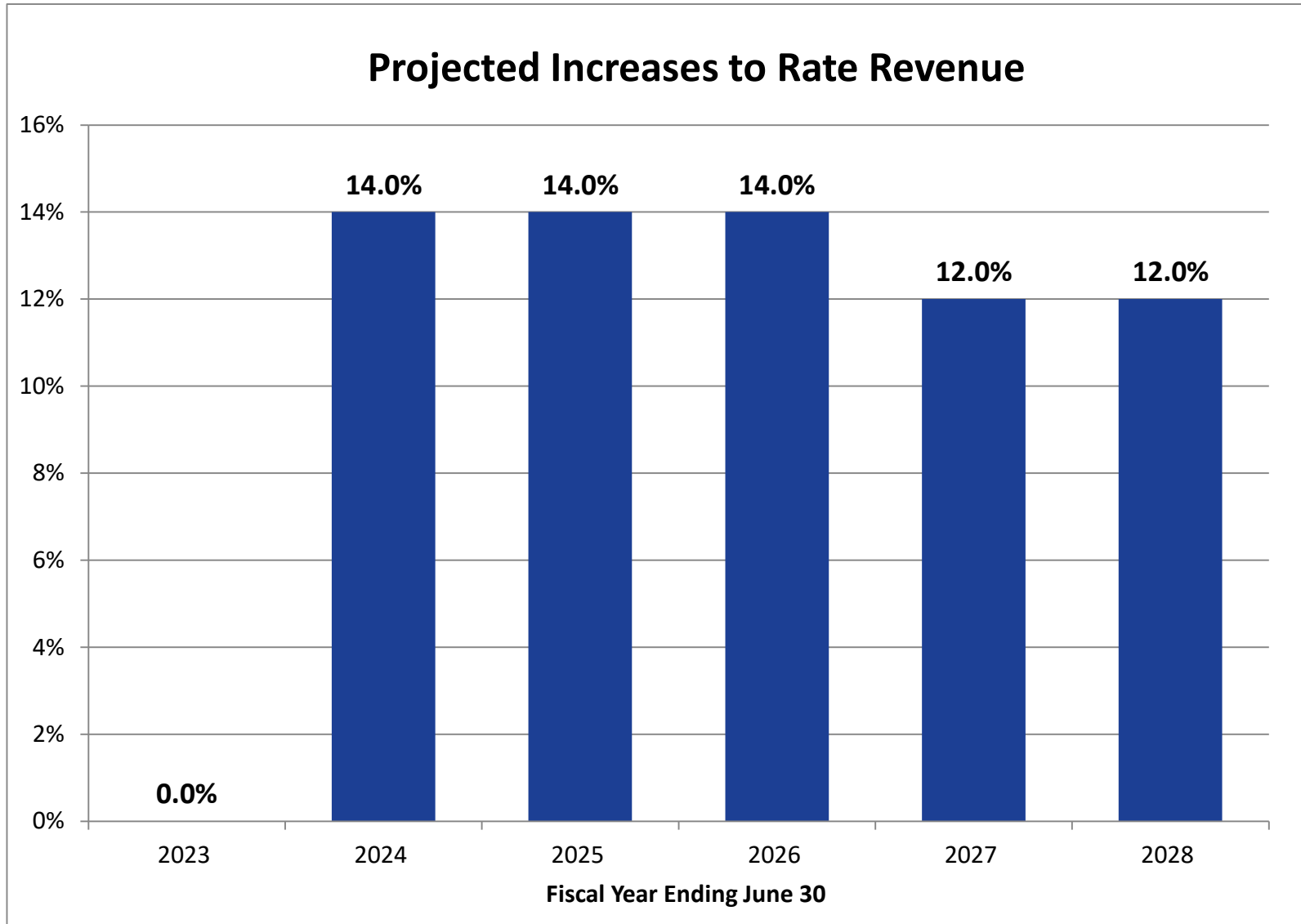


CHART 4



SEWER RATE ANALYSIS

Operating Revenue and Expenses

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TABLE 4 : REVENUE FORECAST

DESCRIPTION ¹	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operating Revenue											
Sewer Service Charges	1	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572
Sewer Pass Through	1	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800
Sewer Construction Fees	1	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Account Fees	1	60,200	60,200	60,200	60,200	60,200	60,200	60,200	60,200	60,200	60,200
Inspection Fees	1	-	-	-	-	-	-	-	-	-	-
Reimbursable Maintenance	1	200	200	200	200	200	200	200	200	200	200
Miscellaneous	1	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Non-Operating Revenue											
Sewer Capital Connection Fees	1	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000	\$ 90,000
Interest/General	See FP	9,034									
Discounts Earned	1	720	720	720	720	720	720	720	720	720	720
Sale of Fixed Assets	1	6,856	6,856	6,856	6,856	6,856	6,856	6,856	6,856	6,856	6,856
Sales of Scrap Metal	1	-	-	-	-	-	-	-	-	-	-
Bad Debt Recovery	1	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300
Other Non-Operating Revenue	1	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,300
TOTAL: REVENUE		\$ 7,256,983	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948

TABLE 5 : REVENUE SUMMARY

Sewer Service Charge		\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572	\$ 5,620,572
Sewer Pass Through		1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800	1,447,800
Fees		72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200	72,200
Miscellaneous		1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Connection Fees		90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Non-Operating Revenues		16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176	16,176
Interest/General		9,034	-	-	-	-	-	-	-	-	-
		\$ 7,256,983	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948	\$ 7,247,948

TABLE 6 : OPERATING EXPENSE FORECAST

DESCRIPTION ²	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Personnel Expenses											
Wages: Operation	3	\$ 987,990	\$ 1,027,510	\$ 1,068,610	\$ 1,111,354	\$ 1,155,809	\$ 1,202,041	\$ 1,250,123	\$ 1,300,127	\$ 1,352,133	\$ 1,406,218
PERS	3	105,800	110,032	114,433	119,011	123,771	128,722	133,871	139,226	144,795	150,586
UI	3	-	-	-	-	-	-	-	-	-	-
Group Insurance	3	229,900	239,096	248,660	258,606	268,950	279,709	290,897	302,533	314,634	327,219
Workers Comp	3	7,590	7,894	8,209	8,538	8,879	9,234	9,604	9,988	10,387	10,803
FICA / Medicare	3	35,100	36,504	37,964	39,483	41,062	42,705	44,413	46,189	48,037	49,958
Misc. Benefits	3	-	-	-	-	-	-	-	-	-	-
Operating Expenses											
Sewage Treatment: O&M ³	5	1,465,000	1,523,600	1,584,544	1,647,926	1,713,843	1,782,397	1,853,692	1,927,840	2,004,954	2,085,152
Water/Sewer Analysis	2	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524
Supplies/Construction	2	34,840	35,885	36,962	38,071	39,213	40,389	41,601	42,849	44,134	45,458
Supplies / Office-Admin	2	5,700	5,871	6,047	6,229	6,415	6,606	6,806	7,010	7,221	7,437
Supplies Engineering	2	1,075	1,107	1,140	1,175	1,210	1,246	1,284	1,322	1,362	1,403
Supplies/Maintenance	2	48,750	50,213	51,719	53,270	54,869	56,515	58,210	59,956	61,755	63,608
Temp Labor - Maintenance	2	4,056	4,178	4,303	4,432	4,565	4,702	4,843	4,988	5,138	5,292
Temp Labor - Construction	2	-	-	-	-	-	-	-	-	-	-
Temp Labor - Customer Service/Finance	2	-	-	-	-	-	-	-	-	-	-
Repairs & Maint: Trucks	2	24,200	24,926	25,674	26,444	27,237	28,054	28,896	29,763	30,656	31,576
Building & Grounds Maint	2	1,600	1,648	1,697	1,748	1,801	1,855	1,910	1,968	2,027	2,088
Electrical Power	4	70,992	88,740	91,402	94,144	96,969	99,878	102,874	105,960	109,139	112,413
Street Lights	4	-	-	-	-	-	-	-	-	-	-

SEWER RATE ANALYSIS

Operating Revenue and Expenses

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

Telephone	2	3,040	3,131	3,225	3,322	3,422	3,524	3,630	3,739	3,851	3,967
Equipment Rental	2	1,300	1,339	1,379	1,421	1,463	1,507	1,552	1,599	1,647	1,696
Property Lease	2	-	-	-	-	-	-	-	-	-	-
Postage	2	960	989	1,018	1,049	1,080	1,113	1,146	1,181	1,216	1,253
Freight	2	215	221	228	235	242	249	257	264	272	281
Chemicals	5	-	-	-	-	-	-	-	-	-	-
Liability Insurance	2	-	-	-	-	-	-	-	-	-	-
Legal	2	-	-	-	-	-	-	-	-	-	-
Accounting	2	-	-	-	-	-	-	-	-	-	-
Engineering	2	100	103	106	109	113	116	119	123	127	130
Other Professional Services	2	7,600	7,828	8,063	8,305	8,554	8,810	9,075	9,347	9,627	9,916
Bank Service Charges	2	-	-	-	-	-	-	-	-	-	-
Transportation	7	25,800	25,800	25,800	25,800	25,800	25,800	25,800	25,800	25,800	25,800
Office Equip / Maint	2	1,540	1,586	1,634	1,683	1,733	1,785	1,839	1,894	1,951	2,009
Computer Software Maintenance	2	16,200	16,686	17,187	17,702	18,233	18,780	19,344	19,924	20,522	21,137
Memberships & Subscriptions	2	892	919	946	975	1,004	1,034	1,065	1,097	1,130	1,164
Bad Debts & Min Bal write-off	2	86,000	88,580	91,237	93,975	96,794	99,698	102,688	105,769	108,942	112,210
Conferences & Continuing Ed	2	8,800	9,064	9,336	9,616	9,904	10,202	10,508	10,823	11,148	11,482
Certifications	2	1,242	1,279	1,318	1,357	1,398	1,440	1,483	1,528	1,573	1,621
State/County & LAFCO Fees & Charges	2	9,000	9,270	9,548	9,835	10,130	10,433	10,746	11,069	11,401	11,743
Elections Expense	2	-	-	-	-	-	-	-	-	-	-
Human Resources	2	5,800	5,974	6,153	6,338	6,528	6,724	6,926	7,133	7,347	7,568
Miscellaneous	2	1,440	1,483	1,528	1,574	1,621	1,669	1,719	1,771	1,824	1,879
General & Admin Expense Allocation	2	217,981	224,520	231,256	238,194	245,340	252,700	260,281	268,089	276,132	284,416
GRAND TOTAL: WASTEWATER EXPENSES		\$ 3,415,503	\$ 3,561,126	\$ 3,696,632	\$ 3,837,381	\$ 3,983,578	\$ 4,135,435	\$ 4,293,172	\$ 4,457,019	\$ 4,627,214	\$ 4,804,006

1. Revenues for FY 2021/22 are budgeted in source file: 2020-21 and 2021-22 Budget-Final.xlsx
2. Expenses for FY 2021/22 are budgeted in source file: 2020-21 and 2021-22 Budget-Final.xlsx
3. Analysis assumes increases in sewage treatment O&M (paid to the City of Eureka) will be an additional pass-through charge to customers.

TABLE 7 : FORECASTING ASSUMPTIONS

COST INFLATION FACTORS	Basis	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Customer Growth	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Cost Inflation	2	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Labor Cost Inflation	3	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Energy Inflation	4	0.00%	25.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
WWTP O&M Inflation (COE)	5	0.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Fuel	6	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
No Escalation	7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Cost inflation assumptions are forecasted by District staff.

SEWER RATE ANALYSIS

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 8 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST	Budget		Projected 5-Year Rate Period							Projected	
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31	
Funding Sources:											
Grants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Use of Connection Fee Reserves	-	-	-	-	-	-	-	-	-	-	
SRF Loan Funding	-	-	-	-	-	-	-	-	-	-	
Use of Future Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-	-	
Use of Capital Rehabilitation and Replacement Reserve	-	-	-	-	-	-	3,650,000	2,400,000	870,000	-	
Rate Revenue	1,885,152	2,489,510	2,724,391	3,917,426	4,184,642	3,593,750	8,316,563	9,925,560	11,825,327	13,076,187	
Total Sources of Capital Funds	\$ 1,885,152	\$ 2,489,510	\$ 2,724,391	\$ 3,917,426	\$ 4,184,642	\$ 3,593,750	\$ 11,966,563	\$ 12,325,560	\$ 12,695,327	\$ 13,076,187	
Uses of Capital Funds:											
Total Project Costs	\$ 1,885,152	\$ 2,489,510	\$ 2,724,391	\$ 3,917,426	\$ 4,184,642	\$ 3,593,750	\$ 11,966,563	\$ 12,325,560	\$ 12,695,327	\$ 13,076,187	
Capital Funding Surplus (Deficiency)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
SRF Loan Funding	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Future Revenue Bond Proceeds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

SEWER RATE ANALYSIS

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

CAPITAL IMPROVEMENT PROGRAM

TABLE 9 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Current-Year dollars)

Project Description ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
City of Eureka CIP (from Terrence's email of 10/10/22)	\$ 1,565,652	\$ 1,335,000	\$ 1,335,000	\$ 1,335,000	\$ 1,335,000	\$ 1,335,000	\$ 1,335,000	\$ 1,335,000	\$ 1,335,000	\$ 1,335,000
SEWER FACILITIES										
Sea Avenue SLS	\$ 50,000	\$ 20,000								
Sewer Rate Study	\$ 50,000									
Sequoia SLS	\$ 10,000									
Blackberry SLS	\$ 60,000	\$ 40,000								
Bailey SLS	\$ 32,000	\$ 100,000								
Artino SLS		\$ 75,000								
Allard Access Vault			\$ 10,000							
Roth Court SLS			\$ 70,000							
Pine Hill SLS Generator			\$ 75,000			\$ 15,000				
Hoover SLS Upgrade			\$ 100,000	\$ 300,000	\$ 450,000	\$ 450,000				
Christine SLS				\$ 50,000						
Pine Hill SLS Rehab					\$ 200,000					
Beechwood SLS Panel					\$ 50,000	\$ 50,000				
King Salmon SLS					\$ 75,000					
Wellington SLS						\$ 50,000				
SCADA Upgrade						\$ 100,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000
WWTP Upgrades (from Terrence's email of 10/10/22)							\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
MAIN EXTENSION & REPLACEMENTS										
New Connections	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000				
Hemlock	\$ 17,000	\$ 250,000	\$ 250,000	\$ 250,000						
Dr. Office Lane		\$ 148,000								
Hartman Lane		\$ 65,000	\$ 360,000							
Noe Street		\$ 162,000								
Mesa /Bell Terrace			\$ 40,000	\$ 280,000						
South Broadway FM			\$ 100,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Walnut Drive Trouble Spot				\$ 210,000						
Walnut Drive Laterals				\$ 40,000						
F Street				\$ 25,000	\$ 360,000					
London Drive at Burns					\$ 88,000					
Ridgewood Drive					\$ 80,000					
Summit Ridge to David					\$ 106,000					
Spruce SLS					\$ 50,000	\$ 486,000				
Quaker Street						\$ 50,000				
Worthington St.						\$ 50,000				
Martin Slough Reversals							\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Trouble Spots							\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Fields Landing FM							\$ 572,000	\$ 572,000	\$ 572,000	\$ 572,000
Humboldt Hill Sewer Sys							\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
Gravity Main Replacement							\$ 3,121,262	\$ 3,121,262	\$ 3,121,262	\$ 3,121,262
Forcemain Replacement							\$ 343,547	\$ 343,547	\$ 343,547	\$ 343,547
Sub-Total: CIP Program Costs	\$ 1,789,652	\$ 2,200,000	\$ 2,345,000	\$ 3,495,000	\$ 3,799,000	\$ 3,591,000	\$ 9,851,809	\$ 9,851,809	\$ 9,851,809	\$ 9,851,809

SEWER RATE ANALYSIS

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 10 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Current-Year dollars)

Project Description ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
BUILDING, YARD & PAVING IMPROVEMENTS										
Office Building Exterior phase 1	\$ 17,500	\$ 25,000								
Yard Paving Repairs	\$ 17,500									
Vehicle Storage Upgrades	\$ 8,000	\$ 5,000								
Office Building and breakroom Roof	\$ 20,000	\$ 10,000								
Office ADA	\$ 7,500	\$ 7,000	\$ 8,000	\$ 10,000						
Office Building Exterior phase 2			\$ 40,000							
Small Truck Garage				\$ 50,000						
Seal Coat Parking Lot					\$ 10,000					
Drying Bed Cover						\$ 15,000				
Future Yard Paving							\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Office and Yard Facility Upgrades										
VEHICLES / EQUIPMENT										
2006 Ford Van	\$ 25,000									
2010 Ford F450 w/Crane		\$ 70,000								
2005 Dodge				\$ 30,000						
2012 Ford 4x4						\$ 30,000				
2010 Peterbilt 7 CY Dump Truck		\$ 100,000								
2004 580 Super M Backhoe					\$ 65,000					
Sewer Camera			\$ 175,000							
Fleet Replacement Program							\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Sub-Total: CIP Program Costs	\$ 95,500	\$ 217,000	\$ 223,000	\$ 90,000	\$ 75,000	\$ 45,000	\$ 170,000	\$ 170,000	\$ 170,000	\$ 170,000
Grand Total: Capital Improvement Program Costs (Current Dol)	\$ 1,885,152	\$ 2,417,000	\$ 2,568,000	\$ 3,585,000	\$ 3,874,000	\$ 3,636,000	\$ 10,021,809	\$ 10,021,809	\$ 10,021,809	\$ 10,021,809

SEWER RATE ANALYSIS

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 11 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year dollars)

Project Description ²	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
City of Eureka CIP (from Terrence's email of 10/10/22)	\$ 1,565,652	\$ 1,375,050	\$ 1,416,302	\$ 1,458,791	\$ 1,502,554	\$ 1,547,631	\$ 1,594,060	\$ 1,641,882	\$ 1,691,138	\$ 1,741,872
SEWER MAIN EXTENSION AND REPLACEMENTS (\$175.00 LF)										
Sea Avenue SLS	\$ 50,000	\$ 20,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sewer Rate Study	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sequoia SLS	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Blackberry SLS	\$ 60,000	\$ 41,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bailey SLS	\$ 32,000	\$ 103,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Artino SLS	\$ -	\$ 77,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Allard Access Vault	\$ -	\$ -	\$ 10,609	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Roth Court SLS	\$ -	\$ -	\$ 74,263	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pine Hill SLS Generator	\$ -	\$ -	\$ 79,568	\$ -	\$ -	\$ 17,389	\$ -	\$ -	\$ -	\$ -
Christine SLS	\$ -	\$ -	\$ -	\$ 54,636	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hoover SLS Upgrade	\$ -	\$ -	\$ 106,090	\$ 327,818	\$ 506,479	\$ 521,673	\$ -	\$ -	\$ -	\$ -
Pine Hill SLS Rehab	\$ -	\$ -	\$ -	\$ -	\$ 225,102	\$ -	\$ -	\$ -	\$ -	\$ -
Beechwood SLS Panel	\$ -	\$ -	\$ -	\$ -	\$ 56,275	\$ 57,964	\$ -	\$ -	\$ -	\$ -
King Salmon SLS	\$ -	\$ -	\$ -	\$ -	\$ 84,413	\$ -	\$ -	\$ -	\$ -	\$ -
Wellington SLS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,964	\$ -	\$ -	\$ -	\$ -
SCADA Upgrade	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115,927	\$ 95,524	\$ 98,390	\$ 101,342	\$ 104,382
WWTP Upgrades (from Terrence's email of 10/10/22)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,388,105	\$ 2,459,748	\$ 2,533,540	\$ 2,609,546
MAIN EXTENSION & REPLACEMENTS										
New Connections	\$ 5,000	\$ 5,150	\$ 5,305	\$ 5,464	\$ 5,628	\$ 5,796	\$ -	\$ -	\$ -	\$ -
Hemlock	\$ 17,000	\$ 257,500	\$ 265,225	\$ 273,182	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Dr. Office Lane	\$ -	\$ 152,440	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hartman Lane	\$ -	\$ 66,950	\$ 381,924	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Noe Street	\$ -	\$ 166,860	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mesa /Bell Terrace	\$ -	\$ -	\$ 42,436	\$ 305,964	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
South Broadway FM	\$ -	\$ -	\$ 106,090	\$ 1,092,727	\$ 1,125,509	\$ 1,159,274	\$ 358,216	\$ 368,962	\$ 380,031	\$ 391,432
Walnut Drive Trouble Spot	\$ -	\$ -	\$ -	\$ 229,473	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Walnut Drive Laterals	\$ -	\$ -	\$ -	\$ 43,709	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
F Street	\$ -	\$ -	\$ -	\$ 27,318	\$ 405,183	\$ -	\$ -	\$ -	\$ -	\$ -
London Drive at Burns	\$ -	\$ -	\$ -	\$ -	\$ 99,045	\$ -	\$ -	\$ -	\$ -	\$ -
Ridgewood Drive	\$ -	\$ -	\$ -	\$ -	\$ 90,041	\$ -	\$ -	\$ -	\$ -	\$ -
Forcemain Replacements & Other										
Worthington St.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,964	\$ -	\$ -	\$ -	\$ -
Martin Slough Reversals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 358,216	\$ 368,962	\$ 380,031	\$ 391,432
Trouble Spots	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 358,216	\$ 368,962	\$ 380,031	\$ 391,432
Fields Landing FM	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 682,998	\$ 703,488	\$ 724,592	\$ 746,330
Humboldt Hill Sewer Sys	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,791,078	\$ 1,844,811	\$ 1,900,155	\$ 1,957,160
Gravity Main Replacement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,726,950	\$ 3,838,758	\$ 3,953,921	\$ 4,072,539
Forcemain Replacement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 410,213	\$ 422,519	\$ 435,195	\$ 448,250
Sub-Total: CIP Program Costs	\$ 1,789,652	\$ 2,266,000	\$ 2,487,811	\$ 3,819,081	\$ 4,100,229	\$ 3,541,582	\$ 11,763,575	\$ 12,116,482	\$ 12,479,976	\$ 12,854,376

SEWER RATE ANALYSIS

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 12 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year dollars)

Project Description ²	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
VEHICLES/ROLLING STOCK/EQUIPMENT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office Building Exterior phase 1	\$ 17,500	\$ 25,750	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Yard Paving Repairs	\$ 17,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Vehicle Storage Upgrades	\$ 8,000	\$ 5,150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office Building and breakroom Roof	\$ 20,000	\$ 10,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office ADA	\$ 7,500	\$ 7,210	\$ 8,487	\$ 10,927	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office Building Exterior phase 2	\$ -	\$ -	\$ 42,436	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Small Truck Garage	\$ -	\$ -	\$ -	\$ 54,636	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Seal Coat Parking Lot	\$ -	\$ -	\$ -	\$ -	\$ 11,255	\$ -	\$ -	\$ -	\$ -	\$ -
Drying Bed Cover	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,389	\$ -	\$ -	\$ -	\$ -
Future Yard Paving	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,881	\$ 24,597	\$ 25,335	\$ 26,095
Office and Yard Facility Upgrades	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
VEHICLES / EQUIPMENT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2006 Ford Van	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ENGINEERING NEEDS	\$ -	\$ 72,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2005 Dodge	\$ -	\$ -	\$ -	\$ 32,782	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2012 Ford 4x4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,778	\$ -	\$ -	\$ -	\$ -
2010 Peterbilt 7 CY Dump Truck	\$ -	\$ 103,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2004 580 Super M Backhoe	\$ -	\$ -	\$ -	\$ -	\$ 73,158	\$ -	\$ -	\$ -	\$ -	\$ -
Sewer Camera	\$ -	\$ -	\$ 185,658	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fleet Replacement Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,108	\$ 184,481	\$ 190,016	\$ 195,716
Sub-Total: CIP Program Costs	\$ 95,500	\$ 223,510	\$ 236,581	\$ 98,345	\$ 84,413	\$ 52,167	\$ 202,989	\$ 209,079	\$ 215,351	\$ 221,811
Grand Total: Capital Improvement Program Costs (Future Doll)	\$ 1,885,152	\$ 2,489,510	\$ 2,724,391	\$ 3,917,426	\$ 4,184,642	\$ 3,593,750	\$ 11,966,563	\$ 12,325,560	\$ 12,695,327	\$ 13,076,187

1. Capital project costs were provided by HCSD Staff in source files: 20220518_22-23CIP_DRAFT.xlsx

2. Project costs are inflated by 3.0% per year in FY 2022/23 and beyond.

SEWER RATE ANALYSIS

Capital Improvement Plan Expenditures

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 13 : FORECASTING ASSUMPTIONS

Economic Variables	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Annual Construction Cost Inflation, Per Engineering News	0.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Cumulative Construction Cost Multiplier from 2022	1.00	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30

3. For reference purposes, the annual Construction Cost Inflation percentage is the 10 year average change in the Construction Cost Index for 2012-2021 (3.0%).

Source: Engineering News Record website (<http://enr.construction.com>).

HUMBOLDT COMMUNITY SERVICE DISTRICT
SEWER RATE ANALYSIS

EXHIBIT 3

Debt Service

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 14 : WASTEWATER UTILITY EXISTING DEBT OBLIGATIONS

Annual Repayment Schedules ¹	Budget	Budget	5-Year Prop 218 Period					Projected		
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30	FY 2030/31
2014 Wastewater Revenue Bonds, \$8,500,000										
Principal Payment	\$ 210,000	\$ 215,000	\$ 225,000	\$ 235,000	\$ 245,000	\$ 250,000	\$ 260,000	\$ 265,000	\$ 275,000	\$ 285,000
Interest Payment	\$ 277,575	\$ 269,175	\$ 260,575	\$ 251,575	\$ 242,175	\$ 234,825	\$ 227,013	\$ 218,563	\$ 209,619	\$ 199,994
Subtotal: Annual Debt Service	\$ 487,575	\$ 484,175	\$ 485,575	\$ 486,575	\$ 487,175	\$ 484,825	\$ 487,013	\$ 483,563	\$ 484,619	\$ 484,994
Coverage Requirement (\$-Amnt above annual payment) ²	\$ 585,120	\$ 585,120	\$ 585,120	\$ 585,120	\$ 585,120	\$ 585,120	\$ 585,120	\$ 585,120	\$ 585,120	\$ 585,120
Reserve Requirement (total fund balance) ²	\$ 487,775	\$ 487,775	\$ 487,775	\$ 487,775	\$ 487,775	\$ 487,775	\$ 487,775	\$ 487,775	\$ 487,775	\$ 487,775
2012 Refinancing for Martin Slough Project, \$2,372,000										
Principal Payment	\$ 110,684	\$ 115,438	\$ 120,396	\$ 125,567	\$ 130,961	\$ 136,586	\$ 142,452	\$ 148,571	\$ 154,952	\$ 161,607
Interest Payment	\$ 66,916	\$ 62,162	\$ 57,204	\$ 52,033	\$ 46,639	\$ 41,014	\$ 35,148	\$ 29,029	\$ 22,648	\$ 15,993
Subtotal: Annual Debt Service	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600
Coverage Requirement (\$-Amnt above annual payment) ³	\$ 213,120	\$ 213,120	\$ 213,120	\$ 213,120	\$ 213,120	\$ 213,120	\$ 213,120	\$ 213,120	\$ 213,120	\$ 213,120
Reserve Requirement (total fund balance) ³	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600	\$ 177,600
VacCon Loan 2021										
Principal Payment	\$ 109,864	\$ 105,387	\$ 108,279	\$ 111,251	\$ 114,304	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Payment	\$ 7,576	\$ 12,054	\$ 9,162	\$ 6,190	\$ 3,137	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal: Annual Debt Service	\$ 117,441	\$ 117,441	\$ 117,441	\$ 117,441	\$ 117,441	\$ -	\$ -	\$ -	\$ -	\$ -
Coverage Requirement (\$-Amnt above annual payment)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Requirement (total fund balance)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grand Total: Existing Annual Debt Service	\$ 782,616	\$ 779,216	\$ 780,616	\$ 781,616	\$ 782,216	\$ 662,425	\$ 664,613	\$ 661,163	\$ 662,219	\$ 662,594
Grand Total: Existing Annual Coverage Requirement	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240
Grand Total: Existing Debt Reserve Target	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375

1. File provided by HCSD staff: *Loan Repayment Schedules.xlsx*

2. Coverage requirement equal to 120% of the maximum annual payment. Reserve Requirement is identified in the Official Statement, page 7.

3. Coverage requirement assumed to be equal to 120% of the maximum annual payment. Reserve Requirement is equal to the maximum annual payment.

TABLE 15 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY SEWER RATES

<i>Existing Annual Debt Service</i>	\$ 782,616	\$ 779,216	\$ 780,616	\$ 781,616	\$ 782,216	\$ 662,425	\$ 664,613	\$ 661,163	\$ 662,219	\$ 662,594
<i>Existing Annual Coverage Requirement</i>	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240	\$ 798,240
<i>Existing Debt Reserve Target</i>	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375	\$ 665,375

HUMBOLDT COMMUNITY SERVICE DISTRICT

EXHIBIT 4

SEWER RATE ANALYSIS

Projected Wastewater Rates Under Existing Rate Schedule

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 16 : CURRENT MONTHLY SEWER RATE SCHEDULE

Customer Class	Account Charges (Per Customer Account) ¹	Base Charges (Per Living Unit - LU) ¹	Water Flow Rate Per Unit ^{1,2}
<u>Residential</u>			
Single Family Residential (1-3)	\$4.28	\$19.09	\$5.94
Multi-Family (4 or more)	\$4.28	\$15.27	\$5.94
Mobile Homes	\$4.28	\$16.61	\$5.94
Trailer Parks	\$4.28	\$16.61	\$5.94
<u>Non-Residential</u>			
Commercial - Light Strength (< 370 mg/liter)	\$4.28	\$19.09	\$7.10
Commercial - Medium Strength (370-500 mg/liter)	\$4.28	\$19.09	\$9.41
Commercial - Heavy Strength (>500 mg/liter)	\$4.28	\$19.09	\$11.89
<u>Pass through sewer charges (added to volumetric rate)</u>			
Single family/Multi family/Mobile Homes/Trailer parks	<i>n/a</i>	<i>n/a</i>	\$3.08
Commercial Light Strength	<i>n/a</i>	<i>n/a</i>	\$3.69
Commercial Medium Strength	<i>n/a</i>	<i>n/a</i>	\$4.87
Commercial High Strength	<i>n/a</i>	<i>n/a</i>	\$6.16

1. Current rates from District website (2021-22 Master Fee Schedule-UPDATE 07-01-2021-Final.pdf) , passthrough surcharges added on to volumetric rates.

2. One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons.

HUMBOLDT COMMUNITY SERVICE DISTRICT

SEWER RATE STUDY

Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 17 : CLASSIFICATION OF EXPENSES

Budget Categories	Total Rev. Reqts.	Flow	Strength		Customer	Basis of Classification			
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Operating Expenses									
Personnel Expenses									
Wages: Operation	\$ 1,068,610	\$ 748,027	\$ 133,576	\$ 133,576	\$ 53,430	70%	12.5%	12.5%	5%
PERS	\$ 114,433	\$ 80,103	\$ 11,443	\$ 11,443	\$ 11,443	70%	10.0%	10.0%	10%
UI	\$ -	\$ -	\$ -	\$ -	\$ -	70%	10.0%	10.0%	10%
Group Insurance	\$ 248,660	\$ 174,062	\$ 24,866	\$ 24,866	\$ 24,866	70%	10.0%	10.0%	10%
Workers Comp	\$ 8,209	\$ 5,747	\$ 821	\$ 821	\$ 821	70%	10.0%	10.0%	10%
FICA / Medicare	\$ 37,964	\$ 26,575	\$ 3,796	\$ 3,796	\$ 3,796	70%	10.0%	10.0%	10%
Misc. Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	70%	10.0%	10.0%	10%
Operating Expenses									
Water Purchase HBMWD	\$ -	\$ -	\$ -	\$ -	\$ -	55%	20%	20%	5%
Water Purchase Eureka	\$ -	\$ -	\$ -	\$ -	\$ -	55%	20%	20%	5%
Sewage Treatment: O&M	\$ 1,584,544	\$ 950,726	\$ 316,909	\$ 316,909	\$ -	60%	20%	20%	0%
Water/Sewer Analysis	\$ 5,305	\$ 2,917	\$ 1,061	\$ 1,061	\$ 265	55%	20%	20%	5%
Supplies/Construction	\$ 36,962	\$ 14,785	\$ 7,392	\$ 7,392	\$ 7,392	40%	20%	20%	20%
Supplies / Office-Admin	\$ 6,047	\$ 1,209	\$ 1,209	\$ 1,209	\$ 2,419	20%	20%	20%	40%
Supplies Engineering	\$ 1,140	\$ 570	\$ 228	\$ 228	\$ 114	50%	20%	20%	10%
Supplies/Maintenance	\$ 51,719	\$ 25,859	\$ 10,344	\$ 10,344	\$ 5,172	50%	20%	20%	10%
Temp Labor - Maintenance	\$ 4,303	\$ 2,367	\$ 861	\$ 861	\$ 215	55%	20%	20%	5%
Temp Labor - Construction	\$ -	\$ -	\$ -	\$ -	\$ -	55%	20%	20%	5%
Temp Labor - Customer Service/Finance	\$ -	\$ -	\$ -	\$ -	\$ -	20%	20%	20%	40%
Repairs & Maint: Trucks	\$ 25,674	\$ 14,121	\$ 5,135	\$ 5,135	\$ 1,284	55%	20%	20%	5%
Building & Grounds Maint	\$ 1,697	\$ 849	\$ 339	\$ 339	\$ 170	50%	20%	20%	10%
Electrical Power	\$ 91,402	\$ 91,402	\$ -	\$ -	\$ -	100%	0%	0%	0%
Street Lights	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	100%
Telephone	\$ 3,225	\$ 645	\$ 161	\$ 161	\$ 2,258	20%	5%	5%	70%
Equipment Rental	\$ 1,379	\$ 759	\$ 276	\$ 276	\$ 69	55%	20%	20%	5%
Property Lease	\$ -	\$ -	\$ -	\$ -	\$ -	55%	20%	20%	5%
Postage	\$ 1,018	\$ -	\$ -	\$ -	\$ 1,018	0%	0%	0%	100%
Freight	\$ 228	\$ 125	\$ 46	\$ 46	\$ 11	55%	20%	20%	5%
Chemicals	\$ -	\$ -	\$ -	\$ -	\$ -	50%	25%	25%	0%
Liability Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	55%	5%	5%	35%
Legal	\$ -	\$ -	\$ -	\$ -	\$ -	20%	20%	20%	40%
Accounting	\$ -	\$ -	\$ -	\$ -	\$ -	20%	20%	20%	40%
Engineering	\$ 106	\$ 58	\$ 21	\$ 21	\$ 5	55%	20%	20%	5%
Other Professional Services	\$ 8,063	\$ 4,031	\$ 1,209	\$ 1,209	\$ 1,613	50%	15%	15%	20%
Bank Service Charges	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	100%
Transportation	\$ 25,800	\$ 14,190	\$ 5,160	\$ 5,160	\$ 1,290	55%	20%	20%	5%
Office Equip / Maint	\$ 1,634	\$ 327	\$ 327	\$ 327	\$ 654	20%	20%	20%	40%
Computer Software Maintenance	\$ 17,187	\$ 3,437	\$ 3,437	\$ 3,437	\$ 6,875	20%	20%	20%	40%
Memberships & Subscriptions	\$ 946	\$ 189	\$ 189	\$ 189	\$ 379	20%	20%	20%	40%
Bad Debts & Min Bal write-off	\$ 91,237	\$ -	\$ -	\$ -	\$ 91,237	0%	0%	0%	100%
Conferences & Continuing Ed	\$ 9,336	\$ 4,668	\$ 1,400	\$ 1,400	\$ 1,867	50%	15%	15%	20%
Certifications	\$ 1,318	\$ 659	\$ 198	\$ 198	\$ 264	50%	15%	15%	20%
State/County & LAFCO Fees & Charges	\$ 9,548	\$ 4,774	\$ 1,432	\$ 1,432	\$ 1,910	50%	15%	15%	20%
Elections Expense	\$ -	\$ -	\$ -	\$ -	\$ -	20%	20%	20%	40%
Human Resources	\$ 6,153	\$ 3,077	\$ 923	\$ 923	\$ 1,231	50%	15%	15%	20%
Miscellaneous	\$ 1,528	\$ 764	\$ 229	\$ 229	\$ 306	50%	15%	15%	20%
General & Admin Expense Allocation	\$ 231,256	\$ 92,502	\$ 46,251	\$ 46,251	\$ 46,251	40%	20%	20%	20%
GRAND TOTAL: WASTEWATER EXPENSES	\$ 3,696,632	\$ 2,269,525	\$ 579,241	\$ 579,241	\$ 268,624	61%	16%	16%	7%

HUMBOLDT COMMUNITY SERVICE DISTRICT

SEWER RATE STUDY

Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 18 : CLASSIFICATION OF EXPENSES

Budget Categories	Total Rev. Repts.	Flow	Strength		Customer	Basis of Classification				
	FY 2023/24	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)	
Debt Service Payments										
Existing Annual Debt Service	\$ 780,616	\$ 468,370	\$ 156,123	\$ 156,123	\$ -	60%	20%	20%	0%	
Future Annual Debt Service	\$ -	\$ -	\$ -	\$ -	\$ -	50%	25%	25%	0%	
Total Debt Service Payments	\$ 780,616	\$ 468,370	\$ 156,123	\$ 156,123	\$ -	60%	20%	20%	0%	
Capital Expenditures										
Rate Funded Capital Expenses	\$ 2,724,391	\$ 1,362,196	\$ 681,098	\$ 681,098	\$ -	50%	25%	25%	0%	
TOTAL REVENUE REQUIREMENTS	\$ 7,201,639	\$ 4,100,090	\$ 1,416,462	\$ 1,416,462	\$ 268,624	57%	20%	20%	4%	
Less: Non-Rate Revenues										
Operating Revenue										
Metered Water Sales	\$ -	\$ -	\$ -	\$ -	\$ -	57%	20%	20%	4%	
Sewer Service Charges										
Sewer Pass Through										
Sewer Construction Fees	\$ (12,000)	\$ (6,832)	\$ (2,360)	\$ (2,360)	\$ (448)	57%	20%	20%	4%	
Account Fees	\$ (60,200)	\$ (34,274)	\$ (11,841)	\$ (11,841)	\$ (2,245)	57%	20%	20%	4%	
Inspection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	57%	20%	20%	4%	
Reimbursable Maintenance	\$ (200)	\$ (114)	\$ (39)	\$ (39)	\$ (7)	57%	20%	20%	4%	
Miscellaneous	\$ (1,000)	\$ (569)	\$ (197)	\$ (197)	\$ (37)	57%	20%	20%	4%	
Non-Operating Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	57%	20%	20%	4%	
Sewer Capital Connection Fees										
Interest/General	\$ (71,657)	\$ (40,796)	\$ (14,094)	\$ (14,094)	\$ (2,673)	57%	20%	20%	4%	
Discounts Earned	\$ (720)	\$ (410)	\$ (142)	\$ (142)	\$ (27)	57%	20%	20%	4%	
Sale of Fixed Assets	\$ (6,856)	\$ (3,903)	\$ (1,348)	\$ (1,348)	\$ (256)	57%	20%	20%	4%	
Sales of Scrap Metal	\$ -	\$ -	\$ -	\$ -	\$ -	57%	20%	20%	4%	
Bad Debt Recovery	\$ (4,300)	\$ (2,448)	\$ (846)	\$ (846)	\$ (160)	57%	20%	20%	4%	
Other Non-Operating Revenue	\$ (4,300)	\$ (2,448)	\$ (846)	\$ (846)	\$ (160)	57%	20%	20%	4%	
NET REVENUE REQUIREMENTS	\$ 7,040,406	\$ 4,008,296	\$ 1,384,750	\$ 1,384,750	\$ 262,610					
Allocation of Revenue Requirements	100.0%	56.9%	19.7%	19.7%	3.7%					

Net Revenue Reqt. Check from Financial Plan \$ -

Current Rate Variable/Fixed %'s

65.9% Variable 34.1% Fixed

Last Rate Study (Funct.) Variable/Fixed %'s

60.5% Variable 39.5% Fixed

TABLE 19 : ADJUSTMENTS TO CLASSIFICATION OF EXPENSES

Adjustment to Current Rate Level:	Total	(VOL)	(BOD)	(TSS)	(CA)
FY 2023/24 Target Rate Rev. After Rate Increases	\$8,057,945				
Projected Rate Revenue at Current Rates	\$7,068,372				
FY 2023/24 Projected Rate Increase	14.0%				
Adjusted Net Revenue Reqt's	\$ 8,057,945	\$ 4,587,608	\$ 1,584,886	\$ 1,584,886	\$ 300,565
<i>Percent of Revenue</i>		56.9%	19.7%	19.7%	3.7%

HUMBOLDT COMMUNITY SERVICE DISTRICT

SEWER RATE STUDY

Wastewater Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 20 : DEVELOPMENT OF THE VOLUME ALLOCATION FACTOR

Summary of Allocation Factors

Customer Class	FY'20/21 Annual Sewer Volume Total (HCF) ¹	FY'20/21 Mo. Winter-Avg. Based Billable Vol. (HCF) ²	FY'20/21 Annualized Vol. Based on Winter-Avg. (Billable Vol.)	Volumetric	Effl. Strength	Effl. Strength	Cust. Service	% of COS Net Revenue Reqts.
				% of Total Consumption	BOD - % of Total	TSS - % of Total	Number of Accounts (% of Meters)	
Residential	349,712	29,062	348,738	75.4%	71.0%	71.0%	89.5%	74.2%
Multi-Family Residential	41,025	3,447	41,358	8.9%	8.4%	8.4%	6.4%	8.6%
Mobile Home Park/Trailer Park	20,712	1,740	20,877	4.5%	4.3%	4.3%	0.2%	4.2%
Commercial Light	37,038	3,125	37,497	8.1%	7.6%	7.6%	3.6%	7.8%
Commercial Medium	2,136	178	2,136	0.5%	0.9%	0.9%	0.0%	0.6%
Commercial Heavy	12,040	1,003	12,039	2.6%	7.7%	7.7%	0.3%	4.5%
Grand Total:	462,663	38,554	462,645	100.0%	100.0%	100.0%	100.0%	100.0%

1. Consumption data is based on the HCSD's FY 2020/21 customer data.
2. Monthly Billable Volume is equal to the 4-month Average Winter Consumption (December-March).
3. Multi-Family Residential Lot/Living Units are equal to 80 percent of a SFR unit; Mobile Home Park Lot/Living Units are equal to 87 percent of a SFR unit.
4. For Mobile Home Park and Commercial Customers, EDUs/Lus based on SFR Winter Consumption was calculated per account and summarized by customer class. all customers; for Non-Residential only, monthly consumption is less two (2) units of water.

HUMBOLDT COMMUNITY SERVICE DISTRICT

SEWER RATE STUDY

Wastewater Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 21 : DEVELOPMENT OF THE STRENGTH ALLOCATION FACTOR

Customer Class	FY'20/21 Annualized Vol. (Billable Vol.) (HCF)	Adjusted Annual Volume Total (HCF)	Annual Flow (gallons = HCF x 748 gal/HCF)	Biochemical Oxygen Demand (BOD)			
				Average Strength Factor (mg/l) ¹	Calculated BOD (lbs./yr.)	Adjusted BOD (lbs./yr.)	Percent of Total
Residential	348,738	372,577	278,706,371	200	464,882	500,265	71.0%
Multi-Family Residential	41,358	44,185	33,052,716	200	55,132	59,328	8.4%
Mobile Home Park/Trailer Park	20,877	22,304	16,684,597	200	27,830	29,948	4.3%
Commercial Light	37,497	40,060	29,967,061	200	49,985	53,789	7.6%
Commercial Medium	2,136	2,282	1,707,060	435	6,193	6,664	0.9%
Commercial Heavy	12,039	12,862	9,621,395	630	50,553	54,400	7.7%
Grand Total:	462,645	494,271	369,739,200		654,575	704,395	
<i>Target, from WWTP Data²</i>		<i>494,271</i>	<i>Flow (HCF/yr.)</i>		<i>704,395</i>	<i>BOD (lbs./yr.)</i>	
		<i>1.07</i>	<i>Flow Adj. Factor</i>		<i>1.076</i>	<i>BOD Adj. Factor</i>	

1. Average strength factors for BOD and TSS are derived from the State Water Resources Control Board Revenue Program Guidelines, Appendix G.

2. Reported in City of Eureka's Sewer Rate Study, concurrent with this rate study.

Total Suspended Solids (TSS)			
Average	Calculated	Adjusted TSS	Percent of
200	464,882	461,118	71.0%
200	55,132	54,686	8.4%
200	27,830	27,605	4.3%
200	49,985	49,580	7.6%
435	6,193	6,143	0.9%
630	50,553	50,143	7.7%
	654,575	649,275	
		<i>649,275</i>	<i>TSS (lbs./yr.)</i>
		<i>0.992</i>	<i>TSS Adj. Factor</i>

HUMBOLDT COMMUNITY SERVICE DISTRICT

SEWER RATE STUDY

Wastewater Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 22 : DEVELOPMENT OF THE CUSTOMER ALLOCATION FACTOR

Customer Class	Number of Accounts (Meters)	Percent of Total	Actual No. of Living Units (From '20/21 Customer Data)	Percent of Total (EDU/LU Equivalent)	Avg. Annual Winter Consumption per Living Unit	Avg. Winter Water Use as a % of SFR ^{1,2}	Equiv. Living Units based on SFR Winter Consumption ₃	Percent of Consumption-Based Total (EDU/LU Equivalent)
Residential	5,842	89.5%	5,998	70.6%	58.14	100%	5,998	74.9%
Multi-Family Residential	415	6.4%	965	11.4%	42.84	74%	711	8.9%
Mobile Home Park/Trailer Park	10	0.2%	598	7.0%	34.89	60%	359	4.5%
Commercial Light	235	3.6%	644	7.6%	58.26	100%	644	8.0%
Commercial Medium	3	0.0%	37	0.4%	57.73	100%	37	0.5%
Commercial Heavy	21	0.3%	255	3.0%	47.14	100%	255	3.2%
Grand Total:	6,526	100.0%	8,498	100.0%	--	--	8,004	100.0%

1. Average winter water use per Living Unit as a % of SFR avg. winter water use.

2. Consistent with the last rate study, the commercial class living units from the customer data are assumed to reflect equivalent living units.

3. Number of equivalent single-family living units based on average winter water use.

HUMBOLDT COMMUNITY SERVICE DISTRICT

SEWER RATE ANALYSIS

Sewer Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 23 : ALLOCATION OF REVENUE REQUIREMENTS BY CUSTOMER CLASS

Customer Class	Cost Classification Components			Customer Related	Cost-of-Service Net Revenue	% of COS Net Rev. Reqts. (2023/24)
	Volume	Treatment/Strength				
		BOD	TSS			
Net Revenue Requirements ¹	\$ 4,587,608	\$ 1,584,886	\$ 1,584,886	\$ 300,565	\$ 8,057,945	--
	56.9%	19.7%	19.7%	3.7%	100.0%	--
Residential	\$ 3,458,102	\$ 1,125,593	\$ 1,125,593	\$ 269,062	\$ 5,978,350	74.2%
Multi-Family Residential	410,108	133,488	133,488	19,113	696,197	8.6%
Mobile Home Park/Trailer Park	207,017	67,383	67,383	461	342,244	4.2%
Commercial Light	371,822	121,026	121,026	10,823	624,697	7.8%
Commercial Medium	21,181	14,995	14,995	138	51,309	0.6%
Commercial Heavy	119,379	122,401	122,401	967	365,147	4.5%
	\$ 4,587,608	\$ 1,584,886	\$ 1,584,886	\$ 300,565	\$ 8,057,945	100%

1. Revenue requirement for each customer class is determined by multiplying the revenue requirement from each cost classification by the allocation factors for each customer class.

HUMBOLDT COMMUNITY SERVICE DISTRICT

SEWER RATE ANALYSIS

Sewer Cost of Service Analysis

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 24 : PROPOSED SEWER RATES - 60% VOLUMETRIC/40% FIXED

Customer Class	No. of Accounts	Actual No. of Living Units (From '20/21 Customer Data)	Annual Billable Volume (hcf)	Annual Rev. Req't				Monthly Sewer Rates		
				Total	Volumetric (Flow)	Fixed (Treatment/Strength)	Fixed (Customer Service)	Volumetric Charges Per HCF	Fixed Charge Per Living Unit	Customer Service Charge Per Account
Residential	5,842	5,998	348,738	\$ 5,978,350	\$ 3,519,246	\$ 2,190,042	\$ 269,062	\$10.09	\$30.43	\$3.84
Multi-Family Residential	415	965	41,358	696,197	417,359	\$ 259,724	19,113	\$10.09	\$22.42	\$3.84
Mobile Home Park/Trailer Park	10	598	20,877	342,244	210,678	\$ 131,106	461	\$10.09	\$18.26	\$3.84
Commercial Light	235	644	37,497	624,697	378,894	\$ 234,979	10,823	\$10.10	\$30.43	\$3.84
Commercial Medium	3	37	2,136	51,309	37,661	\$ 13,509	138	\$17.63	\$30.43	\$3.84
Commercial Heavy	21	255	12,039	365,147	270,928	\$ 93,252	967	\$22.50	\$30.43	\$3.84
Total	6,526	8,498	462,645	\$ 8,057,945	\$ 4,834,767	\$ 2,922,613	\$ 300,565			
<i>Percent of Revenue from Fixed vs. Volumetric Charges</i>				<i>100%</i>	<i>60.0%</i>	<i>36.3%</i>	<i>3.7%</i>			

TABLE 25 : REVENUE CHECK FOR PROPOSED RATES - 60% VOLUMETRIC/40% FIXED

Customer Class	COSA Revenue Requirements	Customer Service Charges	Fixed Charges	Volumetric Charges	Total Revenue	Over/(Under) Collected
Residential	\$5,978,350	\$269,062	\$2,190,042	\$3,519,246	\$5,978,350	\$0
Multi-Family Residential	\$696,197	\$19,113	\$259,724	\$417,359	\$696,197	\$0
Mobile Home Park/Trailer Park	\$342,244	\$461	\$131,106	\$210,678	\$342,244	\$0
Commercial Light	\$624,697	\$10,823	\$234,979	\$378,894	\$624,697	\$0
Commercial Medium	\$51,309	\$138	\$13,509	\$37,661	\$51,309	\$0
Commercial Heavy	\$365,147	\$967	\$93,252	\$270,928	\$365,147	\$0
Total	\$8,057,945	\$300,565	\$2,922,613	\$4,834,767	\$8,057,945	\$0

SEWER RATE ANALYSIS

Sewer Cost of Service Analysis/Rate Design

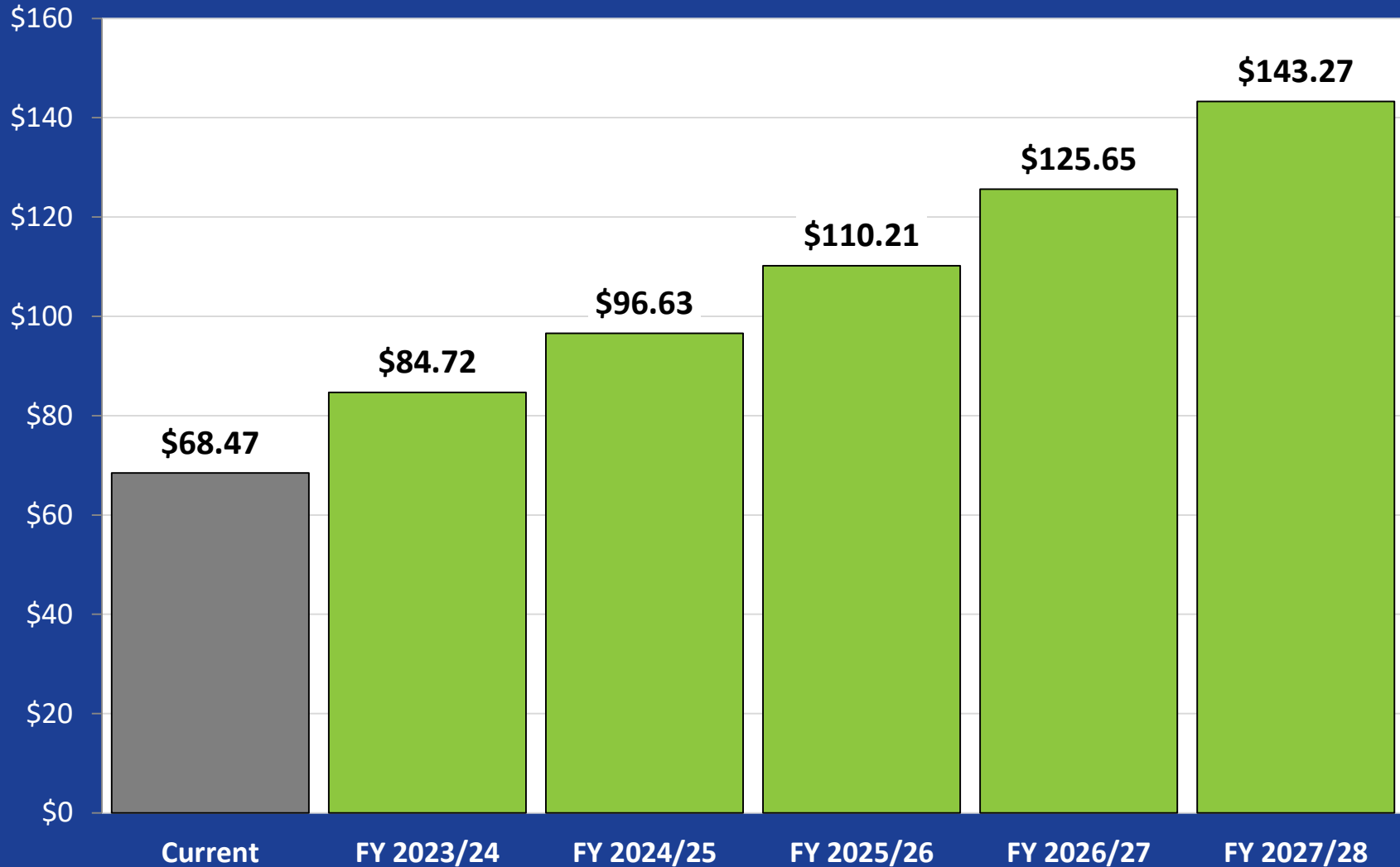
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 30 : CURRENT VS. PROPOSED SEWER RATES - 60% VOLUMETRIC/40% FIXED

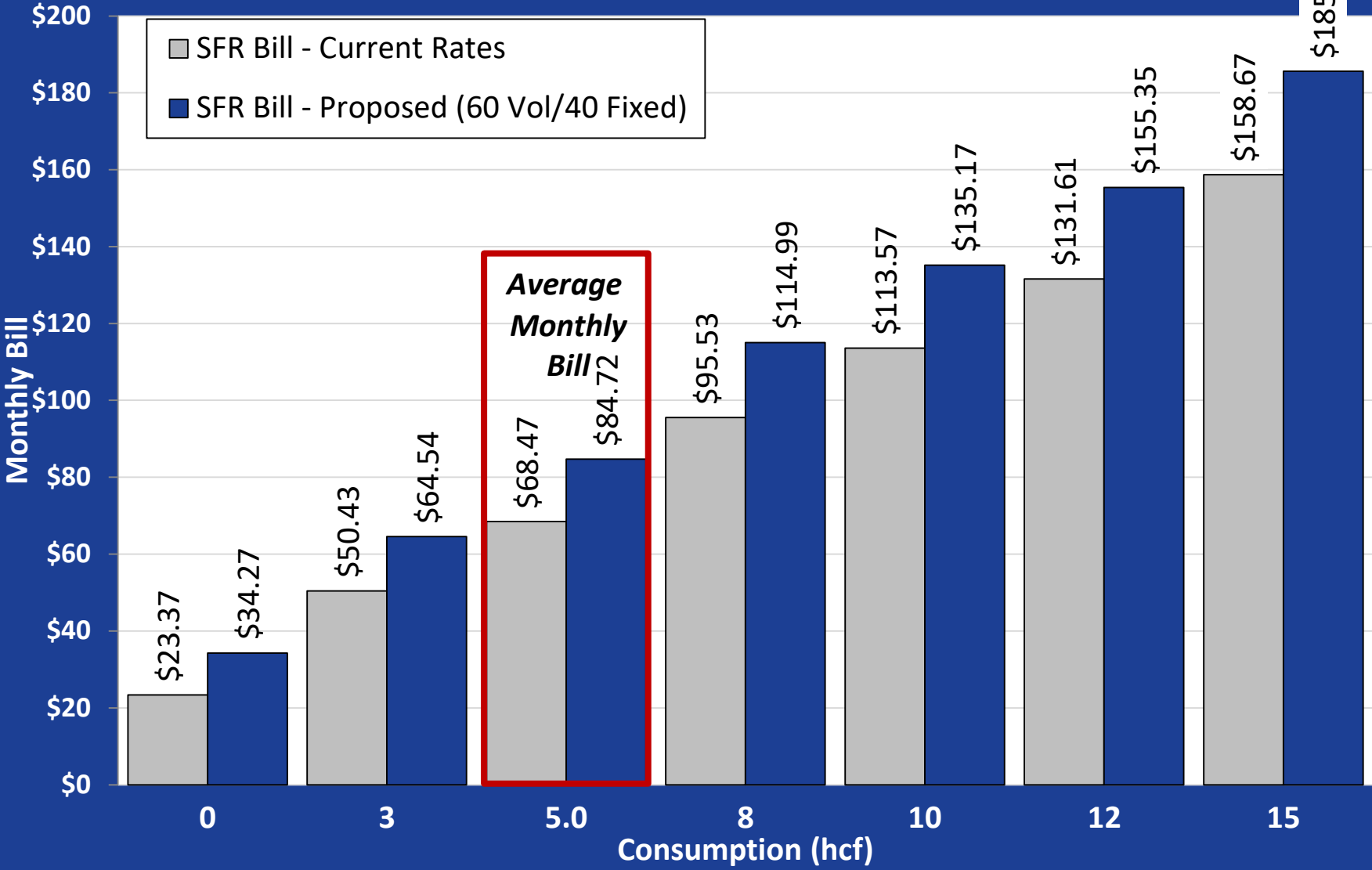
Sewer Rate Schedule	Current Rates	Recommended Monthly Fixed Sewer Rates				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<i>Projected Increase in Rate Revenue per Financial Plan</i>		14.00%	14.00%	14.00%	14.00%	14.00%
Monthly Fixed Service Charge						
Customer Service Charge Per Account	\$4.28	\$3.84	\$4.38	\$5.00	\$5.70	\$6.50
Monthly Fixed Service Charge Per Living Unit (LU)						
Residential:						
Single Family Residential (1-3)	\$19.09	\$30.43	\$34.70	\$39.56	\$45.10	\$51.42
Multi-Family (4 or more)	\$15.27	\$22.42	\$25.56	\$29.14	\$33.22	\$37.88
Mobile Homes	\$16.61	\$18.26	\$20.82	\$23.74	\$27.07	\$30.86
Trailer Parks	\$16.61	\$18.26	\$20.82	\$23.74	\$27.07	\$30.86
Commercial:						
Commercial - Light Strength (< 370 mg/liter)	\$19.09	\$30.43	\$34.70	\$39.56	\$45.10	\$51.42
Commercial - Medium Strength (370-500 mg/liter)	\$19.09	\$30.43	\$34.70	\$39.56	\$45.10	\$51.42
Commercial - Heavy Strength (>500 mg/liter)	\$19.09	\$30.43	\$34.70	\$39.56	\$45.10	\$51.42
Volumetric Charge (\$/HCF)^{1,2}						
Residential³	<i>(Includes Passthrough)</i>					
Single Family Residential (1-3)	\$9.02	\$10.09	\$11.51	\$13.13	\$14.97	\$17.07
Multi-Family (4 or more)	\$9.02	\$10.09	\$11.51	\$13.13	\$14.97	\$17.07
Mobile Homes	\$9.02	\$10.09	\$11.51	\$13.13	\$14.97	\$17.07
Trailer Parks	\$9.02	\$10.09	\$11.51	\$13.13	\$14.97	\$17.07
Commercial³						
Commercial - Light Strength (< 370 mg/liter)	\$10.79	\$10.10	\$11.52	\$13.14	\$14.98	\$17.08
Commercial - Medium Strength (370-500 mg/liter)	\$11.97	\$17.63	\$20.10	\$22.92	\$26.13	\$29.79
Commercial - Heavy Strength (>500 mg/liter)	\$13.26	\$22.50	\$25.65	\$29.25	\$33.35	\$38.02

1. One Unit is equal to one HCF (Hundred Cubic Feet) or 748 gallons.
2. Rate is charged based on the monthly average winter water use of the previous calendar year (December - March) for each account.
3. Volumetric Charges apply to each unit (hcf) billed to all customer classes.
4. Current Volumetric Charges include passthrough adjustments; that additional revenue has been incorporated into both fixed and volumetric charges going forward.

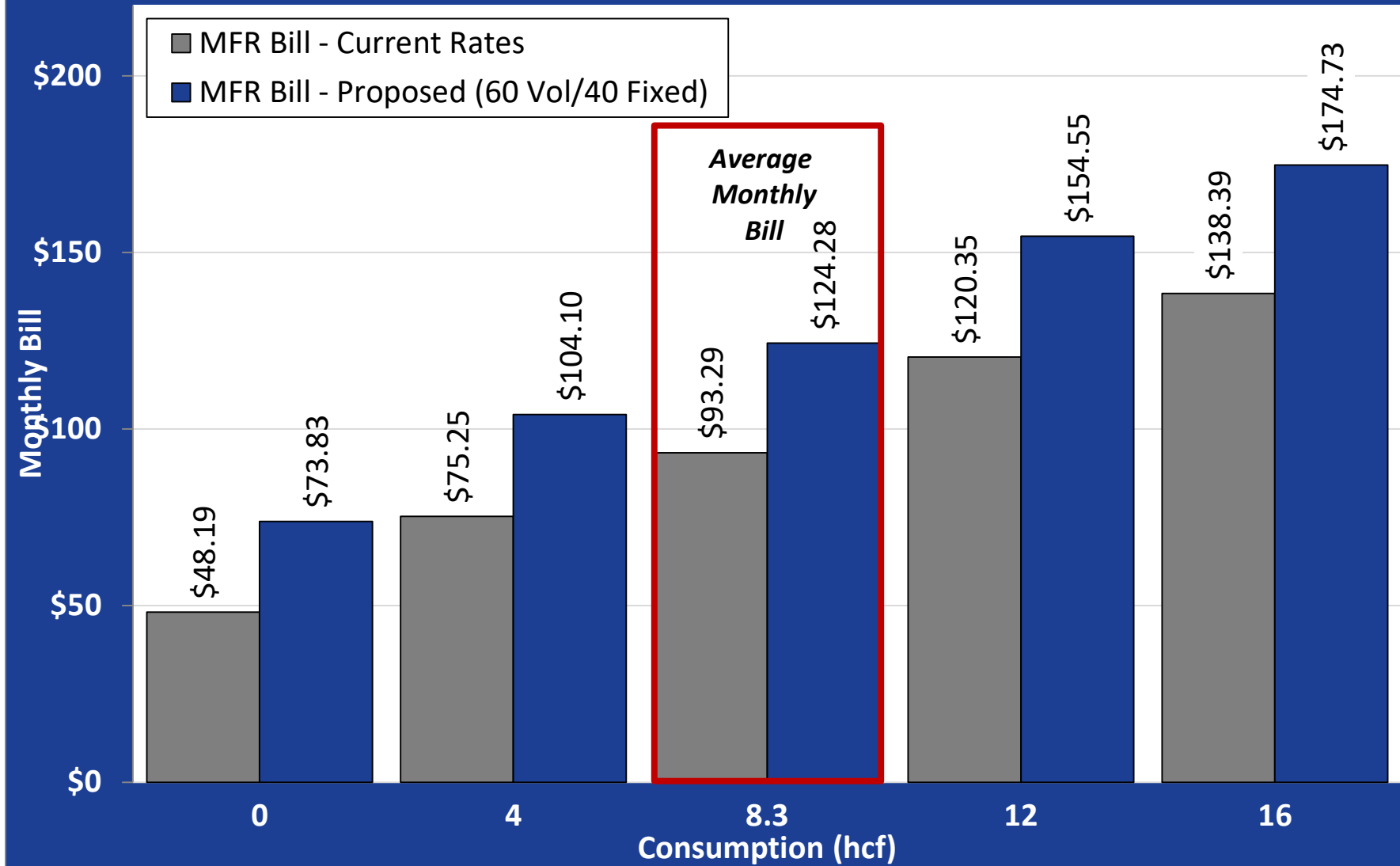
5-Year Average Monthly SFR Sewer Bill Comparison Current vs. Proposed Rates (Based on Average Winter Consumption of 5.0 HCF)



SFR Monthly Sewer Bill Comparison Current vs. Proposed Rates (FY 2023/24)

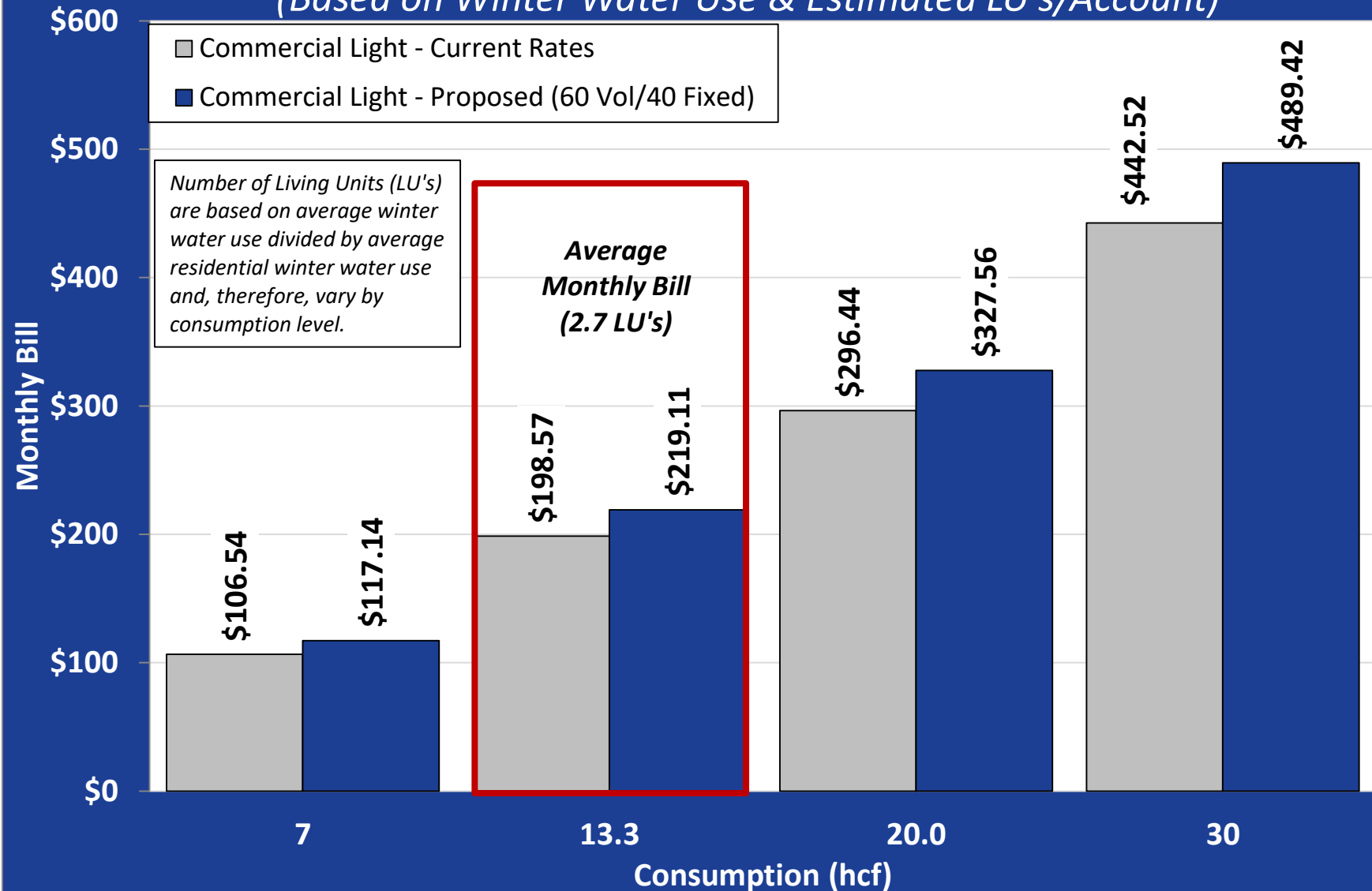


Multi-Family Monthly Sewer Bill Comparison Current vs. Proposed Rates (FY 2023/24) *(Based on 2.3 LUs/Meter and 8.3 HCF/Meter)*



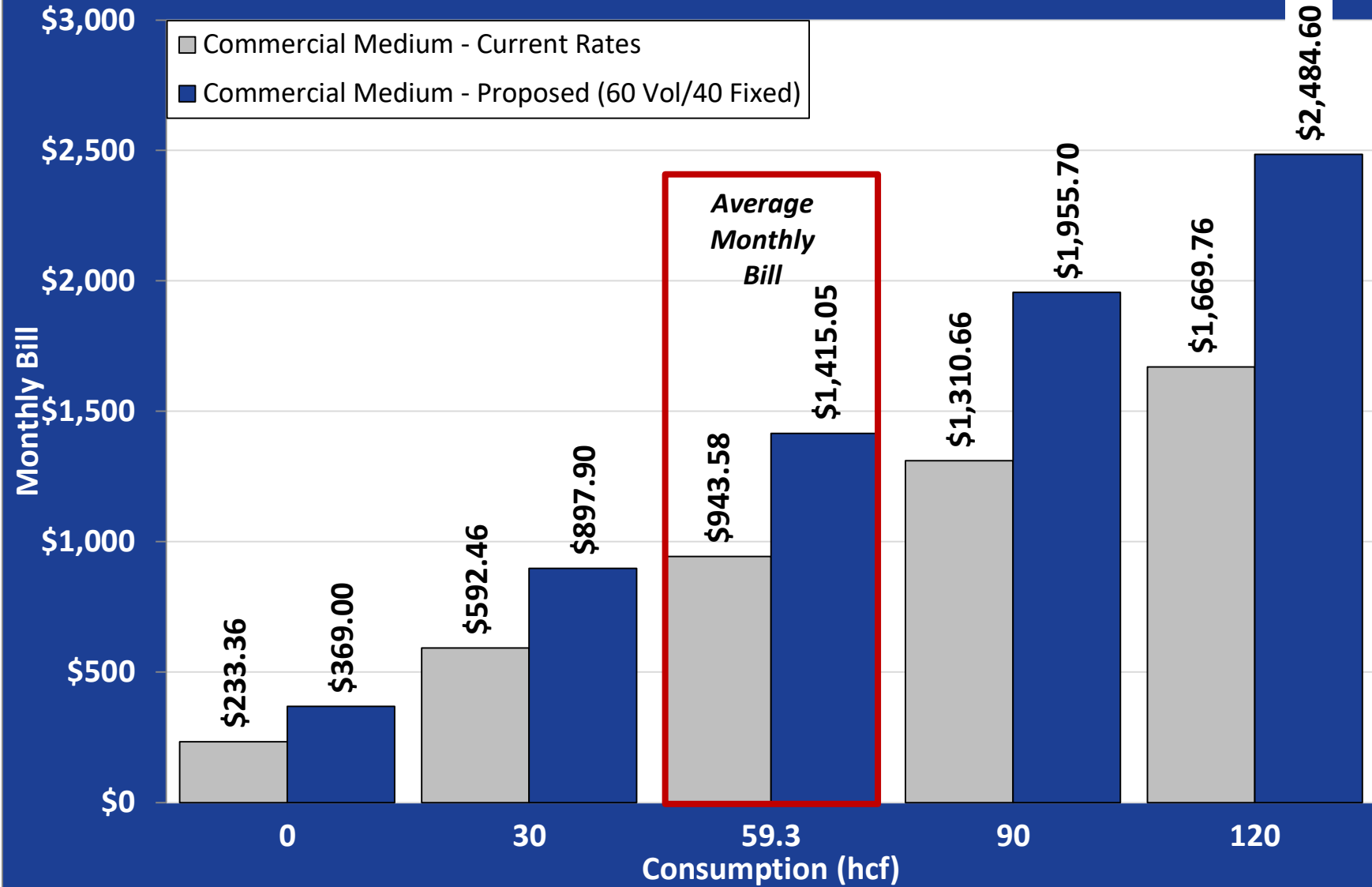
Commercial Light Strength Sewer Bill Comparison Current vs. Proposed Rates (FY 2023/24)

(Based on Winter Water Use & Estimated LU's/Account)



Commercial Medium Strength Sewer Bill Comparison Current vs. Proposed Rates (FY 2023/24)

(Based on Avg. Winter Water Use of 59.3 hcf/mo., 12 LUs/Meter)



Section 12. **APPENDIX D – WATER CONNECTION FEE SUMMARY TABLES**



HUMBOLDT COMMUNITY SERVICES DISTRICT

Water Connection Fee Analysis

Demographic Data and Projections

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 1

TABLE 1 : METER EQUIVALENT UNITS

Meter Size	Existing Potable Water Meters ¹	Meter Equivalence		Potable Water Meter Equivalent Units
		Maximum Flow (gpm) ²	Flow Factor for 5/8 inch Base Meter	
5/8 Inch	7,312	20	1.00	7,312
3/4 Inch	200	30	1.50	300
1 Inch	124	50	2.50	310
1 1/2 Inch	33	100	5.00	165
2 Inch	22	160	8.00	176
3 Inch	8	320	16.00	128
4 Inch	1	500	25.00	25
6 Inch	4	1,000	50.00	200
Total	7,704			8,616

1. Per District utility billing data, as of the June 2021 billing period. Excludes Fire meters and Construction meters.

2. Source: AWWA M1, Table B-2. Assumes displacement meters for 1 1/2" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters. Badger Model 25 (5/8); Model 35 (3/4); and Model 55 (1") meters and their specs have maximum flow 5 gpm higher for each of these three meter sizes (per District records).

TABLE 2 : EXISTING AND PROJECTED SERVICE NUMBERS

Demographic Statistics ^{1,2}	2020 Existing Total	Projected Service Total (2032)	Change (EMUs)	Allocation Factors	
			Number of Units	Existing Services	Future Services
SFR Meter Equivalent Units (EMUs) ³	8,616	8,875	259	97.1%	2.9%

1. Demands for potable water (current and projected) from the District's 2020 UWPM.

2. Customer growth in meter equivalents is proportionate to the demands for potable water projections.

3. Per District utility billing data, as of the September 2016 billing period. Excludes Fire meters and Construction meters.

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Connection Fee Analysis
Existing Capital Facilities and Equipment for Consideration (System Buy-In)
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 3 : SUMMARY OF EXISTING WATER ASSETS

Asset Category	Original Values ¹		Book Value	Replacement Values (System Buy-in Cost Basis) ²	Allocation Basis (%) ⁴		Distribution of Cost Basis (\$)	
	Asset Cost	Depreciation to Date			Existing Services	Future Services	Existing Services	Future Services
Water Fund								
Autos And Trucks	\$ 3,018,856	\$ 1,936,933	\$ 1,081,923	\$ 559,276	97.1%	2.9%	\$ 543,057	\$ 16,219
Buildings	1,009,029	674,256	334,773	394,394	97.1%	2.9%	382,956	11,437
Communications Equipment	84,828	64,653	20,175	15,134	97.1%	2.9%	14,695	439
Computer Hardware	64,736	64,736	-	-	97.1%	2.9%	-	-
Computer Software	221,647	212,047	9,600	5,938	97.1%	2.9%	5,766	172
Land And Land Improvements	474,470	-	474,470	241,811	97.1%	2.9%	234,798	7,013
Land And Right Of Way - Water - Fw/Mr	1,300	-	1,300	741	97.1%	2.9%	720	21
Land And Right Of Way- Water - Original District	113,322	-	113,322	113,322	97.1%	2.9%	110,036	3,286
Land And Right Of Way-Sewer - Humboldt Hill	15,000	-	15,000	-	97.1%	2.9%	-	-
Land And Right Of Way-Water - Humboldt Hill	81,777	-	81,777	81,777	97.1%	2.9%	79,406	2,372
Machinery And Equipment	951,620	602,343	349,276	266,239	97.1%	2.9%	258,518	7,721
Office Equipment	10,258	10,258	-	-	97.1%	2.9%	-	-
Small Tools	6,273	6,273	-	-	97.1%	2.9%	-	-
Telemetry Equipment	367,056	342,895	24,161	14,163	97.1%	2.9%	13,752	411
Water Pumping And Distribution: Fw/Mr	4,826,019	3,679,431	1,146,588	3,091,220	97.1%	2.9%	3,001,575	89,645
Water Pumping And Distribution: Humboldt Hill	5,102,635	4,123,235	979,400	2,499,269	97.1%	2.9%	2,426,790	72,479
Water Pumping And Distribution: Original	11,906,629	9,451,832	2,454,797	5,560,155	97.1%	2.9%	5,398,911	161,244
Water Source: Humboldt Hill	753,418	439,555	313,863	564,437	97.1%	2.9%	548,069	16,369
Water Source: Original	1,252,992	1,205,825	47,166	133,085	97.1%	2.9%	129,226	3,859
Total Capital Facilities & Equipment	\$ 30,261,864	\$ 22,814,273	\$ 7,447,590	\$ 13,540,962	97.1%	2.9%	\$ 13,148,274	\$ 392,688

1. The source of the original asset cost and depreciation to date is the Asset Data and Acquired Date provided by the District staff in source file: *Depreciation Schedule 6-30-2015.xls* and *Depreciation Schedule 6-30-2016.xls*.

2. Replication values are calculated by escalating the remaining original values (i.e., book values from District's fixed asset report) to 2022 values using inflation factors from the Handy-Whitman Index of Public Utility Construction Costs, for Water Utility Construction, Pacific Region.

3. Cost basis for consideration is calculated as replication value less accumulated depreciation.

4. Refer to Exhibit 1: proportionate allocation between existing and future users.

5. Assets have no remaining value, therefore allocation is 0% to existing and future users.

6. Assets are 100% allocated to Sewer, and therefore excluded from existing and future water users.

HUMBOLDT COMMUNITY SERVICES DISTRICT
 Water Connection Fee Analysis
 Allocation of Cash Reserves and Outstanding Debt to Existing and Future Services
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 4 : ALLOCATION OF DEBT TO EXISTING AND FUTURE USERS

Bond Issue	Outstanding Principal	% Allocation ¹		\$ - Allocation		Total
		Existing Users	Future Users	Existing Users	Future Users	
1988 Freshwater/Mitchell Road Clean Water Bond	\$ 422,957	97.1%	2.9%	410,691	12,266	422,957
Davis-Grunsky Loan, \$166,000	\$ 27,769	97.1%	2.9%	26,964	805	27,769
2012 Refinance of 1981 Bond	\$ 73,069	97.1%	2.9%	70,950	2,119	73,069
Grand Total	\$ 523,795	97.1%	2.9%	\$ 508,605	\$ 15,190	\$ 523,795

1. Outstanding bond principal is allocated to existing and future services based on projected growth in the system.

TABLE 5 : ALLOCATION OF CASH RESERVES TO EXISTING AND FUTURE USERS

Water Cash Reserves	Beginning Cash ²	% Allocation		\$ - Allocation	
		Existing Users	Future Users	Existing Users	Future Users
Operating Reserve	\$ 3,555,048	97.1%	2.9%	\$ 3,451,952	\$ 103,096
Capital Rehabilitation & Replacement Reserve	916,907	97.1%	2.9%	890,317	26,590
Connection Fee Reserve	-	97.1%	2.9%	-	-
Cash Net of Unspent Capacity Fees	\$ 4,471,955	97.1%	2.9%	\$ 4,342,269	\$ 129,687

2. The beginning cash balance is found in source file: *Cast Account Balances.xlsx*

HUMBOLDT COMMUNITY SERVICES DISTRICT

Water Connection Fee Analysis

Water Planned Capital Facilities and Equipment for Consideration (System Development)

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Planned Capital Improvements	Current Cost Estimate (\$2022) ¹	System Development Cost Basis for Consideration ²	% Allocation		Existing Services	Future Services
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)		
WATER MAIN LINE REPLACEMENTS (\$100.00/LF)	\$ 20,921,657	\$ 20,921,657	96.9%	3.1%	\$ 20,272,684	\$ 648,973
WATER PUMPING FACILITY UPGRADES	12,998,771	12,998,771	97.1%	2.9%	12,621,807	376,964
VEHICLES/ROLLING STOCK/EQUIPMENT	1,245,000	1,245,000	97.1%	2.9%	1,208,895	36,105
BUILDING, YARD & PAVING IMPROVEMENTS	350,500	350,500	97.1%	2.9%	340,336	10,165
Total	\$ 35,515,928	\$ 35,515,928	97.0%	3.0%	\$ 34,443,721	\$ 1,072,207

1. Capital project costs were provided by HCSD Staff in source file: 2016-17 CIP.pdf.

2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

HUMBOLDT COMMUNITY SERVICES DISTRICT

Water Connection Fee Analysis

Water Planned Capital Facilities and Equipment for Consideration (System Development)

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Planned Capital Improvements	Current Cost Estimate (\$2022) ¹	System Development Cost Basis for Consideration ²	% Allocation		Existing Services	Future Services
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)		
Facility / Equipment (1)	Current Cost Estimate (\$2022) ¹	System Development Cost Basis for Consideration ²	% Allocation		Existing Services	Future Services
			Existing Services	Future Services	Existing Services	Future Services
WATER MAIN LINE REPLACEMENTS (\$100.00/LF)						
New Connections	\$ 45,000	\$ 45,000	0.0%	100.0%	\$ -	\$ 45,000
Christian Lane	\$ 63,359	63,359	97.1%	2.9%	61,522	1,837
Water Rate Study	\$ 50,000	50,000	100.0%	0.0%	50,000	-
Tower Lane	\$ 167,000	167,000	97.1%	2.9%	162,157	4,843
Park Street	\$ 90,000	90,000	97.1%	2.9%	87,390	2,610
18th Street	\$ 243,000	243,000	97.1%	2.9%	235,953	7,047
Stanford Court	\$ 27,000	27,000	97.1%	2.9%	26,217	783
Temple Circle	\$ 35,100	35,100	97.1%	2.9%	34,082	1,018
Crane Street	\$ 67,500	67,500	97.1%	2.9%	65,543	1,958
Vista Tie In Phase 1	\$ 189,000	189,000	97.1%	2.9%	183,519	5,481
Shady Lane	\$ 108,000	108,000	97.1%	2.9%	104,868	3,132
Vista Tie In Phase 2	\$ 189,000	189,000	97.1%	2.9%	183,519	5,481
Meadowood	\$ 108,000	108,000	97.1%	2.9%	104,868	3,132
Mitchell Road	\$ 1,190,000	1,190,000	97.1%	2.9%	1,155,490	34,510
Beechwood Dr.	\$ 99,900	99,900	97.1%	2.9%	97,003	2,897
Austin Court	\$ 70,200	70,200	97.1%	2.9%	68,164	2,036
AC Water Main Replacement Program	\$ 18,179,598	18,179,598	97.1%	2.9%	17,652,390	527,208
Sub-Total	\$ 20,921,657	\$ 20,921,657	96.9%	3.1%	\$ 20,272,684	\$ 648,973

1. Capital project costs were provided by HCSD Staff in source files: 20220518_22-23CIP_DRAFT.xlsx

2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

HUMBOLDT COMMUNITY SERVICES DISTRICT

Water Connection Fee Analysis

Water Planned Capital Facilities and Equipment for Consideration (System Development)

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Planned Capital Improvements	Current Cost Estimate (\$2022) ¹	System Development Cost Basis for Consideration ²	% Allocation		Existing Services	Future Services
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)		
WATER PUMPING FACILITY UPGRADES						
AMR Program	\$ 1,551,000	\$ 1,551,000	97.1%	2.9%	\$ 1,506,021	\$ 44,979
SCADA Upgrade	\$ 425,000	425,000	97.1%	2.9%	412,675	12,325
Humboldt County ADA Access	\$ 5,000	5,000	97.1%	2.9%	4,855	145
Water Storage Tanks	\$ 9,281	9,281	97.1%	2.9%	9,012	269
South Bay School Backflow Device	\$ 15,000	15,000	97.1%	2.9%	14,565	435
Donna Drive Hydro-tank	\$ 150,000	150,000	97.1%	2.9%	145,650	4,350
Ridgewood Tank	\$ 670,000	670,000	97.1%	2.9%	650,570	19,430
Spruce Point Well	\$ 33,490	33,490	97.1%	2.9%	32,519	971
South Bay well	\$ 20,000	20,000	97.1%	2.9%	19,420	580
Brier Lane 0.5 MG Tank	\$ 700,000	700,000	97.1%	2.9%	679,700	20,300
Hubbard 3rd Pump	\$ 50,000	50,000	97.1%	2.9%	48,550	1,450
Truesdale WBS	\$ 100,000	100,000	97.1%	2.9%	97,100	2,900
Donna Drive 0.5 MG Tank	\$ 730,000	730,000	97.1%	2.9%	708,830	21,170
Ridgewood Water Booster Station	\$ 30,000	30,000	97.1%	2.9%	29,130	870
18th & Quaker PSV	\$ 30,000	30,000	97.1%	2.9%	29,130	870
Walnut Drive 0.5 MG Tank	\$ 700,000	700,000	97.1%	2.9%	679,700	20,300
Cummings Road Tank	\$ 700,000	700,000	97.1%	2.9%	679,700	20,300
Pigeon Point WBS	\$ 15,000	15,000	97.1%	2.9%	14,565	435
Donna Drive WBS	\$ 65,000	65,000	97.1%	2.9%	63,115	1,885
Water Resiliency at Little CA St.	\$ 1,000,000	1,000,000	97.1%	2.9%	971,000	29,000
Meyers Well	\$ 750,000	750,000	97.1%	2.9%	728,250	21,750
Princeton Well	\$ 750,000	750,000	97.1%	2.9%	728,250	21,750
Rehabilitate Remaining Tanks	\$ 4,500,000	4,500,000	97.1%	2.9%	4,369,500	130,500
VEHICLES/ROLLING STOCK/EQUIPMENT						
2006 Ford Van	25,000	25,000	97.1%	2.9%	24,275	725
2010 Ford F450 w/Crane	70,000	70,000	97.1%	2.9%	67,970	2,030
2005 Dodge	30,000	30,000	97.1%	2.9%	29,130	870
2012 Ford 4x4	30,000	30,000	97.1%	2.9%	29,130	870
2010 Peterbilt 7 CY Dump Truck	100,000	100,000	97.1%	2.9%	97,100	2,900
2004 580 Super M Backhoe	65,000	65,000	97.1%	2.9%	63,115	1,885
Sewer Camera	175,000	175,000	97.1%	2.9%	169,925	5,075
Fleet Replacement Program	750,000	750,000	97.1%	2.9%	728,250	21,750
Sub-Total	\$ 14,243,771	\$ 14,243,771	97.1%	2.9%	\$ 13,830,702	\$ 413,069

1. Capital project costs were provided by HCSD Staff in source files: 20220518_22-23CIP_DRAFT.xlsx

2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

HUMBOLDT COMMUNITY SERVICES DISTRICT

Water Connection Fee Analysis

Water Planned Capital Facilities and Equipment for Consideration (System Development)

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Planned Capital Improvements	Current Cost Estimate (\$2022) ¹	System Development Cost Basis for Consideration ²	% Allocation		Existing Services	Future Services
			Existing Services (Weighted Avg.)	Future Services (Weighted Avg.)		
BUILDING, YARD & PAVING IMPROVEMENTS						
Office Building Exterior phase 1	\$ 42,500	\$ 42,500	97.1%	2.9%	\$ 41,268	\$ 1,233
Yard Paving Repairs	\$ 17,500	17,500	97.1%	2.9%	16,993	508
Vehicle Storage Upgrades	\$ 13,000	13,000	97.1%	2.9%	12,623	377
Office Building and breakroom Roof	\$ 30,000	30,000	97.1%	2.9%	29,130	870
Office ADA	\$ 32,500	32,500	97.1%	2.9%	31,558	943
Office Building Exterior phase 2	\$ 40,000	40,000	97.1%	2.9%	38,840	1,160
Small Truck Garage	\$ 50,000	50,000	97.1%	2.9%	48,550	1,450
Seal Coat Parking Lot	\$ 10,000	10,000	97.1%	2.9%	9,710	290
Drying Bed Cover	\$ 15,000	15,000	97.1%	2.9%	14,565	435
Future Yard Paving	\$ 100,000	100,000	97.1%	2.9%	97,100	2,900
Office and Yard Facility Upgrades	\$ -	-	97.1%	2.9%	-	-
Sub-Total	\$ 350,500	\$ 350,500	97.1%	2.9%	\$ 340,336	\$ 10,165
Total	\$ 35,515,928	\$ 35,515,928	97.0%	3.0%	\$ 34,443,721	\$ 1,072,207

1. Capital project costs were provided by HCSD Staff in source files: 20220518_22-23CIP_DRAFT.xlsx

2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.

HUMBOLDT COMMUNITY SERVICES DISTRICT
Water Connection Fee Analysis
Unit Cost Calculation

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 7 : DEVELOPMENT OF THE MAXIMUM BASE CAPACITY FEE

System Asset Values Allocated to Future Development	
<i>System Asset Values Allocated to New Development</i>	
Existing System Buy-In ²	\$ 392,688
Future System Expansion ³	1,072,207
Total: Existing & Future System Costs	\$ 1,464,895
<i>Adjustments to Cost Basis:</i>	
Cash Reserves	\$ 129,687
Outstanding Long-Term Debt (Principal) Allocated to Future Users	(15,190)
Total: Adjustments to Cost Basis	\$ 114,497
Total Adjusted Cost Basis for New Development	\$ 1,579,391

1. Refer to Exhibit 1 (Demographics) for growth projections.
2. Refer to Exhibits 2 and 3 for detail of existing assets.
3. Refer to Exhibit 5 for detail related to planned assets.
4. Equivalent Meters include 5/8-, 3/4- and 1-inch meters.

Summary of Costs Allocated to Connection Fees	Adjusted System Cost Basis	Planned Additional EDU's (thru 2032)	Maximum Connection Fee
Current Water Connection Fee Per 5/8-Inch Meter ¹			\$3,045
Maximum Water Connection Fee Per Equivalent Meter ²	\$ 1,579,391	259	\$6,098

% Increase

100%

1. Current Capacity Fees differentiate between 5/8-, 3/4- and 1-inch meters.
2. Equivalent Meters now include 5/8-, 3/4- and 1-inch meters for single-family only. All others are by meter size.

HUMBOLDT COMMUNITY SERVICES DISTRICT

Water Connection Fee Analysis

Water Fee Classification and Calculation of Maximum Fee

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

WATER CONNECTION FEES BASED ON METER SIZE:

Meter Size	Equivalency Factor		Maximum Unit Cost (\$/EDU)	Maximum Water Connection Fee Per Meter
	Maximum Continuous Flow (gpm) ¹	Equivalency to 5/8-inch Base Meter Size		
5/8 Inch	20	1.00	\$6,098	\$6,098
3/4 Inch	30	1.50	\$6,098	\$9,147
1 Inch	50	2.50	\$6,098	\$15,245
1 1/2 Inch	100	5.00	\$6,098	\$30,490
2 Inch	160	8.00	\$6,098	\$48,784
3 Inch	320	16.00	\$6,098	\$97,568
4 Inch	500	25.00	\$6,098	\$152,450
6 Inch	1,000	50.00	\$6,098	\$304,900

1. Source: AWWA M1, Table B-2.. Assumes displacement meters for 5/8" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters.

CURRENT VS. PROPOSED CONNECTION FEES

Meter Size	Current Connection Fees	Updated Maximum Connection Fee Per Meter Size ¹
Residential (5/8, 3/4, and 1-inch)	\$3,045	\$6,098
Non-Residential		
5/8 Inch	\$3,045	\$6,098
3/4 Inch	\$4,263	\$9,147
1 Inch	\$6,699	\$15,245
1 1/2 Inch	\$12,180	\$30,490
2 Inch	\$19,488	\$48,784
3 Inch	\$38,976	\$97,568
4 Inch	\$60,900	\$152,450
6 Inch	\$121,800	\$304,900

1. Source: AWWA M1, Table B-2.. Assumes displacement meters for 5/8" through 2", Compound Class I for 3" through 8", and Turbine Class II for 10" through 12" meters.

Section 13. **APPENDIX E – WASTEWATER CONNECTION FEE SUMMARY TABLES**



Water Connection Fee Analysis

Existing Capital Facilities and Equipment for Consideration (System Buy-In)

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 3 : SUMMARY OF EXISTING SEWER ASSETS

Asset Category	Original Values ¹		Book Value	Replacement Values (System Buy-in Cost Basis) ²	Allocation Basis (%) ⁴		Distribution of Cost Basis (\$)	
	Asset Cost	Depreciation to Date			Existing Services	Future Services	Existing Services	Future Services
Sewer Fund								
Autos And Trucks	\$ 3,018,856	\$ 1,936,933	\$ 1,081,923	\$ 910,276	97.1%	2.9%	\$ 883,878	\$ 26,398
Buildings	1,009,029	674,256	334,773	297,525	97.1%	2.9%	288,897	8,628
Communications Equipment	84,828	64,653	20,175	11,417	97.1%	2.9%	11,086	331
Computer Hardware	64,736	64,736	-	-	97.1%	2.9%	-	-
Computer Software	221,647	212,047	9,600	5,938	97.1%	2.9%	5,766	172
Land And Land Improvements	474,470	-	474,470	232,659	97.1%	2.9%	225,911	6,747
Land And Right Of Way - Water - Fw/Mr	1,300	-	1,300	598	97.1%	2.9%	581	17
Land And Right Of Way- Water - Original District	113,322	-	113,322	-	97.1%	2.9%	-	-
Land And Right Of Way-Sewer - Humboldt Hill	15,000	-	15,000	15,000	97.1%	2.9%	14,565	435
Land And Right Of Way-Water - Humboldt Hill	81,777	-	81,777	-	97.1%	2.9%	-	-
Machinery And Equipment	951,620	602,343	349,276	200,847	97.1%	2.9%	195,023	5,825
Office Equipment	10,258	10,258	-	-	97.1%	2.9%	-	-
Sewer Collection: Humboldt Hill	3,166,423	2,164,732	1,001,691	2,219,291	97.1%	2.9%	2,154,931	64,359
Sewer Collection: Original	25,376,228	12,331,233	13,044,995	18,998,289	97.1%	2.9%	18,447,339	550,950
Small Tools	6,273	6,273	-	-	97.1%	2.9%	-	-
Telemetry Equipment	367,056	342,895	24,161	12,765	97.1%	2.9%	12,395	370
Total Capital Facilities & Equipment	\$ 34,962,823	\$ 18,410,360	\$ 16,552,462	\$ 22,904,606	97.1%	2.9%	\$ 22,240,372	\$ 664,234

1. Source of original asset cost/depreciation is Asset Data and Acquired Date, from District staff, files: *Depreciation Schedule 6-30-2015.xls* and *Depreciation Schedule 6-30-2016.xls*.

2. Replication values are calculated by escalating the remaining original values (i.e., book values from District's fixed asset report) to 2022 values using inflation factors from the Handy-Whitman Index of Public Utility Construction Costs, for Water Utility Construction, Pacific Region.

3. Cost basis for consideration is calculated as replication value less accumulated depreciation.

4. Refer to Exhibit 1: proportionate allocation between existing and future users.

5. Assets have no remaining value, therefore allocation is 0% to existing and future users.

6. Assets are 100% allocated to Sewer, and therefore excluded from existing and future water users.

HUMBOLDT COMMUNITY SERVICES DISTRICT

Sewer Connection Fee Analysis

Allocation of Cash Reserves and Outstanding Debt to Existing and Future Services

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 4

TABLE 4 : ALLOCATION OF DEBT TO EXISTING AND FUTURE SEWER USERS

Bond Issue	% Allocation ¹		\$ - Allocation	
	Existing Users	Future Users	Existing Users	Future Users
2014 Wastewater Revenue Bonds, \$8,500,000	97.1%	2.9%	\$ 5,801,725	\$ 173,275
2012 Refinancing for Martin Slough Project, \$2,372,000	97.1%	2.9%	1,555,424	46,454
VacCon Installment Sale	97.1%	2.9%	533,162	15,923
Grand Total	97.1%	2.9%	\$ 7,890,311	\$ 235,653

1. Outstanding bond principal is allocated to existing and future services based on projected growth in the system.

See Demographics tab for detail.

TABLE 5 : ALLOCATION OF CASH RESERVES TO EXISTING AND FUTURE SEWER USERS

Sewer Cash Reserves	Beginning Cash ¹	% Allocation	\$ - Allocation	
		Future Users	Exclude from Analysis	Future Users
Operating Reserve Fund	\$ 2,159,148	2.9%	\$ -	\$ 62,615
Capital R&R Reserve Fund	\$ 217,222	2.9%	\$ -	\$ 6,299
Connection Fee Reserve Fund	\$ -	2.9%	\$ -	\$ -
Total Beginning Cash	\$ 2,376,369	2.9%	\$ -	\$ 68,915
Cash Net of Unspent Capacity Fees	\$ 2,376,369	2.9%	\$ -	\$ 68,915

1. The beginning cash balances are found in source file: *Cast Account Balances.xlsx*

HUMBOLDT COMMUNITY SERVICES DISTRICT
 Sewer Connection Fee Analysis
 Sewer Planned Capital Facilities and Equipment for Consideration (System Development)
Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 6 : PLANNED CAPITAL IMPROVEMENTS

Facility / Equipment	Current Cost Estimate (\$2022) ¹	% Allocation		Distribution of Cost Basis (\$)	
		Existing Services	Future Services	Existing Services	Future Services
SEWER FACILITIES	\$ 2,882,000	97.1%	2.9%	\$ 2,798,422	\$ 83,578
MAIN EXTENSION & REPLACEMENTS	38,681,043	97.1%	2.9%	37,559,292	1,121,750
VEHICLES / EQUIPMENT	1,245,000	97.1%	2.9%	1,208,895	36,105
BUILDING, YARD & PAVING IMPROVEMENTS	350,500	97.1%	2.9%	340,336	10,165
CITY OF EUREKA CIP CONTRIBUTIONS	24,915,652	97.1%	2.9%	24,193,098	722,554
Total	\$ 68,074,194	97.1%	2.9%	\$ 66,100,043	\$ 1,974,152

1. Capital project costs were provided by HCSD Staff in source files: 20220518_22-23CIP_DRAFT.xlsx
2. Project costs are allocated to existing and future services based on projected growth in the system. See Demographics tab for detail.
3. New Connections are allocated 100% to Future Services.

HUMBOLDT COMMUNITY SERVICES DISTRICT

Sewer Connection Fee Analysis

Unit Cost Calculation

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

EXHIBIT 6

TABLE 7 : DEVELOPMENT OF THE MAXIMUM CAPACITY FEE FOR A EQUIVALENT DWELLING UNIT (or EDU)

System Asset Values Allocated to Future Development	
<i>System Asset Values Allocated to New Development</i>	
Existing System Buy-In ²	\$ 664,234
Future System Expansion ³	1,974,152
Total: Existing & Future System Costs	\$ 2,638,385
<i>Adjustments to Cost Basis:</i>	
Cash Reserves	\$ 68,915
Outstanding Long-Term Debt (Principal) Allocated to Future Users	(235,653)
Total: Adjustments to Cost Basis	\$ (166,738)
Total Adjusted Cost Basis for New Development	\$ 2,471,647

1. Refer to Exhibit 1 (Demographics) for growth projections.

2. Refer to Exhibits 2 and 3 for detail of existing assets.

3. Refer to Exhibit 5 for detail related to planned assets.

Summary of Costs Allocated to Connection Fees	Adjusted System Cost Basis	Planned Additional EDU's (thru 2032)	Maximum Connection Fee	% Increase
Current Sewer Connection Fee Per EDU ¹			\$2,958	
Maximum Sewer Connection Per EDU	\$ 2,471,647	241	\$10,260	247%

1. EDU = Equivalent Dwelling Unit or typical single family residential customer.

Humboldt Community Services District

Dedicated to providing high quality, cost effective water and sewer service for our customers

AGENDA REPORT

For HCSD Board of Directors Regular Meeting of: March 28, 2023

AGENDA ITEM: G.2.

TITLE: Request for Appointment of Ad Hoc Committee to Assist with Negotiations with the City of Eureka

PRESENTED BY: Terrence Williams, General Manager

Recommendation:

Appoint an Ad Hoc Committee to assist with negotiations with the City of Eureka

Summary:

The District maintains longstanding agreements with the City of Eureka for wastewater treatment services and drinking water purchase. These agreements are scheduled to be renegotiated periodically. Both agreements are overdue for renegotiation and staff has been working with legal counsel toward that goal. Staff is currently requesting an Ad Hoc Committee be appointed to assist with this round of negotiations.

One of the things coming out of this round of negotiations is that the District and City have agreed to participate in bi-annual two-by-two meetings to discuss these agreements. These meetings will be attended by two District Board members and two City Council members as well as staff from both agencies. At the current time, the two-by-two meetings will be the direct vehicle for re-negotiation of the agreements. As such, this Ad Hoc committee will participate in the two-by-two meetings.

Fiscal Impact:

Based on averages from the past five fiscal years, the combined agreements cover about \$3M annual spending by the District to the City.