METRO TAC AGENDA
(Technical Advisory Committee to Metro JPA)

TO: Metro TAC Representatives and Metro Commissioners

DATE: Wednesday, March 17, 2021

TIME: 11:00 a.m. to 1:30 p.m.

LOCATION: The health and well-being of the MetroTAC members/alternates and participating staff during the COVID-19 outbreak remains our top priority. The MetroTAC is taking steps to ensure the safety of all involved by holding its September meeting electronically via Zoom.

An e-mail containing information on how to participate in the meeting will be distributed to the MetroTAC members e-mail list and approved San Diego City Staff by Monday, March 15, 2021 at 5:00 p.m. If you do not receive the e-mail, please contact Lori Peoples at lpeoples@ci.chula-vista.ca.us

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1. Review and Approve MetroTAC Action Minutes for the Meeting of February 17, 2021 (**Attachment**)
2. Metro Commission/JPA Board Meeting Recap (Standing Item)
3. **PRESENTATION:** City of San Diego Public Utilities Department FY 2022-2026 5-Year Financial Outlook (Adam Jones) (**Attachment**)
4. **PRESENTATION:** City of San Diego Storm Water Run Off (John Stufflebean/Doug Owen) (**Attachment forthcoming**)
5. **PRESENTATION:** Pure Water Local Limits (John Stufflebean) (**Attachment**)
6. **ACTION:** Consideration and Possible Action to Recommend to the Metro Comm/Metro Wastewater JPA Approval of the City of San Diego's Ranking of Options Presented in the Pure Water Phase II Planning Alternatives Refinement (Dexter Wilson/Scott Tulloch/John Stufflebean/Doug Owen) (**Attachment**)
7. **ACTION**: Consideration and Possible Action to Recommend to the Metro Comm/Metro Wastewater JPA Approval of the Metro Wastewater Joint Powers Authority Treasurer's Report for Eight Months Ending February 28, 2021 (Karen Jassoy) (**Attachment**)
8. **UPDATE:** Industrial Discharge Permit (Roberto Yano/Beth Gentry) (**Attachment**)
9. Metro Wastewater Update (Financial) (Standing Item) (Edgar Patino)
10. Metro Wastewater Update (General) (Standing Item) (Tom Rosales)
11. Metro Capital Improvement Program and Funding Sources (Standing Item) (Tung Phung)
12. Pure Water Program Update (Standing Item) (John Stufflebean)

13. Financial Update (Standing Item) (Karyn Keese)

14. **REPORT**: IRWMP Update (Standing Item) (Beth Gentry)

15. MetroTAC Work Plan (Standing Item) (Roberto Yano) (**Attachment**)

16. Review of Items to be Brought Forward to the Regular Metro Commission/Metro JPA Meeting (**April 1, 2021**)

17. Other Business of Metro TAC

18. Adjournment (To the next Regular Meeting April 21, 2021)

Metro TAC 2021 Meeting Schedule

January 18	May 19	September 15
February 17	June 16	October 20
March 17	July 21	November 17
April 21	August 18	December 15

ATTACHMENT 1

ACTION MINUTES FOR THE MEETING OF FEBRUARY 17, 2021

Metro TAC

(Technical Advisory Committee to Metro Commission/JPA)

ACTION MINUTES

DATE OF MEETING: February 17, 2021

TIME: 11:00 AM

LOCATION: Zoom Meeting held On Line

MEETING ATTENDANCE:

Roberto Yano, National City
Beth Gentry, Chula Vista
Frank Rivera, Chula Vista
Bill Valle, Chula Vista
Ed Walton, Coronado
Joe Bride, Del Mar
Yazmin Arellano, El Cajon
Dennis Davies, El Cajon
Blake Behringer, El Cajon
Eric Minicilli, Imperial Beach
Hamed Hashemian, La Mesa
Mike James, Lemon Grove
Carla Hutchinson, City of National City
Steven Beppler, Otay WD
Bob Kennedy, Otay WD
Allen Carlisle, Padre Dam MWD
Mark Niemiec, Padre Dam MWD
Karen Jassoy, Padre Dam MWD
Jessica Parks, Poway
Angela Martinez, Poway
Dan Brogadir, County of San Diego
Pee Jay Tubongbanua, County of San Diego

John Stufflebean, City of San Diego
Tom Rosales, City of San Diego
Christine Waters, City of San Diego
Joy Newman, City of San Diego
Edgar Patino, City of San Diego
Lisa Celaya, City of San Diego
Adam Jones, City of San Diego
Tung Phung, City of San Diego
Reyhameh Martin, City of San Diego
Charlette Strong Williams, City of San Diego
Surraya Rashad, City of San Diego
Claudio Fassardi, Jacobs
Paulo Silva, Jacobs
Mark Elliot, Jacobs
Paul Fish, Jacobs
Milind Desai, Jacobs
Dean Gipson, HDR
Mark Seits, HDR, Inc

Doug Owen, Stantec

Pete Wong, Public

Nicholaus Norvell, BBK Assistant General Counsel
Dexter Wilson, Wilson Engineering
Carmen Kasner, NV5
Scott Tulloch, NV5
Karyn Keese, the Keze Group
Lori Anne Peoples, MetroTAC

1. Review and Approve MetroTAC Action Minutes for the Meeting of January 20, 2021

ACTION: Motion by Eric Minicilli, seconded by Beth Gentry, the Minutes be approved. Motion carried unanimously.

2. Metro Commission/JPA Board Meeting Recap

MetroTAC Chair Roberto Yano stated there had not been a meeting and therefore he had

no report.

3. PRESENTATION: Industrial Discharge Permit

Tom Rosales, City of San Diego introduced Lisa Celaya, who would be providing a PowerPoint presentation (copy attached to the agenda).

Beth Gentry, City of Chula Vista MetroTAC Chair of the Industrial Discharge Permit Committee stated that quite a few topics had come up at the last meeting on January 26th but the meeting was San Diego staff only. The committee met again on February 2nd to discuss the letter that was sent by San Diego to all permit holders which all TAC members received as well. They spoke regarding the schedule presented. Information was received yesterday from the City of San Diego on costs and Beth laid out how they were tackling this subject the last few months including the thought process. The presentation has not yet gone to the San Diego Environmental Committee and will likely go in March.

Lisa Celaya provided the PowerPoint presentation.

Beth Gentry questioned the schedule and requested coordination with the Participating Agencies and Stakeholders. She also inquired as to the requirements for noticing, cost recovery and phasing in as all fees translate into costs for her city (Chula Vista) and their City Council outreach plays into this. Lisa stated San Diego wants to get something in place with those considerations and concerns.

Beth inquired as to whether the year long period was going into effect once the San Diego Council approved this as the ratepayers need to voice their questions and concerns prior to this going into effect. Joy Newman, City of San Diego stated they sent letters directly to the permit holders and would be happy to present to the participating agency city councils and boards as well as rate holders. Beth stated she was familiar with Prop 218 but wanted a legal review on how to translate and relay to the ratepayers as they have questions on how the fees are allocated and the procedure being used. Lisa stated that a legal analysis would only be for the City of San Diego and not others.

Beth requested all TAC members submit questions and details being looked for so that a letter can be composed and sent to San Diego for comment.

Karyn Keese inquired as to if this was going to the IROC. Lisa stated she had presented to them and they had similar concerns with impacts on businesses, especially the small ones and questions as to keeping the charges on the sewer bill as they don't want this to appear as it is being subsidized. She also made the same presentation to the City of San Diego Chamber of Commerce and the IEA who also had the same concerns. They were all very supportive of a phased in approach.

Karyn Keese clarified that they can't change the Amended Restated Agreement.

Robert Kennedy, Otay Water District inquired as to why the program costs weren't being picked up by the City of San Diego Water Department. Joy Newman responded that the total cost of the program is included in this amount, as is the added cost of the laboratory that does the analysis. She also noted there had been an increase in staffing to handle inspections of a year ago.

Robert Kennedy noted that anytime there is an increase in rates, you have more illegal dumping and asked what the plan of San Diego is when that happens. Joy Newman stated they have a violation enforcement group and internal sampling group who would be catching this and enforcing it. Robert noted that they will find manholes behind businesses coming through not caught through normal processes as Otay has had this happen.

Mike James of Lemon Grove thanked San Diego staff for their update and presentation. He noted he had sent a letter to Tom Rosales with technical questions and will forward it to Lori for Roberto. He also inquired as to why a third party vendor had not been brought in to get a better cost rather than hiring additional staff. Lisa stated they would have had to go through the Unions as it is an "existing service", however, they will explore this. Mike then noted the last slide bullet and expressed concerns with Prop 218 and sewer rate payers being charged. He felt they should not be charged to single family residents if full cost recovery is being paid only by the City of San Diego ratepayers. Lisa stated that they start wit the total program costs then reduce them. Mike noted that in a one year period of looking for feedback they have four categories, it would be nice to run an analysis or run a hybrid model. He also requested the City of San Diego legal opinion be shared with the PAs. Lisa stated she would look into this further and share if possible. Mike suggested an incremental increase over five years tacking on CPI not to exceed. Lisa noted that the process to re evaluate per San Diego City Council policy is every three years.

Hamed Hashemian of La Mesa asked in parallel with discussions on rate increases, was anything on docket regarding the PAs and direct billings, legal authority or jurisdictional boundaries. Lisa stated the process is in negotiation to update agreements and change to direct billings from the City of San Diego.

Tom Rosales noted that they were still working on the schedule.

Dennis Davies of El Cajon inquired specifically as to truck waste as the City of El Cajon has had a septic discharge program that they have always coordinated the City of San Diego Program Manager. Joy Newman stated this would be anything going to Pump Station 1. Tom Rosales added that Pump Station 1 would be porta-potties. Dennis stated that his city has allowed septic discharge for 20 years so trying to figure out if El Cajon needs to do something different. Will the increase apply to them as well or not? They mirror the City of San Diego documents. Joy Newman stated she needed to have a direct discussion with Dennis. Dennis stated he had concerns similar to Robert Kennedy that they will find manholes to dump in and look for shortcuts to avoid additional costs.

MetroTAC Chair Yano requested any questions be sent to Lori by Monday February 22nd to be included in a letter to Tom Rosales on February 23rd. Additionally he stated he wanted to take this to the JPA meeting in March.

4. <u>PRESENTATION</u>: Pt. Loma Wastewater Treatment Plant – Identification and Analysis of Mitigation Measures

Tom Rosales, City of San Diego provided a brief background of this item. One year ago the City contracted with HDR to assess the Pt. Loma Wastewater Treatment Plant, mechanical, electrical and also look at the coastal erosion and evaluate it.

Claudio Fassardi of Jacobs provided a PowerPoint presentation (copy attached to the agenda). Other team members also provided comments and additional information.

Scott Tulloch of NV5 stated he recalled prior discussions regarding realignment on the south side of the road to the Pt. Loma WTP would be at the National Monument property and they were absolutely against it as it would impact their native plant species and to expect resistance.

Tom Rosales stated they had approached the National Park and Navy and provided each with a presentation. Unfortunately their stance had not changed. Realignment and rip rap are of no interest so the City is setting up long term plans and will begin re engaging in the near future and expect things to be subject to a lot of negotiation.

Scott stated that with two Federal agencies not wanting to do anything, this may push the City towards building a bridge as less impact.

MetroTAC Chair Yano stated he would like to take this to the JPA in April. Tom Rosales stated he would keep the group updated as to their work with the Navy and National Monument people. Scott Tulloch suggested getting Congressional representatives involved when closer.

5. Metro Wastewater Update (Financial)

Edgar Paterno City of San Diego Introduced Adam Jones who began last week as the new Deputy Director of Finance for the Public Utilities Department. Adam provided a brief background of his experienced noting that he came from the City of San Diego Central Finance Office.

6. Metro Wastewater Update (General)

Tom Rosales, City of San Diego reported that the operations wastewater collection system of the State will be reissuing the 20006 permit for sanitary sewer overflows seeing the number of sewer spills in California dropped considerable but the volume of sewage entering the water is increasing. Workshops will be held in March and he will forward the information to TAC.

He noted that they have gone through their budget process and added additional people to the pump station, basically a small team dedicated to maintain versus pulling from other positions.

7. Metro Capital Improvement Program and Funding Sources

Tung Phung, City of San Diego provided his reports (included with the agenda) and was thanked for the very informative spread sheets. There were no questions.

8. Pure Water Program Update

John Stufflebean, City of San Diego reported that the construction project bids for Phase I look good and construction will start next month. They will hold a meeting on the progress and regulatory items on Phase II.

9. PRESENTATION: Pure Water Phase II Update

Doug Owen of Stantec stated the Pure Water Phase II costs that were heard at the last TAC meeting were being brought back for questions. The PowerPoint presentation (included in the agenda package) was viewed. Doug noted there was no new information at this time. No questions were provided. MetroTAC Chair Yano stated they were planning to present this at the March JPA meeting.

Scott Tulloch of NV5 stated that the next presentation is going to be a combination of both presentations to the JPA in March and encouraged the TAC representatives to meet and brief their JPA reps prior to the March meeting.

Dexter Wilson of Wilson Engineering stated that they are working to break down the share of water and wastewater.

10. PRESENTATION: Pure Water Phase I Alternatives Refinement

Scott Tulloch of NV5 stated that the prior presentation had so much detail; they felt there would be questions so brought this presentation back for a second time. If this presentation has no questions, they will not bring it back a second time.

Doug Owen of Stantec provided an overview of the PowerPoint presentation and the "Qualitative Matrix" (copy attached to the agenda).

Scott noted that many thought there would be a reduction at Pt. Loma if they chose the Harbor Drive alternative. Also, they thought if they looked at the costs first then review any qualitative items, that for a little more you could get a better project but they are the same. They are interested to know if TAC feels there is a need to come back with this repost or if they are ready to combine the two and present to the JPA.

Steve Beppler of Otay WD asked if the 10 categories had the same weight and if so how as some should be higher. He also noted the breakdown between the water and wastewater was very important.

MetroTAC Chair Yano requested as the members think of questions, they write them down and send them via Lori and then they can lay out the criteria a bit more.

Mark Niemiec of Padre Dam MWD asked how the criteria were developed, discussion or weights. He stated that a better reliability might be without the East County project.

Karyn Keese of the Keze Group stated that regarding costs, they are assuming no cost split from water/wastewater. It will be possibly less once they get the detail from San Diego.

Doug Owen stated that the number represents the alternatives as implemented without water vs. wastewater split.

Dexter Wilson again stated they are trying to break them out and will bring the information back once they are closer.

MetroTAC Chair Yano requested Doug Owen clarify this during the presentation to the JPA and the estimated time it will take to get to that split.

11. Financial Update:

a. City of San Diego Public Utilities' Department FY 2022-2028

Karyn Keese of the Keze Group stated she had included a City of San Diego PUD report of November 2020-2028 on the agenda. This report is usually presented by the City to the TAC but due to staffing changes it slipped through. A lot of questions are on projections and the last page has a table which is tracking with what we are seeing. San Diego staff will give a presentation next month as well as a definitive presentation on their financing plan.

With regards to her work on the audit, she is down to the last issue in FY19 and is hoping to get it resolved this week. She is also getting ready to start the JPA Budget process and is putting together a schedule for that.

12. REPORT: IRWM - Industrial Wastewater Control Committee Update

Beth Gentry, City of Chula Vista stated that they had met on February 3 and voted on new committee seats.

12. MetroTAC Work Plan

Roberto Yano, TAC Chair stated that the work plan was attached to the agenda.

13. Review of Items to be Brought Forward to the Regular Metro Commission/Metro Wastewater JPA Meeting February 4, 2021

Roberto Yano, TAC Chair stated the Industrial Wastewater discharge issue and Phase II Quantitative and Qualitative presentation will be brought forward to the March JPA meeting.

14. Other Business of MetroTAC

MetroTAC Chair Yano thanked Eric Minicilli City of Imperial Beach, for accepting to lead the Budget Review process again this year.

18. Adjournment to the Next Regular Meeting February 17, 2021

There being no further business, MetroTAC Chair Roberto Yano adjourned the meeting at 1:09 p.m.

ATTACHMENT 3

PRESENTATION

CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT

FY 2022-2028

5-YEAR FINANCIAL OUTLOOK

The City of SAN DIEGO

PUBLIC UTILITIES DEPARTMENT
FISCAL YEAR 2022-2026
FIVE-YEAR FINANCIAL OUTLOOK

Shauna Lorance
Director

Juan Guerreiro
Interim Executive Assistant Director

Lisa Celaya
Assistant Director

Charles Modica
Deputy Director

NOVEMBER 2020

Disclaimer:
The PUD Five-Year Financial Outlook is intended for use by the City Council and the citizens of the City and is not intended as information to reach investors and the trading markets. The City files its disclosure documents, including official statements, audited financial statements, comprehensive annual financial reports, annual financial information, material event notices, and voluntary disclosures with the Municipal Securities Rule Making Board's Electronic Municipal Market Access ("EMMA") system. The PUD Five-Year Financial Outlook is not filed on EMMA and investors should not rely upon the PUD Five-Year Financial Outlook to make any investment decisions. Readers are cautioned that the numbers presented in this document are the City's best estimate for the next five years based on facts and factors currently known to the City and do not represent actual performance. Estimates and related forward-looking statements involve, and are subject to known and unknown risks, uncertainties and other factors which could cause the City's actual results, performance (financial or operating) or achievements to differ materially from the future results, performance (financial or operating) or achievements expressed or implied by such forward-looking statements. All estimates and forward-looking statements herein are expressly qualified in their entirety by the abovementioned cautionary statement. The City disclaims any obligation to update forward-looking statements contained in this document.

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MISSION STATEMENT

To provide reliable water utility services that protect the health of our communities and the environment

VISION STATEMENT

A world-class water utility for a world-class city

EXECUTIVE SUMMARY

The Public Utilities Department (PUD or Department) Fiscal Year 2022-2026 Five-Year Financial Outlook (PUD Outlook or Outlook) is provided to guide long-range planning and serve as the framework for the development of the Fiscal Year (FY) 2022 Proposed Budget for the Water and Sewer Funds. The purpose of this report is to provide an overview of the Public Utilities Department's long-range needs and to guide programmatic decisions.

The PUD Outlook focuses on the overall fiscal condition of the Water and Wastewater Systems, and assesses impacts to system revenues and expenditures from regional water and wastewater demands. It also explores a funding strategy to finance major capital investments in Water and Wastewater System infrastructure and the Pure Water Program construction. The PUD Outlook quantifies new costs that are critical to accomplishing PUD's strategic goals over the next five-year period. These goals include:

Goal 1: Water Supply/Environmental Stewardship

- Water supply and conservation
- Carbon footprint and energy management

Goal 2: Organization Excellence

- Rate structure optimization
- Safety
- Training and development
- Culture of Accountability

Goal 3: Community Engagement

- Stakeholder understanding and support
- Customer service strategies

Goal 4: Infrastructure Management

- Asset management
- Infrastructure investment

The PUD Outlook is not a budget, and projected revenues and expenditures in any given year of the PUD Outlook may not correspond exactly to those in future Proposed Budgets. Nevertheless, the PUD Outlook can serve as a planning tool to assist in budget decisions and the allocation of resources to meet PUD's strategic goals that are critical to providing the community with a high quality and reliable water supply. The PUD Outlook also provides the City Council, key stakeholders, and the public with information in advance of the budget meetings to facilitate an informed discussion during the development of the FY 2022 Budget.

As enterprise funds, the Water and Wastewater Funds differ from the General Fund in that their services are supported with revenue derived from rates. These rates are determined through a process prescribed by state law, which requires a cost of service analysis and Council approval of any rate adjustments at a public hearing. The period covered by the PUD Outlook overlaps with the periods that are anticipated to be covered by the Department's future cost of service studies. The PUD Outlook identifies the overall system needs, whereas the Cost of Service analysis allocates those needs to establish applicable rate recovery by the different user classes.

SUMMARY OF KEY FINANCIAL DATA

This section presents a summary of the PUD Outlook, and the overall financial condition of the Water and Wastewater Systems. Tables 1.1 and 1.3 summarize revenues projected to support operations, Capital Improvement Program (CIP) related expenditures, and key financial metrics for the Water and Wastewater Systems, respectively. Further detail on CIP expenses and sources of funds for those expenses is also provided.

Additional detail on each line-item in these summaries can be found in the corresponding sections of this report. Baseline operating expenditures are those expenditures that are sufficient to allow PUD to continue providing its existing level of service without expanding any operational programs. Critical operating expenditures are those associated with expanded operations for PUD; a significant portion of these critical operating expenditures are associated with Phase 1 of the Pure Water Program coming online. CIP expenditure projections are also detailed in Tables 1.2 and 1.4 and are split into Pure Water CIP expenditures, which are associated with the City's Pure Water Program, and Baseline CIP expenditures, which consist of capital expenditures on all non-Pure Water related capital improvements. Revenue projections include revenue that will be required to appropriately cover operating expenses, CIP expenses, and to meet financial metrics necessary to operate the systems.

Water and Wastewater Systems

Overall, the PUD Outlook for both the Water and Wastewater Systems forecasts baseline operating expenditures to grow modestly over the next five years, but increases in critical operating expenditures are expected as PUD begins operations and maintenance of Phase 1 of the Pure Water Program. Conversely, CIP expenditures peak in FY 2022 and then gradually decrease through FY 2026, as construction of Phase 1 of the Pure Water Program nears completion.

For the Water System, water purchase expenses in FY 2025 and FY 2026 are projected to decline due to the additional local supply of water produced from Phase 1 of Pure Water coming online.

Revenues for both the Water and Wastewater Systems are projected to increase moderately over the next five years, primarily due to increased rates in order to support the operations as forecasted in FYs 2022 through 2026. The PUD Outlook also anticipates the transfer of funds to and from the Rate Stabilization Fund for each system to mitigate potential fluctuations in rates in FYs 2022 through 2026.

PUD continues to project the use of financing to fund the CIP, including the Pure Water Program, as illustrated in Tables 1.2 and 1.4.

Table 1.1 - Water System Fiscal Year 2022-2026 Financial Outlook Summary of Operating & Maintenance Key Financial Data ($ in Millions)					
	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025	Fiscal Year 2026
Water Sales	$594.8	$623.2	$652.3	$689.0	$725.6
Capacity Charges	$14.4	$14.4	$14.4	$14.4	$14.4
Revenue from Use of Property	$6.1	$6.1	$6.1	$6.1	$6.1
Other Revenue	$24.1	$20.5	$21.1	$22.8	$23.7
TOTAL SYSTEM REVENUES	**$639.4**	**$664.2**	**$693.9**	**$732.3**	**$769.9**
Salaries & Wages	$45.9	$45.9	$45.9	$45.9	$45.9
Fringe Benefits	$35.0	$35.0	$35.0	$35.0	$35.0
Water Purchases	$271.6	$285.5	$300.1	$292.9	$284.5
Other Non-Personnel Expenditures	$122.8	$125.5	$127.9	$130.3	$132.8
BASELINE OPERATING EXPENDITURES	**$475.3**	**$491.9**	**$508.8**	**$504.1**	**$498.2**
CRITICAL OPERATING EXPENDITURES	**$13.7**	**$17.9**	**$17.5**	**$23.7**	**$37.7**
Contribution to Capital Improvement Program	$105.8	$29.1	$23.0	$20.5	$15.8
Debt Service	$112.3	$112.6	$118.5	$145.3	$149.6
(Use of) / Contributions to Reserves	($14.0)	($13.0)	($8.8)	($8.3)	$8.2
NON-OPERATING EXPENDITURES	**$204.0**	**$128.7**	**$132.7**	**$157.5**	**$173.6**
TOTAL EXPENDITURES	**$693.0**	**$638.6**	**$659.0**	**$685.4**	**$709.5**
Impact to Unallocated Fund Balance	**($53.6)**	**$25.6**	**$34.9**	**$46.9**	**$60.4**
Debt Service Coverage Ratio	**1.48 x**	**1.51 x**	**1.51 x**	**1.48 x**	**1.54 x**

Table 1.2 - Water System Fiscal Year 2022-2026 Financial Outlook Summary of Capital Improvement Program Key Financial Data ($ in Millions)					
	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025	Fiscal Year 2026
Baseline CIP	$303.3	$204.6	$176.1	$119.5	$127.2
Pure Water CIP	$193.1	$225.7	$174.2	$96.1	$23.9
TOTAL CIP EXPENDITURES	**$496.4**	**$430.3**	**$350.4**	**$215.6**	**$151.1**
SOURCES OF FUNDS					
Commercial Paper / Revenue Bonds	$129.1	$95.0	$95.0	$156.0	$105.0
State Revolving Fund Loans	$68.0	$91.1	$69.8	$39.0	$30.3
WIFIA Loan	$191.3	$215.1	$162.6	$0.0	$0.0
Grants	$2.2	$0.0	$0.0	$0.0	$0.0
Capacity Fees / Cash	$105.8	$29.1	$23.0	$20.5	$15.8
FINANCING SOURCES	**$496.4**	**$430.3**	**$350.4**	**$215.6**	**$151.1**

Table 1.3 - Wastewater System Fiscal Year 2022-2026 Financial Outlook Summary of Operating & Maintenance Key Financial Data ($ in Millions)	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025	Fiscal Year 2026
Sewer Service Charges	$302.9	$315.8	$329.2	$339.9	$351.0
Capacity Charges	$17.5	$17.5	$17.5	$17.5	$17.5
Grants	$0.3	$0.0	$0.0	$0.0	$0.0
Other Revenue	$100.1	$99.9	$99.8	$105.1	$105.3
TOTAL SYSTEM REVENUES	**$420.8**	**$433.2**	**$446.5**	**$462.5**	**$473.8**
Salaries & Wages	$58.1	$58.1	$58.1	$58.1	$58.1
Fringe Benefits	$41.7	$41.7	$41.7	$41.7	$41.7
Other Non-Personnel Expenditures	$162.7	$166.0	$169.1	$172.3	$175.6
BASELINE EXPENDITURES	**$262.5**	**$265.8**	**$268.9**	**$272.1**	**$275.4**
CRITICAL OPERATING EXPENDITURES	**$12.2**	**$14.2**	**$13.9**	**$15.0**	**$23.8**
Contributions to Capital Improvement Program	$2.4	$77.1	$55.1	$75.6	$65.8
Debt Service	$109.3	$118.1	$103.4	$105.5	$111.0
(Use of) / Contributions to Reserves	($15.6)	($21.5)	$5.5	$8.3	$2.3
NON-OPERATING EXPENDITURES	**$96.2**	**$173.8**	**$164.0**	**$189.4**	**$179.1**
TOTAL EXPENDITURES	**$370.8**	**$453.8**	**$446.8**	**$476.5**	**$478.2**
Impact to Unallocated Fund Balance	**$49.9**	**($20.6)**	**($0.3)**	**($14.0)**	**($4.4)**
Debt Service Coverage Ratio	**1.48 x**	**1.48 x**	**1.53 x**	**1.59 x**	**1.55 x**

Table 1.4 - Wastewater System Fiscal Year 2022-2026 Financial Outlook Summary of Capital Improvement Program Key Financial Data ($ in Millions)	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025	Fiscal Year 2026
Baseline CIP	$197.6	$148.2	$166.7	$143.1	$123.1
Pure Water CIP	$157.4	$189.0	$109.2	$43.4	$10.1
TOTAL CIP EXPENDITURES	**$355.1**	**$337.1**	**$275.9**	**$186.5**	**$133.2**
SOURCES OF FUNDS					
Revenue Bonds	$150.0	$80.0	$60.0	$0.0	$0.0
State Revolving Fund Loans	$202.3	$180.0	$160.8	$110.9	$67.5
Grants	$0.3	$0.0	$0.0	$0.0	$0.0
Capacity Fees / Cash	$2.4	$77.1	$55.1	$75.6	$65.8
FINANCING SOURCES	**$355.1**	**$337.1**	**$275.9**	**$186.5**	**$133.2**

REPORT OUTLINE

The PUD Outlook is organized into two main sections: Water System and Wastewater System. The Water System is comprised of the Water Utility Fund and the Wastewater System is comprised of the Metropolitan and Municipal Sewer Funds, collectively known as the "Sewer Revenue Funds".

Similar to the Five-Year Financial Outlook for the General Fund, the PUD Outlook provides a brief overview of the Water and Wastewater Systems and the impacts of the Pure Water Program, as well as a discussion of projected operating and capital expenditures, projected revenues, and potential rate adjustments. However, the PUD Outlook is presented in a different order – expenditures are discussed first, followed by a discussion of revenue. This is due to the nature of rate forecasts, which are driven by the need to support operations and to achieve key financial metrics.

The Water System and Wastewater System sections of the PUD Outlook include additional details on the projections for the next five years of ongoing revenues and expenditures that were displayed in Table 1.1 – Water System Fund Fiscal Year 2022-2026 Financial Outlook, and Table 1.3 – Wastewater System Fiscal Year 2022-2026 Financial Outlook, respectively. Each section begins with a discussion of operating expenditures. 'Baseline' projections for operating expenditures represent those necessary to support current service levels provided by PUD. Expenditure projections for FY 2021 serve as the starting point for non-personnel baseline expenditures unless otherwise noted; personnel expenditure projections use the FY 2021 Adopted Budget as the starting point. As noted earlier, the PUD Outlook projections in any given year may not correspond exactly to the revenues and expenditures in future Proposed Budgets.

Critical operating expenditures are largely associated with implementing the Pure Water Program, but also include expenditures that have been preliminarily identified as necessary in meeting core water and wastewater service levels and PUD's strategic goals.[1] They are discussed within each expenditure category. In some cases, expenditures are allocated in both water and wastewater funds. For instance, the Pure Water Program is displayed in both water and wastewater sections as both systems benefit. All expenditures discussed in this report will be further refined during the budget development process for each respective fiscal year.

Projections for CIP expenditures and funding sources are also provided, with Pure Water CIP expenses and funding sources broken out from the Department's Baseline capital program which covers pumps, treatment plants, pipelines, and reservoirs, among other capital expenses.

Finally, each section includes revenue projections and a discussion of the projected water and sewer rates that are assumed in those revenue projections. Rates adjustments are determined through a process prescribed by state law, and will require a cost of service analysis and Council approval at a public hearing.

[1] Note – this presentation differs from PUD's financial disclosure documents. Critical operating expenditures in the PUD Outlook are broken out from Baseline Operating Expenditures to show programmatic additions to Department operations. Disclosure documents do not show these expenditures separately.

OVERVIEW OF THE WATER AND WASTEWATER SYSTEMS

The City of San Diego is a major metropolis and is ranked the eighth largest city by population in the United States and the second largest city in California. The City's total population is over 1.4 million. The City's climate is semiarid with cycles of multi-year droughts. Average rainfall does not provide adequate local water supplies for the City and is supplemented with water imported from outside the region.

The City's Water and Wastewater Systems are maintained and operated by the City's Public Utilities Department. The City provides water to the City of San Diego as well as to the cities of Del Mar, Coronado and Imperial Beach, primarily from two water sources: (1) local supplies, which provide on average 10 - 15% of water needs, and (2) the San Diego County Water Authority (CWA), which provides 85 - 90% of water needs. The City's Water System extends over 404 square miles, with average (FY15 – FY19) potable water deliveries of approximately 180,000 acre-feet (AF) per year vs. nearly 200,000 AF per year from the previous five-year period of FY10 – FY14. PUD's extensive raw water system includes nine reservoirs, which capture local runoff from rainfall and store purchased imported water that is sent to the City's three water treatment plants for treatment and distribution. Based on statistics provided by the San Diego Association of Governments (SANDAG), the City's population is projected to increase approximately 22% over the next 20 years. While PUD expects water conservation efforts to continue, it also expects the demand for potable water will increase consistent with population growth, depending on the variables of future weather and water conservation efforts.

The City's Wastewater System owns and operates wastewater treatment plants that serve the City as well as other agencies of other cities and districts outside San Diego City boundaries (Participating Agencies). The Wastewater System serves over 2.2 million customers by providing wastewater collection, treatment, and disposal services. The Wastewater System processes an average of approximately 150 million gallons of sewage daily via a vast network of facilities which include an extensive collection system, regional wastewater treatment plants, cogeneration plants, and a biosolids processing center. The Wastewater System is comprised of two sub-systems, the Municipal ("Muni") Sub-System and the Metropolitan ("Metro") Sub-System. The Muni Sub-System is a municipal sewage collection system for the City's residents and consists of all elements required for the collection and conveyance of wastewater generated by the service area, which currently consists of more than 275,000 accounts. The Metro Sub-System is a regional sewage treatment and disposal system that serves the City and twelve other Participating Agencies near the City. The Wastewater System covers approximately 450 square miles, including most of the City, and stretches from Del Mar and Poway to the north, Alpine and Lakeside to the east, and San Ysidro to the south. The communities and agencies served by the Wastewater System form the third largest metropolitan area in the State, surpassed only by the Los Angeles and San Francisco metropolitan areas. The Point Loma Wastewater Treatment Plant serves as a regional treatment facility handling sanitary waste from both Muni Sub System and Metro Sub System customers. Additionally, the Wastewater System operates and maintains two water reclamation plants (North City and South Bay), and a solids management facility (Metropolitan Biosolids Center).

Regional Water Supply

In any given year, the City will use local water supplies to meet 10 - 15% of demand and relies on imported water from the CWA to meet the other 85 - 90% of demand. The CWA is a wholesale water agency that provided approximately 354,000 AF of imported and desalinated water to its member agencies in Fiscal Year 2020, including 142,000 AF supplied to PUD. CWA currently acquires the majority of its water from three main sources: conserved water from the Imperial Irrigation District, water from the Metropolitan Water District (MWD), and desalinated water. MWD obtains its water from the Colorado River through the United States Bureau of Reclamation, and from northern California via the State Water Project through the California Department of Water Resources (DWR). MWD is one of 29 public water agencies that have long-term contracts for water service from DWR, and it is the largest agency in terms of the number of people it serves (approximately 19 million). The CWA is MWD's largest customer, responsible on average for 18% of MWD's annual revenues. Both CWA and MWD are developing storage and additional supplies, such as water transfers, to augment their imported water.

PUD also maintains a recycled water system that supplies a portion of the San Diego region. That system is supplied by two water reclamation plants – the North City Water Reclamation Plant (NCWRP) and South Bay Water Reclamation Plant (SBWRP). The City supplies recycled water to retail customers and to three wholesale customers: the City of Poway, the Olivenhain Municipal Water District, and the Otay Water District. Recycled water usage is seasonal and is primarily used for irrigation. Customers also use the water for dust suppression or soil compaction at construction sites, in cooling towers, ornamental fountains, and for office building toilet and urinal flushing (dual plumbing).

Participating Agencies

Pursuant to the Regional Wastewater Disposal Agreement, the Metro Sub-System provides "wholesale" treatment and disposal services, including some sewage transportation, to the cities of Chula Vista, Coronado, Del Mar, El Cajon, Imperial Beach, La Mesa, National City and Poway, the Lemon Grove Sanitation District, the Otay Water District, the Padre Dam Municipal Water District, and the County of San Diego (on behalf of Winter Gardens Sewer Maintenance District and the Alpine Lakeside and Spring Valley Sanitation Districts). These cities and districts are collectively referred to as the "Participating Agencies".

The Regional Wastewater Disposal Agreement requires the Participating Agencies to pay their respective share of planning, design, and construction of Metro Sub-System facilities, as well as costs related to the operation and maintenance of the Metro Sub-System. Since Fiscal Year 2011, these aggregate costs have consistently constituted approximately 33% of the total Metropolitan Sub-System costs. Between Fiscal Years 2016 and 2020, the Department received, on average, approximately $75 million in system revenues per fiscal year from the Participating Agencies.

Pure Water Program

Background

The Pure Water Program will provide a safe, secure, and sustainable local drinking water supply for San Diego. Advanced water purification technology will be used to produce potable water from recycled water. The City and its regional partners face significant issues with water supply and wastewater treatment. The region's reliance on imported water causes the water supply to be vulnerable to shortages and susceptible to price increases beyond the control of City.

The Pure Water Program is a 20-year (2015-2035) multi-phased water and wastewater capital improvement program that is expected, upon full implementation by the end of calendar year 2035, to create 83 million gallons per day (mgd) of locally controlled water, which will provide one-third of the City's total potable water needs. The Pure Water Program will divert treated water from the Point Loma Wastewater Treatment Plant's (PLWTP) ocean outfall and recycle a valuable and limited resource that is currently discharged to the ocean. Phase 1 of the program is expected to be online by March 2025. There is a staged ramp-up in flow and the production is expected to be 30 mgd by the end of Calendar Year (CY) 2025. This will allow the City to reduce the amount of water purchased in FY 2025 and beyond.

In 2010, the City received a renewal of the Modified Permit for the PLWTP and agreed to identify opportunities to maximize recycling wastewater for potable and non-potable uses. That permit expired in July 2015 and was administratively continued while the regulatory agencies completed work on the renewal application. In 2017 the Environmental Protection Agency (EPA), in conjunction with the California Regional Water Quality Control Board (RWQCB), renewed the Modified Permit (5th Renewal) and a waiver from secondary treatment standards for another five years. The permit took effect October 1, 2017 and expires on September 30, 2022. The 5th Renewal was based on compliance with Clean Water Act requirements, progress of the Pure Water Program, and a reduction in permitted emissions from the previous permit level. The Pure Water Program is designed to reduce discharge into the ocean from PLWTP while providing a new local source of potable water for the City. It is anticipated that continuation of the Pure Water Program will be reflected in future permits, which will eliminate the need for the City to make over $1.8 billion in upgrades to the PLWTP that would otherwise be necessary.

Phase 1 of the Pure Water Program is estimated to cost approximately $1.39 billion. The Water and Wastewater Funds will share in these expenditures according to a cost allocation based on completed design and engineering studies. Based on the cost allocation between the Water and Wastewater Systems, approximately $814 million (58%) is allocated to the Water Utility Fund and approximately $581 million (42%) is allocated to the Sewer Revenue Fund.

Update

Phase 1 of the Pure Water Program includes the construction of the North City Pure Water Facility and the expansion of the existing North City Water Reclamation Plant. In November 2018 the City Council authorized PUD to begin advertising for construction. After initial advertisement of Pure Water

projects, however, the Association of General Contractors (AGC) initiated litigation against the City, alleging that joint apprenticeship language in three of the construction contracts violated the City's Proposition A requirements, and the Court issued an injunction that prohibited proceeding with construction while the litigation was resolved. The State subsequently passed legislation requiring project labor agreements for Pure Water projects that receive State Revolving Fund Loan financing, and on November 5, 2019, the City Council approved removing joint apprenticeship language from all Pure Water contracts. The City successfully negotiated project labor agreements for Pure Water with applicable labor and construction groups.

Consequently construction of Phase 1 of the Pure Water Program experienced a delay of approximately 18 months from the initial authorization for bids. Bidding on Phase 1 projects has resumed; bids on the North City Pure Water Facility and Morena Northern Alignment projects have been received, and bids on the remaining Phase 1 projects are anticipated over the next several months. Given the updated timing of the bids it is anticipated that construction on Pure Water projects will now begin in the first half of calendar year 2021, and that Phase 1 will be complete and fully operational in 2025.

Cost of Service Analysis

Pursuant to State law, PUD uses a cost of service process to determine how to set its rates to ensure they meet PUD's overall revenue requirements. Cost of service studies detail projected expenditures, determine the total revenue required to meet those expenditures, and allocate those revenue needs to different customer classes based on the demands those customer classes place on PUD's systems. Revenue requirements not only support operating and capital costs but are set to ensure appropriate reserve and debt service coverage ratios.

The City last completed a cost of service study and rate case for the Water System in 2015, which included rate adjustments through FY 2020. The City last completed a cost of service study and rate case for the Wastewater System in 2006, which included rate adjustments through FY 2010. Additional information on projected revenues can be found in the Water System Revenues and Wastewater System Revenues sections of this report.

Following contract approval by the City Council, PUD engaged Raftelis Financial Consultants, Inc. to prepare new cost of service studies for both the Water and the Wastewater Systems. The Department anticipates releasing these cost of service studies in the third quarter of FY 2021. Those studies will include overall system-wide revenue requirements, additional details on the allocation of expenses to different customer classes, and potential rate adjustments. Those studies are expected to serve as the basis for Council's deliberation on future rate adjustments. A public hearing will need to be set in order to effectuate any rate increase.

WATER SYSTEM

This section discusses baseline expenditure projections, upcoming critical operational expenditures, and projected capital improvement program needs and financing options for the next five years for the Water Utility Fund. An overview of Water System revenue projections is also included.

Water System Expenditures

Water Utility Fund expenditures are comprised of both personnel and non-personnel expenditures including debt service and other non-discretionary payments. The largest single expenditure of the Water Utility Fund is for water purchases, representing approximately 50% of FY 2021 operating expenditures. These expenditures are therefore discussed separately. The following sections discuss in detail each expenditure category and include a description of the category, projected growth rates, and a discussion of critical strategic expenditures.

Water Purchases

The City currently imports approximately 85-90% of its water through the CWA. Water purchases contribute to the largest expense in the Water Utility Fund and make up approximately 50% of the Water Utility Fund's operating budget. CWA charges a volumetric rate that includes both a commodity rate and a transportation rate. In addition to the volumetric charges the City pays for imported water, both CWA and MWD also levy fixed charges on their member agencies.

Table 2.1 presents projected costs for purchasing water from CWA, and assumes that 10% of the demand will be met with local supplies for FY 2021 through FY 2026.[2] According to CWA's guidance estimates, rates are projected to rise by 5% per year. This increase impacts the Water Utility Fund's overall expenditures by approximately 2.2% as water purchases make up roughly half of the Fund's operating expenditures. The cost and amount of water purchased declines as Phase 1 of the Pure Water Program is expected to be substantially complete by March 2025. There is a staged ramp-up in flow and the production is expected to be 30 mgd by the end of CY 2025.

Additionally, PUD is projecting the receipt of approximately $5.7 million in Local Resource Program incentives from MWD for developing local water supplies, which also contributes to the decline in water purchase expenditures in FY 2025. Starting in FY 2026, the incentives are expected to be $11.4 million per year.

Table 2.1 - Water Purchases - Expenditure Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Projection	$239.0	$271.6	$285.5	$300.1	$292.9	$284.5
Acre Feet Purchased	143,000	161,000	162,000	162,000	145,000	129,000

[2] Rainfall has seen increasing volatility over the past several years. Water year 2018 (October 1, 2017 – September 30, 2018) totaled 3.3 inches, 7 inches below San Diego's historical average of 10.3 inches. Rainfall in water year 2019 (October 1, 2018 – September 30, 2019), however, totaled 12.9 inches. Fiscal Years 2022 and thereafter assume average rainfall, but actual experiences in any given year will vary.

Personnel Expenditures

Personnel expenditures include salaries, wages and fringe benefits. Salaries and wages are comprised of regular salaries and wages, hourly wages, special pay, overtime, and pay in lieu of annual leave. Fringe benefits include pension payments or Actuarially Determined Contribution (ADC), flexible benefits, retiree health or Other Post-Employment Benefits (OPEB), workers' compensation, Supplemental Pension Savings Plan (SPSP), and other fringe benefits. Projected FY 2021 Water Utility Fund salaries, wages, and fringe benefits are $80.9 million and include 806.57 full-time equivalent (FTE) positions. Table 2.2 displays the FY 2021 through FY 2026 projected baseline personnel expenditures.

Table 2.2 - Personnel Expenditures - Baseline Expenditure Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Salary & Wages Projection	$45.9	$45.9	$45.9	$45.9	$45.9	$45.9
Fringe Benefits Projection	$35.0	$35.0	$35.0	$35.0	$35.0	$35.0

The salary and wages category incorporate only those expenditures associated with staff included in the FY 2021 Adopted Budget. Position adds identified for FY 2022-2026 to support critical expenditures are discussed below. The PUD Outlook does not project for the potential impacts of any future Memorandum of Understandings (MOU) with Recognized Employee Organizations (REOs).

Critical Operating Expenditures

Table 2.3 - Critical Strategic Expenditures - Personnel

Request	FTE/Exp	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
AMI Support	FTE	-	5.00	10.00	19.50	19.50
	Expense	$0	$371,709	$743,417	$1,432,172	$1,432,172
Cross Connection Support	FTE	3.00	5.00	5.00	5.00	5.00
	Expense	234,378	392,592	392,592	392,592	392,592
Customer Service Support	FTE	1.00	1.00	1.00	1.00	1.00
	Expense	94,324	94,324	94,324	94,324	94,324
Field Services & Investigations	FTE	3.50	8.50	8.50	8.50	8.50
	Expense	317,695	766,645	766,645	766,645	766,645
Laboratory Operations	FTE	1.00	-	-	-	-
	Expense	120,479	-	-	-	-
Pure Water Support	FTE	7.00	20.00	34.00	34.00	34.00
	Expense	$800,941	$2,112,863	$3,469,507	$3,469,507	$3,469,507
Reservoirs/Dams/Plant Operations	FTE	15.00	23.00	23.00	23.00	23.00
	Expense	1,366,632	1,953,992	1,953,992	1,953,992	1,953,992
SCADA Support	FTE	3.00	3.00	3.00	3.00	3.00
	Expense	299,021	299,021	299,021	299,021	299,021
Water CIP Support	FTE	2.94	2.94	2.94	2.94	2.94
	Expense	275,760	275,760	275,760	275,760	275,760
	Total FTE	**36.44**	**68.44**	**87.44**	**96.94**	**96.94**
	Total Expense	**$3,509,230**	**$6,266,907**	**$7,995,259**	**$8,684,014**	**$8,684,014**

Table 2.3 identifies additional personnel expenditures, including fringe benefits, for the addition of staff to support a number of Department needs. Significant additions are included to ensure sufficient

staffing to implement, operate, and maintain the City's Advanced Metering Infrastructure Program (AMI); the Pure Water Program, and increased operations and upkeep of the City's water reservoirs, dams, and treatment plants.

Additional FTE support is also being added for the Supervisory Control and Data Acquisition (SCADA) Water Distribution System. This system monitors the water distribution facilities and detects and rectifies equipment malfunctions and operation problems. This is critical to ensuring that water treatment plant operations, public health and regulatory compliance are protected from any system vulnerabilities in older SCADA systems.

The identified funding needs for the Pure Water Program are for the operation and maintenance of new and expanded Pure Water facilities and staffing needs. Pure Water positions are gradually being ramped up so personnel is on hand and fully trained to operate and maintain the facilities when they come online. A total of 34.00 FTEs from the Water System (of 67.00 total FTEs) are anticipated to be required when Pure Water Phase 1 becomes fully operational. These estimates will be further refined as the City gets closer to bringing the facilities online.

Additional support is also included for Cross Connections team to ensure that the potable water delivery system is not impacted the introduction of any used water source, and for Customer Service.

Supplies

The Supplies category includes costs for chemicals, water meters, pipe fittings, asphalt road materials, machine parts, and low value assets. Table 2.4 displays FY 2021 through FY 2026 projections for the Supplies category.

Table 2.4 - Supplies - Baseline Expenditure Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	3.0%	3.0%	3.0%	3.0%
Projection[1]	$15.4	$15.4	$15.9	$16.3	$16.8	$17.3

1. Figures exclude expenditures associated with water purchases.

The Supplies category includes various components. Each component has a different growth rate. Growth rates for each category are based on historical analysis and include other adjustments based on known and anticipated events. As a result, the 3.0% growth rate that was applied to the Supplies category represents a weighted growth rate that was calculated after applying the corresponding growth rate for each component. Due to PUD's historical actual operating trends being lower than budgeted amounts and the continued uncertainty surrounding the impacts of the COVID-19 pandemic on operations, FY 2022 baseline amounts are carried forward from FY 2021.

Critical Operating Expenditures

Table 2.5 - Critical Strategic Expenditures - Supplies					
Request	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Pure Water Support	$10,000	$5,000	$5,000	$1,104,322	$10,166,717
Total Expense	**$10,000**	**$5,000**	**$5,000**	**$1,104,322**	**$10,166,717**

Table 2.5 above identifies increased expenditures in the supplies category. Pure Water expenses are anticipated to become necessary as facilities come online, and include chemical costs, consumables, pumps, and other materials necessary for operation and maintenance of facilities and equipment.

Contracts

Contracts are a non-personnel expense category that include the cost of contractual services, professional consultant fees for outside expertise, general government services billing, City services billings, fleet vehicle usage and assignment fees, rental expenses, security services, and other contractual expenses. Table 2.6 below displays PUD's projections for FY 2021 through FY 2026 for the Contracts category.

Table 2.6 - Contracts - Baseline Expenditure Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	2.0%	2.0%	2.0%	2.0%
Projection[1]	$80.1	$80.1	$81.7	$83.3	$85.0	$86.7

1. Projection figures exclude contractual expenditure projections associated with water purchases.

The Contracts category includes various components with different applicable growth rates. Growth rates for each category are based on historical analysis and other adjustments based on known and anticipated events, including anticipated contract expirations. As a result, the growth rate for the Contracts category represents a weighted growth rate that was calculated after applying the corresponding growth rate for each component. Due to PUD's historical actual operating trends being lower than budgeted amounts and the continued uncertainty surrounding the impacts of the COVID-19 pandemic on operations, FY 2022 baseline amounts are carried forward from FY 2021.

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Critical Operating Expenditures

Table 2.7 - Critical Strategic Expenditures - Contracts					
Request	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Condition Assessments	$3,340,000	$3,340,000	$2,840,000	$1,840,000	$340,000
Environmental Support & Compliance	$1,200,000	$1,150,000	$1,025,000	$900,000	$900,000
Financial Support	$200,000	$0	$37,500	$350,000	$150,000
Pure Water Support	$280,000	$135,000	$475,000	$743,000	$895,000
Restoration Contracts	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
SCADA Support	$250,000	$100,000	$0	$0	$0
Security System Upgrades	$52,170	$52,170	$52,170	$52,170	$35,250
Water Facilities/Reservoir/Dam Maintenance	$2,600,000	$3,000,000	$2,300,000	$450,000	$100,000
Water Property/Land/Plan Management	$600,000	$600,000	$0	$0	$0
Total Expense	**$9,522,170**	**$9,377,170**	**$7,729,670**	**$5,335,170**	**$3,420,250**

Table 2.7 above identifies increased contractual expenditures in various areas. This includes increased expenditures for condition assessments of Water System facilities and dams, as well as expenditures necessary for the maintenance of water treatment facilities, reservoir repairs, and dam repairs. The Restoration Contracts item includes contractual funding to ensure compliance with various local, state, and federal requirements such as the Habitat Conservation Plan and Multiple Species Conservation Plan. Additional amounts support the Water System's SCADA system, security upgrades, and Phase 1 of the Pure Water Program.

Information Technology

The Information Technology category includes both discretionary expenses and non-discretionary allocations to the Water Utility Fund. The Information Technology category includes the costs related to hardware and software maintenance, help desk support, and other information technology (IT) services. Table 2.8 below displays projections for FY 2021 through FY 2026 in the Information Technology category.

Table 2.8 - Information Technology - Baseline Expenditure Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	4.5%	2.0%	2.0%	2.0%
Projection	$11.8	$11.5	$12.0	$12.3	$12.5	$12.8

The projections include estimates of IT costs related to desktop support, networks, data-centers, applications, and systems critical to water treatment plant operations. Expenditures were inflated by 2% to account for potential cost increases in IT services and hardware/software products, and one-time expenditures in FY 2021 were removed from FY 2022 projections. Due to PUD's historical actual operating trends being lower than budgeted amounts and the continued uncertainty surrounding the impacts of the COVID-19 pandemic on operations, FY 2022 baseline amounts are otherwise carried forward from FY 2021.

Critical Operating Expenditures

Table 2.9 - Critical Strategic Expenditures - Information Technology					
Request	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Customer Service Support	$175,000	$175,000	$175,000	$175,000	$175,000
Desktop Computer Replacement	$0	$705,000	$0	$0	$0
MARS Ongoing Support	550,000	550,000	550,000	550,000	550,000
Total Expense	**$725,000**	**$1,430,000**	**$725,000**	**$725,000**	**$725,000**

Additions in the IT category include additional support for customer service IT systems, replacement of desktop computers in the Department in FY 2023, and ongoing support for the MARS System which provides critical water meter test software and equipment to ensure residential and commercial water meter reliability.

Energy & Utilities

The Energy and Utilities category includes the Water Utility Fund's costs for electricity, water services, fuel, and other utility and energy expenses. Table 2.10 displays FY 2021 through FY 2026 projections for the Energy and Utilities category.

Table 2.10 - Energy & Utilities - Baseline Expenditure Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	0.4%	0.4%	0.4%	0.4%
Projection	$12.7	$12.7	$12.7	$12.8	$12.9	$12.9

The Energy and Utilities category includes various costs. Each cost component has a different applicable rate. Growth rates for energy are based on growth rates prepared by the U.S. Energy Information Administration[3]; those growth rates showed no projected increases for energy, but some increases for fuel. Due to PUD's historical actual operating trends being lower than budgeted amounts and the continued uncertainty surrounding the impacts of the COVID-19 pandemic on operations, FY 2022 baseline amounts are carried forward from FY 2021.

Critical Operating Expenditures

Table 2.11 - Critical Strategic Expenditures - Energy & Utilities					
Request	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Pure Water Support	-	-	-	$7,334,247	$14,651,548
Total Expense	**-**	**-**	**-**	**$7,334,247**	**$14,651,548**

Table 2.11 above identifies increased energy and utility expenditures associated with the expansion of the Pure Water Program. These expenditures are necessary as new and expanding Pure Water facilities come online and include increased electricity, water, and natural gas expenditures necessary for the daily operation of facilities.

[3] U.S. Energy Information Administration, https://www.eia.gov/outlooks/aeo/

Other Expenditures

Expenses included in this category are transfers out to other funds, capital expenses, taxes, and other miscellaneous expenditures. Debt service obligations, including bond, commercial paper, State Revolving Fund loans (SRF Loans) and WIFIA payments, are excluded from this category and are discussed in the Water System Capital Improvement Program section of this report. Table 2.13 displays FY 2021 through FY 2026 projections for the Other Expenditures category.

Table 2.12 - Other Expenditures - Baseline Expenditure Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	0.0%	0.0%	0.0%	0.0%
Projection	$3.2	$3.2	$3.2	$3.2	$3.2	$3.2

No growth rate was applied to Other Expenditures as the expenses in this category do not typically recur on an annual basis. The FY 2021 Projection is based on the FY 2021 Adopted Budget which is adjusted to account for historical trends.

Critical Operating Expenditures

Table 2.13 - Critical Strategic Expenditures - Other Expenditures

Request	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
AMI Support	$54,600	$54,600	$54,600	$54,600	$54,600
Laboratory Operations	$0	$0	$484,000	$0	$0
Pure Water Support	$40,000	$660,000	$468,000	$470,000	$0
Water Facility Maintenance	$100,000	$100,000	$0	$0	$0
Total Expense	**$194,600**	**$814,600**	**$1,006,600**	**$524,600**	**$54,600**

Table 2.13 above identifies increased expenditures associated with the expansion of the Pure Water Program. Pure Water Program expenditures include funding for the replacement of laboratory equipment necessary for sampling analysis in support of the expanding program. Other Expenditures also includes one-time funding for various pieces of equipment associated with water and laboratory facilities and the Advanced Metering Infrastructure Program.

Reserve Contributions

The City has established accounts within the Water Utility Fund for four reserve funds: The Emergency Operating Reserve (Operating Reserve), the Secondary Purchase Reserve, the Rate Stabilization Fund Reserve (Rate Stabilization Reserve Fund), and the Emergency Capital Reserve (Capital Reserve). The Department maintains these reserve funds in accordance with the City's reserve policy (the City Reserve Policy). At the end of FY 2021, the Water Utility Fund is estimated to have total reserves of approximately $177.8 million.

Table 2.14 details reserve targets and projected funding levels. Reserves are projected to be fully funded throughout the PUD Outlook period. The Rate Stabilization Reserve Fund is funded above targeted levels; it can be used to provide one-time operating revenue to offset or mitigate the need

for sudden or dramatic rate increases. The PUD Outlook projects use of the Water Rate Stabilization Reserve Fund in FY 2022 through 2025, and a contribution to the reserve in FY 2026.

Table 2.14 - Reserve Targets and Estimated Funding Levels ($ in Millions)

	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025*	Fiscal Year 2026
Operating Reserve Target ($)	$39.1	$41.8	$43.0	$43.4	$45.1	$48.2
Operating Reserve Level ($)	$40.8	$41.8	$43.0	$43.4	$45.1	$48.2
Secondary Purchase Reserve Target ($)	$14.3	$16.3	$17.1	$18.0	$17.6	$17.1
Secondary Purchase Reserve Level ($)	$16.4	$16.4	$17.1	$18.0	$18.0	$18.0
Rate Stabilization Fund Target ($)	$33.3	$35.5	$36.7	$38.4	$40.1	$42.3
Rate Stabilization Fund Level ($)	$115.6	$100.6	$85.6	$75.6	$65.6	$70.6
Capital Reserve Target ($)	$5.0	$5.0	$5.0	$5.0	$5.0	$5.0
Capital Reserve Level ($)	$5.0	$5.0	$5.0	$5.0	$5.0	$5.0

*The Secondary Purchase Reserve Target for FY 2025 reflects a decrease in water purchases as Phase 1 of the Pure Water Program nears completion.

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Water System Capital Improvement Program

The Water System CIP is established to address current and future system needs in a cost-effective manner. The program's principal drivers are:

- implementation of the Pure Water Program;
- improving infrastructure to reduce pipeline breaks and emergency repairs;
- improving process technology;
- expansion of the Water System to accommodate growth; and
- compliance with the Federal Safe Drinking Water Act and the Division of Drinking Water (DDW) Compliance Order.

Infrastructure improvements generally consist of water treatment plants, pipelines, reservoirs and pump stations, projects related to anticipated growth within the City's service area, and projects required by or related to applicable State and Federal regulations and orders.

Table 3.1 shows categories of projects with the estimated cost of expenditures contained in the CIP for the period of Fiscal Years 2022 through 2026. A number of condition assessments for the Department's dams are currently underway, and may reveal additional capital improvements and repairs to be necessary that are not reflected in Table 3.1, though it is likely that the bulk of such costs would fall outside the period covered by the Outlook.

Table 3.1 - Summary of Projected CIP Projects
FY 2022 through FY 2026
($ in Millions)

Water CIP Projects	2022	2023	2024	2025	2026	TOTAL
Pure Water Program	$193.1	$225.7	$174.2	$96.1	$23.9	$713.0
Transmission Pipelines	$111.1	$77.0	$37.7	$23.2	$40.8	$289.8
Pipelines	$110.4	$92.2	$78.0	$27.9	$17.2	$325.8
Storage Facilities	$8.1	$11.5	$18.4	$19.1	$19.1	$76.2
Water Treatment Plants	$0.8	$2.3	$5.7	$13.2	$18.6	$40.6
Pump Stations	$6.7	$4.5	$6.5	$7.1	$10.7	$35.5
SDG&E Relocation Advance	$58.4	$0.0	$0.0	$0.0	$0.0	$58.4
Ground Water Projects	$0.1	$0.1	$0.1	$0.1	$0.2	$0.5
Miscellaneous Projects	$7.7	$16.9	$29.8	$28.8	$20.7	$104.0
Total	**$496.4**	**$430.3**	**$350.4**	**$215.6**	**$151.1**	**$1,643.7**

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Capital Improvement Financing Plan

Table 3.2 below describes the projected sources of funds to finance the Water System CIP for Fiscal Years 2022 through 2026.

As shown in Table 3.2, PUD anticipates incurring approximately $762.4 million of additional debt obligations for the Baseline Water System CIP and $684.9 million of additional obligations for the Pure Water CIP over the PUD Outlook period. Grants, capacity fees, and cash are anticipated to fund an additional $196.4 million.

Table 3.2 - Sources of Funds for the Water Capital Improvement Program FY 2022 through FY 2026 ($ in Millions)

Source of Funds	2022	2023	2024	2025	2026	TOTAL
Pure Water CIP						
Commercial Paper/Revenue Bonds	$0.0	$0.0	$0.0	$96.0	$20.0	$116.0
WIFIA Loan [1]	$191.3	$215.1	$162.6	$0.0	$0.0	$568.9
Grants	$1.5	$0.0	$0.0	$0.0	$0.0	$1.5
Capacity Fees/Cash	$0.4	$10.6	$11.7	$0.1	$3.9	$26.7
Total	**$193.1**	**$225.7**	**$174.2**	**$96.1**	**$23.9**	**$713.1**
Baseline CIP						
Commercial Paper/Revenue Bonds	$129.1	$95.0	$95.0	$60.0	$85.0	$464.1
SRF Loans	$68.0	$91.1	$69.8	$39.0	$30.3	$298.3
Grants	$0.7	$0.0	$0.0	$0.0	$0.0	$0.7
Capacity Fees/Cash	$105.4	$18.5	$11.3	$20.4	$11.9	$167.6
Total	**$303.3**	**$204.6**	**$176.1**	**$119.5**	**$127.2**	**$930.7**
Total Funding	**$496.4**	**$430.3**	**$350.4**	**$215.6**	**$151.1**	**$1,643.8**

[1] Assumes periodic draw on the WIFIA Loan for FY2021 through FY2024, and a mix of bond funding and cash for the remaining Pure Water costs through FY2026.

The City has secured financing of $614.0 million for the Water System's share of the Pure Water Program Phase 1 through the EPA's Water Infrastructure Finance and Innovation Act (WIFIA) Loan Program which will provide funding through FY 2024. Additional funding for the Water System's portion of Pure Water CIP expenses includes $116.0 million in future debt (commercial paper and revenue bonds), and $26.7 million in grant funding and cash.

For the Water System's baseline CIP, the Department anticipates financing the costs of certain projects in the Water System Baseline CIP in the amount of $298.3 million through SRF loans for which the City has secured or plans to apply. The proceeds from additional SRF loans are assumed to provide funding in Fiscal Years 2022 through 2026. SRF loans are one of the least expensive sources of financing available to the City. If the City is not awarded the additional SRF loans projected over this PUD Outlook period, it will have to evaluate using other financing sources that carry higher interest rates, or potentially postponing various CIP projects.

The City also anticipates financing approximately $464.1 million of the Baseline Water System CIP through a combination of revenue bonds and commercial paper. Remaining costs of the Water System Baseline CIP are anticipated to be paid on a pay-as-you-go basis.

Debt Service Coverage Ratios

As the Water system makes use of various financing instruments to fund its capital program, it is important that it maintain good financial metrics to ensure its creditworthiness and its ability to issue debt at advantageous terms. One of the key components to measuring the Water system's credit quality is its debt service coverage ratio (DSCR). The DSCR is a measure of a system's ability to make payments on its existing and projected debt service and compares the system's net operating revenues against its debt service payments.

While variations in revenues and expenditures will result in varying DSCRs in given years, the Department generally targets a DSCR of 1.5x, a financial target that gives the Department the ability to maintain high credit quality leading to continued low borrowing rates. Additionally, the Department's bond covenants require it to maintain a DSCR of 1.2x for its senior debt and 1.1x for its aggregate debt. The projected DSCRs over the PUD Outlook period are displayed in Table 3.3.

Table 3.3 - Projected Debt Service Coverage Ratios[1]
($ in Millions)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Net System Revenues	$166.0	$170.2	$178.5	$215.5	$230.0
Debt Service	$112.3	$112.6	$118.5	$145.3	$149.6
Debt Service Coverage Ratio	**1.48 x**	**1.51 x**	**1.51 x**	**1.48 x**	**1.54 x**

[1] Note - DSCRs shown here are based budgetary projections; DSCRs reported in CAFR statements may differ due to variances in non-budget transactions.

Water System Revenues

The primary revenue sources of the Water Utility Fund are generated from water sales, capacity fees, interest earnings, and rental income. This section discusses each revenue category, and includes a description of revenue sources, projected growth rates, and a discussion of future revenue streams and how they impact the Water Utility Fund.

Water Sales

Background. The majority of Water Utility Fund revenue is generated from water sales which makes up over 90% of the Water Utility Fund's total revenue. City utility bills include water and sewer charges and storm drain fees, but only receipts from water sales are revenues to the Water Utility Fund. The water charge is comprised of two parts: a fixed monthly service charge and a commodity charge that is based on the volume of water used. The fixed service charge is based on the size of a customer's meter, which provides an approximation of the amount of water the customer could have delivered to the customer's property.

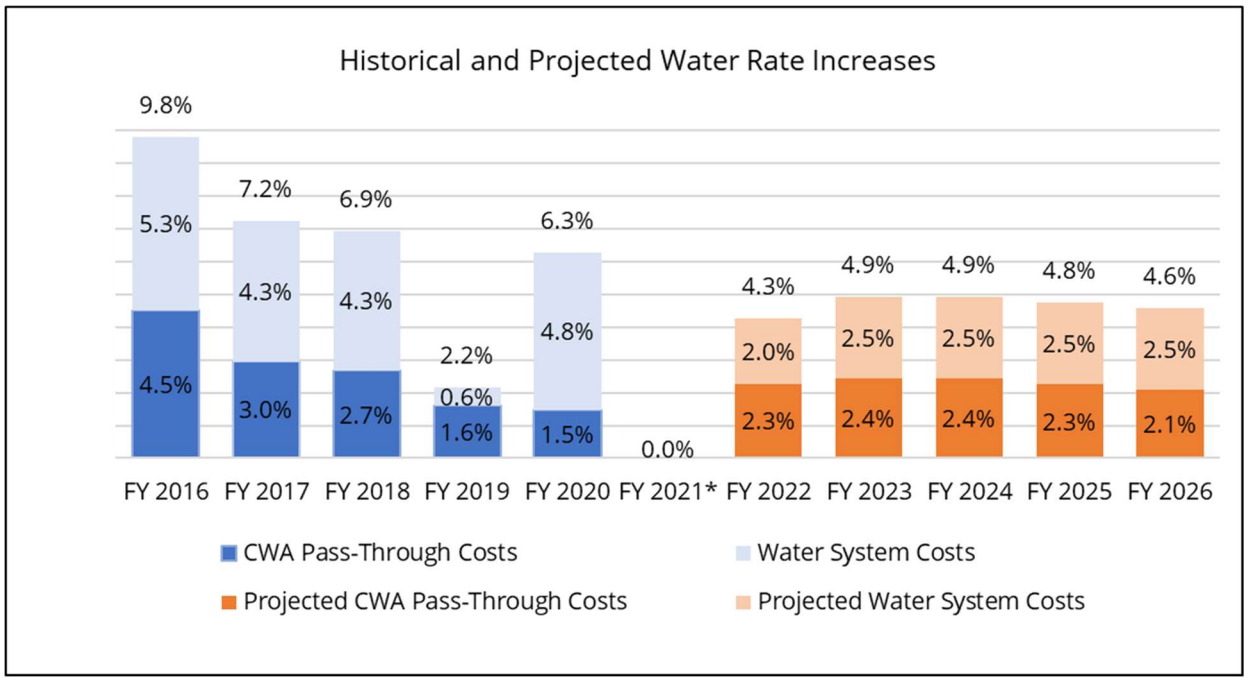
The commodity charge is determined using a set rate based upon each hundred cubic feet (HCF), or approximately 750 gallons, of water consumed. The City has a tiered commodity charge structure for single family residential (SFR) customers that is broken down by water usage within each rate block. The remaining retail customers – Multi-Family Residential (MFR), Non-Residential, Temporary Construction and Irrigation – are billed under a uniform commodity charge for their respective customer classification.

Water Service Charge Rate Increases. PUD last released a Water System cost of service study in 2015, which produced a five-year rate case (the 2016 Rate Case). The 2016 Rate Case was based on comprehensive forecasted annual operations and maintenance costs, capital cost expenditures including the initial costs of the Pure Water Program, and purchased water costs that increase every January 1 from CWA. The 2016 Rate Case covered Fiscal Years 2016 through 2020 and was approved by the City Council in November 2015. The rate case included projected rate increases of 9.8% on January 1, 2016, 6.4% on July 1, 2016, 6.4% on July 1, 2017, 5.0% on July 1, 2018 and 7.0% on July 1, 2019.[4] FY2020 reflects the final year of the prior approved rate case.

Based on the revenue required to support projected expenditures, fund reserves appropriately, and achieve the target financial metrics, this Outlook includes projected water rate revenue adjustments on a system-wide basis of 4.3% in FY 2022, 4.9% in FY 2023, 4.9% in FY 2024, 4.8% in FY 2025, and 4.6% in FY 2026. Actual rate increases and the individual customer class impact will be subject to finalization of the cost of service study that is currently underway and City Council review and approval.

Roughly half of these rate adjustments are necessary to pay for increased CWA water rates, as indicated in Figure 4.1. Increases in revenue necessary to support PUD operations range from 2.0 to 2.5% in each year.

Figure 4.1 – Water Service Charge Rate Increases.



*No water rate increase is shown for FY 2021. While rates will not increase in FY 2021, the Department anticipates absorbing an effective 2.5% increase in CWA's water rates.

[4] These projected rate increases included both PUD's costs as well as increases in CWA water rates. The approved 2016 Rate Case allowed PUD to pass through CWA rate increases up of up to 7.0% each year. Projected and actual CWA rate increases were lower than this 7.0% maximum, though CWA rate increases in FY 2017 and FY 2018 were higher than they were projected to be in the 2016 Rate Case. Actual CWA pass-through costs through FY 2020 are reflected on Figure 4.1.

Forecast. Table 4.2 presents forecasted revenues for FY 2021 through FY 2026 for revenue from water sales. The growth rates as shown in Table 2.3 reflect overall revenue growth, and include revenue impacts of both proposed rate adjustments and slight increases in water use. Revenue from the MWD's Local Resources Program, which provides credits for Pure Water's production of local water, are also included in FYs 2025 and 2026. Note that the rate adjustments shown above are included in these amounts, though these adjustments are proposed to be implemented on January 1st of each year, so the impact to revenues on a Fiscal Year basis do not correspond exactly.

Table 4.2 - Water Sales Revenue Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023[2]	FY 2024	FY 2025[3]	FY 2026
Potable Water						
Growth Rate	N/A	3.5%	4.9%	5.1%	4.8%	4.6%
Projection	$541.7	$560.8	$588.1	$617.9	$647.7	$677.6
Other Water Sales [1]						
Growth Rate	N/A	2.7%	3.2%	-1.8%	19.7%	16.5%
Projection	$33.1	$34.0	$35.1	$34.5	$41.3	$48.1

[1] Revenue figures for "Other Water Sales" include recycled water sales revenue figures and sales to Cal Am.

[2] Recycled LRP credits end in FY23 for NCWRP.

[3] LRP credits for Pure Water start.

Economic Trends. Although PUD continues to promote water conservation, the demand for water within the City's service area is projected to increase as the population continues to grow and development expands. The City last prepared an Urban Water Management Plan (UWMP) in 2016, which projected single-family residential water use to increase by 39% over the period of 2020 to 2040. Multi-family residential water use was forecasted to increase at 69% over the projection period of 2020 to 2040. The average demand over the last five years has not grown significantly, with some small growth in demand largely caused by increases in population. The UWMP is due to be updated in calendar year 2021.

The City's Pure Water Program is expected to be crucial in helping to meet the City's water demands and to reduce the impact of increases in the cost of imported water purchased from CWA. Over the past ten years, CWA's water prices have more than doubled.

Sensitivity Analysis. While these projections represent PUD's best estimate of water sales revenues throughout the PUD Outlook period, actual results will depend on the factors discussed above. Assuming the above rates, declines or increases in water demand, bill payment, or rate increases of just 1% can impact water sales revenue by approximately $5.7 to $6.3 million depending on the year in which they occur. Adjustments to projected rates in earlier years would compound this amount.

Water Capacity Charges

Background. Capacity charges are development fees imposed on permits for new or expanded water connections, and are based on an estimate of the increase in water consumption as measured by equivalent dwelling units (EDUs). Capacity charge proceeds are used to construct, improve, and expand the Water System to accommodate the additional business of such added dwellings or commercial or industrial units.

Pursuant to State law, capacity charges can be used only to pay costs associated with capital expansion, bonds, contracts, or other indebtedness of the Water System related to expansion. Because capacity charges are primarily collected on the issuance of new construction permits within the City, revenues obtained from such charges vary based upon construction permitting activity.

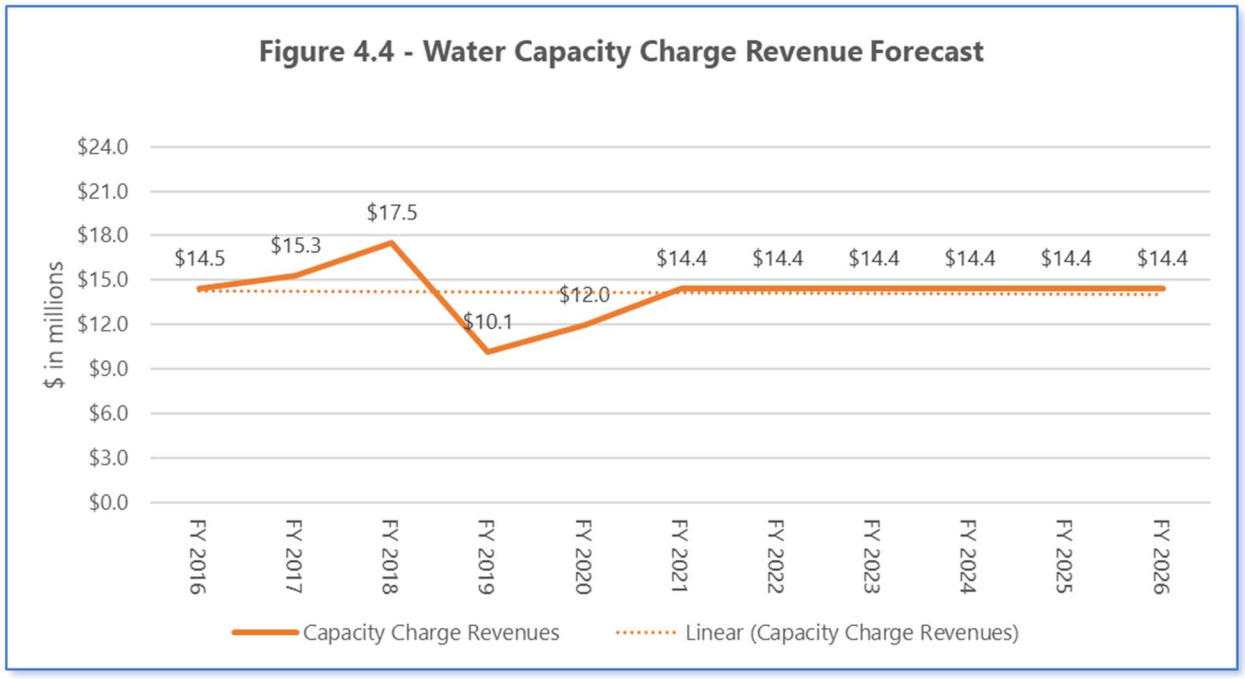
In February 2007, the Mayor and City Council approved increasing the capacity charge by 19.5% to $3,047 per EDU, which was estimated to provide full cost recovery for Water System expansion projects.

Forecast. Table 4.3 presents projected capacity fee revenue for FY 2021 through FY 2026. This revenue source represents less than 2% of the Water System's overall revenue receipts.

Table 4.3 - Capacity Charges Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Projection	$14.4	$14.4	$14.4	$14.4	$14.4	$14.4

Projected revenues for capacity charges use conservative growth estimates based on historical spending trends from FY 2016 through FY 2020 as shown in Figure 4.4. Average capacity fee revenue between FY 2016 and FY 2020 was approximately $13.9 million; capacity fee projections of $14.4 million over the PUD Outlook period are based on this average and take recent trends into account.



Economic Trends. As previously mentioned, water capacity charges are primarily based on new water connections related to new construction and are directly influenced by population growth and residential and commercial development. The current population for the City of San Diego is 1.4 million. San Diego's population grew by approximately 7% between the 2000 Census and the 2010

Census. As population continues to increase in the region, the demand for new single and multi-family housing is also expected to increase in order to meet population demands.

According to SANDAG[5], multi-family units will make up over half of the new housing that will need to be built over the next 30 years. As a result, SANDAG forecasts that 40% of the total units in the region will be multi-family by 2030.

The California Association of Realtors is forecasting a modest decline in construction of single family units due to a combination of high home prices and eroding affordability. Multi-family housing hit a peak in 2019, but has since leveled off as multi-family units under construction near completion. This combined with uncertainty surrounding the impacts of the COVID-19 pandemic on residential construction contribute to flat capacity fee revenue projections over the next five years.

Revenue from Use of Property

Revenue from Use of Property includes revenues from non-agricultural lease of land, such as the San Diego Zoo Safari Park; storage by private companies on utility-owned lands; agricultural leases of land in San Pasqual Valley; and telecom leases for cell towers on utility-owned properties.

Table 4.5 presents forecasted revenue for FY 2021 through FY 2026. This revenue source represents less than 1% of the Water Utility's overall revenue receipts.

Table 4.5 - Revenue from Use of Property Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	0.0%	0.0%	0.0%	0.0%
Projection	$6.1	$6.1	$6.1	$6.1	$6.1	$6.1

Revenues in this category can vary slightly each year as new lease agreements are entered into while other lease agreements expire. Overall, revenue in this category has averaged $6.1 million since FY 2016. As a result, $6.1 million in Revenues from Use of Property is projected throughout the PUD Outlook period.

Other Revenue

The Other Revenue category includes refunds or reimbursements from private parties for damages to utility-owned equipment, buildings, or fire hydrants; refunds from vendors; reimbursements from services provided to other City departments/funds, receipts from the sale of recycled materials or equipment (paper, computers, metal); grant revenue, and interest earnings on pooled investments.

Table 4.6 presents forecasted revenue for FY 2021 through FY 2026. This revenue source represents 2.0% of the Water Utility's overall revenue receipts.

[5] It should be noted that SANDAG's Regional Growth Forecast was published in 2013 using 2012 data.

Table 4.6 - Other Revenue Projections ($ in Millions)						
	FY 2021 Projection	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	7.3%	-14.9%	2.8%	8.4%	4.0%
Projection	$22.4	$24.1	$20.5	$21.1	$22.8	$23.7

Other revenue in FY 2022 through FY 2026 is projected to stay relatively flat, reflecting stable unrestricted balances and slightly increased interest earnings. Changes from year to year are largely the cause of changes to projected interest income, as well as projected changes in charges for services, including storage and transportation agreements with other local agencies.

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WASTEWATER SYSTEM

The Wastewater System is comprised of the Metropolitan and Municipal Utility Funds, collectively known as the "Sewer Revenue Funds". This section discusses the Wastewater System's baseline expenditure projections, upcoming critical operational expenditures, projected capital improvement program needs and financing options for the next five years. Wastewater System revenues are also discussed.

Wastewater System Expenditures

The Wastewater System expenditures are comprised of both personnel and non-personnel expenditures including debt service and other non-discretionary payments. The following sections will discuss in detail each expenditure category and will include a description of the expenditure, projected growth rates, and a discussion of critical strategic expenditures.

Personnel Expenditures

Personnel expenditures include salaries, wages and fringe benefits. Salaries and wages are comprised of regular salaries and wages, hourly wages, special pay, overtime, and pay in lieu of annual leave. Fringe benefits include pension payments or Actuarially Determined Contribution (ADC), flexible benefits, retiree health or Other Post-Employment Benefits (OPEB), workers' compensation, Supplemental Pension Savings Plan (SPSP), and other fringe benefits. The FY 2021 Adopted Budget for the Sewer Funds salaries, wages, and fringe benefits was $99.8 million and included 902.86 FTEs. Table 5.1 displays forecasted baseline personnel expenditure projections for FY 2021 through FY 2026.

Table 5.1 - Personnel Expenditures - Baseline Expenditure Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Salary & Wages Projection	$58.1	$58.1	$58.1	$58.1	$58.1	$58.1
Fringe Benefits Projection	$41.7	$41.7	$41.7	$41.7	$41.7	$41.7

Adjustments within the salary and wages category incorporate only those expenditures associated with staff included in the FY 2021 Adopted Budget. Position adds identified for FY 2022-2026 to support critical expenditures are discussed below. The PUD Outlook does not project for the potential impacts of any future MOUs with REOs.

Critical Strategic Expenditures

Table 5.2 - Critical Strategic Expenditures - Personnel						
Request	**FTE/Exp**	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
AMI Support	FTE	-	-	-	1.50	1.50
	Expense	$0	$0	$0	$104,016	$104,016
Customer Service Support	FTE	1.00	1.00	1.00	1.00	1.00
	Expense	$94,324	$94,324	$94,324	$94,324	$94,324
EAM Support	FTE	1.06	1.06	1.06	1.06	1.06
	Expense	$80,429	$80,429	$80,429	$80,429	$80,429
Field Services & Investigations	FTE	0.50	0.50	0.50	0.50	0.50
	Expense	$47,546	$47,546	$47,546	$47,546	$47,546
Laboratory Operations	FTE	3.00	3.00	3.00	3.00	3.00
	Expense	$374,744	$374,744	$374,744	$374,744	$374,744
Preventative Maintenance	FTE	4.00	4.00	4.00	4.00	4.00
	Expense	$425,475	$425,475	$425,475	$425,475	$425,475
Pure Water Support	FTE	13.00	24.00	33.00	33.00	33.00
	Expense	$1,186,993	$2,241,285	$3,058,044	$3,058,044	$3,058,044
	Total FTE	**22.56**	**33.56**	**42.56**	**44.06**	**44.06**
	Total Expense	**$2,209,510**	**$3,263,803**	**$4,080,561**	**$4,184,578**	**$4,184,578**

Table 5.2 above identifies increased personnel expenditures, including fringe benefits, for the addition of staff to support various key Department functions. These include support for the Department's AMI Smart Meter program, Customer Support, and implementation of Enterprise Asset Management (EAM) systems in the Department. Additional staff are also proposed to support a shift toward increased preventative maintenance as well as increased laboratory testing consistent with current and anticipated regulatory requirements.

The identified funding needs for the Pure Water Program are for the operation and maintenance of new and expanding Pure Water facilities and staffing. Pure Water positions are gradually being ramped up so personnel is on hand and fully trained to operate and maintain the facilities when they come on line A total of 33.00 FTEs from the Wastewater System (of 67.00 total FTEs) are anticipated to be required when Pure Water becomes fully operational. These estimates will be further refined as the City gets closer to bringing the facility on line.

Supplies

The Supplies category includes costs for chemicals, machine parts, electrical materials, laboratory supplies, and pipe fittings. Table 5.3 displays the FY 2021 through FY 2026 projections for the Supplies category.

Table 5.3 - Supplies - Baseline Expenditure Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	3.0%	3.0%	3.0%	3.0%
Projection	$26.5	$26.5	$27.3	$28.1	$29.0	$29.8

The Supplies category includes various components. Each component has a different growth rate. Growth rates for each category are based on historical analysis and include other adjustments based

on known and anticipated events. As a result, the 3.0% growth rate that was applied to the Supplies category represents a weighted growth rate that was calculated after applying the corresponding growth rate for each component. Due to PUD's historical actual operating trends being lower than budgeted amounts and the continued uncertainty surrounding the impacts of the COVID-19 pandemic on operations, FY 2022 baseline amounts are carried forward from FY 2021.

Critical Strategic Expenditures

Table 5.4 - Critical Strategic Expenditures - Supplies					
Request	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Pure Water Support	$0	$0	$1,157,754	$1,710,055	$3,207,506
Total Expense	**$0**	**$0**	**$1,157,754**	**$1,710,055**	**$3,207,506**

Table 5.4 identifies increased expenditures associated with the expansion of the Pure Water Program. These expenditures are necessary as new and expanding Pure Water facilities come online and include chemical costs, consumables, repair and replacement parts for equipment, and other materials necessary for operation and maintenance of facilities and equipment.

Contracts

Contracts are a non-personnel expense category that includes the cost of professional consultant fees, general government services billing, City services billings, fleet vehicle usage and assignment fees, contractual services, other contractual expenses. Table 5.5 displays the FY 2021 through FY 2026 projections for the Contracts category.

Table 5.5 - Contracts - Baseline Expenditure Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	2.0%	2.0%	2.0%	2.0%
Projection	$95.9	$95.9	$97.8	$99.8	$101.8	$103.8

The Contracts category includes various components that each has different applicable growth rates. Growth rates for each category are based on historical analysis and other adjustments based on known and anticipated events, including anticipated contract expirations. As a result, the growth rate for the Contracts category represents a weighted growth rate that was calculated after applying the corresponding growth rate for each component. Due to PUD's historical actual operating trends being lower than budgeted amounts and the continued uncertainty surrounding the impacts of the COVID-19 pandemic on operations, FY 2022 baseline amounts are carried forward from FY 2021.

Critical Strategic Expenditures

Table 5.6 - Critical Strategic Expenditures - Contracts					
Request	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Condition Assessments	$860,000	$660,000	$660,000	$660,000	$660,000
Environmental Support & Compliance	$90,000	$90,000	$90,000	$50,000	$50,000
Financial Support	$50,000	$0	$37,500	$350,000	$150,000
Pure Water Support	$0	$0	$657,034	$1,377,068	$5,886,267
Security System Upgrades	$58,830	$58,830	$58,830	$58,830	$39,750
Wastewater Facility Maintenance	$2,300,000	$3,300,000	$1,000,000	$0	$0
Wastewater Collection Flow & Depth Monitoring	$2,415,000	$2,440,000	$2,485,000	$2,510,000	$1,800,000
Total Expense	**$5,773,830**	**$6,548,830**	**$4,988,364**	**$5,005,898**	**$8,586,017**

Table 5.6 identifies increased contractual expenditures in several areas. Significant expenditures are associated with increased support for Phase 1 of the Pure Water Program as it comes online, increased maintenance at wastewater facilities to ensure all systems are properly maintained, and flow and depth monitoring to ensure ongoing monitoring of the effectiveness of the wastewater collection and treatment system.

Additional amounts are in support of increased condition assessments, environmental support and compliance to ensure compliance with various local, state, and federal requirements such as the Habitat Conservation Plan and Multiple Species Conservation Plan, financial support, and upgrades to various Wastewater System security systems.

Information Technology

The Information Technology category includes both discretionary expense and non-discretionary allocations to the Sewer Revenue Funds. The Information Technology category includes the costs related to hardware and software maintenance, help desk support, and other information technology (IT) services. Table 5.7 below displays the FY 2021 through FY 2026 projections for the Information Technology category.

Table 5.7 - Information Technology - Baseline Expenditure Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	4.2%	2.0%	2.0%	2.0%
Projection	$12.4	$12.1	$12.6	$12.9	$13.1	$13.4

The projections include estimates of IT costs related to desktop support, networks, data-centers, applications, and systems critical to wastewater treatment plant operations for FY 2021 through FY 2026, Expenditures were inflated by 2% to account for potential cost increases in IT services and hardware/software products, and one-time expenditures in FY 2021 were removed from FY 2022 projections. Due to PUD's historical actual operating trends being lower than budgeted amounts and

the continued uncertainty surrounding the impacts of the COVID-19 pandemic on operations, FY 2022 baseline amounts are otherwise carried forward from FY 2021.

Critical Strategic Expenditures

Table 5.8 Critical Strategic Expenditures - Information Technology					
Request	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Customer Service Support	$175,000	$175,000	$175,000	$175,000	$175,000
Desktop Computer Replacement	$0	$795,000	$0	$0	$0
Total Expense	**$175,000**	**$970,000**	**$175,000**	**$175,000**	**$175,000**

Additions in the IT category include additional support for customer service IT systems and replacement of desktop computers in the Department in FY 2023.

Energy & Utilities

The Energy and Utilities category includes the Sewer Fund's costs for electricity, water services, fuel, and other utility and energy expenses. Table 5.9 displays the FY 2021 through FY 2026 projections for the Energy and Utilities category.

Table 5.9 - Energy & Utilities - Baseline Expenditure Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	0.4%	0.4%	0.4%	0.4%
Projection	$22.6	$22.6	$22.7	$22.8	$22.9	$23.0

The Energy and Utilities category includes various costs. Each cost component has a different applicable rate. Growth rates for energy are based on growth rates prepared by the U.S. Energy Information Administration[6]; those growth rates showed no projected increases for energy, but some increases for fuel. Due to PUD's historical actual operating trends being lower than budgeted amounts and the continued uncertainty surrounding the impacts of the COVID-19 pandemic on operations, FY 2022 baseline amounts are carried forward from FY 2021.

Critical Strategic Expenditures

Table 5.10 - Critical Strategic Expenditures - Energy & Utilities					
Request	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**
Contractual Energy Use	$3,400,000	$3,420,000	$3,420,000	$3,420,000	$3,420,000
Pure Water Support	$0	$0	$0	$416,434	$4,164,343
Total Expense	**$3,400,000**	**$3,420,000**	**$3,420,000**	**$3,836,434**	**$7,584,343**

Table 5.10 above identifies increased energy and utility expenditures for the Wastewater System. Contractual Energy Use covers increased expenditures for methane energy generation at the Metropolitan Biosolids Center and for a fuel cell energy project at the South Bah facility. Expenditures for Pure Water are necessary as new and expanding Pure Water facilities come online and include

[6] U.S. Energy Information Administration, https://www.eia.gov/outlooks/aeo/

expenditures for the Morena pump station, North City Water Reclamation Plant, and the Metro Biosolids Center facilities.

Other Expenditures

Expenses included in this category are transfers out to other funds, capital expenses, and other miscellaneous expenditures. Debt service obligations, including bond and State Revolving Fund (SRF) loan payments, are excluded from this category and are discussed in detail within the Wastewater System Capital Improvement Program section of this report. Table 5.11 displays the FY 2021 through FY 2026 projections for the Other Expenditures category.

Table 5.11 - Other Expenditures - Baseline Expenditure Projections ($ in Millions)

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.0%	0.0%	0.0%	0.0%	0.0%
Projection[(1)]	$5.5	$5.5	$5.5	$5.5	$5.5	$5.5

No growth rate was applied to Other Expenditures as the expenses in this category do not typically recur on an annual basis. The FY 2021 Projection is based on the FY 2021 Adopted Budget which is adjusted to account for historical trends.

Critical Strategic Expenditures

Table 5.12 - Critical Strategic Expenditures - Other Expenditures

Request	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
AMI Support	$23,400	$23,400	$23,400	$23,400	$23,400
Laboratory Operations	$585,000	$15,000	$15,000	$15,000	$15,000
Pure Water Support	$40,000	$0	$0	$0	$0
Total Expense	**$648,400**	**$38,400**	**$38,400**	**$38,400**	**$38,400**

Table 5.12 above identifies small increases in other expenditures, including additional support for laboratory operations, and smaller amounts for immediate Pure Water Program support and ongoing support for the AMI Program.

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Reserve Contributions

The City has established accounts within the Sewer Revenue Fund for three reserve funds: The Emergency Operating Reserve (Operating Reserve), the Rate Stabilization Fund Reserve (Rate Stabilization Fund), and the Emergency Capital Reserve (Capital Reserve). The Department operates these reserve funds in accordance with the City's reserve policy. At the end of FY 2021, the Sewer Revenue Fund is estimating total reserves of approximately $142.0 million. Table 5.13 below details reserve targets and projected funding levels. Reserves are projected to be fully funded throughout the PUD Outlook period. The Sewer Fund's Rate Stabilization Reserve Fund is funded above targeted levels; it can be used to provide one-time operating revenue to offset or mitigate the need for sudden or dramatic rate increases. The PUD Outlook projects use of the Rate Stabilization Reserve Fund in FY 2021 through FY 2023, and contributions to that Reserve in FY 2024 and FY 2025.

Table 5.13 - Reserve Targets and Estimated Funding Levels ($ in Millions)

	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025	Fiscal Year 2026
Operating Reserve Target ($)	$50.4	$52.7	$53.7	$54.2	$55.1	$57.4
Operating Reserve Level ($)	$50.7	$52.7	$53.7	$54.2	$55.1	$57.4
Rate Stabilization Fund Target ($)	$18.3	$18.9	$19.4	$20.1	$20.8	$21.3
Rate Stabilization Fund Level ($)	$81.3	$63.8	$41.3	$46.3	$53.8	$53.8
Capital Reserve Target ($)	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0
Capital Reserve Level ($)	$10.0	$10.0	$10.0	$10.0	$10.0	$10.0

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Wastewater System Capital Improvement Program

The Wastewater System CIP is established to address current and future system needs in a cost-effective manner. The program's principal drivers are:

- implementation of the Pure Water Program;
- improving infrastructure to reduce emergency spills and repairs;
- improving process technology;
- expansion of the Wastewater System to accommodate growth; and
- ongoing replacement and rehabilitation of 45 miles of sewer pipelines each year.

Infrastructure improvements generally consist of wastewater treatment plants, pipelines, and pump stations, and projects required by or related to applicable State and Federal regulations and orders. The Wastewater System's CIP for this PUD Outlook period includes improvements to the Wastewater System infrastructure, as well as Phase 1 of the multi-year Pure Water Program.

Table 6.1 shows categories of projects with the estimated cost of expenditures contained in the CIP for the period of Fiscal Years 2022 through 2026.

Table 6.1 - Summary of Projected CIP Projects
Fiscal Year 2022-2026
($ in Millions)

Wastewater CIP Projects	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total
Pure Water Program	$157.4	$189.0	$109.2	$43.4	$10.1	$509.1
Trunk Sewers	$56.9	$24.7	$21.2	$27.1	$35.6	$165.6
Muni Pump Station	$1.3	$0.9	$1.6	$6.4	$16.8	$26.9
Sewer Pipelines	$70.0	$72.7	$88.8	$63.3	$58.3	$353.1
Miscellaneous Projects	$6.1	$8.5	$27.9	$34.0	$7.9	$84.5
SDG&E Relocation Advance	$28.4	$0.0	$0.0	$0.0	$0.0	$28.4
Sewer Treatment Plants	$29.4	$34.2	$19.7	$10.9	$2.4	$96.6
Large Sewer Pump Station	$5.2	$6.8	$7.1	$1.1	$1.8	$21.9
Recycled Water	$0.4	$0.4	$0.4	$0.4	$0.2	$1.6
Total	**$355.1**	**$337.1**	**$275.9**	**$186.5**	**$133.2**	**$1,287.8**

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Capital Improvement Financing Plan

Table 6.2 describes the projected sources of funds to finance the Wastewater System CIP for Fiscal Years 2022 through 2026. PUD anticipates incurring approximately $447.2 million of additional debt obligations for the Baseline Wastewater System CIP and $564.3 million of additional obligations for the Pure Water CIP over the PUD Outlook period. Additional amounts will be funded with grants, capacity fee revenue, and cash.

Table 6.2 - Sources of Funds for the Wastewater Capital Improvement Program ($ in Millions)

Source of Funds	FY 2023	FY 2024	FY 2025	FY 2026	TOTAL
Pure Water CIP					
SRF Loans	$172.5	$122.9	$57.4	$16.2	$564.3
Grants	$0.0	$0.0	$0.0	$0.0	$0.0
Capacity Fees / Cash	$16.4	($13.6)	($14.0)	($6.1)	($55.2)
Total	**$189.0**	**$109.2**	**$43.4**	**$10.1**	**$509.1**
Baseline CIP					
Commercial Paper/Revenue Bonds	$80.0	$60.0	$0.0	$0.0	$290.0
SRF Loans	$7.5	$38.0	$53.5	$51.2	$157.2
Grants	$0.0	$0.0	$0.0	$0.0	$0.3
Capacity Fees / Cash	$60.7	$68.7	$89.6	$71.9	$331.1
Total	**$148.2**	**$166.7**	**$143.1**	**$123.1**	**$778.7**
Total Funding	**$337.1**	**$275.9**	**$186.5**	**$133.2**	**$1,287.8**

The City anticipates financing all (approximately $581 million) of the Wastewater System's portion of Pure Water Phase 1 through low-interest State Revolving Fund (SRF) loans which will provide funding in Fiscal Years 2022 through 2026. The SRF proceeds will reimburse not only projected expenditures for Fiscal Years 2022 through 2026, but also expenditures from prior years. Because SRF loans are provided on a reimbursable basis, cash is initially used to fund construction amounts before reimbursements are received; this is reflected in the table above by negative cash values for Pure Water financing in FY 2022, and FY 2024 through FY 2026.

As noted in the discussion of the Water System CIP, SRF loans are one of the least expensive sources of financing available to the City. If the City is not awarded the SRF loans projected over this PUD Outlook period, it will need to seek financing sources that carry higher interest rates. Such financing sources could impact the schedule of projected CIP projects.

The City anticipates financing approximately $157.2 million of the Wastewater System Baseline CIP with SRF loans in Fiscal Years 2022 through 2026. This includes approximately $9.0 million from existing SRF loans which the City has already secured, and $148.2 million from loans for which the City has applied or is in the process of applying. Additionally, the City anticipates financing approximately $290.0 million of the Wastewater System Baseline CIP through revenue bonds over the same period. It is expected that a total of $ 331.4 million will come from grants, capacity fees, and cash on a pay-as-you-go-basis.

Debt Service Coverage Ratio

Similar to the Water System, as the Wastewater System makes use of various financing instruments to fund its capital program, it is important that it maintain good financial metrics to ensure its creditworthiness and its ability to issue debt at advantageous terms. One of the key components to measuring the Wastewater System's credit quality is its debt service coverage ratio (DSCR). The DSCR is a measure of a system's ability to make payments on its existing and projected debt service, and compares the system's net operating revenues against its debt service payments.

While variations in revenues and expenditures will result in varying DSCRs in given years, the Department generally targets a DSCR of 1.5x, a financial target that gives the Wastewater system the ability to maintain high credit quality leading to continued low borrowing rates. Additionally, the Department's bond covenants require it to maintain a DSCR of 1.2x for its senior debt and 1.1x for its aggregate debt. The projected DSCRs over the PUD Outlook period are displayed in Table 6.3 below.

Table 6.3 - Projected Debt Service Coverage Ratios[1]
($ in Millions)

	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Net System Revenues	$161.7	$174.7	$158.2	$167.1	$172.4
Debt Service	$109.2	$118.0	$103.3	$105.4	$110.9
Debt Service Coverage Ratio	**1.48 x**	**1.48 x**	**1.53 x**	**1.59 x**	**1.55 x**

[1] Note - DSCRs shown here are based budgetary projections; DSCRs reported in CAFR statements may differ due to variances in non-budget transactions.

Wastewater System Revenues

The following section provides details of revenue projections for the Sewer Revenue Funds. The primary revenue sources of the Wastewater System are generated from sewer service charges, capacity fees, interest earnings from the investments of available funds, and revenues from the Participating Agencies. This section will discuss in detail each revenue category and will include a description of the revenue source, projected growth rates, and a discussion of future revenue streams and how it impacts the Wastewater System.

Sewer Service Charges

Background. PUD manages and operates the Wastewater System with funds derived primarily from service charges that are deposited in the Sewer Revenue Funds and are used for the operation, maintenance and capital improvement of the Metro Sub-System and the Muni Sub-System.

The City establishes fees based upon the costs incurred by the City to collect, treat and discharge wastewater and pay for required capital improvements.

Sewer service charges are based on the characteristics of the wastewater discharged by each sewer user. All sewer users are charged based upon the amount of flow, and the solids and organic material which they discharge into the Sewer System. As sewage discharge is not metered, water consumption is used to approximate each customer's sewage flow.

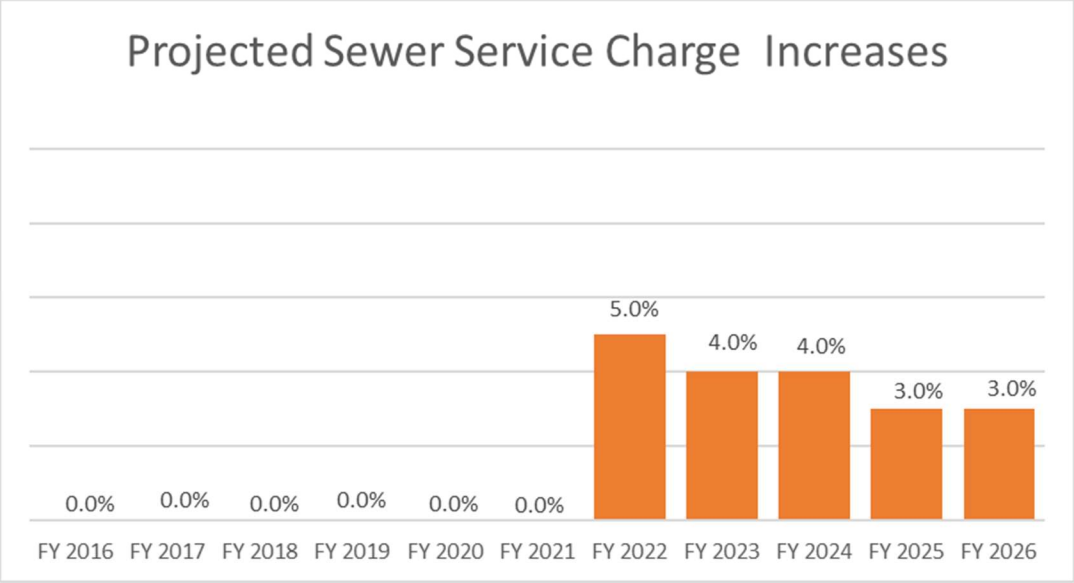
Sewer service charge revenues are comprised of two parts: a base fee and a sewer service charge (flow charge). The base fee is a fixed monthly service fee charged to all customers to recover certain

fixed and indirect costs. The flow charge is based on the amount (flow) and strength of the wastewater discharged to the sewer system, and incorporates allowances for system return that differs by customer class. This adjustment factor recognizes that not all water consumed discharges to the Wastewater System. The flow charge for both Single Family Residential (SFR) and Multi-Family Residential (MFR) customers include a 95% return to sewer, while Commercial/Industrial (C/I) customers average a 73% return to sewer and vary depending on the type of business. Additionally, the flow charge for SFR customers is based on the least amount of water used during the previous winter and includes a water usage cap of 20 HCF.

Wastewater Service Charge Rate Increases. The Department last presented a wastewater rate case in 2006 (the 2006 Rate Case). The 2006 Rate Case covered four years and was based on comprehensive forecasted annual operations and maintenance costs and projected capital expenditures. The 2006 Rate Case covered Fiscal Years 2007 through 2010 and was approved by the City Council in February 2007. The rate case included rate increases of 8.75% on May 1, 2007, 8.75% on May 1, 2008, 7.00% on May 1, 2009, and 7.00% May 1, 2010. Sewer rates have remained unchanged since then.

Based on projected expenditure and revenue needs, this PUD includes projected sewer service charge revenue adjustments of 5.0% in FY 2022, 4.0% in FYs 2023 and 2024, and 3.0% in FYs 2025 and 2026, as shown in Figure 6.1 below. Actual rate increases and the specific impact on each customer class will be subject to finalization of the cost of service study that is currently underway and City Council consideration.

Figure 7.1 – Sewer Service Charge Rate Increases.



Forecast. Table 7.2 shows the forecast for FY 2021 through FY 2026 for revenue from sewer service charges. This revenue source represents approximately 73% of the Sewer Revenue Funds overall revenue receipts. The forecast assumes a 0.25% increase in accounts and reflects projected rate increases beginning in FY 2022 through FY 2025.

Table 7.2 - Sewer Service Charge Revenue Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	4.40%	4.26%	4.26%	3.26%	3.26%
Projection	$290.1	$302.9	$315.8	$329.2	$339.9	$351.0

Economic Trends. Overall demand for sewer services closely tracks population growth. The demand for sewer services within the City's service area is projected to increase moderately as the population continues to grow and development expands. The average demand over the last five years has not grown significantly, with some small growth in demand largely caused by increases in population.

Sensitivity Analysis. While these projections represent PUD's best estimate of wastewater revenues throughout the PUD Outlook period, actual results will depend on the factors discussed above. The impact in revenue from potential rate increases ranges from $2.9 to $3.3 million for each percent added or subtracted from projected rate increases depending on the year in which sewer service charges are adjusted. Adjustments to projected rates in earlier years would compound this amount.

Wastewater Capacity Charges

Background. Capacity charges are development fees imposed on permits for new or expanded wastewater connections and are based on an estimate of the increase in wastewater discharge as measured by equivalent dwelling units. Capacity charge proceeds are used to construct, improve and expand the Wastewater System to accommodate the additional business of such added dwellings or commercial or industrial units.

As with water capacity charges, wastewater capacity charges can be applied only for the purpose of paying costs associated with capital expansion, bonds, contracts, or other indebtedness of the Wastewater System related to expansion. Because capacity charges are primarily collected on new construction within the City, revenues obtained from such charges vary based upon construction activity.

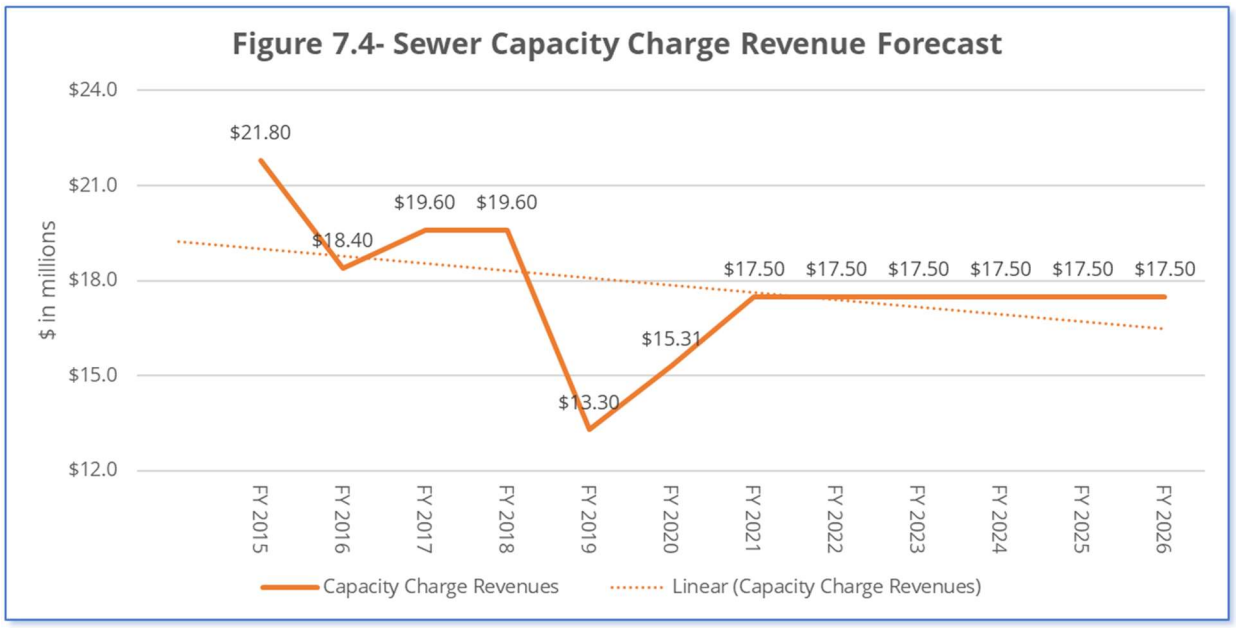
In February 2007, the City Council and Mayor approved raising the capacity charge to $4,124 per Equivalent Dwelling Unit ("EDU"), which was estimated to provide for full cost recovery for Wastewater System expansion projects.

Forecast. Table 7.3 presents revenue forecast for FY 2021 through FY 2026 for revenue from sewer capacity charges. This revenue source represents approximately three percent of the Wastewater System's overall revenue receipts.

Table 7.3 - Capacity Charge Revenue Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.00%	0.00%	0.00%	0.00%	0.00%
Projection	$17.5	$17.5	$17.5	$17.5	$17.5	$17.5

Projected revenues for wastewater capacity charges use conservative growth estimates based on trends from FY 2016 through FY 2020, and projected construction permitting activity as shown in Figure 6.4. Average wastewater capacity fee revenue between FY 2015 and FY 2020 was approximately

$18.0 million. Capacity fee projections of $17.5 million over the PUD Outlook period are based on this average and take recent trends into account, as shown in Figure 7.4.



Economic Trends. As previously mentioned, wastewater capacity charges are primarily based on new wastewater connections related to new construction and are directly influenced by population growth and residential and commercial development. As discussed in the Water Capacity Charges section of this report, the City of San Diego's population has grown by approximately 7% between the 2000 Census and the 2010 Census for an aggregate increase of 84,000. As population continues to increase in the region, the demand for new single and multi-family housing is also expected to increase in order to meet population demands. Projections mirror those of Water Capacity Charges by remaining flat. For a more detailed discussion on population and housing growth, refer to the Water Capacity Charges section of this report.

Other Revenue

The primary component of the Other Revenue category is revenues received from Participating Agencies (PAs) for use of the City's wastewater treatment system. As discussed earlier, the PAs are other cities and districts that collect wastewater from their customers and send it to the City's wastewater treatment facilities. Each PA pays for its actual impact on the Wastewater System based on a measurement of the strength and flow of wastewater from the PAs. Revenues from the PAs total $80 million per year over the PUD Outlook period and represent approximately 79% of revenues in the Other Revenue category. The Other Revenue category also includes revenue received for the sale of recycled water, interest on pooled investments, reimbursements from services provided to other City departments / funds, grants revenue, and other miscellaneous revenues.

Table 7.5 displays the FY 2021 through FY 2025 projections for the Other Revenue category.

Table 7.5 - Other Revenue Projections ($ in Millions)						
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Growth Rate	N/A	0.00%	0.00%	0.00%	0.00%	0.00%
Projection	$98.7	$100.1	$99.9	$99.8	$105.1	$105.3

No growth rate is applied to the Other Revenue category for the PUD Outlook period. However, revenues are projected to increase from FY 2021 through FY 2026 based on historical analysis, projected interest income, and other known and anticipated adjustments. Also, the increase in FY 2025 reflects new revenue associated with the sale of Recycled Water from the North City Water Reclamation Plant.

ATTACHMENT 4

PRESENTATION

CITY OF SAN DIEGO

STORM WATER RUN OFF

(ATTACHMENT FORTHCOMING)

ATTACHMENT 5

PRESENTATION

CITY OF SAN DIEGO

PURE WATER
LOCAL LIMITS

Pure Water Program
Local Limits

Project Overview

Metro JPA Technical Advisory Committee
March 17, 2021

The City of SAN DIEGO

Agenda

- Regulatory Basis
- Setting Local Limits
- Project Approach
- Timeline
- Questions

Regulatory Basis

Objectives of the General Pretreatment Regulations

- To prevent the introduction of pollutants into POTWs which will pass through the treatment works or otherwise be incompatible with such works
- To prevent the introduction of pollutants into POTWs which will interfere with the operation of a POTW, including interference with its use or disposal of municipal sludge
- To improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges

Enhanced Source Control Program for PLWTP Waiver

- San Diego received its first waiver in 1995
- City must enhance industrial source control through the Urban Area Pretreatment Program
  - *For each toxic pollutant from an industrial source, an applicable pretreatment requirement must be in effect*
  - *Local limits must be adequate and enforceable*
  - *City must demonstrate that industries are in compliance or that enforcement actions will be taken by the City*
  - *Local limits must be studied annually by means of monitoring and technical review*
- Annual system-wide non-industrial toxics surveys further identify sources of toxic constituents
  - *e.g., Household waste*

Pure Water Program Implementation

"Prior to the start of the diversion of flow via Morena Pump Station, an Enhanced Local Limits Study must be completed for the expanded NCWRP sewershed, which includes the current sewershed plus the area tributary to the Morena Pump Station. The study will include appropriate pollutants with drinking water criteria based upon MCLs and Notification Levels, and unregulated CECs from the EPA Drinking Water Contaminant Candidate List to be determined in consultation with DDW. The study will be updated annually."

North City Pure Water Title 22 Engineering Report Conditional Acceptance Letter
Division of Drinking Water

Setting Local Limits

Local Limits

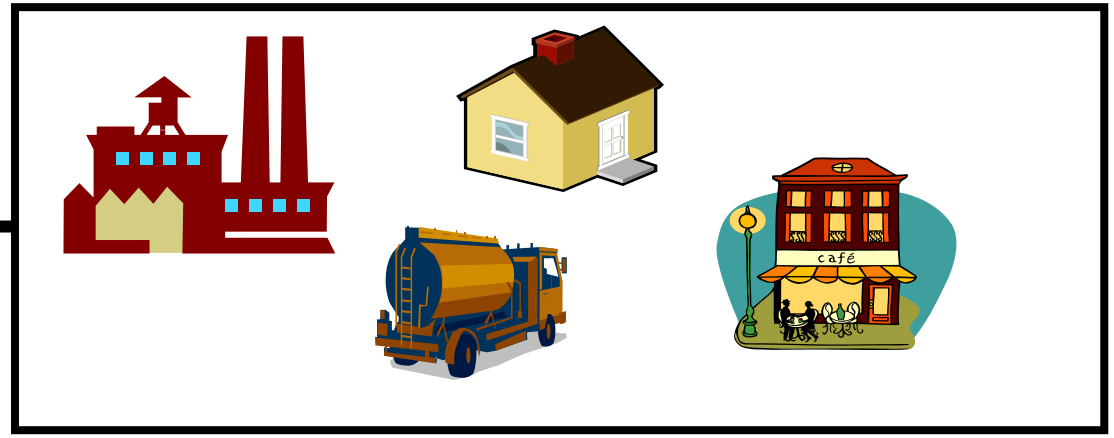
Must	Should be
Adequately protect • End uses of effluent and sludge • Collection and treatment system processes • Worker health and safety	Technically achievable
Accommodate domestic, commercial and non-industrial users as well as industrial users	Perceived as fair
Be technically defensible	
Be enforceable	

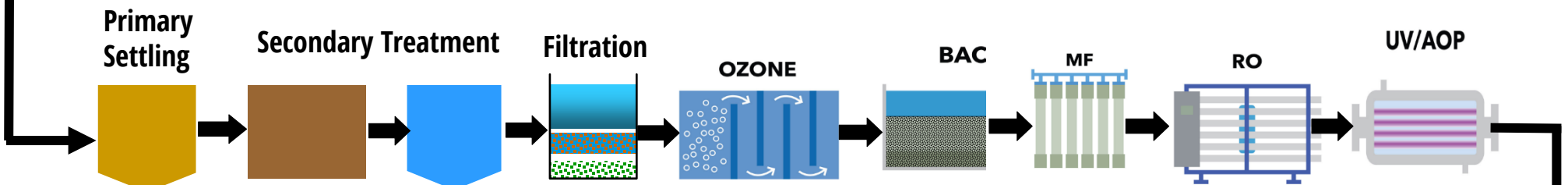
Conceptual Approach to Determining Local Limits

Allocate Load
(as needed)

Assess removals and develop MAHLs

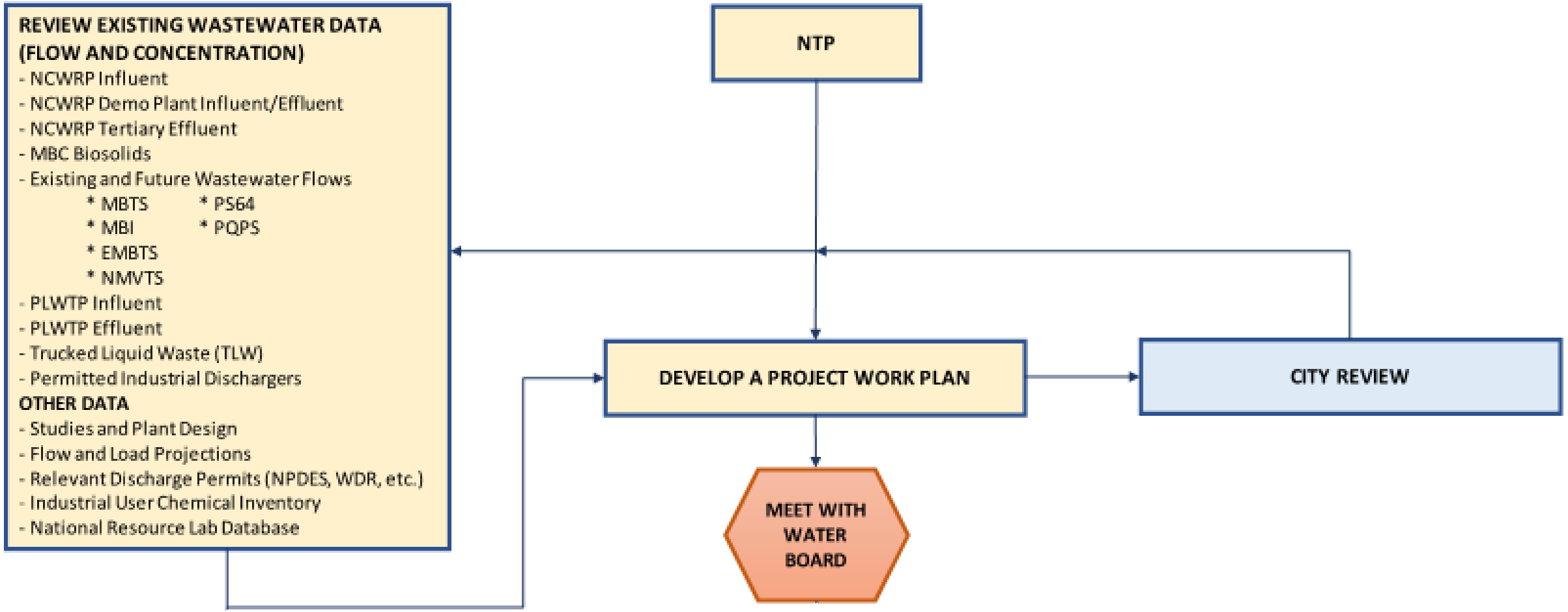
Determine Receiving Water Requirements



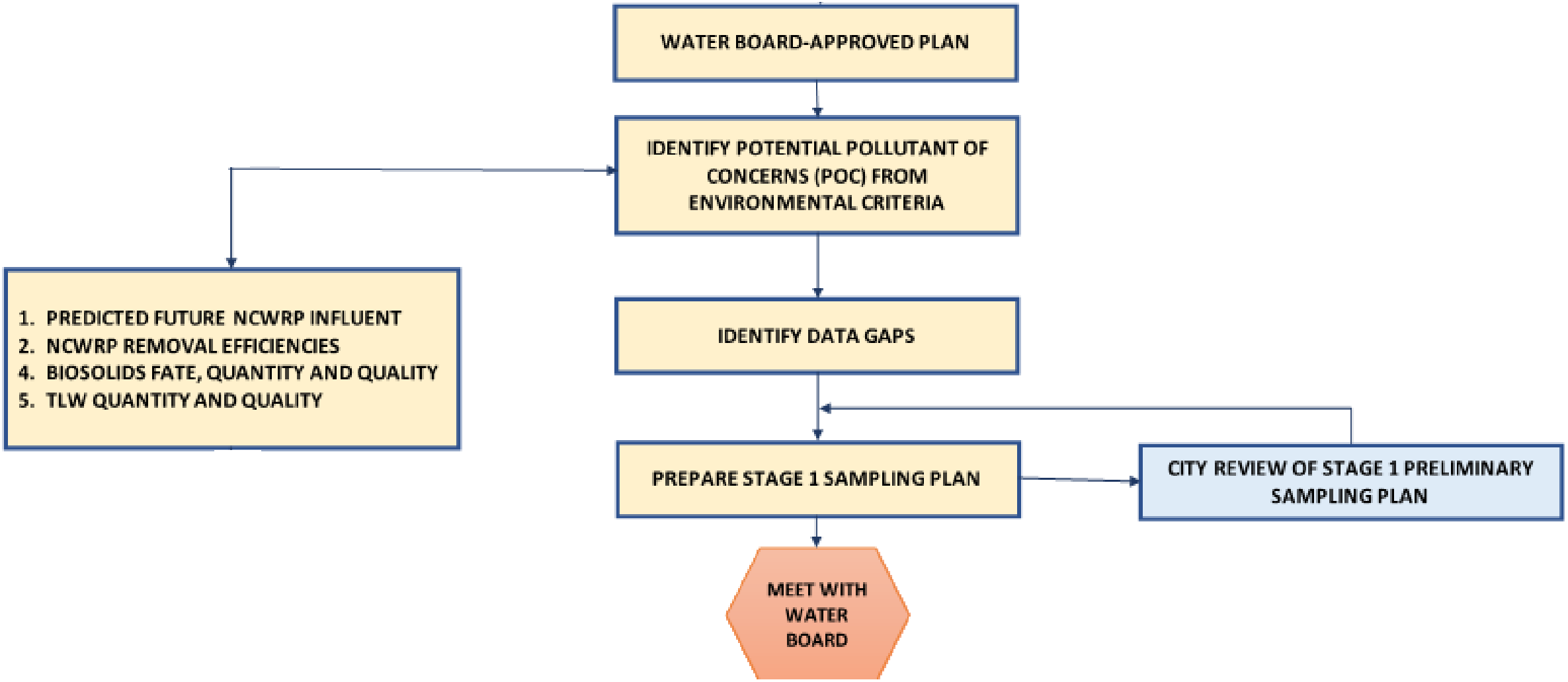


Project Approach

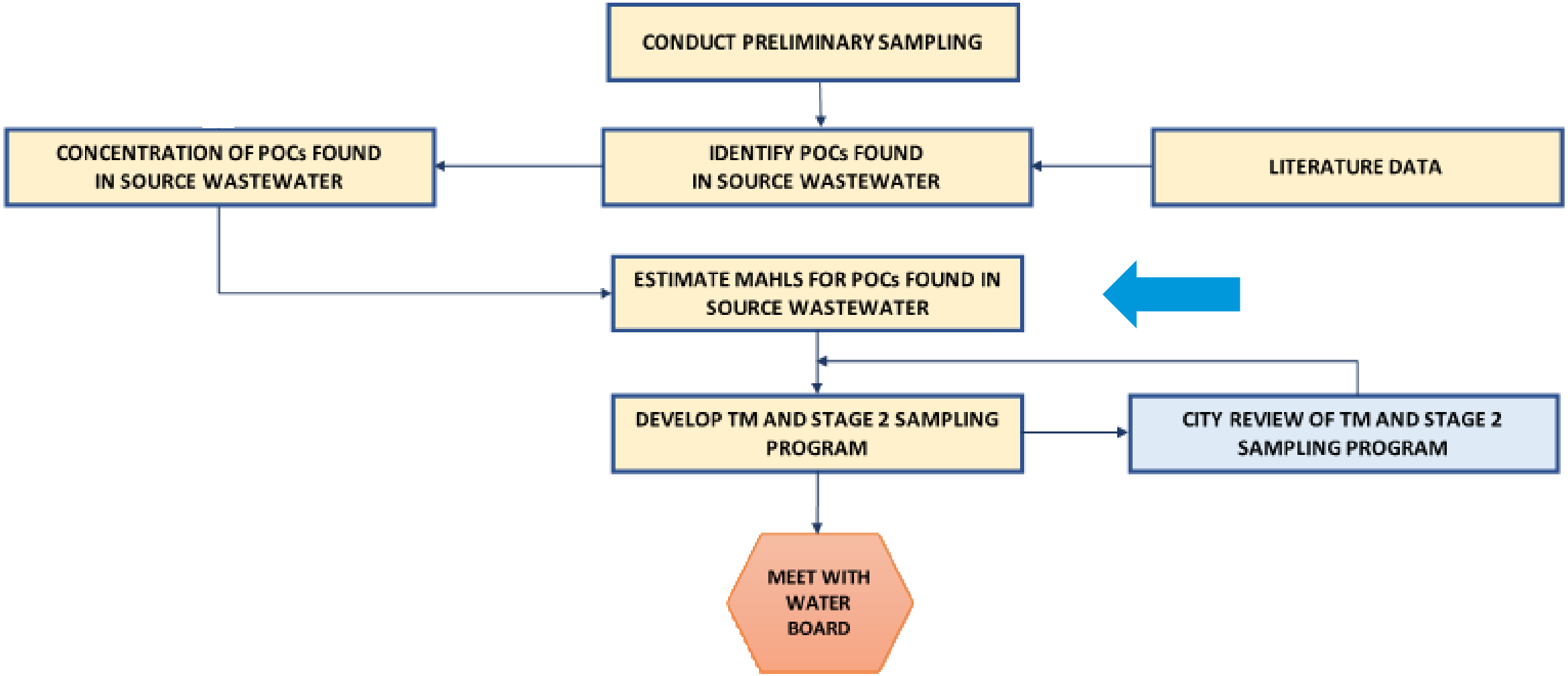
Project Approach



Project Approach

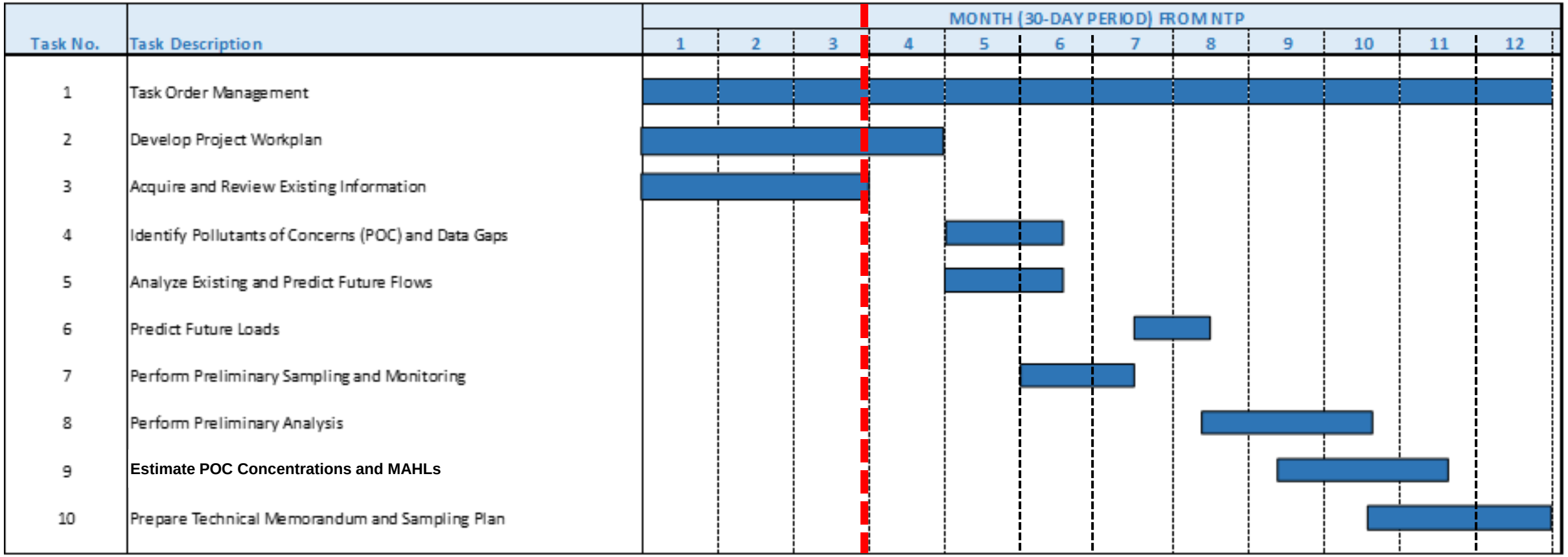


Project Approach



Timeline

Stage 1 Schedule



Questions

ATTACHMENT 6

CITY OF SAN DIEGO'S

RANKING OPTIONS

PURE WATER PHASE II

PLANNING ALTERNATIVES REFINEMENT

Pure Water Phase 2 Planning Alternatives Refinement

Metro Wastewater JPA Commission
March 4, 2021

Doug Owen, Stantec
Consultant Team Manager
Pure Water Program

The City of SAN DIEGO

DRAFT

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Victor Occiano, Brown and Caldwell

Christine Waters, CityWorks

Sean McCarty, West Coast Civil

Agenda

- Summary of Phase 2 Alternatives
- Cost Estimating
- Qualitative Evaluation Matrix
- Next Steps

Summary of Alternatives

Alternatives include combinations of:

- **CA Water Reclamation Plant**
  - **Point Loma WTP**
  - **Harbor Drive**
- **CA Pure Water Facility**
  - **Harbor Drive**
  - **Mission Valley**
- **Options With and Without:**
  - **Waiver / Secondary Equivalency**
  - **Padre Dam 11.5 mgd ECAWP part of a "regional" 83 mgd solution**
  - **Brine / Treated Centrate Bypass PLWTP directly to Point Loma Ocean Outfall**

Summary of Alternatives

Alt	Secondary Equiv	Brine/Treated Centrate Bypass	Regional Purified Water Production	CAWRP/CAPWF Combined at Harbor Dr	Phase 2 Pure Water Production (mgd)
1A	✓				53
1B					53
1C	✓	✓			53
1D		✓			53
1E	✓		✓		41.5
1F		✓	✓		41.5
1G	✓		✓	✓	41.5
1H		✓	✓	✓	41.5
3A	✓	✓			53
3B		✓			53
3C	✓	✓	✓		41.5
3D		✓	✓		41.5

Alt 1x – CAWRP at Harbor Drive; Alt 3x – CAWRP at PLWTP

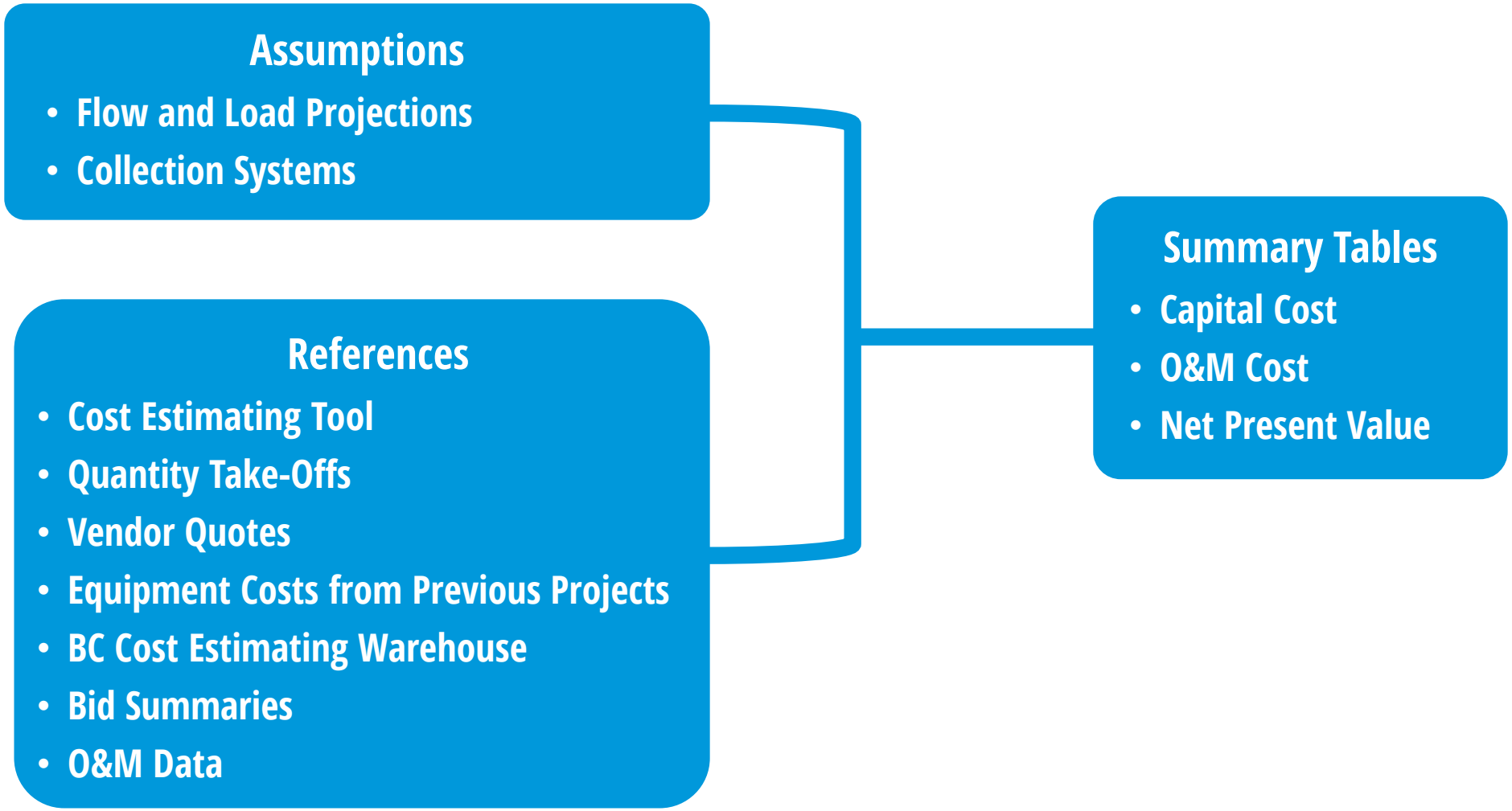
Peak Treatment Capacity at PLWTP for Phase 2 Pure Water Alternatives

Alt	Secondary Equiv	Brine/Treated Centrate Bypass	Regional Purified Water Production	CAWRP/CAPWF Combined at Harbor Dr	Phase 2 Pure Water Production (mgd)	Peak Treatment Capacity Provided at the PLWTP (mgd)
1A	✓				53	432
1B					53	285
1C	✓	✓			53	432
1D		✓			53	263
1E	✓		✓		41.5	432
1F		✓	✓		41.5	277
1G	✓		✓	✓	41.5	432
1H		✓	✓	✓	41.5	277
3A	✓	✓			53	324
3B		✓			53	327
3C	✓	✓	✓		41.5	324
3D		✓	✓		41.5	327

Alt 1x – CAWRP at Harbor Drive; Alt 3x – CAWRP at PLWTP

Construction Cost Approach

Cost Approach Methodology



Construction Cost Estimates

- Treatment and Conveyance Facilities
- Class 5 Conceptual Planning Level Estimate
- Anticipated Accuracy Range -50% to +100%
- 40% Contingency
- 2020 Construction and Delivery Costs
- Does Not Include:
  - *Water/Wastewater Allocations*
  - *Escalation to midpoint of construction*
  - *Hazardous materials remediations and/or disposal*
  - *Impacts from COVID-19*
  - *Rock excavation*
  - *Permitting/coordination efforts with Navy at PLWTP*

Treatment Construction Costs

- **"Bottom Up" Estimates**
  - *Site Work, Demolition, Excavations, Retaining Walls*
  - *Buildings $/SF*
- **Lump Sump Allowances**
  - *Mob / Demob, Landscaping, BMPs*
  - *Site Constraints, Geotechnical*
- **Equipment Costs by Treatment Process**
- **Compared to $/mgd Treatment Plant Bids and Engineer's Estimates**

PLWTP Rehabilitation Costs

- **Alternative 1 options with Secondary Equivalency include:**
  - *$125.0M Primary Sedimentation Basins 1 – 6 Replacement*
  - *$41.4M Primary Sedimentation Basins 7 -12 Resurfacing*
- **PSB Replacement/Resurfacing Costs consider:**
  - *PSBs 1-6: Complete replacement, including odor control and mechanical / electrical / instrumentation*
  - *PSBs 7-12: Concrete resurfacing / relining; does not include odor control and mechanical / electrical / instrumentation replacement*

Site-specific Stabilization Measures

- **Harbor Drive**
  - *Geotech Improvements due to groundwater and existing geology*
  - *Public Promenade*
  - *Mitigation for Sea Level Rise (SLR)*
    - Need regional solution to SLR
    - Common to all alternatives
    - Determining potential cost impacts
- **Mission Valley**
  - *Geotech Improvements due to groundwater and existing geology*
  - *Retaining wall*
  - *San Diego River Promenade*

Site-specific Stabilization Measures (cont.)

- **Point Loma**
  - *Soil import/export*
  - *Filling of voids, sea caves*
  - *Retaining wall*
  - *Sheeting and shoring to preserve existing structures during construction*
  - *Excludes sea wall improvements*
    - **Common to all alternatives; needed regardless of which alternative is selected**
    - **Consider in qualitative evaluation**

Conveyance Construction Costs

- **Tunnels**
  - *"Bottom Up" Estimates for Major Tunnels*
  - *$/inch-diameter casing/linear foot for Trenchless Crossings*
- **Open Trench Pipelines - $/inch diameter/linear foot**
- **Pump Stations - $/HP**
- **Validated Costs Against Recent North City Bids**

Draft Cost Estimates

Alternative Trimming

- **Brine/centrate bypass does not add value to Alternative 1**
  - *Alternatives 1C and 1D do not merit further investigation*
  - *Alternative 1F re-configured to remove brine/centrate bypass*
- **Alternatives 1G and 1H (41.5 mgd) with CAWRP and CAPWF co-located at Harbor Drive are extremely constrained and not expandable**
  - *City does to not want to further pursue alternatives that restrict ability to expand to 53 mgd*

Updated Summary of Alternatives

Alt	Secondary Equiv	Brine/Treated Centrate Bypass	Regional Purified Water Production	CAWRP/CAPWF Combined at Harbor Dr	Phase 2 Pure Water Production (mgd)
1A	✓				53
1B					53
1C	✓	✓			53
1D		✓			53
1E	✓		✓		41.5
1F*			✓		41.5
1G	✓		✓	✓	41.5
1H*			✓	✓	41.5
3A	✓	✓			53
3B		✓			53
3C	✓	✓	✓		41.5
3D		✓	✓		41.5

Alt 1x – CAWRP at Harbor Drive; Alt 3x – CAWRP at PLWTP

*Revised Alt 1F to remove B/C Bypass

53 mgd Alternative Capital Cost Comparison

Alternative	Capital Cost	Pure Water Production	Secondary Equivalency	Brine/Treated Centrate Bypass	Description
1A	$3.50 B	53 mgd	✓		CEPT/MBR CAWRP at Harbor Drive
1B	$3.92 B	53 mgd			CEPT/MBR CAWRP at Harbor Drive; CEPT/BAF at PLWTP
3A	$4.05 B	53 mgd	✓	✓	Densadeg/MBR CAWRP at PLWTP
3B	$4.25 B	53 mgd		✓	Densadeg/MBR CAWRP at PLWTP; BAF for remaining secondary

Costs include treatment and conveyance; both wastewater and water

41.5 mgd Alternative Capital Cost Comparison

Alternative	Capital Cost	Pure Water Production	Secondary Equivalency	Brine/Treated Centrate Bypass	Description
1E	$3.22 B	41.5 mgd	✓		CEPT/MBR CAWRP at Harbor Drive
1F*	$3.70 B	41.5 mgd			CEPT/MBR CAWRP at Harbor Drive; Densadeg/BAF at PLWTP
3C	$3.81 B	41.5 mgd	✓	✓	Densadeg/MBR CAWRP at PLWTP
3D	$4.08 B	41.5 mgd		✓	Densadeg/MBR CAWRP at PLWTP; BAF for remaining secondary

*Does not include brine/centrate bypass

Costs include treatment and conveyance; both wastewater and water

53 mgd Alternative O&M Cost Comparison

Alternative	O&M Cost	Pure Water Production	Secondary Equivalency	Brine/Centrate Bypass	Description
1A	$115.9 M	53 mgd	✓		CEPT/MBR CAWRP at Harbor Drive
1B	$123.3 M	53 mgd			CEPT/MBR CAWRP at Harbor Drive; CEPT/BAF at PLWTP
3A	$123.0 M	53 mgd	✓	✓	Densadeg/MBR CAWRP at PLWTP
3B	$127.5 M	53 mgd		✓	Densadeg/MBR CAWRP at PLWTP; BAF for remaining secondary

Costs include treatment and conveyance; both wastewater and water

41.5 mgd Alternative O&M Cost Comparison

Alternative	O&M Cost	Pure Water Production	Secondary Equivalency	Brine/Centrate Bypass	Description
1E	$93.5 M	41.5 mgd	✓		CEPT/MBR CAWRP at Harbor Drive
1F*	$101.9 M	41.5 mgd			CEPT/MBR CAWRP at Harbor Drive; Densadeg/BAF at PLWTP
3C	$105.0 M	41.5 mgd	✓	✓	Densadeg/MBR CAWRP at PLWTP
3D	$109.0 M	41.5 mgd		✓	Densadeg/MBR CAWRP at PLWTP; BAF for remaining secondary

*Does not include brine/centrate bypass

Costs include treatment and conveyance; both wastewater and water

Findings

- City is considering both 53 mgd and 41.5 mgd Alternatives
- Alternative 1 scenarios (WRP at Harbor Drive) have lower capital and O&M costs than corresponding Alternative 3 scenarios (WRP at Point Loma)
- Construction at the PLWTP will be severely challenged
  - *Site constraints*
  - *Operating facility*
  - *Construction access*
  - *Geotechnical stability*

Alternatives Cost Estimate Summary

Alternative	Capital Cost	O&M Cost	Pure Water Production	Secondary Equivalency	B/C Bypass	CAWRP Description
1A	$3.50 B	$115.9 M	53 mgd	✓		CEPT/MBR CAWRP at Harbor Drive
1B	$3.92 B	$123.3 M	53 mgd			CEPT/MBR CAWRP at Harbor Drive
1E	$3.22 B	$93.5 M	41.5 mgd	✓		CEPT/MBR CAWRP at Harbor Drive
1F*	$3.70 B	$101.9 M	41.5 mgd			Densadeg/Clarifiers/Filters CAWRP at Harbor Dr
3A	$4.05 B	$123.0 M	53 mgd	✓	✓	Densadeg/MBR CAWRP at PLWTP
3B	$4.25 B	$127.5 M	53 mgd		✓	Densadeg/MBR CAWRP at PLWTP
3C	$3.81 B	$105.0 M	41.5 mgd	✓	✓	Densadeg/MBR CAWRP at PLWTP
3D	$4.08 B	$109.0 M	41.5 mgd		✓	Densadeg/MBR CAWRP at PLWTP

Qualitative Matrix

Development of Qualitative Evaluation Matrix

Team Developed Evaluation Criteria and Rating Rationale

Prepared Initial Draft Evaluation Matrices

Reviewed with City

Expanded Evaluation Criteria with Equal Rating

Green/Yellow/Red Scoring

Conducted Workshop with JPA Subgroup

Modified Rating Rationale

Updated Evaluation Matrix

Evaluation Criteria

- **Green – Yellow – Red Scoring**
  - *Draft Evaluation Matrix created using numeric scoring*
- **10 Evaluation Criteria with Equal 10% Weighting**
- **Evaluation Matrices Prepared With and Without Cost**
  - *After review, suggest evaluation matrix without cost rating*
  - *Estimated costs shown at bottom of matrix for alternative comparison*

Evaluation Criteria

No.	Criterion	Objective
1	Health and Safety	To protect human health and safety by reducing exposure to untreated or partially treated wastewater
2	Community Impacts	To minimize disruption to the community
3	Environmental Impacts	To avoid or minimize environmental impacts and greenhouse gas emissions
4	Operational Reliability	To maximize ability of facilities to comply with regulatory standards and provide failsafe
5	Ability to Implement	To optimize ability to implement, meet schedule, and acceptability to public, political and outside agencies
6	Constructability	To mitigate construction complexity
7	Property and Easement Acquisition	To minimize the need for property and easement acquisitions
8	System Operability	To provide an accessible and operator friendly system
9	System Simplicity	To simplify and streamline treatment systems
10	System Efficiency	To maximize the use of constructed facilities, avoid retreatment, and allow for future expansion

Ratings Rationale

No.	Criterion	Deductions
1	Health and Safety	sludge force main undisinfected (tertiary treated) recycled water line
2	Community Impacts	CAWRP at Harbor Drive site (views, odor, traffic concerns) multiple open trench pipelines construction through Point Loma majority open trench through Midway/Old Town additional centrate pipeline corridor (MBC to Morena area)
3	Environmental Impacts	PLWTP hillside impact impact to Point Loma viewshed* Impact to environmentally sensitive/ecological area developing Mission Valley site CAPWF Secondary Treatment higher power demand Centrate Treatment higher power demand

Deductions are 1 point, except 2 points deducted where noted*

Ratings Rationale

No.	Criterion	Deductions
4	Operational Reliability	including treated flows outside City system* significant reduction in PLWTP peak wet weather flow capacity (or need for extensive flow equalization or permit modification) using existing infrastructure for CAWRP failsafe (overflow at PS2) using existing infrastructure for CAPWF failsafe (overflow at Mission Valley)
5	Ability to Implement	not meeting 2035 delivery schedule CAWRP at Harbor Drive site (ability to permit and public acceptability) Sea Level Rise issues at Harbor Drive plant site
6	Constructability	constructing major modifications at active PLWTP site construction modifications at constrained and active MBC site constructing on very constrained plant site constructing pipelines adjacent to existing Point Loma tunnel

Deductions are 1 point, except 2 points deducted where noted*

Ratings Rationale

No.	Criterion	Deductions
7	Property and Easement Acquisition	federal temporary construction easement acquisitions at Point Loma* additional centrate pipeline corridor easements (MBC to Morena)
8	System Operability	constrained treatment process layouts extended tunnel or deep pipeline reaches
9	System Simplicity	separate treatment trains at PLWTP new centrate treatment
10	System Efficiency	demolition of major PLWTP facilities new CAWRP site separate site for CAPWF returning brine/untreated centrate to PLWTP not expandable for 53 mgd purified water production

Deductions are 1 point, except 2 points deducted where noted*

Evaluation Matrix

Number	Criterion	Weight	Alternatives Rating and Score							
			With Waiver / Secondary Equivalency				Without Waiver / Secondary Equivalency			
			Alternative 1 – CAWRP at Harbor Drive		Alternative 3 – CAWRP at PLWTP		Alternative 1 – CAWRP at Harbor Drive		Alternative 3 – CAWRP at PLWTP	
			1A (53 mgd)	1E (41.5 mgd)	3A (53 mgd)	3C (41.5 mgd)	1B (53 mgd)	1F' (41.5 mgd)	3B (53 mgd)	3D (41.5 mgd)
1	Health and Safety	10								
2	Community Impacts	10								
3	Environmental Impacts	10								
4	Operational Reliability	10								
5	Ability to Implement	10								
6	Constructability	10								
7	Property and Easement Acquisition	10								
8	System Operability	10								
9	System Simplicity	10								
10	System Efficiency	10								
	Total Score	100								
Ranking (Separated by With and Without Waiver)			1 (370)	2 (350)	3 (280)	4 (260)	1 (310)	2 (270)	3 (250)	4 (230)
Estimated Capital Cost ($B)			$3.50	$3.22	$4.05	$3.81	$3.92	$3.70	$4.25	$4.08
Estimated Annual O&M Cost ($M)			$115.90	$93.50	$123.00	$105.00	$123.30	$101.90	$127.50	$109.00
Estimated NPV ($B)			$7.44	$6.47	$8.30	$7.50	$8.14	$7.28	$8.67	$7.93

Alternatives With Waiver / Secondary Equivalency

Number	Criterion	Weight	Alternatives Rating and Score							
			With Waiver / Secondary Equivalency				Without Waiver / Secondary Equivalency			
			Alternative 1 – CAWRP at Harbor Drive		Alternative 3 – CAWRP at PLWTP		Alternative 1 – CAWRP at Harbor Drive		Alternative 3 – CAWRP at PLWTP	
			1A (53 mgd)	1E (41.5 mgd)	3A (53 mgd)	3C (41.5 mgd)	1B	1F'	3B	3D
1	Health and Safety	10								
2	Community Impacts	10								
3	Environmental Impacts	10								
4	Operational Reliability	10								
5	Ability to Implement	10								
6	Constructability	10								
7	Property and Easement Acquisition	10								
8	System Operability	10								
9	System Simplicity	10								
10	System Efficiency	10								
	Total Score	100								
	Ranking (Separated by With and Without Waiver)		1 (370)	2 (350)	3 (280)	4 (260)	1	2	3	4
	Estimated Capital Cost ($B)		$3.50	$3.22	$4.05	$3.81	$3.92	$3.70	$4.25	$4.08
	Estimated Annual O&M Cost ($M)		$115.90	$93.50	$123.00	$105.00	$123.30	$101.90	$127.50	$109.00
	Estimated NPV ($B)		$7.44	$6.47	$8.30	$7.50	$8.14	$7.28	$8.67	$7.93

Alternatives Without Waiver / Secondary Equivalency

Number	Criterion	Weight	Alternatives Rating and Score							
			With Waiver / Secondary Equivalency				Without Waiver / Secondary Equivalency			
			Alternative 1 – CAWRP at Harbor Drive		Alternative 3 – CAWRP at PLWTP		Alternative 1 – CAWRP at Harbor Drive		Alternative 3 – CAWRP at PLWTP	
			1A	1E	3A	3C	1B (53 mgd)	1F' (41.5 mgd)	3B (53 mgd)	3D (41.5 mgd)
1	Health and Safety	10								
2	Community Impacts	10								
3	Environmental Impacts	10								
4	Operational Reliability	10								
5	Ability to Implement	10								
6	Constructability	10								
7	Property and Easement Acquisition	10								
8	System Operability	10								
9	System Simplicity	10								
10	System Efficiency	10								
	Total Score	100								
Ranking (Separated by With and Without Waiver)			1	2	3	4	1 (310)	2 (270)	3 (250)	4 (230)
Estimated Capital Cost ($B)			$3.50	$3.22	$4.05	$3.81	$3.92	$3.70	$4.25	$4.08
Estimated Annual O&M Cost ($M)			$115.90	$93.50	$123.00	$105.00	$123.30	$101.90	$127.50	$109.00
Estimated NPV ($B)			$7.44	$6.47	$8.30	$7.50	$8.14	$7.28	$8.67	$7.93

Next Steps

Next Steps

- **March 17 - Metro TAC**
  - *Agreement on Ranking*
- **April 1 - Metro Commission**
  - *Final Agreement on Ranking*
- **Prepare Technical Memorandum**

ATTACHMENT 7

METRO WASTEWATER JPA

TREASURER'S REPORT

EIGHT MONTHS ENDING

FEBRUARY 28, 2021

Metro Wastewater Joint Powers Authority
Treasurer's Report
Eight months ending February 28, 2021

Metro Wastewater JPA
Treasurer's Report
Eight months ending February 28, 2021

Beginning Cash Balance at July 1, 2020	$	559,757
Operating Results		
Membership Dues & Interest Income		192,986
Expenses		(93,108)
Change in Net Position		99,878
Net change in Receivables & Payables		(65,415)
Cash used in Operations		34,463
Ending Cash Balance at Feburary 28, 2021	$	594,219

Metro Wastewater JPA
Statement of Net Position
As of June 30, 2020 and Feb 28, 2021
Unaudited

	June 30, 2020	Feb 28, 2021	$ Change
ASSETS			
Checking/Savings	$ 559,757	$ 594,219	$ 34,463
Accounts Receivable	7,662	143,810	136,148
Total Assets	**$ 567,419**	**$ 738,029**	**$ 170,610**
Yead ended June 30, 2020			
Accounts Payable	$ 44,133	$ 18,415	$ (25,718)
Unearned Membership Billings	-	96,450	96,450
Total Liabilities	$ 44,133	$ 114,865	$ 70,732
NET POSITION			
Net Position at Beginning of Period	$ 261,960	$ 523,286	$ 261,325
Change in Net Position	261,325	99,878	(161,447)
Net Position at End of Period	$ 523,286	$ 623,164	$ 99,878
TOTAL LIABILITIES & NET POSITION	**$ 567,419**	**$ 738,029**	**$ 170,610**

Net Position at 12/31/20	*$ 623,164*
FY '21 Required Reserve (4 months of Op Exp)	*138,150*
Over (under) required reserve	*$ 485,014*

Metro Wastewater JPA
Statement of Operations
Budget vs. Actual
Eight months ending February 28, 2021

	Actual	Budget	Over (Under) Budget	
Income				
Membership Dues	$ 192,900	$ 192,900	$ -	
Interest Income	86	67	19	
Total Income	$ 192,986	$ 192,967	$ 19	
Expense				
Administrative Assistant-LP	$ 660	$ 5,600	$ (4,940)	
Bank Charges	-	133	(133)	
Contingency	-	-	-	
Dues & Subscriptions	-	400	(400)	
Financial Services				
Audit Fees	2,800	8,000		
Financial - The Keze Group	25,163	51,733	(26,571)	*Billed through Feb*
Treasury Services-Padre	5,034	13,333		
JPA/TAC meeting expenses	-	3,333	(3,333)	
Miscellaneous	-	167	(167)	
Per Diem - Board	4,500	12,000	(7,500)	
Printing, Postage, Supplies	246	167	79	
Professional Services				
Engineering - Dexter Wilson	25,630	72,000	(46,370)	*Billed through Nov*
Engineering - NV5	9,725	20,000	(10,275)	*Billed through Jan*
Legal - Procopio	-	46,667	(46,667)	
Legal - BB&K	16,588	40,000	(23,412)	*Billed though Jan*
Strategic Planning	-	-	-	
Telephone	14	933	(919)	
Website Maintenance & Hosting	2,748	1,833	914	
Total Expense	$ 93,108	$ 276,300	$ (169,694)	
Net Income (Loss)	$ 99,878	$ (83,333)	$ 183,211	

Metro Wastewater JPA
Statement of Cash Flows

Eight months ending February 28, 2021

OPERATING ACTIVITIES		
Change in Net Position	$	99,878
Adjustments to Reconcile Change in Net Position to Net Cash Provided by Operations:		
Accounts Receivable		(136,148)
Accounts Payable		(25,718)
Deferred Revenue		96,450
Yead ended June 30, 2020		34,463
Net cash increase (decrease) for period		559,757
Cash at end of period	**$**	**594,219**

Metro Wastewater JPA
A/R Aging Summary
As of Feb 28, 2021

	Current	1 - 30	31 - 60	60-90	>90	TOTAL
City of Chula Vista	-	-	-	-	$ 91,619.00	$ 91,619.00
County of San Diego	-	-	-	-	$ 52,191.00	$ 52,191.00
TOTAL	**$ -**	**$ -**	**$ -**	**$ -**	**$ 143,810.00**	**$ 143,810.00**

Metro Wastewater JPA
Vendor Accrual Summary
As of Feb 28, 2021

Best Best & Krieger	$	1,138.50
Keze Group LLC		9,817.50
NV5		2,425.00
Padre Dam - Treasurer		5,034.47
Total	**$**	**18,415.47**

ATTACHMENT 8

INDUSTRIAL DISCHARGE PERMIT

LETTER FROM

TAC MEMBERS TO CITY OF SAN DIEGO

METRO **TAC**

www.metrojpa.org

276 Fourth Avenue Chula Vista, CA 91950 619-548-2934

Roberto Yano, Chair

March 15, 2021 154-001 – 2021-01

City of San Diego
1222 First Avenue, MS 301
San Diego, CA 92101

Attention: Tom Rosales

Subject: Industrial Waste Discharge Additional Needed Reports

We have reviewed all of the information you have sent to us on the needed fee increases for the Industrial Waste Program. While we understand your position it would be better for both the members of the JPA and the City of San Diego if we had more support for the recommendations for the Industrial Waste Program. Specifically, we are concerned that the benefits to a single-family home provided by the Industrial Waste Program are not delineated and that there are only four classes of industrial users. Thus, we would recommend that the City's commission two additional reports. These reports are described below.

A benefit study should be conducted that would specifically identify cost savings from the industrial pre-treatment program. Examples of reduced cost could be reduced monitoring of the impacts of the ocean discharge, reduced sampling and testing of the effluent and fewer upsets of the treatment system. We believe this benefit study should use actual costs for the existing system and estimate what the increase in cost would be without an industrial waste pre-treatment program.

The other study which should be done is to identify additional classes of users which could be developed to allow a more appropriate charge to each individual user. This study should also look at complications of a more varied charge system and how this system could be implemented by the City of San Diego. Based on our review of available information some of the issues related to the industrial pre-treatment program are really more related to producing and distributing bills to existing users. The City made need more staffing to assure that bills go out in a timely manner to all users. We believe that it would be more prudent to have a more sophisticated system to provide more accurate bills to the industrial users and spend a little more money to develop these bills and ensure they are sent out in a timely manner.

Finally and as previously mentioned, we request that a legal determination is issued by the City of San Diego regarding regulations, policy considerations, and other relevant requirements, including proposition 218 implications on the Industrial Waste Discharge program.

Please feel free to call and talk about these issues when appropriate but we feel that addressing these two issues would lead to a smoother and quicker implementation of your program.

Roberto Yano
Metro JPA TAC Chair

cc: Joy Newman and Lisa Celaya
TAC Members
Jerry Jones City of Lemon Grove Council Member / Metro JPA Chair

ATTACHMENT 15

METROTAC

WORK PLAN

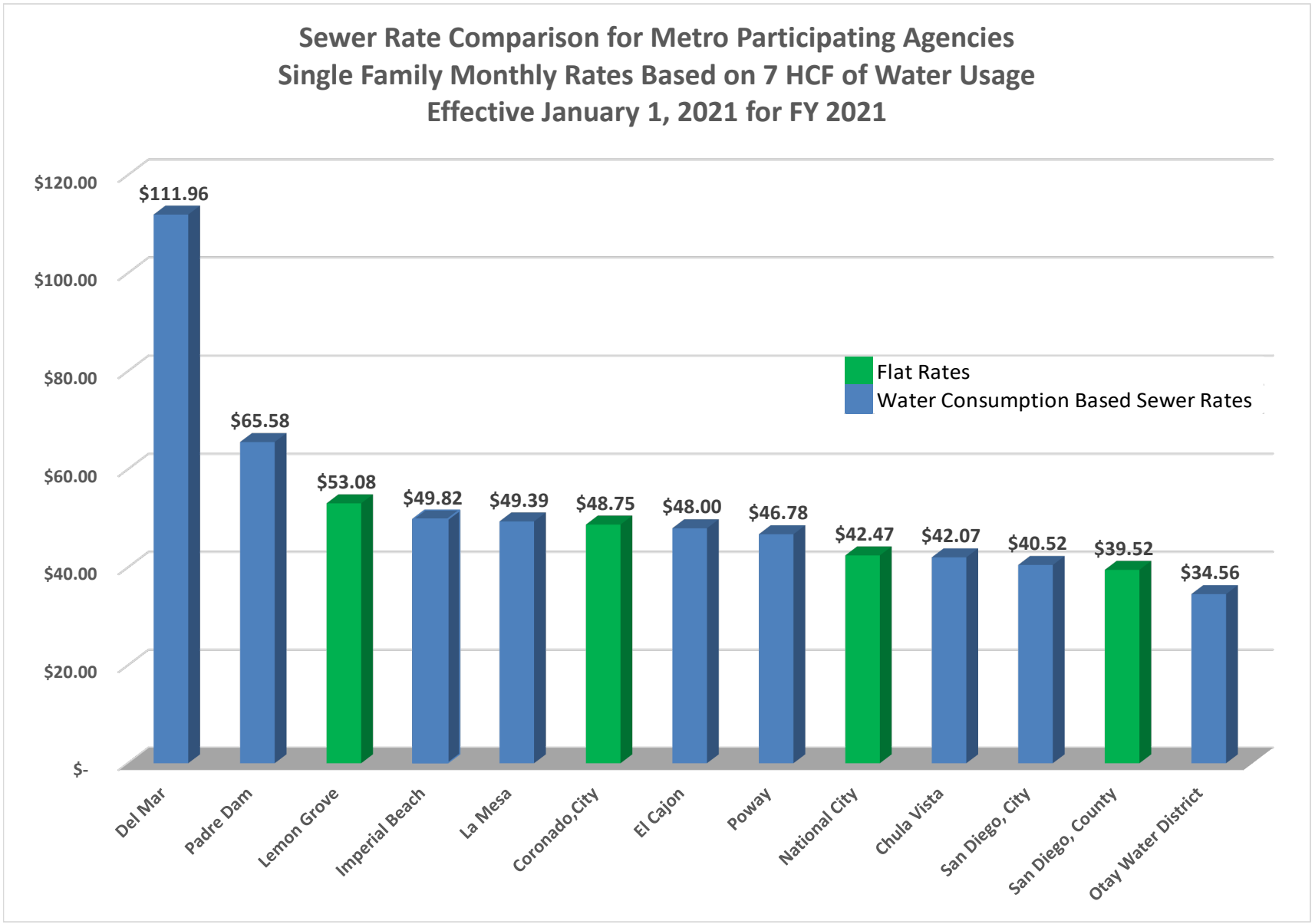
METRO WASTEWATER JPA

Metro TAC & JPA Work Plan
Active & Pending Items
January 2021
Updated Items in Red Italics

Active Items	Description	Member(s)
SB 332 Working Group	SB 332 (Hertzberg/Weiner) relates to wastewater treatment for recycled water and agencies with ocean outfalls. It requires the entity that owns the wastewater treatment facility that discharges through an ocean outfall and affiliated water suppliers (it defines water not wastewater suppliers) to reduce the facilities annual flow as compared to the average annual dry weather wastewater discharge baseline volume as prescribed by at least 50% on or before January 1, 2030 and by at least 95% on or before January 1, 2040. The working group was formed to track the process of this legislation.	*Yazmin Arellano* *Beth Gentry* *Hamed Hashemian*
Muni Transportation Rate Study Working Group	6/19: Working Group has presented an alternative plan which the City is reviewing.	Roberto Yano Yazmin Arellano Dan Brogadir Carmen Kasner Mark Niemiec Dexter Wilson SD staff
Point Loma Permit Ad Hoc	Metro Commission/JPA Ad Hoc established 9/17. GOAL: Create regional water reuse plan so that both a new, local, diversified water supply is created AND maximum offload at Point Loma is achieved to support legislation for permanent acceptance of Point Loma as a smaller advanced primary plant. Minimize ultimate Point Loma treatment costs and most effectively spend ratepayer dollars through successful coordination between water and wastewater agencies. *1/21 This group continues to meet as needed.*	Jerry Jones Jim Peasley Ed Spriggs Bill Baber Jill Galvez Metro TAC staff & JPA consultants
Phase II Pure Water Facilities Working Group	Created to work with SD staff & consultants on determining Phase II facilities and costs. *1/21: Alternatives have been narrowed to two.*	Roberto Yano Scott Tulloch Dexter Wilson SD staff & consultants
Phase I Financial Implementation Working Group	This working group was formed to continue to work on Section 2.9.1 and other financial implementations issues in Exhibit F associated with the Amended Restated Agreement. *1/21: Group will start meeting once the ARA is fully signed (January 2021) on a regular basis with a goal to complete all tasks by 1/22.*	Roberto Yano Karyn Keese Dexter Wilson SD staff & consultants
Phase II Disposal Agreement Working Group	This group was created to negotiate the 2nd Amended Restated Agreement ARA2) which will incorporate the completed financial and other items from the first ARA. *1/21: Working Group is meeting with SD staff to set up framework for ARA2 process.*	Roberto Yano Eric Minicilli Karyn Keese Scott Tulloch Dexter Wilson SD staff & consultants
Pretreatment Working Group	Formed to work with San Diego on new standards for industrial waste discharge and cost allocation of same. 1*/21: SD is trying to formalize a pretreatment rate case and has hired a consultant. Monthly updates are presented at TAC.*	**Beth Gentry** Interested JPA members Dexter Wilson SD Staff & Consultants

Metro TAC & JPA Work Plan
Active & Pending Items
January 2021
Updated Items in Red Italics

Active Items	Description	Member(s)
JPA Website Update Working Group	The JPA Website, especially the New Director Manual, has not been updated for several years. *1/21: Working group has started revisions and is looking for technical members to assist.*	Roberto Yano Karyn Keese Lori Peoples
Exhibit E Audit	*1/21: FY2019 Exhibit E audit is in fieldwork stage. JPA team reviewing SD responses to sample questions.*	Karen Jassoy Karyn Keese Dexter Wilson
IRWMP	JPA Members should monitor funding opportunities at: http://www.sdirwmp.org *1/21: Beth Gentry continues to give monthly TAC updates. Details can be found in minutes of each meeting.*	Yazmin Arellano Beth Gentry
Changes in wastewater/water legislation	BBK, Metro TAC and the Board should monitor and report on proposed and new legislation or changes in existing legislation that impact wastewater conveyance, treatment, and disposal, including recycled water issues	BBK JPA members as appropriate


Sewer Rate Comparison for Metro Participating Agencies
Single Family Monthly Rates Based on 7 HCF of Water Usage
Effective January 1, 2021 for FY 2021
$120.00
$100.00
$80.00
$60.00
$40.00
$20.00
$-
$111.96
$65.58
$53.08
$49.82
$49.39
$48.75
$48.00
$46.78
$42.47
$42.07
$40.52
$39.52
$34.56
Flat Rates
Water Consumption Based Sewer Rates
Del Mar
Padre Dam
Lemon Grove
Imperial Beach
La Mesa
Coronado,City
El Cajon
Poway
National City
Chula Vista
San Diego, City
San Diego, County
Otay Water District

Metro TAC
Participating Agencies
Selection Panel Rotation

Agency	Representative	Selection Panel	Date Assigned
County of San Diego	Dan Brogadir	As-Needed Condition Assessment Contract	3/24/2015
Chula Vista	Roberto Yano	Out on Leave	6/10/15
La Mesa	Greg Humora	North City to San Vicente Advanced Water Purification Conveyance System	6/10/15
Poway	Mike Obermiller	Real Property Appraisal, Acquisition, and Relocation Assistance for the Public Utilities Department	11/30/15
El Cajon	Dennis Davies	PURE WATER RFP for Engineering Design Services	12/22/15
Lemon Grove	Mike James	PURE WATER RFP Engineering services to design the North City Water reclamation Plant and Influence conveyance project	03/16/15
National City	Kuna Muthusamy	Passes	04/04/2016
Coronado	Ed Walton	As-Needed Environmental Services - 2 Contracts	04/04/2016
Otay Water District	Bob Kennedy	As Needed Engineering Services Contract 1 & 2	04/11/2016
Del Mar	Eric Minicilli	Pure Water North City Public Art Project	08/05/2016
Padre Dam	Al Lau	Biosolids/Cogeneration Facility solicitation for Pure Water	08/24/2016
County of San Diego	Dan Brogadir	Pure Water North City Public Art Project	08/10/2016
Chula Vista	Roberto Yano	Design Metropolitan Biosolids Center (MBC) Improvements Pure Water Program	9/10/2016
La Mesa	Greg Humora	Design of Metropolitan Biosolids Center (MBC) Improvements	9/22/16
Poway	Mike Obermiller	Electrodialysis Reversal (EDR) System Maintenance	12/7/16
El Cajon	Dennis Davies	As-Needed Construction Management Services for Pure Water	3/13/17
Lemon Grove	Mike James	Morena Pipeline, Morena Pump Station, Pure Water Pipeline and Dechlorination Facility, and the Subaqueous Pipeline	8/7/17
National City	Vacant	North City and Miramar Energy Project Landfill Gas and Generation- Pass	1/31/2018
Coronado	Ed Walton	North City and Miramar Energy Project Landfill Gas and Generation	1/31/2018
Otay Water District	Bob Kennedy	As Needed Engineering Services - Contracts 3 and 4 (H187008 & H187009)	2/16/2018
Del Mar	Joe Bride	Request for Proposal Owner Controlled Insurance Program (OCIP) Pure Water – 1st email sent on 5/23/18 & 2nd email sent on 5/29/18	5/23/18
Padre Dam	Al Lau	Request for Proposal Owner Controlled Insurance Program (OCIP) Pure	5/31/18

		Water (Mark Niemiec will participate)	
County of San Diego	Dan Brogadir	Request for Owner Controlled Insurance Program Interview (Pure Water)	2/25/19
Chula Vista	Frank Rivera Beth Gentry	Request for Owner Controlled Insurance Program Interview (Pure Water)	2/26/19
Imperial Beach	Eric Minicilli	RSP Metro Metering	4/22/2020
La Mesa	Hamed Hashemian		
Poway	Eric Heidemann Troy DePriest		
El Cajon	Dennis Davies Yazmin Arellano		
Lemon Grove	Mike James		
National City	Roberto Yano		
Coronado	Ed Walton		
Otay Water District	Bob Kennedy		
Del Mar	Joe Bride		
Padre Dam	Mark Niemiec Sen Seval		
County of San Diego	Dan Brogadir		
Chula Vista	Frank Rivera		
Imperial Beach	Eric Minicilli		
La Mesa	Hamed Hashemian		
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