



**METRO TAC AGENDA**  
**(Technical Advisory Committee to Metro JPA)**

**TO:** Metro TAC Representatives and Metro Commissioners

**DATE:** Wednesday, June 15, 2016

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

**LOCATION:** MWWD, 9192 Topaz Way, (MOC II Auditorium) – Lunch will be provided

***\*PLEASE DISTRIBUTE THIS NOTICE TO METRO COMMISSIONERS AND METRO TAC REPRESENTATIVES\****

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1. Review and Approve MetroTAC Action Minutes for the Meeting of [May 18, 2016](#) (**Attachment**)
2. Metro Commission/JPA Board Meeting Recap (Standing Item)
3. **ACTION:** Consideration and Possible Action to approve the SCCWRP - 9<sup>th</sup> Amendment (Peter Vroom) (**Attachment**)
4. **ACTION:** Consideration and Possible Action to Establish a Sample Rejection Protocol Working Group (Greg Humora) (**Attachment forthcoming**)
5. **REPORT:** Update from Regional Wastewater Disposal Agreement Flow Commitment Working Group (Greg Humora)
6. **REPORT:** Update from Social Media Working Group (Mike Obermiller)
7. Metro Wastewater Update (Standing Item)
8. Metro Capital Improvement Program and Funding Sources (Standing Item) (Tung Phung)
9. Financial Update (Standing Item) (Karyn Keese)
10. MetroTAC Work Plan (Standing Item) (Greg Humora) (**Attachment**)
11. Point Loma Permit Renewal (Standing Item) (Greg Humora)
12. Review of Items to be Brought Forward to the Regular Metro Commission/Metro JPA Meeting (**August 17, 2016**)
13. Other Business of Metro TAC
14. Adjournment ([To the next Regular Meeting July 20, 2016](#))

**Metro TAC 2016 Meeting Schedule**

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

Item 1

Draft Minutes

May 18, 2016

**Metro TAC**  
(Technical Advisory Committee to Metro Commission/JPA)

**ACTION MINUTES**

**DATE OF MEETING:** May 15, 2016

**TIME:** 11:00 AM

**LOCATION:** MOC II Auditorium

**MEETING ATTENDANCE:**

Greg Humora, La Mesa  
Roberto Yano, Chula Vista  
Ed Walton, Coronado  
Eric Minicilli, Del Mar  
Yazmin Arellano, El Cajon  
Chris Helmer, Imperial Beach  
Dexter Wilson, Lemon Grove  
Robert Kennedy, Otay WD  
Al Lau, Padre Dam  
Mike Obermiller, Poway  
Terry Zaragoza, Poway  
Karyn Keese, Keze Group, LLC  
Lori Anne Peoples, Metro Comm/Metro JPA

Raina Amen, City of San Diego  
John Helminski, City of San Diego  
Peggy Merino, City of San Diego  
Edgar Patino, City of San Diego  
Tung Phung, City of San Diego  
Seth Gates, City of San Diego  
Mark Gonzalez, City of San Diego  
  
Kevin Starkey, MGO Auditor

Chair Humora had Dexter Wilson introduce himself and say a few words on his background. He is now working with the City of Lemon Grove and due to his background in wastewater, will be attending MetroTAC meetings with Mike James and will serve as the Metro TAC alternate from Lemon Grove. Karyn Keese spoke of working with Dexter previously and welcomed him to the group.

**1. Review and Approve MetroTAC Action Minutes for the Meeting of April 20, 2016**

Yazmin Arellano moved approval of the April 20, 2016 minutes. The motion was seconded by Mike Obermiller and the minutes were approved unanimously.

**2. Metro Commission/JPA Board Meeting Recap (Standing Item)**

Chairman Humora stated that General Counsel de Sousa Mills gave an informational presentation on the 1998 Regional Wastewater Disposal Agreement. He is attempting to recapture this portion of the meeting to upload it to the JPA website for future reference.

**Item 14 was heard at this time.**

**3. PRESENTATION AND POSSIBLE ACTION: Consideration and Possible Action to Approve the FY 2017 Metro Budget moving forward**

Seth Gates introduced Budget Program Manager Mark Gonzalez who provided a handout and a brief overview of the City of San Diego FY 2017 Metro Budget (included as Attachment A to these minutes). Mark stated that the preparation of the City's annual budget is an 8-month process beginning in October. In April the Mayor releases the proposed budget and during May departments are able to make changes. PUD staff modified the proposed Metro budget by \$1.2 million due to the reduced debt service payments associated with the sewer refunding bonds. It is anticipated that the budget will be adopted by the San Diego City Council June 13<sup>th</sup>.

Upon motion by Roberto Yano and seconded by Ed Walton, the budget was approved unanimously for forwarding to the Metro JPA Finance Committee and then to the Metro JPA for approval.

**Item 12 was heard at this time.**

**4. ACTION: Consideration and Possible Action to Recommend Approval of the FY 2017 Metro Wastewater JPA Budget**

Karyn Keese reviewed the proposed Metro Commission/JPA budget. The major changes to the budget from FY 2016 were:

- Lori Peoples will be taking over the responsibility for the Metro TAC minutes. Her budget has been increased by \$4,000 to cover this work task.
- Atkins contract has been decreased by \$9,580 as use of the Atkins engineering staff is not anticipated in the upcoming year.
- The Keze Group contract has been decreased by \$33,300 to reflect the completion of recycled water items in FY 2016 and thus those tasks have been removed. Also the routine services budget has been decreased as Lori Peoples will be preparing the Metro TAC minutes.

Ms. Keese reviewed the anticipated cash balance at year end. In discussion with Karen Jassoy and Greg Humora, Metro TAC Chair it has been determined that adequate cash reserves will exist at year end so that the recommendation will be to only bill for one-half of the JPA's FY 2017 draft budget amount of \$227,350 or \$113,675.

Upon motion by Mike Obermiller and seconded by Roberto Yano, the budget was approved unanimously for forwarding to the Metro JPA Finance Committee and then to the Metro JPA for approval.



**5. ACTION: Consideration and Possible Action to Recommend Approval of the FY 2017 Atkins Contract for Engineering Services**

Karyn Keese provided a brief overview of the contract and noted that as stated in the previous item, the contract had been decreased by \$9,580 as use of the Atkins engineering staff is not anticipated in the upcoming year. However, a placeholder of \$10,000 remains in the contract should the JPA need their engineering support. The only other change was the name of the Atkins Project Director. The contract amount thus remains the same at \$50,000 with \$10,000 designated for Atkins Engineering and \$40,000 for Scott Tulloch's support for Pure Water cost allocation, secondary equivalency, etc.

Upon motion by Mike Obermiller, seconded by Bob Kennedy, the contract was approved unanimously for forwarding to the Metro JPA Finance Committee and then to the Metro JPA for approval.

**6. ACTION: Consideration and Possible Action to Recommend Approval of the FY 2017 Contract with the Keze Group, LLC**

Karyn Keese reviewed the work tasks contained in her proposed FY 2017 contract and summarized in Attachment A to her scope of work. All of the routine financial tasks have reduced hours to adjust them to the current level of effort and the recycled water tasks have been completed and therefore have been removed. The Pure Water Program cost allocation and Metro TAC staff support tasks have been budgeted at FY 2016 level of efforts. Additionally, she noted a typo in Item C which should read 2017 & 2018 which will be corrected prior to moving forward to the Metro JPA Finance Committee and Metro JPA. The above resulted in a substantial reduction in the total proposed Keze Group contract amount for FY 2017 to \$65,120.

Upon motion by Bob Kennedy, seconded by Mike Obermiller, the contract was approved unanimously for forwarding to the Metro JPA Finance Committee and then to the Metro JPA for approval.

**7. ACTION: Consideration and Possible Action to Recommend Approval of the 3<sup>rd</sup> Amendment to Agreement for Treasurer Services with Padre Dam Municipal Water District for FY 2017**

Karyn Keese provided a brief overview of the amendment and explained that the Treasurer cuts the checks, prepares the JPA financial records and audits the billings. There was no proposed increase to the dollar amount in the agreement from FY 2016 for FY 2017.

Upon motion by Yazmin Arellano, seconded by Bob Kennedy, the amendment was approved unanimously for forwarding to the Metro JPA Finance Committee and then to the Metro JPA for approval.

**8. ACTION: Consideration and Possible Action to Recommend Approval of the 1<sup>st</sup> Amendment to the Webmaster Contract with Vision Internet Providers for FY 2017**

Chair Humora stated that the contract covers the hosting of the JPA website at \$200 per month and includes a not-to-exceed \$1,600 line item for maintenance, security, and technical support services on an as-needed-basis, the same as last year.

Upon motion by Greg Humora, seconded by Roberto Yano, the amendment was approved unanimously for forwarding to the Metro JPA Finance Committee and then to the Metro JPA for approval.

**9. ACTION: Consideration and Possible Action to Recommend Approval of the 1<sup>st</sup> Amendment to the Contract for Administrative Services from Lori Anne Peoples for FY 2017**

Karyn Keese stated that the only changes were a correction to the amendment to reflect two years rather than one (FY 2017 and 2018) to coincide with the terms of the reimbursement contract with the City of San Diego for Ms. Peoples' services in support of the Metro Commission along with the addition in the amendment of 6 hours per month to attend MetroTAC meetings and prepare the minutes. This is an increase of approximately \$4,000 annually.

Upon motion by Ed Walton, seconded by Roberto Yano, the amendment was approved unanimously for forwarding to the Metro JPA Finance Committee and then to the Metro JPA for approval.

**10. ACTION: Consideration and Possible Action to Recommend Approval of the Creation of a Regional Wastewater Disposal Agreement Flow Commitment Subcommittee**

Chair Humora stated this item came forward from Metro JPA Chair Peasley. Greg then established with consensus, a working group comprised of Karyn Keese, Edgar Patino or another San Diego Representative, Yazmin Arellano, Roberto Yano, Eric Minicilli and Al Lau to review the following with primary attention to section C3 last line.

**The following language regarding this issue is contained in the Regional Disposal Agreement**

- **Administrative Protocol for Implementation:**

**C. Flow Commitment**

- 1. *Absent agreement of the parties, all Flow from the Participating Agencies and the City, up to the capacity limits set forth in Exhibit B or any amendments thereto, shall remain in the Metro System.***
- 2. *This Agreement shall not preclude any Participating Agency from diverting Flow from the Metro System as a result of the construction of reclamation facilities or New Capacity outside of the Metro System.***
- 3. *Any Participating Agency may negotiate an agreement with the City to withdraw all Flow from the Metro System, which at a minimum requires the Agency to pay its proportionate share of Capital Improvement Costs.***

**11. ACTION: Consideration and Possible Action to Recommend Approval of a Social Media Subcommittee**

Chair Humora stated that this item came from the JPA who requested the TAC set up policies and procedures for the Metro JPA Social Media outlets.

Consensus was to establish a working group and Mike Obermiller was volunteered to head this task. He requested that if anyone has policies and/or procedures within their City/District, they forward them to him so he does not have to reinvent the wheel.

**12. Metro Wastewater Update (Standing Item)**

1. "Statistical Analysis on Sample Dataset" and "Sample Rejection Protocol" – This item was heard after Item 3 and was continued to a future MetroTAC meeting. PUD staff provided the same presentation as in the past where Vice Chair Lau had remarked that if an abnormal sample was removed from the cumulative data, the flow associated with that sample must also be removed. PUD staff was again requested to prepare an additional analysis of this and the review of the changes that would also be required to the current billing methodology and bring the information back to the next MetroTAC meeting for discussion on how to proceed. (See Attachments B to these minutes)
2. Pure Water Presentation – **This item was heard after Item 3.** John Helminski provided a Power Point Presentation on the Pure Water Program. (See Attachment C to these minutes).

3. Update on Outcome of Metro Wastewater Debt Refundings – Seth Gates provided a brief verbal overview of the two recent refundings of outstanding Metro debt. He noted that they had taken the bonds to refund in September and then went back a second time in March with \$403M which resulted in an approximately 10.5% savings. The refundings have saved Metro Wastewater rate payers including the PA's \$38.1M from FY 2016 to FY 2039. The annual savings for FY 2016-2019 is \$2.4M. This action also upgraded the Bond Ratings on the wastewater side from AA- to AA.

### **13. Metro Capital Improvement Program and Funding Sources (Standing Item)**

Tung Phung provided a brief overview of the handout provided (included as Attachment D to these minutes) which covered the FY 2016 capital Improvements Projects Report, July 2015 to March 2016. The report included projects expenditure updates and expenditures variance by asset type. Chair Humora requested that the sub totals and totals at the bottom of the charts be revised to eliminate the cost of service.

### **14. Financial Update (Standing Item)**

Kevin Starkey from MGO reviewed the draft of the FY 2013 audit. MGO has issued a clean opinion. The audit is performed to insure that utility costs are allocated correctly between the City of San Diego's municipal wastewater and water systems and the Metro system in which the PA's participate per the Regional Disposal Agreement. He discussed that this audit is much more intensive than a normal government audit. A normal government audit would have a sample size of 40 while the Exhibit E audit has a sample size of 500. Karyn Keese discussed the fact that with the City staff addition of a dedicated internal accountant that the number of accounting errors has decreased significantly since 2007. The FY 2013 audit only had 12 findings. The FY 2014 audit should be completed in late June/early July 2016 and the FY 2015 audit by the end of the summer. Edgar Patino reviewed the FY 2013 reconciliation. All of the PA's will be receiving refund checks hopefully by the end of June 2016. The operating reserve/debt service protocol was discussed and MGO suggested that a footnote should be added to future audit reports showing the 45-day reserve and debt service coverage cash flow. Karyn thanked the City of San Diego for their provision of a dedicated employee, Deborah Campbell, who was a pleasure to work with and who has assisted in making the audits so much more accurate. (See Attachment E to these minutes)

### **15. MetroTAC Work Plan (Standing Item)**

Chair Humora stated that Karyn was working on the next presentation and will add the 2 newly established working groups.

**16. Point Loma Permit Renewal (Standing Item)**

Chairman Humora stated that he had nothing new to report other than the next Stakeholder Group Meeting will be in June.

**17. Review of Items to be Brought Forward to the Regular Metro Commission/Metro JPA Meeting (June 2, 2016)**

Chair Humora noted that the Finance Committee would be meeting on the 25<sup>th</sup> of this month and all action items on this agenda will be brought forward along with John's Pure Water Presentation and Karyn's budget presentation.

**18. Other Business of Metro TAC**

None.

**19. Adjournment to the next Regular Meeting, June 15, 2016**

At 1:20 the meeting was adjourned.

# Attachment A

Item #3

Public Utilities  
FY 2017 Proposed Budget - Metro

May 18, 2016





Public Utilities Department

# Fiscal Year 2017 Proposed Budget

## Metro Sewer Fund Summary

Non-General Fund	FY 2016		FY 2017		Change from FY	
	FTE	Adopted Budget	FTE	Proposed Budget	FTE	2016 Adopted Budget
Metro Sewer Fund	462.21	\$222,230,642	462.20	\$221,733,360	(0.01)	(\$497,282)
Revenue		\$89,818,922		\$89,148,822		(\$670,100)





# Summary of Major Changes

## Revenue

- Addition of \$134,000 for the South Bay Fuel Cell Monthly Site Lease.
- Reduction of \$804,000 for State Revolving Fund Loan Proceeds.



## Summary of Major Changes – cont.

### Expense

- Addition of \$5.1M for repairs to wastewater treatment and disposal facilities.
- Addition of \$3.8M for consulting services for the Pure Water Program.
- Addition of \$996,000 for marine biology and ocean operations.
- Addition of \$983,000 for laboratory supplies, equipment, and facility improvements.
- Addition of \$719,000 for SRF loan repayments to reflect amortization schedules for Fiscal Year 2017.
- Reduction of \$3.3M for energy expense based on updated SDG&E estimated impacts
- Reduction of \$9.4M for previous FY one-time expenditures



Public Utilities Department

# Fiscal Year 2017 CIP Budget Metro Fund

Project	FY 2017 Proposed Budget
PURE Water Program / ALA00001	\$38,000,000
PS2 Power Reliability & Surge Protection / S00312	\$7,000,000
Metropolitan Waste Water Department Trunk Sewers / AJB00001	\$3,600,000
I AM San Diego Project / S14000 (Infrastructure Asset Management)	\$3,495,805
Metro Treatment Plants / ABO00001	\$1,500,000
MBC Odor Control Facility Upgrades / S00323	\$1,100,000
<b>Total</b>	<b>\$54,695,805</b>



Public Utilities Department

# Questions/Comments

# Public Utilities

## Metropolitan Sewer Utility Fund

### Department Expenditures

	FY2015 Actual	FY2016 Budget	FY2017 Proposed	FY2016-2017 Change
Metropolitan Wastewater - Metro	\$ 87,276,470	\$ 93,844,741	\$ -	\$ (93,844,741)
Public Utilities	108,442,891	128,385,901	221,733,360	93,347,459
<b>Total</b>	<b>\$ 195,719,361</b>	<b>\$ 222,230,642</b>	<b>\$ 221,733,360</b>	<b>\$ (497,282)</b>

### Department Personnel

	FY2015 Budget	FY2016 Budget	FY2017 Proposed	FY2016-2017 Change
Metropolitan Wastewater - Metro	269.40	271.08	0.00	(271.08)
Public Utilities	193.91	191.13	462.20	271.07
<b>Total</b>	<b>463.31</b>	<b>462.21</b>	<b>462.20</b>	<b>(0.01)</b>

### Significant Budget Adjustments

	FTE	Expenditures	Revenue
<b>Wastewater Treatment and Disposal</b> Addition of non-personnel expenditures for repairs to wastewater treatment and disposal facilities.	0.00	\$ 5,125,442	\$ -
<b>Pure Water Program</b> Addition of non-personnel expenditures for consulting services for the Pure Water Program.	0.00	3,843,445	-
<b>Salary and Benefit Adjustments</b> Adjustments to reflect the annualization of the Fiscal Year 2016 negotiated salary compensation schedule, changes to savings resulting from positions to be vacant for any period of the fiscal year, retirement contributions, retiree health contributions, and labor negotiation adjustments.	0.00	1,018,003	-
<b>Marine Biology and Ocean Operations</b> Addition of non-personnel expenditures for consulting services associated with marine biology and ocean operations.	0.00	996,000	-
<b>Laboratory Supplies and Equipment</b> Addition of non-personnel expenditures for laboratory supplies, equipment, and facility improvements.	0.00	982,580	-
<b>State Revolving Fund (SRF) Adjustment</b> Addition of non-personnel expenditures for SRF loan repayments to reflect amortization schedules for Fiscal Year 2017.	0.00	719,071	-
<b>Contractual Services</b> Addition of non-personnel expenditures for miscellaneous contractual services.	0.00	73,920	-
<b>IAM Consulting Services</b> Addition of non-personnel expenditures for consulting services associated with the Infrastructure Asset Management (IAM, formerly EAM) project.	0.00	59,250	-
<b>Public Utilities Restructure</b> Reallocation among funds as a result of departmental efficiency efforts.	0.98	56,090	-

# Public Utilities

## Expenditures by Category (Cont'd)

	FY2015 Actual	FY2016 Budget	FY2017 Proposed	FY2016-2017 Change
<b>NON-PERSONNEL</b>				
Supplies	\$ 18,711,282	\$ 20,666,666	\$ 21,312,782	\$ 646,116
Contracts	38,356,522	52,616,525	52,838,733	222,208
Information Technology	3,639,453	5,772,103	5,068,982	(703,121)
Energy and Utilities	17,947,115	19,854,473	17,392,348	(2,462,125)
Other	799,359	415,526	398,834	(16,692)
Contingencies	-	-	3,500,000	3,500,000
Reserves	-	3,500,000	-	(3,500,000)
Transfers Out	65,150,259	69,410,933	68,884,271	(526,662)
Capital Expenditures	3,503,661	2,077,098	3,379,078	1,301,980
Debt	(215,255)	15,255	15,254	(1)
<b>NON-PERSONNEL SUBTOTAL</b>	<b>147,892,394</b>	<b>174,328,579</b>	<b>172,790,282</b>	<b>(1,538,297)</b>
<b>Total</b>	<b>\$ 195,719,361</b>	<b>\$ 222,230,642</b>	<b>\$ 221,733,360</b>	<b>\$ (497,282)</b>

## Revenues by Category

	FY2015 Actual	FY2016 Budget	FY2017 Proposed	FY2016-2017 Change
Charges for Services	\$ 66,476,901	\$ 69,195,422	\$ 69,195,422	\$ -
Other Revenue	334,681	100,000	100,000	-
Rev from Money and Prop	1,697,932	-	134,400	134,400
Rev from Other Agencies	-	20,523,500	19,719,000	(804,500)
Transfers In	7,370,253	-	-	-
<b>Total</b>	<b>\$ 75,879,768</b>	<b>\$ 89,818,922</b>	<b>\$ 89,148,822</b>	<b>\$ (670,100)</b>

## Personnel Expenditures

Job Number	Job Title / Wages	FY2015 Budget	FY2016 Budget	FY2017 Proposed	Salary Range	Total
<b>FTE, Salaries, and Wages</b>						
20000011	Account Clerk	4.51	4.89	4.89	\$31,491 - \$37,918	\$ 179,342
20000007	Accountant 3	0.33	0.33	0.33	59,363 - 71,760	23,676
20000102	Accountant 4	0.33	0.33	0.33	66,768 - 88,982	29,365
90000102	Accountant 4	0.00	0.00	0.10	66,768 - 88,982	8,898
20000012	Administrative Aide 1	1.26	1.10	0.44	36,962 - 44,533	19,524
20000024	Administrative Aide 2	6.28	5.19	5.85	42,578 - 51,334	279,730
20000057	Assistant Chemist	26.00	24.00	23.00	53,789 - 65,333	1,401,994
20001140	Assistant Department Director	0.66	1.16	1.16	31,741 - 173,971	162,403
20001202	Assistant Deputy Director	0.00	1.00	1.00	23,005 - 137,904	80,454
90001202	Assistant Deputy Director	0.00	0.00	0.35	23,005 - 137,904	28,159
20000070	Assistant Engineer-Civil	8.22	8.42	8.42	57,866 - 69,722	547,603
20000087	Assistant Engineer-Mechanical	0.61	0.61	0.61	57,866 - 69,722	42,529
20000080	Assistant Laboratory Technician	1.00	1.00	1.00	33,696 - 40,602	40,602
20000041	Assistant Management Analyst	0.33	0.33	0.33	44,470 - 54,059	17,483
20001228	Assistant Metropolitan Wastewater Director	0.33	0.33	0.33	31,741 - 173,971	46,199
20000140	Associate Chemist	7.25	7.25	7.25	62,005 - 75,067	537,441
20000311	Associate Department Human Resources Analyst	1.65	1.65	1.65	54,059 - 65,333	102,728

# Public Utilities

## Personnel Expenditures (Cont'd)

Job Number	Job Title/Wages	FY2015 Budget	FY2016 Budget	FY2017 Proposed	Salary Range	Total
20000590	Laboratory Technician	17.00	19.00	20.00	40,622 - 49,067	931,306
20000618	Machinist	4.00	4.00	4.00	46,134 - 55,266	221,064
90001073	Management Intern	2.94	2.06	0.74	24,274 - 29,203	19,748
20000625	Marine Biologist 2	1.00	1.00	1.00	53,726 - 65,333	53,726
20000624	Marine Biologist 2	17.00	17.00	17.00	53,726 - 65,333	1,046,844
20000626	Marine Biologist 3	5.00	5.00	4.00	62,005 - 75,067	300,268
20000634	Organization Effectiveness Specialist 2	0.99	0.99	0.99	54,059 - 65,333	57,251
20000627	Organization Effectiveness Specialist 3	0.58	0.55	0.55	59,363 - 71,760	39,468
20000639	Organization Effectiveness Supervisor	0.33	0.66	0.66	66,768 - 80,891	51,817
20000667	Painter	3.00	3.00	3.00	41,600 - 49,962	143,839
20000680	Payroll Specialist 2	3.30	3.30	3.30	34,611 - 41,787	132,748
20000173	Payroll Supervisor	0.66	0.66	0.66	39,686 - 48,069	31,174
20000701	Plant Process Control Electrician	19.00	19.00	19.00	51,896 - 62,296	1,138,104
20000703	Plant Process Control Supervisor	3.00	3.00	3.00	56,410 - 68,224	203,649
20000705	Plant Process Control Supervisor	6.33	6.33	6.33	56,410 - 68,224	426,566
90000687	Plant Technician 1	1.00	0.00	0.00	37,814 - 45,261	-
20000687	Plant Technician 1	22.00	22.00	21.00	37,814 - 45,261	927,217
20000688	Plant Technician 2	25.00	25.00	25.00	41,454 - 49,504	1,183,142
20000689	Plant Technician 3	14.00	14.00	14.00	45,490 - 54,434	759,073
20000706	Plant Technician Supervisor	9.00	9.00	9.00	52,666 - 62,837	550,504
20000732	Power Plant Operator	4.00	4.00	4.00	49,712 - 59,342	208,478
90000733	Power Plant Supervisor	0.35	0.00	0.00	55,141 - 66,581	-
20000733	Power Plant Supervisor	2.00	2.00	2.00	55,141 - 66,581	133,162
21000184	Principal Backflow & Cross Connection Specialist	0.27	0.11	0.11	50,003 - 60,549	6,528
20000740	Principal Drafting Aide	0.99	0.88	0.88	50,003 - 60,549	52,978
20000743	Principal Engineering Aide	1.94	2.01	2.01	50,003 - 60,549	120,342
20000707	Principal Plant Technician Supervisor	2.00	2.00	2.00	63,024 - 76,045	152,090
20000227	Procurement Specialist	0.00	0.00	1.00	49,109 - 59,488	59,488
90001222	Program Manager	0.00	0.17	0.00	46,966 - 172,744	-
20001222	Program Manager	4.63	4.47	4.47	46,966 - 172,744	494,130
20000760	Project Assistant	0.12	0.12	0.12	57,866 - 69,722	7,887
20000761	Project Officer 1	0.24	0.24	0.24	66,622 - 80,454	19,030
90000761	Project Officer 1	0.10	0.04	0.00	66,622 - 80,454	-
20000766	Project Officer 2	0.54	0.44	0.44	76,794 - 92,851	35,558
20000763	Project Officer 2	0.73	0.73	0.73	76,794 - 92,851	66,162
20000768	Property Agent	0.00	0.11	0.11	59,363 - 71,760	6,528
20000783	Public Information Clerk	0.93	0.77	0.77	31,491 - 37,918	28,760
20000784	Public Information Officer	0.50	0.00	0.00	43,514 - 52,707	-
20001150	Public Utilities Director	0.33	0.33	0.33	59,155 - 224,099	62,039

# Public Utilities

## Personnel Expenditures (Cont'd)

Job Number	Job Title / Wages	FY2015 Budget	FY2016 Budget	FY2017 Proposed	Salary Range	Total
20000985	Supervising Management Analyst	0.27	0.11	0.11	66,768 - 80,891	8,903
20000970	Supervising Management Analyst	3.98	3.90	4.01	66,768 - 80,891	312,810
21000177	Trainer	1.32	1.98	1.98	54,059 - 65,333	122,376
20001041	Training Supervisor	0.25	0.22	0.22	59,363 - 71,760	13,056
20000937	Wastewater Operations Supervisor	25.00	25.00	25.00	64,667 - 77,293	1,912,211
20000941	Wastewater Plant Operator	43.00	42.00	41.00	53,830 - 64,397	2,449,772
20000931	Wastewater Treatment Superintendent	4.00	4.00	4.00	81,578 - 98,675	356,453
90000931	Wastewater Treatment Superintendent	0.00	0.35	0.70	81,578 - 98,675	62,972
20001058	Welder	2.00	2.00	2.00	44,366 - 53,206	105,614
20000756	Word Processing Operator	6.28	5.32	7.21	31,491 - 37,918	262,813
	Bilingual - Regular					3,854
	Budgeted Vacancy Savings					(1,251,724)
	Exceptional Performance Pay-Classified					927
	Exceptional Performance Pay-Unclassified					1,045
	Geographic Info Cert Pay					2,655
	Night Shift Pay					83,714
	Overtime Budgeted					2,385,649
	Plant/Tank Vol Cert Pay					89,432
	Reg Pay For Engineers					191,248
	Sick Leave - Hourly					6,449
	Split Shift Pay					25,481
	Termination Pay Annual Leave					94,321
	Vacation Pay In Lieu					45,930
	Welding Certification					3,640
<b>FTE, Salaries, and Wages Subtotal</b>		<b>463.31</b>	<b>462.21</b>	<b>462.20</b>		<b>\$ 29,655,615</b>

	FY2015 Actual	FY2016 Budget	FY2017 Proposed	FY2016-2017 Change
<b>Fringe Benefits</b>				
Employee Offset Savings	\$ 151,005	\$ 148,220	\$ 140,439	\$ (7,781)
Flexible Benefits	3,012,771	3,641,986	4,395,635	753,649
Long-Term Disability	234,278	87,058	85,277	(1,781)
Medicare	394,077	364,613	365,355	742
Other Post-Employment Benefits	2,593,687	2,540,358	2,585,323	44,965
Retiree Medical Trust	11,275	13,053	17,589	4,536
Retirement 401 Plan	21,458	18,264	20,051	1,787
Retirement ADC	9,276,540	8,619,500	8,723,024	103,524
Retirement DROP	142,076	143,717	127,542	(16,175)
Risk Management Administration	373,508	453,907	446,368	(7,539)
Supplemental Pension Savings Plan	1,616,728	1,616,524	1,655,862	39,338
Unemployment Insurance	54,258	49,833	49,017	(816)
Workers' Compensation	595,271	551,624	675,981	124,357
<b>Fringe Benefits Subtotal</b>	<b>\$ 18,476,931</b>	<b>\$ 18,248,657</b>	<b>\$ 19,287,463</b>	<b>\$ 1,038,806</b>
<b>Total Personnel Expenditures</b>			<b>\$ 48,943,078</b>	



# Attachment B

Public Utilities Department

# Statistical Analysis on Sample Dataset



# How your load is calculated for billing now

## Current Practice

Annual Loading = Annual Avg. Flow x Typical Concentration

- Flow is measured on a daily basis
- Concentration is sampled quarterly (4 times a year)
- Samples of current year combine with past 4 years data to be analyzed for outliers (concentration-based statistical analysis)
- Accepted samples from dataset get averaged to determine a typical concentration



## B&C Recommended to Perform Statistical Analysis on Loading

- Flow is measured on a daily basis
- Concentration is sampled quarterly (4 times a year)
- 4 loading values are calculated per year
- Loading values of current year combine with past 4 years data to be analyzed for outliers (loading-based statistical analysis)
- In this case, accepted loading values from dataset to back-calculate the weighted average concentrations to determine a typical concentration is necessary

**Annual Loading = Annual Flow x Typical Concentration**

# Example of Loading Calculations based on Two Different Sample Rejection Protocols

## Concentration-based Statistical



	Flow	Concentration	TSS
	MGD	mg/l	Load lb/day
*	1	500	4,170
*	1	500	4,170
*	1	500	4,170
*	2	250	4,170

250 is an outlier on this method

Average conc. = 500

\* snap shots of flow and concentration (4 times a year) on the sample day

Annual flow = 1.02 MGD

Average conc. = 500 mg/l

Annual load. = 1,552,491 lb/year

## Loading-based Statistical



	Flow	Concentration	TSS
	MGD	mg/l	Load lb/day
	1	500	4,170
	1	500	4,170
	1	500	4,170
	2	250	4,170

no outlier on this method

Average (mean) conc. = 437.5

1.02 MGD

437.5 mg/l

1,358,430 lb/year





## Padre Dam Suggested Alternative Option of Annual Loading Calculation

- Do not use annual average flow and do not back-calculate concentration
- Concentration is sampled quarterly (4 times a year)
- 4 loading values are calculated per year
- Loading values of current year combine with past 4 years data to be analyzed for outliers (loading-based statistical analysis)
- Averaging accepted loading values from dataset to determine annual loading



# Example of Significant Flow Increase

Connection Sampling Location

Input Data - SS

Loading	Point No.	ADS SITE	Date	Flow	SS Data	Test Column	Squared Deviations	Weighted Average
2,829	1		15-Jun-95	1.60	212		119	1.29
4,202	2		31-Jan-96	2.20	229		37	1.91
3,261	3		01-Aug-96	2.30	170		2,800	1.49
8,587	4		14-Jun-95	3.60	286		3,980	3.91
6,264	5		01-Feb-96	3.70	203		396	2.85
6,565	6		31-May-96	3.20	246		533	2.99
6,665	7		28-Aug-96	3.60	222		1	3.04
5,660	8		04-Dec-96	3.90	174		2,392	2.58
6,418	9		29-Jan-97	3.70	208		222	2.93
6,264	10		09-Apr-97	3.70	203		396	2.85
3,483	11		23-Sep-97	3.60	116		11,430	1.59
7,109	12		18-Feb-98	4.22	202		437	3.24
4,874	13		05-May-98	4.79	122		10,183	2.22
8,058	14		23-Mar-99	3.96	244		445	3.67
1,494	15		24-Jun-99	0.74	242		364	0.68
4,192	16		08-Sep-99	4.26	118		11,007	1.91
6,899	17		10-Dec-99	4.70	176		2,201	3.14
8,745	18		30-Mar-00	4.90	214		79	3.99
13,241	19		25-May-00	4.90	324		10,219	6.03
7,776	20		15-Aug-00	5.18	180		1,841	3.54
7,139	21		07-Nov-00	5.35	160		3,958	3.25
9,708	22		29-Mar-01	5.82	200		525	4.42
4,654	23		29-May-01	4.65	120		10,591	2.12
9,484	24		15-Aug-01	6.18	184		1,514	4.32
8,637	25		06-Nov-01	5.69	182		1,674	3.94
11,203	26		14-Feb-02	5.64	238		228	5.11
34,317	27		15-May-02	6.35	648	Reject	180,700	0.00
11,565	28		24-Sep-02	6.48	214		79	5.27
10,701	29		19-Dec-02	5.94	216		48	4.88
14,141	30		18-Mar-03	5.40	314		8,297	6.45



## Example of Significant Flow Increase (cont.)

11,454	31	22-Apr-03	5.92	232	83	5.22
8,090	32	08-Dec-05	5.33	182	1,674	3.69
6,387	33	21-Mar-06	5.47	140	6,874	2.91
3,803	34	13-Jun-06	5.70	80 Reject	20,424	0.00
13,380	35	19-Sep-06	5.42	296	5,342	6.10
12,949	36	07-Nov-06	5.21	298	5,638	5.90
8,830	37	25-Feb-07	5.19	204	358	4.02
10,592	38	24-May-07	5.08	250	734	4.83
9,285	39	05-Sep-07	5.68	196	724	4.23
12,298	40	27-Nov-07	5.05	292	4,773	5.61
6,203	41	09-Mar-08	4.83	154	4,749	2.83
13,101	42	28-May-08	4.94	318	9,042	5.97
6,435	43	27-Aug-08	5.11	151	5,171	2.93
8,423	44	05-Nov-08	5.05	200	525	3.84
7,827	45	27-Jan-09	4.74	198	621	3.57
8,499	46	05-Jun-09	4.74	215	63	3.87
7,051	47	27-Aug-09	4.57	185	1,437	3.21
9,941	48	29-Oct-09	4.73	252	846	4.53
10,666	49	17-Feb-10	4.79	267	1,944	4.86
12,031	50	24-Jun-10	4.48	322	9,818	5.48
8,557	51	10-Sep-10	4.54	226	10	3.90
11,376	52	21-Oct-10	4.72	289	4,368	5.18
9,302	53	15-Mar-11	4.59	243	404	4.24
14,241	54	12-May-11	4.64	368 Reject	21,050	0.00
10,952	55	07-Sep-11	4.81	273	2,509	4.99
10,572	56	20-Oct-11	4.56	278	3,035	4.82
242	57	22-Mar-12	4.83	6 Reject	47,051	0.00
12,744	58	26-Apr-12	5.01	305	6,738	5.81
10,990	59	02-Aug-12	4.74	278	3,035	5.01
12,407	60	11-Dec-12	5.13	290	4,501	5.65
10,023	61	24-Jan-13	4.75	253	905	4.57

Insert add'l row ==&gt;

## Statistics of Accepted Data

No. of data points	61
No. accepted points	57
Mean	222.9
Sum of Sq Deviations	171.917
Std Deviation	55.41
Avg Flow	4.62

## Test Data

223.41





## Example of Loading from First Flush of the I/I at PLWTP

	(mgd)	(lb/day)	(mg/l)	(inches)
Average Dry W Flow =	169	419,764	297	0
Oct/26/2004 00:00	185	413,626	268	0
Oct/27/2004 00:00	295	929,006	377	2.51
Oct/28/2004 00:00	254	552,385	260	0.45
Oct/29/2004 00:00	218	439,708	242	0
Dec/28/2004 00:00	191	470,985	296	1.26
Dec/29/2004 00:00	249	545,394	263	1.57
Dec/30/2004 00:00	201	396,268	236	0.02
Dec/31/2004 00:00	206	420,607	245	0.27
Jan/01/2005 00:00	185	345,791	224	0.01



## Example of Loading from First Flush of the I/I (cont.)

	Flow (mgd)	TSS Load (lb/day)	TSS Conc. (mg/l)	Rain (inches)
Average Daily Flow =	169	419,764	297	
Jan/07/2005 00:00	224	459,937	246	0.57
Jan/08/2005 00:00	247	450,716	219	0.2
Jan/09/2005 00:00	262	464,658	213	0.47
Jan/10/2005 00:00	281	426,494	182	0.03
Jan/11/2005 00:00	310	601,545	233	0.74
Feb/16/2005 00:00	198	416,364	252	0
Feb/17/2005 00:00	191	407,066	255	0.03
Feb/18/2005 00:00	220	426,712	233	0.53
Feb/19/2005 00:00	217	382,638	211	0.08
Feb/20/2005 00:00	209	353,181	203	0
Feb/21/2005 00:00	300	775,310	310	2.11
Feb/22/2005 00:00	301	606,855	242	0.78
Feb/23/2005 00:00	324	580,860	215	0.47
Feb/24/2005 00:00	258	418,178	194	0



# Example of Concentration-Based Statistical Analysis

Weighted  
Average

52.87
52.52
55.38
0.00
0.00
51.54
54.01
53.29
52.31
54.40
55.22
55.38
51.33
54.45
53.08

Point No.	ADS SITE	Date	Flow	COD Conc	Test Column	Squared Deviations
1		1-Jan-14	2.50	690		33
2		1-Feb-14	2.52	680		249
3		1-Mar-14	2.51	720		587
4	(due to ill)	1-Apr-14	4.00	440 Reject		65,418
5	(plant shutdown)	1-May-14	5.00	350 Reject		119,556
6		1-Jun-14	2.51	670		664
7		1-Jul-14	2.50	705		85
8		1-Aug-14	2.52	690		33
9		1-Sep-14	2.51	680		249
10		1-Oct-14	2.50	710		203
11		1-Nov-14	2.52	715		370
12		1-Dec-14	2.51	720		587
13		1-Jan-15	2.50	670		664
14		1-Feb-15	2.52	705		85
15		1-Mar-15	2.51	690		33

Test Data

Insert add'l row ==>

## Statistics of Accepted Data

No. of data points 15  
No. accepted points 13  
Mean 695.8  
Sum of Sq Deviations 3,842  
Std Deviation 17.89  
Avg Flow 2.51

Accepted  
COD conc.  
696 mg/l

## Limits of Normal Distribution

Probability included 90%  
Lower bound of interval 666.3  
Upper bound of interval 725.2

# Example of Loading-Based Statistical Analysis

## Input Data - COD

## Example of Loading-Based Statistical Analysis

Point No.	ADS SITE	Date	Flow	COD Conc	COD Load	Test Column	Weighted Average
1		01-Jan-14	2.50	690	14,387		44.08
2		01-Feb-14	2.52	680	14,291		43.79
3		01-Mar-14	2.51	720	15,072		46.18
4		01-Apr-14	4.00	440	14,678		44.98
5		01-May-14	5.00	350	14,595		44.72
6		01-Jun-14	2.51	670	14,025		42.98
7		01-Jul-14	2.50	705	14,699		45.04
8		01-Aug-14	2.52	690	14,502		44.44
9		01-Sep-14	2.51	680	14,235		43.62
10		01-Oct-14	2.50	710	14,804		45.36
11		01-Nov-14	2.52	715	15,027		46.05
12		01-Dec-14	2.51	720	15,072		46.18
13		01-Jan-15	2.50	670	13,970	Reject	0.00
14		01-Feb-15	2.52	705	14,817		45.40
15		01-Mar-15	2.51	690	14,444		44.26

= Insert add'l row ==>

## Test Data

## Statistics of Accepted Data

No. of data points  
 No. accepted points  
 Mean  
 Sum of Sq Deviations  
 Std Deviation  
 Avg flow

15 Accepted  
 14 COD conc.  
 14574  
 627 mg/L

354.43  
 2.80

## Limits of Normal Distribution

Probability included  
 Lower bound of interval  
 Upper bound of interval

90%  
 13991.5  
 15157.5

## CITY OF SAN DIEGO M E M O R A N D U M

DATE: April 20, 2016

TO: Metro Technical Advisory Committee

FROM: Huy T. Nguyen, Public Utilities Department, City of San Diego

SUBJECT: Sample Rejection Protocol

---

In Fiscal Year 2013 we brought forward the Brown and Caldwell Metro Billing Technical Memorandum to Metro TAC and agreed to implement 19 recommendations beginning in Fiscal Year 2014. Since implementation we have collected 2 fiscal years of additional sewage strength sampling data and have conducted further evaluations with regards to the 19 recommendations. One of the recommendations suggested the use of "Loading-based statistical analysis" in lieu of "Concentration-based statistical analysis" to determine the mean concentration value.

The calculations for strength based billing is described in the Metro Agreement and is the basis for the Function-Design Allocation Methodology that the typical concentration should first be established, and is then multiplied by the annual average daily flow to obtain the annual loading.

Flow is metered on a daily basis. Sewage concentrations are sampled quarterly (4 times a year). The new samples (concentrations) get added to the cumulative data set to perform statistical analysis to reject the outliers in order to establish the mean or the typical concentration.

At first glance the Loading Data seems more consistent than the Concentration Data. The loading data tends to have less outliers in the data set. However this rational works well for typical sewage under normal conditions, but does not work well when there is a plant shutdown or flow diversion occurring upstream of the sample site or when the dilution effects of the I/I continue to remain present in the system days after a rain event . In these cases, the loading base may contain abnormal concentration, which these outliers will be included in the data set for the annual loading billing calculation.

The fundamentals of the recommended load-based approach is not a sound method for billing purposes as this method would only achieve less outliers but the data may not reflect normal conditions unless the sewage is sampled on a daily basis which is cost prohibitive, so we recommend staying with the concentration-based statistical approach which has been vetted by various stake holders including the PA's and has been the method utilized since 1998.

The following two examples are simplified versions of statistical analysis that illustrate how the concentrations are established based on loading-based versus concentration-based statistical analysis where the abnormal concentration of 250 mg/l was accepted under the load-based approach.

Concentration-based Statistical				Loading-based Statistical			
↓				↓			
		TSS	TSS			TSS	TSS
	Flow	Concentration	Load		Flow	Concentration	Load
	MGD	mg/l	lb/day		MGD	mg/l	lb/day
*	1	500	4,170		1	500	4,170
*	1	500	4,170		1	500	4,170
*	1	500	4,170		1	500	4,170
*	2	<del>250</del>	4,170		2	250	4,170
250 is an outlier on this method				no outlier on this method			
Average conc. =		500		Average (mean) conc. =		437.5	
* snap shots of flow and concentration (4 times a year) on the sample day							
Annual flow =		1.02	MGD			1.02	MGD
Average conc. =		500	mg/l			437.5	mg/l
Annual load. =		1,552,491	lb/year			1,358,430	lb/year

Though the statistical analysis is performed on the loading, this loading-based approach still back-calculates the concentrations later used in annual loading quantifications per strength based billing formula described in the Metro Agreement. Therefore, accepting loading values may lead to including the abnormal concentrations (250 mg/l) in the dataset as shown above. Again, the concentration of 250 mg/l is a result of upstream flow diversion or the effect of I/I flow dilution occurred on that day, but it did not occur for the entire quarter.

While discussing this issue, Padre Dam staff suggested that the City provide the alternative option of annual loading calculation concept and present it to Metro TAC for discussion. As described above San Diego believes that the Loading-Based Statistical Analysis is fundamentally sound and works well with Strength Based Billing Function-Design Allocation Methodology for billing. Furthermore coming up with an alternative billing methodology for loadings poses potential following hurdles:

Using the loading from quarterly sampling program (4 times a year, averaging 5 year data) to determine the cost sharing for each agency. This would require a modification of the billing formula (Annual Flow x Typical Concentration). While this concept will work for most agencies that do not have population fluctuations or changes in commercial/industrial user type. The City's view of this concept as inaccurate loading quantification for a system that has growth and unaccounted for loading due to first flush of the I/I.

# Attachment C



# Pure Water San Diego

Program Update

Assistant Public Utilities Director  
Pure Water Program Lead  
John Helminski

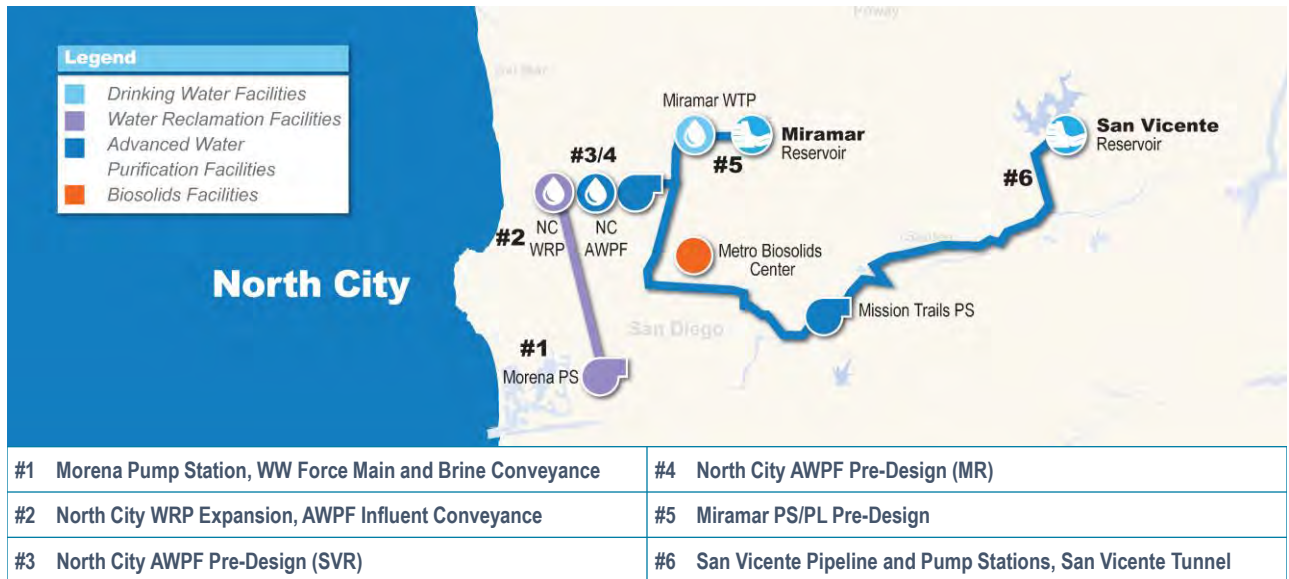
May 16, 2016



## Project Schedule



## Phase I North City: **10% Design**



## Phase I North City: **30% Design Timeline (MWH)**

### In Progress:

- North City Advanced Water Purification Facility
  - *San Vicente Alternative:*
    - Initiated December 2015
    - Draft Report Due: July 2016
  - *Miramar Alternative: Draft Report October 2016*
    - Initiated April 2016
    - Draft Report Due: October 2016

## Phase I North City: **100% Detailed Design Timeline**

- Miramar Pump Station and Pipeline
  - *Issued Notice to Proceed April 2016*
  - *Design Completion February 2018*
- Morena Pump Station and Conveyance
  - *Notice to Proceed November 2016*
  - *Design Completion August 2018*
- North City Water Reclamation Plant
  - *Notice to Proceed November 2016*
  - *Design Completion July 2018*
- North City Advanced Water Purification Facility
  - *Notice to Proceed July 2017*
  - *Design Completion September 2018*



Co Generation & Bio Solids  
Handling

## Co-Generation & Bio-Solids Handling:

### ■ Project Goals:

- *Provide 100% Power for Pure Water Phase I (Additional 15.5 MW's)*
- *Make Beneficial Use of Exhaust Heat for MBC Digesters*
- *Develop Beneficial use for Bio-Solids including Marketing of End Product*
  - Class A
  - Class A EQ



## Co-Generation & Bio-Solids Handling:

### ■ Estimated Timeline:

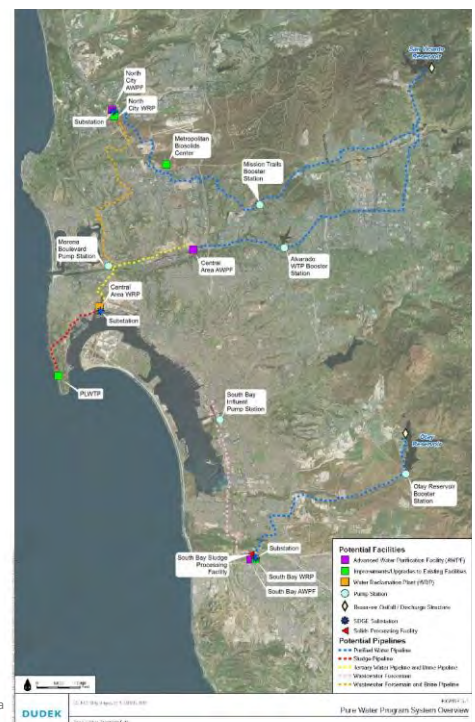
- *Advertise RFQ – End of June 2016*
- *Interview Potential Firms - September 2016*
- *Distributed RFP – October 2016*
- *Receive Proposal - December 2016*
- *Complete Final Negotiation - February 2017*
- *Council Approval - July 2017*
- *Issue Notice to Proceed - September 2017*



# Program Environmental Impact Report

## Draft Program Environmental Impact Report

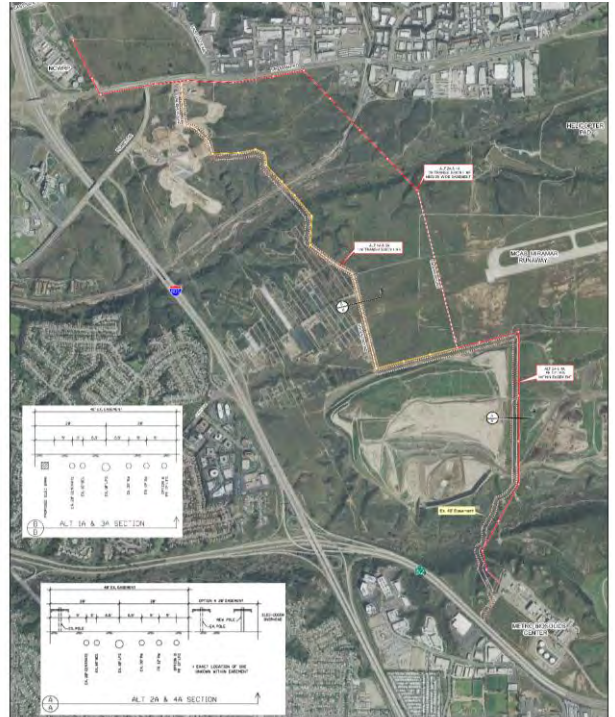
- Released for Public Comment February 10, 2016
- 60 Day Comment Period Ends April 11, 2016
- Broad Overview of Potential Environmental Impacts Associated with Full Implementation of the Program



Pure Water San Diego Program Area

## Project-Specific Environmental Impact Report

- 3<sup>rd</sup> Quarter 2016
- Various Studies Underway
  - *Wet and Dry Weather Surveys*
- MCAS Utility Easement
  - *Submission of CLAMP*



## Prequalification Activities

## **Membrane Filtration (MF)** Prequalification Testing

- Two Vendors Pre-Qualified
- Testing to Begin in June - 10 Week Optimization Period
- Followed by 2 – 6 Week Testing Cycles
- Select Qualified Vendor(s)



## **Reverse Osmosis (RO)** RSFQ and Prequalification

- Two Vendors Submitted Statement of Qualifications
- Panel Members Rating Qualifications
- Final Selection - May 12, 2016
- Testing to Begin July 2016 to July 2017 (testing period of 1 year)
- Validate Testing Results - September 2017



## **Agreements** with Other Agencies



- Agreement with BOR (NEPA Sponsor)
- MOU with Army Corp of Engineers
- MOU with RWQCB (Under Development)



Permitting Agencies



## Regulations Timeline

### Surface Water Augmentation Regulations

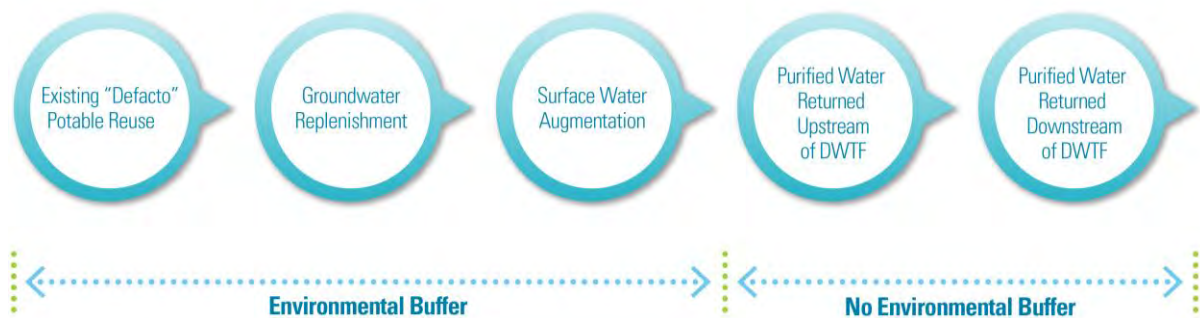
- State IAP White Papers Published
  - *September 2016*
- Draft Expert Panel Report on Surface Water Augmentation
  - *September 2016*
- Final Surface Water Augmentation Regulations
  - *December 2016*

### Direct Potable Reuse Regulations

- Draft Expert Panel Report on DPR Feasibility
  - *July 2016*
- Final Expert Panel Opinion on DPR Feasibility
  - *December 2016*



## Regulatory Continuum





## Drinking Water Permit for Miramar

- Monthly Meetings with DDW
  - *Title 22 Report – Engineering Report*
- Quarterly Meetings with RWQCB
  - *NPDES Permit Requirements*

## Questions



Pure Water San Diego



PureWaterSD



@PureWaterSD

# Attachment D



THE CITY OF SAN DIEGO

**M E M O R A N D U M**

DATE: May 18, 2016

TO: Metro Technical Advisory Committee (Metro TAC)

FROM: Rania Amen, Assistant Director, Public Utilities Department

SUBJECT: FY2016 Capital Improvements Projects Report – July 2015 to March 2016

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The Public Utilities Department hereby submits the FY216 CIP Report, July 2015 through March 2016.

The report includes the following:

- Projects expenditure updates
- Expenditures variance by asset type

**FY16 METRO REPORT - WASTEWATER PROJECTS**  
**SCHEDULE OF FY16 COST OF SERVICE STUDY (COSS) vs ACTUALS**  
 As of March 31, 2016

Original COSS estimates due July 1, 2015 per Data Date

NOTE:

Projects are listed from highest to lowest required project cost  
 All project construction/completion dates are listed at the end of the schedule  
 TSD are projects that are being implemented and have not yet established a baseline  
 Do not include Pure Water projects

Projects with \$1 mil or more in estimated project cost change (increase/decrease)  
 Projects due or more months behind schedule in design/construction phase  
 Projects on the order  
 Post construction/completed projects

COSS - Cost of Service Study  
 RO/RU - Residential Occupancy/Residential Use (in % - Substantial Completion)  
 Variance - difference between COSS and current data

CO - Project Change in place  
 CA - Charter Amendment  
 P - New Charter, Project was in planning/complete was being defined

WPS	Project Name	COSS Estimated Total Project Cost	Actual Estimated Total Project Cost	Project to Date Expenditures (FY16-P16)	Encumbrances (FY16-P16)	Project Balance (Projected Proj Cost less Encumbrances) (FY16-P16)	N-SPent (Expenditures / Available Project Cost)	Start Date	Planning/Design/Award Phase			Construction Phase			Project Charter/Amendment # as of April 1, 2016 Data Date	
									COSS Total Design Approval - End	Final Design Approval - End	Final Design Approval - End Variance	COSS RO/RU	RO/RU	RO/RU Variance		
SEWER PROJECTS																
500312	LARGE SEWER PUMP STATIONS - METRO	\$43,100,000	\$43,100,000	\$5,508,725	\$4,717,321	\$40,382,144	5.39%	11/17/2015	2/16/2016	1/24/2016	252	40/10/2015	8/12/2015	252	No Project Charter or Amendment	
800313	P&S Power Reliability & Surge Protection	\$10,085,000	\$10,085,000	\$10,382,119	\$44,127	\$10,574	99.40%	1/28/2016	1/28/2016	1/28/2016	180	2/10/2016	2/10/2016	180	No Project Charter or Amendment	
500309	P&S & T Electrical Upgrade & New Building at P&S Proj.	\$616,134	\$616,134	\$545,150	\$70,984	\$116,851	88.48%	4/1/2016	4/1/2016	4/1/2016	0	2/17/2016	4/1/2016	0	No Project Charter or Amendment	
010015	PS2 Emergency Generator	\$1,000,000	\$1,000,000	\$1,778,484	\$197,936	\$1,021,548	53.18%	8/28/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
500314	PS2 Emergency Generator	\$1,000,000	\$1,000,000	\$2,105,931	\$20,750	\$1,613,195	47.37%	1/1/2016	2/17/2016	4/1/2016	289	1/14/2016	1/15/2016	529		
500319	PS2 Emergency Generator	\$1,354,000	\$1,354,000	\$785,505	\$15,979	\$1,187,521	3.41%	11/21/2015	11/20/2015	11/20/2015	0	6/30/2016	6/30/2016	0		
500315	PS2 Emergency Generator	\$17,095,937	\$17,095,937	\$16,118,419	\$702,518	\$10,070	97.35%	12/17/2015	9/10/2016	9/10/2016	0	6/17/2015	1/12/2015	7	No Project Charter or Amendment	
500319	PS2 Emergency Generator	\$12,127,443	\$12,127,443	\$4,637,754	\$6,218,688	\$1,165,789	33.42%	7/1/2015	5/21/2015	5/21/2015	0	4/17/2016	6/17/2016	312	Charter Amendment Only	
810128	M&C ODECO CONTRACT FACILITY UPGRADES	\$6,615,412	\$7,151,042	\$1,500,000	\$3,654,042	\$2,351,810	19.98%	1/1/2016	2/19/2015	3/19/2015	0	3/14/2017	3/14/2017	0	No Project Charter or Amendment	
810128	M&C ODECO CONTRACT FACILITY UPGRADES	\$6,615,412	\$7,151,042	\$1,500,000	\$3,654,042	\$2,351,810	19.98%	1/1/2016	2/19/2015	3/19/2015	0	3/14/2017	3/14/2017	0	No Project Charter or Amendment	
500310	PS2 Emergency Generator	\$5,979,093	\$5,979,093	\$3,800,897	\$722,507	\$1,200,296	41.37%	8/1/2015	11/10/2015	11/10/2015	0	9/17/2015	6/10/2016	210	Charter Amendment Only	
014167	PS2 Emergency Generator	\$180,000	\$180,000	\$183,164	\$94,221	\$90,943	21.48%	8/1/2014	9/1/2015	7/31/2015	-32	4/17/2016	6/10/2016	35	Charter Only	
812227	Emergency Storm Upgrade at M&C, INC. 28	\$744,000	\$744,000	\$403,977	\$290,448	\$100,523	33.56%	9/1/2015	9/10/2015	4/1/2016	135	6/16/2015	8/16/2015	26	Charter Only	
TRUCK SEWERS - METRO																
011035	ROSE CANYON T5 (RECT) BENT REPAIR	\$6,237,000	\$6,237,000	\$618,847	\$61,884	\$1,375,464	4.31%	5/1/2015	1/10/2016	10/17/2016	199	2/10/2017	10/17/2016	421	Charter Only	
011016	WFTL Interceptor & P2 T5 Siphon Repair	\$1,500,000	\$1,500,000	\$1,212,897	\$89,553	\$100,144	52.73%	3/1/2016	N/A	N/A	N/A	6/30/2016	6/30/2016	536		
OTHER - AMUNIZATED																
514032	M&C Contract Solar Project	\$1,675,000	\$1,675,000	\$89,435	\$0	\$1,585,565	3.34%	8/1/2014	9/1/2015	10/19/2015	43	9/1/2016	5/9/2017	183	Charter Only	
514000	PS2 EEP Implementation	\$1,248,100	\$1,248,100	\$933,319	\$4,784	\$164,781	74.73%	2/1/2014	1/1/2014	1/1/2014	180	1/1/2014	1/1/2014	180		
516041	Civic Center Plaza & Floor Bulb-out	\$100,000	\$100,000	\$40,379	\$0	\$59,621	40.38%	9/1/2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SEWER TREATMENT PLANTS - AMUNIZATED																
512036	Backup Generator at P2, P & E INIS	\$17,745,000	\$17,745,000	\$14,779,971	\$16,866	\$1,965,029	83.29%	12/15/2015	9/1/2016	10/1/2016	6	10/1/2016	6/30/2016	468		
POST CONSTRUCTION/COMPLETE PROJECTS																
500322	M&C - BRISAND SLOVER 200	\$8,047,848	\$8,047,848	\$4,432,152	\$0	\$3,615,696	56.36%	10/12/2015	11/15/2015	11/15/2015	0	7/14/2015	9/17/2015	31	No Project Charter or Amendment	
1100007	Onshore Upgrade at North City WWP	\$3,070,000	\$3,070,000	\$2,539,325	\$0	\$530,675	82.74%	10/27/2015	3/22/2016	3/22/2016	0	1/14/2016	6/1/2016	-126		

## Asset Type Report for Wastewater Projects

### Wastewater CIP Cost of Service Study Estimates by Project Type Compared with Expenditures

Through March 31, 2016

Some rounding differences may occur

PROJECT TYPE	(A) FY16 COSS	(B) Original COSS FY16 Pds 1-9	(C) FY16 Actual Expenditures Pds 1-9	(D) Percentage of Execution [C]/[B]	(E) Variance from COSS (Pds 1-9) [C] - [B]
Large Sewer Pump Station	\$633,002	\$453,002	\$2,524,248	557%	\$2,071,247
Metro Pump Station	\$0	\$0	\$0		\$0
Other	\$410,087	\$176,063	\$20,711	12%	(\$155,352)
Sewer Treatment Plants	\$14,724,456	\$11,087,282	\$7,469,806	67%	(\$3,617,476)
Trunk Sewers	\$924,224	\$669,224	\$1,451,505	217%	\$782,281
<b>TOTALS</b>	<b>\$16,691,768</b>	<b>\$12,385,570</b>	<b>\$11,466,269</b>	<b>93%</b>	<b>(\$919,301)</b>

"Other" includes installation of Backup Generators at Wastewater Facilities, the EMT&S Boat Dock & Steam Line Relocation, Wet Weather Storage Facility - Live Stream Discharge, and the EAM ERP Implementation.

# Attachment E

**CITY OF SAN DIEGO PUBLIC  
UTILITIES DEPARTMENT**

Schedule of Allocation for Billing to Metropolitan  
Wastewater Utility and Independent Auditor's Reports

For the Fiscal Year Ended June 30, 2013



Certified  
Public  
Accountants

**CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT**  
**Schedule of Allocation for Billing to Metropolitan Wastewater Utility**  
**and Independent Auditor's Reports**  
**For the Fiscal Year Ended June 30, 2013**

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San Diego

## Independent Auditor's Report on the Schedule of Allocation for Billing to Metropolitan Wastewater Utility

To the Honorable Mayor and City  
Council of the City of San Diego  
San Diego, California

### Report on the Schedule

We have audited the accompanying Schedule of Allocation for Billing to Metropolitan Wastewater Utility (the Schedule) of the City of San Diego Public Utilities Department (PUD), an enterprise fund of the City of San Diego, California (the City) for the fiscal year ended June 30, 2013, and the related notes to the Schedule.

### *Management's Responsibility for the Schedule*

Management is responsible for the preparation and fair presentation of the Schedule in accordance with the modified cash basis of accounting described in Note 3; this includes determining that the modified cash basis of accounting is an acceptable basis for the preparation of the Schedule in the circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the Schedule that is free from material misstatement, whether due to fraud or error.

### *Auditor's Responsibility*

Our responsibility is to express an opinion on the Schedule based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedule is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Schedule. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Schedule, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the Schedule in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the Schedule.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the Schedule referred to above presents fairly, in all material respects, the modified cash basis allocation of billing to the Metropolitan Wastewater Utility of the PUD pursuant to the Regional Wastewater Disposal Agreement (Agreement) between the City and the Participating Agencies in the Metropolitan Wastewater System dated May 18, 1998 and amended on May 15, 2000 and June 3, 2010, for the fiscal year ended June 30, 2013, in accordance with the modified cash basis of accounting described in Note 3.

***Basis of Accounting***

We draw attention to Note 3 of the Schedule, which describes the basis of accounting. The Schedule is prepared on the modified cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated April 22, 2016 on our consideration of the PUD's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over the Schedule and compliance and the results of that testing, and not to provide an opinion on internal control over the Schedule or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the PUD's internal control over the Schedule and compliance.

*Macias Gini & O'Connell LLP*

San Diego, California  
April 22, 2016

**CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT**  
**Schedule of Allocation for Billing to Metropolitan Wastewater Utility**  
**For the Fiscal Year Ended June 30, 2013**

	Operating Expenses		
	Municipal System	Metropolitan System	Total
<b>Transmission</b>			
Main Cleaning .....	\$ 11,004,826	\$ -	\$ 11,004,826
Sewer Pump Stations.....	5,134,321	-	5,134,321
Other Pump Stations.....	5,965,141	786,603	6,751,744
Pump Station 1.....	-	2,263,634	2,263,634
Pump Station 2.....	-	7,247,501	7,247,501
Other Muni Agencies.....	3,266,434	-	3,266,434
Pipeline Maintenance and Repair.....	9,550,440	1,619	9,552,059
Wastewater Collection (WWC) Engineering and Planning.....	2,151,394	-	2,151,394
<b>Total Transmission.....</b>	<b>37,072,556</b>	<b>10,299,357</b>	<b>47,371,913</b>
<b>Treatment and Disposal</b>			
Point Loma Wastewater Treatment Plant (PTLWWTP).....	-	22,354,603	22,354,603
North City Water Reclamation Plant (NCWRP).....	-	7,577,722	7,577,722
South Bay Water Reclamation Plant (SBWRP).....	-	7,242,551	7,242,551
Metropolitan Biosolids Center (MBC).....	-	14,757,955	14,757,955
Gas Utilization Facility (GUF).....	-	1,848,547	1,848,547
Wastewater Treatment and Disposal (WWTD) Plant Engineering.....	-	819,172	819,172
<b>Total Treatment and Disposal.....</b>	<b>-</b>	<b>54,600,550</b>	<b>54,600,550</b>
<b>Quality Control</b>			
Sewage Testing and Control.....	2,303,815	424,406	2,728,221
Marine Biology and Ocean Operations.....	-	5,593,666	5,593,666
Wastewater Chemistry Services.....	-	5,599,723	5,599,723
Industrial Permitting and Compliance.....	3,240,053	-	3,240,053
<b>Total Quality Control.....</b>	<b>5,543,868</b>	<b>11,617,795</b>	<b>17,161,663</b>
<b>Engineering</b>			
Program Management and Review.....	2,295,455	2,757,735	5,053,190
Environmental Support.....	1,387,450	100,807	1,488,257
<b>Total Engineering.....</b>	<b>3,682,905</b>	<b>2,858,542</b>	<b>6,541,447</b>
<b>Operational Support</b>			
Central Support: Clean Water Operations Management Network (Comnet).....	249,669	3,970,487	4,220,156
Operational Support.....	1,455,715	7,583,942	9,039,657
<b>Total Operational Support.....</b>	<b>1,705,384</b>	<b>11,554,429</b>	<b>13,259,813</b>
<b>General and Administration</b>			
Business Support Administration.....	21,582,594	17,264,932	38,847,526
Operating Division Administration.....	8,388,235	5,387,324	13,775,559
<b>Total General and Administration.....</b>	<b>29,970,829</b>	<b>22,652,256</b>	<b>52,623,085</b>
<b>TOTAL OPERATING EXPENSES.....</b>	<b>77,975,542</b>	<b>113,582,929</b>	<b>191,558,471</b>
<b>CAPITAL IMPROVEMENT EXPENSE.....</b>	<b>92,343,850</b>	<b>23,558,956</b>	<b>115,902,806</b>
<b>DEBT SERVICE ALLOCATION.....</b>	<b>47,327,214</b>	<b>55,910,778</b>	<b>103,237,992</b>
<b>METROPOLITAN SYSTEM INCOME CREDITS.....</b>			
Operating Revenue.....	-	(5,837,310)	(5,837,310)
CIP - Revenue Bond Issue.....	-	-	-
Operating - Grant Revenue.....	-	(8,797)	(8,797)
CIP - Grant SRF Revenue.....	-	(3,145,264)	(3,145,264)
<b>TOTAL METROPOLITAN SYSTEM INCOME CREDITS.....</b>	<b>-</b>	<b>(8,991,371)</b>	<b>(8,991,371)</b>
<b>TOTAL ALLOCATION FOR BILLING PURPOSES.....</b>	<b>\$ 217,646,606</b>	<b>\$ 184,061,292</b>	<b>\$ 401,707,898</b>

See Accompanying Notes to the Schedule of Allocation for Billing to Metropolitan Wastewater Utility.

**CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT**  
Notes to the Schedule of Allocation for Billing to Metropolitan Wastewater Utility  
For the Fiscal Year Ended June 30, 2013

**Note 1 – General**

The City of San Diego Public Utilities Department (the PUD) operates and maintains the Metropolitan Wastewater System (the Metropolitan System) and the Municipal Wastewater Collection System (the Municipal System). The Participating Agencies and the City of San Diego (the City) have entered into the Regional Wastewater Disposal Agreement dated May 18, 1998 and amended on May 15, 2000 and June 3, 2010, for their respective share of usage and upkeep of the Metropolitan Wastewater Utility. The accompanying Schedule of Allocation for Billing to Metropolitan Wastewater Utility (the Schedule), represents the allocation of expenses for billing related to the Metropolitan Wastewater Utility of the Participating Agencies.

The Metropolitan System and Municipal System are accounted for as enterprise funds and reported in the Sewer Utility Fund in the City's Comprehensive Annual Financial Report.

**Note 2 – Participating Agencies**

The Participating Agencies consist of the following municipalities and districts:

City of Chula Vista	City of National City
City of Coronado	City of Poway
City of Del Mar	Lemon Grove Sanitation District
City of El Cajon	Otay Water District
City of Imperial Beach	Padre Dam Municipal Water District
City of La Mesa	San Diego County Sanitation District

The San Diego County Sanitation District was formed on July 1, 2011. The following former districts were reorganized and combined to form the San Diego County Sanitation District:

- |   |   |
|---|---|
| • East Otay Mesa Sewer Maintenance District | • Winter Gardens Sewer Maintenance District |
| • Lakeside Sanitation District              | • Spring Valley Sanitation District         |
| • Alpine Sanitation District                |   |

The reorganization does not affect the allocation of expenses for billing related to the Metropolitan System.

**Note 3 – Summary of Significant Accounting Policies**

***Basis of Presentation***

The Schedule has been prepared for the purpose of complying with the Regional Wastewater Disposal Agreement between the City and the Participating Agencies as discussed in Note 1 above, and is presented on a modified cash basis of accounting. As a result, the Schedule is not intended to be a presentation of the changes in the financial position of the City or the PUD in conformity with generally accepted accounting principles. The more significant differences are:

1. Purchases of capital assets are presented as capital improvement expenses.
2. Depreciation expense on capital assets is not reported in the Schedule.
3. Payments of principal and interest related to long-term debt are reported as debt service allocation.

## **CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT**

### **Notes to the Schedule of Allocation for Billing to Metropolitan Wastewater Utility (Continued)**

**For the Fiscal Year Ended June 30, 2013**

4. Exclusion in the Schedule for unbudgeted expenses related to compensated absences, liability claims, capitalized interest, pollution remediation, other postemployment benefits, net pension obligation, and landfill closure and postclosure care costs.

The preparation of the Schedule requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

#### **Note 4 –Capital Improvement Expense**

Construction costs incurred during the fiscal year to maintain and improve the Metropolitan Wastewater Utility and equipment purchases used in the maintenance of the Metropolitan Wastewater Utility are included in capital improvement expense.

Metropolitan Wastewater Utility capital improvement income credits include, if any, contributions-in-aid-of-construction received from Federal and State granting agencies and reimbursements from bond proceeds.

#### **Note 5 –Debt Service Allocation**

Debt service allocation represent a portion of the principal and interest payments relating to the Senior Sewer Revenue Bonds Series 2009A, the Senior Sewer Revenue Refunding Bonds Series 2009B and 2010A, and the outstanding State Revolving Fund (SRF) loans from the State of California.

#### **Note 6 – Metropolitan System Income Credits**

Metropolitan System income credits are revenues earned by the Metropolitan System for costs incurred during the current or previous fiscal years. The PUD has agreed to share the income credits from the South Bay Water Reclamation Facility in accordance with the 1998 Regional Wastewater Disposal Agreement. An agreement was reached in the fiscal year 2015 regarding revenue generated from the South Bay Water Reclamation Facility and revenue sharing payments were issued for the fiscal years from 2006 through 2014 to Participating Agencies. Hence, the revenue sharing payments for fiscal year 2013 are not included in the fiscal year 2013 Schedule.

#### **Note 7 – Total Allocation for Billing Purposes**

Costs to be billed to Participating Agencies include all individual construction projects costs and operation and maintenance expenses attributable to the Metropolitan System. Costs are apportioned back to the Participating Agencies based on their percentage of each of the totals of flow, suspended solids and chemical oxygen demand (COD). Each Participating Agency and the City are sampled quarterly, with plants sampled daily. The percentages are determined from cumulative samples and monitored flow.

For construction projects, percentages were allocated to flow, suspended solids and COD based on each of the project's design and function. The percentages are weighted by total project costs and combined to determine the final three derived percentages. Total annual costs are then allocated based on the three derived percentages and the measured flow, suspended solids and COD of each Participating Agency.

Operation and maintenance (O&M) costs as a percentage of flow, suspended solids and COD are evaluated based on four cost categories: pump stations, plant operations, technical services and cogeneration. These percentages are weighted by the annual O&M costs for each category, and combined to determine a derived percentage for administrative costs. All O&M costs are then allocated based on the measured flow, suspended solids and COD of each Participating Agency.

**CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT**  
Notes to the Schedule of Allocation for Billing to Metropolitan Wastewater Utility (Continued)  
For the Fiscal Year Ended June 30, 2013

**Note 8 – Administrative Protocol**

In May 2010, the City of San Diego and all Participating Agencies signatory to the Regional Wastewater Disposal Agreement established an Administrative Protocol (Protocol) which was effective beginning in fiscal year 2010. The Protocol established a requirement that the Participating Agencies maintain a 1.2 debt service coverage ratio on parity debt, fund a 45 day operating reserve, and earn interest on the operating and unrestricted reserve accounts. All interest earned during fiscal year 2013 was credited to the operating reserve, which ended the fiscal year with a 45-day reserve.

**Note 9 – Subsequent Events**

**Padre Dam Overbilling Sludge Issue**

The City of San Diego investigated an issue submitted by Padre Dam regarding possible overcharges and in April 2011, confirmed that Padre Dam was indeed overcharged. Thereafter, beginning in May 2011, the overcharge issue was generally discussed by the City of San Diego, Padre Dam and all other Participating Agencies, at many, if not all, Metro TAC meetings until April 2013, with the hope and goal of resolving the issue to the satisfaction of all parties. On December 5, 2013, Padre Dam and the City of San Diego issued a proposal with two options for consideration to Participating Agencies. In the fiscal year 2015 an agreement was reached regarding the Padre Dam overcharge and corrections were issued for the fiscal years 2009 through 2012 as part of the audit and closeout procedures.

**North City Wastewater Treatment Plant Billing Issue**

In February 2013, the City of San Diego discovered an additional billing issue associated with the North City Water Reclamation Plant wherein the City of San Diego may have omitted flow and under billed itself. In the fiscal year 2015, final agreement consensus was reached regarding how to account for the City's flow through the North City Reclamation Plant and correction was made for the fiscal years 2009 through 2012 as part of the audit and closeout procedures.



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**Independent Auditor's Report on Internal Control Over Financial Reporting and  
on Compliance and Other Matters Based on an Audit of the Schedule  
of Allocation for Billing to Metropolitan Wastewater Utility Performed  
in Accordance with *Government Auditing Standards***

To the Honorable Mayor and City  
Council of the City of San Diego  
San Diego, California

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the Schedule of Allocation for Billing to Metropolitan Wastewater Utility (the Schedule) of the City of San Diego Public Utilities Department (PUD), an enterprise fund of the City of San Diego, California (the City), for the fiscal year ended June 30, 2013, and the related notes to the Schedule, and have issued our report thereon dated April 22, 2016. Our report contained an explanatory paragraph indicating that the Schedule was prepared for the purpose of complying with, and in conformity with, the accounting practices prescribed by the Regional Wastewater Disposal Agreement between the City of San Diego and the Participating Agencies in the Metropolitan Wastewater System dated May 18, 1998 and amended on May 15, 2000 and June 3, 2010.

**Internal Control over Financial Reporting**

In planning and performing our audit of the Schedule, we considered the PUD's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the Schedule, but not for the purpose of expressing an opinion on the effectiveness of the PUD's internal control. Accordingly, we do not express an opinion on the effectiveness of the PUD's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the PUD's Schedule is free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of Schedule amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

### **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Macias Gini & O'Connell LLP*

San Diego, California

April 22, 2016



TABLE A

CITY OF SAN DIEGO - METROPOLITAN WASTEWATER DEPARTMENT  
FISCAL YEAR 2013 UNIT COSTS  
FUNCTIONAL-DESIGN COST ALLOCATION METHOD

TREATMENT PARAMETER	FY 2013 BUDGET	UNITS	COST PER UNIT
WASTEWATER FLOW	AMOUNT \$90,083,602	62,402 (a)	\$1,443.60 /per Million Gallons
SUSPENDED SOLIDS	\$49,713,890	172,265 (b)	\$288.59 /per Thousand Pounds
CHEMICAL OXYGEN DEMAND	\$44,263,800	322,443 (c)	\$137.28 /per Thousand Pounds
TOTAL	\$184,061,292	100%	

(a) Units of Flow - Million Gallons Per Year  
 (b) Units of SS - Thousands of Pounds per Year  
 (c) Units of COD - Thousands of Pounds per Year

TABLE B

CITY OF SAN DIEGO - METROPOLITAN WASTEWATER DEPARTMENT  
PROJECTED DISTRIBUTION OF SYSTEM WASTEWATER COSTS - FISCAL YEAR 2013  
FUNCTIONAL-DESIGN BASED ALLOCATION METHOD

AGENCY	ALLOCATION OF COSTS BY FLOW, SUSPENDED SOLIDS AND CHEMICAL OXYGEN DEMAND			TOTAL FLOW, SS & COD	TOTAL PAID FOR FY 2013	DIFFERENCE
	FLOW (a)	SS (a)	COD (a)			
CHULA VISTA	\$8,906,346	\$5,048,619	\$4,543,864	\$18,498,829	\$18,527,820	(\$28,991)
CORONADO	\$911,971	\$361,648	\$349,898	1,623,518	\$2,104,076	(\$480,558)
DEL MAR	\$311,979	\$182,786	\$140,936	635,701	\$790,380	(\$154,679)
EAST OTAY MESA	\$18,411	\$9,019	\$7,746	35,176	\$75,840	(\$40,664)
EL CAJON	\$4,027,522	\$1,723,497	\$1,605,872	7,356,891	\$8,840,232	(\$1,483,341)
IMPERIAL BEACH	\$1,223,822	\$597,409	\$497,218	2,318,450	\$2,379,436	(\$60,986)
LA MESA	\$2,561,488	\$1,090,629	\$963,397	4,615,514	\$4,990,204	(\$374,690)
LAKESIDE/ALPINE	\$1,798,047	\$798,093	\$686,708	3,282,847	\$3,493,160	(\$210,313)
LEMON GROVE	\$1,159,342	\$482,715	\$491,460	2,133,518	\$2,291,448	(\$157,930)
NATIONAL CITY	\$2,217,448	\$1,095,163	\$1,085,171	4,397,782	\$4,863,816	(\$466,034)
OTAY	\$89,743	\$407,834	\$134,795	632,372	\$1,009,692	(\$377,320)
PADRE DAM	\$1,200,277	\$1,158,076	\$672,032	3,030,385	\$3,905,820	(\$875,435)
POWAY	\$1,619,310	\$847,495	\$628,654	3,095,459	\$3,522,780	(\$427,321)
SPRING VALLEY	\$3,841,540	\$1,918,667	\$1,538,548	7,298,754	\$7,491,184	(\$192,430)
WINTERGARDENS	\$522,330	\$219,893	\$164,619	906,842	\$955,904	(\$49,062)
SUBTOTAL PARTICIPATING AGENCIES	\$30,409,576	\$15,941,543	\$13,510,918	\$59,862,037	\$65,241,792	(\$5,379,755)
SAN DIEGO	\$59,674,027	\$33,772,347	\$30,752,881	\$124,199,255		
TOTAL	\$90,083,602	\$49,713,890	\$44,263,800	\$184,061,292		

TABLE C

CITY OF SAN DIEGO - METROPOLITAN WASTEWATER DEPARTMENT  
SYSTEM WASTEWATER CHARACTERISTICS - FISCAL YEAR 2013  
SYSTEM STRENGTH LOADINGS INCLUDED

	WASTEWATER CHARACTERISTICS			UNADJUSTED ANNUAL USE			ADJUSTED ANNUAL USE				
AGENCY	AVERAGE FLOW - mgd (a)	SS mg/l (b)	COD mg/l (b)	2013 FLOWS million gallons	SS thousand pounds	COD thousand pounds	2013 FLOWS million gallons	Flow Difference (c)	FY 2013 Billing Flows	SS thousand pounds	COD thousand pounds
CHULA VISTA	15.734	230	656	5,742.749	11,022	31,432	6,171.549	(2,009)	6,169,540	17,494	33,100
CORONADO	1.611	161	493	588.033	790	2,420	631.940	(0.206)	631,734	1,253	2,549
DEL MAR	0.551	238	581	201.162	399	975	216.182	(0.070)	216,112	633	1,027
EAST OTAY MESA	0.033	199	541	11.871	20	54	12.757	(0.004)	12,753	31	56
EL CAJON	7.115	174	513	2,596.918	3,763	11,109	2,790.825	(0.908)	2,789,916	5,972	11,598
IMPERIAL BEACH	2.162	198	522	789.112	1,304	3,439	848.033	(0.276)	847,757	2,070	3,622
LA MESA	4.525	173	484	1,651.630	2,381	6,664	1,774.954	(0.578)	1,774,376	3,779	7,018
LAKESIDE/ALPINE	3.176	180	491	1,159.368	1,742	4,750	1,245.936	(0.406)	1,245,530	2,766	5,002
LEMON GROVE	2.048	169	545	747.536	1,054	3,400	803.353	(0.261)	803,091	1,673	3,560
NATIONAL CITY	3.917	200	629	1,429.795	2,391	7,507	1,536.555	(0.500)	1,536,054	3,795	7,905
OTAY	0.159	1,844	1,931	57.866	890	932	62.186	(0.020)	62,166	1,413	982
PADRE DAM	2.120	391	720	773.930	2,528	4,649	831.718	(0.271)	831,448	4,013	4,895
POWAY	2.861	212	499	1,044.119	1,850	4,349	1,122.082	(0.365)	1,121,717	2,937	4,579
SPRING VALLEY	6.786	203	515	2,476.998	4,189	10,643	2,661.951	(0.866)	2,661,084	6,648	11,208
WINTERGARDENS	0.923	171	405	336.795	480	1,139	361.942	(0.118)	361,825	762	1,199
SUBTOTAL PARTICIPATING AGENCIES	53.720	213	571	19,607.882	34,804	93,461	21,071.963	(6,859)	21,065,104	55,240	98,421
SAN DIEGO	105.418	230	663	38,477.395	73,732	212,732	41,350.425	(13,460)	41,336.966	117,026	224,022
REGIONAL SLUDGE RETURNS	11.863	251	208	4,337.113	9,080	7,510					
FLOW DIFFERENCE	(0.06)			(20.319)	54,649	8,740					
TOTAL	170.965	331	619	62,402.070	172,265	322,443	62,422.389	(20,319)	62,402.070	172,265	322,443

(a) Flows based on metered, housecounts and inter-agency flow, adjustment to City of San Diego flow for centrale, chemical additions reduction, plus an addition for recycled water.

(b) SS and COD characteristics based on samples taken by PUD's Environmental Monitoring and Technical Services Division through June 30, 2013 - proportionate share of return flow loadings calculated in the "ADJUSTED ANNUAL USE" BOX.

(c) Flow difference between metered/housecount and facility totals.

TABLE D

CITY OF SAN DIEGO - METROPOLITAN WASTEWATER DEPARTMENT  
 ALLOCATION OF FISCAL YEAR 2013 ACTUAL COSTS  
 FUNCTIONAL-DESIGN BASED ALLOCATION METHOD

DESCRIPTION	FY 2013 ACTUAL COSTS	ALLOCATION OF COSTS					TOTAL COSTS
		FLOW %	FLOW COSTS	SS %	SS COSTS	COD %	COD COSTS
<u>OPERATION AND MAINTENANCE:</u>							
TRANSMISSION AND SYSTEM MAINTENANCE	\$10,299,357	100.0%	\$10,299,357	0.0%	\$0	0.0%	\$0
OPERATIONS & MAINTENANCE	51,932,831	36.5%	18,959,316	34.3%	17,802,846	29.3%	15,190,669
TECHNICAL SERVICES	11,193,389	30.0%	3,358,017	40.0%	4,477,356	30.0%	3,358,017
COGENERATION	328,354	0.0%	0	60.0%	197,012	40.0%	131,342
METRO ADMIN & GENERAL EXPENSES - 41508	21,043,873	44.2%	9,300,665	30.5%	6,413,321	25.3%	5,329,887
METRO ADMIN & GENERAL EXPENSES - 41509	13,985,306	44.2%	6,181,022	30.5%	4,262,155	25.3%	3,542,129
TOTAL OPERATIONS AND MAINTENANCE	\$108,783,110	44.20%	\$48,078,377	30.48%	\$33,152,690	25.33%	\$27,552,043
<u>CAPITAL IMPROVEMENT PROGRAM:</u>							
PAY-AS-YOU-GO METRO 41508	0	55.8000%	0	22.0000%	0	22.2000%	0
PAY-AS-YOU-GO METRO 41509	19,367,404	55.8000%	10,807,012	22.0000%	4,260,829	22.2000%	4,299,564
DEBT SERVICE	55,910,778	55.8000%	31,198,214	22.0000%	12,300,371	22.2000%	12,412,193
TOTAL CAPITAL IMPROVEMENT PROGRAM	\$75,278,182	55.8%	\$42,005,226	22.0%	\$16,561,200	22.2%	\$16,711,756
TOTAL O&M & CAPITAL IMPROVEMENT PROGRAM	\$184,061,292	48.9%	\$90,083,602	27.0%	\$49,713,890	24.0%	\$44,263,800
							\$184,061,292

Item 3  
SCCWRP  
9<sup>th</sup> Amendment

**METRO JPA/TAC****Staff Report****Date:**

**Project Title:** Southern California Coastal Water Research Project Authority- Ninth Amendment of the Joint Powers Agreement

**Requested Action:** Approval to provide funding for this 4-year JPA agreement is requested from the Metro JPA.

**Recommendations:** Approve the requested action.

Metro TAC:

IROC:

NA

Prior Actions:  
(Committee/Commission,  
Date, Result)

The previous amendment, the Eighth Amendment of the JPA, was approved by City Council on April 4, 2013 (R308046).

**Fiscal Impact:**

Is this projected budgeted? Yes ☒ No ☐

Cost breakdown between  
Metro & Muni:

100% Metro = \$1,850,000 / 0% Muni  
\$425,000 for FY 2018, \$450,000 for FY 2019, \$475,000 for FY  
2020, \$500,000 for FY 2021 (Total \$1,850,000)

Fiscal impact to the Metro  
JPA:

\$619,750 (33.5% of Metro costs)

**Capital Improvement Program:**

New Project? Yes ☐ No ☐ N/A ☒

Existing Project? Yes ☐ No ☐ Upgrade/addition ☐ Change ☐

**Previous TAC/JPA Action:** The previous amendment, the Eighth Amendment, was reviewed by Metro TAC on April 18, 2012 and recommended for approval. It was presented to San Diego Metro JPA / Commission and approved also on April 18, 2012.

**Additional/Future Action:** If the Ninth Amendment is recommended for approval by Metro TAC, it will be presented to the Metro JPA / Metro Commission on July 7, 2016. The Ninth Amendment is planned to be presented to the Environmental Committee on July 21, 2016 and if supported, presented to City Council on September 13, 2016.

**City Council Action:****Background:** *Provide background information on the need for the project*

The Southern California Coastal Water Research Project (SCCWRP) Authority, a joint powers authority (JPA), was created in 1969 to enhance the scientific foundation for management of Southern California's ocean and associated coastal watershed resources. The study area extends from the coastline of the US/Mexico border to the Santa Barbara County line. By virtue of the Joint Powers Agreement entered into by the four Signatories to the Agreement: the (1) City of San Diego; (2) City of Los Angeles; (3) Orange County Sanitation District; and the (4) County Sanitation

Districts of Los Angeles County agree to provide annual funding for research conducted and coordinated by this agency.

SCCWRP is governed by a ten (10) member Commission composed of representatives from the US Environmental Protection Agency Region IX; State Water Resources Control Board; three (3) Regional Water Quality Control Boards representing the San Diego, Los Angeles and Santa Ana County Regions; County Sanitation Districts of Los Angeles; Orange County Sanitation District; Bureau of Sanitation, City of Los Angeles; City of San Diego's Public Utilities Department; and the California Resources Agency, Ocean Protection Council.

This Ninth Amendment to the Joint Powers Agreement will provide for the continuation of SCCWRP for another four years, beginning with fiscal year 2018.

The total amount is not to exceed \$1,850,000 and is to be expended as follows:

FY2018 = \$425,000

FY2019 = \$450,000

FY2020 = \$475,000

FY2021 = \$500,000

Execution of this agreement obligates the City for the first year of the four year term. *Withdrawal provisions are included within the agreement for years two, three and four.*

An alternative to participation in SCCWRP would be for the City of San Diego to hire technical consultants, on a case by case basis, to accomplish this work. This alternative is not recommended, however, as it would result in inefficiencies, additional costs and loss of City input that results from the cooperative working relationship with the regulators and other dischargers that are part of SCCWRP.

**Discussion:** *Provide information on decisions made to advance the project*

**Bid Results:** *Not applicable*

Item 4

Sample Rejection  
Protocol

(attachment  
forthcoming)



# Item 10

## MetroTAC Work Plan

**Metro TAC Work Plan  
Active & Pending Items  
2016**

Active Items	Description	Member(s)
Board Members Orientation	Point Loma Permit Facility Negotiation History, This is the first part of a three part series. This item is to help Board Members understand the History and the issues surrounding the Pt. Loma waiver process and the waiver from Secondary Treatment under which PT. Loma currently operates. It is scheduled to be presented in April 2016. 4/16: Alan Langworthy and Tom Zeleny gave the attached presentation at the Metro Com/JPA meeting of April 7, 2016. 6/16: Presentation is on JPA Website	Greg Humora Paula de Sousa Mills
Board Members Orientation	1998 Regional Wastewater Disposal Agreement History. 4/16: This presentation will be given at the May 2016 Metro Com/JPA Meeting. 5/16: Paula de Sousa Mills reviewed the attached presentation with the Metro Commission/JPA members. 6/16. Presentation is on JPA Website.	Greg Humora Paula de Sousa Mills
Board Members Orientation	Metro Revenues, Metro Rates, Exhibit E Audit. <i>6/16: Karyn Keese reviewed the budgets, audits, and history of the JPA finances as well as the City of San Diego Metro and PAs portion of same. Presentation attached to this month's work plan and on JPA website.</i>	Greg Humora Paula de Sousa Mills Karyn Keese
PLWTP Permit Ad Hoc Work Group	8/15: Greg Humora and Scott Tulloch continue to meet with stakeholders. Cost allocation subcommittee continues to meet with City staff. Milestones are included in each month Metro TAC and Commission agenda packet.	Greg Humora Scott Tulloch SD staff & consultants Enviro members
Flow Commitment Working Group	<i>6/16: Upon the request of Metro Com Chair Jim Peasley Chairman Humora created a working group to review the Flow Commitment section of the Regional Agreement and make recommendations on the fiscal responsibilities of members who might withdraw their flow from the Metro System. The Work Group held their first meeting June 24, 2016. Yazmin Arellano will chair the work group.</i>	Greg Humora Yazmin Arellano Roberto Yano Eric Minicilli Al Lau SD staff Karyn Keese
Social Media Working Group	<i>6/16: Upon the request of Metro Com Chair Jim Peasley Chairman Humora created a working group to research and provide input on the creation of policies and procedures for Metro JPA social media. Mike Obermiller will chair this work group. He sent out an email to all Metro TAC members requesting copies of their agency's policies.</i>	Greg Humora Mike Obermiller
Secondary Equivalency	5/14: Definition of secondary equivalency for Point Loma agreed to be enviros 12/14: Cooperative agreement signed between San Diego and enviros to work together to pass legislation for secondary equivalency (until 8/1/19) San Diego indicated that passage of Federal legislation is not possible under the current political environment. San Diego is exploring options for State legislation 9/15: Letter received from EPA endorsing modified permit for Point Loma <i>6/16: Pursuit of Federal Legislation will be held off until after the November 2016 election.</i>	Greg Humora Scott Tulloch
Pure Water Program Cost Allocation Ad Hoc Work Group	A small working group was formed to discuss options to allocate PLWTP offset project costs among the water and wastewater rate payers. The goal is to have numbers in December 2015.	Greg Humora Scott Tulloch Roberto Yano Karyn Keese SD staff & consultants

**Metro TAC Work Plan  
Active & Pending Items  
2016**

Active Items	Description	Member(s)
Pure Water Program Cost Allocation Metro TAC Work Group	5/14: Draft facility plan and cost allocation table provided to Metro TAC working group 3/15: Draft cost allocation presentation provided to Metro TAC	Greg Humora Scott Tulloch Rick Hopkins Roberto Yano Al Lau Bob Kennedy Karyn Keese
Exhibit E Audit	10/15: FY13 and FY14 expected to be complete by end of 2015. <i>6/16: FYE 2013 audit accepted by Metro Commission; FYE 2014 and FYE 2015 will be completed by end of the summer 2016.</i>	Karyn Keese Karen Jassoy
Amend Regional Wastewater Disposal Agreement	The addition of Pure Water facilities and costs will likely require the amendment of the 1998 Regional Wastewater Disposal Agreement. The Padre Dam billing errors have led to a need to either amend the Agreement and/or develop administrative protocols to help resolve potential future billing errors. The goal is to begin this effort in December 2015.	Greg Humora Roberto Yano Dan Brogadir Paula de Sousa Mills Karyn Keese
SDG&E Rate Plan	SDG&E has submitted a Rate Plan that would not only change some rate structures but will also shorten the off peak hours for users such as utilities. BBK will continue to monitor and update Metro TAC and Commission/JPA members on protest measures.	Paula de Sousa Mills
Industrial Waste Program Update	9/13: A performance audit was performed on the PUD's IWCP. The audit produced two findings and made 8 recommendations. PUD has hired Brown & Caldwell to perform a fee study and assist implementation of an updated program. A subcommittee of the Metro TAC was formed to work with PUD staff and the consultant.	Roberto Yano Ed Walton
Management of Non-Disposables in Wastewater	9/13: Eric Minicilli handed out a position paper prepared by the NEWEA. 6/15 Chairman Humora provided attached from SCAP. 2/16: Chairman Humora distributed Robbins Geller Rudman & Dowd memorandum.	Eric Minicilli
2015/16 Transportation Rate Update	5/14: Metro TAC approved 2014 transportation rate w/caveat that PUD staff hires a consultant to review/revise methodology for 2015.	Al Lau Dan Brogadir Karyn Keese
IRWMP	8/15 RAC minutes included in August Metro TAC agenda. Padre Dam received a \$6 million grant for their project.	Bob Kennedy Steve Beppler Greg Humora
Recycled Water Revenue	The Regional Wastewater Disposal Agreement states that revenues from South Bay are to be sewer revenues and proportionally shared with PA's. North City has similar requirements however the debt from the optimized system must first be repaid. 7/15: Recycled revenues from South Bay dispersed to PAs in June 2015. Karyn Keese will work with City staff to determine the remaining balance on the optimized system debt. 10/15: Reconciliation will be part of the FYE Exhibit E audit process.	Karyn Keese
"No Drugs Down the Drain"	The state has initiated a program to reduce pharmaceuticals entering the wastewater flows. There have been a number of pharmaceutical collection events within the region sponsored by law enforcement.	Greg Humora
Strength Based Billing Evaluation	San Diego will hire a consultant every three years to audit the Metro metered system to insure against billing errors.	Al Lau Dan Brogadir Karyn Keese
Grease Recycling	To reduce fats, oils, and grease (FOG) in the sewer systems, more and more restaurants are being required to collect and dispose of cooking grease. Companies exist that will collect the grease and turn it into energy.	Eric Minicilli

**Metro TAC Work Plan  
Active & Pending Items  
2016**

Active Items	Description	Member(s)
Padre Dam Mass Balance Correction	8/15: Final reconciliation was approved and checks/bills were sent in June 2015. 10/15: Administrative protocol is being crafted by PAs attorney's group to establish 4 year from the date of discovery as the statute of limitations for billing errors.	Greg Humora Karyn Keese Rita Bell
Point Loma Modified NPDES Permit	1/15: Permit was submitted. EPA has commented that they do not expect to review until 2016 and expect to issue permit in August 2016.	Greg Humora Scott Tulloch Karyn Keese
City of San Diego Recycled Water Pricing	8/15: PUD staff presented recycled water rate study to SD Environmental Committee, IROC, and Metro TAC with two options: a unitary rate and a zone rate. Metro TAC approved the unitary rate and requested SD open negotiations with their wholesale customers on a wholesale rate. 9/15: Metro Commission recommended zone rate. 11/17/15: San Diego Council approved unitary rate.	Karyn Keese Rita Bell
Changes in water legislation	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	Paula de Sousa Mills
Border Region	Impacts of sewer treatment and disposal along the international border should be monitored and reported to the Board. These issues would directly affect the South Bay plants on both sides of the border.	Bill Sandke Ed Spriggs
City of San Diego Revised Procurement Process	8/12: San Diego City Engineer James Nagelvoort reported on recent changes to San Diego's procurement process to move projects through more quickly. San Diego no longer needs Council approval to award CIP projects under \$30 million and professional services contracts under \$1 million. TAC and the JPA still requested to review any contract awards. San Diego to prepare an approval threshold spreadsheet for Metro consideration.	Metro TAC
JPA 2017 Budget	The FYE 2017 Metro Com/JPA budget will be presented to the Metro TAC and Finance Committee in May 2016 at their regular meetings and to the Metro Com/JPA at their regular June 2017 meeting. <b>6/16: FYE 2017 JPA budget adopted by the Metro Commission at their June 2016 meeting.</b>	Greg Humora Paula de Sousa Mills Karyn Keese

# Metro TAC Participating Agencies Selection Panel Rotation

Agency	Representative	Selection Panel	Date Assigned
Padre Dam	Neal Brown	IRWMP – Props 50 & 84 Funds	2006
El Cajon	Dennis Davies	Old Rose Canyon Trunk Sewer Relocation	9/12/2007
La Mesa	Greg Humora	As-Needed Piping and Mechanical	11/2007
National City	Joe Smith	MBC Additional Storage Silos	02/2008
Otay Water District	Rod Posada	As-Needed Biological Services 2009-2011	02/2008
Poway	Tom Howard	Feasibility Study for Bond Offerings	02/2008
County of San Diego	Dan Brogadir	Strategic Business Plan Updates	02/2008
Coronado	Scott Huth	Strategic Business Plan Updates	09/2008
Coronado	Scott Huth	As-needed Financial, HR, Training	09/2008
PBS&J	Karyn Keese	As-needed Financial, Alternate HR, Training	09/2008
Otay Water District	Rod Posada	Interviews for Bulkhead Project at the PLWTP	01/2009
Del Mar	David Scherer	Biosolids Project	2009
Padre Dam	Neal Brown	Regional Advisory Committee	09/2009
County of San Diego	Dan Brogadir	Large Dia. Pipeline Inspection/Assessment	10/2009
Chula Vista	Roberto Yano	Sewer Flow Monitoring Renewal Contract	12/2009
La Mesa	Greg Humora	Sewer Flow Monitoring Renewal Contract	12/2009
Poway	Tom Howard	Fire Alarm Panels Contract	12/2009
El Cajon	Dennis Davies	MBC Water System Improvements D/B	01/2010
Lemon Grove	Patrick Lund	RFP for Inventory Training	07/2010
National City	Joe Smith	Design/Build water replacement project	11/2010
Coronado	Scott Huth	Wastewater Plan update	01/2010
Otay Water District	Bob Kennedy	RFP Design of MBC Odor Control Upgrade/Wastewater Plan Update	02/2011
Del Mar	Eric Minicilli	Declined PS 2 Project	05/2011
Padre Dam	Al Lau	PS 2 Project	05/2011
County of San Diego	Dan Brogadir	RFP for As-Needed Biological Services Co.	05/2011
Chula Vista	Roberto Yano	North City Cogeneration Facility Expansion	07/2011
La Mesa	Greg Humora	confined space RFP selection panel	10/2011
Poway	Tom Howard	COSS's for both Water and WW	10/2011
El Cajon	Dennis Davies	Independent Accountant Financial Review & Analysis – All Funds	01/2012

Lemon Grove	Mike James	MBC Dewatering Centrifuges Replacement (Passed)	01/2012
National City	Joe Smith	MBC Dewatering Centrifuges Replacement (Passed)	01/2012
Coronado	Godby, Kim	MBC Dewatering Centrifuges Replacement (Passed)	01/2012
Otay Water District	Bob Kennedy	MBC Dewatering Centrifuges Replacement (Accepted)/Strategic Planning Rep	01/2012
Del Mar	Eric Minicilli	New As Need Engineering Contract	02/2012
Padre Dam	Al Lau	PA Rep. for RFQ for As Needed Design Build Services (Passed)	05/2012
County of San Diego	Dan Brogadir	PA Rep. for RFQ for As Needed Design Build Services (Cancelled project)	05/2012
Chula Vista	Roberto Yano	As-Needed Condition Assessment Contract (Accepted)	06/2012
La Mesa	Greg Humora	New programmatic wastewater facilities condition (Awaiting Response)	11/2012
Poway	Tom Howard	Optimization Review Study	01/2013
El Cajon	Dennis Davies	PUD 2015 Annual Strategic Plan	1/15/14
Lemon Grove	Mike James	As-Needed Engineering Services (Passed)	7/25/14
National City	Kuna Muthusamy	As-Needed Engineering Services	7/25/14
Coronado	Ed Walton	Strategic Planning	01/2014
Otay Water District	Bob Kennedy	Strategic Planning (Volunteered, participated last year)	01/2014
Del Mar	Eric Minicilli	Pure Water Program Manager Services	9/1/14
Padre Dam	Al Lau	Pure Water Program Manager Services	9/1/14
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		
Padre Dam	Al Lau		
County of San Diego	Dan Brogadir		
Chula Vista	Roberto Yano		
La Mesa	Greg Humora		
Poway	Tom Howard		
El Cajon	Dennis Davies		
Lemon Grove	Mike James		

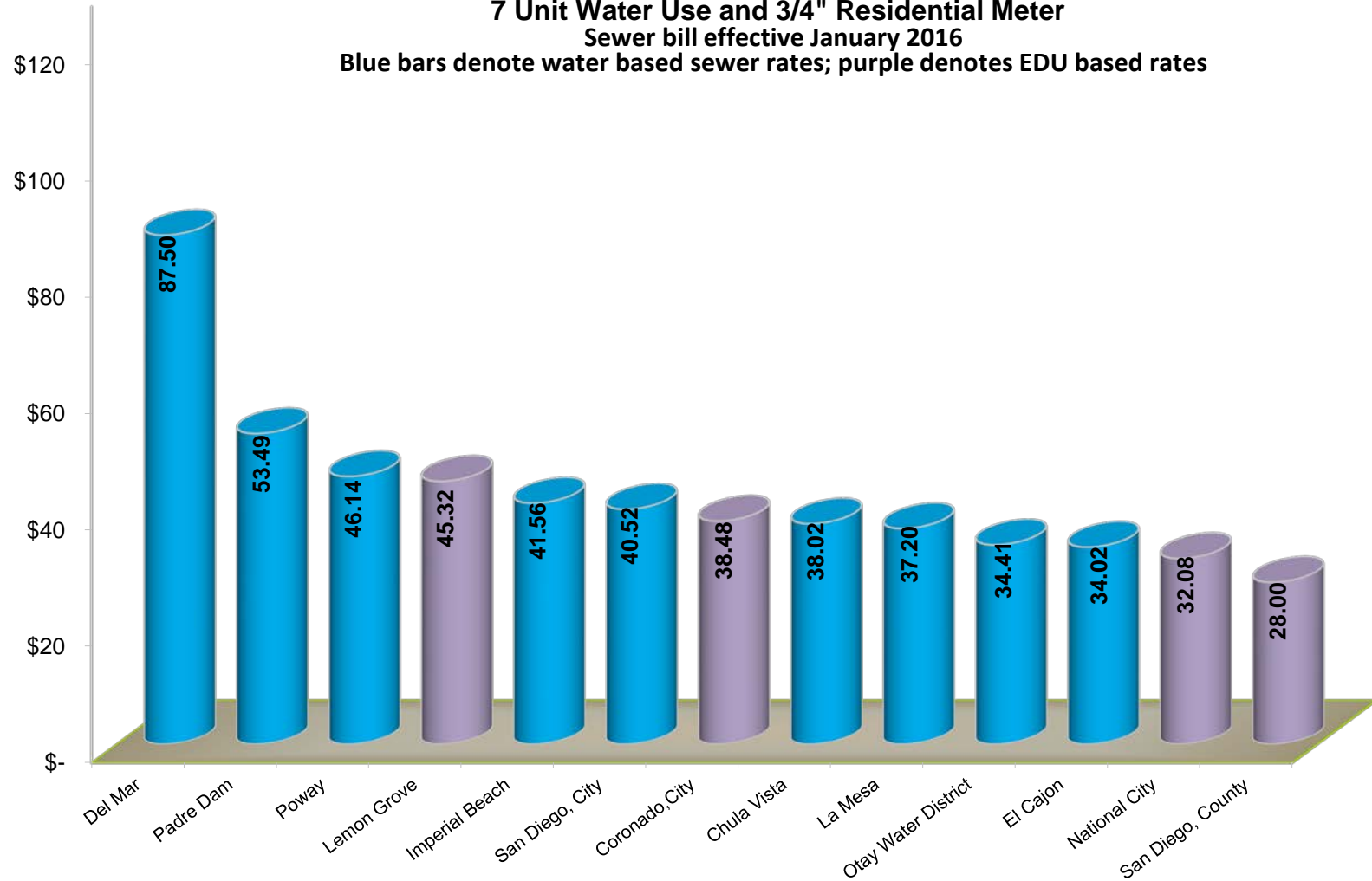
National City	Kuna Muthusamy		
Coronado	Ed Walton		
Otay Water District	Bob Kennedy		
Del Mar	Eric Minicilli		
Padre Dam	Al Lau		
County of San Diego	Dan Brogadir		
Chula Vista	Roberto Yano		
La Mesa	Greg Humora		
Poway	Mike Obermiller		
El Cajon	Dennis Davies		
Lemon Grove	Mike James		
National City	Kuna Muthusamy		
Coronado	Ed Walton		

## Metro Member Agencies Sewer Rate Comparison

7 Unit Water Use and 3/4" Residential Meter

Sewer bill effective January 2016

Blue bars denote water based sewer rates; purple denotes EDU based rates





# Metro Finance 101

Karyn Keese  
The Keze Group, LLC



# Agenda

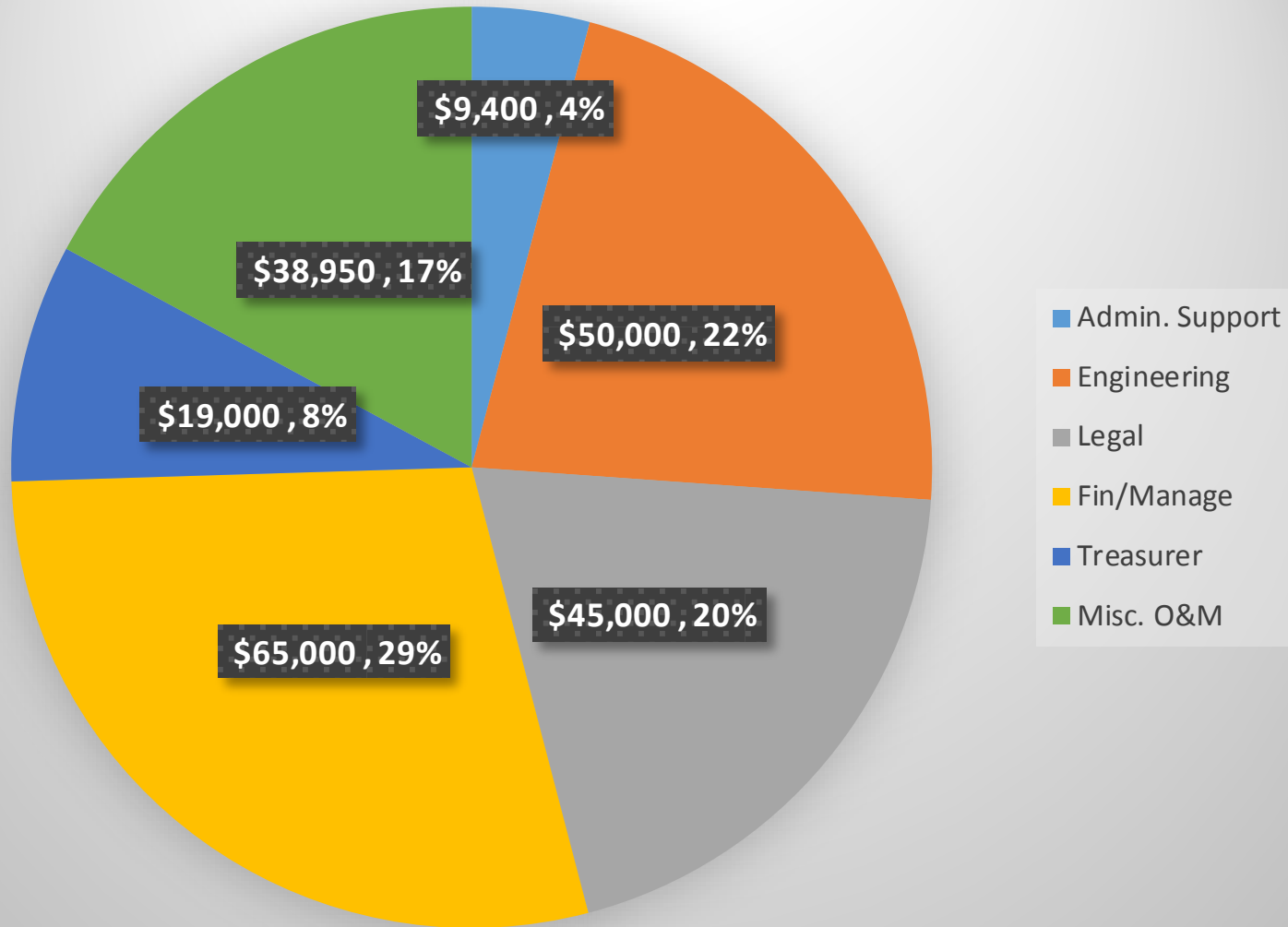
- Metro JPA Financials
  - FYE 2017 draft budget
  - Budget versus actual
- San Diego Public Utilities Budget (Metro)
  - Metro annual budget process
  - FYE 2017 Metro budget estimate
  - Budget versus actual

# Agenda (continued)

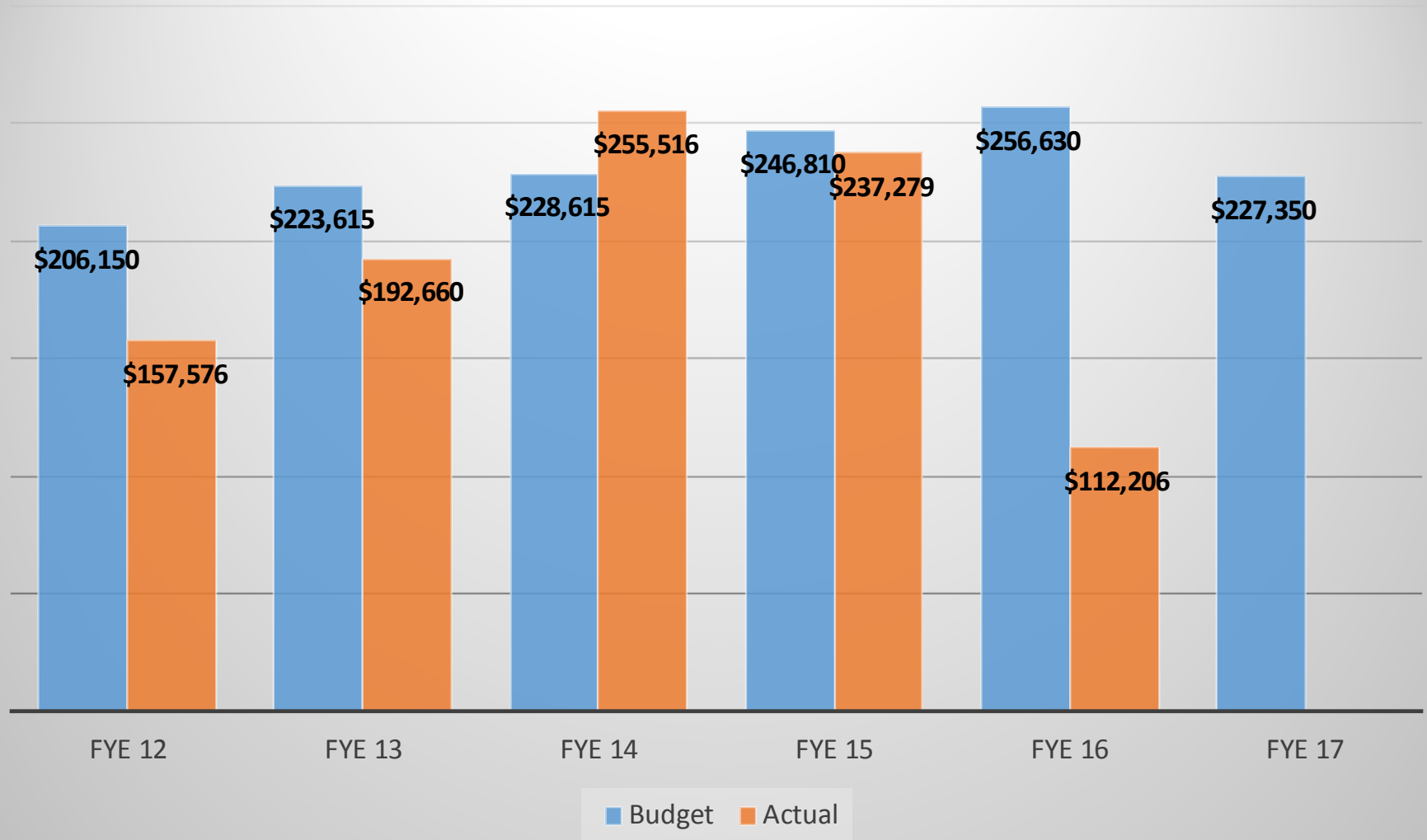
- Exhibit E Audit – FYE 2015 example
  - Exhibit E audit history
  - Exhibit E Audit process FYE 2015
  - FYE 2015 Draft Exhibit E Audit Samples
  - FYE 2015 estimated Metro expense
  - Metro system revenues (income credits)
- Metro outstanding debt

# METRO JPA Financials

# Metro JPA Draft Budget FYE 2017



# Metro JPA 5-Year Budget Snapshot



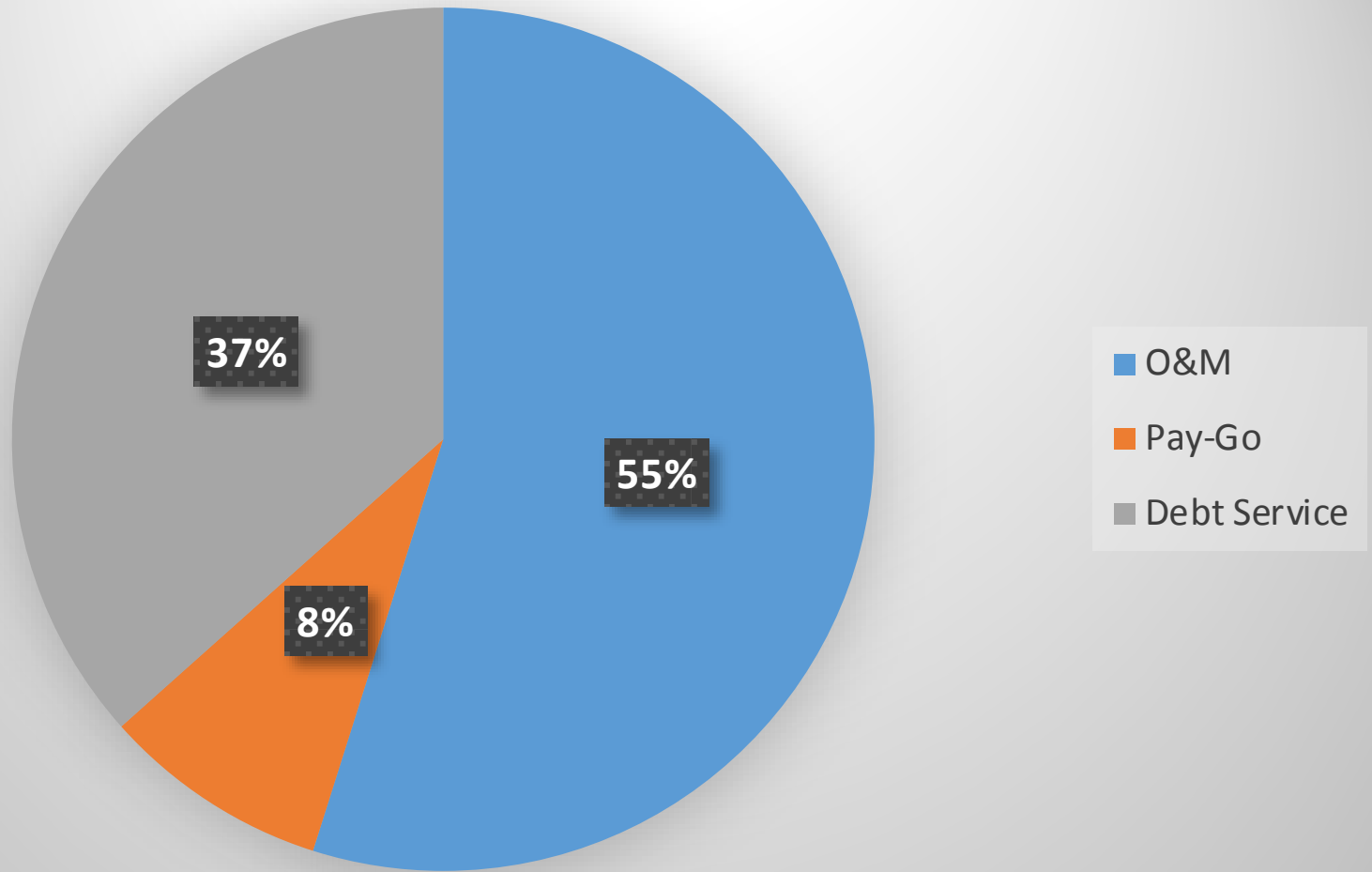
# San Diego Public Utilities Budget FYE 2017 (Metro)

# Metro Annual Budget Process

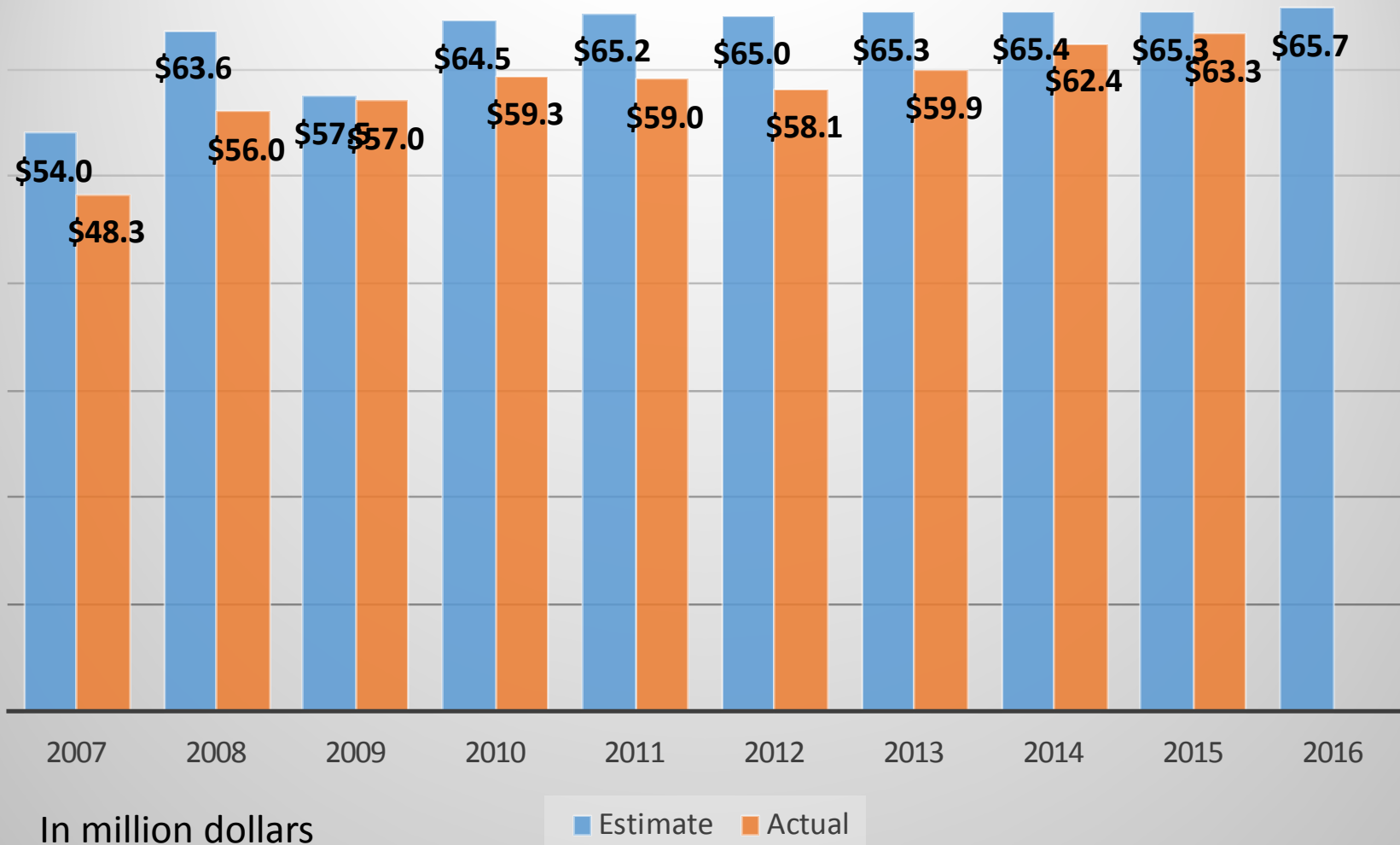
- Budget estimate provided January of each year
  - Based on functional-design based allocation method per Regional Agreement
- Debt service protocol entered into April 2010
  - Provided for PAs portion of debt service coverage
  - Provided for stable budget for PA billings @ \$65 million annually for three years
    - Actual budget stabilized for 7 years
    - Average actual \$58.1 million
- FYE 2017 budget estimate for billing: \$186.3 M
  - PA portion \$65.4 M



# Metro FYE 2017 Budget Estimate



# Metro Budget Versus Actual



# **“Exhibit E” Audit Process**

# “Exhibit E” Audit History

- Started with signing of Regional Agreement
  - FYE 1999 to FYE 2007 results
    - Average per year \$1 million in findings
    - Average 30 transactions
- FYE 2007 dedicated PUD accounting staff added
  - FYE 2015 Audit only \$40,000 in findings
    - Only 3 transactions
    - Majority of findings was one for reconciliation of back-up generator project

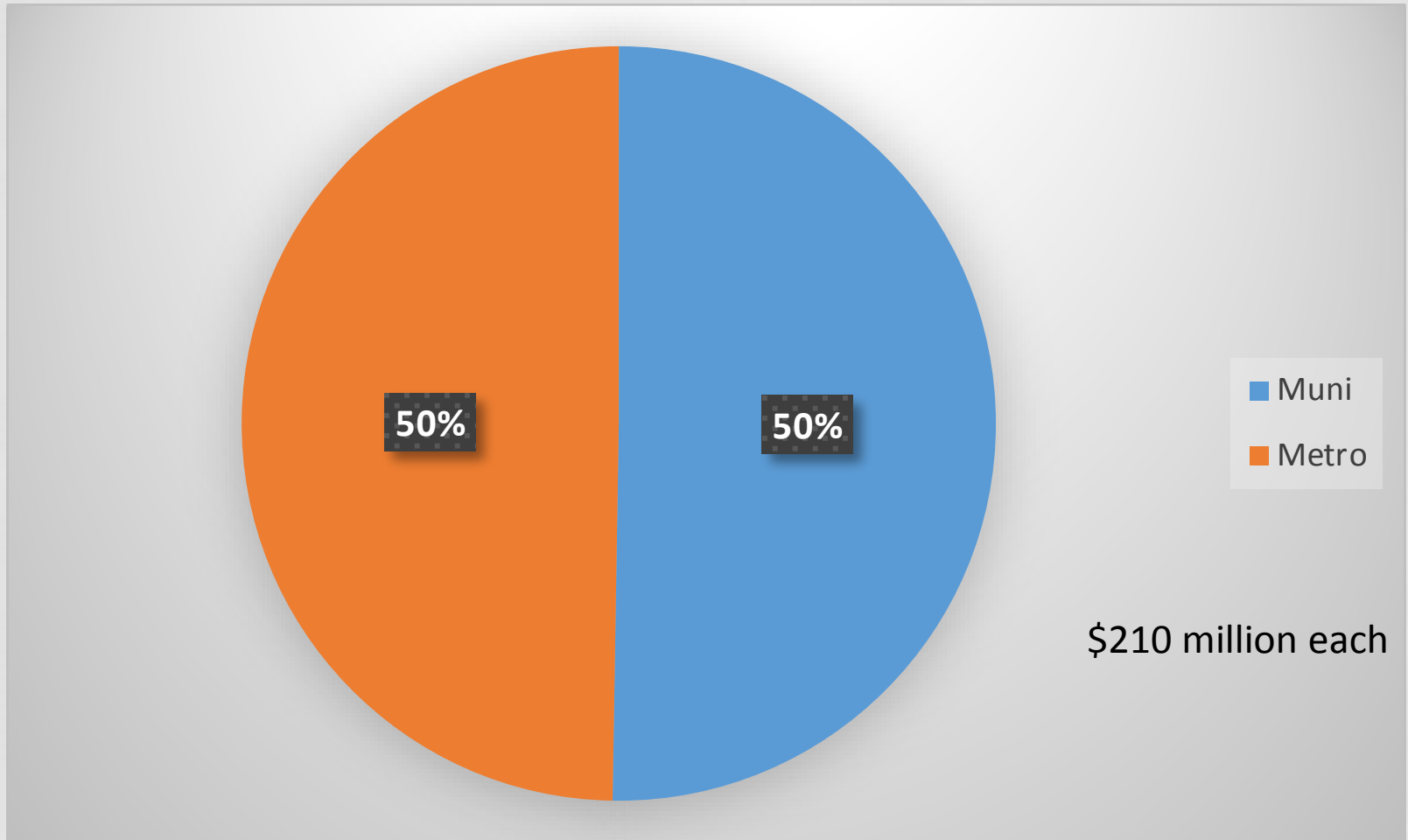
# Exhibit E Audit Process FYE 2015

- 400 financial transactions sampled
  - Metro population 4,608 transactions over \$2,500
    - Excludes payroll, CIP, and income credits
    - Chemicals removed: 2,572 transactions or 56%
    - 8% sampled by MGO and JPA
  - MGO
    - Metro: 50 payroll, 25 chemical, 50 over \$2,500, 50 over \$25,000
    - Muni: 100
  - JPA
    - 100 over \$2,500, 10 CIP projects, 15 income credits

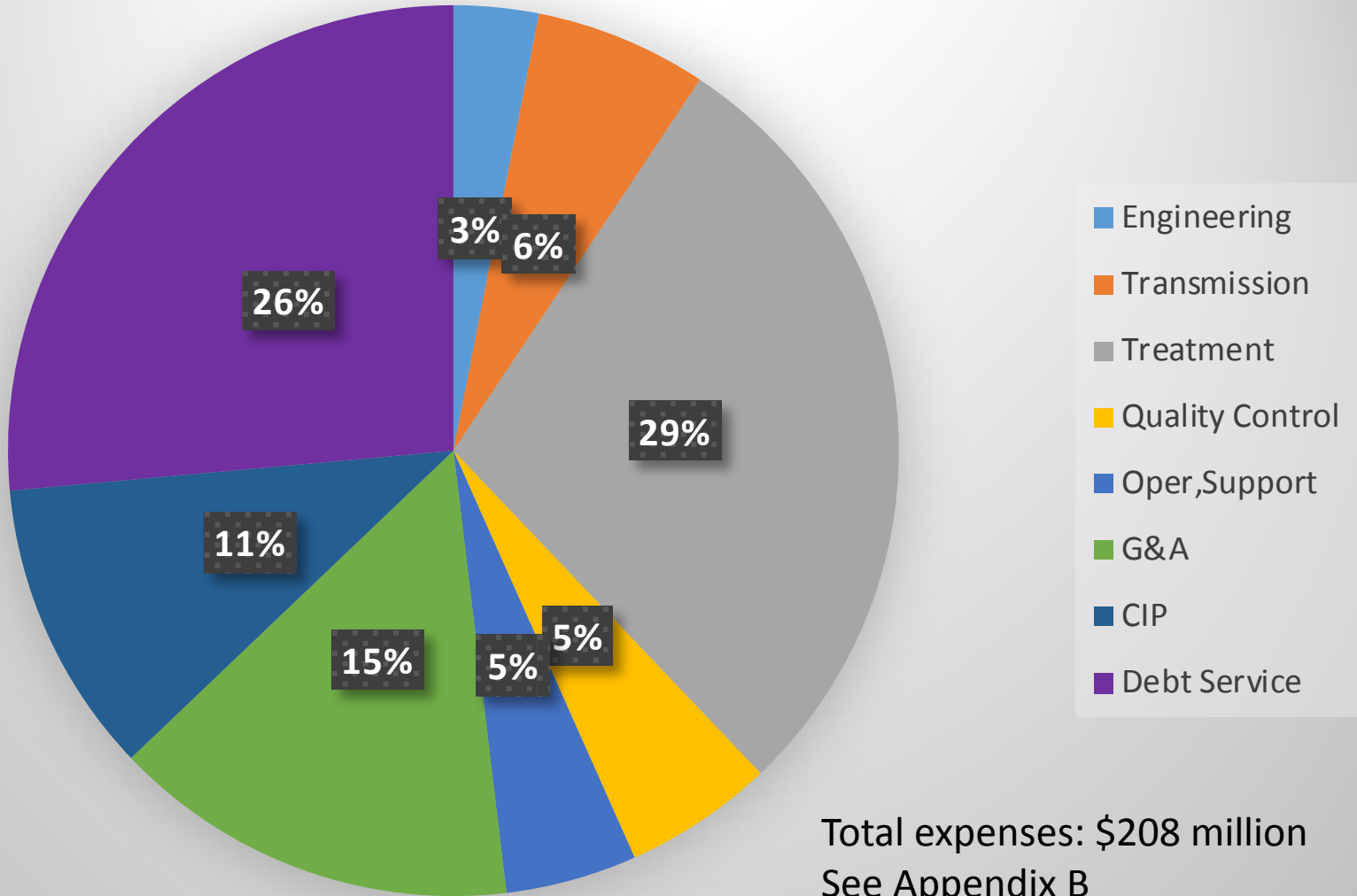
# Exhibit E Audit Process (continued)

- All samples are reviewed by MGO & JPA to determine
  - Are expenses in compliance with Agreement
  - Are they Metro expenses
  - Are allocations in compliance with written guidelines and consistent
- CIP samples include all costs for project
  - Admin, engineering and construction costs are reviewed for accuracy & contract compliance
- Income credits reviewed to assure that all revenues are accounted for

# FYE 2015 Draft Exhibit E Audit Samples

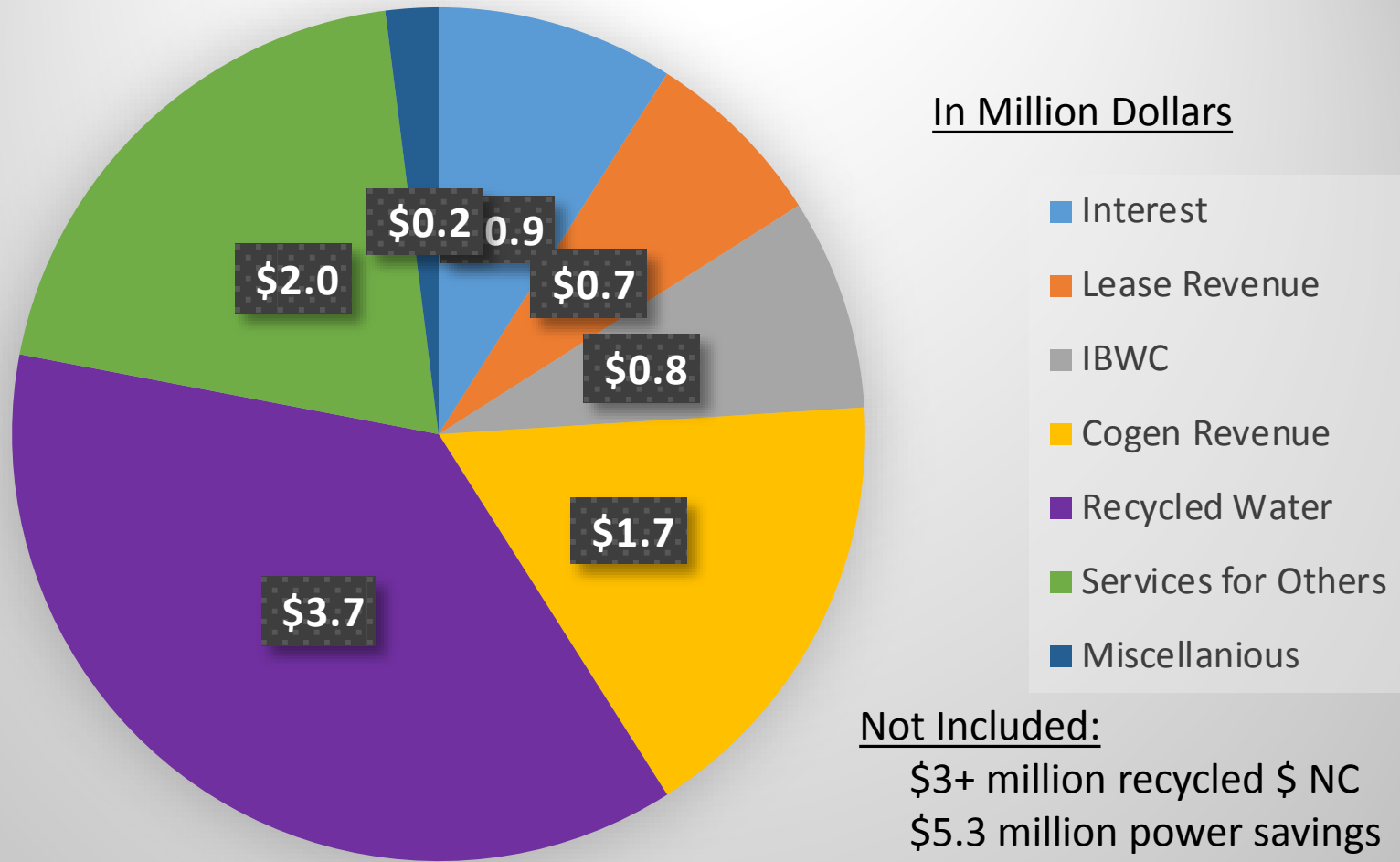


# FYE 2015 Estimated Metro Expense



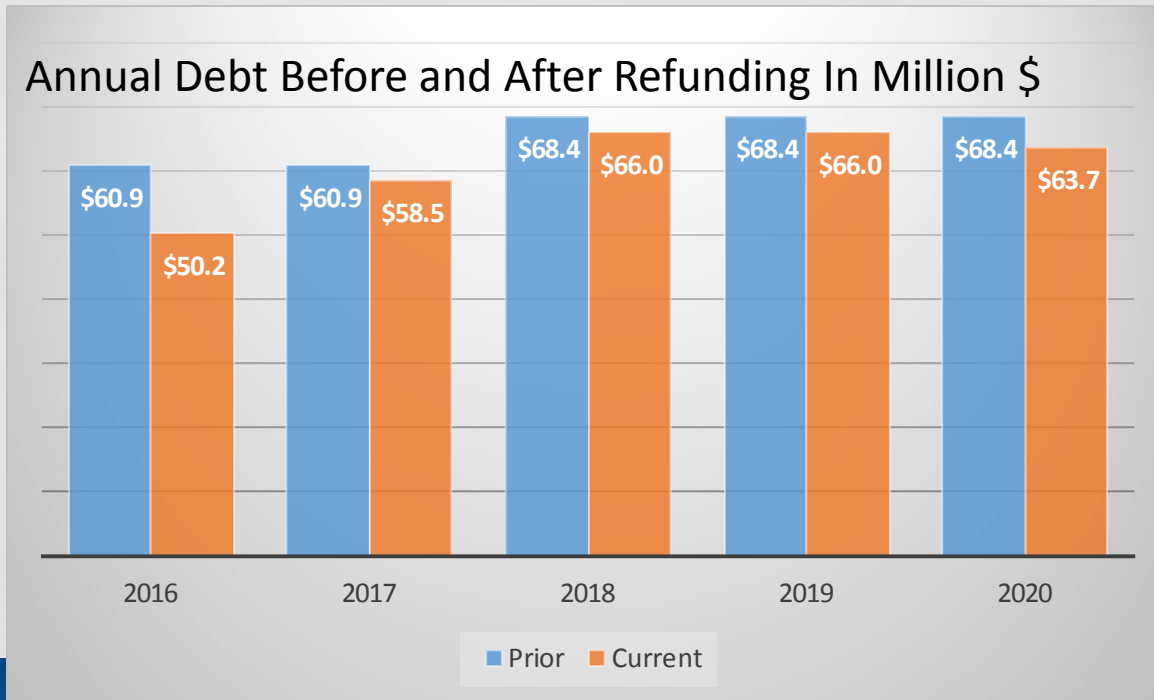


# Less Metro Revenues (Income Credits)



# Metro Outstanding Debt

- Outstanding debt issued in 2009: Series A and B
  - Refunded/new money 2010
  - Metro \$750 million outstanding through 2039
  - Metro \$38.1 million total savings through 2039 (5%)

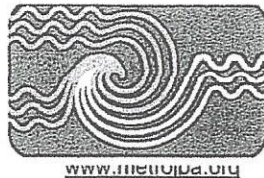


# Questions

# APPENDIX A

ADMINISTRATIVE PROTOCOL ON ALLOCATION OF OPERATING RESERVES AND DEBT  
SERVICE COVERAGE TO PARTICIPATING AGENCIES

**METRO WASTEWATER JPA**



276 Fourth Avenue Chula Vista, CA 91950 619-476-2557

Ernest Ewin, Chairman

April 19, 2010

Rod Greek  
Public Utilities Deputy Director  
City of San Diego, Metropolitan Wastewater  
9192 Topaz Way  
San Diego, CA 92123

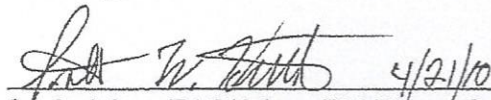
Re: Administrative Protocol on Allocation of Operating Reserves and Debt Service  
Coverage to Participating Agencies

Dear Mr. Greek:

This letter is intended to memorialize the attached Administrative Protocol on Allocation of Operating Reserves and Debt Service Coverage to Participating Agencies ("Protocol") negotiated between the City of San Diego and Metro TAC/ Metro JPA/ Metro Commission, on behalf of the Participating Agencies under the Regional Wastewater Disposal Agreement. Your signature will indicate acceptance of the Protocol on behalf of the City.

By countersigning this letter, the City of San Diego and Metro TAC/ Metro JPA/ Metro Commission acknowledge and agree to the terms and conditions contained in the attached Protocol.


Sincerely,

  
for the Metro TAC/ Metro JPA/ Metro Commission

Enclosure

The Protocol is accepted by the City of San Diego pursuant to the terms and conditions set forth in the attachment hereto:

Date: 4/19/10

  
Rod Greek, Public Utilities Deputy Director

The Protocol is accepted by Metro TAC/ Metro JPA/ Metro Commission on behalf of the Participating Agencies pursuant to the terms and conditions set forth in the attachment hereto:

Date: 5/6/10



**The Joint Powers Authority Proactively Addressing Regional Wastewater Issues**

Chula Vista • Coronado • Del Mar • Imperial Beach • La Mesa • Lemon Grove Sanitation District  
National City • Otay Water District • Poway • Padre Dam Municipal Water District  
County of San Diego, representing East Otay, Lakeside/Alpine, Spring Valley & Winter Gardens Sanitation Districts



## **Administrative Protocol on Allocation of Operating Reserves and Debt Service Coverage to Participating Agencies**

### **BACKGROUND:**

In early 2008 the MetroTAC formed a working group in response to the City of San Diego's request for \$20 million in funding in FYE 2009 from the Participating Agencies ("PAs") for operating reserves and debt service coverage. The working group continued to meet with City of San Diego staff regarding the establishment of a mutually agreed upon protocol through early February 2010. A summary of the City of San Diego's 2008 proposal and the negotiated 2010 protocol is included as Attachment A.

At its regular meeting of February 17, 2010, the MetroTAC approved the following recommendations to move to the Finance Committee of the Metro Wastewater JPA and thereafter to the Metro Commission/ Metro Wastewater JPA for discussion and action:

- Proceed with PAs funding a 1.2 debt service ratio coverage
- Proceed with PAs funding a 45 day operating reserves
- The PAs will fund no other reserves
- FY07 and FY08 refund monies will be used to fund the operating reserves
- Interest accrual on operating reserves and undesignated accounts will start with FY10 (beginning on July 1, 2009)

The Finance Committee of the Metro Wastewater JPA, at its February 24, 2010 meeting, took action to recommend approval of the above, by the Metro Commission/ Metro Wastewater JPA. At its March 4, 2010 meeting, the Metro Commission/ Metro Wastewater JPA, comprised of representatives of the PAs, approved the components of the negotiated policy, with the understanding that any such policy would serve as an administrative protocol regarding the allocation of debt service coverage to the PAs and funding of operating reserves by the PAs.

### **PROTOCOL REGARDING PA FUNDING OF OPERATING RESERVES:**

#### **Background:**

Operating reserves are established to provide funding for unforeseen events that might occur during the course of the fiscal year such as unforeseen major maintenance or capital projects. The PAs performed a survey of other regional wholesale agencies and determined that agencies such as the San Diego County Water Authority maintain a 45 day operating reserves. Although the City of San Diego's current policy is to increase operating reserves for its retail customers from 45 to 70 days, the City realizes that if a major maintenance incident should occur it can immediately request payment from the PAs per the Regional Wastewater Disposal Agreement. The City of San Diego's retail customer's rates cannot be immediately increased due to Proposition 218 requirements for noticing and public hearings.

#### **Protocol:**

Attachment B is a summary of the funding strategy showing each PAs 2007 and 2008 refunds based on recent City Metro Wastewater Exhibit E audits. The refunds will be used to fund the PAs 45 day operating reserves contribution. In the majority of cases most PAs will see a refund even after they have



fully funded their portion of the operating reserves. PAs that do not have adequate refunds will be billed for their portion of the reserve in the next quarterly 2010 billing. The operating reserves for each fiscal year will be established based on 45 days of operating revenues as determined by the following formula:

$$\frac{\text{Fiscal Year Estimated Operating Expenses (not including CIP and debt service)}}{365 \text{ days}} \times 45 \text{ days}$$

The number of days included in the calculation cannot be changed without prior consent of the PAs.

The operating reserves will be maintained by the City of San Diego and interest will accrue on a monthly basis based on actual interest rates on the City's investments. This interest revenue will be added to the PAs undesignated fund balance for that fiscal year. As part of each year's Exhibit E audit the actual required operating reserves and interest earned on it will be determined and audited by the City of San Diego's external auditors and PA representatives. A summary of the operating reserves balance and interest earned for each PA will be included as a footnote or attachment to the City Metro Wastewater Exhibit E Audit.

#### **PROTOCOL REGARDING ALLOCATION OF DEBT SERVICE COVERAGE TO PAs**

##### **Background:**

A 1.2 debt service coverage ratio is a requirement for all of the outstanding Metro parity debt. A cash flow prepared by the City of San Diego shows (Attachment C) that if the PAs are billed at the current level (\$65 million annually to cover the PAs portion of operations, pay-go capital, and debt service expense) for the next three to five years that this requirement can be achieved without additional contributions by the PAs. This provides the PAs a stable projected annual Metro contribution for the next three to five years.

##### **Protocol:**

The PAs will maintain through annual contributions and use of PA undesignated fund balance a positive cash flow not to exceed 1.2 times the PA share of the required annual debt service on Metro Debt. The debt service coverage ratio of 1.2 cannot be changed without prior consent of the PAs.

The undesignated fund balance will be maintained by the City of San Diego and interest will accrue on a monthly basis based on actual interest rates on the City's investments. This interest revenue will be added to the PAs undesignated fund balance for that fiscal year.

As part of each year's Exhibit E audit the actual required reserve coverage and interest earned on the undesignated fund balance will be determined and audited by the City of San Diego's external auditors and PA representatives. A summary of the debt service coverage requirement and portion of interest earned on the undesignated fund balance for each PA will be included as a footnote or attachment to the City Metro Wastewater Exhibit E Audit.

If the cash flow in any year does not provide the required 1.2 debt service coverage the PAs will be billed the additional required revenue including interest.

# APPENDIX B

DRAFT FYE 2015 ALLOCATION OF BILLING TO METROPOLITAN SYSTEM (EXHIBIT E  
AUDIT/YEAR END RECONCILIATION)



# Metropolitan Wastewater Utility

ALLOCATION FOR BILLING TO METROPOLITAN SYSTEM  
FISCAL YEAR ENDED JUNE 30, 2015

**DRAFT**

	Operating Expenses		
	Municipal System	Metropolitan System	Total
<b>Transmission</b>			
Main Cleaning .....	13,427,224	-	13,427,224
Sewer Pump Stations.....	5,350,642	-	5,350,642
Other Pump Stations.....	6,276,302	989,522	7,265,823
Pump Station 1.....	-	2,417,436	2,417,436
Pump Station 2.....	-	9,268,862	9,268,862
Other Muni Agencies.....	-	-	-
Pipeline Maintenance & Repair.....	10,812,465	272,459	11,084,924
WWC Engineering & Planning.....	2,411,771	-	2,411,771
<b>Total Transmission.....</b>	<b>38,278,404</b>	<b>12,948,279</b>	<b>51,226,683</b>
<b>Treatment and Disposal</b>			
PTLWWTP.....	-	23,061,720	23,061,720
NCWRP.....	-	9,281,814	9,281,814
SBWRP.....	-	8,053,400	8,053,400
MBC.....	-	15,994,140	15,994,140
Cogen Facilities.....	-	314,652	314,652
GUF.....	-	1,968,647	1,968,647
WWTD Plant Engineering.....	-	607,557	607,557
<b>Total Treatment and Disposal.....</b>	<b>-</b>	<b>59,281,931</b>	<b>59,281,931</b>
<b>Quality Control</b>			
Sewage Testing & Control.....	2,555,079	434,786	2,989,865
Marine Biology & Ocean Operations.....	936	5,301,034	5,301,970
Wastewater Chemistry Services.....	20	5,555,336	5,555,355
Industrial Permitting & Compliance.....	3,429,905	-	3,429,905
<b>Total Quality Control.....</b>	<b>5,985,940</b>	<b>11,291,155</b>	<b>17,277,095</b>
<b>Engineering</b>			
Program Management & Review.....	3,670,613	6,156,690	9,827,302
Environmental Support.....	1,622,536	272,640	1,895,176
<b>Total Engineering.....</b>	<b>5,293,148</b>	<b>6,429,330</b>	<b>11,722,478</b>
<b>Operational Support</b>			
Central Support Comnet/Comc.....	105,430	3,505,550	3,610,980
Operational Support.....	1,470,789	6,424,991	7,895,779
<b>Total Operational Support.....</b>	<b>1,576,219</b>	<b>9,930,540</b>	<b>11,506,759</b>
<b>General &amp; Administrative</b>			
Business Support Admin.....	26,309,901	24,869,343	51,179,245
Operating Division Admin.....	6,601,682	5,779,451	12,381,134
<b>Total General &amp; Administrative.....</b>	<b>32,911,584</b>	<b>30,648,795</b>	<b>63,560,378</b>
<b>TOTAL EXPENSES.....</b>	<b>84,045,294</b>	<b>130,530,031</b>	<b>214,575,325</b>
<b>CAPITAL IMPROVEMENT EXPENSE.....</b>	<b>75,734,255</b>	<b>22,218,882</b>	<b>97,953,137</b>
<b>DEBT SERVICE ALLOCATION.....</b>	<b>50,112,447</b>	<b>54,943,065</b>	<b>105,055,513</b>
<b>METROPOLITAN SYSTEM INCOME CREDITS.....</b>			
Operating Revenue.....	-	(6,323,205)	(6,323,205)
CIP - Revenue Bond Issue.....	-	-	-
Operating - Grant Revenue.....	-	-	-
CIP - Grant/SRF Revenue.....	-	(3,696,984)	(3,696,984)
<b>TOTAL METROPOLITAN SYSTEM INCOME CREDITS.....</b>	<b>-</b>	<b>(10,020,189)</b>	<b>(10,020,189)</b>
<b>TOTAL ALLOCATION FOR BILLING PURPOSES.....</b>	<b>209,891,997</b>	<b>197,671,789</b>	<b>407,563,786</b>
<b>AMOUNT INVOICED IN FY15 FOR FY15 SERVICES.....</b>		<b>65,240,508</b>	
<b>(OVER) / UNDER BILLED REVENUE FOR THE YEAR ENDED 06/30/2015.....</b>		<b>\$ 1,049,269</b>	

# APPENDIX C

ALLOCATION OF INCOME CREDITS/DEBT SAVINGS/AVOIDED COSTS (SDG&E)

ALLOCATION BASED UPON FYE 2015 YEAR-END FLOWS/LOADS  
INCOME CREDITS/BOND SAVINGS/AVOIDED COSTS (SDG&E)

	PERCENT	INCOME CREDITS \$ 10,000,000	FYE 2016 BOND SAVINGS \$ 2,300,000	POWER SAVINGS \$ 5,300,000	Total All \$ 17,600,000
CHULA VISTA	10.55%	\$ 1,055,000	\$ 242,650	\$ 559,150	\$ 1,856,800
CORONADO	1.04%	\$ 104,000	\$ 23,920	\$ 55,120	\$ 183,040
COUNTY OF SAN DIEGO	5.05%	\$ 505,000	\$ 116,150	\$ 267,650	\$ 888,800
DEL MAR	0.37%	\$ 37,000	\$ 8,510	\$ 19,610	\$ 65,120
EL CAJON	4.85%	\$ 485,000	\$ 111,550	\$ 257,050	\$ 853,600
IMPERIAL BEACH	1.45%	\$ 145,000	\$ 33,350	\$ 76,850	\$ 255,200
LA MESA	2.93%	\$ 293,000	\$ 67,390	\$ 155,290	\$ 515,680
LEMON GROVE	1.39%	\$ 139,000	\$ 31,970	\$ 73,670	\$ 244,640
NATIONAL CITY	2.64%	\$ 264,000	\$ 60,720	\$ 139,920	\$ 464,640
OTAY	0.14%	\$ 14,000	\$ 3,220	\$ 7,420	\$ 24,640
PADRE DAM	1.39%	\$ 139,000	\$ 31,970	\$ 73,670	\$ 244,640
POWAY	1.72%	\$ 172,000	\$ 39,560	\$ 91,160	\$ 302,720
SAN DIEGO	66.48%	\$ 6,648,000	\$ 1,529,040	\$ 3,523,440	\$ 11,700,480
TOTAL	100.00%	\$ 10,000,000	\$ 2,300,000	\$ 5,300,000	\$ 17,600,000

# APPENDIX D

METRO WASTEWATER OUTSTANDING DEBT SAVINGS FYE 2016 TO FYE 2039

**City of San Diego**  
**Public Utilities Department - Wastewater**  
**Bond Debt Service Savings by Metro/Muni Split**  
 Date Prepared: April 27, 2016

Purpose: To provide Participating Agencies with a year by year savings calculation for debt prior to refunding and after refunding  
 Sources: WW Debt Service Amortization Schedule at JUNE 30, 2015; WW Debt Service Amortization Schedule - March 30, 2016

FUND	2016 <sup>1</sup>	2017	2018	2019	2020	2021	2022
MUNI	(1,412,166.61)	(\$2,127,189.10)	(\$2,127,189.10)	(\$2,127,189.10)	(\$2,895,797.10)	(\$2,895,468.10)	\$3,689,871.40
METRO	(2,325,480.69)	(\$2,434,042.16)	(\$2,434,042.16)	(\$2,434,042.16)	(\$4,705,434.16)	(\$4,702,463.16)	(\$10,941,052.66)
TOTAL SAVINGS	(\$3,737,647.30)	(\$4,561,231.26)	(\$4,561,231.26)	(\$4,561,231.26)	(\$7,601,231.26)	(\$7,597,931.26)	(\$7,251,181.26)

<sup>1</sup> Includes adjustments for November 15 debt service payment that reflects 2015 advanced refunding schedule but is not included in the final 2016 refunding schedule.

City of San Diego  
Public Utilities De  
Bond Debt Service  
Date Prepared: Apr

Purpose: To provide Part  
Sources: WW Debt Servi

FUND	FISCAL YEAR						
	2023	2024	2025	2026	2027	2028	2029
MUNI	\$3,581,192.28	(\$4,524,239.26)	(\$4,526,130.99)	(\$7,486,899.08)	(\$10,031,886.13)	(\$2,640,192.67)	(\$2,639,262.61)
METRO	(\$8,736,736.04)	(\$944,429.50)	(\$939,587.77)	\$3,901,867.82	\$5,646,079.87	(\$2,026,638.59)	(\$2,027,143.65)
TOTAL SAVINGS	(\$5,155,543.76)	(\$5,468,668.76)	(\$5,465,718.76)	(\$3,585,031.26)	(\$4,385,806.26)	(\$4,666,831.26)	(\$4,666,406.26)

<sup>1</sup> Includes adjustments

City of San Diego  
Public Utilities De  
Bond Debt Service  
Date Prepared: Apr

Purpose: To provide Part  
Sources: WW Debt Servi

FUND	2030	2031	2032	2033	2034	2035	2036
MUNI	(\$2,165,498.51)	(\$2,163,188.51)	(\$2,163,562.51)	(\$2,166,087.00)	(\$2,165,812.02)	(\$2,162,413.00)	(\$2,162,160.00)
METRO	(\$295,295.25)	(\$294,980.25)	(\$295,031.25)	(\$295,375.50)	(\$295,338.00)	(\$294,874.50)	(\$294,840.00)
TOTAL SAVINGS	(\$2,460,793.76)	(\$2,458,168.76)	(\$2,458,593.76)	(\$2,461,462.50)	(\$2,461,150.02)	(\$2,457,287.50)	(\$2,457,000.00)

<sup>1</sup> Includes adjustments

City of San Diego  
Public Utilities De  
Bond Debt Service  
Date Prepared: Apr

Purpose: To provide Part  
Sources: WW Debt Servi

				GRAND
FUND	2037	2038	2039	TOTAL
MUNI	(\$2,162,402.00)	(\$2,162,567.00)	(\$2,162,094.00)	(\$59,798,330.72)
METRO	(\$294,873.00)	(\$294,895.50)	(\$294,831.00)	(\$38,053,479.26)
TOTAL SAVINGS	(\$2,457,275.00)	(\$2,457,462.50)	(\$2,456,925.00)	(\$97,851,809.98)

<sup>1</sup> Includes adjustments

Goldie Awards: \$97,851,810  
Difference: \$0.02