

Meeting of the Metro Commission and Metro Wastewater JPA

AGENDA

Thursday, March 7, 2013 12:00 p.m.

9192 Topaz Way (MOC II) Auditorium San Diego, California

"The Metro JPA's mission is to create an equitable partnership with the San Diego City Council and Mayor on regional wastewater issues. Through stakeholder collaboration, open dialogue, and data analysis, the partnership seeks to ensure fair rates for participating agencies, concern for the environment, and regionally balanced decisions."

Note: Any member of the Public may address the Metro Commission/Metro Wastewater JPA on any Agenda Item. Please complete a Speaker Slip and submit it to the Administrative Assistant or Chairperson prior to the start of the meeting if possible, or in advance of the specific item being called. Comments are limited to three (3) minutes per individual.

Documentation Included

- 1. ROLL CALL
- 2. PLEDGE OF ALLEGIANCE TO THE FLAG
- 3. PUBLIC COMMENT

Persons speaking during Public Comment may address the Metro Commission/ Metro Wastewater JPA on any subject matter within the jurisdiction of the Metro Commission and/or Metro Wastewater JPA that is not listed as an agenda item. Comments are limited to three (3) minutes. Please complete a Speaker Slip and submit it prior to the start of the meeting.

- X 4. <u>ACTION</u> CONSIDERATION AND POSSIBLE ACTION TO APPROVE THE MINUTES OF THE SPECIAL MEETING OF January 10, 2013 (Attachment)
- X 5. <u>ACTION</u> CONSIDERATION AND POSSIBLE ACTION TO APPROVE GENERATORS FOR EMERGENCY BACKUP POWER AT VARIOUS FACILITIES (Tom Alspaugh) (Attachment)
- X 6. <u>PRESENTATION</u> METRO CAPITAL IMPROVEMENT PROGRAM AND FUNDING SOURCES (Tung Phung) (Attachment)
- X 7. PRESENTATION PERFORMANCE AUDIT OF THE PUBLIC UTILITIES DEPARTMENT'S CHEMICAL PURCHASES (Matt Helm)
 - ACTION CONSIDERATION AND POSSIBLE ACTION TO APPROVE APPOINTMENT BY CHAIR COX OF MEMBER LOPEZ TO THE JPA FINANCE COMMITTEE TO REPLACE MEMBER SPRIGGS

- 9. <u>ACTION</u> CONSIDERATION AND POSSIBLE ACTION TO APPROVE APPOINTMENT BY CHAIR COX OF MEMBER PEASLEY TO REPRESENT THE JPA AT THE CITY OF SAN DIEGO STRATEGIC PLANNING WORKSHOP PROCESS
- X 10. METRO JPA MID-YEAR FINANCIALS (Karyn Jassoy/Karyn Keese) (Attachment)
- X 11. METRO TAC UPDATE/REPORT (Attachment)
 - 12. IROC UPDATE
 - 13. FINANCE COMMITTEE
 - 14. REPORT OF GENERAL COUNSEL
 - 15. PROPOSED AGENDA ITEMS FOR THE NEXT METRO COMMISSION/ METRO WASTEWATER JPA MEETING April 4, 2013
 - METRO COMMISSIONERS' AND JPA BOARD MEMBERS' COMMENTS
 - 17. ADJOURNMENT OF METRO COMMISSION AND METRO WASTEWATER JPA

The Metro Commission and/or Metro Wastewater JPA may take action on any item listed in this Agenda whether or not it is listed "For Action."

Materials provided to the Metro Commission and/or Metro Wastewater JPA related to any open-session item on this agenda are available for public review by contacting L. Peoples at (619) 548.2934 during normal business hours.

In compliance with the AMERICANS WITH DISABILITIES ACT

The Metro Commission/Metro Wastewater JPA requests individuals who require alternative agenda format or special accommodations to access, attend, and/or participate in the Metro Commission/Metro Wastewater JPA meetings, contact E. Patino at (858) 292.6321, at least forty-eight hours in advance of the meetings.

AGENDA ITEM 4 Attachment



Special Meeting of the Metro Commission and Metro Wastewater JPA

9192 Topaz Way (MOC II) Auditorium San Diego, California

January 10, 2013 DRAFT Minutes

Chairman Ewin called the meeting to order at 12:00 p.m. A quorum of the Metro Wastewater JPA and Metro Commission was declared, and the following representatives were present:

1. ROLL CALL

Agencies	Representatives		Alternate
City of Chula Vista	Cheryl Cox	Χ	Scott Tulloch
City of Coronado	Barbara Denny	Χ	Ed Walton
City of Del Mar	Sherryl Parks	Χ	Eric Minicilli
City of El Cajon	Bill Wells		Dennis Davies
City of Imperial Beach	Ed Spriggs	Χ	
City of La Mesa	Ernie Ewin	Χ	
Lemon Grove Sanitation Distric	t Jerry Jones	Χ	
City of National City	Louis Natividad	Χ	
City of Poway	John Mullin	Χ	Leah Browder
City of San Diego	Jerry Sanders		Roger Bailey
County of San Diego	Dianne Jacob		Daniel Brogadir
Otay Water District	Jose Lopez	Χ	David Gonzalez
Padre Dam MWD	Jim Peasley	Χ	Augie Scalzetti
Metro TAC Chair	Greg Humora	Χ	· ·
IROC Chair	Gayle Welch		

Others present: Metro JPA General Counsel Paula de Sousa; Metro JPA Secretary Lori Anne Peoples; Karyn Keese – Atkins Global; Robert Yano – City of Chula Vista; Joe Smith – City of National City; Bob Kennedy – Otay Water District; Al Lau – Padre Dam Municipal Water District; Lee Ann Jones-Santos, Cheryl Lester, Peggy Merino, Edgar Patino, Ann Sasaki, Guann Huang and Pete Wong - City of San Diego Public Utilities; Tom Zeleny – City Attorney City of San Diego

2. PLEDGE OF ALLEGIANCE TO THE FLAG

Commissioner Denny led the Pledge.

Chairman Ewin welcomed new representatives for Coronado – Councilmember Barbara Denny; Del Mar – Councilmember Sherryl Parks and Poway – Councilmember John Mullin. .

3. PUBLIC COMMENT

None.

4. <u>ACTION</u> - CONSIDERATION AND POSSIBLE ACTION TO APPROVE THE MINUTES OF THE REGULAR MEETING OF NOVEMBER 1, 2012

ACTION: Upon motion by Vice-Chair Jones, seconded by Commissioner Peasley, the November 1, 2012 the Minutes were approved unanimously.

5. <u>ACTION</u> - CONSIDERATION AND POSSIBLE ACTION TO APPROVE AS-NEEDED CONSULTANT SERVICES FOR WASTEWATER FACILITIES CONDITION ASSESSMENT 2012-3015 (Pete Wong)

Pete Wong, P.E. City of San Diego, provided a brief overview of the report. MetroTAC Chair Humora stated that that a representative of MetroTAC had participated in the selection committee and this item had been brought before the TAC in November and recommended approval.

ACTION: Upon motion by Vice-Chair Jones, seconded by Commissioner Peasley, the item was approved unanimously.

6. <u>ACTION</u> - CONSIDERATION AND POSSIBLE ACTION TO APPROVE PURCHASE OF FERROUS CHLORIDE AND HYDROGEN PEROXIDE SUPPLIES AND SERVICES FOR PEROXIDE REGENERATED IRON-SULFIDE CONTROL (PRI-SC/PRI-CEPT) (Pam Galan)

Cheryl Lester, Deputy Director of Wastewater Treatment/Disposal Division, City of San Diego, provided a brief overview of the report. MetroTAC Chair Humora stated that TAC had considered this item at its November meeting and recommended approval. He also pointed out that a second attachment that was provided by the City of San Diego titled "Public Utilities Department, Wastewater Treatment and Disposal Division Summary Table" is a list of the number of contracts that the Division has procured overt the last 5 or so years. The TAC and JPA see a few of these a year and it can become confusing, particularly when it comes to chemical contracts and the nomenclature involved and he thanked the City of San Diego for putting together this table for them which provides a list of what they have been approving.

ACTION: Upon motion by Vice-Chair Jones, seconded by Commissioner Peasley, the item was approved unanimously.

 ACTION - CONSIDERATION AND POSSIBLE ACTION TO APPROVE ELECTION OF OFFICERS (effective midnight, January 10, 2013)

Chair Ewin introduced the item and announced that his new City representative (La Mesa) would be Mayor Art Madrid and that there were 3 positions that will be considered today. He then asked General Counsel de Sousa to provide support and direction on the item.

General Counsel de Sousa stated that positions were those of Chair, Vice-Chair and Secretary. The Chair and Vice-Chair positions required filling by members of the JPA, however the Secretary did not. Currently the Chair is Chair Ewin, Vice- Chair is Jerry Jones and Secretary is Lori Peoples. The terms are 2-Year terms.

General Counsel then requested nominations for the positions.

ACTION: Motion by Chair Ewin, seconded by Vice-Chair Jones, for Mayor Cheryl Cox to be Chair. Motion carried unanimously.

Motion by Chair Ewin, seconded by Commissioner Peasley, for Vice-Chair Jones to continue as Vice-Chair. Motion carried unanimously.

Motion by Chair Ewin, seconded by Commissioner Natividad, for Secretary Peoples to continue as Secretary. Motion carried unanimously.

- 8. ACTION JPA COMMITTEE AND OTHER JPA APPOINTMENTS
 - A. Review of JPA Finance Committee Membership (5 members)
 - B. Review of other JPA Appointments
 - I. IROC Primary and Alternate Members
 - II. IRWMP Regional Advisory Committee Primary and Alternate Members
 - C. APPOINTMENT BY CHAIR OF MEMBERS TO THE JPÁ FINANCE COMMITTEE AND OTHER JPA APPOINTMENTS

Chair Ewin stated he recalled that the Finance Committee was one of the first areas he participated in when he first came on this board back in 2006 because San Diego's finances, which have been turned around, were at that time a big issue and there were a lot of issues

relative as to whether the JPA should start bonding themselves. He found serving on this committee to be a great experience.

Other items that he will be appointing as Chair, some of which have already been acted upon and will be affirmations, have to do with the IROC primary and alternate members. We have been able to start attending and follow-up with additional minute's reports, and the other is the Regional Advisory Committee primary and alternate members. We have taken action on this so it will be a reaffirmation.

ACTION: Chair Ewin appointed the following:

JPA Finance Committee: Jim Peasley, Luis Natividad, Ed Spriggs, Barbara Denny and John Mullin.

Motion by Commissioner Cox, seconded by Vice-Chair Jones to approve the appointments. Motion carried unanimously.

IROC: Primary: Luis Natividad Alternate: Jim Peasley

Motion by Vice-Chair Jones, seconded by Commissioner Lopez to reaffirm the appointments. Motion carried unanimously.

Chair Ewin updated and reaffirmed appointments to the Regional Advisory Committee as follows:

IRWMP: Primary: Bob Kennedy Alternate: Greg Humora

9. INFORMATION – FINAL CLOSEOUT OF 2009 EXHIBIT E AUDIT (Karyn Keese)

Ms. Keese, Atkins Global, informed the Commission that there were a couple of issues surrounding the final closeout as the auditors have found a couple of mistakes. Additionally, the item needs to go before MetroTAC at their meeting next week prior to coming to the JPA. A deferral of one month was requested.

Chair Ewin, hearing no objections, continued the item for another month.

10. METRO TAC UPDATE/REPORT

MetroTAC Chair Humora explained for the benefit of the new members, that the TAC (Technical Advisory Committee) meets monthly on technical issues and other issues that the City of San Diego is working on that effect the participating agencies (PA's) prior to bringing them to the JPA for consideration and approval. The TAC is made up of the PA's staff and they get into the nuts and bolts, try to ask the important questions and ask questions they anticipate the JPA will ask. They prepare and provide at each JPA meeting, a Work plan that is updated monthly with the updates reflected in red; they add and remove items from the Work plan as necessary and as things come up and they serve at the pleasure of the JPA.

He then provided updates that the November TAC meeting noting that they are tracking the ever evolving SDG&E rate case with the assistance of our General Counsel at BBK regarding their attempt to impose significant rate changes on solar customers and of particular concern to the water agency members are the rates associated with water. BBK is doing a great job keeping on top of this and tracking the proceedings in Sacramento and keeping staff and TAC updated. There seems to be progress in a good direction. Another update he provided was with regards to the prior presentation by San Diego City staff on the CIP and the Cities webpage. He encouraged everyone to look at it if they had not and he requested minor adjustments be made to show the JPA as a revenue source as they pay 1/3 of the Metro bill and they have agreed to do so

11. IROC UPDATE

IROC Chair Gail Welch was not present and Commissioner Natividad did not have an update to provide.

12. FINANCE COMMITTEE

Ms. Keese, Financial/Engineering Consultant with Atkins Global, introduced herself and welcomed the new members. She stated that the Finance Committee would not be holding a meeting in January, but has been guaranteed that the 2010 Exhibit E Audit will be completed by the end of January and so the committee should be able to meet in February. She also noted that the auditors were on site and were working on the 2011 Exhibit E Audit which is moving along. The revisions to the 2009 Final Close-Out should be ready for the MetroTAC meeting next week and then be brought back to the JPA in February.

13. REPORT OF GENERAL COUNSEL

General Counsel de Sousa introduced herself. She then reported on an item that might be of interest to the PA's. The US Supreme Court on Tuesday ruled on a case. Los Angeles Flood Control District vs. the NRDC, that the flow of water from an improved portion of a navigable waterway to an unimproved portion of the same waterway does not qualify as a discharge of pollutants under the Clean Water Act. This was a big decision because in making this finding, the Court reversed a 9th Court Appeals decision that held that the Flood Control District was liable for elevated pollutant levels measured at different stations simply because the District operates and maintains that Flood Control facility and monitoring station. BBK submitted an Amicus Brief on behalf of several national associations and argued that the 9th Circuit erred in its decision because there was no identifiable point of discharge. Basically, it held that just because water has some problem with it going down a navigable water way it does not mean that it is the public agencies fault General Counsel de Sousa encouraged the PA's to follow up on this decision.

14. PROPOSED AGENDA ITEMS FOR THE NEXT METRO COMMISSION/METRO WASTEWATER JPA MEETING FEBRUARY 7, 2013

Chair Ewin asked the Commissioners if they had any items they would like to see at the next meeting noting that most items come forward from MetroTAC work, however if any members have something of interest that the JPA deals with as part of their responsibility they should bring it forward to the Chair for placement on the agenda.

15. METRO COMMISSIONERS' AND JPA BOARD MEMBERS' COMMENTS

Commissioner Cox stated she looked forward to chairing the meeting in February and was sorry to see Chair Ewin leaving. Commissioner Denny stated she was also sorry to see Chair Ewin leave, but was looking forward to working with Mayor Cox, serving on the JPA Finance Committee and working with everyone else. Commissioner Denny stated she was excited to serve and learn more about the JPA, noting that her son deals with the bonds on the wastewater side so he has assisted her in understanding. Commissioner Spriggs stated he was excited to be serving another term and was sorry to see Chair Ewin go. Commissioner Natividad inquired and Ms. Keese responded as to why the Final Close-Out audit had been continued. Commissioner Mullin expressed his gratitude for being appointed. Commissioner Lopez requested a tour of the Pt. Loma Wastewater Treatment Plant be set up. City of San Diego Director of Public Utilities stated he would have his staff coordinate with Metro JPA Secretary Peoples to arrange for a tour. Chair Ewin also requested an update for the JPA relative to the issues surrounding Pt. Loma and any timelines that they should be aware of. Mr. Bailey stated that in terms of the strategy for Pt. Loma moving forward, they certainly will work closely with the JPA on the cities perspective. They have quite a bit of work to do internally and have not yet worked with the new Mayor. Chair Ewin stated he was thinking of perhaps bring up to speed a summary of what the results of the last waiver were and what that meant and any conditions presented. Mr. Bailey stated that internally a group was recently put together to address the issue of the next waiver and would be happy to brief the JPA. Commissioner Peasley stated he was sorry to see Chair Ewin go and noted it was a pleasure working with him on the JPA and his knowledge and experience on the Commission will be greatly missed, he wished him well and everyone a Happy New Year. ViceChair Jones thanked Chair Ewin for doing a great job and welcomed the new members. General Counsel de Sousa stated that Lori would be putting together binders for all the new members and a briefing/presentation will be scheduled. City of San Diego Public Utilities Director Bailey welcomed the new members and stated that the City of San Diego looked forward to working closely with them and valued the partnership. Chair Ewin thanked everyone for their participation and support on the JPA. He appreciated the courtesies as well as the mutual respect and the fact that the JPA does not stay parochial; they really look at all issues and provide research.

16. ADJOURNMENT

At 12:35 p.m., there be	eing no further business,	Chairman Ewin	declared the meeting a	adjourned.
-	Secret	arv		

AGENDA ITEM 5 Attachment

METRO JPA/TAC Staff Report

Sı	ıbject Title:							
	JD/WWTD Backup Generati	ion Project						
R	equested Action:							
In	formation item: Update on 7	– 2MW and one 500kW generators for emergency backup power						
		quest for construction funds and the design build selection process.						
		<u> </u>						
R	ecommendations:							
	Metro TAC:							
	IROC:							
	Prior Actions:							
	(Committee/Commission,							
	Date, Result)							
Fi	scal Impact:							
	Is this projected budgeted?	Yes No <u>X</u>						
	Cost breakdown between	\$4,722,604 for Metro and \$6,227,462 for Muni.						
	Metro & Muni:	Previously approved = \$10,950,066						
		\$3,513,618 for Metro and \$3,281,916 for Muni.						
		This request = \$6,795,534						
	T' 11 (C.1)	Total = \$17,745,600						
	Financial impact of this	\$1.500.070 \ \$1.177.000 \ \$0.750.124.022.50\ \ \$1.4.4.4						
	issue on the Metro JPA:	\$1,582,072 + \$1,177,062=\$2,759,134 (33.5% of Metro Cost)						
a								
C	apital Improvement Progra	im:						
	Name Duning (9)	NT.						
	New Project? Yes X	_ No						
	Evistina Dusia at 9 Vas	No sugarado/addition abonco						
C	Existing Project? Yes	No upgrade/addition change						
	omments/Analysis:	ome out of the DDESS fund. Design build for the pre nurshage 7						
	· ·	ome out of the DRESS fund. Design-build for the pre-purchase 7-and installation of 500KW generator at EMTS Lab.						
	revious TAC/JPA Action:	and installation of 500KW generator at EWTS Lab.						
		\$10,950,066 for the purchase of 7 – 2000kW Backup Generators						
Ja	muary 16, 2012 Approvar or s	\$10,750,000 for the parenase of 7 = 2000k W Backup Generators						
Λ.	Additional/Future Action:							
	resentation to NR&C Commi	ttee March 20, 2013						
	ity Council Action:							
	resentation to City Council A	pril 9, 2013						
11	eschiation to City Council A	piii 7, 2013						

AGENDA ITEM 6 Attachment



MEMORANDUM

DATE: February 11, 2013

TO: Metro Technical Advisory Committee (Metro TAC)

FROM: Guann Hwang, Deputy Director, Public Utilities Department

Darren Greenhalgh, Deputy Director, Public Works-Engineering Department

SUBJECT: FY2013 Capital Improvement Projects (CIP) – 2nd Quarter

The Public Utilities and Public Works-Engineering Departments hereby submit the FY2013 Metro Project updates for the period of October 1 to December 31, 2012.

This quarterly report includes dashboard information, project highlights, forecast and actual expenditures, project schedules, and project change orders.

DASH BOARD INFORMATION

PROGRAM HIGHLIGHTS (Both Water and Wastewater)

\checkmark	Assigned New Projects to Public Works	11 Projects, \$40 Million
\checkmark	Completed Preliminary Engineering	13 Projects, \$76 Million
\checkmark	Completed 100% Design	19 Projects, \$52 Million
\checkmark	Awarded Construction Contracts	5 Contracts, \$16 Million
\checkmark	Completed Construction Contracts	7 Contracts, \$49 Million

Note: It is possible for project(s) to complete more than one phase listed above, and therefore be listed multiple times.

METRO PROJECT HIGHLIGHTS

Point Loma Grit Improvements

This project consists of the demolition of the existing South Grit and Headworks Building and construction of the new South Grit Tanks and Grit Processing Building at the Point Loma Wastewater Treatment Plant. The project also includes the construction of an interim Grit Processing facility and modifications to existing influent channels, piping and electrical/instrumentation.

The Point Loma Wastewater Treatment Plant has six aerated grit removal tanks. The plant is not achieving desirable grit removal because the existing grit processing equipment is unable to extract fine sand or silt. The grit accumulated downstream of the grit tanks reduces the efficiency of processing equipment and minimizes the biosolid treatment in the digesters. This project will increase grit removal efficiency.

Construction began in March of 2011 and will be complete by August of 2014.

Total project cost is approximately \$34,614,000.



Aerial view of the project shoring and excavation



Earthwork and construction of concrete structures

North City Cogeneration Facility Expansion

This project consists of purchasing a 1.6 Megawatt (MW) generator and hiring a design build contractor for the site development and installation of the generator. The design build contract began in March 2012. This project is currently under construction and expected to be completed by May 2013.

Total project cost is approximately \$4,200,000.

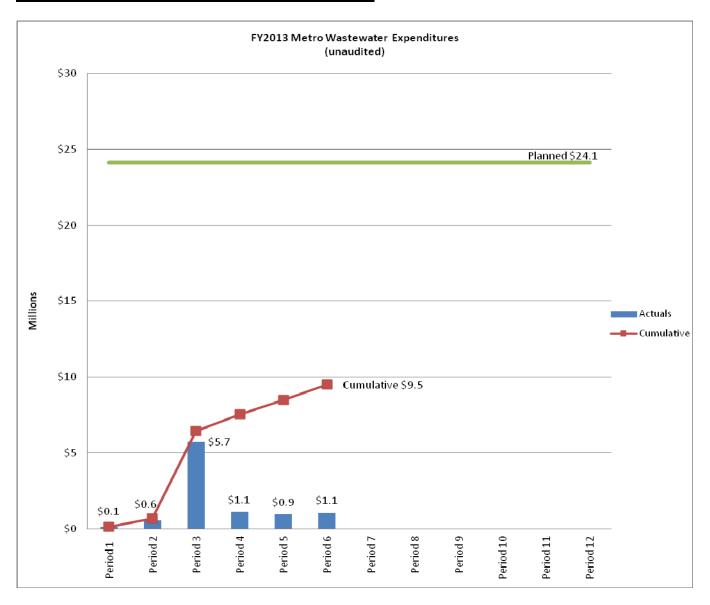


Construction of retaining walls to protect existing SDG&E vaults (R) and to support the new access road to the cogeneration facility expansion (L)



New cogeneration engine, capable of producing 1600 kW of power

METRO PROJECTS - ACTUAL EXPENDITURES



Forecast and Actual Expenditures

		Wastewa	ter			
Funded Program	Project Name	Baseline Project Cost	Revised Project Cost	FY13 Projected Expenditures Total	FY13 Period 6 Encumbrances SAP (unaudited)	FY13 Period 6 Actual Expenditures SAP (unaudited)
METRO FU	NDED					
S00315	Point Loma Grit Processing Improvements	\$32,922,630	\$34,614,085	\$6,930,098	\$12,250,316	\$2,431,571
S00312	PS2 Power Reliability & Surge Protection	\$31,500,000	\$31,200,000	\$632,617	\$27,943	\$175,187
S00339	MBC Dewatering Centrifuges Replacement	\$12,000,000	\$12,000,000	\$559,007	\$14,890	\$105,006
B00313	PS 1&2 ELECTRICAL UPG & NEW BLDG AT PS2	\$9,935,000	\$9,935,000	\$861,083	\$748,001	\$50,171
S00317	South Metro Sewer Rehabilitation Phase 3B	\$9,214,957	\$9,214,957		\$0	\$346
S00322	MBC Biosolids Storage Silos	\$7,553,500	\$8,707,993	\$792,992	\$275,156	\$84,834
B10085	PTL Sedimentation Basins Equip Refurbish	\$8,386,630	\$7,954,500	\$4,866,210	\$2,345,579	\$3,789,267
B11025	Rose Canyon TS (RCTS) Joint Repair	TBD	TBD	\$4,500	\$0	\$0
S00323	MBC Odor Control Facility Upgrades	\$5,200,000	\$6,200,000	\$664,130	\$983,327	\$100,897
S00314	Wet Weather Storage Facility	\$112,001,859	\$5,000,000	\$90,000	\$17,058	\$8,189
B10178	MBC Chemical System Improvements Phase 2	\$5,070,000	\$4,446,000	\$343,035	\$888,946	\$83,347
B11139	North City Cogeneration Facility Expansion	\$4,200,000	\$4,200,000	\$2,992,433	\$1,955,436	\$1,367,142
L100001	Ovation Upgrade at Pt Loma Wastewater Trmt Plant	\$4,180,000	\$4,180,000	\$1,247,589	\$835,238	\$391,162
S00310	SBWR Plant Demineralization	\$3,279,133	\$3,279,133		\$0	\$39,944
L100002	Ovation Upgrade at North City WRP	\$3,070,000	\$3,070,000	\$76,787	\$0	\$0
S00319	EMT&S Boat Dock & Steam Line Relocation	\$2,304,000	\$2,304,000	\$189,818	\$0	\$0
B11098	W PTL Intercept & PS 2 FM Siphon Repair	\$1,500,000	\$1,500,000	\$90,000	\$0	\$2,019
B11026	Sewer Junction/Diversion Structure Rehab	\$700,000	\$700,000	\$378,000		\$0
S00309	NCWRP Sludge Pump Station Upgrade	\$626,294	\$636,294	\$423,900	\$57,625	\$46,887
B11076	PTLWTP PC 6 Transformer Cabinet & Switchboard Repl	\$300,000	\$400,000	\$313,268	\$222,256	\$72,216
POST CONS	STRUCTION - METRO FUNDED					
B00527	NCWRP EDR #6	\$1,823,464	\$1,823,464		\$0	-\$4,861
B00528	MBC WATER SYSTEMS IMPROVEMENTS	\$1,179,355	\$1,179,355	\$66,364	\$61,934	\$45,513
B00316	MBC ACCESS ROAD DRAINAGE IMPROVEMENTS	\$288,184	\$288,184	\$7,200	\$7,832	\$23,911
METRO/M	UNI FUNDED					
S12036	Backup Generators at Sewer PS's, TP, & EMTS	\$17,745,600	\$17,745,600	\$2,584,462	\$245,303	\$713,450
	TOTAL	\$274,980,606	\$170,578,565	\$24,113,493	\$20,936,840	\$9,526,198

Project Schedules

Wastewater									
			Planning/	Design/Awar	d phase	Construction Phase			
SAP ID	Project Name	Start Date	BL Final Design Review - End	Final Design Approval - End	Final Design Review - End BL Var	BL BO/BU	BO/BU	BO/BU BL Var	
METRO FU	NDED								
S00315	Point Loma Grit Processing Improvements	1/18/00 A	9/30/10	9/30/10	0	12/17/13	12/17/13	0	
S00312	PS2 Power Reliability & Surge Protection	11/1/10 A	9/23/14	3/18/15	120	11/17/16	5/12/17	120	
S00339	MBC Dewatering Centrifuges Replacement	7/1/11 A	3/21/12	3/21/12	0	8/17/15	1/12/16	101	
B00313	PS 1&2 ELECTRICAL UPG & NEW BLDG AT PS2	11/1/06 A			0	11/30/11	3/4/13	314	
S00317	South Metro Sewer Rehabilitation Phase 3B								
S00322	MBC Biosolids Storage Silos	9/12/06 A	7/19/13	11/15/12	-168	6/9/15	10/7/14	-167	
B10085	PTL Sedimentation Basins Equip Refurbish	4/1/10 A	5/6/11	5/6/11	0	5/2/13	5/2/13	0	
B11025	Rose Canyon TS (RCTS) Joint Repair	12/1/10 A	10/16/12	4/9/13	118	4/7/15	9/23/15	118	
S00323	MBC Odor Control Facility Upgrades	12/1/10 A	12/5/12	11/19/13	240	11/28/14	11/12/15	240	
S00314	Wet Weather Storage Facility								
B10178	MBC Chemical System Improvements Phase 2	2/14/11 A	3/29/13	10/4/13	131	9/26/14	4/8/15	131	
B11139	North City Cogeneration Facility Expansion	5/18/11 A	7/9/12	7/9/12	0	4/30/13	4/30/13	0	
L100001	Ovation Upgrade at Pt Loma Wastewater Trmt Plant	10/23/09 A	3/22/10	3/22/10	0	2/6/13	2/6/13	0	
S00310	SBWR Plant Demineralization	8/1/12 A	11/30/12	11/30/12	0	10/2/13	10/8/13	4	
L100002	Ovation Upgrade at North City WRP	10/23/09 A	3/22/10	3/22/10	0	6/5/14	6/5/14	0	
S00319	EMT&S Boat Dock & Steam Line Relocation	7/1/2011 A	6/30/13	6/30/13	0	6/30/16	6/30/16	0	
B11098	W PTL Intercept & PS 2 FM Siphon Repair	3/1/10 A	7/31/13	7/31/13	0	12/31/13	12/31/13	0	
S00309	NCWRP Sludge Pump Station Upgrade	4/1/10 A	1/27/12	1/27/12	0	2/5/13	6/5/13	83	
B11076	PTLWTP PC 6 Transformer Cabinet & Switchboard Repl	8/2/10 A	1/21/11	1/21/11	0	6/14/12	4/8/13	203	
METRO/M	UNI FUNDED								
S12036	Backup Generators at Sewer PS's, TP, & EMTS	9/9/11 A	10/1/13	10/1/13	0	4/30/15	4/30/15	0	

FY13 Change Order Log							
WBS	PROJECT TITLE	PREVIOUSLY AUTHORIZED PROJECT COST (ORIGINAL CONTRACT AMOUNT)	TOTAL CHANGE ORDER (CCO) AMOUNT TO DATE	ENGINEERING RELATED COSTS	REVISED TOTAL COST	CCO/ ORIGINAL TOTAL PROJECT COST %	DESCRIPTION
2nd QTR	R FY13 (10/01/-2012 – 12/31/2012	2)					
None							
1st QTR FY13 (07/01/-2012 - 9/30/2012)							
None							

AGENDA ITEM 9 Attachment

Metro Wastewater JPA Treasurer's Report Six months ending December 31, 2012

Metro Wastewater JPA Treasurer's Report

Six months ending December 31, 2012 Unaudited

Beginning Cash Balance at July 1, 2012	\$ 151,004
Operating Results	
Membership dues & interest income	111,791
Expenses	 (53,650)
Net Income (Loss)	58,141
Net change in receivables & payables (see cash flow statement)	87,804
Cash provided by (used in) operating activities	145,945
Ending Cash Balance at December 31, 2012	\$ 296,949

Submitted by:

Karen Jassoy, Treasurer

Metro Wastewater JPA Balance Sheet

As of December 31, 2012 and June 30, 2012 Unaudited

	Dec 31, 2012	Jun 30, 2012	\$ Change
ASSETS			
Checking/Savings			
California Bank & Trust	\$ 295,626	\$ 141,637	\$ 153,989
California Bank - checking	1,323	9,367	(8,044)
Total Checking/Savings	296,949	151,004	145,945
Accounts Receivable	12,713	8,243	4,470
TOTAL ASSETS	\$ 309,662	\$ 159,247	\$ 150,415
LIABILITIES & EQUITY			
Liabilities			
Accounts Payable	\$ 24,193	\$ 43,677	\$ (19,484)
Unearned Membership Billings	111,758		111,758
Total Liabilities	135,951	43,677	92,274
Equity			
Retained Equity	115,570	67,044	48,526
Net Income	58,141	48,526	9,615
Total Equity	173,711	115,570	58,141
TOTAL LIABILITIES & EQUITY	\$ 309,662	\$ 159,247	\$ 150,415

Metro Wastewater JPA Profit & Loss Budget vs. Actual

July through December 2012 Unaudited

	Actual		Budget		\$ Over (Under) Budget	
Income						
Membership Dues	\$	111,758	\$	111,758	\$	-
Interest Income		33		50		(17)
Total Income	\$	111,791	\$	111,808	\$	(17)
Expense						
Administrative Assistant	\$	850	\$	1,800.0	\$	(950.0)
Administrative Support - Padre		5,559		7,000		(1,441)
Atkins		34,578		64,598		(30,020)
Audit Fees				2,500		(2,500)
Automobile Expense / Mileage		124		1,000		(876)
Bank charges		-		100		(100)
Contingencies		-		2,500		(2,500)
Dues & Subscriptions		-		300		(300)
Legal - BB&K		6,076		17,500		(11,424)
Metro/JPA/TAC meeting expenses		1,390		2,500		(1,110)
Miscellaneous				125		(125)
Office Supplies		100		250		(150)
Per Diem - Agency		4,050		11,000		(6,950)
Postage		14				14
Printing		189				189
Public Information		540		410		130
Telephone		180		225		(45)
Total Expense	\$	53,650	\$	111,808	\$	(58,158)
Net Income	\$	58,141	\$	-	\$	58,141

Metro Wastewater JPA Statement of Cash Flows

July through December 2012 Unaudited

OPERATING ACTIVITIES

Net Income	\$ 58,141
Adjustments to reconcile Net Income	
to net cash provided by operations:	
Accounts Receivable	(4,470)
Accounts Payable	(19,484)
Unearned Membership Billings	111,758
Net cash provided by Operating Activities	145,945
Net cash increase for period	145,945
Cash at beginning of period	 151,004
Cash at end of period	\$ 296,949

Metro Wastewater JPA A/R Aging Summary

As of December 31, 2012

	Current	1 - 30	31 - 60	61 - 90	> 90	TOTAL
City of San Diego - Metro Wastewater Dept	\$ 3,810.00	8,242.56	0.00	0.00	0.00	\$ 12,052.56
TOTAL	\$ 3,810.00	8,242.56	0.00	0.00	0.00	\$ 12,052.56

Metro Wastewater JPA Vendor Balance Summary

As of December 31, 2012

Total	\$ 24,193.03
Padre Dam	4,860.60
Luis Natividad	600.00
Lori Anne People	4,538.71
Best, Best and Krieger	751.22
Atkins North America	\$ 13,442.50

AGENDA ITEM 10 Attachment

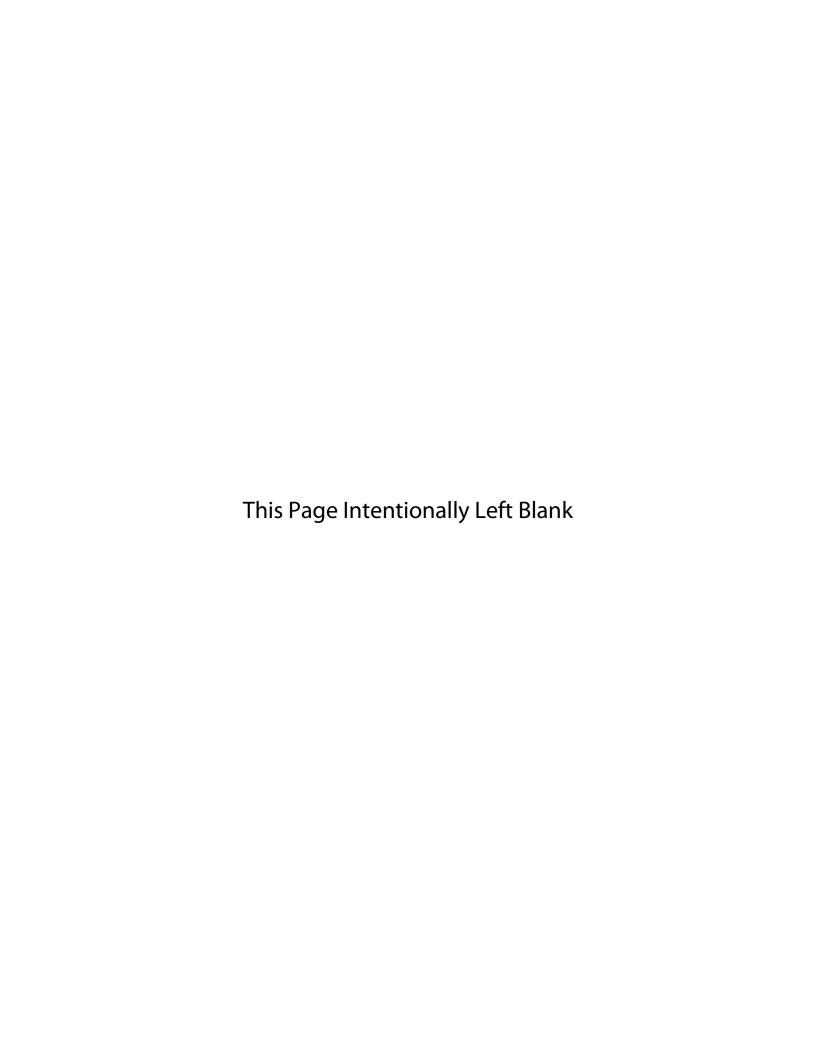
Performance Audit of the Public Utilities Department's Chemical Purchases

THE CITY COULD ENHANCE ITS PURCHASING PRACTICES FOR WATER AND WASTEWATER TREATMENT CHEMICALS AND ENSURE IT COMPLIES WITH STATE REQUIRED INSPECTIONS OF ITS CHEMICAL STORAGE FACILITIES

NOVEMBER 2012

Audit Report
Office of the City Auditor
City of San Diego







THE CITY OF SAN DIEGO

November 23, 2012

Honorable Mayor, City Council, and Audit Committee Members City of San Diego, California

Transmitted herewith is an audit report on the Public Utilities Department's Chemical Purchases. This report is in accordance with City Charter Section 39.2. The Results in Brief is presented on page 1. The Administration's response to our audit recommendations can be found after page 33 of the report.

We would like to thank Public Utilities staff, as well as representatives from other City departments for their assistance and cooperation during this audit. All of their valuable time and efforts spent on providing us information is greatly appreciated. The audit staff responsible for this audit report is Edward Moreno, Claudia Orsi, and Chris Constantin.

Respectfully submitted,

Edwardo Lina

Eduardo Luna City Auditor

cc: Jay M. Goldstone, Chief Operating Officer

Wally Hill, Assistant Chief Operating Officer

Jan Goldsmith, City Attorney

Andrea Tevlin, Independent Budget Analyst

Roger Bailey, Director, Public Utilities Department

Ed Plank, Interim Director, Purchasing and Contracting Department

Javier Mainar, Chief, Fire-Rescue Department



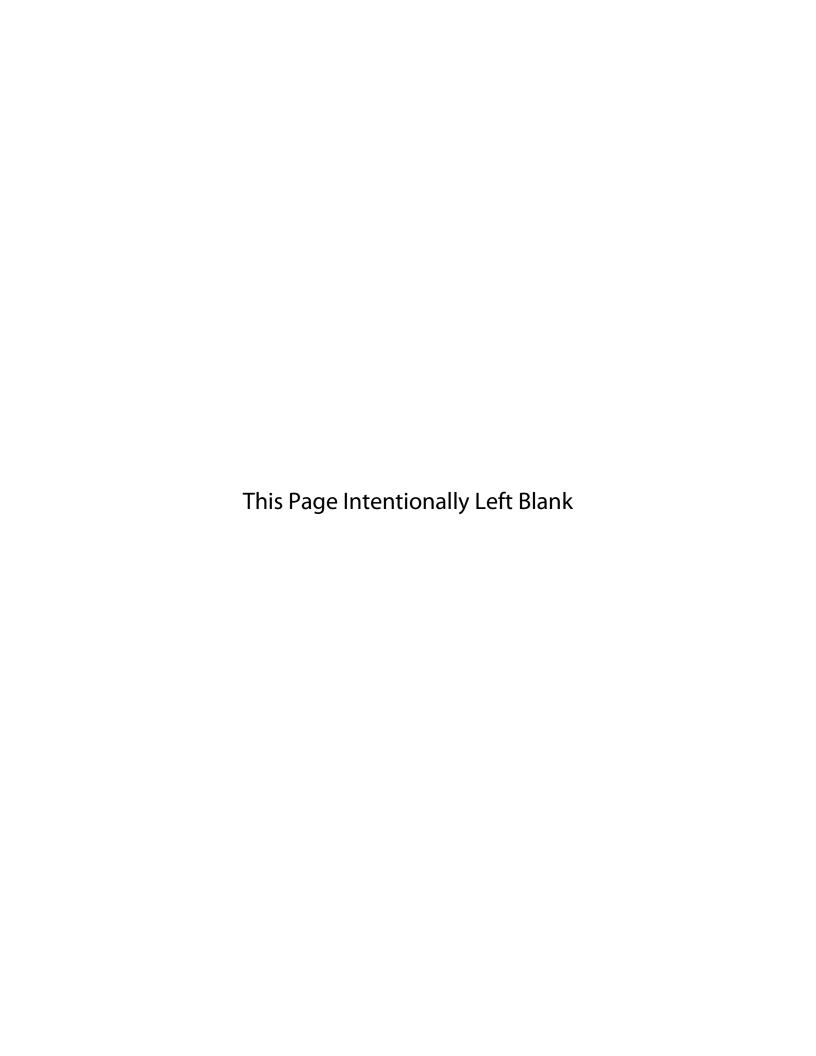
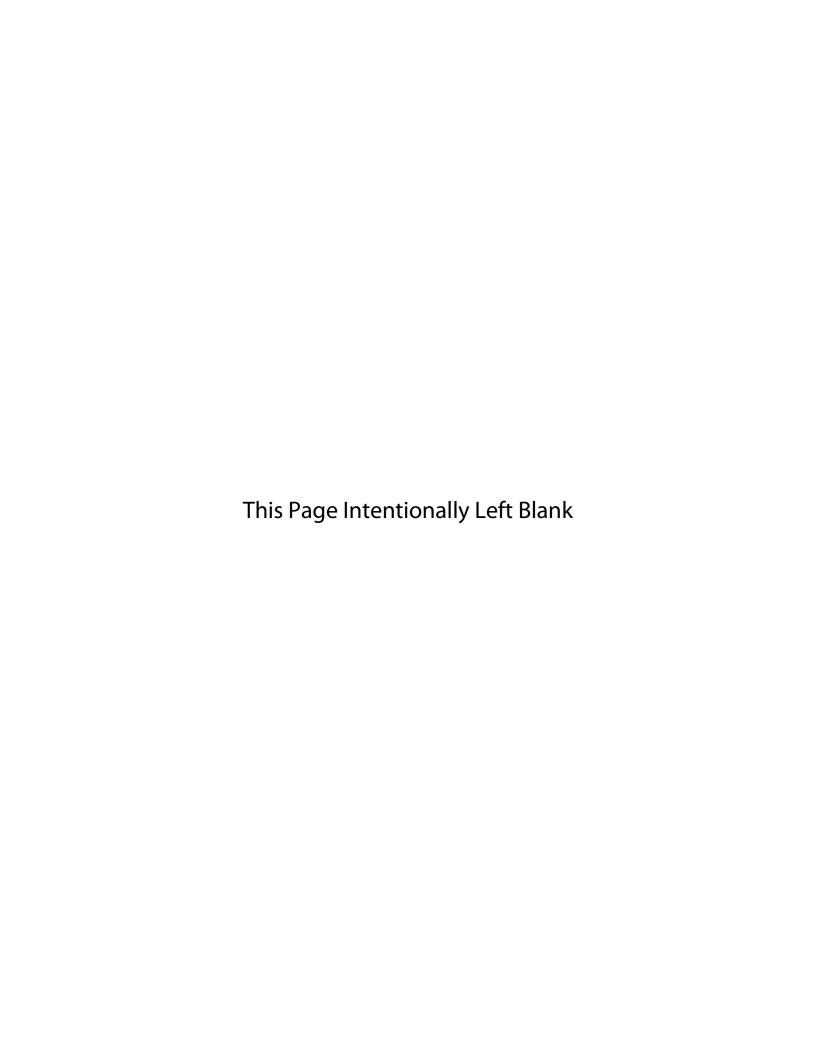


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Results in Brief

Water treatment chemicals play a critical role in providing clean water to protect public health and the environment. To this end, The Public Utilities Department (PUD) utilizes certain chemicals to treat drinking water and decontaminate wastewater. In this audit, we reviewed:

- (1) The process through which the City of San Diego (City) procures chemicals for the treatment of water and wastewater to ensure that chemicals contracts are competitively awarded and to determine to what extent the City uses market-based approaches to reduce the cost of chemicals to the extent possible;
- (2) Whether the Public Utilities Department (PUD) and the Purchasing and Contracting Department (P&C) sufficiently track and share information regarding chemical pricing trends;
- (3) Whether the water and wastewater facilities that use and/or store chemicals are appropriately inspected by the public agencies charged with their inspections.

During our review, we found that the City may realize potential savings on the \$16 million it spends on a yearly basis on chemical purchases by adopting certain market strategies, such as, reverse auction in purchasing bulk chemicals for the treatment of water and wastewater. The County of San Diego (County), for instance, utilizes a system called reverse auctions for its bidding process of certain goods and services and has saved an estimated \$1.3 million out of \$4.1 million dollar contracts for various goods and services between fiscal years 2009 and 2012. While the County did not specifically use reverse auctions for its purchase of water and wastewater treatment chemicals, this practice could lend itself to the City for the purchase of certain goods and services under some market conditions.

Additionally, during our review we also found that PUD and/or

¹ Reverse auctioning is a real time online bidding process, which allows vendors of any type of good or service to bid a specified time frame (usually one hour), with the lowest bidder awarded the contract.

P&C periodically track information on chemical prices and availability over time but do not conduct regular meetings to share and discuss issues related to chemical supply availability, changes in prices, and alternative chemical uses. We found no departmental agreements that clearly define what PUD and P&C are responsible for in regard to tracking chemical prices. Tracking chemical prices and supply over time and conducting regularly scheduled meetings to share this information would allow both departments to make strategic decisions regarding purchases of chemicals that may allow the City to achieve savings.

Further, we found that between fiscal year 2009 and April 2012, the City contracted approximately \$48 million worth of contracts to purchase chemicals for its water and wastewater treatment with contracts that did not have final signatures of the Office of the City Attorney. According to P&C, the procedures used were the accepted practice for entering contracts resulting from competitive bids at the time the chemical contracts were initiated. However, based on the results of the Office of the City Auditor's Performance Audit of the Purchasing and Contracting Department of March 2012, P&C and the Office of the City Attorney have reviewed their practice; as of mid June 2012, all contracts, including those resulting from competitive bids, obtain the appropriate signatures in compliance with City regulations.

Finally, during our review, we found that the San Diego Fire-Rescue Department (SDFD) did not conduct regular inspections of the water and waste water facilities as mandated by State law due to lack of staffing. Because annual inspections performed correctly decrease the risk of fires, it is important that the SDFD develop a systematic approach to comply with this requirement.

We believe that the City should further consider certain purchasing and contracting market strategies to help ensure that it has obtained the best prices for chemical purchases and so it can safeguard against the volatility of the chemical markets, which affect unit chemical costs. To address the issues presented above, we made a total of four recommendations for

the City to consider adopting additional contracting strategies, tracking and sharing information, and ensuring that the necessary State mandated inspections are performed. The City Administration agrees with three of the recommendations and partially agrees with one of the recommendations.

Background

The Independent Rates Oversight Committee (IROC) requested that the Office of the City Auditor audit and evaluate Citywide water and wastewater chemical purchases and usage by the Public Utilities Department (PUD). In its Annual Report for fiscal year (FY) 2011 IROC noted that such an audit could result in recommendations that could offset potential cost pressures that impact rates. Consequently, we initiated and completed this audit in accordance with the City Auditor's Fiscal Year 2012 Audit Work Plan. Our objectives, scope, and methodology can be found in **Appendix A**.

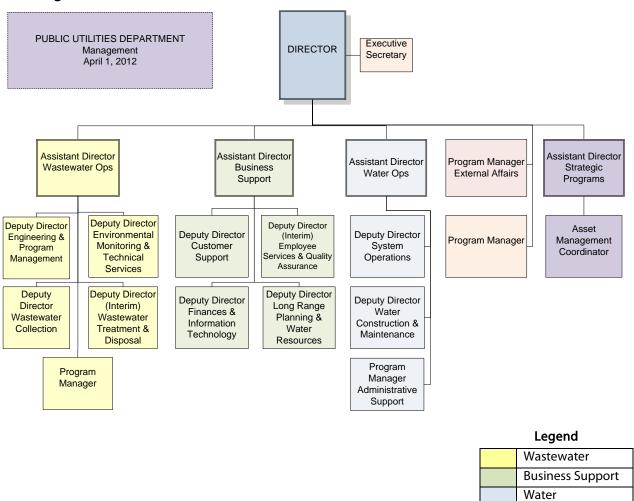
The Public Utilities Department

The mission of PUD is to provide the public with a safe, efficient, and cost-effective water and regional sewage system that supplements limited water supplies and meets regulatory standards for the protection of the environment and the public for the benefit of ratepayers.

To this end, PUD is staffed with more than 1,584 employees and composed of four branches—Water, Wastewater, Business Support and the Strategic Programs Branch. Within PUD, Water and Wastewater divisions are responsible for the purchases of chemicals. **Appendix B** shows staffing, expense, and revenue breakdowns for 2010 through 2012. See **Exhibit 1** below for PUD's organizational structure.

Exhibit 1

PUD Organizational Chart

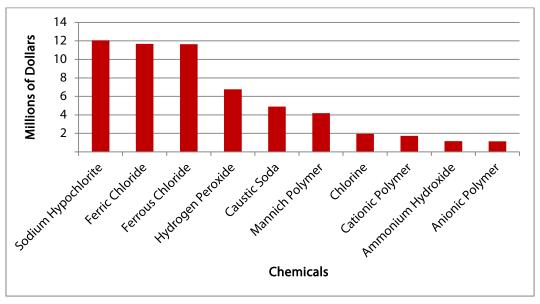


Source: Public Utilities Department

Chemical Purchases for the Water and Wastewater Treatment Plants Water treatment chemicals play a critical role in providing clean water to protect public health and the environment. To this end, PUD utilizes certain chemicals such as chlorine and hydrogen peroxide to treat drinking water and decontaminate wastewater. **Appendix C** shows a comprehensive list of chemicals and their usage by PUD for the treatment of water and wastewater. Additionally, **Appendix D** shows a list of water and wastewater facilities. Between FY 2009 and FY 2012, PUD purchased \$61 million in chemicals. Of this amount, the top ten chemical expenses totaled \$57 million (93%). **Exhibit 2** below shows those expenditures.

Exhibit 2

Top Ten Chemical Expenditures Chemical Type between FY 2009 and FY 2012²



Source: City Accounting Systems (SAP and Simpler)

Note: FY 2012 includes expenses through March 1, 2012 for wastewater and April 3, 2012 for water

On an annual basis, during fiscal years 2009 through April 2012 PUD expended an average of about \$15.25 million in chemical purchases for both water and wastewater treatment. PUD has a total of 15 Water and Wastewater facilities, which treat and pump water and wastewater throughout the City of San Diego. Chemicals are applied at different stages on all of the facilities.³ **Exhibit 3** below shows the total PUD chemical expenses by plant for both water and wastewater.

² We obtained a list of all the chemicals used in each water and wastewater treatment facility and compiled a history of expenditures from July 1, 2009 through April 2012.

³ Appendix D illustrates the 15 Water and Wastewater facilities.

Exhibit 3
PUD Chemical Expenses by Plant

Wastewater	2009	2010	2011
Point Loma	\$8,036,151	\$10,137,761	\$9,344,710
Metro Bio-Solids	\$1,521,780	\$1,771,738	\$1,692,430
North City	\$1,090,011	\$1,314,670	\$1,153,289
South Bay	\$294,931	\$374,281	\$339,292
Pump Station 65	\$100,899	\$106,633	\$161,027
Pump Station 2	\$28,455	\$35,261	\$118,703
EMG Station	_	-	\$51,554
Grove Station	-	-	\$30,496
Pump Station 1	\$35,983	\$13,693	\$20,404
Pump Station 64	\$874	\$13,299	\$10,232
Penasquitos	\$5,359	\$12,557	\$7,721
Otay Station	-	\$8,807	\$266
Waste Water Totals	\$11,114,443	\$13,788,700	\$12,930,124
Water			
Alvarado Plant	\$1,917,545	\$2,037,519	\$1,766,484
Miramar Plant	\$1,216,473	\$1,239,150	\$1,065,709
Otay Plant	\$404,651	\$519,727	\$561,838
Water Total	\$3,538,669	\$3,796,396	\$3,394,0311
PUD Total	\$14,653,112	\$17,585,096	\$16,324,155

Source: Simpler and SAP

As **Exhibit 3** illustrates, in FY 2011 the Point Loma Treatment Plant represented about 57 percent of the total chemical expenditures for PUD. The Point Loma Treatment Plant is the principal treatment facility in the City for sewage water. Specifically, the waste water treatment process currently employed at the Point Loma Treatment Plant consists of a chemically enhanced primary treatment with partial disinfection, which results in a higher usage of chemicals such as sodium hypochlorite and ferric chloride, for instance, than other facilities. For more information regarding the various wastewater treatment plants and their operations see **Appendices E and F**. For a glossary of specific terminology related to wastewater treatments see **Appendix G**.

The Public Utilities
Department and the
Purchasing and
Contracting Department
Roles and
Responsibilities
Regarding Chemical
Purchases

Both the Water and the Wastewater Treatment branches work closely with the Purchasing and Contracting Department (P&C), using competitive bid processes to obtain the most reasonable prices for needed chemical purchases.⁶

PUD determines which chemicals are needed to treat water and wastewater based on testing, considerations of water quality, and permit/waiver requirements. P&C's responsibility is to oversee the purchasing process, ensure compliance with the City purchasing requirements, and obtain the chemicals needed at the least possible cost for the City.

According to PUD staff, the department works closely with P&C, using the competitive bid process to obtain the most reasonable prices for needed chemical purchases. Under P&C's centralized contracting authority, PUD initiates a requisition for the chemicals and P&C awards a final contract. After PUD has selected the most appropriate chemicals for purchase, P&C will proceed by requesting written bids, submitting bid results and award recommendation to PUD for their review and determination, approving a low bidder and awarding the contract.

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⁴ This facility has a permitted flow capacity of 240 million gallons per day (MGD) and 432 MGD permitted peak wet weather flow. Additionally, the Point Loma Treatment Plant currently provides advanced primary treatment of sewage in accordance with a waiver from the secondary treatment standards of the Clean Water Act.

⁵ Advanced primary comprises of adding ferric chloride and organic polymers to the sedimentation tanks to help waste particles bond together in large enough masses to settle out.

⁶ The chemicals and their uses are listed in **Appendix C**.

Audit Results

Finding 1: The City Could Improve Its Purchasing Practices For Water and Wastewater Treatment Chemicals

During the period under review, we found that the City competitively selected vendors for the purchase of water and wastewater treatment chemicals, however, the City may realize savings by improving contracting practices, such as adopting market strategies. We identified three procurement areas that impact the City's ability to control costs and mitigate the volatility of chemical prices. First, the City should evaluate and implement additional contracting and market strategies to achieve potential savings or reduce operating costs from water and wastewater treatment chemical purchases. Second, PUD and P&C can enhance coordination and collaboration to achieve the best possible price for chemicals and more readily monitor changes in chemical prices. Finally, we found that between July 2008 and April 2012, the City purchased approximately \$48 million dollars worth of chemicals for water and wastewater treatment with contracts that had not obtained the required Office of the City Attorney signatures. However, as of mid June 2012 all contracts, including those resulting from competitive bids, obtain the appropriate Office of the City Attorney signatures in compliance with City regulations.

We recommend that P&C, in consultation with PUD and any other relevant City departments, work with the Office of the City Attorney to determine which market strategies best fit the City's needs and make the appropriate modifications to City regulations to allow for the adoption of said market strategies in its contractual agreements. Finally, we recommend that P&C and PUD systematically track chemical prices and market fluctuations and share this information with each other to ensure that the appropriate planning for chemical purchases can take place and that ratepayers can be assured that the City has obtained the best possible price.

Market Strategies Such As Reverse Auctions and Joint Purchases Can Play a Significant Role in Achieving Savings within the \$16 Million Spent in Annual Chemical Purchases During the period under review, the City competitively selected vendors for the purchase of water and wastewater treatment chemicals, but we found that the City may realize savings by improving contracting practices and adopting certain purchasing market strategies. Specifically, we found that the City did not utilize certain contracting and market strategies in purchasing bulk chemicals for the treatment of water and wastewater that would allow the City to achieve savings on the \$16 million it spent on a yearly basis on chemical purchases.

In our benchmarking studies, we found that one jurisdiction uses planning and market strategy approaches to reduce the cost of purchasing some goods and services.⁷ The County of San Diego (County) utilizes a system called reverse auctions for limited numbers of its bidding processes and has saved an estimated \$1.3 million, of \$4.1 million dollar contract for various goods and services between fiscal years 2009 and 2012. While the County did not specifically use reverse auctions for its purchase of water and wastewater treatment chemicals, this practice could lend itself to the City for the purchase of certain goods and services under some market conditions. Reverse auctioning is a real time online bidding process, which allows vendors of goods or services to bid during a specified time frame (for example one hour), with the lowest bidder awarded the contract. Even though the City has not conducted a similar analysis of reverse auctions, it is believed that there is great potential in using reverse auctions. Since this would be a new practice for the City, it is unknown how much the City could realize in cost savings.

Additionally, the City has recently encouraged other public agencies to piggyback on purchases (contracts) initiated by the City. For instance, according to a memorandum issued by the former P&C director, the City recently issued a request for proposal (RFP) for fuel that included the County, the Port, and several other public agencies, which more than doubled the total estimated number of gallons of fuel to be purchased

⁷ We inquired with the City of Poway, the City of Escondido, the County Water Authority and the County of San Diego how they purchased their chemicals for the treatment of water and found that the City of Poway and the City of Escondido award their contracts to the lowest bidder and bid for their chemicals every year. The County Water Authority has contracted out this function to a private company.

under the agreement. During April 2012, P&C reported to the Audit Committee that the City's initial fuel estimate prior to piggybacking was about 5.3 million gallons. After piggybacking with other agencies, the total estimated fuel volume surged to about 13.5 million gallons. P&C reported that establishing an accurate cost savings figure would require a significant amount of work since fuel prices fluctuate daily and the price is determined on the day of the purchase based on the daily OPIS price index. Savings estimates would need to be built on hypothetical cost comparisons and as such, they have not conducted it.

According to the Water Research Foundation (WRF), industry surveys, experts, and literature indicate that water utilities can minimize the cost of water treatment chemicals by strategically planning and using purchasing strategies to control uncertainties in the market. Exhibit 4 below summarizes the various purchasing strategies we identified that could minimize the cost of water treatment.

⁸ City of San Diego Memorandum dated April 20, 2012, Follow Up on Implementation of Recommendations-Efficiency in Government: Managed Competition, Outsourcing, Reengineering and Reverse Auction within San Diego County, issued June 30, 2010 and follow up Memo dated January 11, 2012. ⁹ Gasoline and Fuel Price Index.

¹⁰ Supply of Critical Drinking Water and Wastewater Treatment Chemicals-A White Paper for understanding Recent Chemical Price Increases and Shortages, Water Research Foundation, p. 18.

Exhibit 4

Potential Purchasing Strategies for Chemicals Used in the Treatment of Water and Wastewater

Strategy	Description
Contracting	Tie chemical prices in the contract to a price index. The general idea is to use independently published price indices to justify price increases and require decreases when appropriate. ¹¹
Dual Sourcing	In some cases, it could be advantageous to use two sources of supply. 12
Joint Purchases	Consider regional purchase solutions to take advantage of economies of scale (share the cost of storage or shipping). Combining buying power with other jurisdictions could influence manufacturers to offer bulk price discounts. ¹³
Reverse Auctions	Reverse auction is a real time online bidding process in which vendors bid during a specified time frame (for example one hour), with the lowest bidder awarded the contract. ¹⁴

Source: Water Research Foundation, P&C

We found that except where noted, the City did not use the above mentioned contracting and market strategies for the period under review. A contract that P&C has entered into with its vendor ties the price of caustic soda to the Chemical Market Associates, Inc. (CMAI) index and according to P&C it

¹¹ This practice is currently utilized by the City.

¹² According to P&C, since P&C purchases based on low bid, legal review of any dual sourcing strategy would be required.

¹³ According to P&C, due to Water and Wastewater infrastructure and the hazardous nature of most of the chemicals used in the treatment process, these chemicals are shipped and delivered to their ultimate City facility destination and their shipping containers are directly connected to the treatment process infrastructure.

¹⁴ A coording to P&C, this practice can result in socience in cortain market situations and may have come.

¹⁴ According to P&C, this practice can result in savings in certain market situations and may have some applicability in the procurement of chemicals.

has resulted in significant savings. Although a utility can get better prices from large volume purchases, dual purchases may be advantageous when reliability of supply is an issue.¹⁵ PUD chemical contracts are based on volume purchases and there have not been any supply reliability issues. Joint purchases may allow the City to take advantage of economies of scale by combining purchasing power with other jurisdictions, however, the City takes full truck load deliveries and chemicals must be stored at site of use so little to no savings from shipping and storage would be anticipated. P&C has been working with the Office of the City Attorney to propose modifications to the San Diego Municipal Code (SDMC) to allow for the implementation of reverse auctions.

We believe that the City should further consider certain purchasing and contracting market strategies to help ensure that:

- (1) it has done its best to obtain the best prices for chemical purchases, and
- (2) it can safeguard against the volatility of the chemical markets, which affect unit chemical costs.

Any further savings the City realizes by adopting purchasing and contracting market strategies to purchase chemicals could be used to offset water rate increases or to reinvest in water/wastewater infrastructure.

We recommend that:

Recommendation #1

The Purchasing and Contracting Department evaluate all market strategies presented above and identify which, if any, would allow the City to achieve further savings for chemical purchases. Additionally, if any of the market strategies require a change in the San Diego Municipal Code, the Purchasing and Contracting Department should work closely with the Office of the City Attorney to present those revisions to City Council for approval in order to ensure that the City can take advantage of these additional processes. (Priority 3)

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¹⁵ Supply of Critical Drinking Water and Wastewater Treatment Chemicals – A White Paper for Understanding Recent Chemical Price Increases and Shortages, p. S-5.

The Purchasing and Contracting Department and the Public Utilities Department Can Enhance Coordination

During our review, we also found that the Public Utilities Department (PUD) and Purchasing and Contracting Department (P&C) periodically track information on chemical prices and availability over time but do not conduct regular meetings to share and discuss issues related to chemical supply availability, changes in prices, and alternative chemical uses. We found no departmental agreements that clearly define what PUD and P&C are responsible for in regard to tracking chemical prices. Tracking chemical prices and supply over time and conducting regularly scheduled meetings to share this information would allow both departments to make strategic decisions regarding purchases of chemicals that may allow the City to achieve savings.

The departments should take the initiative to establish periodic meetings to review and discuss price trends for the chemicals used in the water and wastewater treatment process.

According to the Water Research Foundation, two of the most helpful steps that public utilities can take to understand how to control costs and protect public health and the environment are to track chemical markets over time and to invest in planning that can help manage the risk associated with future water treatment market volatility. Specifically, according to the Water Research Foundation, utilities can increase their ability to minimize the effect of water treatment chemical price changes by closely tracking the market for treatment of chemicals.

During our review, we found that PUD considers P&C responsible for tracking the cost of chemicals and market conditions since they are in charge of the contracting process. P&C indeed does receive certain publications to track market prices and supply availability, but it does that only at times of contract renewals or requests for prices increases. This approach may not be sufficient to develop market strategies for the long term and could be improved by increased periodic coordination and sharing of information related to tracking of chemical prices over time. Additionally, neither PUD nor P&C have policies and procedures in place that define their roles and responsibilities regarding the process of purchasing chemicals for water and wastewater treatment, tracking

chemical prices and trends, and sharing this information.

According to PUD, long term contracts are in place to ensure chemical prices are static and products are available for the term of the contract(s). PUD should continue to periodically evaluate potential options for treatment processes as they have done in the use of the Peroxide Regenerated Iron – Sulfide Control (PRI-SC/PRI-CEPT) to optimize the cost and performance associated with the current use of iron salts for wastewater treatment within the City's Wastewater system.

PUD should systematically track information on chemical prices and availability over time and share this information with P&C periodically. For instance, there could be routine reporting sessions between PUD and P&C on chemical bid prices, market indicator performance, and alerts on supply issues. The communication mechanism could be a quarterly meeting, a newsletter, or any other mechanism that the departments see fit.

Increasing Chemical
Expenses Between FY
2009 and FY 2012 Are
Related To Increasing
Demand For Chemicals To
Meet Water and
Wastewater Regulatory
Standards

During the period under review, we found that City purchases for carbon, chlorine, ferric chloride, and ferrous chloride increased from FY 2009 to FY 2012 as a result of varying water quality that necessitated PUD to use and purchase more treatment chemicals to meet water and wastewater regulatory standards. Additionally, we also found that some unit costs went up, but generally, unit chemical costs fluctuated. While the City may not be able to limit increasing treatment chemical expenses to meet water and wastewater regulatory standards, it could utilize the purchasing and contracting market strategies that we mentioned in **Exhibit 4** (page 12) to potentially achieve savings during the procurement phase.

As **Exhibit 5** demonstrates, certain chemicals experienced significant expenditure increases. PUD informed us that these expenses were associated with the quality of the water and increased usage of chemicals to maintain regulatory requirements. ¹⁶ **Exhibit 5** also shows that some chemical unit costs went up, while others went down. These fluctuations

¹⁶ According to PUD, water chemistry changes due to environmental factors requires adjustments to chemical feed rates and dosage of treatment in order to meet regulatory and operational requirements.

were due to overall changes in the chemical markets and other economic factors, which affect chemical supplies and demand.

Exhibit 5

Chemical Expenditure Increases and Associated Unit Costs (Dry Tons) Between FY 2009 and April 2012¹⁷

	2009		2010 20		201	1	201.	2
Chemical	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price
Carbon	\$28,316 ¹⁸	\$19,100	\$178,919	\$19,100	\$434,548 ¹⁹	\$22,000	\$183,749	\$22,000
Chlorine	\$234,295	\$378	\$629,152	\$391	\$496,887	\$430	\$590,000	\$550
Ferric Chloride	\$2,127,395	\$695	\$2,403,808	\$695	\$2,998,384	\$650	\$2,456,950	\$650
Ferrous Chloride	\$1,973,811	\$649	\$3,257,594	\$649	\$3,461,655	\$639	\$2,117,775	\$628

Source: PUD

To enhance PUD and P&C's ability to coordinate and minimize the effect of water and wastewater treatment chemicals price fluctuations, we recommend that:

Recommendation #2

The Public Utilities Department in conjunction with the Purchasing and Contracting Department should develop policies and procedures that establish a systematic tracking system of information on chemical prices and availability over time and a system to periodically share this information. (Priority 3)

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¹⁷ We did not include the average gallon of water treated at water and wastewater facilities because we cannot determine if every one of the chemicals in the table were used for every gallon of water treated. However, as we noted, quality of water treated is a key factor in usage of chemicals rather than quantity of water treated. PUD explained to us, as discussed in the text, that water quality affected the chemical price increases noted in the table.

¹⁸ According to PUD, the changing of the carbon expenditure is dictated by its sulfur content and scheduling. A late FY09 change-out was scheduled but occurred in FY10. Thus the expenditure is showing an increase from FY09 to FY10.

¹⁹ According to PUD, the changing of the carbon expenditure is dictated by its sulfur content and scheduling. An early FY12 change was scheduled but occurred late FY11 so the expenditure is showing a decrease from FY11 to FY12. According to PUD, the decrease can also be attributed to the optimization of the plant.

The City Should Ensure
That All Chemical
Contracts Obtain the
Office of the City
Attorney Final Signature

We found that between fiscal years 2009 and April of 2012, the City contracted approximately \$48 million dollars worth of contracts to purchase chemicals for its water and wastewater treatment with contracts that did not have final signatures of the Office of the City Attorney. According to P&C the procedures used were the accepted practice for entering contracts resulting from competitive bids at the time the chemical contracts were entered into. Several of these agreements were docketed and approved by the City Council because they exceeded \$ 1 million in value. These documents included language relating to the total contract amount, the total duration of the relationship, and the documentation necessary to justify price increases or other legal language that could aid the City in controlling chemical prices. However, based on the results of the Office of the City Auditor Performance Audit of the Purchasing and Contracting Department of March 2012, P&C and the Office of the City Attorney have reviewed their practice and as of mid June 2012 all contracts, including those resulting from competitive bids, should obtain the appropriate signatures in compliance with City regulations.

The San Diego City Charter specifically states that for a City contract to be executed and valid, the Mayor or his designee, the contractor, and the Office of the City Attorney must review and sign the contract.²⁰ In addition, the City Charter requires the Office of the City Attorney's signature in order to properly execute City contracts and provides that it is the Office of the City Attorney's duty to "prepare in writing all ordinances, resolutions, contracts, bonds, or other instruments in which the City is concerned, and to endorse on each approval of the form of correctness thereof " An Office of the City Attorney Memorandum of Law dated December 18, 2009 reviews all codes associated with the City contracting regulations and concludes that the Office of the City Attorney's signature as well as those of the Mayor or its authorized representatives are necessary for the formation of a valid contract.

As a result, P&C processed and authorized approximately \$48

²⁰ San Diego City Charter Article V, Sections 28 and 40, Article XV, Sections 260 and 265 (a).

million worth of chemical expenditures without the Office of the City Attorney signature. According to the Office of the City Attorney Memorandum of Law dated December 18, 2009, the effect of an improper execution of a City contract is that the contract is invalid or unenforceable against the City and that any contractor that performs work under an improperly formed contract is at risk of non-payment.

Our discussions with P&C officials indicate that prior to the Office of the City Auditor Purchasing and Contracting Department audit issued in March of 2012, P&C used purchase orders as contracts even though this practice did not satisfy City contracting requirements. P&C has since agreed to change those practices and is currently working with the Office of the City Attorney to ensure that all contracts are validly executed and receive the appropriate reviews and signatures as required by the City Charter. In a Memorandum of Law dated July 24, 2012, addressed to the Audit Committee titled Legal Review of Contracts Identified in the March 2012 Performance Audit of the Purchasing and Contracting Department, the Office of the City Attorney validates our concerns found in the audit that purchase orders that lack the signatures of the Office of the City Attorney, the vendor, the Mayor or its designee are not valid forms of contracts and are not enforceable.

To ensure that all contracts in the City are validly executed, and that the City is better positioned to safeguard itself against chemical price increases, we recommend that:

Recommendation # 3

The Purchasing and Contracting Department should work in conjunction with the Office of the City Attorney to formulate legal contracts for the purchases of chemicals that include all the required signatures and the necessary legal language and to ensure that the City can have better control over its prices. (Priority 3)

Finding 2: The San Diego Fire-Rescue Department Does Not Conduct Regularly Scheduled Inspections of the Water and Wastewater Treatment Facilities as Required by Law

Use of water treatment chemicals by water and wastewater utilities is critical to protect the environmental and public health, as such state and City regulations establish a process of inspections for facilities that use and store hazardous materials and chemicals. During our review, we found that water and wastewater facilities are inspected on a regular basis by the City and the County of San Diego entities to ensure compliance with Federal and State regulatory requirements aimed at safeguarding the environment and the public. However, State law requires mandatory fire inspections of buildings and facilities that house hazardous materials.

We found that the San Diego Fire-Rescue Department's Fire Prevention Bureau (Bureau) did not conduct regular inspections of PUD's Water and Wastewater Facilities as required by California Law and City policies. Specifically, we found that the Bureau did not inspect any of the 15 Water and Wastewater facilities on a yearly basis or systematic schedule in accordance with rules and regulations. For example, the Bureau last inspected the Miramar Water Treatment Plant in November of 2002. Further, the Bureau inspected the Point Loma Wastewater Treatment Plant and Metro Bio Solids facility in 2004. Finally, the Bureau's inspection record database contains no information regarding five out of 15 facilities. Exhibit 6 below illustrates the Water and Wastewater facilities and the last inspection dates.

Exhibit 6

SDFD PUD Inspections of Water and Wastewater Facilities²¹

Facility	Organization	Last Date of Inspection	Year(s) Without Inspection (approx)
Pump Station 1	Wastewater	11/11/2001	10
Miramar Plant	Water	11/10/2002	10
Metro Bio Solids	Wastewater	6/1/2004	8
Point Loma Plant	Wastewater	8/10/2004	8
Alvarado Plant	Water	8/11/2004	8
South Bay	Wastewater	2/28/2008	4
Otay Plant	Water	5/20/2010	2
Pump Station 64	Wastewater	7/10/2010	2
E. Mission George Pump	Wastewater	2/8/2011	1
Peñasquitos Pump	Wastewater	No records	At least 10 years
Otay Pump Station	Wastewater	No records	At least 10 years
Grove Station	Wastewater	No records	At least 10 years
Pump Station 65	Wastewater	No records	At least 10 years
Pump Station 2	Wastewater	No records	At least 10 years
North City Plant	Wastewater	No records	At least 10 years

Source: SDFD and PUD

State and municipal policy requires periodic inspections to be made of various occupancies, such as buildings, structures and installations that use combustible, explosive or otherwise dangerous materials. 22 The Bureau's own policies and

 $^{^{21}}$ The table is organized by the latest date of inspection to the most recent. 22 California Health and Safety Code Sections 1790-1792.

procedures state that the high hazard sites must be inspected annually.²³ Good business practices require the retention of historical documents regarding program performance to increase transparency, reliability, and accountability.²⁴

According to the Bureau's officials, the Bureau lacks the resources and staffing to maintain annual inspections of required facilities despite legal requirements to do so. For instance, for the CEDMAT program, CEDMAT supervisors have had a practice of cancelling scheduled inspections due to lack of staff. This contributed to the lack of inspections of certain facilities. Specifically, Bureau officials informed us that the Water and Wastewater facilities were not included in the Bureau's priority schedule of inspections based on an internal risk assessment that the Bureau made in which it determined that its few resources should be focused on facilities with greater public access on a daily basis. According to the Bureau, PUD facilities represent a lesser risk than other facilities so due to a lack of resources it did not perform these inspections. Instead it chose to concentrate on other types of facilities with greater access to the public such as high-rise buildings that house several business and or restaurants and daycare facilities. However, the SDFD agrees that these sites should be inspected annually or at least on a systematic schedule. We discussed these issues with officials from the SDFD and they stated that the additional eight positions that they received during fiscal year 2013 will be utilized to address the deficiencies in the CEDMAT unit.

The lack of timely inspections, reliable data systems that include all pertinent information regarding inspections, and documents to support which inspections are conducted increases the risk that some of these facilities may not be optimally and safely operating. Annual inspections performed correctly decrease the risk of fire. Prioritization and systematic approaches ensure equitable treatment of all facilities, apply limited resources to their best and highest purpose, and reduce the risk to public safety.

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²³ City of San Diego FPB Policy C-11-5 Industrial Inspection (CEDMAT) Priority Policy, April 8, 2011.

²⁴ Office of the City Auditor Performance Audit of the Fire Prevention Activities Within the City of San Diego, October 2010.

It is important to note that even though these facilities are not inspected regularly by the Bureau, they are supposed to be inspected by other departments as well. The purpose of these other inspections is to ensure safe storage and usage of chemicals at each of the water and wastewater facilities. For instance the City of San Diego, Environmental Services Department, Hazardous Materials Management Program and the County of San Diego, Department of Environmental Health, Hazardous Material Division also conduct inspections of these facilities. We found that these inspections occurred on a scheduled basis.

As we recommended during the Office of the City Auditor Performance Audit of the Fire Prevention Activities Within the City of San Diego issued in October of 2010, we recommend that:

Recommendation #4

The San Diego Fire Department should ensure that it performs all inspections required by law. If resources are not available to ensure that all inspections are performed, the San Diego Fire Department should ensure that the appropriate system of inspection prioritization is in place. (Priority 3)

Conclusion

The Independent Rates Oversight Committee (IROC) requested that the Office of the City Auditor audit and evaluate Citywide Water and Wastewater chemical purchases by the Public Utilities Department (PUD). In its Annual Report for fiscal year (FY) 2011 IROC noted that such an audit could result in recommendations that could offset potential cost pressures that impact rates.

Our review of the chemical purchases for the City of San Diego water and wastewater treatment indicates that the possibility to achieve savings exists. To achieve cost savings for chemical purchases the City could explore and implement planning and market strategies such as reverse auctions. In addition, the Public Utilities Department (P&C) could enhance coordination and collaboration to achieve the best possible price for chemicals and more readily monitor changes in chemical prices. P&C and PUD could adopt a system to systematically track chemical prices and market fluctuations and share this information with each other to ensure that the appropriate planning for chemical purchases can take place and that ratepayers can be assured that the City has obtained the best possible price. Finally, the City should ensure that all receive the final signature from the Office of the City Attorney.

Recommendations

Recommendation #1

The Purchasing and Contracting Department evaluate all market strategies presented above and identify which, if any, would allow the City to achieve further savings for chemical purchases. Additionally, if any of the market strategies require a change in the San Diego Municipal Code, the Purchasing and Contracting Department should work closely with the Office of the City Attorney to present those revisions to City Council for approval in order to ensure that the City can take advantage of these additional processes. (Priority 3)

Recommendation #2

The Public Utilities Department in conjunction with the Purchasing and Contracting Department should develop policies and procedures that establish a systematic tracking system of information on chemical prices and availability over time and a system to periodically share this information. (Priority 3)

Recommendation #3

The Purchasing and Contracting Department should work in conjunction with the Office of the City Attorney to formulate legal contracts for the purchases of chemicals that include all the required signatures and the necessary legal language and to ensure that the City can have better control over its prices. (Priority 3)

Recommendation #4

The San Diego Fire Department should ensure that it performs all inspections required by law. If resources are not available to ensure that all inspections are performed, the San Diego Fire Department should ensure that the appropriate systems of inspections prioritizations are in place. (Priority 3)

Appendix A: Objectives, Scope, and Methodology

We reviewed the process through which the City procures chemicals for the treatment of water and wastewater to ensure that chemicals are competitively awarded. Additionally, we also reviewed whether the City uses market-based approaches to reduce the cost of chemicals to the extent possible. To achieve the objectives stated above, we reviewed a total of 22 contracts that the City entered into from fiscal year 2009 through April 2012 and determined whether the City contracting process was in accordance with the City rules and regulations. Additionally, we researched best practices and industry standards set by the Water Research Foundation and determined to what extent the City utilized these best practices to achieve cost savings. We focused our review on data related to those contracts from fiscal years 2009 through April 2012, unless otherwise noted. We benchmarked certain chemicals prices and contracting and market strategies with other jurisdictions to determine how San Diego compares with other cities. We also analyzed chemical expenditures and unit costs trends over the period under review to identify and understand any fluctuations we noticed. We performed data reliability testing when necessary to ensure our findings are based on accurate information.

To ensure that the public is safe and that the City takes the appropriate measures to protect the public from the dangers associated with the usage and storage of chemicals for the treatment of water and wastewater, we also analyzed whether the water and wastewater facilities that use and store chemicals are appropriately inspected by the public agencies charged with their inspections.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings. Our conclusions on the effectiveness of these controls are detailed within the report.

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²⁵ The City is currently conducting its own internal review of contracting procedures.

Appendix B: Public Utilities Department Budget Summary FY 2010 through FY 2012

	FY 2010	FY 2011	FY 2012
Positions	1,613	1,626	1,584
Personnel Expenditures	\$ 141,038,805	\$ 152,091,917	\$ 147,778,180
Non-Personnel Positions Expenditures	\$888,624,966	620,950,062	633,966,989
Total Department Expenditures	\$1,029,663,771	\$ 733,041,979	\$ 781,745,169
Total Department Revenues	\$ 964,798,341	\$ 1,025,233,480	\$ 983,171,000

Source: City of San Diego Fiscal Years 2010, 2011, 2012 Adopted Budgets

Appendix C: Type of chemicals used and applications

Chemical	Use
Activated Carbon	Odor Control
Ammonium Hydroxide	Chemically Enhanced Primary Treatment
Anionic Polymer	Chemically Enhanced Primary Treatment
Bioxide	Odor Control
Calcium Hypochlorite	Chemically Enhanced Primary Treatment
Cationic Polymer	Secondary solids removal
Caustic Soda 25%	Odor Towers
Caustic Soda 50%	Odor Towers
Chlorine Gas	Disinfection
Corrosion Inhibitors	Water Treatment for Boilers
Deodorizer ²⁶	Odor Masking
Ferric Chloride	Chemically Enhanced Primary Treatment/Sludge
	processing
Ferrous Chloride	Hydrogen Sulfide Control
Hydrogen Peroxide	Regeneration of Iron added for Hydrogen Sulfide
	Control
Insect Control Products ²⁷	Insect control
Liquid Caustic Soda ²⁸	Odor Control
Liquid Chlorine	Disinfection
Liquid Oxygen	Disinfection
Mannich Polymer	Sludge Processing
Muriatic Acid 18%	EDR cleaning
Muriatic acid 31%	Odor Tower cleaning
Ozone ²⁹	Disinfection
Permanganate ³⁰	Odor control

²⁶ Part of the MRO contracting process.

²⁷ Service Contract.

²⁸ Liquid Caustic Soda does not have a contract because it is produced by caustic soda on site.

²⁹ Ozone does not have a contract because it is produced by liquid oxygen on site.

³⁰ As of fiscal year 2013 the City is not longer renewing the Permanganate contract.

Polymer Alum	Secondary solids removal
Salt	Water softeners for Odor Towers
Sodium Chlorite	Disinfection
Sodium Hypochlorite	Odor Towers and disinfection

Source: PUD

Appendix D: PUD's Water and Wastewater Facilities

Facility	Branches
Metro Bio Solids	Wastewater
North City Plant	Wastewater
Point Loma Plant	Wastewater
Peñasquitos Pump Station	Wastewater
Otay Pump Station	Wastewater
East Mission George Pump	Wastewater
Grove Station	Wastewater
Pump Station 1	Wastewater
Pump Station 64	Wastewater
Pump Station 65	Wastewater
Pump Station 2	Wastewater
South Bay	Wastewater
Alvarado Plant	Water
Miramar Plant	Water
Otay Plant	Water

Source: PUD

Appendix E: Wastewater Operations

The Wastewater Branch of the Public Utilities Department treats wastewater from the City of San Diego and 15 other cities and districts, called participating agencies, from a 450 square mile area with a population of over 2.2 million. Wastewater System operations are subject to Federal, State, and local environmental regulations that primarily address the quality of effluent that may be discharged from the wastewater system, the disposal of sludge generated by the wastewater system, and the nature of waste material discharged into the collection system. The Federal regulations that have the most significant effect on the Wastewater System are the Clean Water Act, which is administered by the U.S EPA, the California State Water Board, the Regional Water Board, and the Federal Resource Conservation and Recovery Act.

These regulations set limitations on the discharge of pollutants at treatment plants and generally prohibit the discharge of pollutants into navigable waterways. Chemicals are used at all those facilities to achieve the best possible compliance with Federal, State, and Municipal regulations in regard to ocean discharge and output into the environment.

There are four main wastewater treatment plants: The Point Loma Treatment Plant, the North City Water Reclamation Plant, the South Bay Water Reclamation Plant, and Metro Biosolids Center. Each plant has to meet certain regulatory requirements to be permitted by the appropriate regulatory bodies.

Water Operations

The City's three Water Treatment Plants provide 200 million gallons per day of potable water to approximately 1.3 million people in San Diego, Coronado, Del Mar and Imperial Beach. ³¹ This is done through more than 280,000 metered service connections in the City of San Diego.

All three plants utilize several treatment processes to provide safe drinking water to the public. The plants are managed by the Water Operations Branch of the City's Public Utilities Department. As discussed above, various Federal, State, and local regulations dictate the type of chemicals that must be used to ensure safety and water quality. According to PUD, the types of chemicals used at treatment plants are not specifically dictated by regulatory agencies. These plants must meet certain performance standards, and the types of chemicals used to meet those standards are determined during the design of the plant.

³¹ The three treatment plants are Alvarado Water Treatment Plant, Miramar Water Treatment Plant, and Otay Water Treatment Plant.

Appendix F: Overview of the Wastewater Treatment Plants

The Point Loma Treatment Plant currently provides chemically enhanced primary treatment of sewage in accordance with a waiver from the secondary treatment standards of the Clean Water Act. The wastewater treatment process currently employed at the Point Loma Plant consists of a chemically enhanced primary treatment. Chemically enhanced primary treatment consists of adding ferric chloride and organic polymers to the sedimentation tanks to help waste particles bond together in large enough masses to settle out. Chemicals are flow paced to target optimum removal rates before discharge to the ocean through a 4.5 mile long Ocean Outfall.

The Metro Biosolids Center dewaters sludge. Located on 39 acres adjacent to the Miramar Landfill, the Metro Biosolids Center is the City of San Diego's state of the art regional biosolids treatment facility. Metro Biosolids Center provides two treatment operations: thickening and digestion of the raw solids and the dewatering of the anaerobically digested sludge. Biosolids are nutrient rich, organic material produced from the anaerobic digestion process at the Point Loma Wastewater Treatment Plan and the Metro Biosolids Center. The facility produces dewatered biosolids that are approximately 30 percent solids and 70 percent water.

The North City Water Reclamation Plant is the first large-scale water reclamation plant in San Diego's history and part of the single largest sewage system expansion in the area in more than 35 years. This state-of-the-art facility can treat up to 30 million gallons of wastewater per day which is generated by northern San Diego communities. Wastewater entering the plant undergoes a series of treatment and purifying steps using the latest technologies to supplement the water supply of the region.

The South Bay Water Reclamation Plant provides local wastewater treatment services and reclaimed water to the South Bay. The plant design incorporates the newest technologies and meets strict odor control standards. Untreated water enters the plant from the South Bay region and it then passes through large, rake-like bar screens to remove solid debris and floating material. At the South Bay Water Reclamation Plant wastewater is treated to secondary and tertiary treatment levels. The secondary treatment process utilizes bacteria to speed up the decomposition of wastes in the wastewater being treated allowing the secondary effluent to be discharged to the ocean. In tertiary treatment the plant uses a filtration to remove microscopic particles from wastewater that has already been treated to a secondary levels. The filtered water then passes through chambers where it is disinfected through exposure to ultraviolet light. At this stage the water is considered reclaimed.

Appendix G: Glossary

Anaerobic digestion: Process by which organisms break down sludge, creating the byproducts of methane gas, carbon dioxide, solid organic material and water.

Biosolids: Nutrient rich, organic material produced from the anaerobic digestion process at Point Loma WWTP and MBC. Once digested and dewatered, the material, called Biosolids, can be beneficially recycled.

Chemically enhanced primary treatment: During wastewater treatment at the Point Loma Wastewater Treatment Plan, ferric chloride and organic polymers are added to the sedimentation tanks to help waste particles bond together in large enough masses to settle out.

Co-generation: Co-production of electrical and thermal energy, also called combined heat and power.

Disinfection: Final step in the tertiary wastewater treatment process, when chlorine or sodium hypochlorite is added to the treatment of wastewater to kill disease-causing organisms. Ultraviolet light is another means of disinfection.

Effluent: "Cleaned" wastewater which flows out of a treatment plant.

Influent: Untreated wastewater when it flows into a treatment plant.

Raw sewage: Untreated wastewater.

Secondary treatment: Second state of wastewater treatment that uses biological process in which bacteria consume organic matter, then settles out as sludge.

Sewage: The used water and added waste of a community which is carried away by drains and sewers.

Sludge: The solid waste material which settles out in the wastewater treatment process.

Tertiary treatment: The use of filtration to remove microscopic particles from wastewater that has already been treated to a Secondary Level. Anthracite coal is the filter medium used by the Public Utilities Department Wastewater Branch.

Appendix H: Definition of Audit Recommendation Priorities

DEFINITIONS OF PRIORITY 1, 2, AND 3 AUDIT RECOMMENDATIONS

The Office of the City Auditor maintains a classification scheme applicable to audit recommendations and the appropriate corrective actions as follows:

Priority Class ³²	Description ³³	Implementation Action ³⁴
1	Fraud or serious violations are being committed, significant fiscal or equivalent non-fiscal losses are occurring.	Immediate
2	A potential for incurring significant or equivalent fiscal and/or non-fiscal losses exist.	Six months
3	Operation or administrative process will be improved.	Six months to one year

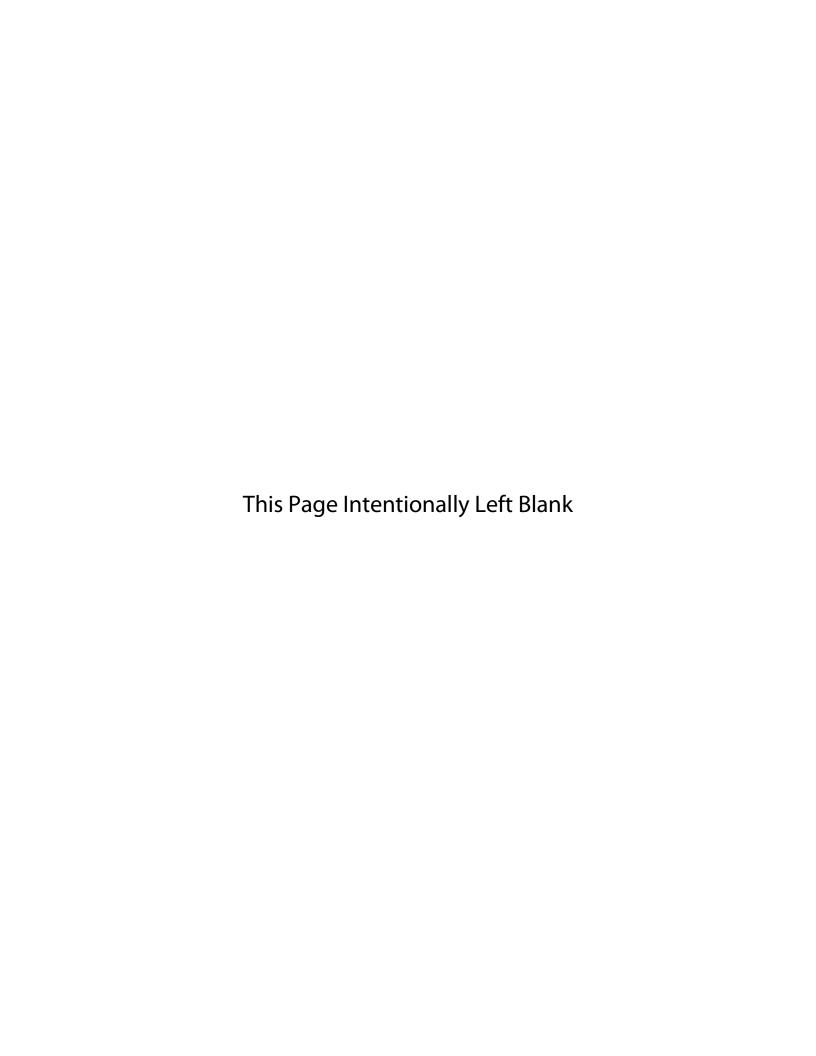
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³² The City Auditor is responsible for assigning audit recommendation priority class numbers. A recommendation which clearly fits the description for more than one priority class shall be assigned the higher number.

³³ For an audit recommendation to be considered related to a significant fiscal loss, it will usually be necessary for an actual loss of \$50,000 or more to be involved or for a potential loss (including unrealized revenue increases) of \$100,000 to be involved. Equivalent non-fiscal losses would include, but not be limited to, omission or commission of acts by or on behalf of the City which would be likely to expose the City to adverse criticism in the eyes of its residents.

³⁴ The implementation time frame indicated for each priority class is intended as a guideline for establishing implementation target dates. While prioritizing recommendations is the responsibility of the City Auditor, determining implementation dates is the responsibility of the City Administration.





THE CITY OF SAN DIEGO

MEMORANDUM

DATE:

November 13, 2012

TO:

Eduardo Luna, City Auditor

FROM:

Ed Plank, Interim Director of Purchasing & Contracting

Chief Mainar, Chief, San Diego Fire-Rescue Department

Roger Bailey, Director, Public Utilities Department

SUBJECT: Performance Audit of the Public Utilities Department's Chemical Purchases

The Purchasing & Contracting Department, Public Utilities Department and San Diego Fire-Rescue Department have reviewed the City Auditor's recommendations in the audit report on the Public Utilities Department's Chemical Purchases. In general we agree with the recommendations contained in the report and in fact have already implemented new practices and policies which address them.

Finding 1:

Recommendation #1: The Purchasing & Contracting Department will further evaluate the identified purchasing strategies, some of which are already in use, to determine if they can achieve further sayings for chemical purchases. Purchasing is working with the City Attorney's office on amendments to the Municipal Code which will enable the use of the reverse auction as a purchasing strategy. Further evaluation of the purchasing strategies and the Municipal Code amendments to allow reverse auctions should be completed by July 1, 2013.

Recommendation #2: Purchasing & Contracting and the Public Utilities Department partially agree with the recommendation that the departments "develop policies and procedures that establish a systematic tracking system of information on chemical prices and availability over time and a system to periodically share this information". The departments will review their current practice of periodically tracking and sharing information on chemical prices and trends and establish a more systematic structure to this process. However the departments do not feel it is necessary to establish formal policies and procedures for researching and sharing information on this commodity. A more systematic process for tracking and sharing information will be developed and implemented by July 1, 2013.

Recommendation #3: The Purchasing & Contracting Department agrees with this recommendation and has worked with the City Attorney's Office to establish a Memorandum of P&C Response to Performance Audit of the Procurement Program Page 2

Agreement (MOA) as the basis for procurement of materials, such as chemicals, through the Request for Bids process. This MOA has been in use since June 2012 and incorporates all required signatures and necessary legal language.

Finding 2:

Recommendation #4: Management agrees with this recommendation. The Fire Prevention Bureau implemented Policy # C-11-15 on April 8, 2011 to provide guidance for prioritizing CEDMAT inspections based on risk. Compliance with this policy will ensure that occupancies or processes posing the greatest risk to life, property and the environment will be inspected annually while occupancies or processes posing lesser degrees of risk may be inspected less frequently due to limited staffing.

AGENDA ITEM 11 Attachment

MetroTAC 2012/13 Work Plan February 2013 (Revised Per Metro TAC)

MetroTAC Items	Description	Subcommittee Member(s)
IRWMP	4:12: Metro TAC received a presentation from Cathy Pieroni (City of San Diego) on the Integrated Regional Water Management Program (IRWMP). Group is still relatively informal but plans to become more structured during its upcoming 2 year plan update. There is a governance & finance work group that starts in the 3 rd quarter of 2012 and at that point the JPA role will be examined. Padre Dam and Chula Vista are regular participants. 9/19: Cathy Pieroni gave an update. Recommendation by IRWM to the RAC to include a seat for the Metro JPA. Bob Kennedy will attend the October 3, 2012 meeting representing the JPA. 11/12: At their November 2012 meeting the Metro Commission unanimously appointed Bob Kennedy of Otay Water District as primary and Metro TAC Chairman Greg Humora as alternate to the IRWMPRAC. 2/13: On February 6, 2013 Bob Kennedy attended the IRWMP meeting. Metro JPA has been added as a permanent member of the Water Quality subcommittee of the RAC. The City of San Diego presented an overview of the Recycled Water Study. Next meeting scheduled for April 3, 2013	Bob Kennedy Greg Humora
Fiscal Items	The Finance committee will continue to monitor and report on the financial issues affecting the Metro System and the charges to the PAs. The debt finance and reserve coverage issues have been resolved. Refunds totaling \$12.3 million were sent to most of the PA's.10/26/11: 2010 will be the first year where the PAs will be credited with interest on the debt service reserve and operational fund balances. Interest will be applied as an income credit to Exhibit E when that audit is complete.	Greg Humora Karen Jassoy Karyn Keese
Recycled Water Revenue Issue	Per our Regional wastewater Agreement revenues from SBWTP are to be shared with PA's. 4/11: City has agreed to pay out revenue to Wastewater Section and PA's credit will be on the Exhibit E adjustments at year end Open issues: Capacity reservation lease payments and North City Optimized System Debt service status. 12/11: Letter sent to San Diego regarding outstanding recycled water revenue issues. 2/13: Karyn Keese continues to meet with City staff to determine the basis of the water departments administrative charges.	Scott Huth Scott Tulloch Karyn Keese
Water Reduction - Impacts on Sewer Rates	The MetroTAC wants to evaluate the possible impact to sewer rates and options as water use goes down and consequently the sewer flows go down, reducing sewer revenues. Sewer strengths are also increasing because of less water to dilute the waste. We are currently monitoring the effects of this. 2/2011:wastewater revenues are declining due to conservation and flow reductions and agencies are re-prioritizing projects to be able to cover annual operations costs	Eric Minicilli Bob Kennedy 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 collection events within the region. The MetroTAC, working in association with the Southern California Alliance of Publicly-owned Treatment Works (SCAP), will continue to monitor proposed legislation and develop educational tools to be used to further reduce the amount of drugs disposed of into the sanitary sewer system. 8/2010: County Sheriff and Chula Vista have set up locations for people to drop off unwanted medications and drugs.4/11: Local law enforcement has taken a proactive role and is sponsoring drug take back events. 3/11: TAC to prepare a position for the board to adopt; look for a regional solution; watch requirements to test/control drugs in wastewater. 10/26/11: A prescription drug take back day is scheduled for 10/29/11. Go to www.dea.gov to find your nearest location.4/12: East County to host a prescription drug take back 4/28/12.	Greg Humora

Date Printed: February 27, 2013

MetroTAC Items	Description	Subcommittee Member(s)
Flushable Items that do not Degrade	Several PAs have problems with flushable products, such as personal wipes, that do not degrade and cause blockages. MetroTAC is investigating solutions by other agencies, and a public affairs campaign to raise awareness of the problems caused by flushable products. We are also working with SCAP in their efforts to help formulate state legislation to require manufacturers of products to meet certain criteria prior to labeling them as "flushable." Follow AB2256 and offer support.	Eric Minicilli
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. MetroTAC is exploring if a regional facility offers cost savings for the PAs. The PAs are also sharing information amongst each other for use in our individual programs. 3/11: get update on local progress and status of grease rendering plant near Coronado bridge	Eric Minicilli
Padre Dam Mass Balance Correction	11/11: Padre Dam has been overcharged for their sewage strengths since 1998. Staff from City of San Diego presented a draft spreadsheet entitled Master Summary Reconciliations Padre Dam Mass Balance Corrections Calculation. Rita Bell and Karyn Keese were elected to review the documentation and report back to Metro TAC. 2/12: Audit complete. Item added as Standing to Metro TAC agenda.4/12: This issue is scheduled as a standing item and discussed at each Metro TAC meeting until it is resolved. Currently Metro TAC is focusing on the statue of limitations. 2/13: The PAs have received a joint letter from Padre Dam/City of San Diego. The PA's attorneys group continues to meet on this issue.	Rita Bell Karyn Keese
Waiver and Recycled Water Study Implementation	11/12: Metro TAC requested a timeline from City staff including milestones for the waiver process. The waiver is due no later than 7/30/15. However, the application needs to be submitted six months prior to the July date (2/1/15). Preparation of the waiver will begin in the early part of FYE 2014. 2/13: City staff has met to start coordination of the waiver process. Staff in attendance included Roger Bailey, Marsi Steirer, Guann Hwang, Steve Meyers, and Allan Langworthy.	Al Lau Scott Tulloch Karyn Keese
Recycled Water Rate Study	San Diego is working on a rate study for pricing recycled water from the South Bay plant and the North City plant. Metro TAC, in addition to individual PAs, has been engaged in this process and has provided comments on drafts San Diego has produced. We are currently waiting for San Diego to promulgate a new draft which addresses the changes we have requested. 10/26/11: draft study still not issued	Karyn Keese Rita Bell
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. Technically any CIP projects under \$30 million may no longer need to be reviewed by the Metro TAC or JPA prior to City Council approval. Chairman Humora requested San Diego prepare a summary of the recent changes and the decision points for consideration of the TAC at the September meeting. 10/4: Metro Commission requests further review by TAC to recommend an appropriate level for CIP's to be brought forth to the Commission. 11/12: MetroTAC recommended leaving the thresholds as they are today and therefore everything will go through TAC and then to the JPA for formal action. The policy will be placed on the JPA website. The Metro Commission approved the policy at their November 2012 meeting. San Diego's CIP will become a standing item on the Metro TAC agenda.	Metro TAC

MetroTAC Items	Description	Subcommittee Member(s)
Salt Creek Diversion	9/2010: OWD, Chula Vista and San Diego met to discuss options and who will pay for project; Chula Vista and OWD are reviewing options. 2/2011: OWD and PBS&J reviewed calculations with PUD staff; San Diego to provide backup data for TAC to review. This option is also covered in the Recycle Water Study.10/26/11: Back-up information has still not been received from staff. 8/12: San Diego to conduct business case evaluation and add to Capital Improvement Program as recommend by Metro Commission to San Diego City Council on July 17, 2012 in support of the Recycled Water Study.	Roberto Yano Bob Kennedy Karyn Keese Rita Bell
Recycled Water Study Cost Allocation	A small working group was formed to discuss options to allocate PLWTP offset project costs among the water and wastewater rate payers; Concepts will be discussed at TAC and JPA Board in near future.7/12: Subcommittee to meet with PUD staff & consultants to review TM 8 and economic model.8/12: Subcommittee has meet with City staff and consultants. Economic model has been received. City will not pursue cost allocations until Demonstration Project is complete due to staffing constraints.	Roberto Yano Al Lau Karyn Keese Rita Bell
Board Members' It	ems	
Rate Case Items	1/12: San Diego is in the process of hiring a consultant to update their rate case. As part of that process, Metro TAC and the Finance Committee will be monitoring the City's proposals as they move forward. 6/12: San Diego hired Black & Veatch as their rate consultant. 2/13: Preliminary results were reported at the IROC Meeting of 2/19/13. Karyn Keese will be working with the IROC Finance Committee to review details.	Karyn Keese
Exhibit E	Metro TAC and the Finance Committee are active and will monitor this process. Individual items related to Schedule E will come directly to the Board as they develop. 2/13: 2010 and 2011 audits are ongoing.	Karen Jassoy Karyn Keese
Future bonding	Metro TAC and the Finance Committee are active and will monitor this process. Individual items related to bonding efforts will come directly to the Board as they develop. 10/26/11: San Diego is issuing an RFP for a cost of service study to support a future bond issue potentially in mid-2013. Kristin Crane to sit on the selection panel. 2/1 3: San Diego's preliminary rate case does not show the issuance of additional debt until FY 2018.	Karen Jassoy Karyn Keese Kristen Crane
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
Role of Metro JPA regarding Recycled Water	As plans for water reuse unfold and projects are identified, Metro JPA's role must be defined with respect to water reuse and impacts to the various regional sewer treatment and conveyance facilities 2/12: Scott Huth removed as member due to new position. JPA/Metro TAC needs to appoint a new representative.	Karyn Keese
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. 2/12: This Item does not have a champion. Should we remove?	
SDG&E Rate Case	8/19: Karyn to check with Paula regarding latest SDG&E issues.11/12: Sophie Akins from BBK will present updated information to Metro TAC.	Paula de Sousa
Metro JPA Strategic Plan	6/12: Chairman Ewin to establish a subcommittee to monitor the progress of strategic plan initiatives.	Who should take over?

Completed Items	Description	Subcommittee Member(s)
Debt Reserve and Operating Reserve Discussion	In March 2010, the JPA approved recommendations developed by Metro JPA Finance Committee, MetroTAC, and the City of San Diego regarding how the PA's will fund the operating reserve and debt financing. MetroTAC has prepared a policy document to memorialize this agreement. Project complete: 4/10	Scott Huth Karyn Keese Doug Wilson
State WDRs & WDR Communications Plan	The Waste Discharge Requirements (WDRs), a statewide requirement that became effective on May 2, 2006, requires all owners of a sewer collection system to prepare a Sewer System Management Plan (SSMP). Agencies' plans have been created. We will continue to work to meet state requirements, taking the opportunity to work together to create efficiencies in producing public outreach literature and implementing public programs. Project complete: 5/10. 2/12: State has proposed new WDR regulations. Metro TAC will not reopen but Dennis Davies will stay on top of the issue.	Dennis Davies
Ocean Maps from Scripps	Schedule a presentation on the Sea Level Rise research by either Dr. Emily Young, San Diego Foundation, or Karen Goodrich, Tijuana River National Estuarine Research Reserve Project complete: 5/10	Board Member Item
Secondary Waiver	The City of San Diego received approval from the Coastal Commission and now the Waiver is being processed by the EPA. The new 5 year waiver to operate the Point Loma Wastewater Treatment Plant at advanced primary went into effect August 1, 2010. Project complete 7/10	Scott Huth
Lateral Issues	Sewer laterals are owned by the property owners they serve, yet laterals often allow infiltration and roots to the main lines causing maintenance issues. As this is a common problem among PAs, the MetroTAC will gather statistics from national studies and develop solutions. 4/11: There has been no change to the issue. We will continue to track this item through SCAP and report back when the issue is active again. Efforts closed 3/11	Tom Howard Joe Smith
Advanced Water Purification Demonstration Project	San Diego engaged CDM to design/build/operate the project for the water repurification pilot program. 2/8/11: Equipment arrived 3/2011; tours will be held when operational (June/July 2011 timeframe). 2/12: Tours are available. San Diego whitepaper on IPR distributed to Metro TAC members. Closed 4/18/12	Al Lau
SDG&E Rate Case	SDG&E has filed Phase 2 of its General Rate Case, which proposes a new "Network Use Charge" which would charge net-energy metered customers for feeding renewable energy into the grid as well as using energy from the grid. The proposal will have a significant impact on entities with existing solar facilities, in some cases, increases their electricity costs by over 400%. Ultimately, the Network Use Charge will mean that renewable energy projects will no longer be as cost effective. SDG&E's proposal will damage the growth of renewable energy in San Diego County. A coalition of public agencies has formed to protest this rate proposal.2/12: PUC has not accepted SDG&E's filing. Metro TAC move to close this item. Will continue to monitor this.8/19: Karyn to check with Paula regarding latest SDG&E issues.	Paula de Sousa
Metro JPA Strategic Plan	2/2011: committee to meet 2/28/11 to plan for retreat to be held on 5/5/11 Retreat held and wrap up presented to the Commission at their June Meeting. JPA strategic planning committee to meet to update JPA Strategic Plan and prepare action items. 1/12: Draft strategic plan reviewed by Board and referred to Metro TAC for input. MetroTAC has created a subcommittee to work on this project. 2/12: Metro TAC has completed their final review. Forwarded to Commission. 4/12: Adopted at April 2012 Metro JPA Meeting. Project complete.	Augie Caires Ernie Ewin

Completed Items	Description	Subcommittee Member(s)
Recycled Water Study	As part of the secondary waiver process, San Diego agreed to perform a recycled water study within the Metro service area. That study is currently underway, and MetroTAC has representatives participating in the working groups. TM #8 Costs estimates are out and PAs provided comments on TM#8 and have asked for a technical briefing. 10/16/11: Final draft of report is due out in November 2011.1/12: Final draft of report is due in March 2012.3/12: Final draft available for comments until 3/19/12 4/12: PUD staff to give presentation to Metro JPA at their May meeting. 5/12 PUD staff presented the Recycled Water Study to the Metro JPA at their May meeting. Metro JPA approved the Study as a planning document. Study to move forward to SD City Council in July 2012 with letter of support from JPA. 7/12: City of San Diego approved the Recycled Water Study; Study submitted on time to Coastal Commission. Final report uploaded to JPA website.11/12: San Diego received a letter from the Coastal Commission. Metro Commission consensus was that based on the tone of the Coastal Commission letter the region may be seeing some time line changes relative to San Diego's projections on the implementation of IPR and that the MetroTAC needs to manage all aspects including the Coastal Commission and multiple issues such as desalination water, Coastal Commissions attitude at this point and pending IPR programs we have heard about.	Scott Huth Al Lau Scott Tulloch Karyn Keese