Meeting of the Metro Commission and Metro Wastewater JPA

AGENDA

Thursday, June 4, 2009
12:00 p.m.

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

"The mission of the Metro Commission is to create an equitable partnership with the San Diego City Council on wastewater issues in the San Diego region that ensures fair rates for participating agencies, concern for the environment, and regionally balanced decisions through data analysis, collaboration among all stakeholders, and open dialogue."

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.	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.*
	3.	PRESENTATION BY VICE-CHAIRMAN EWIN OF PROCLAMATION TO CHAIRMAN ROBAK FOR HIS SERVICE TO THE METRO COMMISSION/METROPOLITAN WASTEWATER JPA
X	4.	**ACTION** - APPROVE MINUTES OF May 7, 2009 Regular Meeting and May 7, 2009 Special Meeting
X	5.	RECLAIMED WATER PRICING STUDY (Karyn Keese)
X	6.	**ACTION** – APPROVAL OF FISCAL YEAR 2009/2010 BUDGET

Documentation Included		
X	7.	**ACTION** – PBS&J WORK PLAN/AUTHORIZE AMENDMENT TO PBS&J AGREEMENT TO REFLECT 2009-1010 WORK PLAN (Karyn Keese)
	8.	**ACTION** – AUTHORIZE AMENDMENT TO TREASURER SERVICES AGREEMENT WITH PADRE DAM MUNICIPAL WATER DISTRICT
	9.	METRO TAC UPDATE
	10.	IROC UPDATE
	11.	FINANCE AD HOC COMMITTEE A. REVIEW OF ACTIVITIES
X		B. GASB 49/ACCOUNTING AND FINANCIAL REPORTING FOR POLLUTION REMEDIATION OBLIGATIONS
	12.	PROPOSED AGENDA ITEMS FOR THE NEXT METRO COMMISSION/ METRO WASTEWATER JPA MEETING (Consideration for cancellation of JULY 2, 2009 and/or August 6, 2009 Meetings)
	13.	METRO COMMISSIONERS' AND JPA BOARD MEMBERS' COMMENTS
	14.	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) 476-2557 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 M. Barrett at (619) 236-6585, at least forty-eight hours in advance of the meetings.

Agenda Item 4

Meeting of the Metro Commission and Metro Wastewater JPA

Chula Vista Nature Center Auditorium
1000 Gunpowder Point Drive
Chula Vista, California

May 7, 2009
DRAFT Minutes

Chairman Mark Robak called the meeting to order at 12:20 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	X	(arrived at 12:24 p.m.)
City of Coronado	Al Ovrom		Scott Huth
City of Del Mar	Donald Mosier	X	
City of El Cajon	Bill Wells	X	
City of Imperial Beach	Patricia McCoy	X	
City of La Mesa	Ernie Ewin	X	
Lemon Grove Sanitation District	Jerry Jones		Patrick Lund
City of National City	VACANT		(No Representative)
City of Poway	Betty Rexford	X	
City of San Diego	Jerry Sanders		Jim Barrett
County of San Diego	Dianne Jacob		Daniel Brogadir
Otay Water District	Mark Robak	X	
Padre Dam MWD	Augie Caires	X	
Metro TAC Chair	Scott Huth	X	
IROC	Don Billings	X	

Others present: Metro JPA General Counsel Paula de Sousa, Metro JPA Secretary David Sherer, Rob Turner – City of El Cajon, Greg Humora and Erin Bullers – City of La Mesa, Manny Magana and Rod Posada – Otay Water District, Neal Brown and Augie Scalzitti – Padre Dam Municipal Water District, Mohamad Fakrriddine – San Diego County, Karyn Keese and Dean Gipson – PBS&J, Frank Biehl – Lee & Ro Inc.

2. PUBLIC COMMENT

There was no public comment.

3. ACTION: APPROVE MINUTES OF MARCH 5, 2009 SPECIAL MEETING AND MARCH 5, 2009 REGULAR MEETING

Upon motion by Vice Chairman Ewin, seconded by Commissioner Rexford, the April 2, 2009 Regular Meeting Minutes were approved unanimously.

4. ACTION: REVIEW AND APPROVAL OF THE NORTH CITY WATER RECLAMATION PLANT ELECTRODIALYSIS REVERSAL (EDR) #6

Mr. Pagliaro provided an overview of the proposed project.

Metro TAC Chairman Huth stated that Metro TAC had reviewed the presentation and recommended approval by the JPA.

Upon motion by Commissioner Caires, seconded by Commissioner Rexford, the project was approved unanimously.

5. METRO TAC UPDATE

Metro TAC Chairman Huth stated they had reviewed the presentation on the North City Water Reclamation Plant Electrodialysis Reversal program and recommended approval. Additionally, they had received a report from Karyn Keese stating that the City had received an AA Bond rating from Fitch. San Diego had reported that at the beginning of the month, they were issuing $450 million worth of bonds and $50 million for debt refinancing, and later in the month would offer another bond issue to refinance existing debt. They also received a handout from Darlene of the Fiscal Year 2009/2010 budget estimate information, which reflected an increase from $63 million to $65 million, and noted the increase was due to chemical costs as well as Administrative and general overhead costs due to assumptions made regarding actual and projected expenditures as well as debt service increase because the City included the SRF payments that had never been included in the past. TAC members also received an update on the Waiver process which will be brought forward on the June agenda.

6. IROC UPDATE

Commissioner Caires reported that contracts for the IPR Demonstration project and Reservoir Study had been approved. The expert advisory panel had set their first meeting for May 11, 2009. They had also heard a presentation from Alan Langworthy on the Southern California Coastal Water Research Project and the funding of this project. Their first task will be what to provide upon completion.

7. FINANCE AD HOC COMMITTEE

Commissioner/Finance Ad Hoc Committee Chairman Ewin provided the Commissioners with a handout from Karyn Keese of PBS&J regarding the San Diego Bond pricings.

8. PROPOSED AGENDA ITEMS FOR THE NEXT METRO COMMISSION/METRO WASTEWATER JPA MEETING (June 4, 2009 at MOC II)

There were none discussed.

9. METRO COMMISSIONERS' and JPA BOARD MEMBERS' COMMENTS

There were none.

10. ADJOURNMENT OF METRO COMMISSION AND METRO WASTEWATER JPA

At 12:40 p.m., there being no further business, Chairman Robak declared the meeting adjourned.

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Recording Secretary

Special Meeting of the Metro Commission and Metro Wastewater JPA

Chula Vista Nature Center Auditorium
1000 Gunpowder Point Drive
Chula Vista, California

May 7, 2009
DRAFT Minutes

Chairman Mark Robak called the meeting to order at 12:41 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	X	(arrived at 12:24 p.m.)
City of Coronado	Al Ovrom		Scott Huth
City of Del Mar	Donald Mosier	X	
City of El Cajon	Bill Wells	X	
City of Imperial Beach	Patricia McCoy	X	
City of La Mesa	Ernie Ewin	X	
Lemon Grove Sanitation District	Jerry Jones		Patrick Lund
City of National City	VACANT		(No Representative)
City of Poway	Betty Rexford	X	
City of San Diego	Jerry Sanders		Jim Barrett
County of San Diego	Dianne Jacob		Daniel Brogadir
Otay Water District	Mark Robak	X	
Padre Dam MWD	Augie Caires	X	
Metro TAC Chair	Scott Huth	X	
IROC	Don Billings	X	

Others present: Metro JPA General Counsel Paula de Sousa, Metro JPA Secretary David Sherer, Rob Turner – City of El Cajon, Greg Humora and Erin Bullers – City of La Mesa, Manny Magana and Rod Posada – Otay Water District, Neal Brown and Augie Scalzitti – Padre Dam Municipal Water District, Mohamad Fakrriddine – San Diego County, Karyn Keese and Dean Gipson – PBS&J, Frank Biehl – Lee & Ro Inc., Facilitator - John Gavares – City of San Diego.

2. PUBLIC COMMENT

There was no public comment.

3. METRO COMMISSION/METRO WASTEWATER JPA STRATEGIC PLANNING WORKSHKOP

Facilitator Gavares presented on the following:

Summary of Pre-Workshop Survey Responses

Commissioners Caires, Vice Chairman Ewin and MetroTAC Chairman Huth presented on the following:

- Summary of Past Year (Augie Caires)
- Financial Update (Ernie Ewin)
- TAC Work plan (Scott Huth)

Facilitator Gavares lead the process for development/alignment regarding themes/priorities

The presentations, workshop summary and summary of evaluation and input forms are attached to these minutes and made a part thereof.

4. ADJOURNMENT OF METRO COMMISSION AND METRO WASTEWATER JPA

At 3:07 p.m., there being no further business, Chairman Robak declared the meeting adjourned.

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Recording Secretary

The Metro Commission/Wastewater JPA May 7, 2009 Strategic Planning Workshop: Summary of Pre-workshop Surveys

A Pre-workshop survey was administered to MC/JPA members and TAC members. Nineteen (19) surveys were returned. The following is a summary of themes from the survey responses.

I. Desired Outcomes for the Strategic Planning Workshop: The following are the desired outcomes for the Strategic Planning Workshop:

1. Develop FY10 Priorities and a 3-5 Strategic Plan: (16)

a. Prioritization for FY10: Agreement of the PAs as to what issues we will be focusing on. (10)

- ✓ Develop a clear and concise work plan for the next year. Establish/reaffirm JPA priorities, and develop a work-plan, for FY10, and beyond. Reach consensus on what the priorities mean. Clarify of the collective goals of our group that are sustainable and achievable. (6)
- ✓ Agree on a unified manner in handling the priorities, so that the JPA speaks with one voice.
- ✓ Develop consensus on major regional issues. Support each other, rely on good science, and protect the environment.
- ✓ Ratify TAC Workplan
- ✓ Develop an Action Plan to achieve our ranked priorities.

b. Revisit/Refine/Agree-upon 3-5 Year Roadmap/Strategic Plan: (6)

- ✓ Review Vision, Mission, and Strategic Goals of the JPA, with emphasis on desired identity of the organization.
- ✓ Agree on general goals for the next 5 years
- ✓ Attain clarity and alignment of where we want to be in 3-5 years.
- ✓ Develop a framework for a 5-year Strategic Plan.
- ✓ Develop Action Plan to Revisit/refine 3-5 year Strategic Plan

2. New Member Orientation (8)

a. Ensure that new members have a better understanding of the issues.

b. Provide a brief history of the regional governance concept, for fresh input on.

c. As a new member to the TAC group, I hope to learn more about the group in general, what resources are available to me for participating in the group, and how I may be able to help others.

d. Become more educated on all of the intricacies of this group/issue.

e. Get to know fellow commissioners and their goals. Reaching consensus on as many issues as possible and understanding our differences.

3. Miscellaneous (5)

a. Acknowledge positive accomplishments, and focus on key issues for next year(s):

b.

- ✓ The City has been responsive to the PAs involvement and suggestions in most areas over the past years.
- ✓ Review of major capital projects, financing alternatives, and audit involvement has proven successful over the past several years.

c. We need a workshop that is to the point, makes a fair assessment of where we have been and where we are going, and does not give ourselves an automatic passing grade on our respective goals.

d. Financial Audit Process - Review and highlight Metro financial audit process.

e. Regional Governance - Discuss current climate regarding Regional Governance; how do current and projected future economic and political conditions affect the benefits/liabilities of moving toward regional governance of the Metro system.

f. Become aware of the legal and political options for pushing back against the restrictive environmental regulations, which I believe threaten the safety and economic stability of the State.

g. Increase participation of all. Every one of the elected needs an active role.

II. MC/JPA Mission: **"**The Mission of the Metro Commission is to create an equitable partnership with the San Diego Mayor and City Council on wastewater issues in the San Diego region that ensures fair rates for participating agencies, concern for the environment, and regionally balanced decisions through data analysis, collaboration among all stakeholders, and open dialogue."

Note: Key elements of this mission include: 1) Equitable partnership on regional wastewater issues, 2) Fair rates, 3) Environmental stewardship, 4) Regionally-balanced decisions, 5) Data-based decision-making, and 6) Collaboration and open dialogue among stakeholders.

Responses to the Question: "Are we achieving our Mission?"
Yes: 14 No: 1 Partially: 2

Response to the Question: "Are there areas we can improve upon?"
Yes: 11 No: 0

Comments as to how we are achieving our mission:

1. **Mission Statement:** The Mission Statement has been in place for a number of years, and effectively frames the JPA's "reason for being."

2. Successes:

- ✓ The Metro Commission and related staff have been very effective in achieving influence over the decisions made by the City. The City has been very receptive to input on major areas including the annual audit of Exhibit E, involvement in CIP projects, & the Secondary Waiver.
- ✓ We've achieved a lot, and IROC is receptive, due to work by liaisons.
- ✓ Our working relationship with Metro staff has consistently strengthened over the several years that I have been involved with the Commission, particularly on the financial side.
- ✓ Improvements have been made in some areas like Public Relations and the consensus on the "waiver."
- ✓ The annual audit of Schedule E continually reflects significant adjustments to the prior estimated charges to the PAs. Much of these adjustments results from misallocation of routine expenditures throughout the year by accounts payable personnel in miscoding invoices. Proper training and continuity of staff could help avoid miscoding in the first place. The City staff has been receptive to this suggestion in the past but budgetary constraints and employee turnover have hampered progress in this area.

3. Leadership

- ✓ We have an opportunity to have a more significant impact on water supply for our region by working with the City of San Diego and the PA's on a regional approach to the production of reclaimed water. The City of Chula Vista and at least one other of the PA's are considering additional reclaimed water production facilities, and while we are talking to each other, it seems like we could plan more regionally.
- ✓ We have an opportunity and responsibility to take a leadership role in the region in support of optimizing recycled water and Indirect Potable Reuse (IPR)/Reservoir Augmentation (RA) as a sustainable water supply.

4. Partnership:

- ✓ We need to continue our dialogue with the City of San Diego, and the City must see us as partners and not adversaries.

Comments as to how we can be even better:

1. Fair Rates:

- ✓ City staff has become increasingly more difficult to work with. Most of the challenges seem to center on their not following the contract we have with them. It also appears that MWWD staff is becoming pressed by their superiors to shift cost to PAs and to remove revenues.

2. Leadership on Regional WW Issues and Environmental Stewardship:

- ✓ Come up with a way to work together on "toilet to tap" so that as a County, we can devise a potable reuse strategy.
- ✓ Outfall Waters: Implement the highest level of available technology to be in sync with Federal and State-mandated requirements re: the quality of outfall waters to Ocean at the end of cleaning process; more specifically at the Point Loma sanitary sewer treatment plant, needs to be third level (tertiary treatment) & is now only at level two, or tier 2.
- ✓ I do not see evidence on the elected side that the commission has significantly increased influence regarding policy decisions.
- ✓ Given several survey responses, the group might consider adding "leadership on regional wastewater issues and environmental stewardship" in place of "concern for the environment."
- ✓ The JPA can serve as an expert voice on wastewater issues in the region. This is essential in a variety of areas, including the area of water recycling. We can get ahead of this issue and market our "treated water" as a valuable commodity.

3. Partnership:

- ✓ Although we have a pretty transparent relationship with the City of SD, we seem to have to be very direct in order to get the answers we are looking for. I don't think this is by design by the City, and, we can do a better job of seeing the other's perspective and anticipating better.
- ✓ Issues such as agreements with the potential plaintiffs in the waiver, is an example of not involving the Pas in decisions that affect PAs both financially and as a policy decision, without our participatory involvement.
- ✓ I think we are doing well with our efforts to establish an equitable partnership; however, San Diego is not.
- ✓ The City of San Diego can improve upon engaging PAs in upfront involvement in the City's setting of rates and more discussion and clarification of their treatment cost.
- ✓ In recycling area, we can make the public more aware that costs will rise as we use more energy to recycle and reuse. The alternatives are too grim to contemplate. With climate change we must change some of the ways we do business. We need to focus on the long-term strategies as well as pressing short term issues.

4. Miscellaneous:

- ✓ Members need to be more involved in keeping their agencies up-to-date and current with our efforts.
- ✓ We need to have a few extra committees which afford all agency members to be involved beyond monthly meetings.

III. MC/JPA Strategic Goals: The MC/JPA has four Strategic Goals, that include the following:

1. Reduce costs and ensure fair rates.
2. Create alignment among the Metro Commission/JPA members.
3. Enhance positive/effective relations with the City of San Diego.
4. Create/sustain a positive image in the region.

Responses to the Question: "Are we achieving our Strategic Goals?"
Yes: 12 No: 2 Mostly: 3

Response to the Question: "Are there areas we can improve upon?"
Yes: 5 No: 1 Mostly: 0

Comments as to how we are achieving our Strategic Goals:

1. Strategic Goal #1: Reduce costs and ensure fair rates.

- ✓ We've done a good job on achieving this Strategic Goal.
- ✓ The City is working hard to reduce costs and to be efficient.
- ✓ We have arguably avoided costs by not going to secondary treatment with the waiver approval.
- ✓ Commission has very successfully provided financial oversight of Metro budget process.

2. Strategic Goal #2: Create alignment among the MC/JPA members.

- ✓ We've done a good job on achieving this Strategic Goal.
- ✓ I think we have a good alignment and dialogue between the JPA member agencies.
- ✓ Interaction at both TAC and Commission levels has positively fostered regional alignment amongst the PAs and has provided a critical forum for sharing of administrative, operational, and policy solutions to common agency issues.

3. Strategic Goal #3: Enhance positive/effective relations with the City of SD

- ✓ I think we have good relations with the City of SD, even though some (Otay and Poway) are having issues of significant financial consequence at this time.

5. Strategic Goal #4: Create/sustain a positive image in the region.

- ✓ We've done a good job on achieving this Strategic Goal.

- ✓ I believe we have a positive image in the region, even though we are relatively unknown.
- ✓ The Metro Commission is probably not an entity that has any image in the region; customers are not aware of this group. The efforts by the City for water re-purification and secondary treatment are presenting a good image for the City.
- ✓ The City's well-publicized pension and budget problems have not provided a positive image to the region but recent changes by Mayor Sanders and the new City Attorney have helped. The Metro Commission has publically supported of the City's stance on secondary treatment and indirect potable reuse (IPR) programs to reflect a united front.

Comments as to how we can be even better:

1. Strategic Goal #1: Reduce costs and ensure fair rates.

- ✓ I would like to see more Bid to Goal updates, and even see a real bid of Metro WW Department functions to the private sector.
- ✓ I think reducing costs for non-renewables like energy not to mention water itself, is a lofty goal. Perhaps with investment in alternative energy costs for infrastructure we can achieve Goal #1.

2. Strategic Goal #2: Create alignment among the MC/JPA members.

- ✓ We need to work amongst the JPA members to accomplish more in a cooperative fashion – in areas such as public education, FOG, and the "No Drugs down the Drain" programs.
- ✓ If they don't already, small agencies should receive a "*positive discrimination adjustment*" in the carrying of the infrastructure cost, because they are small polluters, as compared to big entities. This should at least be reflected in the fixed cost of the sewer treatment process. The Economy-of-scale principle is not as workable or applicable to small cities or small water/wastewater agencies.

3. Strategic Goal #3: Enhance positive/effective relations with City of SD

- ✓ We've got progress to make on achieving this Strategic Goal.
- ✓ City staff has become increasingly more difficult to work with. Most of the challenges seem to center on their not following the contract we have with them. It also appears that MWWD staff is becoming pressed by their superiors to shift cost to PAs and to remove revenues.
- ✓ There are issues and concerns regarding the City's treatment cost and budgeting/audit process. We really need to focus on developing better partnership and building mutual trust.

4. Strategic Goal #4: Create/sustain a positive image in the region.

- ✓ We need to be more proactive in order to be better known.
- ✓ I do not believe that the Commission has any brand recognition within the region – to achieve a regional presence would require significant public relations effort and increased level of participation of the JPA on regional and statewide platforms.
- ✓ As a new member, the only place I see need for improvement is in the area of *public relations and education.* From my vantage point as a City Council Member, I sense that there is some disinformation about water rates and the causes of rate increases. There is palpable anger over increased meter connection fees and rates that appear to punish those who use more water. I don't believe that most people know what the genesis of these costs is.
- ✓ The public is not even aware of us. However, I'm not sure if a solution is easily attainable. We should continue to be involved with the RWQCB meetings, the City of San Diego meetings, etc. We can speak at City of SD Council meeting on issues that are of particular interest to the Cities and the JPA.

5. Miscellaneous:

- ✓ Add a 5th goal re: "Environmental stewardship," or "Leadership on regional wastewater issues and environmental stewardship."
- ✓ This can also be added to the Mission Statement, which would read as follows:

  "The Mission of the Metro Commission is to create an equitable partnership with the San Diego Mayor and City Council on wastewater issues in the San Diego region that ensures fair rates for participating agencies, *leaders on regional wastewater issues and environmental stewardship,* and regionally balanced decisions through data analysis, collaboration among all stakeholders, and open dialogue."

IV. 2009-2010 Priorities: The following are the top MC/JPA priorities for FY10. These priorities are listed below based on the frequency that they were cited as a "Top 7 Priority." The mean score for each item is cited next to each item as well.

1. Promote regional recycled water production as a sustainable water resource. (16) (2.8)

2. Resolve financial issues with San Diego related to PAs committing reserve funds and debt service coverage to Metro. (14) (3.79)

3. Establish a policy of support for regional Indirect Potable Reuse (IPR), or Reservoir Augmentation, as a sustainable water resource. (13) (3.46)

4. Monitor/participate in City recycled water optimization study. (13) (4.0)

5. Assist City in training their accounting personnel & establishing a billing system to PAs to minimize over-charging and year-end credits. (12) (2.3)

6. Participate in City of San Diego rate cases in 2009 and 2010, and in upcoming bond issues.(11) (3.9)

7. Resolve financial issues for outstanding revenue from reclaimed water sales from South Bay (and North City (1 comment)). (10) (3.8)

8. Value engineer projects of high cost/high significance. (7) (3.7)

9. Create legislative policy guidance for supporting our goals. (7) (4.86)

10. Promote/sponsor a regional FOG (Fats, Oils, Grease) program, and grease recycling. (6) (6.0)

11. Promote/sponsor regional "No Drugs Down the Drain" Program (5) (6.6)

12. Re-establish a communications program to community leaders and the media. (5) (5.0)

13. Finalize a leasing capacity policy for PAs. (4) (4.0)

14. Promote/sponsor a regional program for elimination of flushable cleaning items that don't degrade. (3) (5.7)

15. Other: Develop a comprehensive strategy to combat the devastation of the water infrastructure via radical environmentalism. This means to develop a responsible environmental policy without reckless abandonment of common sense.

V. 2010-2014 Priorities (5-Year): The following are the top MC/JPA priorities for FY10-14. These priorities are listed below based on the frequency that they were cited as a "Top 5 Priority." The mean score for each item is cited next to each item as well.

1. Promote regional recycled water production as a sustainable water resource. (16) (2.13)

2. Participate in ongoing waiver issues and monitor secondary treatment alternatives. (14) (1.94)

3. Develop a multi-year Strategic Plan document. (14) (2.71)

4. Establish legislative Policy Guidelines. (11) (3.09)

5. Promote/Sponsor a regional FOG (Fats, Oils, Grease) program, and (Drugs down the Drain). (9) (4.0)

6. Expand participation in outside organizations such as: SCAP, CASA, Water Reuse Association, etc. (6) (4.0)

7. Expand participation in regional efforts to reduce pharmaceuticals in source water. (6) (4.3)

8. Actively participate in the City's ocean monitoring program. (3) (3.0)

9. Other: (10) (3.5)

   a. Financial (5)

      - Monitor San Diego's billing system to the PAs to minimize over-charging and year-end credits.
      - Continue to work with the City of San Diego to minimize costs.
      - Participate in City of San Diego rate cases and in upcoming bond issues.
      - Continue participating in annual audit of Schedule E.
      - Continue with review and approval of major Metro Wastewater CIP projects.

   b. Pipelines and Regional Water Supply: (3)

      - Evaluate expanding the Metro system (pipeline) to go to each jurisdiction, and do away with Muni-transportation agreements.
      - Expand purple pipe system.

- Provide continuous, visible support for regional Indirect Potable Reuse (IPR).

c. If a leasing capacity policy for PAs is not finalized next year, continue the efforts to do so in future years.

d. We need more committee members involved in more tasks, etc. We have 4-5 members that are dong most of the work on committees, and we need to spread the workload better.

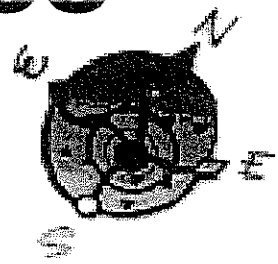
e. Develop and Environmental Strategy to combat the devastation of the water infrastructure via radical environmentalism. This means to develop a responsible environmental policy without reckless abandonment of common sense.

MC/JPA

Strategic Planning Workshop

May 7, 2009

Facilitator: John Gavares



Desired Outcomes

1. Develop FY10 Priorities and a 3-5 year Strategic Plan (16) - Develop alignment of the immediate next steps, and the top short and long term strategies for pursuing MC/JPA Strategic Goals.

2. New Member Orientation (8) - Ensure that new members have a better understanding of the issues. Get to know fellow commissioners and their goals.

3. Miscellaneous (5)

2

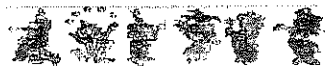
Agenda

1.	Welcome/Overview of Goals/Agenda	12:30
2.	Summary of Pre-Workshop Surveys: Presentation and Dialogue	12:40
3.	Break	1:10
4.	Current Reality Update	1:20
	✓ Summary of Past Year: Augie Caires	1:20
	✓ Financial Update: Ernest Ewin	1:35
	✓ TAC Workplan: Scott Huth	1:50
5.	Top Priority Alignment/Action Planning	2:00
6.	Wrap-up	2:50
7.	Adjourn	3:00

3

Workshop Guidelines

1. Be here now. Active participation & optimism is a good idea!
2. Practice excellent active-listening skills, and dialogue vs. debate. Treat others with respect.
3. Return from the break on time.
4. Avoid side conversations, and strive for equal "air time."
5. Throw kisses at anyone who violates any of these ground rules!



4

Summary of Survey Responses:

Presentation and Dialogue

5

Survey Response Overview

1. Number of Responses
2. Top Desired Outcomes
3. MC/JPA Mission: Assessment of progress
4. Strategic Goals: Assessment of Progress
5. FY10 Top Priorities
6. Five Year (2010-2014) Priorities

6

Desired Outcomes of Workshop

1. Develop Top FY10 Priorities and 3-5 year Strategic Plan
   - ➢ Develop FY10 Priorities
   - ➢ Revisit/Refine Agree-upon 3-5 Strategic Plan
2. New Member Orientation
3. Miscellaneous

7

Mission: Progress Assessment

1. Review of the MC/JPA Mission Statement
2. Successes
3. Even-Better-If (EBI)

8

Mission Statement

"*The Mission* of the Metro Commission is to create an equitable partnership with the San Diego Mayor and City Council on wastewater issues in the San Diego region that ensures fair rates for participating agencies, concern for the environment, and regionally balanced decisions through data analysis, collaboration among all stakeholders, and open dialogue."

9

Mission: Successes

1. Key Successes
   - ✓ Exhibit E Annual Audit
   - ✓ CIP Project Involvement
   - ✓ 2ndary Waiver Input
   - ✓ IROC is receptive
   - ✓ Has strengthened through the Years
   - ✓ Receptivity of City Staff to input, such as training of AP staff
2. Opportunities for Greater Leadership
3. Opportunities for Greater Partnering

10

Areas for Increased Mission-Focus

1. Fair Rates: The issue of recycled water revenue going to the Water fund needs to be resolved.
2. We have an opportunity for even greater Leadership on Regional WW Issues and Environmental Stewardship (e.g. IPR, Water Outfall, Recycled Water).
3. Partnership: Things could be smoother, easier, and a bit less difficult. Another opportunity!
4. Miscellaneous: Membership Roles can be clarified, and Involvement increased!

11

Four (4) Strategic Goals

GOAL

1. Reduce costs and ensure fair rates.
2. Create alignment among the Metro Commission/JPA members.
3. Enhance positive/effective relations with the City of San Diego.
4. Create/sustain a positive image in the region.

12

#1:Reduce Costs/Ensure Fair Rates

Pluses

1. The City is working hard to reduce costs.
2. We have avoided costs by not going to secondary treatment with the waiver approval.
3. MC successfully provides financial oversight.

Even Better if … (EBI's)

1. More Bid to Goal updates, and even a real private sector bid of WW functions.
2. Reducing costs for non-renewables like energy & water itself, through investment in alternative energy costs for infrastructure.

13

Goal #2: MC/JPA Alignment

Pluses

1. Interaction at both TAC and Commission levels has positively fostered regional PA alignment.
2. The MC/JPA provides a critical forum for sharing of resources/developing solutions to common agency issues.

Even Better if … (EBI's)

1. Areas for increased cooperation and coordination exist.
2. Small agencies should pay less, because they are small polluters, as compared to big entities.

14

#3:Relations b/t PAs & City of SD

Pluses

1. In general, we have good relations with the City of SD, even though there are some issues.

Even Better if … (EBI's)

1. The issue of recycled water revenue going to the Water fund needs to be resolved.
2. There are issues and concerns regarding the City's treatment cost and budgeting/audit process.
3. We have the capacity to have a stronger partnership.

15

#4: Create a Positive Image

Pluses

1. We have a positive image in the region, even though we are relatively unknown.
2. Citizens do not know about the MC/JPA.
3. The City's efforts for water re-purification and 2ndary treatment create a good image.

Even Better if … (EBI's)

1. A regional presence would require a significant public relations effort.
2. There is anger over increased rates and meter connection fees and we may be able to help.
3. We should continue involvement at RWQCB and City of San Diego meetings, etc.

16

Discussion Notes

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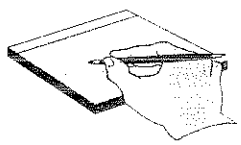

17

2009-2010 Priorities

1. Promote regional recycled water production as a sustainable water resource. (16) (2.8) (G2?)
2. Resolve financial issues w/ San Diego related to PAs committing reserve funds & debt service coverage to Metro. (14) (3.79) (G#1)
3. Establish a policy of support for regional IPR/RA. (13) (3.46) (G#2?)

4. Monitor/participate in City recycled water optimization study. (13) (4.0) (G#3)
5. Assist City in training accounting personnel & est. a billing system to Pas. (12) (2.3) (G#1)

18

2009-2010 Priorities

6. Participate in SD's rate cases in 09 and 10, and in upcoming bond issues.(11) (3.9) (G#1&3)
7. Resolve financial issues for revenue from reclaimed water sales. (10) (3.8) (G#1)
8. Value high cost eng. projects (7) (3.7) (G#1)
9. Create legislative policy guidance for supporting our goals. (7) (4.86) (G#2)
10. Promote regional FOG (Fats, Oils, Grease) program, and grease recycling. (6) (6.0) (G#2/3/4)

19

2009-2010 Priorities

11. Promote regional "No Drugs Down the Drain" Program (5) (6.6) (G#2/3/4)
12. Re-establish a communications program to community leaders/media. (5) (5.0) (G#4)
13. Finalize PA leasing cap. policy. (4) (4.0) (G#1)
14. Promote reg. program for elimination of non-degrad. flushable cleaning items (3) (5.7) (G#4)
15. Develop strategy to combat devastation of the water infrastructure via radical environmentalism. (G#?)

20

Discussion Notes

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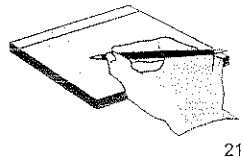


21

2010-2014 Priorities

1. Promote reg. recycled water production as a sustainable water resource. (16) (2.13) (G#2-4)
2. Participate in ongoing waiver issues and monitor 2ndary treatment alts. (14) (1.94) (G#1)
3. Dev. a multi-year Strat. Plan doc. (14) (2.71)
4. Est. Leg. Policy Guidelines. (11) (3.09) (G#2)
5. Promote a regional FOG (Fats, Oils, Grease) prog. & (Drugs down the Drain). (9) (4.0) (G2?)
6. Expand participation in orgs. (e.g. SCAP, CASA, WaterReuse Assoc., etc. (6) (4.0) (G#4)

22

2010-2014 Priorities

7. Expand participation in efforts to reduce pharmaceuticals in water. (6) (4.3) (G#2, 4)
8. Actively participate in the City's ocean monitoring program. (3) (3.0) (G#2)
9. Other: (10) (3.5)
   - ✓ Financial (5) G#1)
   - ✓ Pipelines & Regional Water Supply: (3) (G#3)
   - ✓ PA leasing cap. Policy, if not done. (4) (4.0)
   - ✓ Develop strategy to combat devastation of the water infrastructure via radical environmentalism. (G#?)

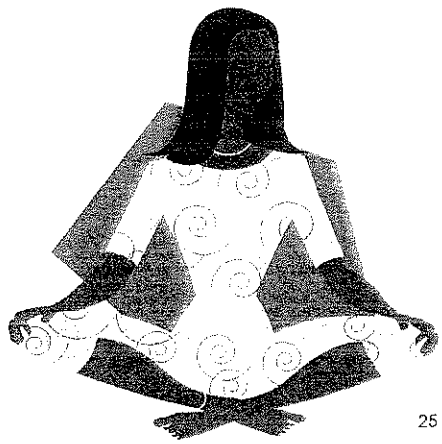
23

Table Discussion Questions

1. What pleases you about the responses?
2. Any questions/concerns?
3. Agreements and/or Action Items?
4. Priorities for 2:00 p.m. Action Planning Activity

24

10-Minute Stretch Break



25

Current Reality Update

1. Summary of Past Year – Augie Caires
2. Financial Update – Ernest Ewin
3. TAC Workplan – Scott Huth

26

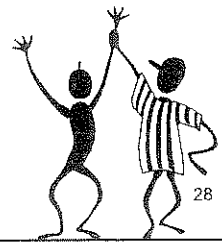
2009-2010 Priorities:

Action Planning Activity

27

Action Planning Activity

1. Priority Teams Established
2. Consider selecting a facilitator, time keeper, scribe and report-out person.
3. Complete the Worksheet as a Team.
4. Report out in _____ Minutes.



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First Report - Notes

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2nd Report - Notes

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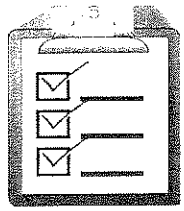

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3rd Report - Notes

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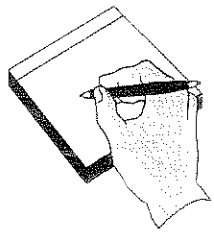

31

4th Report - Notes

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32

5th Report - Notes

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Reflection Questions

Please review and reflect on the discussions from today's session.

- ✓ What have we learned?
- ✓ Questions, Comments, Suggestions?
- ✓ Agreements and Action Planning?

34

Action Planning

Item #:	Action :	Date due:	Person held accountable:

35

Metro Commission/ Joint Powers Authority

Summarizing
2008-09
Augie Caires
Commissioner

2008-09

- Smooth
- Quiet
- Routine
- Successful

Our Work Model…

- Projects and Programs: TAC
- Engineering: PBS&J
- Financial Audits: Karyn Keese & Doug Wilson
- Approvals: MC/JPA Committees & Commission

ALL…

At a cost under

$250,000 per year

Internal Organization Changes…

- New Administrative Assistant
- New Chair & Vice Chair
- Five New Commissioners

Big Issues…

- Waiver
- Return to Credit Markets
- Audits
- IPR Pilot
- MWWD Strategic Business Plan
- IROC Annual Report

Waiver: of Secondary Treatment

- 5 Year Reprieve
- Delays up to $1.5B cost
- Political Fallout

Audits:

- Getting Back on Track
- 05-06: $10.9m Credit
- 06-07 and 07-08: In process
- Budget: PA's share = $64m

Return to Credit Markets:

- New money: $145m
- Retire private debt: $224m
- Refunding: $500m
- PA's Benefits:
  - Timely CIP Funding
  - SRF Program Augmentation
- Credit Rating: AA-

IPR Pilot:

- $11.8m San Diego Ratepayers
- 1MGD Pilot Capacity
- DPH Monitoring
- Meaningful Economic Benefit
- Pioneering Effort

MWWD Strategic Business Plan:

- Excellent guiding document
- TAC review and comment
- PA’s are key stakeholders
- Plan has been implemented

IROC Annual Report:

- Focus:
  - Efficiency
  - Effectiveness
  - Performance
  - Vulnerability
  - Rate Integrity
  - Future Perspective

IROC Annual Report (cont):

Key Recommendations:

1. Move to full IPR/RA
2. Prepare alternatives if future waivers are denied
3. Allocate resources to reduce wastewater spills
4. CIP optimization

IROC Annual Report (cont):

5. Assess System Vulnerabilities
6. Be on cutting edge of wastewater treatment technologies
7. Find beneficial uses for biosolids
8. Continued emphasis on green technology

Smaller Issues…

- Statewide Sewer System Management Plan (SSMP)
- Recycled Water Optimization Study
- Bid to Goal Program & Audit
- Transportation Agreements

Smaller Issues (cont)…

- Operating Reserves & Debt Financing
- Capacity Leasing Concepts
- Capacity Valuation Study
- Recycled Water Pricing

Smaller Issues (cont)…

- Inflow/Infiltration Study
- Consolidation of Water & Wastewater Departments
- Southern California Coastal Water Research Project
- Analysis of Flushable Items

Kudos…

TAC

MWWD Staff

IROC

Introduction to AdHoc Finance Committee

You can’t always get what you want…but sometimes you get what you need!

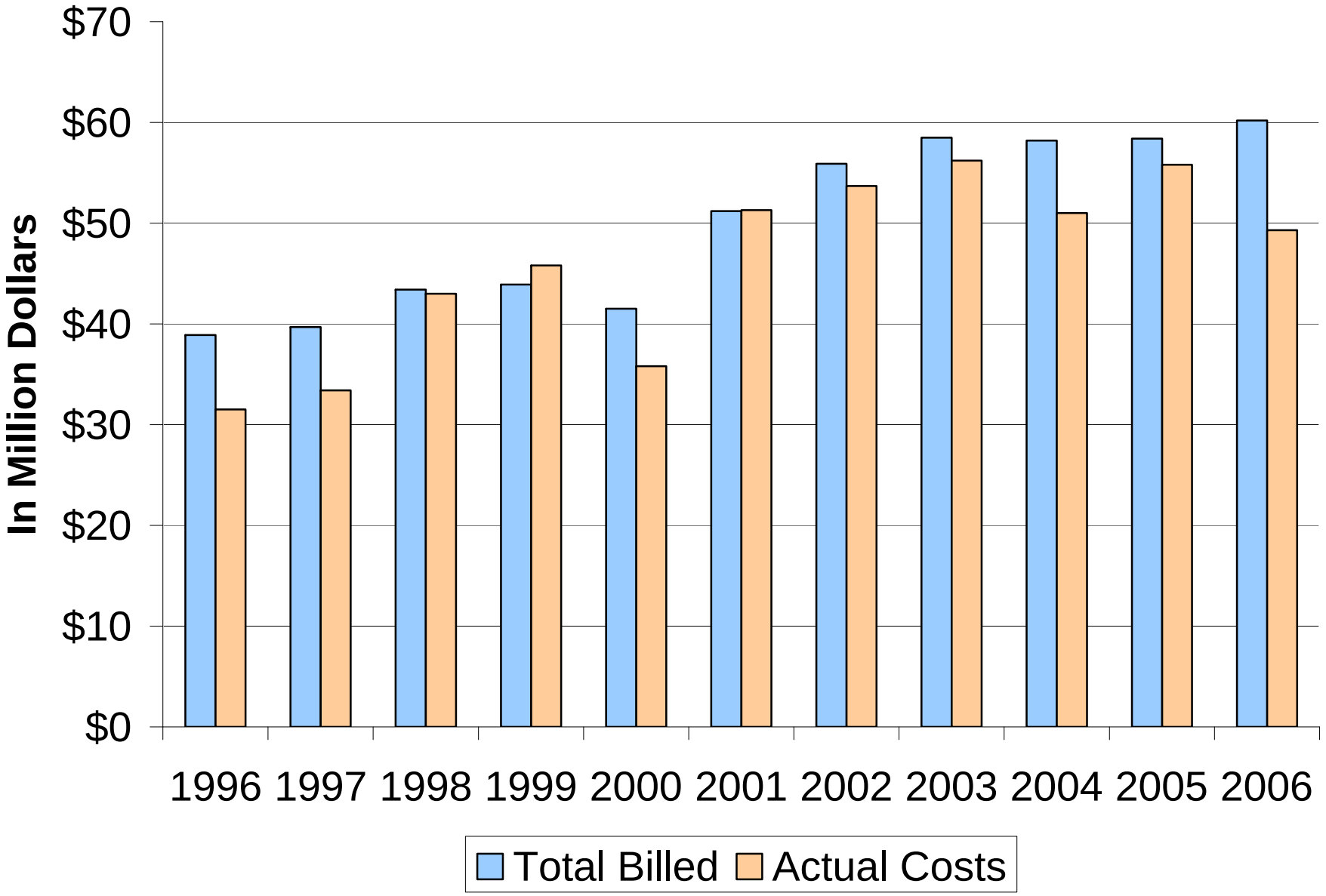
Purpose of AdHoc Finance Committee

- Formed to monitor Metropolitan Wastewater Division (MWWD) finances
  - Since 2003 MWWD has not been able to enter the bond market to finance capital projects
    - City of San Diego not current on their audits from 2003 to present until March 2009
- Exhibit E audits are still outstanding
  - 2007 and 2008

History of Exhibit E Audits

- Exhibit E audits reconcile annual Metro projected cost to actual costs
- AdHoc oversees PBS&J audit of Exhibit E
  - Annual savings to PAs more than covers annual Metro JPA costs
- Average returned to PAs is $3.9 million per year since 1996
- 2006 audit results returns $10 million to PAs

Total Billed Versus Actual Cost



2009 AdHoc Finance Projects

- Engaged in MWWD 2009 Series A and B Bond issues
  - Series A priced on May 5, 2009
- Closeout of 2006 Exhibit E Audit (complete)
  - Return to PAs of $10 million
- Engaged in 2007 and 2008 Exhibit E Audits (ongoing)
- Engaged in reclaimed water revenue discussions (ongoing)
- Engaged in MWWD request for operation reserves and debt coverage issues (ongoing)

MetroTAC
2009/2010 Work Plan – Top 10 Items

Title	Description
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) by a certain date, based on population served. The SSMP covers the operations, maintenance, capacity, and management of the collection system. One specific component of the WDRs is to develop a communications plan for staff and the public. The MetroTAC wants to work together on these items to develop uniform SSMPs for the PAs.
"No Drugs Down the Drain"	The state has initiated a program to reduce pharmaceuticals entering the wastewater flows. The MetroTAC will monitor proposed legislation, coordinate regional disposal events, and develop educational tools for the public.
Fiscal Items	The AdHoc Finance committee will continue to monitor and report on the financial issues affecting the Metro System and the charges to the PAs. Current items include debt finance and reserve coverage issues, recycled water credits, annual audits, and quarterly billings.
PLWWTP Waiver	The City of San Diego is attempting to acquire a new 5 year waiver to operate PLWWTP at advanced primary. The MetroTAC will continue to monitor the process and provide support when appropriate. Also, MetroTAC wants to participate in the recycled water study that is a requirement of a settlement with environmental groups in exchange for their support of the waiver.
IPR Pilot Program(s)	The San Diego City Council directed the Mayor to pursue an Indirect Potable Reuse (IPR) pilot program to replenish potable water sources with reclaimed water. The MetroTAC wants to monitor and participate in this process to understand the project, offer input, and ensure that the PA's are fairly represented.
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 PA's, the MetroTAC will gather statistics from national studies and develop solutions.
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.
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.
Flushable Items that do not Degrade	Several PA's 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.
"Power Tariff"	Power companies are moving to a peak demand pricing scheme which negatively impacts PA's with pump stations and other high energy uses. MetroTAC wants to evaluate the new legislation and regulations, and to identify and implement cost savings efforts for the PAs.

A Summary of the 5/07/09 Strategic Planning Workshop will be sent out under separate cover

Agenda Item 5

City of San Diego Water Department
Recycled Water Pricing Study
Draft Report

-The information in this draft report is deemed reliable, but not final. This draft report is provided as a courtesy and has not been approved for public distribution-

1.0 EXECUTIVE SUMMARY

The City of San Diego (City) commissioned Raftelis Financial Consultants (RFC) to conduct the Recycled Water Pricing Study (Pricing Study). The purpose of the study was to review all financial aspects of the recycled water operations and capital program to:

- Calculate the true cost of producing and distributing recycled water
- Recommend a pricing structure that recovers all costs associated with producing and distributing recycled water
- Review alternative rate structures to encourage recycled water demand
- Determine appropriateness and amount of revenue and expenses that should be shared among potable water, wastewater and recycled water programs and the resultant impacts on customers
- Develop a user-friendly computer Pricing Model that could be used to model rates in future years and train City staff to use it

The Pricing Study included extensive review of the current and projected recycled water demands, operating and capital expenses, and policy issues related to allocation of costs among recycled water, water and wastewater enterprises.

The following sections document the background, cost of service review, analysis and findings and the recommendations which are the product of the study.

1.1. Background

This section describes the regulatory background, the state of the current recycled system and current rates for recycled water.

1.1.1. Regulatory

Since 1963, the City has treated its wastewater at the Point Loma Wastewater Treatment Plant (PLWTP). Wastewater is currently being treated to advanced primary standards. In 1972, the federal Clean Water Act (CWA) was adopted and it required wastewater treatment plants provide a minimum of secondary treatment. However, Section 301(h) of the CWA allowed facilities that discharge to certain marine waters to apply for a waiver from secondary treatment standards by 1982. The City originally applied for the waiver but withdrew it, and in 1987 the US Environmental Protection Agency (EPA) along environmental groups sued the City for not meeting the provisions of the CWA. The Ocean Pollution Reduction Act (OPRA) was passed in 1994 to allow the City to reapply for a Section 301(h) waiver. The City reapplied and received a waiver to treat wastewater to secondary standards as required by the Clean Water Act. One of the conditions of the waiver required the City to implement a water reclamation program that would create a system capacity to treat 45 million gallons per day (MGD) by 2010. The City has fulfilled the treatment capacity requirement with the completion of the 30 MGD North City Water Reclamation Plant (NCWRP) in 1997 and the 15 MGD South Bay Water Reclamation Plant (SBWRP) in 2002. A 1995 federal court order further required

the City to construct an optimized recycled water distribution system in conjunction with building the NCWRP. The distribution facilities that comprise the Optimized System were installed between 1995 and 1998 with Water Department funds to enable delivery of recycled water upon completion of the reclamation plant. The Optimized System, also known as the "backbone system", is composed of recycled water facilities built to store and distribute recycled water produced at the NCWRP to the area north of Highway 52, south of Mira Mesa Boulevard, west of Interstate 15, and an area east of Interstate 15 in the Miramar Ranch North community.

Since 2001, the Water Department has expanded the Optimized System by connecting additional recycled water customers to the backbone system. The total cost of the Optimized System is approximately $69.8 million and it consists of the following facilities:

- 66 miles of pipeline ranging from 4" – 18" in diameter
- 9 MG Reservoir
- 2 pump stations

The City also received approximately $69.5 million in construction grants from the United States Environmental Protection Agency (EPA) for the construction of the NCWRP. Conditions of that grant included the following goals:

- A minimum of 75 percent of the plants design capacity (at least 22.5 MGD) must be treated at NCWRP. Of these flows the City will beneficially reuse 10 percent upon certification
- The City will attempt to reuse 25 percent of the flows (5.6 MGD) into the plant by December 31, 2003
- The City will attempt to reuse 50 percent of the flows (11.25 MGD) into the plant by December 31, 2010

As long as the City is making attempts at maximizing beneficial reuse of recycled water, the EPA does not include penalties for failing to meet the 50 percent reuse goal. In FY 2008, an average of 6.25 MGD of recycled water was used from the NCWRP, including in-plant usage.

1.1.2. Current Recycled Water System

To increase use of recycled water, the City continues to expand the distribution system to connect other retail customers. Recycled water distribution facilities are currently in place or are planned to serve the northern service area extending from the coast to the City of Poway (Poway). Additionally, through the Recycled Water Retrofit Program, the City has invested approximately $14.9 million over 10 years to retrofit customers enabling them to use recycled water. When the program expired in 2001, recycled water commodity rates were reduced from 90 percent of the potable rate to $0.80 per HCF to encourage retail customers to convert to recycled water use. The City currently sells recycled water produced at NCWRP to the City of Poway, Olivenhain Municipal Water District and to 441retail customers. Additionally, the City started recycled water sales from SBWRP to the International Boundary Water Commission (IBWC) in 2006 and to

Otay Water District in 2007. In 2008 two new retail connections were made to serve U.S. Border Patrol, for construction use and irrigation as well as Caltrans for freeway landscaping. In the coming years Caltrans plans to expand their recycled water irrigation system along the interstates 5 and 905 corridors.

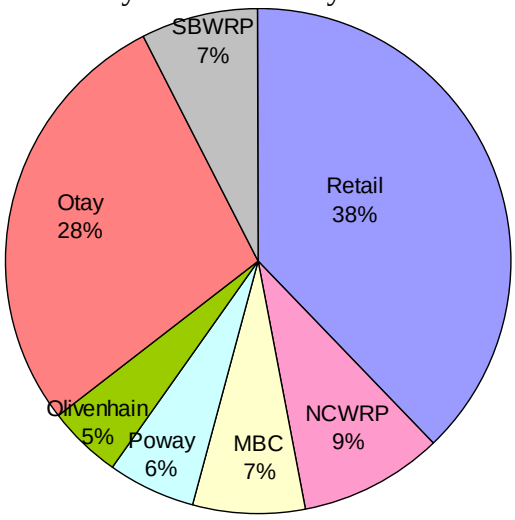
In addition to the volumetric rate, the City collects base fees based on the size of the meter serving each customer. At the current volumetric rate of $0.80 per HCF, the recycled system is operating in deficit. In FY 2008, total revenue requirements including operation and maintenance (O&M) expenses (excluding tertiary treatment costs), rate funded capital costs and debt service costs are approximately $8.8 million. If the past capital investments of the Water Department are amortized over 14 years and recovered from recycled water, the annual revenue requirements increase to $16.4 million. Rate revenues and credits from Metropolitan Water District of Southern California (MWD) and the San Diego County Water Authority (SDCWA) are approximately $5.8 million, resulting in a net deficit of $10.6 million. This level of deficit, subsidized by potable water users, would continue unless rates are adjusted.

1.2. Projections

To determine rates, it is necessary to review the user and usage characteristics, revenue requirements, and miscellaneous revenue offsets.

1.2.1. Customers

The entire recycled water system comprised of North City and South Bay service areas currently has about 447 customers with meters ranging in size from 1-inch to 10-inch. Most are retail customers; however, the City sells recycled water to a few agencies including Otay Water District, Olivenhain Municipal Water District, and the City of Poway. A significant quantity of recycled water is used at the NCWRP and SBWRP, and at the Metropolitan Biosolids Center (MBC). Although most of the customers are retail customers, the majority of the usage is from wholesale customers.

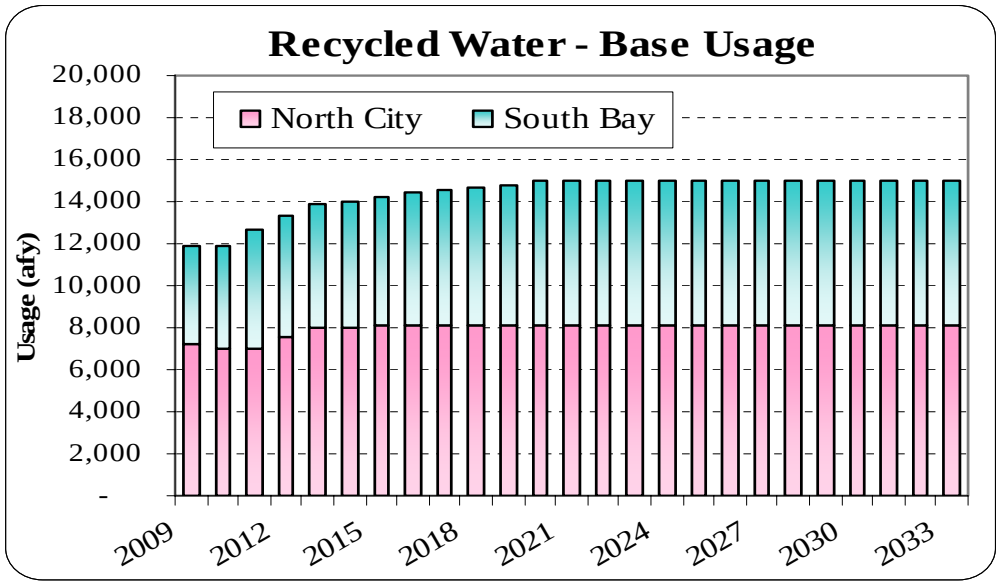


1.2.2. Usage

Recycled water commodity rates are very sensitive to usage and this emphasizes the importance of accurately estimating future sales. Future sales are dependent upon several factors including the expansion of the distribution system, seasonal and weather conditions as most of the recycled water is used for landscape irrigation. Based on current planning, recycled water sales are projected to grow at a stable rate for the next few years as the distribution system is expanded by the City and wholesale agencies, and level off in the long-term. The current projected base usage of recycled water from

NCWRP and SBWRP is shown in Figure ES-1 and includes recycled water usage within the reclamation plants.

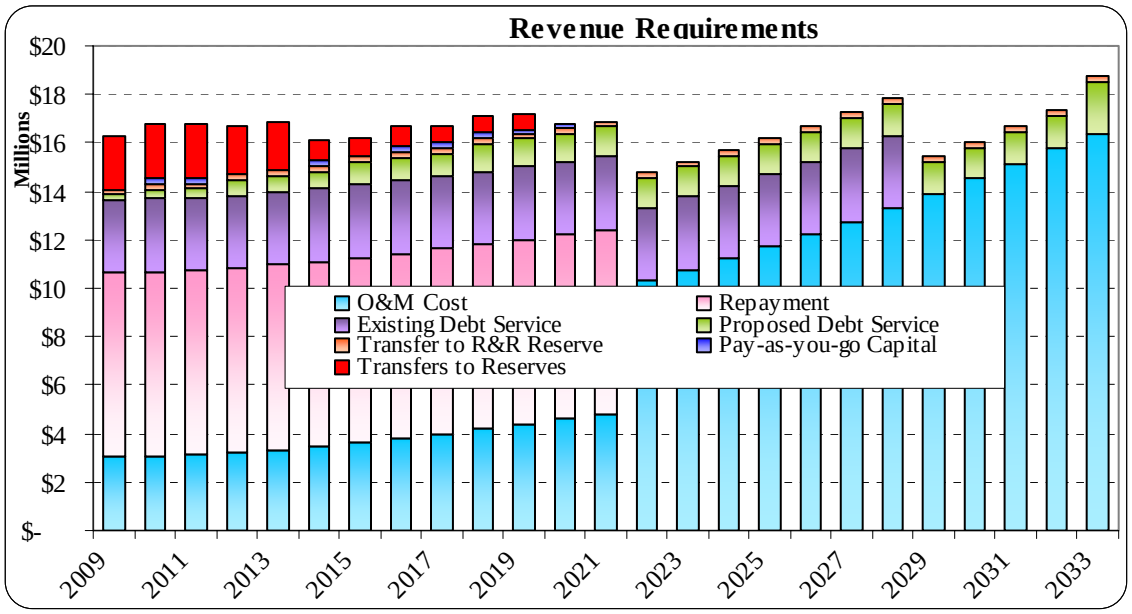
Figure ES-1



1.2.3. Gross Revenue Requirements

Revenue requirements include all expenses of the recycled water system. Gross revenue requirements include recovery of operating and maintenance (O&M), pay-as-you-go capital (PAYGO), replacement and refurbishment (R&R), operating reserve requirements, and debt service costs. As the City endeavors to meet its goal of beneficially reusing at least 50 percent of the wastewater flow at NCWRP, it will need to undertake significant capital expenses to extend the distribution system so that more users can be connected to the recycled water system. The capital expenses will be partially funded by PAYGO funds recovered through rates. The City's policy is to fund 80 percent of the capital costs through debt funding and the balance through PAYGO and other sources. Figure ES-2 shows the gross revenue requirements for the recycled water system.

Figure ES-2



Net revenue requirements are revenues to be derived from commodity rates for recycled water and are gross revenue requirements less offsets. The offsets are discussed below.

1.2.4. Revenue Offsets

Commodity rates are determined from net revenue requirements and take into account offsets from several sources including:

- Base charges collected on recycled water meters; base charges are the same as those for potable water;
- Incentives from MWD and SDCWA in the amount of $250 and $200 per acre feet (AF) of recycled water sales, respectively, for all sales at NCWRP. Retail sales from SBWRP only qualify for incentives from CWA ; and
- Fees of $25 per AF from Olivenhain Municipal Water District for sales in its service area because it is not a member of Metropolitan Joint Powers Authority.

1.2.5. Cost of Service Rates

The net revenue requirement (the difference between the gross revenue requirements and the revenue offsets) for each year is divided by the projected recycled water sales in that year to derive the unit commodity cost of recycled water as shown in Figure ES-3. The calculated cost is shown in Figure ES-4. Since the new recycled water supply is initially more expensive than mature potable water supply, it is necessary to set the rates based on other considerations. These are further discussed in the Observations and Recommendations sections below.

Figure ES-3

Calculation of Rates

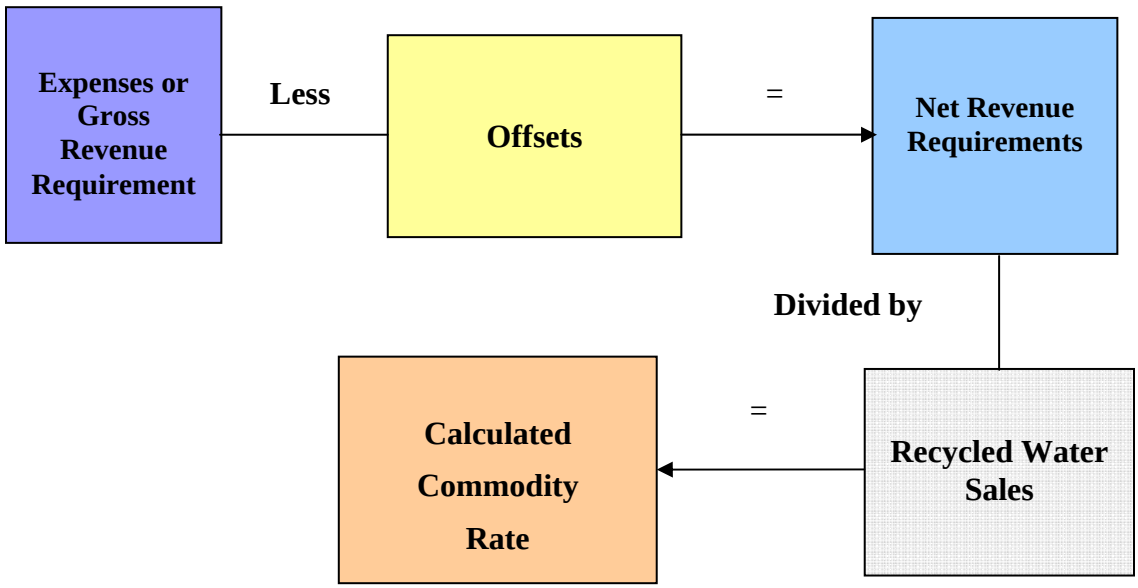
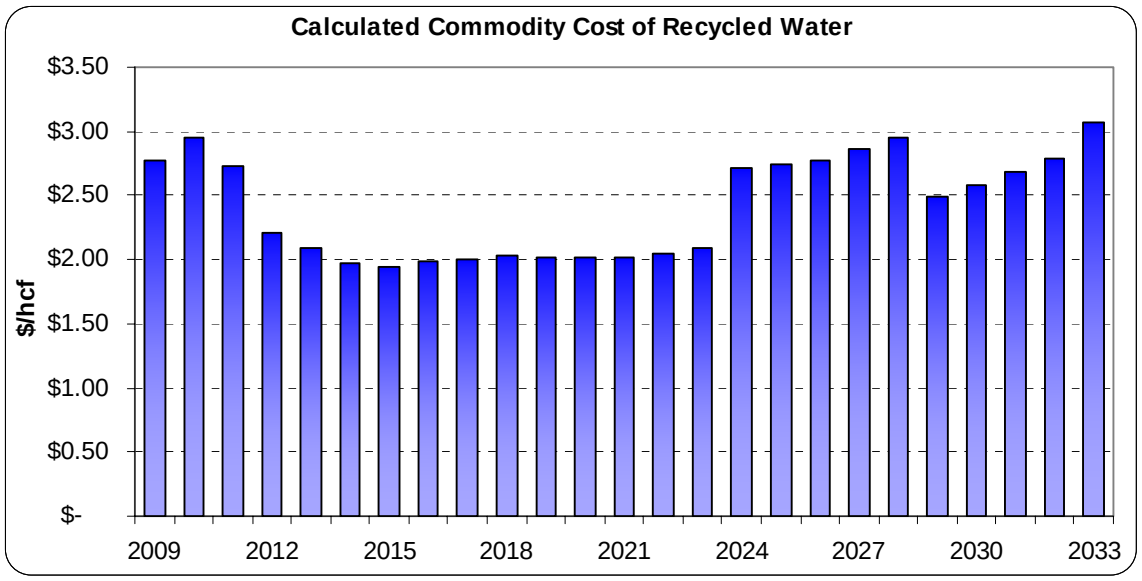


Figure ES-4



1.3. Observations

This section of the Executive Summary outlines some observations that will enhance the viability of the recycled water program.

1. The current rate for recycled water is $0.80 per HCF. The Water Department began selling recycled water in October 1997 at $1.34 per HCF and reduced the rate to its current level to encourage recycled water use.
2. Recycled water rates are very sensitive to the quantity of recycled water sold. Most of the costs of the recycled water system are fixed, including debt service and most of the O&M costs; spreading these costs over a larger usage base would result in lower rates.
3. To make recycled water available to more users, the City is planning capital investments in the distribution system. Capital costs will be funded on a PAYGO basis from rates, new debt, system development fees, and federal and state grants.
4. There are some cost savings at the PLWTP from producing recycled water at NCWRP. These savings result primarily from reducing power and chemical costs and are estimated to be about $46 per AF in 2006. The Metropolitan Wastewater Department (MWWD) receives the full benefit from the cost savings.
5. By substituting recycled water for potable water, the City is, in effect, creating capacity in its potable system that can become available for new users. The effect is two fold:
    a. Since the recycled water system is a **sunk cost**—a cost that has been incurred and cannot be reversed—for the most part, using it to its full potential provides the City with an alternate water supply that is relatively inexpensive. It frees up capacity in the potable system that becomes available to new users. Recycled water customers can benefit from lower rates (if rates are set based on market considerations) and also from a relatively reliable (more drought proof) supply when the system is used at maximum capacity.
    b. Since the potable water system looses customers, there is a reduction in operating revenue to the potable water system. The loss of revenue is small when compared to the potable water revenues. In the long-term, the recycled water capacity allows the City greater flexibility to add customers.
6. The City receives financial credit for recycled water sales from SDCWA, for both the NCWRP and SBWRP. Additionally, NCWRP receives a financial credit from MWD. MWD and SDCWA provide incentives of $250 and $200 per AF, respectively, to encourage agencies to develop alternate sources of water because it releases demand on the imported water. These incentive agreements will expire in FY 2023 for NCWRP and FY 2032 for SBWRP.
7. Tertiary treatment costs at NCWRP and SBWRP were included in MWWD's rate case approved by City Council in February 2007 and cover FY 2008 to 2011. In

the Pricing Model, it is assumed that MWWD will continue to bear those costs until all past investments to the potable water system is paid off.

8. The Pricing Model assumes that recycled water used at the treatment plants and at the MBC will not be billed as it is considered a raw material used to produce an end product at these facilities.
9. As demand increases, NCWRP will need to expand demineralization capacity to ensure that product water total dissolved solids (TDS) is under 1,000 mg/l. The plant's current Electro Dialysis Reversal demineralization capacity is approximately 12 MGD depending on water and wastewater sources. TDS reduction at the SBWRP, if necessary, will be achieved by blending.
10. Excluding the costs of the treatment plants, the City has invested about $69.8 million in the optimized system and about $14.9 million in retrofits so that customers could use recycled water. In addition, the City has invested about $52.8 million in expanding the recycled water system. Out of the total costs of about $137.5 million, $25.6 million was grant funded, $37 million was debt financed and the remaining cash financed. The recycled water rate alternatives provide a mechanism to recover all of these costs over time.

1.4. Recommendations

This section of the Executive Summary outlines recommendations to enhance the viability of the recycled water program.

1. We recommend that the City set system development fees for retail recycled water connections equal to the potable rate, currently $3,047 per equivalent dwelling unit (EDU). This is consistent with the 2007 water rate case recommendations. The revenues will accrue to the recycled water system and will be used to offset capital costs for the recycled system.
2. The Metropolitan Wastewater system is treated as a unitary system, and all wastewater users proportionately share in the costs of this system. Similarly, the recycled water system should be considered a unitary system and all the costs of the system should be proportionately shared by both retail and wholesale customers receiving recycled water from the NCWRP and SBWRP. This means that all users should be charged the same commodity rate for simplicity, provided that these users are within the wastewater service area. Rates outside of the wastewater service area, such as Olivenhain MWD, could include an incremental fee since these outside users do not share in the costs of the wastewater system. Also, users such as Poway, that did not pay a capacity charge, could be charged a higher rate.
3. To ensure that the recycled water is marketable, we recommend that the commodity rate for recycled water be tied to the potable irrigation rate due to the fact that recycled water is used mainly for irrigation purposes. Most agencies in California charge a recycled water rate between 75 to 90 percent of the potable water rate. The recycled water commodity rate is currently 26 percent of the January 2009 irrigation rate of $3.107. We recommend the recycled water rate

target set at 75 percent of the irrigation rate as this percentage provides a good balance among rates, reserves and cost of service. The target rate can be achieved by implementing increases over a period of three years to minimize impacts and continue encouraging customers to switch to recycled water use. It should be noted that the recommended rate is not the cost of service rate. The cost of service rate is much higher than the recommended rate in the early years or until 2012. In later years the recommended rate is higher than the cost of service rate so that revenues lost in the earlier years can be recovered. The rate model does not include any potential costs that the City may incur if the recycled water facilities are down and unable to provide recycled water. In that case the City may have to provide potable or raw water to its customers. The costs associated with serving potable water are not considered and the higher rate in later years may help offset any such costs. The recommended rate is designed to be a steadily increasing rate without the spikes to provide greater stability of charge to customers and of revenues to the recycled water system. As costs and sales can be projected with reasonable certainty for only a few years, the City should consider reviewing the rate policy after five years with available updated information.

4. The recycled water base fees or meter charges have not been revised for several years. Base fees include costs of customer service, billing, meter maintenance and a portion of the costs to provide capacity. These costs for potable and recycled water should be comparable; for simplicity, we recommend that the base fees for recycled water be set at the same level as the potable base or meter charges and continue to be revised when potable water rates are revised.

5. We recommend that the following rates be implemented in FY 2010. The meter charges are the same as the projected potable water meter charges in FY 2010. Projected rates for subsequent years are shown for planning purposes. The commodity rate is projected to increase to 75 percent of the irrigation rate by FY 2012.

Table ES -1

Recommended Recycled Water Rates

	Existing	Projected	Projected	Projected
	2009	**2010**	**2011**	**2012**
Monthly Base Fee				
Meter Size				
5/8"	$ 8.63	$ 17.22	$ 18.34	$ 19.07
3/4"	$ 8.63	$ 17.22	$ 18.34	$ 19.07
1"	$ 8.63	$ 25.15	$ 26.78	$ 27.85
1-1/2"	$ 43.27	$ 43.25	$ 46.06	$ 47.90
2"	$ 65.96	$ 65.89	$ 70.17	$ 72.98
3"	$ 246.93	$ 119.07	$ 126.81	$ 131.88
4"	$ 411.53	$ 194.89	$ 207.56	$ 215.86
6"	$ 925.93	$ 382.76	$ 407.63	$ 423.94
8"	$ 1,234.59	$ 609.09	$ 648.68	$ 674.63
10"	$ 1,646.12	$ 873.91	$ 930.71	$ 967.94
12"	$ 2,263.42	$ 1,627.61	$ 1,733.41	$ 1,802.75
16"	$ 3,703.75	$ 2,835.13	$ 3,019.42	$ 3,140.20
Commodity Rate (per HCF)	$ 0.80	$ 1.46	$ 2.03	$ 2.66
Commercial/Industrial	$ 2.606	$ 3.097	$ 3.196	
Irrigation	$ 2.784	$ 3.309	$ 3.415	

6. The City may consider alternate rate structures that encourage use during winter by establishing a lower winter rate. We recommend that such a rate be developed when the commodity rate reaches its target level.

7. Consistent with permit requirements, MWWD has borne the cost of constructing the capital facilities required to produce recycled water, including the demineralization facilities at NCWRP. We recommend that MWWD continue to be responsible for the R&R of the NCWRP and SBWRP facilities.

8. Currently the MWWD is bearing the full cost of O&M for producing recycled water. Consistent with conditions of the EPA grant used to fund the cost of NCWRP construction and the Participating Agencies (PA) Agreement, MWWD will be responsible for the costs of the tertiary system through the end of the current rate case, Fiscal Year 2012. The Pricing Model assumes that recycled water system will pay the tertiary treatment costs after all past investments are repaid to the potable water system in 2021.

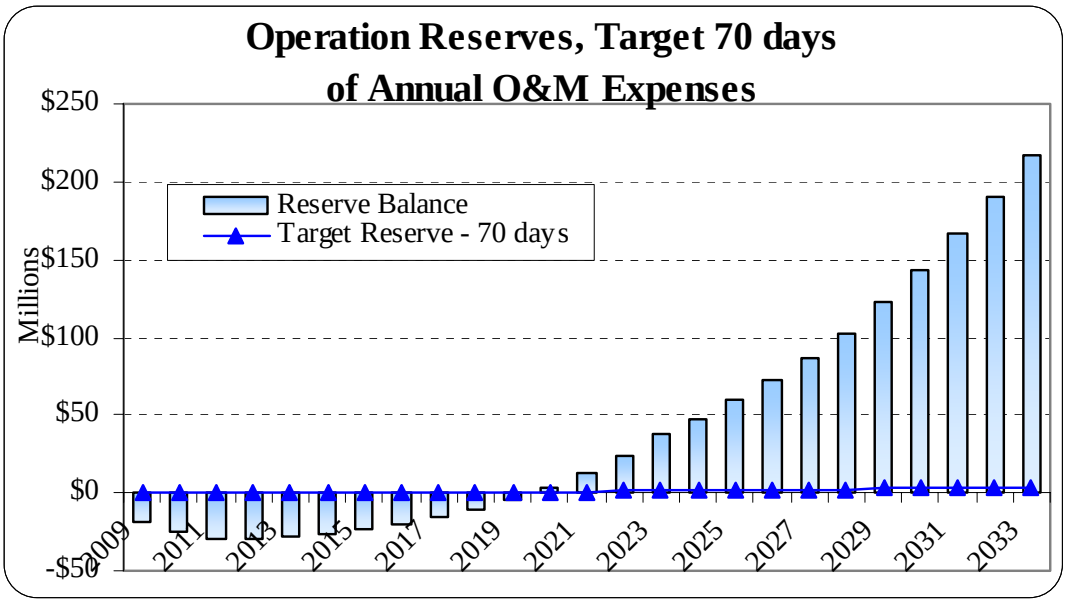
9. The financial plan developed in the Pricing Model provides an allowance for R&R of the distribution system assets assuming that 80 percent of the costs will be debt financed. The revenues derived from including these costs in the revenue requirements should be set aside in the R&R reserve to be used to fund replacement of the system in the future.

10. Since the recycled water system will experience some growth over the next several years the estimates of O&M, R&R, and capital costs may need to be

revised. We recommend that the City review these figures on an annual basis for the next several years to ensure that they are consistent with the actual costs.

11. We recommend that the recycled water system establish reserve funds consistent with the water and wastewater enterprise funds. These reserves would include operating, capital, and rate stabilization reserves. The target for the operating reserve is set at 70 days or about 19 percent of the annual operating costs as shown in Figure ES-5 below. The capital reserve may be used to fund the R&R of the recycled water distribution system. The rate stabilization target is set at 10 percent of the commodity revenue.

Figure ES-5



12. The recycled water operation will continue to operate in the red for several years and begin to recoup the losses beginning in 2012. The cumulative losses shown in the operating reserves will be recovered in 2020 and will exceed the target of 70 days of O&M expenses in the same year. The City should revisit its recycled water rates policy before this happens.

13. The City should continue efforts to increase customers and usage. Investments in the distribution system to increase sales, however, should be analyzed by performing an economic analysis to ensure cost effectiveness.

2.0 INTRODUCTION

The City of San Diego (City) engaged Raftelis Financial Consultants (RFC) to conduct a recycled water cost of service rate study to identify the cost of providing recycled water service and develop a financial plan considering alternatives of recovering various capital costs the City has incurred in establishing recycled water service.

This study evaluates the cost of providing recycled water, how costs are shared between the Water and Wastewater Departments, which are both impacted by the production, use and sale of recycled water, and the impacts on customers.

2.1. Background

The City of San Diego (City) is the eighth largest city in the United States and the second largest city in the State of California. The City's population is approximately 1.3 million. The City is located on the southernmost coast of California and covers a geographical area of about 330 square miles.

The Recycled Water Distribution System is currently managed and operated by the Water Department. However, the production and some of the costs are shared with the Wastewater Department. It is, therefore, important to gain some background and perspective on both the Water System and the Wastewater System.

2.2. Water System History

The Water System is owned and operated by the City and managed by the Water Department. The Water System consists of three treatment plants, nine surface raw water storage reservoirs, and about 3,200 miles of transmission and distribution lines. The Water System services the City and some surrounding areas through over 275,000 retail service connections. Approximately 92 percent of the connections serve residential customers and the balance serve commercial, industrial, and other customers. In addition to retail customers, the City sells potable or raw water on a wholesale basis to the California-American Water Company, the City of Del Mar, and the Santa Fe and San Dieguito Irrigation Districts.

2.2.1. Water Supply

The Water System currently receives its water supply from two sources: local runoff and water imported by the SDCWA. An average of 10 to 15 percent of the water supply for the Water System comes from local runoff. This source is seasonal and variable in nature. The balance of the Water System water supply is purchased from SDCWA. In turn, SDCWA currently imports approximately 90 percent of its water supply from MWD.

The City has conducted several major studies addressing its water supply needs. The City's projected water demands and recommended future supplies are developed through the Strategic Plan for Water Supply which was adopted by the City Council in August

1997. The 2000 Strategic Plan estimated water demand through 2015 and identified infrastructure requirements necessary to ensure that facilities were in place to store, treat, and distribute water in an effective and efficient manner. In 2000, the City initiated an update of the Strategic Plan, known as the Long-Range Water Resources Plan (LRWRP) adopted by Council in December 2002. The LRWRP extended water demand projections through 2030 and developed a decision-making framework for evaluating water supply options. The LRWRP identified several options, including water reclamation to meet the mid- to long-term demands.

2.3. Wastewater System

The City's MWWD operates a regional wastewater system that provides wastewater collection, conveyance and treatment services to the City and a number of Participating Agencies (PAs) outside the City. The PAs are:

1. City of Coronado	**6. City of La Mesa**	**11. City of Poway**
2. City of Del Mar	**7. Lakeside/Alpine Sanitation Districts**	**12. Wintergardens Sewer Maintenance District**
3. East Otay Mesa Sewer Maintenance District	**8. Lemon Grove Sanitation District**	**13. City of Chula Vista**
4. City of El Cajon	**9. City of National City**	**14. Spring Valley Sanitation District**
5. City of Imperial Beach	**10. Padre Dam Municipal Water District**	**15. Otay Water District**

The regional wastewater system infrastructure currently includes three wastewater treatment plants, Point Loma Wastewater Treatment Plant (PLWTP), North City Water Reclamation Plant (NCWRP) and South Bay Water Reclamation Plant (SBWRP); two ocean outfalls, Point Loma Ocean Outfall and South Bay Ocean Outfall; a biosolids processing center, Metropolitan Wastewater's Metro Biosolids Center (MBC); three major pump stations; and several miles of force mains and gravity flow interceptors. The City operates the regional wastewater system under two National Pollutant Discharge Elimination System (NPDES) permits that stipulate standards of discharge for the PLWTP and the SBWRP. To comply with the discharge standards and to meet other requirements of the federal Clean Water Act, the City had to undertake various capital project initiatives including the enhancement of existing wastewater treatment facilities and the construction of North City and South Bay water reclamation plants. The City operates the wastewater system as a self-supporting enterprise and costs are accounted for separately under the wastewater enterprise fund.

Some elements of the recycled water program are required elements in the wastewater program. It is important to understand these elements that are required for the wastewater system so that the cost sharing between the recycled and wastewater system is clearly defined.

2.3.1. Legal and Regulatory Background

Since 1963, the City has treated its wastewater at the PLWTP, which provides advanced primary treatment before disposal in an ocean outfall. In 1972, the federal Clean Water Act (CWA) was adopted which requires that wastewater plants provide a minimum of secondary treatment. Section 301(h) of the CWA allowed facilities that discharge to certain marine waters to apply for a waiver from secondary treatment standards by 1982. The City originally applied for the waiver, but then withdrew it. In 1987, the U.S. Environmental Protection Agency (EPA) and environmental groups sued the City for not meeting the provisions of the CWA. The Ocean Pollution Reduction Act (OPRA) was passed by the U.S. Congress in 1994 to allow San Diego to reapply for the Section 301(h) waiver.

As part of the Section 301(h) application, the City committed to implementing a water reclamation program that would create a system capacity to treat 45 MGD by 2010. The City has fulfilled the treatment capacity requirement with the completion of the 30 MGD NCWRP in 1997 and the 15 MGD SBWRP in 2002. A 1995 federal court order further required the City to construct an optimized recycled water distribution system in conjunction with building the NCWRP. The majority of the distribution facilities that comprise the optimized system were installed between 1995 and 1998 to enable delivery of recycled water upon completion of the NCWRP.

The EPA provided a grant that helped fund the construction of the NCWRP. Conditions of the grant award are quoted as follows:

"Upon certification of the NCWRP, flows into the plant will constitute a minimum of 75 percent of the plant's design capacity (i.e. at least 22.5 MGD). Of these flows the City will beneficially reuse at least 10 percent upon certification and shall attempt to meet the following goals:

> *a. Beneficial reuse of 25 percent of the flows treated at the NCWRP by December 31, 2003.*
>
> *b. Beneficial reuse of 50 percent of the flows treated at the NCWRP by December 31, 2010. "*

Presently, NCWRP treats 22.5 MGD (75 percent of capacity) of wastewater to secondary standards. The requirement to reuse 10 percent of the treated flows was achieved in 1998, when about 2.4 MGD of recycled water was distributed. Currently, about 6.25 MGD of recycled water is beneficially reused at the NCWRP, about 28 percent of treated flows. There is no penalty for failing to meet the EPA goals as long as the City is trying to maximize recycled water reuse.

2.4.Recycled Water Program History

The City first produced recycled water in 1981. The 25,000-gallon per day (GPD) Aqua I pilot aquaculture plant began operation in Mission Valley. The plant's production water was used to irrigate a sod farm adjacent to Jack Murphy Stadium (now Qualcomm Stadium). In 1984, the Aqua II Water Reclamation Facility, a second, larger pilot research installation, began treating 180,000 GPD of wastewater. This water was sold to Caltrans for use in irrigating freeway landscaping beginning in 1987. In 1991, the Aqua

III Water Reclamation Facility and Aqua 2000 Research Center were relocated in the San Pasqual Valley, north of Rancho Bernardo, where the City continued to use aquaculture treatment to reclaim wastewater. This facility had the capacity to treat 1 MGD for agricultural use and irrigation until 2001 when the facility was closed.

2.4.1. Current Recycled Water System

The current recycled water system consists of two plants, NCWRP and SBWRP, both owned and operated by MWWD. However, the distribution system that distributes recycled water to customers is owned and operated by the Water Department. Due to this separation of ownership, there exist several issues related to the cost sharing between MWWD and the Water Department, which are further explained in section 2.4.2.

The City has been delivering recycled water since September 1997 when construction on the NCWRP and distribution system was completed. The NCWRP provides recycled water to retail customers in the northern area of the City, to MBC, and wholesale service to the City of Poway and Olivenhain MWD for irrigation, industrial, and other non-potable uses. In FY 2008, an average of 6.25 MGD of recycled water was beneficially reused in the Northern Service area including the use at the NCWRP. The total capacity at the NCWRP is 30 MGD and the existing sustainable capacity of the demineralization process, called Electro Dialysis Reversal, is 12 MGD. The demineralization process is used to reduce the total dissolved solids (TDS) in the recycled water when it exceeds 1,000 milligrams per liter (mg/l). The City has committed to recycled water customers that the TDS of recycled water will not exceed 1,000 mg/l.

To encourage use of recycled water so that EPA goals could be reasonably achieved, the City funded approximately $14.9 million in retrofits for existing users to convert to recycled water use. Retrofits are required to modify plumbing systems that are set up to use potable water so that there is no intertie between potable and recycled water. The program was discontinued in 2001. The City invested approximately $69.8 million in the optimized recycled water distribution system, of which about $14.3 million was grant funded.

In addition to the 30 MGD of recycled water design capacity provided at the NCWRP, the City has completed the SBWRP with a production capacity of 15 MGD. Sales of recycled water from SBWRP started in FY 2007. On average, recycled water usage from the SBWRP was approximately 4.6 MGD in FY 2008. The plant provides wholesale service to Otay and the International Boundary Water Commission (IBWC) in the South Bay area. There is no demineralization process at the SBWRP; thus, if the TDS level of the recycled water exceeds 1,000mg/l, the SBWRP would have to blend recycled water with potable water to meet the TDS requirement.

In FY 2008, the City had over 400 recycled water meters in operation with a total annual beneficially reuse of 12,165 acre-feet. Excluding use of the recycled water at the NCWRP and SBWRP, recycled water sales for FY 2008 are estimated to be about 6,000 AF from NCWRP and 3,600 AF from SBWRP. Recycled water distribution system (Recycled System) extensions are projected to modestly increase sales in the coming years. Projections of sales and a more detailed discussion of Recycled System growth assumptions are provided in Section 5.2 – System Growth Projections.

On July 1, 2001, coinciding with the conclusion of the retrofit program, the City Council reduced the commodity rate for recycled water from $1.34 to $0.80 per hundred cubic feet (HCF) to encourage more customer connections to the recycled water system. The rate has remained at that level except for a couple of months starting January 2002 when it was set at $0.812 per HCF. The rate for recycled water is currently 29 percent of the City's current irrigation rate of $2.784 per HCF. The meter charges for recycled water service have not changed since January 2002 when they were reduced slightly. The recycled water rate history is presented in Table 2-1 along with the current irrigation water rate for comparison purposes.

2.4.2. Institutional

Recycled water spans both water and wastewater systems because it is produced as a byproduct of the wastewater treatment and used to offset potable water demand. As a result there are institutional issues related to cost sharing by wastewater.

Since the reclamation plants were built as a condition of the waiver for secondary treatment at the PLWTP, MWWD has borne all the capital costs associated with producing recycled water including the operating costs of tertiary treatment. The capital and operating costs of demineralization at NCWRP are also borne by MWWD because grant conditions required sale of recycled water and the City has committed to the recycled water customers that the TDS content will not exceed 1000 mg/l.

MWWD uses recycled water in the NCWRP, SBWRP and MBC. This use "inside the fence" is not billed to MWWD.

Table 2-1

Recycled Water Rate History

Meter Size	Recycled Water Rate History Monthly Rate Effective 1-Mar-00	1-Jul-01	20-Jan-02	28-Mar-02	Potable Water Monthly Rate Effective 1-Jan-08	1-Jul-08
5/8"	$ 9.63	$ 9.63	$ 8.63	$ 8.63	$ 15.32	$ 16.32
3/4"	$ 9.63	$ 9.63	$ 8.63	$ 8.63	$ 15.32	$ 16.32
1"	$ 10.23	$ 10.23	$ 8.63	$ 8.63	$ 22.41	$ 23.86
1-1/2"	$ 46.27	$ 46.27	$ 43.27	$ 43.27	$ 38.59	$ 41.10
2"	$ 71.16	$ 71.16	$ 65.96	$ 65.96	$ 58.83	$ 62.66
3"	$ 256.53	$ 256.53	$ 246.93	$ 246.93	$ 106.38	$ 113.29
4"	$ 427.93	$ 427.93	$ 411.53	$ 411.53	$ 174.17	$ 185.49
6"	$ 655.93	$ 655.93	$ 925.93	$ 925.93	$ 342.12	$ 364.36
8"	$ 1,286.59	$ 1,286.59	$ 1,234.59	$ 1,234.59	$ 544.47	$ 579.86
10"	$ 1,724.12	$ 1,724.12	$ 1,646.12	$ 1,646.12	$ 781.23	$ 832.01
12"	$ 2,395.42	$ 2,395.42	$ 2,263.42	$ 2,263.42	$ 1,455.06	$ 1,549.64
16"	$ 3,989.75	$ 3,989.75	$ 3,703.75	$ 3,703.75	$ 2,534.62	$ 2,699.37
Commodity Rate (per HCF)						
Commercial	$ 1.34	$ 0.80	$ 0.80	$ 0.80	$ 2.45	$ 2.606
Multi-Family	$ 1.34	$ 0.80	$ 0.80	$ 0.80	$ 2.55	$ 2.717
Cal-Trans	$ 1.19	$ 0.80	$ 0.80	$ 0.80	$ -	
Irrigation					$ 2.61	$ 2.784

2.5. Pricing Objectives

The first step in developing a recycled water pricing structure is to identify and prioritize pricing objectives. The Pricing Study has five major pricing objectives. These pricing objectives may conflict with each other; for example, marketability requires a lower rate to sell as much recycled water as possible. However, that would conflict with financial sufficiency which requires rates to be set at a level which recovers the costs of service. As a result, the pricing objectives have to be balanced to meet the City's requirements.

2.5.1. Financial Sufficiency

A major objective of the Pricing Study is to put the recycled water program on a self-sufficient financial footing. The Study must demonstrate that recycled water will be able to supply its own cash needs through revenue collected from its own fees and charges. Further, recycled water must be able to pay the debt service on the $37 million in loans used to fund construction of the original distribution system.

2.5.2. Simplicity

Another objective of the Pricing Study is simplicity. Most customers of the recycled water system are irrigation customers with similar characteristics. Therefore there is no need to develop separate rates for different classes. This simplifies the rate structure, and it can be readily communicated to users and implemented easily.

2.5.3. Legality and Adherence to Interagency Agreements

The production, distribution, and sale of recycled water were, in part, dictated by several inter-governmental agreements. Production and sales goals were established in grant agreements with the EPA. The City has negotiated wholesale agreements that cover rates and capacity for recycled water services. Agreements are in place with MWD and SDCWA for incentive credits for recycled water usage to expand local supplies and relieve demand from the strained potable water supply. All of these agreements have been incorporated into the development of the recycled water pricing structure.

Proposition 218 passed in 1996, and validated by the California Supreme Court in 2006 as applicable to water and wastewater service, requires the following:

- Revenues derived from fees may not exceed the funds required to provide the service;
- The amount of the fee may not exceed the proportional cost of the service attributable to the parcel upon which the fee is imposed; and
- The fee may not be imposed unless the service is actually used by, or immediately available to, the owner of the property.

Article X, Section 2 of the State Constitution requires water resources to be put to the maximum beneficial use. This article states the following:

"It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. …"

Combining Proposition 218 and Article X allows some flexibility in designing a system of rates that encourages the use of recycled water so that it is beneficially used especially in view of the current water supply situation in the State as long as the rates are reasonable. Given that the market based approach is widely practiced in California and across the US, it would not be unreasonable to implement such an approach in the City so that potable water rates support the recycled water system in the short run and recover costs in the long run.

2.5.4. Marketability

The goal of a financially sufficient enterprise fund is to recover annual cash needs through revenue generated by rates and charges. Current sales are relatively small and keeping rates relatively low compared to potable water would incentivize more customers to switch to recycled water. Recycled water has to compete with raw and potable water and its use is currently limited to irrigation and industrial uses. Recycled water cannot command premium pricing and expect to grow or even maintain its customer base even though recycled water has a nutrient value for irrigation and offers advantages of greater reliability than potable water during times of drought when non-essential usage such as irrigation is subject to mandatory conservation. Instead, recycled water needs to be at a

lower price. In addition, customers typically have to bear costs related to retrofitting their plumbing for recycled water. To recover these costs recycled water rates have to be lower than potable water rates. Many agencies set recycled water rates between 75 and 90 percent of the potable water rate.

2.5.5. Customer Impact

Finally, recycled water pricing must be cognizant of impacts higher rates would have on customer bills. The City is aware that recycled water rates would have to increase to meet the objective of financial sufficiency; however, the rates must be carefully structured to continue to incentivize customers. An alternative is to phase in the increases over a few years to minimize customer dissatisfaction. A period of three years may be reasonable.

3.0 DEVELOPMENT OF REVENUE REQUIREMENTS

Every water utility must receive sufficient total revenue to ensure proper operation and maintenance (O&M), development and perpetuation of the system, and preservation of the utility's financial integrity[1] to provide adequate water service to its customers.

Revenue requirements may be established either by the utility approach or the cash-needs approach. The utility approach to determine revenue requirements is followed by most investor owned utilities and government utilities that are regulated by a state public utilities commission. The utility approach allows the utility to recover operating requirements, depreciation, and a return on capital as determined by generally accepted accounting principles. In the cash-needs approach, followed by most unregulated governmental utilities, user charges are structured to recover specific operations and capital cash requirements. The Pricing Study utilizes the cash-needs approach for development of revenue requirements. Therefore, revenue requirements for the recycled water program may be defined as the gross cash needs of the Enterprise Fund for operations and capital expenditures.

3.1. Operating Costs

The O&M expense component is usually developed based on actual expenditures and adjusted to reflect anticipated changes in expenditures during the projection period. Adjustments to historical O&M expenses are determined by incorporating known and measurable changes to recorded expenses, and by using well-considered estimates of future expenses.

O&M expenses include salaries and wages, fringe benefits, energy, rent, chemicals, materials, small equipment, other supplies and services, and general overhead. For a government-owned utility, other elements of O&M expenses might also include the costs of support services rendered by the municipality, such as the use of computer facilities, assistance in billing and customer service, or office rental. The Study has grouped operating expenses into five major categories:

- Tertiary treatment costs
- Demineralization costs
- Recycled water distribution system energy costs
- Recycled water program costs
- Recycled water meter shop costs

Operating costs are itemized in the Pricing Model in Appendix B, Table 3.

[1] AWWA M-1 Manual, p.3

3.1.1. Tertiary Treatment Costs

Tertiary treatment, the final step in Title 22 recycled water treatment, removes very small particles including bacteria and viruses, and certain toxins that are not affected by conventional treatment. While the primary, secondary, and tertiary treatment processes are all ultimately required to produce recycled water, for the purposes of this Study, it was determined that only tertiary costs would be included in recycled water pricing. The costs of secondary treatment at the NCWRP and SBWRP will remain the responsibility of MWWD. Currently, MWWD is paying for the costs of tertiary treatment at the NCWRP and SBWRP. The Pricing Model assumes that the recycled water system will pay for tertiary treatment after all past investments are repaid to the potable water system in 2021. The current agreement with the PAs requires revenues from the sale of recycled water from the NCWRP to be used first for recovery of the optimized distribution system costs, followed by O&M costs of tertiary treatment at the NCWRP.

MWWD, NCWRP, and SBWRP plant operators provided costs for tertiary treatment broken down into a process format. For instance, chemical and electricity costs for each process were estimated and itemized. These costs are variable costs, meaning they vary with the level of plant production. The cost of personnel and maintenance contracts are fixed in that they remain constant at the level of plant production projected over the planning horizon. The Pricing Model utilizes a matrix of these fixed and variable prices applied to projected levels of production at the plants to estimate current year tertiary treatment costs for a range of annual production amounts. Once an escalator of four percent per year is applied to these costs to estimate inflation, they are ready for use in the Pricing Model.

3.1.2. Demineralization Costs

Electro Dialysis Reversal is included as part of the treatment at NCWRP to ensure that TDS does not exceed 1,000 mg/l. Lowering TDS is considered an additional treatment step beyond Title 22 requirements for tertiary treatment. However, this demineralization step does not meet potable water standards. Currently, SBWRP does not have demineralization facilities and TDS may be temporarily controlled through blending recycled water and potable water. However, since the plant came on-line in FY 2007, there has not been a problem with TDS at the SBWRP so blending has not been necessary. In the event that the SBWRP experiences TDS problems, the Pricing Model has the flexibility of adjusting the blending percentage and the resultant costs of producing recycled water at SBWRP. Ultimately, SBWRP may seek a capital solution to TDS control by employing a demineralization process. Per the agreements with the PAs, MWWD will cover these demineralization costs in the same manner that it covers tertiary treatment costs as long as it is not potable water quality.

3.1.3. Recycled Water Distribution System Energy Costs

Energy costs related to pumping recycled water through the distribution system are included here. Since energy costs have been increasing at a faster pace than general inflation, these costs are tracked separately and can be estimated more accurately by inflating at the appropriate rate.

3.1.4. Recycled Water Program Costs

These costs include customer service, marketing and developing the customer base for the use of recycled water, coordinating public information efforts, administering the cross connection program, and enforcement of recycled water rules and regulations to ensure public health is not compromised.

3.1.5. Recycled Water Meter Shop Costs

The Recycled Water Distribution System delivers recycled water from the NCWRP and SBWRP to customers. The distribution system consists of piping, pumping, and storage. Operating costs for the distribution system generally include labor and material costs for performance of routine O&M tasks. These tasks include exercising system valves, monitoring system performance, meter maintenance, and scheduled and minor maintenance of system assets.

3.2. Capital Costs

Under the cash-needs approach, it is important to identify the cash that is needed from user charges to support the Capital Improvement Program (CIP) and related capital expenditures. Capital expenses are different from O&M expenses in that they relate to tangible assets that will be utilized over an extended useful life. For the purposes of this Study, capital costs may relate to prior capital investments in the recycled water system or prospective investment included in the CIP.

Capital expenditures include design, and construction of pumps, pipelines, and storage. Expenditures for engineering and financing the capital program may also be included.

Capital expenditures and capital funding sources are itemized in the Pricing Model found in Appendix B, Table 4 and Table 5.

3.2.1. Tertiary Treatment

As defined under Section 3.1.1, tertiary treatment provides secondary treated wastewater to Title 22 water quality standard set by the State of California. Tertiary treatment capital costs include the investment made in tertiary treatment at both the NCWRP and SBWRP as well as an allowance for future capitalized maintenance, or repair and replacement, required for the NCWRP and SBWRP tertiary treatment processes. MWWD documentation shows that capital spending on NCWRP and SBWRP tertiary treatment, net of grant funding, was approximately $40 million and $18 million, respectively.

The advanced primary, secondary, and tertiary treatment processes are all required to produce recycled water. However, since MWWD was required to construct the NCWRP and SBWRP as a condition of the full secondary treatment waiver, none of the initial capital costs of construction or any future repair and replacement costs of these assets is used to develop rates.

3.2.2. Recycled Water Distribution

As discussed in Section 3.1.2, the Recycled Water Distribution System consists of piping, pumping, and storage infrastructure. Distribution system capital costs captured in the

Pricing Model include assets already placed in service as well as prospective projects for service extensions in the CIP. Distribution system capital costs are developed from two sources. Historical costs net of grant funding for assets already in service are found in fixed asset records, bond issue official statements, and grant applications. Prospective capital costs come from the CIP. For purposes of this Study, the total past capital investment of $137.5 million less grants of $25.6 million is included in the rate calculation. Of this net amount of $111.9 million, $37 million was debt funded and the remaining $74.9 million, representing investments in the recycled water distribution system made by the Water Department potable customers, is assumed to be paid off over 14 years at 5.1 percent or $7.6 million per year. Additionally, an estimate of the present worth of the future R&R cost of the distribution system is included in the rate calculation assuming that 20 percent of the R&R costs will be cash financed and the remainder 80 percent debt financed. The revenue generated for the R&R component is set aside in an R&R reserve.

3.2.3. Capital Funding Sources

Funding for the capital plan may come from many sources. Funding may come directly from rates in the form of pay-as-you-go capital, some from development or capacity fees, some from fund balance contributions, and some from financing costs over time as debt service. A balanced capital portfolio usually contains funding from many sources. Water Department guidelines suggest that 20 percent of the CIP be funded through rates as pay-as-you-go capital. The Pricing Model assumes capacity fees accrue to recycled water for new retail recycled water customers and existing potable customers converting to recycled water and this revenue is used as a capital funding source. Capacity charges from all new customers are computed at the rate of $3,047 per EDU (0.56 AF per year) based on the 2007 water rate case. As mentioned earlier, the Water Department and MWWD funds were utilized for initial capitalization of the distribution and tertiary treatment, respectively. Finally, the pricing model assumes the remaining capital costs will be financed through new debt issues at a rate of six percent over 30 years.

3.2.4. Retrofitting Existing Customers

Many potential customers of recycled water are existing potable water customers. Such customers already have the plumbing facilities, including irrigation systems, for potable water use on their properties. To convert these customers to recycled water use requires them to segregate current plumbing into potable water and recycled water systems. The primary reason for this is that there cannot be direct contact between recycled and potable water systems. As a result existing potable water customers wanting to use recycled water are also required to install backflow prevention devices on there potable service to ensure if there was an accidental cross connection on site that water could not flow back into the City's potable distribution system. Depending on the configuration, more extensive modifications may be required to their plumbing systems to separate the potable and the recycled water pipelines. A change required to an existing customer's plumbing system is referred to as retrofitting.

When NCWRP came on line in 1998, the City initiated a Retrofit Program that provided approximately $14.8 million to fund the costs of retrofitting existing customers so that

they could be converted to recycled water. To meet the conditions of its EPA grant, the City needed to encourage and promote use of recycled water for the overall public good. The City discontinued executing new retrofit program agreements in 2001 and does not anticipate renewing this program.

3.3. Extraordinary Items

One item of interest that is not widely considered is the nutrient value resulting from nitrates in recycled water used for irrigation purposes. In the eighties, the California State Water Resources Control Board (SWRCB) determined that recycled water provides nutrient value that reduced the need for fertilizers. This value was determined to be $40 per AF of recycled water. The SWRCB continues to use this value currently in determining the economics of recycled water projects. This benefit is not factored into the calculation of recycled water rates which are based on the cost of service and not benefits.

4.0 DEVELOPMENT OF REVENUE OFFSETS

Revenue offsets refer to cash the utility derives from sources other than commodity rate revenue. This additional cash offsets revenue requirements and thus reduces the amount of revenue that must be recovered through rates. This study has categorized revenue offsets into:

- Base charges
- Credits
- Avoided costs
- Other offsets

4.1. Base Charges

Base charges are typically designed to recover fixed costs that may be allocated to customers on a per account basis. At a minimum, the base charge may recover the costs of meter reading, billing, collections, and customer service. These services are provided for each account regardless of usage. The base charge may be extended to cover some portion of fixed capital or fixed O&M costs.

The Water Department employs a base charge component in its potable water rate structure to pay for meter reading, billing, collection, customer service, etc. It was determined that recycled water accounts should pay the same base charge as potable accounts. This decision reflects the fact that the same types of services provided to potable customers under the base charge are also provided to recycled customers.

4.2. Credits

Generally speaking, credits are revenues collected outside the standard rate structure that are used to offset costs. Credits against capital costs are structured payments from wholesale customers to buy into the capacity of the recycled water system. These are known as capacity fees. Credits against general costs are ongoing revenues that may be used to offset either capital or operating costs. These include MWD and SDCWA incentives.

4.2.1. Credits against Capital Costs

In order for wholesale customers to receive recycled water service, they must pay capacity charges. Capacity fees compensate the Water Department for capital investments made in constructing system production and distribution capacity. By contract, the Water Department has received capacity fees from Olivenhain, IBWC, and Otay, and is expecting to receive capacity fees from new users connecting to the NCWRP system. Existing potable water retail customers who connect to the recycled water system will not pay capacity fees if they are acquiring the same or lower capacity in the recycled water system than they had in the potable system. However, the recycled water

system should get credit for these retail customers connecting to the recycled water system since they are releasing capacity in the potable water system that would then become available to new potable customers. Since these fees are collected to compensate for investment in capital infrastructure, they are used as offsets to capital costs.

4.2.2. Credits against General Costs

Olivenhain is a contract wholesale customer of the recycled water system. Since Olivenhain is not a member of the regional wastewater system, their wholesale price, by agreement, includes a premium of $25 per AF. This premium payment is used in the Pricing Model as an offset to revenue requirements

As mentioned earlier, the City has agreements with SDCWA and MWD that recycled water sales will receive a credit because these sales relieve pressure on the potable water supply. As such, these agencies are willing to pay incentives for the development of recycled water use by providing credits to the Water Department. The maximum MWD and SDCWA credits are $250 per AF and $200 per AF, respectively. The agreements with SDCWA and MWD for credits on recycled water sales will expire either in 25 years after the starting date of operations, which is in 2023 for the NCWRP. The SDCWA incentives agreement for SBWRP expires in 2032. The agreement terms for both plants will expire early if the cost of producing recycled water becomes lower than the cost of purchasing water from MWD. Since potable water rates are projected to increase significantly in the near term, the City should monitor the continued receipt of these credits. The Pricing Model assumes that the City will continue to receive the $250 per AF MWD and $200 per AF CWA credits for the NCWRP for the entire term of the agreement. The City receives only SDCWA credits for SBWRP water to retail customers. According to the Otay Agreement, only Otay receives MWD and SDCWA credits for recycled water sold to Otay. There are no credits for recycled water used at the NCWRP, SBWRP and sales to Otay. The credits are used in the Pricing Model as an offset to revenue requirements.

Table 4-1 shows a summary of net revenue requirements, gross revenue requirements less revenue offsets, from the Pricing Model. For more details see Appendix B.

Table 4-1

Revenue Requirements

Line No.		Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012
	Gross Revenue Requirements					
1	O&M Cost	$ 3,009,049	$ 3,046,169	$ 3,078,053	$ 3,129,142	$ 3,184,417
2	Existing Debt Service	$ 2,998,649	$ 2,998,649	$ 2,998,649	$ 2,998,649	$ 2,998,649
3	Proposed Debt Service	$ -	$ 184,598	$ 369,195	$ 369,195	$ 670,485
4	Repayment to Water	$ 7,616,076	$ 7,616,076	$ 7,616,076	$ 7,616,076	$ 7,616,076
5	Transfer to R&R Reserve	$ -	$ 220,451	$ 220,451	$ 220,451	$ 220,451
6	Pay-as-you-go Capital	$ 2,746,409	$ -	$ 263,424	$ 224,975	$ -
7	**Total Gross Revenue Requirements**	$ 16,370,183	$ 14,065,944	$ 14,545,848	$ 14,558,488	$ 14,690,079
	Revenue Offsets					
8	Credits from MWD and CWA	$ 2,284,000	$ 2,934,000	$ 2,866,500	$ 2,872,500	$ 3,120,000
9	Base Charge Revenue	$ 610,982	$ 678,739	$ 516,144	$ 592,852	$ 643,209
10	Fees from Olivenhein	$ 12,500	$ 12,500	$ 10,000	$ 10,000	$ 10,000
11	**Total Revenue Offsets**	$ 2,907,482	$ 3,625,239	$ 3,392,644	$ 3,475,352	$ 3,773,209
	Net Revenue Requirements	$ 13,462,701	$ 10,440,704	$ 11,153,204	$ 11,083,136	$ 10,916,870

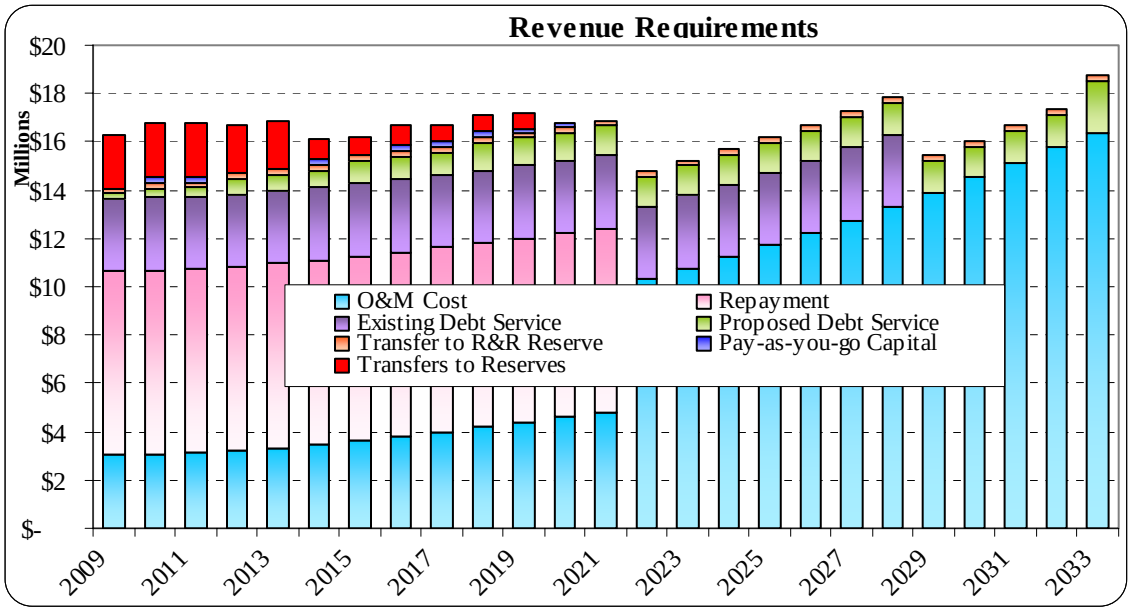
5.0 FINANCIAL PLAN

The financial plan presents projected financial statements for the utility and the economic impact on customers as a result of achieving the goals and objectives identified in the planning process. The intent of the financial plan is to demonstrate how changes in demand, costs, and pricing structure impact the financial position of the utility over a specific time horizon.[2] Taking a long-term approach to financial planning allows utilities to address problems before they become critical and smooth short-term fluctuations in rates. The keys to developing a solid financial plan are reliable projections of future costs and system growth.

5.1. Cost Projections

Figure 5-1 shows a projection of gross revenue requirements for the recycled water system from 2009 through 2033. Projections of operating and capital costs, the major components of the gross revenue requirements, are described below.

Figure 5-1



5.1.1. Operating Costs

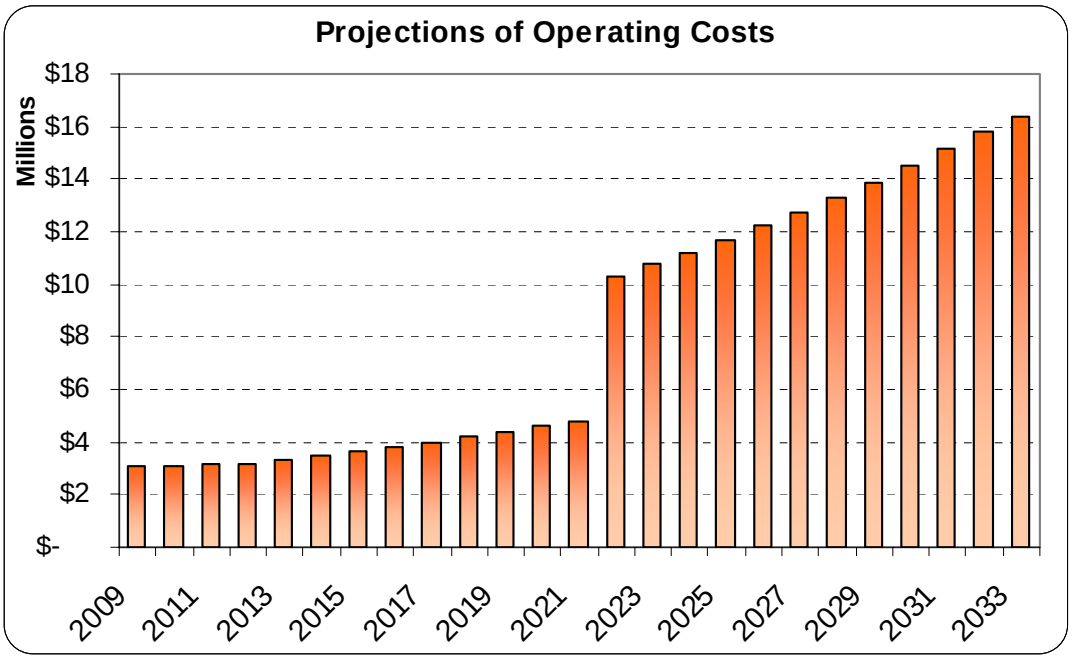
As discussed in Section 3.1, operating costs for the recycled water system were categorized by function into several different components. Cost escalation factors were estimated for these components to project future costs.

[2] Water and Wastewater Finance and Pricing – A Comprehensive Guide, Third Edition.

- Energy costs are projected to increase at eight percent per year for inflation. Additionally, energy costs are projected to change proportionally to the sales of water.
- Tertiary treatment operating costs, when included in the projections, were escalated using a standard approximation for price inflation of four percent annually. This factor is consistent with the potable water and wastewater rate cases.
- All other operating costs are projected to increase at a standard inflation rate of four percent per year.

Figure 5-2 shows operating cost projections for the recycled water program through FY 2033. Operating costs include distribution system energy costs, recycled water program costs, meter shop costs, and tertiary treatment costs starting in FY 2022.

Figure 5-2

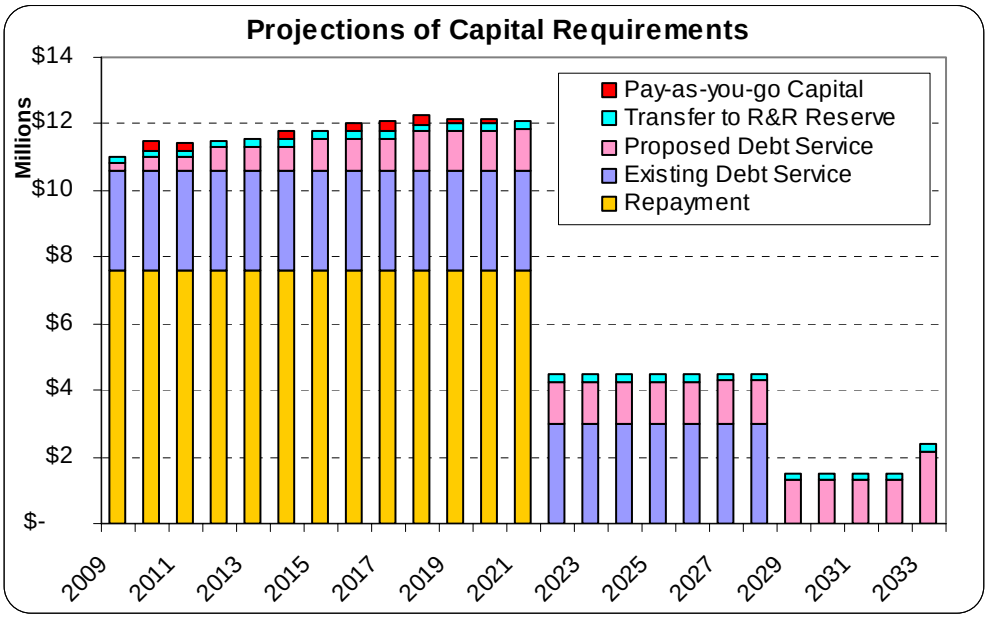


5.1.2. Capital Costs

The CIP for the recycled water system includes a forecast of capital projects and their associated cost outlays in current year dollars. The actual requirements, therefore, must be escalated for price inflation. These escalated projections from the CIP represent the capital component of future revenue requirements.

Figure 5-3 shows capital cost projections for the recycled water program through FY 2033. Capital costs are broken down into repayment for debt funded historical investment (existing debt service) in the system and prospective investment (proposed debt service) in system growth identified in the CIP.

Figure 5-3



5.2. System Growth Projections

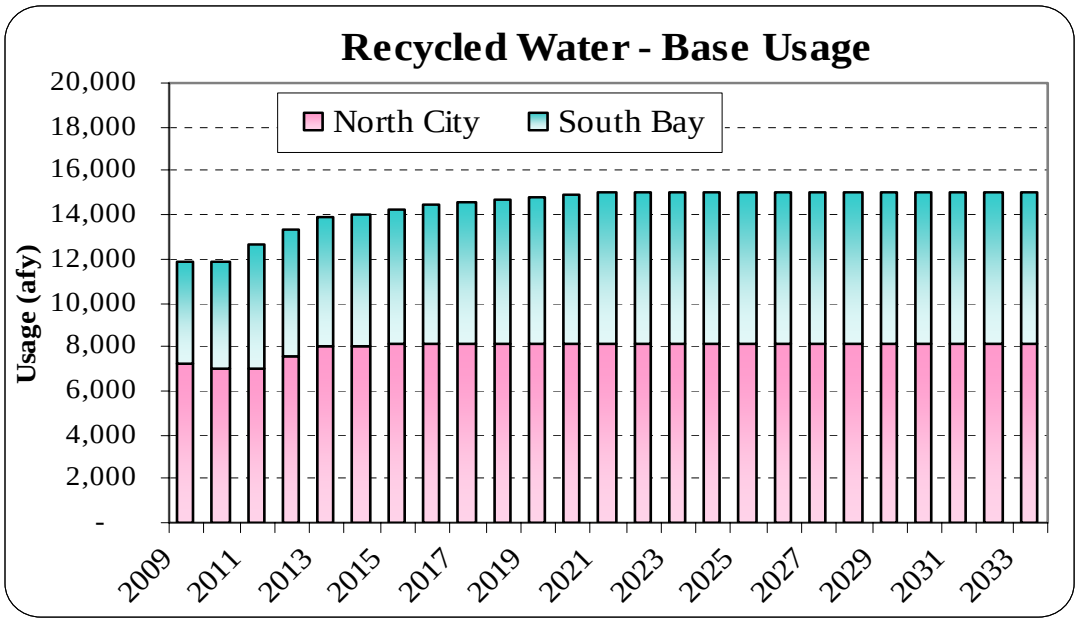
System growth projections are another key element in the financial planning process. System growth, measured in usage increases for recycled water, drives many of the cost increases discussed above. The expectation is that increases in usage outpace costs and yields a lower unit rate over time.

Usage projections are dependant on many variables. Distribution line extensions must be completed to allow customers to utilize recycled water service. Marketing and public information efforts must be in place to introduce prospective customers to recycled water benefits. Finally, the recycled water rate must be cost-effective as compared to available alternatives.

The Pricing Study recognizes the variability in these components of recycled water usage. The Pricing Model is designed with the flexibility to model different usage scenarios. The total usage scenario provided by the Water Department shows increases from 11,912 AF per year in FY 2009 to about 15,049 AF per year in FY 2021. This growth is characterized by an increase in retail sales coupled with bulk contracts with regional wholesale customers.

Figure 5-4 shows recycled water usage projections from the NCWRP and SBWRP plants.

Figure 5-4



6.0 RATE DEVELOPMENT

Rate development for the Pricing Study considered two major objectives:

- Pricing should be set to ensure financial sufficiency to reflect the cost of providing service over a reasonable time frame
- The rates should be relatively easy to implement and simple to explain to customers

The first objective recognizes the City's desire to make recycled water a financially self-sufficient operation and new rates should be phased in over time allowing the customers to adjust. Generally accepted cost-of-service based rates may not fit relatively new service like the City's recycled water program. Cost-of-service based rates are developed by dividing net revenue requirements in a given year by the projected usage over that same year, thus ensuring financial sufficiency on an annual basis. This approach works well in a mature system that experiences incremental growth in costs and usage on an annual basis. Start-up utilities, such as the recycled water system, have special circumstances that make this approach difficult. New service typically experiences high start-up costs and low sales. Initial capital investments are required for production and distribution. Initial operating costs are required for administration and customer service. High costs spread over low initial consumption yields a high unit cost-of-service. As the fixed costs are spread over more and more consumption, the unit cost eventually decreases and stabilizes. In order to stabilize rate impacts, the Pricing Study uses a market-driven alternative during the phase-in period instead of the cost-of-service approach.

The second objective recognizes the advantages of developing a simple, equitable rate that applies to all customers. Most of the customers of recycled water are irrigation customers with similar usage characteristics. Applying the same rate structure to all customers simplifies the process of administration and customer service. This is consistent with industry practice.

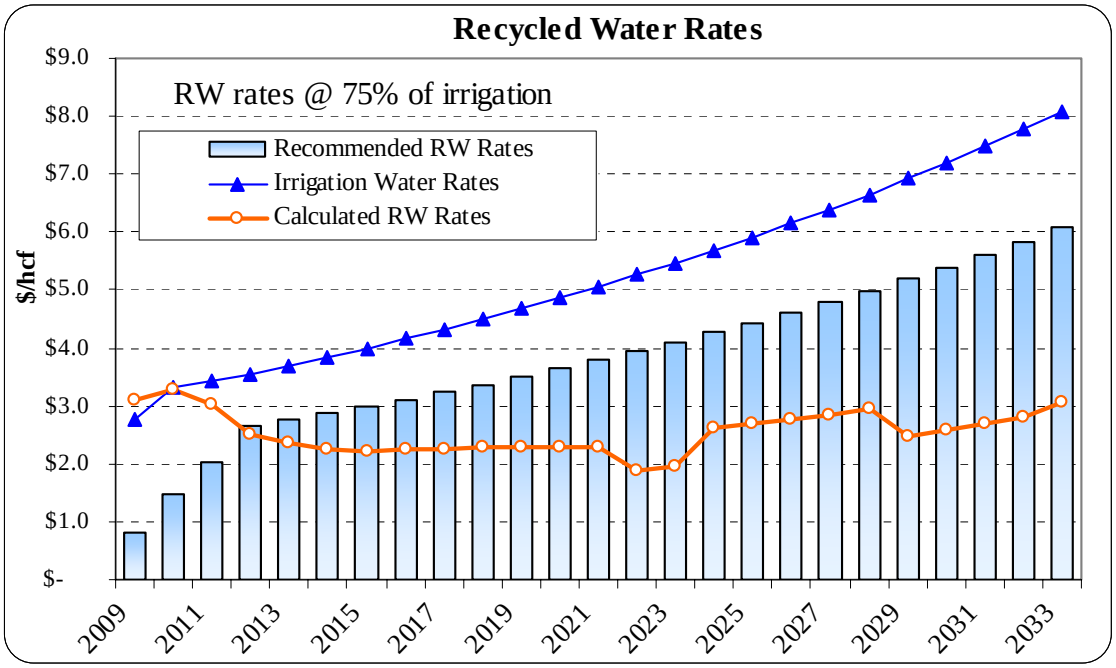
6.1. Cost-of-Service Rate Development

As mentioned, cost-of-service based rates are developed by dividing net annual revenue requirements by the projected annual usage. The result of this calculation is a unit cost rate that exactly recovers projected net revenue requirements each year. Since revenue from the cost-of-service rate fully recovers all cash needs every year, annual revenue sufficiency is assured, assuming rate assumptions hold. Cost of service rate calculations are shown in Figure 6-1 by the orange line.

Recycled water customers have enjoyed significantly lower rates for the last several years as the City decreased the rates to encourage more users to convert to recycled water. As potable water supplies have become scarcer and long term drought predictions become more real, the City recognizes the real value of the recycled water and setting rates

consistent with cost of service, even though it would result in significant impacts, is practical and would meet the regulatory requirements of Proposition 218.

Figure 6-1



6.2. Market-Driven Alternative Rate Development

Marketability and customer impacts were among the pricing objectives cited at the onset of our study. The City has a valuable resource in recycled water. Encouraging more users to switch to recycled water by providing a competitive pricing plan is in the interests of the City and the users, and helps meet regional goals. Recognizing that recycled water users incur costs in retrofitting and therefore need incentives to convert to recycled water, it is only reasonable to provide them a lower rate than potable water. If rates increase to cost-of-service levels too fast, there would be less incentive for new customers to convert to recycled water use. Market-driven rate alternatives may be designed to address the problems of a cost-of-service rate structure. Since such alternative rates are not constrained by the requirement to meet cash needs every year, they can be more competitive with potable irrigation water pricing. Alternative rates also have more flexibility to be phased in over time to mitigate adverse impacts on existing customers. Since recycled water is used mainly for irrigation purposes, it is more appropriate to peg the recycled water rate to the irrigation rate rather than the commercial potable water rate. The recommended recycled water rate is indicated by the blue bars in Figure 6-1. The target rate for recycled water is set at 75 percent of the irrigation water rates and phased in over three years so that the target rate is achieved in FY 2012. This target rate tracks the cost of service rate closely. The three-year phase-in period and 75 percent target rate provide a lower rate in the earlier years and recoup the revenues lost in later years. The proposed rates are shown in Table 6-1. For comparison purposes, Figure 6-1 shows the calculated and recommended recycled water rates and the potable

irrigation water rates. The difference between potable irrigation rates and recycled water rates grows with time providing a significant economic incentive to recycled water users.

Table 6-1

Projected Recycled Water Rates

	Existing	Projected	Projected	Projected
	2009	**2010**	**2011**	**2012**
Monthly Base Fee				
Meter Size				
5/8"	$ 8.63	$ 17.22	$ 18.34	$ 19.07
3/4"	$ 8.63	$ 17.22	$ 18.34	$ 19.07
1"	$ 8.63	$ 25.15	$ 26.78	$ 27.85
1-1/2"	$ 43.27	$ 43.25	$ 46.06	$ 47.90
2"	$ 65.96	$ 65.89	$ 70.17	$ 72.98
3"	$ 246.93	$ 119.07	$ 126.81	$ 131.88
4"	$ 411.53	$ 194.89	$ 207.56	$ 215.86
6"	$ 925.93	$ 382.76	$ 407.63	$ 423.94
8"	$ 1,234.59	$ 609.09	$ 648.68	$ 674.63
10"	$ 1,646.12	$ 873.91	$ 930.71	$ 967.94
12"	$ 2,263.42	$ 1,627.61	$ 1,733.41	$ 1,802.75
16"	$ 3,703.75	$ 2,835.13	$ 3,019.42	$ 3,140.20
Commodity Rate (per HCF)	$ 0.80	$ 1.46	$ 2.03	$ 2.66
Commercial/Industrial	$ 2.606	$ 3.097	$ 3.196	
Irrigation	$ 2.784	$ 3.309	$ 3.415	

The drawback of alternative rates is their ability to meet the objective of financial sufficiency in the short term. This problem may be addressed in the long-term view employed by a financial planning model. The selected alternative rate structure may allow the recycled water program to run annual deficits initially as long as annual surpluses in subsequent years are sufficient to repay those shortfalls. In other words, the net present value of all annual surpluses and deficits over the planning horizon should be positive. The deficits in the earlier years would need to be funded by potable water and repaid with interest to the potable water enterprise in future years when surpluses are available.

The Pricing Model was developed to look at alternative rates pegged to either the irrigation water rate or the raw water rate. Irrigation water is the competitor of recycled water in that the recycled water rate must be lower than the irrigation rate to promote use. Therefore, pegging the recycled rate to a percentage of the irrigation rate should address the objective of promoting marketability. Raw water is also a competitor of recycled water. However, since only Olivenhain MWD has access to raw water through MWD and SDCWA, pegging recycled water pricing to raw water is not considered.

7.0 RATE IMPACTS

Depending on the rates implemented there are impacts on the water enterprise, the recycled water operation and on customers. This section briefly discusses these impacts.

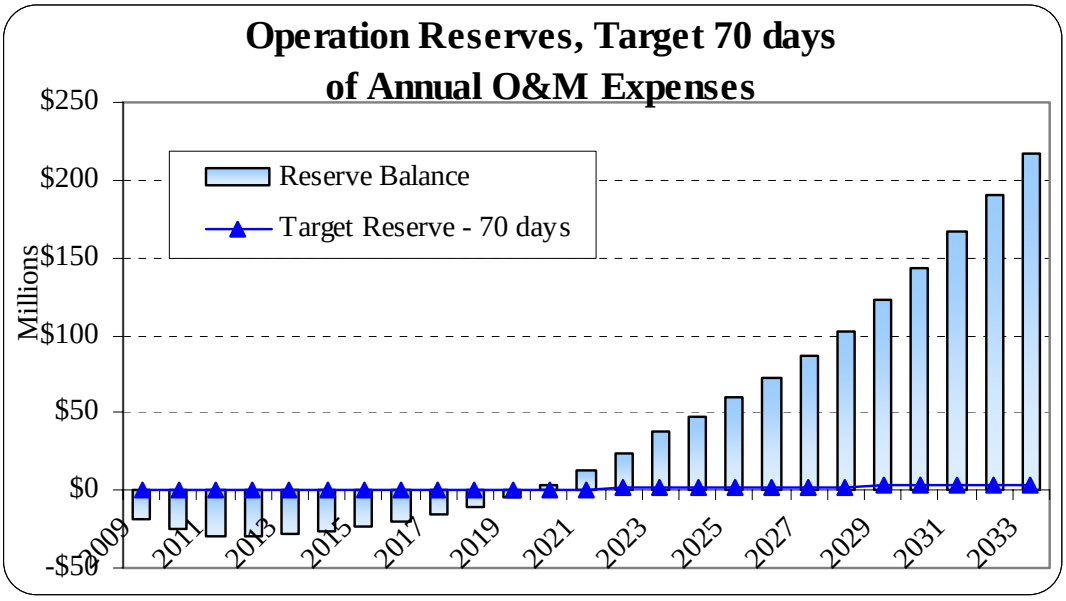
7.1. Recycled Water Reserves

As part of the revenue requirements included in the financial plan, the following reserves were set up for recycled water.

7.1.1. Operations Reserve

The operating reserve is used to meet ongoing cash flow requirements as well as emergency requirements. Consistent with City policy and with potable water reserves, the target level for this reserve is set at 70 days of annual operating expenses. The reserve is shown below in Figure 7-1 starting in 2010 when there is a significant negative cash flow leading to a negative balance. The negative cash flow or shortfall in revenue in the recycled water system is made up by the potable water system. Because recycled water rates are phased in, the recycled water operating reserve will continue to show a negative balance for several years before it turns positive.

Figure 7-1

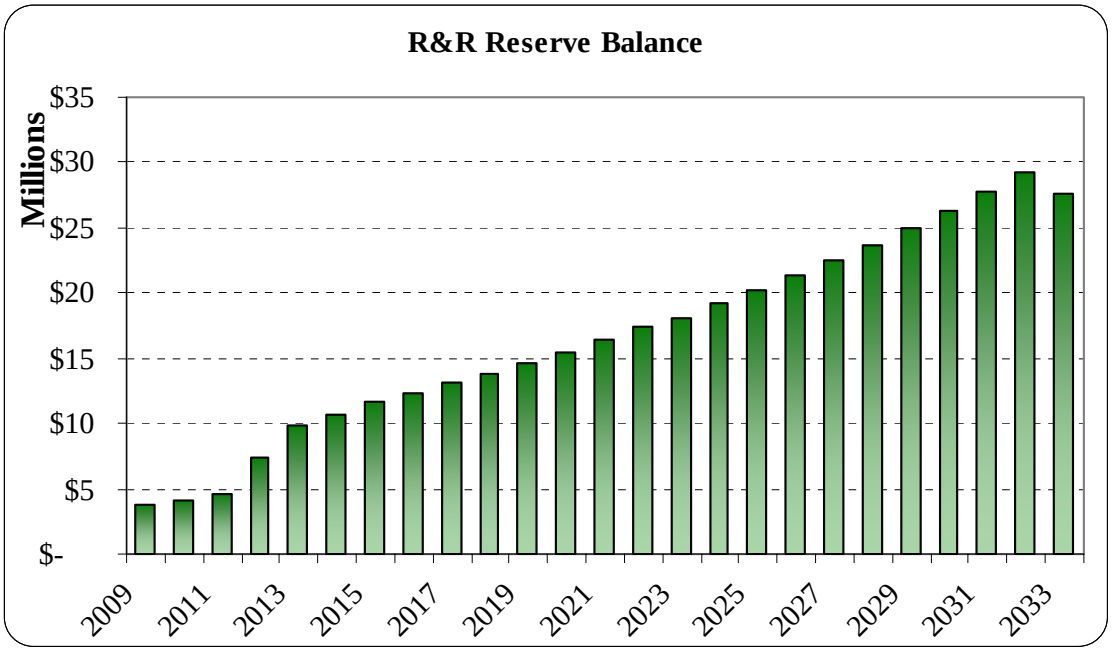


The City may be able to moderate rates in the later years to keep the operating reserve closer to target. Since this is not projected until about 2020, the City should have ample time to plan future rates.

7.1.2. Replacement and Refurbishment Reserve

As discussed in Section 3.2, the City needs to start building an R&R reserve to replace and repair the distribution system as it wears out. Per City policy, 20 percent of the estimated cost requirements are set aside in the reserve. Since the recycled water system is relatively new, these expenditures are not expected to be significant for many years to come. As a result the reserve will continue to grow and will not see substantial outflows until 2033. The balance in this reserve is projected in Figure 7-2 below.

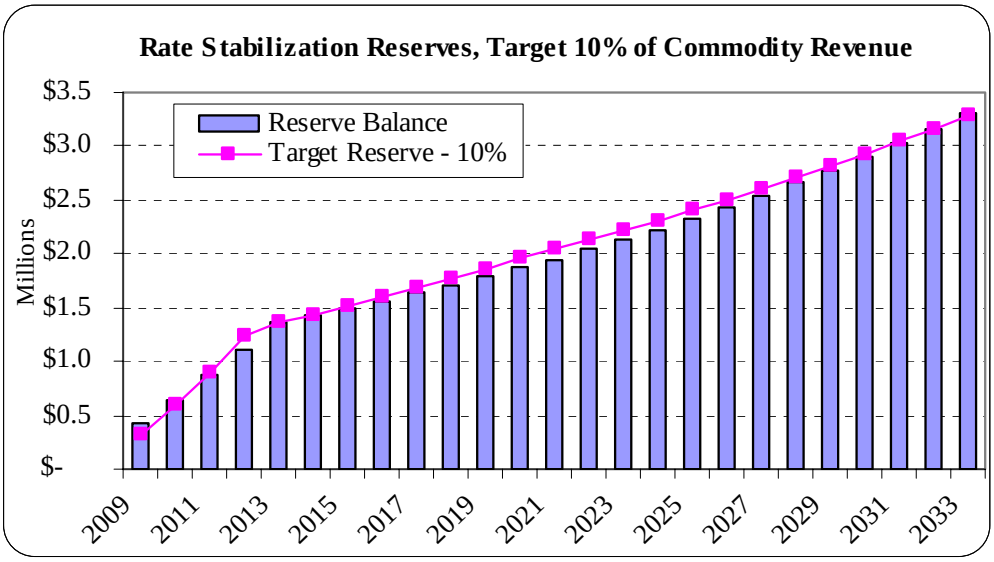
Figure 7-2



7.1.3. Rate Stabilization Reserve

In addition to the operations and R&R reserve, a rate stabilization reserve is recommended. While the costs of the recycled water system should be fairly stable from year to year, because usage and correspondingly the rate revenue could vary with the weather, it is reasonable to set up a rate stabilization reserve. A potential use of this reserve may be to purchase potable water when the recycled water system is down or for blending to meet TDS requirements. The target for this reserve is set at 10 percent of the commodity rate revenues consistent with the potable water system. The balance in this reserve is shown in Figure 7-3 below.

Figure 7-3



7.2. Impacts on Potable Water

The potable water system has been supporting the recycled water system for several years because the recycled water rates have not been increased or set to recover the costs of service. If rates are phased in over several years, the potable water system will continue to support the recycled water system; however, over a period of years the potable water system will recover all of its contributions to the recycled water system.

The impacts on the potable water system will result from the following:

- Payments of capacity charges to the recycled water system will be paid from the potable water system for retail recycled water customers that may be converting to recycled water from potable water. As discussed before, capacity becomes available as potable water users convert to recycled water and the potable water system should be able to recover these capacity charges from new potable water customers
- The potable water system has invested about $74.9 million in the recycled water system. This investment will be recovered over the next 14 years by amortizing this amount at 5.1 percent resulting in payments of over $7.6 million per year to the potable water system.
- As potable water users convert to recycled water, the potable water sales and revenues will tend to decrease. These amounts are relatively small and should be made up as new potable water users come on line.

On the whole implementing the recommended recycled water rates should help the potable water system.

7.3. Impacts on Recycled Water Customers

Recycled water customers have enjoyed low rates for a number of years as potable customers have subsidized them. The recycled water rates have not been revised since July 2001. During that time potable water rates have increased from $1.34 per HCF to $3.107 (January 2009) for irrigation water, an increase of 132 percent. The recommended rate of $1.46 per HCF represents an increase of 83 percent from the current rate of $0.80 per HCF. The base charges for most of the meters, those larger than 1-in will actually be lower than under current rates.

APPENDICES

APPENDIX A – RATE MODEL ASSUMPTIONS

Inflation and Costs Assumptions

1. O&M (includes non-personnel and tertiary O&M) Inflation: 4% per year. Personnel inflation is 4% per year after FY 2012.
2. Energy Inflation: 8% per year
3. Capital Inflation: 4% per year
4. Reserve Interest Rate: 4% per year in 2008 and 4.5% per year afterward
5. Debt Issue Interest Rate: 6% per year
6. New Debt Term: 30 years
7. Debt Issuance Cost: 3%
8. Potable Rate Escalation: 6.5% per year from 2009-2011 and 4% per year afterward – this is used in the revenue projections for recycled water when recycled rates are a percentage of potable rates.
9. Capacity Fees Escalation: 0% per year, capacity fees are equal to the potable water capacity fees.
10. Personnel and non-personnel costs for RW Program Cost and RW Meter Shop Costs are distributed between North City and South Bay based on the percentage of distribution system infrastructure in the respective service areas.
11. Distribution System costs are distributed between North City and South Bay based on the percentage of distribution system infrastructure in the respective service areas.
12. MWD/SDCWA reimbursements are assumed to be available each year through the term of the agreements with MWD and/or SDCWA. No MWD reimbursement at South Bay, nor SDCWA reimbursement for sales to Otay.
13. No billing for MBC usage.

Model Settings/Scenarios

1. Two usage/demand scenarios: Base Usage and High Usage, same except for Otay usage: contracted vs. projected delivery.
2. Recycled Water (RW) is not paying for tertiary treatment costs.
3. RW is paying the $37 million debt to Water. Loan terms are 5.1% for 21 years and 3% issuance cost.
4. RW is also paying back about $75 million to Water Department for past investments. Loan terms are 5.1% for 14 years.
5. Capital projects (not including R&R) funding: 80% debt, 20% cash.
6. Calculated RW rates are not used, but instead RW rates are pegged to the potable water irrigation rates.
7. RW rates are targeted to 75% of potable water irrigation rates,
8. The phase-in period to bring recycled rates to the target is 3 years.
9. Target operations reserve is 19% or 70 days of annual O&M expenses.

10. Target capital reserve is 50% of average CIP.
11. Target rate stabilization reserve is 10% of commodity revenue.
12. R&R projects are kept separate from regular CIP. Each year, money is set aside in the R&R reserve to pay for actual R&R expenses as they occur. The model assumes R&R is 20% cash funded. However, there are options to allow changes to this assumption.

APPENDIX B – RECYCLED WATER PRICING MODEL

Model Tables

Table 1

Recycled Water Rate History

Meter Size	Recycled Water Rate History Monthly Rate Effective 1-Mar-00	 1-Jul-01	 20-Jan-02	 28-Mar-02	Potable Water Monthly Rate Effective 1-Jan-08	 1-Jul-08
5/8"	$ 9.63	$ 9.63	$ 8.63	$ 8.63	$ 15.32	$ 16.32
3/4"	$ 9.63	$ 9.63	$ 8.63	$ 8.63	$ 15.32	$ 16.32
1"	$ 10.23	$ 10.23	$ 8.63	$ 8.63	$ 22.41	$ 23.86
1-1/2"	$ 46.27	$ 46.27	$ 43.27	$ 43.27	$ 38.59	$ 41.10
2"	$ 71.16	$ 71.16	$ 65.96	$ 65.96	$ 58.83	$ 62.66
3"	$ 256.53	$ 256.53	$ 246.93	$ 246.93	$ 106.38	$ 113.29
4"	$ 427.93	$ 427.93	$ 411.53	$ 411.53	$ 174.17	$ 185.49
6"	$ 655.93	$ 655.93	$ 925.93	$ 925.93	$ 342.12	$ 364.36
8"	$ 1,286.59	$ 1,286.59	$ 1,234.59	$ 1,234.59	$ 544.47	$ 579.86
10"	$ 1,724.12	$ 1,724.12	$ 1,646.12	$ 1,646.12	$ 781.23	$ 832.01
12"	$ 2,395.42	$ 2,395.42	$ 2,263.42	$ 2,263.42	$ 1,455.06	$ 1,549.64
16"	$ 3,989.75	$ 3,989.75	$ 3,703.75	$ 3,703.75	$ 2,534.62	$ 2,699.37
Commodity Rate (per HCF)						
Commercial	$ 1.34	$ 0.80	$ 0.80	$ 0.80	$ 2.45	$ 2.606
Multi-Family	$ 1.34	$ 0.80	$ 0.80	$ 0.80	$ 2.55	$ 2.717
Cal-Trans	$ 1.19	$ 0.80	$ 0.80	$ 0.80	$ -	
Irrigation					$ 2.61	$ 2.784

Table 2
Calculated Recycled Water Revenue - Base Usage

Line No.		Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
	Operating Revenue						
	Usage Revenue						
1	North City WRP	$ 1,615,205	$ 1,881,792	$ 1,829,520	$ 1,829,520	$ 2,021,184	$ 2,160,576
2	South Bay WRP	$ 1,260,104	$ 1,363,254	$ 1,414,132	$ 1,670,613	$ 1,725,324	$ 1,768,188
3	Subtotal Usage Revenue	$ 2,875,308	$ 3,245,046	$ 3,243,652	$ 3,500,133	$ 3,746,508	$ 3,928,764
4	Base Charge Revenue	$ 610,982	$ 678,739	$ 516,144	$ 592,852	$ 643,209	$ 706,973
5	**TOTAL OPERATING REVENUE**	**$ 3,486,290**	**$ 3,923,785**	**$ 3,759,796**	**$ 4,092,986**	**$ 4,389,718**	**$ 4,635,737**
	Non-Operating Revenue						
6	Capacity Fees Revenue	$ -	$ 3,618,313	$ -	$ -	$ 2,992,589	$ 2,176,429
7	**Total Non-Operating Revenue**	**$ -**	**$ 3,618,313**	**$ -**	**$ -**	**$ 2,992,589**	**$ 2,176,429**
8	**TOTAL REVENUE**	**$ 3,486,290**	**$ 7,542,097**	**$ 3,759,796**	**$ 4,092,986**	**$ 7,382,307**	**$ 6,812,165**

Table 3
O&M Expenses

Line No.		Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
	North City WRP Expenses						
1	Recycled Water Distribution System Energy Cost	$ 118,607	$ 143,323	$ 151,564	$ 163,689	$ 190,576	$ 216,655
	Recycled Water Program Cost						
2	Personnel Cost	$ 1,189,571	$ 1,189,571	$ 1,189,571	$ 1,189,571	$ 1,189,571	$ 1,237,153
3	Non-Personnel Cost	$ 135,000	$ 135,000	$ 140,400	$ 146,016	$ 151,857	$ 157,931
4	Subtotal Recycled Water Program Cost	$ 1,324,571	$ 1,324,571	$ 1,329,971	$ 1,335,587	$ 1,341,427	$ 1,395,084
	Recycled Water Meter Shop Cost						
5	Personnel Cost	$ 1,046,074	$ 1,046,074	$ 1,046,074	$ 1,046,074	$ 1,046,074	$ 1,087,917
6	Non-Personnel Cost	$ 157,500	$ 157,500	$ 163,800	$ 170,352	$ 177,166	$ 184,253
7	Subtotal Recycled Water Meter Shop Cost	$ 1,203,574	$ 1,203,574	$ 1,209,874	$ 1,216,426	$ 1,223,240	$ 1,272,169
	Treatment Costs						
21	North City Treatment Costs (escalated)	$ -	$ -	$ -	$ -	$ -	$ -
22	**Total North City WRP Expenses**	**$ 2,646,751**	**$ 2,671,467**	**$ 2,691,408**	**$ 2,715,702**	**$ 2,755,243**	**$ 2,883,909**
	South Bay WRP Expenses						
23	Recycled Water Distribution System Energy Cost	$ 81,393	$ 93,797	$ 104,440	$ 129,883	$ 144,211	$ 159,079
	Recycled Water Program Cost						
24	Personnel Cost	$ 132,175	$ 132,175	$ 132,175	$ 132,175	$ 132,175	$ 137,461
25	Non-Personnel Cost	$ 15,000	$ 15,000	$ 15,600	$ 16,224	$ 16,873	$ 17,548
26	Subtotal Recycled Water Program Cost	$ 147,175	$ 147,175	$ 147,775	$ 148,399	$ 149,047	$ 155,009
	Recycled Water Meter Shop Cost						
27	Personnel Cost	$ 116,230	$ 116,230	$ 116,230	$ 116,230	$ 116,230	$ 120,880
28	Non-Personnel Cost	$ 17,500	$ 17,500	$ 18,200	$ 18,928	$ 19,685	$ 20,473
29	Subtotal Recycled Water Meter Shop Cost	$ 133,730	$ 133,730	$ 134,430	$ 135,158	$ 135,916	$ 141,352
	Treatment Costs						
43	South Bay Treatment Costs (escalated)	$ -	$ -	$ -	$ -	$ -	$ -
44	**Total South Bay WRP Expenses**	**$ 362,298**	**$ 374,702**	**$ 386,645**	**$ 413,440**	**$ 429,174**	**$ 455,441**
45	**TOTAL O&M EXPENSES**	**$ 3,009,049**	**$ 3,046,169**	**$ 3,078,053**	**$ 3,129,142**	**$ 3,184,417**	**$ 3,339,349**

Table 4
CIP - inflated

Line No.		Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
	North City WRP CIP						
1	709420 AA - Pooled Contingencies - RWDS	$ 590,723	$ 520,004	$ 540,804	$ 562,436	$ 584,934	$ 608,326
2	709490 AA - Reclaimed Water Extension	$ 599,476	$ 520,004	$ 540,804	$ 562,436	$ 584,934	$ 608,326
3	709541 Black Mountain Rd. Pipeline (RW Segment)	$ -	$ -	$ -	$ -	$ -	$ -
4	709543 Black Mountain Ranch RW Storage Tank	$ -	$ -	$ -	$ -	$ -	$ -
5	709545 Carmel Valley Reclaimed Water Pipeline	$ -	$ -	$ -	$ -	$ -	$ -
6	709548 Los Penasquitos Canyon RW Project	$ -	$ -	$ -	$ -	$ -	$ -
7	709553 Pacific Highlands RWP - PA	$ 247,405	$ 1,067,941	$ 4,442	$ -	$ -	$ -
8	709555 Camino Del Sur RWP - E&CP	$ 618,971	$ 829,821	$ 180,182	$ -	$ -	$ -
9	709556 Los Penasquitos Canyon RWP Part Agmt	$ 689,834	$ 787,600	$ 50,886	$ -	$ -	$ -
10	709557 Black Mountain North Villages	$ -	$ -	$ -	$ -	$ -	$ -
11	709559 Santaluz, LLC Participation Agreement	$ -	$ -	$ -	$ -	$ -	$ -
12	Regulatory Requirements Compliance	$ -	$ -	$ -	$ -	$ 1,654,180	$ -
13	Distribution System Repair & Replacements (R&R)	$ -	$ -	$ -	$ -	$ -	$ 9,064
14	**Total North City WRP CIP**	**$ 2,746,409**	**$ 3,725,370**	**$ 1,317,118**	**$ 1,124,873**	**$ 2,824,048**	**$ 1,225,717**
	South Bay WRP CIP						
15	Regulatory Requirements Compliance	$ -	$ -	$ -	$ -	$ 175,479	$ -
16	Distribution System Repair & Replacements (R&R)	$ -	$ -	$ -	$ -	$ -	$ -
17	**Total South Bay WRP CIP**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 175,479**	**$ -**
18	**Total CIP - inflated**	**$ 2,746,409**	**$ 3,725,370**	**$ 1,317,118**	**$ 1,124,873**	**$ 2,999,527**	**$ 1,225,717**
	R&R Reserve Requirements						
19	North City WRP	$ -	$ 199,944	$ 199,944	$ 199,944	$ 199,944	$ 199,944
20	South Bay WRP	$ -	$ 20,508	$ 20,508	$ 20,508	$ 20,508	$ 20,508
21	**Total R&R Reserve Requirements**	**$ -**	**$ 220,451**	**$ 220,451**	**$ 220,451**	**$ 220,451**	**$ 220,451**
	Total CIP less R&R	$ 2,746,409	$ 3,725,370	$ 1,317,118	$ 1,124,873	$ 2,999,527	$ 1,216,653
	Total North City WRP CIP	**$ 2,746,409**	**$ 3,725,370**	**$ 1,317,118**	**$ 1,124,873**	**$ 2,824,048**	**$ 1,225,717**
	Total South Bay WRP CIP	**$ -**	**$ -**	**$ -**	**$ -**	**$ 175,479**	**$ -**

Table 5
Capital Financing Plan

Line No.			Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
	Sources of Funds							
1	Transfers from Capital Reserve Fund		$ -	$ -	$ -	$ -	$ -	$ 1,813
2	Water Development Fees		$ -	$ -	$ -	$ -	$ -	$ -
3	Capacity Charges		$ -	$ 3,618,313	$ -	$ -	$ 2,992,589	$ 2,176,429
6	Pay-as-you-go Capital		$ 2,746,409	$ -	$ 263,424	$ 224,975	$ -	$ -
7	Proposed Debt Funding	80%		$ 2,980,296	$ 1,053,695	$ 899,898	$ 2,399,621	$ 980,574
8	**Total Sources of Funds**		**$ 2,746,409**	**$ 6,598,609**	**$ 1,317,118**	**$ 1,124,873**	**$ 5,392,211**	**$ 3,158,815**
	Uses of Funds							
9	Capital Improvement Projects		$ 2,746,409	$ 3,725,370	$ 1,317,118	$ 1,124,873	$ 2,999,527	$ 1,225,717
10	Transfers to Capital Reserve Fund		$ -	$ 2,873,238	$ -	$ -	$ 2,392,684	$ 1,933,098
11	**Total Uses of Funds**		**$ 2,746,409**	**$ 6,598,609**	**$ 1,317,118**	**$ 1,124,873**	**$ 5,392,211**	**$ 3,158,815**

Table 6
MWD and CWA Credits

Line No.		Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
	Credits for North City WRP (1)						
1	Credits from MWD ($/ac-ft)	$ 200	$ 250	$ 250	$ 250	$ 250	$ 250
2	Credits from CWA ($/ac-ft)	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200
3	Total Credits from CWA and MWD ($/ac-ft)	$ 400	$ 450	$ 450	$ 450	$ 450	$ 450
4	Total Credits for North City WRP	$ 2,174,000	$ 2,790,000	$ 2,722,500	$ 2,722,500	$ 2,970,000	$ 3,150,000
	Credits for South Bay WRP						
5	Credits from MWD ($/ac-ft)						
6	Credits from CWA ($/ac-ft) (2)	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200
7	Total Credits from CWA and MWD ($/ac-ft)	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200
8	Total Credits for South Bay WRP	$ 110,000	$ 144,000	$ 144,000	$ 150,000	$ 150,000	$ 150,000
9	**TOTAL CREDITS FROM MWD AND CWA**	**$ 2,284,000**	**$ 2,934,000**	**$ 2,866,500**	**$ 2,872,500**	**$ 3,120,000**	**$ 3,300,000**

(1) Credits for North City WRP expired in FY 2023.
(2) Credits for South Bay WRP expired in FY 2032.

Table 7
Revenue Requirements

Line No.		Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
	North City WRP						
	Revenue Requirements						
1	O&M Costs	$ 2,646,751	$ 2,671,467	$ 2,691,408	$ 2,715,702	$ 2,755,243	$ 2,883,909
2	Capital Costs						
3	Existing Debt Service	$ 10,614,726	$ 10,614,727	$ 10,614,728	$ 10,614,729	$ 10,614,730	$ 10,614,731
4	Proposed Debt Service	$ -	$ 162,206	$ 319,414	$ 317,369	$ 572,944	$ 589,833
5	R&R Reserve	$ -	$ 199,944	$ 199,944	$ 199,944	$ 199,944	$ 199,944
6	Pay-as-you-go Capital	$ 2,436,223	$ -	$ 227,904	$ 193,394	$ -	$ -
7	Subtotal: Capital Costs	$ 13,050,949	$ 10,976,877	$ 11,361,990	$ 11,325,435	$ 11,387,618	$ 11,404,508
o							
9	Transfer to Operating Reserve	$ 100,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 300,000	$ 300,000
10	Transfer to Rate Stabilization Reserve	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
11	**Total Revenue Requirements**	**$ 15,897,700**	**$ 14,748,344**	**$ 15,153,398**	**$ 15,141,137**	**$ 14,542,861**	**$ 14,688,417**
	Less: Revenue Offsets						
12	Credits from MWD and CWA	$ 2,174,000	$ 2,790,000	$ 2,722,500	$ 2,722,500	$ 2,970,000	$ 3,150,000
13	Base Charge Revenue	$ 610,982	$ 678,739	$ 516,144	$ 592,852	$ 643,209	$ 706,973
14	Fees from Olivenhein (1)	$ 12,500	$ 12,500	$ 10,000	$ 10,000	$ 10,000	$ 10,000
15	Subtotal Revenue Offsets	$ 2,797,482	$ 3,481,239	$ 3,248,644	$ 3,325,352	$ 3,623,209	$ 3,866,973
16	**North City WRP Net Revenue Requirements**	**$ 13,100,218**	**$ 11,267,105**	**$ 11,904,754**	**$ 11,815,784**	**$ 10,919,652**	**$ 10,821,443**
	South Bay WRP						
	Revenue Requirements						
17	O&M Costs	$ 362,298	$ 374,702	$ 386,645	$ 413,440	$ 429,174	$ 455,441
18	Capital Costs						
19	Existing Debt Service	$ -	$ -	$ -	$ -	$ -	$ -
20	Proposed Debt Service	$ -	$ 22,392	$ 49,781	$ 51,826	$ 97,542	$ 108,043
21	R&R Reserve	$ -	$ 20,508	$ 20,508	$ 20,508	$ 20,508	$ 20,508
22	Pay-as-you-go Capital	$ 310,186	$ -	$ 35,519	$ 31,581	$ -	$ -
23	Subtotal: Capital Costs	$ 310,186	$ 42,900	$ 105,809	$ 103,915	$ 118,050	$ 128,550
24	Transfer to Operating Reserve	$ 100,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 300,000	$ 300,000
25	Transfer to Rate Stabilization Reserve	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
26	**Total Revenue Requirements**	**$ 872,484**	**$ 1,517,602**	**$ 1,592,453**	**$ 1,617,355**	**$ 947,224**	**$ 983,991**
27	Less: Revenue Offsets						
28	Credits from MWD and CWA	$ 110,000	$ 144,000	$ 144,000	$ 150,000	$ 150,000	$ 150,000
29	Subtotal Revenue Offsets	$ 110,000	$ 144,000	$ 144,000	$ 150,000	$ 150,000	$ 150,000
30	**South Bay WRP Net Revenue Requirements**	**$ 762,484**	**$ 1,373,602**	**$ 1,448,453**	**$ 1,467,355**	**$ 797,224**	**$ 833,991**
31	**TOTAL NET REVENUE REQUIREMENTS**	**$ 13,862,702**	**$ 12,640,706**	**$ 13,353,207**	**$ 13,283,140**	**$ 11,716,875**	**$ 11,655,434**

(1) Fees from Olivenhein are a premium of $25/ac-ft for not being a member agency of MWWD.

Table 8
Operating Cash Flow

Line No.		Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
	Revenue						
1	Commodity Rate - @ 75% of irrigation rates	$ 2,875,308	$ 3,245,046	$ 5,924,443	$ 8,901,792	$ 12,474,468	$ 13,604,562
2	Base Charge	$ 610,982	$ 678,739	$ 516,144	$ 592,852	$ 643,209	$ 706,973
3	CWA and MWD Credits	$ 2,284,000	$ 2,934,000	$ 2,866,500	$ 2,872,500	$ 3,120,000	$ 3,300,000
4	Other Revenue (Olivehain)	$ 12,500	$ 12,500	$ 10,000	$ 10,000	$ 10,000	$ 10,000
5	**Total Revenue**	**$ 5,782,790**	**$ 6,870,285**	**$ 9,317,087**	**$ 12,377,144**	**$ 16,247,677**	**$ 17,621,535**
	Revenue Requirements						
6	O&M Cost	$ 3,009,049	$ 3,046,169	$ 3,078,053	$ 3,129,142	$ 3,184,417	$ 3,339,349
7	Existing Debt Service	$ 2,998,649	$ 2,998,649	$ 2,998,649	$ 2,998,649	$ 2,998,649	$ 2,998,649
8	Proposed Debt Service	$ -	$ 184,598	$ 369,195	$ 369,195	$ 670,485	$ 697,876
9	Repayment to Water	$ 7,616,076	$ 7,616,076	$ 7,616,076	$ 7,616,076	$ 7,616,076	$ 7,616,076
10	Transfer to R&R Reserve	$ -	$ 220,451	$ 220,451	$ 220,451	$ 220,451	$ 220,451
11	Pay-as-you-go Capital	$ 2,746,409	$ -	$ 263,424	$ 224,975	$ -	$ -
12	**Total Revenue Requirements**	**$ 16,370,183**	**$ 14,065,944**	**$ 14,545,848**	**$ 14,558,488**	**$ 14,690,079**	**$ 14,872,401**
13	**Net Annual Cash Flow**	**$ (10,587,393)**	**$ (7,195,659)**	**$ (5,228,761)**	**$ (2,181,344)**	**$ 1,557,598**	**$ 2,749,134**
14	Debt Service Coverage	**86%**	**102%**	161%	244%	328%	363%
15	Required Debt Service Coverage	125%	125%	125%	125%	125%	125%

Table 9
Reserve Funds

Line No.			Estimated 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
	Operating Reserve Fund							
1	Beginning Balance		$ -	$ (10,999,380)	$ (19,062,430)	$ (25,484,497)	$ (29,084,647)	$ (29,025,527)
2	Net Annual Cash Flow		$ (10,587,393)	$ (7,195,659)	$ (5,228,761)	$ (2,181,344)	$ 1,557,598	$ 2,749,134
3	Transfer to Rate Stabilization Fund		$ (200,000)	$ (200,000)	$ (200,000)	$ (200,000)	$ (200,000)	$ (200,000)
4	**Ending Balance Before Interest Revenue**		**$ (10,787,393)**	**$ (18,395,039)**	**$ (24,491,191)**	**$ (27,865,841)**	**$ (27,727,049)**	**$ (26,476,394)**
5	*Interest Revenue*		*$ (211,988)*	*$ (667,391)*	*$ (993,306)*	*$ (1,218,806)*	*$ (1,298,479)*	*$ (1,268,331)*
6	**Ending Balance After Interest Revenue**		**$ (10,999,380)**	**$ (19,062,430)**	**$ (25,484,497)**	**$ (29,084,647)**	**$ (29,025,527)**	**$ (27,744,725)**
7	Target Reserve	19%	$ 576,683	$ 583,797	$ 589,907	$ 599,699	$ 610,292	$ 639,985
	R&R Capital Reserve Fund							
8	Beginning Balance		$ -	$ -	$ 3,163,298	$ 3,531,058	$ 3,915,367	$ 6,763,489
9	Transfers in		$ -	$ 3,093,690	$ 220,451	$ 220,451	$ 2,613,135	$ 2,153,549
10	Transfer out - R&R Projects		$ -	$ -	$ -	$ -	$ -	$ (1,813)
11	**Ending Balance Before Interest Revenue**		**$ -**	**$ 3,093,690**	**$ 3,383,749**	**$ 3,751,509**	**$ 6,528,502**	**$ 8,915,225**
12	*Interest Revenue*		*$ -*	*$ 69,608*	*$ 147,309*	*$ 163,858*	*$ 234,987*	*$ 352,771*
13	**Ending Balance After Interest Revenue**		**$ -**	**$ 3,163,298**	**$ 3,531,058**	**$ 3,915,367**	**$ 6,763,489**	**$ 9,267,996**
14	Target Reserve	50%	$ 766,444	$ 766,444	$ 766,444	$ 766,444	$ 766,444	$ 766,444
	Rate Stabilization Fund							
15	Beginning Balance		$ -	$ 204,000	$ 417,680	$ 640,976	$ 874,320	$ 1,118,164
16	Transfer from Operating Fund		$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000
17	Transfer out							
18	**Ending Balance Before Interest Revenue**		**$ 200,000**	**$ 404,000**	**$ 617,680**	**$ 840,976**	**$ 1,074,320**	**$ 1,318,164**
19	*Interest Revenue*		*$ 4,000*	*$ 13,680*	*$ 23,296*	*$ 33,344*	*$ 43,844*	*$ 54,817*
20	**Ending Balance After Interest Revenue**		**$ 204,000**	**$ 417,680**	**$ 640,976**	**$ 874,320**	**$ 1,118,164**	**$ 1,372,981**
21	Target Reserve	10%	$ 287,531	$ 324,505	$ 592,444	$ 890,179	$ 1,247,447	$ 1,360,456

APPENDIX C – LIST OF ABBREVIATIONS

AF	acre-feet
CWA	Clean Water Act
EDU	Equivalent Dwelling Unit
EPA	United States Environmental Protection Agency
GPD	Gallons per day
HCF	Hundred Cubic Feet
IBWC	International Boundary Water Commission
LRWRP	Long Range Water Resources Plan
MBC	Metro Biosolids Center
Mg/l	milligrams per liter
MGD	million gallons per day
MJPA	Metropolitan Joint Powers Authority
MWD	Metropolitan Water District of Southern California
MWWD	Metropolitan Wastewater Department
NCWRP	North City Water Reclamation Plant
NPDES	National Pollutant Discharge Elimination System
O&M	Operations & Maintenance
OPRA	Ocean Pollution Reduction Act
PLWTP	Point Loma Wastewater Treatment Plant
PA	Participating Agency
PAYGO	Pay-as-you-go
R&R	Replacement and Refurbishment
SBWRP	South Bay Water Reclamation Plant
SDCWA	San Diego County Water Authority
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
WRP	Water Resources Plan

Agenda Item 6

Metro Wastewater JPA

Budget

July 1, 2009 - June 30, 2010

Presented by Doug Wilson, Metro JPA Treasurer

Agenda Item 7

PBS&J

An employee-owned company

May 6, 2009

Mr. Mark Robak
Chairman, Metro Commission/JPA

Mr. Scott Huth
Chairman, MetroTAC

SUBJECT: PROPOSAL TO PROVIDE AS-NEEDED ENGINEERING AND FINANCIAL SERVICES

Dear Mr. Robak and Mr. Huth:

We very much appreciate this opportunity to submit our proposal to provide engineering and financial consulting services for the MetroTAC/JPA/Commission. The purpose of this proposal is to provide continued technical and financial support by PBS&J to the MetroTAC/JPA/ Commission during the upcoming FYE 2010. Our goal is to assist the Participating Agencies in meeting their objectives of fair rates, equitable cost sharing, and program validation.

The intention of this contract is to provide continued review and oversight of the Metro System Program with a minimum of duplication of effort by the Participating Agencies. Our goals are to assist in increasing the responsiveness of the group regarding key issues of concern, ensure coverage at key meetings, centralize the data collection, minimize duplication of efforts by the Participating Agencies, and reduce the costs for the Participating Agencies as well as the overall costs of the Metro Program.

We have enjoyed working with the MetroTAC/JPA/Commission since 1998 and we look forward to continuing our successful relationship. As we are sensitive to public agency finances in these tough economic times, we are not increasing our hourly rate or the total contract amount from fiscal year 2009. Please call me at 858.514.1008 if you have any questions.

Sincerely,

Karyn Keese
Financial Services Manager

9275 Sky Park Court, Suite 200 • San Diego, California 92123 • Telephone: 858.874.1810 • Fax: 858.514.1001 • www.pbsj.com

ATTACHMENT A

EXECUTIVE SUMMARY

MetroTAC/JPA/COMMISSION

AS-NEEDED ENGINEERING AND FINANCIAL SERVICES

MAY 6, 2009

Up until the late 1990's, the Participating Agencies (PAs) in the City of San Diego Metropolitan Wastewater System (Metro System) had outdated contracts with the City of San Diego (City). The Metro System provides wastewater treatment and disposal for the PAs. These contracts had been written and entered in 1963. A new contract was agreed upon and entered between the PAs and the City in early 1998. This contract provided for:

- A role in decision making
- A role in the budget process and preparation
- A role in capital improvement planning
- A mechanism to verify overhead cost allocation
- An assurance that San Diego Metro and Municipal expenses were properly allocated
- A definition of what was being paid for
- An appeal process for disputes
- A role in governance
- A role in technical and operational review
- A guaranteed sharing of new capacity under a re-rating scenario
- A role in long-range planning

In addition, the new contract provided for the establishment of the Metro Commission and their technical arm, the MetroTAC. Since that time the MetroTAC/Commission has become fully engaged in the City's wastewater issues. MetroTAC representatives now review every aspect of the City's capital project decision-making process from the earliest project conception to completion and, in fact, sit on consultant selection panels. In addition, the Joint Powers Authority (JPA) was formed to create an effective regional voice in wastewater issues, generally in partnership with the City staff and Council.

In September 1998, the MetroTAC/Commission/JPA contracted with PBS&J (then known as John Powell & Associates) to provide engineering and financial consulting services. It was felt that an outside consultant could provide an independent third party objective review and was more efficient than each PA reviewing all the capital project and financial information provided by the City. To that end PBS&J has provided the following consulting services:

- Review of all financial aspects, including the budget, audit, CIP and rate case proposals
- Attendance at meetings to provide technical support for the MetroTAC/ Commission
- Review of capital improvement programs
- Technical support to Ad Hoc Financial Committee

- Participate in MetroTAC/Commission Strategic Planning process
- Provide specific tasks as directed by the MetroTAC, AdHoc Finance Committee, and the Metro JPA/Commission

Since the inception of this contract, PBS&J has assisted the MetroTAC in modifying the scope of proposed capital projects. In addition, PBS&J has participated in annual audits of the costs associated with the operations and maintenance and capital programs associated with the Metro System (Exhibit E Audits). The participation in the Exhibit E Audits have resulted in several reforms and annual cost savings for the PAs. In the past three years, our participation in the audit process has resulted in an average of $600,000 per year savings for the PAs. During 2009 we participated in the close of the 2005 and 2006 Exhibit E Audits with total funds returned to the PAs of $13.5 million.

Other work performed through our last year contract included the following Special Projects:

1. Transportation Agreement review: edit, coordinate input from PAs, liaison with San Diego; Audit proposed rate per gallon with a resulting decrease from $6 to $4 per gallon
2. Participate in MetroTAC subcommittee in response to San Diego's request for $20 million in reserves and debt service coverage; Created draft cash flow models
3. Provided support and research for MetroTAC on such issues as non-degradable flushable items programs and waste discharge requirements
4. Review of San Diego's rate case and FY 2009 and 2010 budgets
5. Sewer Meter Alarm early warning system: review agreement, solicit input from PAs, provide feed back to San Diego, interface with ADS
6. Reclaimed Water Issues: coordinate with PAs, attorneys, and San Diego; research issues about credits, charges, expenses, and costs; prepare staff reports and presentation
7. Provide support for the Metro AdHoc Finance Committee

Over the past few years, PBS&J's responsibilities have changed to provide a greater emphasis on an extension of staff role to the MetroTAC/JPA. An average of 30 percent of our annual services fall into special projects or "as-needed" services as discussed earlier. The majority of these projects were not envisioned at the time of the negotiations for the last contract.

We have discussed our proposed scope of work with Scott Huth, Chair of MetroTAC, as well as Ernie Ewin, Chairman of the AdHoc Finance Committee and they have advised us as to projects they would like to see completed in FYE 2009. Scott Huth has also requested that we include hours to support MetroTAC in unforeseen technical projects that may arise during that time period.

We have not increased our base hourly rate for FYE 2010. Based on these unchanged rates, we have determined a fee of $105,595 for FYE 2010, which is the same as our 2008 and 2009 estimated budgets. This will maintain a 15% discount on PBS&J's normal hourly rates.

ATTACHMENT B

SCOPE OF SERVICES

MetroTAC/JPA/COMMISSION

AS-NEEDED ENGINEERING AND FINANCIAL SERVICES

MAY 6, 2009

The purpose of the As-Needed Consulting Contract for the Metro Wastewater JPA is to provide technical and financial support to the PAs in meeting their objectives of fair rates, equitable cost sharing, and program validation. The intention of the As-Needed Contract is to provide review and oversight of the San Diego Metropolitan Sewer System (Metro System) Program with a minimum of duplication by the PAs. By combining the efforts of the PAs into a central focal point, our goal is to assist in increasing the responsiveness of the group to key issues of concern, ensure coverage at key meetings, centralize the data collection, minimize duplication of efforts by the PAs and reduce the costs of both MetroTAC/ Commission/JPA efforts, as well as the overall costs of the Metro Program.

I. Scope of Services

The effort by PBS&J will be divided into four major categories, one for routine services, two for specific financial tasks, and one for anticipated technical tasks.

A. Routine Meetings

The routine meetings will include the following tasks:

1. As-needed attendance at the MetroTAC meetings by the Financial Services Manager and Technical Project Engineer
2. As-needed attendance and preparation for the Metro Commission/JPA meetings by the Financial Services Manager and Technical Project Engineer
3. Support of AdHoc Finance Committee

B. Routine Audit Review - Metropolitan Wastewater Department (MWWD) Exhibit E Audit Review – Fiscal Years 2007, 2008, and 2009

1. Review and negotiate the auditors Scope of Work
2. Attend Entrance and Exit Conferences with the Auditors
3. Select audit sample
4. Attend Interim Bi-Weekly work meetings with the Auditors (Maximum of 5)
5. Review the Draft and Final Audit numbers and test results
6. Review all audit samples for contract compliance and accounting accuracy
7. Review the annual general services cost allocation
8. Review output for any special projects (In the past this has included the

reconciliation of the Shames and other municipal lawsuits, and the Clean Water Program management contract to insure that only Metro costs have/had been charged to the PAs.)
9. Prepare work-meeting reports
10. Present the results to the AdHoc Finance Committee, MetroTAC, and Metro Wastewater JPA / Commission

C. Routine Review of MWWD Budget – FYE 2011

1. Line item review of the proposed CIP projects to verify that they are a part of the Wastewater Agreement. Provide a preliminary review of the O&M costs to identify areas of concern for the PAs
2. Identify budget items that show major deviation from previous years, and discuss these deviations with the City
3. Attend meetings with the City of San Diego MWWD staff to identify the nature and magnitude of the budget items
4. Provide updates on budget issues to the MetroTAC and the Metro Wastewater JPA/Commission meetings

D. Special Projects

FYE 2009 Special Projects

South Bay Water Reclamation Plant (SBWRP) Cost Components – With the Otay Water District (Otay) pipeline and pump station completed, Otay is purchasing reclaimed water from the SBWRP. Per the Regional Wastewater Disposal Agreement, the revenue from the sales of reclaimed water from the SBWRP are MWWD revenues (not Water Department revenues) and therefore 35 percent of these revenues should become an income credit for the PAs starting in FYE 2008. MWWD staff is currently preparing a study to determine the actual cost to run the tertiary facilities to determine if the current contract price with Otay covers the actual cost of production. A tracking method needs to be established for revenues from sales of reclaimed water and costs that will be incorporated into the Annual Exhibit E Audit process for both the SBWRP as well as the North City WRP. In addition, the tertiary costs will need to be reviewed. This is likely to become an issue with the Water Department as they currently view the reclaimed water sales from the SBWRP to be their revenues without expenses.

MetroTAC Staff Support – This task includes 4 hours per month for unforeseen financial analysis to be provided by Karyn Keese and 4 hours of technical engineering support to be provided by Dean Gipson.

Update Capacity Valuation Model – At the end of the Capacity Valuation study the Excel economic model was turned over for the use of the JPA. The fixed asset data in the model is from 2005. Once the 2008 audit is completed, these assets will be updated to present value and will be provided to the PAs.

As many of the PAs are planning to establish or update Metro Capacity Fees during this next fiscal year, the model needs to be brought up to date. PBS&J will provide update services to the MetroTAC/JPA/Commission.

Fats, Oils, and Grease Control Program Regional Coordination – Many PAs have implemented or are beginning to implement a Fats, Oils, and Grease (FOG) Control Program. As these FOG programs develop and mature, uniformity among the programs will help establish consistent enforcement of the programs and identify areas where responsibilities may be shared for a cost savings. PBS&J will assist the MetroTAC with the coordination, evaluation, and recommendations for a regional FOG control effort.

PBS&J will also support, as-needed, the following items on the MetroTAC 2010 Workplan:

- State WDRs and WDR Communication Plan
- PLWWTP Waiver
- IPR Pilot Program(s)
- Lateral Issues
- Grease Recycling
- Water Reduction – Impacts on Sewer Rates
- Flushable Items that Do Not Degrade
- “Power Tariff”

II. ADDITIONAL SERVICES

A. Participate in the MWWD Strategic Business Plan.
B. Review of ongoing background material not envisioned.
C. Prepare for and attend additional meetings beyond what is included in Section I.
D. Provide additional follow-up on the additional items identified.
E. Participate in the MWWD Annual Master Plan Update.
F. Provide additional technical support on specific projects as directed by the MetroTAC, AdHoc Finance Committee, and Metro JPA/Commission Chairmen.
G. Provide technical support, as requested, to fulfill Metro JPA objectives.

LABOR ESTIMATE

Project Name: **METRO JPA Routine Services FYE 2010**
Client/Owner: **Metro Wastewater JPA**
Project Manager: **Karyn Keese**
Prepared By: **Karyn Keese**
Proj/Prop No.: **620677**
Date: **May 6, 2009**

FEE SUMMARY

ITEM	TOTAL
Labor	$105,469
Outside Services	$0
Direct Costs	$126
TOTAL	**$105,595**

BILLING RATES

ENGINEERING SERVICES	
Engineering Aide - EA	$67
Engineer I - EI	$103
Engineer II - EII	$114
Engineer III - EIII	$118
Senior Engineer I - SEI	$123
Senior Engineer II - SEII	$133
Senior Engineer III - SEIII	$139
Supervising Engineer I - SPEI	$155
Supervising Engineer II - SPEII	$165
Principal Engineer I - PRI	$175
Principal Engineer II - PRII	$189
Principal Engineer III - PRIII	$209
Principal Engineer IV - PRIV	$219

ADMINISTRATIVE SERVICES	
Admin Assistant I/Clerk - AI	$57
Admin Assistant II (N6) - AII	$68
Admin Assistant III (N7) - AIII	$70
Sr. Admin Assistant I (N8) - SAI	$80
Sr. Admin Assistant II (N9) - SAII	$85
Sr. Admin Assistant III - SAIII	$95
Senior Administrator - SA	$120

OTHER PROFESSIONAL SERVICES	
Professional I/GIS Analyst - PI	$88
Professional II/GIS Analyst II - PII	$101
Sr. Prof. I/Sr. GIS Analyst I - SPI	$122
Sr. Prof II/Sr. GIS Analyst II - SPII	$135
Sr. Prof III/Sr. GIS Analyst III - SPIII	$145
Supervising Professional - SP	$170
Principal Professional - PP	$175

ENVIRONMENTAL SCIENCE	
Research Assistant - RA	$57
Assistant Scientist - AS	$82
Scientist I - SI	$98
Scientist II - SII	$115
Scientist III - SIII	$125
Senior Scientist I - SSI	$135
Senior Scientist II - SSII	$170
Senior Scientist III - SSIII	$179
Senior Scientist IV - SSIV	$189

CONSTRUCTION RELATED SERVICES	
Contract Administrator - CA	$82
Sr. Contract Administrator - CAS	$104
Construction Mgmt Rep. I* - CMI	$84
Construction Mgmt Rep. II* - CMII	$92
Senior Field Representative* - SFR	$108
Prevailing Wage Field Rep. - PWFR	$114
Resident Engineer - SPEC	$129
Construction Manager - CM	$124
Senior Construction Manager - SCM	$139
(non-prevailing wage)*	

DESIGN & GRAPHIC SERVICES	
CADD Technician I (N7) - CTI	$67
CADD Technician II (N8) - CTII	$80
CADD Technician III (N9) - CTIII	$92
Graphics Designer I (N10) - GDI	$93
Graphics Designer II (N11) - GDII	$97
Designer I - DI	$97
Designer II - DII	$108
Senior Designer I - SDI	$118
Senior Designer II - SDII	$128
Senior Designer III - SDIII	$133

TASK DESCRIPTION			LABOR CODE/STAFF HOURS											TOTALS	
Pt	Task	Task/Sub	pp	pri	aii	-	-	-	-	-	-	-	-	-	HOURS	FEE
			kk	dg	al	-	-	-	-	-	-	-	-	-		
	01	Routine Engineering Services													0	$0
		Attend MetroTAC Meetings	24	24											48	$8,400
		Attend Metro Commission Mtgs.	24	24											48	$8,400
		Support Metro AdHoc Finance	48		12										60	$9,219
		Participate in Metro JPA SP	8	8											16	$2,800
		Subtotal													172	$28,819
	02	Exhibit E Audit													0	$0
		Review & Negotiate Audit Scope	4												4	$700
		Entrance/Ext Conference	6												6	$1,050
		Interim Work Meetings	24												24	$4,200
		Review Draft & Final Numbers	54												54	$9,450
		Special Audit Projects	16												16	$2,800
		Prepare Report/Presentation	12												12	$2,100
		Present Metro TAC/Metro Com	8												8	$1,400
		Subtotal													124	$21,700
	03	Budget Review													0	$0
		Line Item Review/Var. Analysis	50												50	$8,750
		Detail Presentation Prep.	8												8	$1,400
		Subtotal													58	$10,150
			pp	pri	aii	-	-	-	-	-	-	-	-	-	PAGE TOTALS	
TOTAL - THIS PAGE			286	56	12	0	0	0	0	0	0	0	0	0	**354**	**$60,669**
TOTAL - ALL PAGES			406	192	12	0	0	0	0	0	0	0	0	0	**610**	**$105,469**

TASK DESCRIPTION			LABOR CODE/STAFF HOURS											TOTALS	
Pt	Task	Task/Sub	pp	pri	aii	-	-	-	-	-	-	-	-	-	HOURS	FEE
			kk	dg	al	-	-	-	-	-	-	-	-	-		
		Special Projects For MetroTAC/Commission													0	$0
		MetroTAC Staff Support (General)	48	48											96	$16,800
		Update Cap. Fee Valuation Model	16												16	$2,800
		Resolve reclaimed water issues	48												48	$8,400
		Regional FOG/energy programs		16											16	$2,800
		Support waiver discussions		16											16	$2,800
		WDR Communications Plan		16											16	$2,800
		IRP Pilot Program	8	8											16	$2,800
		Latealr Issues		8											8	$1,400
		Grease Recycling		8											8	$1,400
		Flushable Items		8											8	$1,400
		Power Tariff		8											8	$1,400
		Subtotal													256	$44,800
			pp	pri	aii	-	-	-	-	-	-	-	-	-	PAGE TOTALS	
TOTAL - THIS PAGE			120	136	0	0	0	0	0	0	0	0	0	0	**256**	**$44,800**
TOTAL - ALL PAGES			406	192	12	0	0	0	0	0	0	0	0	0	**610**	**$105,469**

PBS&J **Direct Costs**

DESCRIPTION						TOTALS
Pt	Task	Type	Quantity	Unit	Unit Cost	Cost
		Mileage	250	MILES	$0.51	$126.25
TOTAL						**$126**

Agenda Item 11B

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Accounting Research Manager ® - Government

GASB - Governmental Accounting Standards Board
Statements of the Governmental Accounting Standards Board (GASBS)
No. 49: Accounting and Financial Reporting for Pollution Remediation Obligations
Introduction

Statement No. 49 of the Governmental Accounting Standards Board

Accounting and Financial Reporting for Pollution Remediation Obligations

November 2006

Summary

This Statement addresses accounting and financial reporting standards for pollution (including contamination) remediation obligations, which are obligations to address the current or potential detrimental effects of *existing* pollution by participating in pollution remediation activities such as site assessments and cleanups. The scope of the document excludes pollution *prevention* or *control* obligations with respect to current operations, and future pollution remediation activities that are required upon retirement of an asset, such as landfill closure and postclosure care and nuclear power plant decommissioning.

As illustrated in the flowchart in paragraph 106 [], once any one of five specified obligating events occurs, a government is required to estimate the components of expected pollution remediation outlays and determine whether outlays for those components should be accrued as a liability or, if appropriate, capitalized when goods and services are acquired. Obligating events include the following:

- The government is compelled to take pollution remediation action because of an imminent endangerment.
- The government violates a pollution prevention–related permit or license.
- The government is named, or evidence indicates that it will be named, by a regulator as a responsible party or potentially responsible party (PRP) for remediation, or as a government responsible for sharing costs.
- The government is named, or evidence indicates that it will be named, in a lawsuit to compel participation in pollution remediation.
- The government commences or legally obligates itself to commence pollution remediation.

Pollution remediation outlays should be capitalized in government-wide and proprietary fund financial statements, subject to certain limitations, only if the outlays are incurred (1) to prepare property for sale in anticipation of a sale, (2) to prepare property for use when the property was acquired with known or suspected pollution that was expected to be remediated, (3) to perform pollution remediation that restores a pollution-caused decline in service utility that was recognized as an asset impairment, or (4) to acquire property, plant, and equipment that have a future alternative use other than remediation efforts.

Most pollution remediation outlays do not qualify for capitalization and should be accrued as a liability (subject to modified accrual provisions in governmental funds) and expense when a range of expected outlays is reasonably estimable or as an expenditure upon receipt of goods and services. If a government cannot reasonably estimate the range of all components of the liability, it should recognize the liability as the range of each *component* (for example, legal services, site investigation, and required postremediation monitoring) becomes reasonably estimable. In government-wide and proprietary fund financial statements, the liability should be recorded at the current value of the costs the government expects to incur to perform the work. This amount should be estimated using the expected cash flow technique, which measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average.

For pollution remediation obligations that are not common or similar to situations at other sites with which the government has experience, this Statement includes a series of recognition benchmarks—steps in the remediation process—that governments should consider in determining when components of pollution remediation liabilities are reasonably estimable. Thus, the measurable transactions and events that result in a pollution remediation liability may be relatively limited at initial recognition but would increase over time as more components become reasonably estimable. This Statement also requires remeasurement of the liability (and its components) when new information indicates increases or decreases in estimated outlays.

The measurement of a government's pollution remediation liability should include remediation work that the government expects to perform for other parties; however, expected recoveries from those other parties, and insurance recoveries, reduce the measurement of the government's pollution remediation expense when reasonably estimable (and reduce associated expenditures when the recoveries are measurable and available). If the expected recoveries are not yet realized or realizable, they also would reduce the measurement of the government's pollution remediation liability. If the expected recoveries are realized or realizable, they should be reported as recovery assets (for example, cash or receivables).

For recognized pollution remediation liabilities and recoveries, this Statement requires governments to disclose the nature and source of pollution remediation obligations, the amount of the estimated liability (if not apparent from the financial statements), the methods and assumptions used for the estimate, the potential for changes in estimates, and estimated recoveries that reduce the measurement of the liability. Governments are required to disclose a general description of the nature of pollution remediation activities for liabilities (or components thereof) that are not reasonably estimable.

The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2007, with measurement of pollution remediation liabilities required at the beginning of that period so that beginning net assets can be restated. However, governments that have sufficient objective and verifiable information to apply the expected cash flow technique to measurements in prior periods are required to apply the provisions retroactively for all such prior periods presented.

How This Statement Will Improve Financial Reporting

This Statement will enhance comparability of financial statements among governments by requiring all governments to account for pollution remediation obligations in the same manner, including required reporting of pollution remediation obligations that previously may not have been reported. This Statement also will enhance users'

ability to assess governments' obligations by requiring more timely and complete reporting of obligations as their components become reasonably estimable. Current standards (NCGA Statement 4, *Accounting and Financial Reporting Principles for Claims and Judgments and Compensated Absences*, and Financial Accounting Standards Board (FASB) Statement No. 5, *Accounting for Contingencies*) do not require recognition of pollution remediation liabilities until after they are judged to be probable of occurrence. This causes a number of expected liabilities not to be reported. Additionally, current standards require the liability to be reported as a single-point estimate, which may not consider all potential outcomes. For example, FASB Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss*, requires recognition of the low end of a range of estimated pollution remediation outlays when no amount within a range is a better estimate than any other amount. This causes reporting of liabilities at amounts that may differ significantly from the expected amounts (the amounts that, on average, will be incurred). This Statement will improve financial reporting by requiring consideration of recognition once an obligating event occurs and by requiring reporting of liabilities using the expected cash flow measurement technique.

Unless otherwise specified, pronouncements of the GASB apply to financial reports of all state and local governmental entities, including general purpose governments; public benefit corporations and authorities; public employee retirement systems; and public utilities, hospitals and other healthcare providers, and colleges and universities. Paragraph 2 discusses the applicability of this Statement.

Introduction

1. The objective of this Statement is to enhance the usefulness and comparability of **pollution remediation obligation**[1] information reported by state and local governments by setting uniform standards requiring more timely and complete reporting of those obligations and by requiring all governments to account for pollution remediation obligations in the same manner, including required reporting of pollution remediation obligations that previously may not have been reported.

[1] Terms in the Glossary are shown in **boldface type** the first time they appear in this Statement.

Standards of Governmental Accounting and Financial Reporting

Scope and Applicability

2. This Statement establishes standards for accounting and financial reporting for pollution remediation obligations, as discussed in paragraphs 5 and 6. This Statement applies to all state and local governments.[2]

[2] This Statement applies to business-type activities and enterprise funds that apply Financial Accounting Standards Board (FASB) Statement No. 71, *Accounting for the Effects of Certain Types of Regulation*. Those business-type activities and enterprise funds should report a regulatory asset related to a pollution remediation loss when appropriate in accordance with the provisions of FASB Statement 71.

3. This Statement amends paragraphs 42 and 43 of NCGA Statement 1, *Governmental Accounting and Financial Reporting Principles,* paragraph 14 of NCGA Statement 4, *Accounting and Financial Reporting Principles for Claims and Judgments and Compensated Absences,* paragraph 5 of NCGA Interpretation 6, *Notes to the Financial Statements Disclosure,* paragraph 1 of GASB Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues,* as amended, and paragraphs 9, 11, and 14 and footnote 7 of GASB Interpretation No. 6, *Recognition and Measurement of Certain Liabilities and Expenditures in Governmental Fund Financial Statements,* to provide specific reporting guidance for pollution remediation obligations, including disclosure requirements.

4. This Statement does not apply to the following:

a. Landfill closure and postclosure care obligations within the scope of GASB Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Postclosure Care Costs*.

b. Other future pollution remediation activities that are required upon retirement of an asset (asset retirement obligations, such as nuclear power plant decommissioning) during the periods preceding the retirement.[3] However, this Statement applies to those activities *at the time of the retirement if* obligating events are met and a liability has not been recorded previously.

[3] The government's policy for accounting for asset retirement obligations may need to be disclosed in the summary of significant accounting policies as discussed in paragraph 158 of NCGA Statement 1.

c. Recognition of asset impairments[4] or liability recognition for unpaid claims by insurance activities.[5]

[4] Statement No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries* [], provides guidance for asset impairments within its scope.

[5] Governments that retain risk for pollution remediation liability contingencies should apply the provisions of this Statement for recognition of such liabilities. Statement 10, as amended, provides guidance for liability recognition by insurance-related activities within its scope.

d. Pollution prevention or control obligations with respect to current operations as discussed in paragraph 6, or to fines, penalties, and other nonremediation outlays discussed in paragraph 7.

e. Accounting for nonexchange transactions, such as brownfield redevelopment grants.[6]

[6] Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions* [], provides guidance for nonexchange transactions within its scope.

Pollution Remediation Obligations

5. A pollution remediation obligation is an obligation to address the current or potential detrimental effects of existing **pollution** by participating in pollution remediation activities. For example, obligations to clean up spills of **hazardous wastes** or **hazardous substances** and obligations to remove contamination such as asbestos are pollution remediation obligations. Pollution remediation activities include the following:

a. Pre-cleanup activities, such as the performance of a **site assessment,** site investigation, and corrective measures feasibility study, and the design of a remediation plan

b. Cleanup activities, such as neutralization, containment, or removal and disposal of pollutants, and site restoration

c. External government oversight and enforcement-related activities, such as work performed by an environmental regulatory authority dealing with the site and chargeable to the government

d. Operation and maintenance of the remedy, including required

monitoring of the remediation effort (postremediation monitoring).

Not all pollution remediation obligations will involve all of the above activities. For example, asbestos removal typically will not involve postremediation monitoring.

6. Pollution remediation obligations do not include pollution prevention or control obligations with respect to current operations, such as obligations to install smokestack scrubbers, treat effluent, or use environment-friendly products—for example, low-sodium road salts.

Outlays for Pollution Remediation Activities

7. Pollution remediation **outlays** include all direct outlays attributable to pollution remediation activities (for example, payroll and benefits, equipment and facilities, materials, and legal and other professional services) and may include estimated indirect outlays (including general overhead). Outlays related to natural resource damage (for example, revegetation outlays) are included only if incurred as part of a pollution remediation effort. The following outlays are not part of performing pollution remediation and should not be included: fines, penalties, toxic torts[7] (civil wrongs arising from exposure to a toxic substance), product and process (workplace) safety outlays, litigation support involved with potential recoveries, and outlays borne by society at large rather than by a specific government.

[7] Accrual of contingent liabilities for fines, penalties, and toxic torts is discussed in FASB Statement No. 5, *Accounting for Contingencies*.

8. Outlays for operation and maintenance of a remedial action, including postremediation monitoring required by a remedial action plan, are part of pollution remediation rather than a separate future service obligation. Postremediation monitoring estimates should take into account that such outlays are not likely to extend indefinitely. As discussed in paragraph 18, estimates should be reassessed periodically.

Pollution Remediation Obligations Generally Reported as Liabilities

9. Pollution remediation obligations generally will result in recognition and reporting of pollution remediation liabilities, as discussed in paragraphs 10–21. In certain instances, an obligation to participate in pollution remediation activities will result in recognition and reporting of capital asset transactions at the time those assets are acquired, as discussed in paragraph 22.

Recognition and Measurement of Pollution

Remediation Liabilities

Recognition and Measurement Framework

10. This Statement establishes a framework for the recognition and measurement of pollution remediation liabilities that incorporates the following interrelated features:

a. *Obligating Events:* Once an obligating event occurs, a government should determine whether one or more components of a pollution remediation obligation are recognizable as a liability. (See paragraph 11.)

b. *Components and Benchmarks:* Components of a liability (for example, legal services, site investigation, or required postremediation monitoring) should be recognized as they become reasonably estimable. This Statement provides *benchmarks* for evaluating when various components become reasonably estimable. (See paragraphs 12 and 13.)

c. *Measurement, Including the Expected Cash Flow Technique:* Measurement is based on the **current value** of outlays expected to be incurred. (See paragraphs 14 and 15.) The components of the liability should be measured using the **expected cash flow technique,** which measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average. (See paragraphs 16 and 17.)

Obligating Events

11. When a government knows or reasonably believes that a site is polluted, the government should determine whether one or more components of a pollution remediation obligation are recognizable as a liability[8] when any of the following events occurs:

[8] Additional requirements for recognition in governmental funds are discussed in paragraph 24.

a. The government is compelled to take remediation action because pollution creates an imminent endangerment to public health or welfare or the environment, leaving it little or no discretion to avoid remediation action.[9]

[9] This criterion applies to events that compel a government to take remediation action even if no law requires such action. It is not limited to, for example, the **Superfund** law or the **Resource Conservation and Recovery Act (RCRA),** which provide the

federal government with authority to enforce remediation actions when pollution causes an *imminent and substantial endangerment.*

b. The government is in violation of a pollution prevention–related permit or license, such as a **Resource Conservation and Recovery Act (RCRA)** permit or similar permits under state law.

c. The government is named, or evidence indicates that it will be named, by a regulator as a responsible party or **potentially responsible party (PRP)** for remediation, or as a government responsible for sharing costs.[10]

[10] For example, section 104(c)(3) of the Superfund law, as amended [42 U.S.C. 9604(c)(3)], requires in part that states pay or ensure payment of 10 percent of the cost of remedial action, and 100 percent of the cost of operations and maintenance, at sites that were privately owned or operated and for which no financially viable PRP can be found.

d. The government is named, or evidence indicates that it will be named, in a lawsuit to compel the government to participate in remediation.[11]

[11] There is a presumption that a lawsuit can be excluded from consideration if it is substantially the same as a lawsuit previously determined to be without merit in relevant judicial determinations.

e. The government commences, or legally obligates itself to commence,[12] cleanup activities or monitoring or operation and maintenance of the remediation effort.[13] If these activities are voluntarily commenced and none of the other obligating events have occurred relative to the entire site, the amount recognized should be based on the portion of the remediation project that the government has initiated and is legally required to complete.

[12] For example, a government that sells polluted land may obligate itself to perform remediation activities as part of the agreement of sale. Also, a government may voluntarily sign a consent decree making itself a responsible party for cleanup activities.

[13] If a government legally obligates itself to commence pre-cleanup work, such as a **remedial investigation and feasibility study (RI/FS),** it should include that work in the amount that it is

legally required to complete.

Recognition Benchmarks

12. Pollution remediation liabilities should be recognized as the ranges of their components become reasonably estimable (subject to the provisions in paragraph 24 for governmental funds). In some cases, the government may have insufficient information to reasonably estimate the ranges of all components of its liability. In these cases, the government should recognize pollution remediation liabilities as the range of each component of the liability (for example, legal services, site investigation, or required postremediation monitoring) becomes reasonably estimable. In other cases, a government will be able to reasonably estimate a range of all components of its liability early in the process because the site situation is common (for example, the remediation involves only the routine removal of underground storage tanks [USTs] in accordance with a UST program for fuel storage tanks) or is similar to situations at other sites with which the government has experience.[14] In such cases, the entire estimated liability should be recognized at this stage.

[14] If a government estimates remediation outlays using, for example, state-wide averages developed by a state environmental regulator, the averages should be evaluated to ensure that they are applicable to the polluted site. Such averages may not be applicable if the site situation is not common or has unique characteristics.

13. The range of an estimated remediation liability often will be defined and periodically refined, as necessary, as different stages in the remediation process occur. Certain stages of a remediation effort or process and of responsible party or PRP involvement provide benchmarks that should be considered when evaluating the extent to which a range of potential outlays for a remediation effort or process is reasonably estimable. Benchmarks should not, however, be applied in a manner that would delay recognition beyond the point at which a reasonable estimate of the range of a component of a liability can be made. The recognition benchmarks that follow typically apply to pollution remediation obligations that are not common or similar to situations at other sites with which the government has experience. At a minimum, the estimate of a pollution remediation liability should be evaluated as each of these benchmarks occurs.

a. *Receipt of an administrative order.* A government may receive an administrative order compelling it to take a response action at a site or risk penalties. Such response actions may be relatively limited, such as the performance of a **remedial investigation and feasibility study (RI/FS)** at a Superfund site or performance of a removal action, or they may be broad, such as remediation of a

site.

The ability to estimate outlays resulting from administrative orders varies with factors such as site complexity and the nature and extent of the work to be performed. The benchmarks that follow should be considered in evaluating the ability to estimate such outlays insofar as the actions required by the administrative order involve these benchmarks. (For example, asbestos removal typically would not involve completion of an RI/FS.) The outlays associated with performing the requisite work generally are estimable within a range, and recognition of a remediation liability for this work generally should not be delayed beyond this point.

b. *Participation, as a responsible party or a PRP, in the site assessment or investigation.* At this stage, the government (and possibly others) has been identified as a responsible party or a PRP and has agreed to pay all or part of a study that will investigate the extent of the environmental impact of the release or threatened release of pollutants and to identify site-remediation alternatives. Further, the total outlay associated with the site assessment or investigation generally is estimable within a reasonable range. In addition, the identification of other PRPs and their agreement to participate in funding the site assessment or investigation typically provide a reasonable basis for determining the government's allocable share of the site assessment or investigation. At this stage, additional information may be available regarding the extent of environmental impact and possible remediation alternatives. This additional information, however, may or may not be sufficient to provide a basis for reasonable estimation of the total remediation liability. At a minimum, the government should recognize its share of the estimated total outlays associated with the site assessment or investigation.

As the site investigation proceeds, the government's estimate of its share of the site investigation can be refined. Further, additional information may become available based on which the government can refine its estimates of other components of the liability or begin to estimate other components. For example, a government may be able to estimate the extent of environmental impact at a site and to identify existing alternative remediation technologies. A government also may be able to better identify the extent of its involvement at the site relative to other PRPs, the universe of PRPs may be identified, negotiations among PRPs and with federal and state Environmental Protection Agency (EPA) representatives may occur, and information may be obtained that significantly affects the agreed-upon method of remediation.

c. *Completion of a corrective measures feasibility study.* At substantial completion of the corrective measures feasibility study, both a range of the remediation outlays and the government's allocated share generally will be reasonably estimable.

The corrective measures feasibility study should be considered substantially complete no later than the point at which the responsible party or PRPs recommend a proposed course of action to the regulatory authority (for example, the U.S. EPA). If the government had not previously concluded that it could reasonably estimate all components of the remediation liability, recognition should not be delayed beyond this point, even if uncertainties remain (for example, allocations to individual PRPs and potential recoveries from third parties can be estimated; however, they have not been finalized). Uncertainties about the degree and probabilities of participation by other PRPs should be factored into the measurement of the liability as discussed in paragraphs 19–21.

d. *Issuance of an authorization to proceed.* At this point, the regulatory authority has issued its determination (for example, an EPA record of decision) specifying a preferred remedy. Normally, the government and other PRPs have begun, or perhaps completed, negotiations, litigation, or both for their allocated share of the remediation liability. Accordingly, the government's estimate normally can be refined based on the specified preferred remedy and a preliminary allocation of the total remediation outlays.

e. *Remediation design and implementation, through and including operation and maintenance, and postremediation monitoring.* During the design phase of the remediation, the government develops a better understanding of the work to be done and is able to provide more precise estimates of the total remediation outlays. Further information likely will become available at various points until site remediation work is completed, subject only to postremediation monitoring. The government should continue to refine its estimate of its liability as this additional information becomes available.

Measurement Based on Expected Outlays

14. Pollution remediation liabilities should be measured based on the pollution remediation outlays expected to be incurred to settle those liabilities. Profits and risk premiums that another party would demand to perform pollution remediation work should be included in the measurement of the government's liability only if the government expects to utilize another party to perform the work.

Measurement at Current Value

15. Pollution remediation liabilities should be measured at their current value. Because settlement of a pollution remediation liability is not always possible in the current period, settlement can involve future events. The current value of a pollution remediation liability should be based on *reasonable and supportable* assumptions about future events that may affect the eventual settlement of the liability. For example, the current value of a pollution remediation liability should be based on applicable federal, state, or local laws or regulations that have been *approved,* regardless of their effective date, and the existing technology *expected to be used* for the cleanup. The probabilities of these various expectations affect the probability-weighted measurement of the liability under the expected cash flow technique discussed in paragraphs 16 and 17.

Measurement of the Expected Cash Flow

16. Pollution remediation liabilities should be measured using the expected cash flow technique, which measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average. This technique uses all expectations about possible cash flows.

17. Some reasonable estimates of ranges of possible cash flows will be limited to a few discrete scenarios or a single scenario, such as an amount specified in a contract for pollution remediation services. Other reasonable estimates of ranges of possible cash flows will have many nondiscrete scenarios (a continuous distribution). In such cases, a government may have access to considerable data and may be able to develop many cash flow scenarios. However, even in cases in which a government has access to only limited data about the possible cash flows within a range, a limited number of discrete scenarios and probabilities should be developed that capture the array of possible cash flows. In developing those scenarios, a government could use actual cash flows for other pollution remediation projects,[15] if available, adjusted for changes in circumstances. Each application of the expected cash flow technique will differ based on the facts and circumstances of each measurement situation, available information, and judgments applied. Such judgments include determining whether to apply a continuous or discrete probability distribution and, if a discrete probability distribution is applied, the number of discrete scenarios.[16]

[15] For example, state-wide averages developed by a state environmental regulator. See footnote 14.

[16] For example, an estimated cash flow might be represented by discrete scenarios of $100, $200, or $300 with probabilities of 10 percent, 60 percent, and 30 percent,

respectively. The expected cash flow (and resulting liability) is $220, calculated as follows: ($100 × 0.1) + ($200 × 0.6) + ($300 × 0.3). A continuous distribution would average *all* scenarios in the range.

Remeasurement

18. As discussed in paragraph 13, estimates of a pollution remediation liability should be adjusted when benchmarks are met or when new information indicates changes in estimated outlays due to, for example, changes in the remediation plan or operating conditions. These changes may include the type of equipment, facilities, and services that will be used, price increases or reductions for specific outlay elements such as ongoing monitoring requirements discussed in paragraph 8, changes in technology, and changes in legal or regulatory requirements.

Accounting for Recoveries

19. Under the expected cash flow technique, the measurement of a government's pollution remediation liability should include all remediation work that the government expects to perform, including work expected to be performed for other responsible parties or PRPs, whether or not the government is required to do that work. Expected recoveries from those other parties, and expected insurance recoveries from policies that indemnify the government for its pollution remediation obligations, also should be included in the measurement by reducing[17] the expense[18] and affecting the liability as follows:[19]

[17] The requirement to reduce the measurement of remediation expenses and liabilities, respectively, by the amount of expected payments or insurance recoveries addresses issues specific to pollution remediation obligations.

[18] Additional requirements for governmental funds are discussed in paragraph 24.

[19] Paragraph 13 notes that the degree and probabilities of participation by other parties affect the measurement of the liability.

a. If the expected recoveries are *not yet* realized or realizable, they should reduce the measurement of the government's pollution remediation liability.[20]

[20] Expected recoveries, or portions thereof, that are expected to result in capital assets, as discussed in paragraph 22, should not reduce the measurement of

the government's pollution remediation expense or liability. Those recoveries should be reported as capital contributions (revenue).

b. If the expected recoveries *are* realized or realizable, they should be recognized separately from the liability as recovery assets (for example, cash or receivables).[21]

[21] For example, if expected outlays are $10,000 and expected recoveries of $3,000 are realized or realizable, the pollution remediation expense would be $7,000, the recovery asset would be $3,000, and the pollution remediation liability would be $10,000. If the pollution remediation liability had previously been recorded at a net amount of $7,000 because the recovery was not yet realized or realizable, the liability would be increased by $3,000 when the $3,000 recovery asset is recorded because it becomes realized or realizable.

20. Expected recoveries from other responsible parties, PRPs, and insurers should be measured consistently with the related pollution remediation outlays (based on their current value and using the expected cash flow technique). Paragraphs 21 and 22 of Statement 42 provide guidance for determining when an insurance recovery is realized or realizable. An insurance recovery generally is realizable when the insurer admits or acknowledges coverage, potentially before covered outlays take place.

21. If recoveries become expected in periods following the completion of all remediation work, such that a pollution remediation liability no longer exists, those transactions should be recorded, for example, as revenue and cash or accounts receivable, when they are realized or realizable. Display requirements for recoveries are provided in paragraphs 23 and 24.

Capitalization of Pollution Remediation Outlays

22. Except as provided below, pollution remediation outlays, including outlays for property, plant, and equipment, should be reported as an expense when a liability is recognized as discussed in paragraphs 12–21.[22] For example, a pump-and-treat system to be installed for pollution remediation generally would be reported as an expense at the time a liability is recognized. Some projects (for example, land improvements, remodeling, and periodic dredging of a waterway for shipping), for which the primary objective is other than pollution remediation, may include pollution remediation activities. Except as provided below, incremental outlays attributable to pollution remediation activities (outlays that would not be incurred absent pollution) should be reported

as an expense when a pollution remediation liability is recognized. Pollution remediation outlays should be capitalized in the government-wide and proprietary fund statements when goods and services are acquired if acquired for any of the following circumstances:

[22] Additional requirements for recognition in governmental funds are discussed in paragraph 24.

a. To prepare property in anticipation of a sale. In this circumstance, governments should capitalize only amounts that would result in the carrying amount of the property not exceeding its estimated fair value upon completion of the remediation.

b. To prepare property for use when the property was acquired with known or suspected pollution that was expected to be remediated. In this circumstance, governments should capitalize only those pollution remediation outlays expected to be necessary to place the asset into its intended location and condition for use, as discussed in paragraph 18 of Statement No. 34, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments,* as amended.[23]

[23] In determining outlays expected to be necessary to place an asset into its intended location and condition for use, governments should consider that not all increases in expected outlays are appropriately considered to be necessary. For example, if a pollution remediation project would not have been initiated had anticipated outlays been as high as those actually incurred, a government generally should not capitalize all of the outlays. In certain circumstances, the outlays originally expected to be incurred may be indicative of the amount necessary to place the asset into its intended location and condition for use.

c. To perform pollution remediation that restores a pollution-caused decline in service utility that was recognized as an asset impairment.[24] In this circumstance, governments should capitalize only those pollution remediation outlays expected to be necessary to place the asset into its intended location and condition for use, as discussed in paragraph 18 of Statement 34, as amended.[25]

[24] In some instances, such as remediation of oil contamination in land, pollution removal or containment outlays also may restore lost service utility. In other instances, such as removal of asbestos insulation preparatory to replacing it with nontoxic

insulation, pollution removal outlays may not restore lost service utility.

[25] In the case of restoration of an impaired asset, the outlays necessary to obtain a similar unimpaired asset, less the book value of the impaired asset, may be indicative of the amount necessary to place the asset into its intended location and condition for use. See also footnote 23.

d. To acquire property, plant, and equipment that have a future alternative use. In this circumstance, outlays should be capitalized only to the extent of the estimated service utility that will exist after pollution remediation activities uses have ceased.[26]

[26] For example, outlays for unpolluted land generally would be fully capitalized.

For outlays under criteria a and b, capitalization is appropriate only if the outlays take place within a reasonable period prior to the expected sale or following acquisition of the property, respectively, or are delayed, but the delay is beyond the government's control.

Display in Government-wide and Proprietary Fund Financial Statements

23. Pollution remediation costs (or revenue, in circumstances discussed in paragraph 21) should be reported in the statement of activities and statement of revenues, expenses, and changes in fund net assets, if appropriate, as a program or operating expense[27] (or revenue), special item, or extraordinary item in accordance with the guidance in paragraphs 41–46 [], 55, 56, 101 [], and 102 of Statement 34.

[27] See footnote 2.

Display in Governmental Fund Financial Statements

24. For goods and services used for pollution remediation activities, amounts that are normally expected to be liquidated with expendable available financial resources should be recognized as liabilities upon receipt of those goods and services. The accumulation of resources in a governmental fund for eventual payment of unmatured general long-term indebtedness, including pollution remediation liabilities, does not constitute an outflow of current financial resources and should not result in the recognition of an additional governmental fund liability or expenditure. In the statement of revenues, expenditures, and changes in fund balances, any facilities and equipment acquisitions for pollution remediation activities should be reported as expenditures. Estimated

recoveries of pollution remediation outlays from insurers and other responsible parties or PRPs for which the government is performing remediation activities should reduce any associated pollution remediation expenditures when the recoveries are measurable and available.

Disclosures

25. For recognized pollution remediation liabilities and recoveries of pollution remediation outlays, governments should disclose the following:

a. The nature and source of pollution remediation obligations (for example, federal, state, or local laws or regulations)

b. The amount of the estimated liability (if not apparent from the financial statements), the methods and assumptions used for the estimate, and the potential for changes due to, for example, price increases or reductions, technology, or applicable laws or regulations

c. Estimated recoveries reducing the liability.

26. For pollution remediation liabilities, or portions thereof, that are not yet recognized because they are not reasonably estimable, governments should disclose a general description of the nature of the pollution remediation activities.

Effective Date and Transition

27. The requirements of this Statement are effective for financial statements for periods beginning after December 15, 2007. Governments that have sufficient objective and verifiable information to apply the expected cash flow technique to measurements in prior periods should apply the provisions of this Statement retroactively for all such prior periods presented. Governments that do not have that information should apply the provisions of this Statement as of the effective date. In that case, pollution remediation liabilities should be measured at the beginning of that period so that beginning net assets can be restated. In the period this Statement is first applied, the financial statements should disclose the nature of any restatement and its effect. Also, the reason for not restating prior periods presented should be explained. Early application of this Statement is encouraged.

The provisions of this Statement need not be applied to immaterial items.

This Statement was issued by unanimous vote of the seven members of

the Governmental Accounting Standards Board:

Robert H. Attmore, *Chairman*
Cynthia B. Green
William W. Holder
Edward J. Mazur
Marcia L. Taylor
Richard C. Tracy
James M. Williams

Glossary

28. This paragraph contains definitions of certain terms *as they are used in this Statement;* the terms may have different meanings in other contexts.

Current value

The amount that would be paid if all equipment, facilities, and services included in the estimate were acquired during the current period.

Expected cash flow technique

A technique that measures a liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average. This technique uses all expectations about possible cash flows.

Hazardous wastes; Hazardous substances

Wastes and substances that are toxic, corrosive, ignitable, explosive, or chemically reactive, or appear on special U.S. Environmental Protection Agency lists. This includes wastes and substances listed in 33 U.S.C. §2701(23), and 42 U.S.C. §6903(5) and §9601(14). The definition of hazardous *substance* under the Superfund law is broader than the definition of hazardous *wastes* under RCRA. As used in this Statement, the terms *hazardous waste* and *hazardous substance* also include materials designated by state environmental regulators.

Outlays

Expenses, expenditures, and capital acquisitions, as appropriate.

Pollution

The U.S. Environmental Protection Agency provides the following discussion of the term *pollution* on its website:

"Generally, the presence of a substance in the environment that because of its chemical composition or quantity prevents the functioning of natural processes and produces undesirable environmental and health effects. Under the Clean Water Act, for example, the term has been defined as the man-made or man-induced alteration of the physical, biological, chemical, and radiological integrity of water and other media."

Pollution remediation obligation

An obligation to address the current or potential detrimental effects of existing pollution by participating in pollution remediation activities. For example, obligations to clean up spills of hazardous wastes or hazardous substances and obligations to remove contamination such as asbestos are pollution remediation obligations.

Potentially responsible party (PRP)

An individual or entity—including owners, operators, transporters, or generators—that is held potentially responsible for pollution at a site. As used in this Statement, the term refers to a party that is held by law as potentially responsible for pollution at any site. It is not limited to parties associated with Superfund sites.

Remedial investigation and feasibility study (RI/FS)

Extensive technical studies to investigate the scope of site impacts (RI) and determine the remedial alternatives (FS) that, consistent with the National Contingency Plan provisions of the federal Superfund law or similar state laws, may be implemented at a polluted site. An RI/FS may include a variety of on- and off-site activities, such as monitoring, sampling, and analysis.

Resource Conservation and Recovery Act (RCRA)

A federal law that provides comprehensive regulation of hazardous wastes from point of generation to final disposal. All generators of hazardous waste, transporters of hazardous waste, and owners and operators of hazardous waste treatment, storage, or disposal facilities must comply with the applicable requirements of the statute.

Site assessment

A site-specific baseline risk assessment that identifies hazards, assesses exposure to the hazards and their toxicity, and characterizes and quantifies the potential risks posed by the site.

A site assessment may be noninvasive, involving inquiry into previous uses of a site, site reconnaissance, and interviews (a Phase I site assessment), or may involve invasive testing for pollution (a Phase II site assessment).

Superfund

A federal law (the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [CERCLA], as amended by the Superfund Amendments and Reauthorization Act of 1986 [SARA], which together are referred to as Superfund) that provides the U.S. Environmental Protection Agency with broad authority to order liable parties to remediate polluted sites or use Superfund money to remediate them and then seek to recover its costs and additional damages.

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