Meeting of the Metro Commission and Metro Wastewater JPA

AGENDA

Thursday, SEPTEMBER 1, 2011
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.	PLEDGE OF ALLEGIANCE TO THE FLAG
	3.	PUBLIC COMMENT *Persons speaking during Public Comment may address the Metro Commission/ Metro Wastewater JPA on any subject matter within the jurisdiction of the Metro Commission and/or Metro Wastewater JPA that is not listed as an agenda item. Comments are limited to three (3) minutes. Please complete a Speaker Slip and submit it prior to the start of the meeting.*
X	4.	**ACTION** – CONSIDERATION AND POSSIBLE ACTION TO APPROVE THE MINUTES OF THE REGULAR MEETING OF JULY 7, 2011 **(Attachments)**
X	5.	UPDATE AND DISCUSSION ON RECYCLED WATER STUDY **(Attachment)**
	6.	PRESENTATION ON MANAGED COMPETITION PROGRAM (Barbara Lamb Program Manager, Business Office)
X	7.	KEY RELATED ITEMS WE SHOULD BE TRACKING/GETTING UP TO SPEED ON **(Attachment)**
	8.	METRO TAC UPDATE
	9.	IROC UPDATE a. Report from IROC Representative Caires

Documentation Included

10. FINANCE COMMITTEE
    a. Report from Finance Committee

11. REPORT OF GENERAL COUNSEL

12. PROPOSED AGENDA ITEMS FOR THE NEXT METRO COMMISSION/ METRO WASTEWATER JPA MEETING October 6, 2011.

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 E. Patino at (858) 292.6321, at least forty-eight hours in advance of the meetings.

AGENDA ITEM 4
Attachment

Meeting of the Metro Commission and Metro Wastewater JPA

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

July 7, 2011 DRAFT Minutes

Chairman Ewin called the meeting to order at 12:06 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	Scott Tulloch
City of Coronado	Al Ovrom	X	Scott Huth
City of Del Mar	Donald Mosier		
City of El Cajon	Bill Wells		Dennis Davies
City of Imperial Beach	Ed Spriggs		
City of La Mesa	Ernie Ewin	X	
Lemon Grove Sanitation District	Jerry Jones		Mike James
City of National City	Louis Natividad	X	Joe Smith
City of Poway	Merrilee Boyack	X	
City of San Diego	Jerry Sanders		Roger Bailey
County of San Diego	Dianne Jacob		Daniel Brogadir
Otay Water District	Mark Robak		
Padre Dam MWD	Augie Caires	X	Augie Scalzitti
Metro TAC Chair	Scott Huth	X	Greg Humora
IROC	Jim Peugh		(No representative)

Others present: Metro JPA General Counsel Paula de Sousa; Metro JPA Secretary Lori Anne Peoples; Tom Howard – City of Poway; Ann Sasaki - City of San Diego Public Utilities; Karyn Keese of Atkins Global; Greg Humora - City of La Mesa; Tom Zeleny – General Counsel City of San Diego

2. PLEDGE OF ALLEGIANCE TO THE FLAG

Commissioner Ovrom led the Pledge.

3. PUBLIC COMMENT

There was no public comment.

4. ACTION - CONSIDERATION AND POSSIBLE ACTION TO APPROVE THE MINUTES OF THE REGULAR MEETING OF JUNE 2, 2011

ACTION: Upon motion by Commissioner Natividad, seconded by Commissioner Cox, the June 2, 2011 Minutes were approved unanimously.

5. ACTION - CONSIDERATION AND POSSIBLE ACTION TO APPROVE THE FOURTH AMENDMENT TO METRO JPA TREASURER'S SERVICE AGREEMENT WITH PADRE DAM MUNI WATER DISTRICT

General Counsel de Sousa provided a brief overview of the agreement noting that the amendment should have been brought forward last month as part of the agreements being approved on a fiscal year basis, this amendment will continue through fiscal year 2011-2012 and is continuing at the same rate, just extending out the term to coincide with the fiscal year.

ACTION: Upon motion by Commissioner Ovrom, seconded by Commissioner Boyack, the amendment was approved unanimously.

6. METRO 2011 YEAR END PROJECTIONS

Lee Ann Jones Santos. Interim Deputy Director of Finance and Information Technology stated that this presentation as well as the one under Item 7 was requested by the Metro Commission/Metro JPA after it was provided by the IROC Committee. Additionally, they will start to bring current year monitoring and quarterly updates to the Metro JPA Finance Committee. Ms. Santos provided a brief PowerPoint presentation showing a three year trend in relation to the FY 2012 Budget. The presentation showed: Budget vs. Actuals (reflecting both the Muni and Metro components due to the difficulty with the timing provided to break out the Metro piece); Wastewater Fund FY 2011 Projected $383,110,236; Wastewater Fund FY 2012 Proposed Budget $420,246,902; Wastewater Fund FY 2011 Variance Analysis; Metro Fund FY 2011 Variance Analysis; Metro Fund Capital Improvement Program 3-Year; Wastewater Revenue 3-Year Budget vs. Actuals; Wastewater Fund Revenue FY 2012 Proposed Budget.

7. METRO 2012 OPERATING AND CIP BUDGET

Lee Ann Jones Santos. Interim Deputy Director of Finance and Information Technology stated that this PowerPoint presentation follows the citywide template that is used when their budget is taken to Council. The presentation showed: FY 2012 Budget Metro Fund Summary (FY 2011 adopted budget and FTEs (full time employees) and FY 2012 proposed budget with a reduction of FTE of 35.95 and budget decrease of $31,538,719); FY 2012 Reductions Summary Metro Fund. Ms. Santos noted that there was a reduction in the McGuigan settlement of $1,412,400 and that there was a scheduled meeting with Karyn Keese on July 20th. She summarized that this settlement was not a fine or penalty, rather they are paying what should have been paid to the Pension Fund and the PA's share the cost of the labor and the correct amount needing to be paid to the Pension Fund. General Counsel de Sousa stated that her understanding was the JPA wanted confirmation that the PA's portion of paying the settlement was appropriate and not a disproportionate share. Chair Ewin stated that he hoped that if there was any effort to work on adjusting any unfunded liabilities, that the JPA would be given advanced notice and be able to weigh in and do due diligence up front. Continued presentation slides: FY 2012 Service Level Impacts Non-General Fund; FY 2012 New Initiatives and Challenges in FY 2012; FY 2012 CIP Budget Request Metro Fund.

Metro JPA Finance Committee Chairman Ovrom stated that the committee went through the report with fine detail and noted that each time the presentations were becoming clearer and more candid and thanked Ms. Santos for that.

Ms. Santos noted that a copy of the CIP Projects were included in the packet, not included in the PowerPoint presentation, but as an additional request of the Finance Committee and MetroTAC. MetroTAC Chair Huth stated that they wanted to make sure that looking out over the next 10 years; everyone had a copy of the projected CIP's. A couple of items such as the wet weather storage facility which is a pretty sizable amount and currently being dialoged on as to whether it is needed or not and if so, how much. This gives an idea of what is out there in the future that the JPA would be looking at for the Metro system.

8. KEY RELATED ITEMS WE SHOULD BE TRACKING/GETTING UP TO SPEED ON

MetroTAC Chair Huth stated that the new additions were highlighted. There were just a couple of minor updating items such as the Metro Strategic Plan which he will cover under the MetroTAC report.

9. METRO TAC UPDATE

MetroTAC Chair Huth stated that they had covered the same presentation with Ms. Santos which they found to be really informative and answered several questions they had; also had a presentation on the permitting issues and strategies around those for the Pt. Loma Treatment Plant. Since the meeting the Strategic Business Plan for the Public Utilities Department has been released and Representative Caires has worked on it with Chula Vista MetroTAC Representative Yano. They have not had it presented at TAC as of yet, however there are hard copies if anyone wants to get an early view. It will be reviewed at TAC and then brought to the JPA with comments. Additionally, he and Chula Vista Alternate JPA Representative Tulloch had met this week with Mr. Bailey and Ms. Sasaki to discuss some of the issues surrounding the Recycled Water Study as it relates to Pt. Loma and potential thoughts on future waivers and future options on what may come about and the interest in that meeting was to get information so that when the policy discussion was held, they would be able to provide the JPA additional information on where things are coming out in the future.

10. IROC UPDATE

a. Report from IROC Representative Caires

IROC Representative Caires stated that they had not had an IROC meeting, however mentioned that the Advanced Water Treatment Plant was up and running. He had been informed that invitations had been sent out to the JPA members and had requested second ones be sent, encouraging everyone to take a tour which lasts approximately 1 hour.

11. FINANCE COMMITTEE

a. Report from Finance Committee

Finance Committee Chair Ovrom stated the Finance Committee had met and reviewed the presentation that was just give on the past years projections and next years Metro budgets and also the changes that General Counsel de Sousa had provided on the amendment to the Padre Dam contract. The only other item was that he and Member Boyack were asked to do a desk review of the finances at Padre Dam and they will be scheduling that shortly.

b. Minutes from the May 25, 2011 Finance Committee Meeting (**Attachment**)

12. REPORT OF GENERAL COUNSEL

General Counsel de Sousa stated the State Board had issued a Draft Small MS4 Permit (Small Municipal Separate Storm Sewer System Permit) that will apply to Special Districts as most cities in the County are subject to the Large MS4 Permit. It should be of interest to all jurisdictions in the County, not just those subject to it as it contains language from the State Board suggesting that Regional Boards use some of the draft permits requirements when the Regional Boards readopt their large MS4 permits and because there is sometimes a disconnect between the cities and what they are obligated to do and under their large MS4 permits they are not permitted to passively allow discharge into their storm water systems and those subject to the small MS4 permits which do discharge into their storm water systems should make sure there are consistencies between the obligations they are required to meet.

Also, Best Best & Krieger now has their first out of state office as of July 1, 2011 in Washington DC. They have joined with a firm, Miller & Van Eaton who do a lot of Federal and Telecommunications and Lobbying work.

13. PROPOSED AGENDA ITEMS FOR THE NEXT METRO COMMISSION/METRO WASTEWATER JPA MEETING September 1, 2011

Chair Ewin inquired noted that the JPA would be dark in August and requested any items for the September 1, 2011 agenda be forwarded to Secretary Peoples for inclusion in that agenda.

14. METRO COMMISSIONERS' AND JPA BOARD MEMBERS' COMMENTS

Metro Chairman Ewin presented Member Ovrom with a license plate holder stating "Landslide Ovrom" as his first election to Coronado City Council was won with 8 votes and this past November by 15 votes.

Member Brogadir stated that the County had operated 9 sanitation and sewer maintenance districts and as of July 1, 2011 they have consolidated all into 1 now called the San Diego County Sanitation District. The actual process was to annex all districts into the Spring Valley District and then renamed it so all others have been dissolved. Five of those were JPA members so they will be working with staff on making adjustments to the amendment.

15. ADJOURNMENT OF METRO COMMISSION AND METRO WASTEWATER JPA TO THE STRATEGIC PLANNING WORKSHOP IMMEDIATELY FOLLOWING THIS SPECIAL MEETING

At 12:31 p.m., there being no further business, Chairman Ewin declared the meeting adjourned.

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Recording Secretary

AGENDA ITEM 5
Attachment

DRAFT

SAN DIEGO RECYCLED WATER STUDY – EXECUTIVE SUMMARY

Prepared for
City of San Diego, Public Utilities Department
August 12, 2011

Project No. 137921

This is a draft and is not intended to be a final representation
of the work done or recommendations made by Brown and Caldwell.
It should not be relied upon; consult the final report.

Preface

This Recycled Water Study is the culmination of a two year process to develop a new vision for water reuse in the San Diego region. The Study's alternatives were developed through a participatory process involving work sessions and Stakeholder meetings. The combined contributions of the Stakeholders were invaluable in developing alternatives that considered diverse perspectives, concepts and approaches. This page recognizes the efforts of the Stakeholder participants that contributed substantially to this effort.

Stakeholders

Bruce Bell, P.E.
Independent Technical Consultant

Jim Peugh
Independent Rates Oversight Committee (IROC)

Marco Gonzalez
Coastal Environmental Rights Foundation

Toby Roy
San Diego County Water Authority

Dawn Guendert
Surfrider Foundation, San Diego Chapter

Jill Witkowski
San Diego Coastkeeper

Scott Huth
Metropolitan Wastewater Joint Powers Authority

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EXECUTIVE SUMMARY

Background

In August 2009, the City of San Diego (City), along with key stakeholders, initiated the Recycled Water Study (Study). The culmination of the Study is this Recycled Water Study Draft Report (Draft Report), which is intended to serve as a guidance document in helping policy leaders make the important decisions ahead regarding water reuse and the region's water and wastewater infrastructure.

Why Is Water Reuse Important to San Diego?

Water is important to the health, safety, and quality of life of people living in the San Diego region. Historically, the region's 3.1 million residents have received a majority of their water supply from imported sources including the State Water Project (i.e., the Bay-Delta via the California Aqueduct) and the Colorado River Aqueduct. Currently, 80 percent of the San Diego region's water supply is imported. Local supplies and conservation account for the remaining 20 percent of the total supply. The region's reliance on imported water causes San Diego's water supply to be vulnerable to impacts from shortages and susceptible to price increases. In 2008, water supplied from the State Water Project was restricted to protect endangered fish species in the Bay Delta. In addition, drought conditions in Southern California further impacted water supply availability. With the region's population projected to reach 3.9 million people by 2030, demands will increase and strain these limited water supplies.

Water Reuse in San Diego. Water reuse is an important component in San Diego's water supply portfolio.

What Other Drivers Affected this Study?

In 2010, the United States (U.S.) Environmental Protection Agency (EPA) allowed the City to continue to operate the Point Loma Wastewater Treatment Plant (Point Loma Plant) as a chemically enhanced primary treatment facility under a modification to its NPDES Permit. The 2010 permit allows the City to operate in this fashion for five years until 2015, when the permit must be renewed. Members of the environmental community (San Diego Coastkeeper and Surfrider Foundation, San Diego Chapter) have traditionally opposed past permit modification issuance and have advocated for converting the Point Loma Plant to full secondary treatment to reduce solids loading into the ocean. However, during the 2008-2010 permit modification process, and in lieu of such opposition, the environmental community entered into a Cooperative Agreement with the City to conduct this Recycled Water Study. In accordance with the Cooperative Agreement, both of these organizations provided their support to the U.S. EPA's decision to grant the modification. The City's responsibility per the Cooperative Agreement is to execute this Study, which is also consistent with the City's long-term goals and objectives.

The decision to execute the Study and the resulting Point Loma Plant impacts play an important role that will affect ratepayers in San Diego. Water reuse programs will offload flows that would otherwise go to the Point Loma Plant. The decisions to invest in water reuse programs or alternatively to fund large-scale wastewater system upgrades will affect the rates, reliability, and regional assets for decades. The fundamental focus of this study was to develop water reuse alternatives and then weigh the alternatives against other options based on the water supply benefits created, and the costs saved by avoiding other water and wastewater systems improvements. The most relevant avoided cost involves the wastewater system, and in particular, the potential need to upgrade the Point Loma Plant to secondary treatment standards.

What Are Key Terms Used in this Study?

The following key terms are defined due to their frequent use and their importance in understanding the concepts involved in this Study. A more comprehensive glossary is included in the Draft Report.

Water Reuse: Water reuse is a broad term used to describe the process of converting wastewater to a valuable water resource through treatment processes. Water reuse includes non-potable recycled water development and indirect potable reuse involving integration with drinking water supplies.

Non-potable Recycled Water: Synonymous with Non-potable Reclaimed Water, Title 22 Water, and tertiary treated water, non-potable recycled water is a form of water reuse that includes primary, secondary, and tertiary treatment to produce water suitable for a variety of applications, most notably for landscaping irrigation and industrial uses. Further treatment is required for integration with drinking water systems (see indirect potable reuse).

Purified or Advanced Purified Water: Purified or advanced purified water is water that undergoes advanced treatment to achieve a quality that is suitable for augmentation to a drinking water source. This treatment process is applicable to indirect potable reuse projects.

Indirect Potable Reuse: Indirect potable reuse is the blending of advanced purified water into an untreated water supply source (such as a groundwater basin or surface water storage reservoir) that, after a period of time, is treated at a potable water treatment plant and distributed in the potable water system. Indirect potable reuse integrates advanced treatment approaches to replace the natural treatment processes that occur on all river systems (similar to the region's existing Colorado River supply).

Wastewater: Wastewater is generally used to describe sewage that comes from homes, industry, or businesses. Wastewater is collected and treated at wastewater treatment plants. In San Diego, some wastewater is currently reclaimed as non-potable recycled water; however, the majority is treated and discharged to the ocean. Wastewater is needed for water reuse. Wastewater does not include stormwater in San Diego. Stormwater is collected in separate systems and typically not treated before discharge to streams and the ocean.

Untreated Water: Untreated water is water that is collected and stored in local surface water reservoirs and groundwater basins prior to treatment at a potable water treatment plant. Untreated water examples include Colorado River water, water from the California Bay Delta, and local rainfall.

Potable (Drinking) Water: Potable water is untreated water that has been treated at a water treatment plant to water quality levels meeting the U.S. EPA's Drinking Water Standards. Residents and businesses receive potable water at their water meter connection and its use is unrestricted.

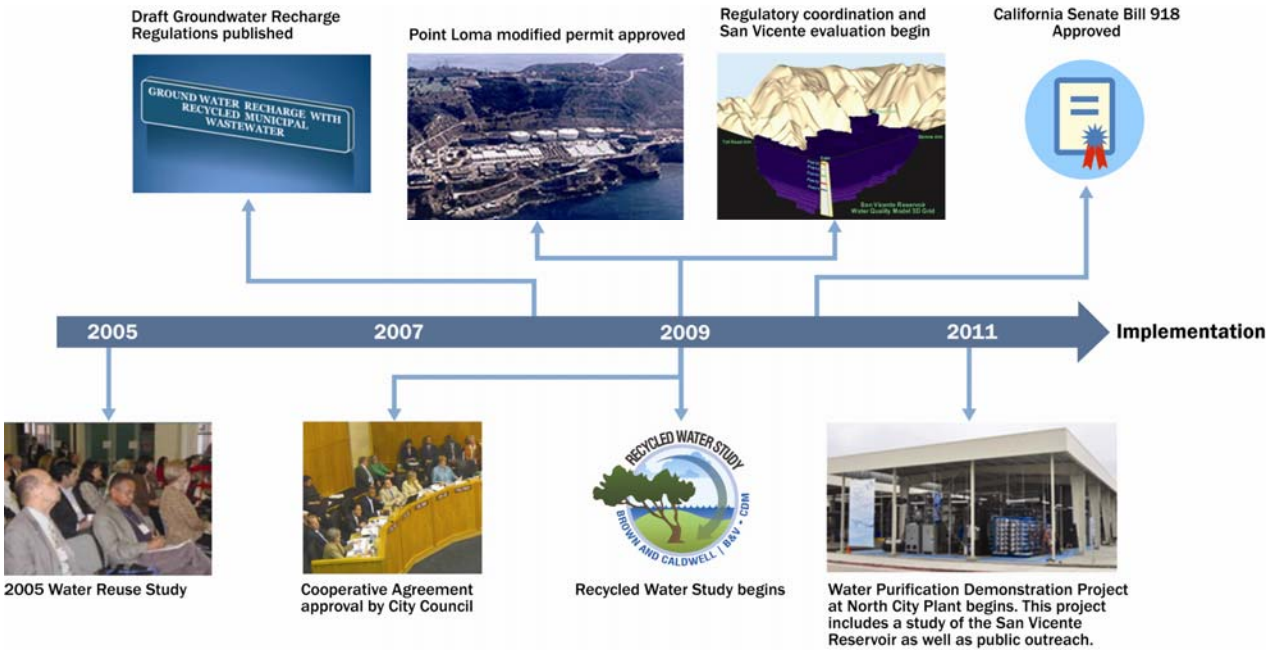
What Is Included in the Study?

The following provides an overview of the Chapters and Appendices in the Study.

Report Chapters	Supporting Information
Chapter 1 - Study Overview. Provides background and objectives of the San Diego Recycled Water Study, as well as describes the Study process and defines participating Stakeholders and Team Members, Study components, and important terminology used throughout the Report.	Glossary. Defines important terminology and acronyms used throughout the Report.
Chapter 2 – Water Reuse Need and Related Activities. Presents the dynamic water supply conditions in San Diego and the opportunity to implement water reuse as a local supply through related key studies and activities such as the 2005 Water Reuse Study and 2010 Recycled Water Master Plan Update.	Appendix A – Cooperative Agreement. Provides a copy of the signed agreement between the City of San Diego, the San Diego Coastkeeper, and the San Diego Chapter of the Surfrider Foundation to conduct a Recycled Water Study.
Chapter 3 – Study Process and Evaluation Approach. Describes, in detail, the elements of the participatory Study process and defines the guidelines and criteria against which the potential recycled water opportunities were assessed.	Appendix B – Point Loma Plant Conclusions. Provides conclusions and data on the Point Loma Plant based on the results of the Study, including an allocation of flows and discussion on chemically enhanced primary treatment.
Chapter 4 – Key Facilities, Water Demands and Wastewater Flows. Summarizes the principal elements of San Diego's current water, wastewater, and recycled water infrastructure systems that impact water reuse planning, and provides the related demands and flows from these systems.	Appendix C – Summary of Regulations That Affect Water, Wastewater and Recycled Water. Provides an overview of the key regulatory considerations for water, recycled water and wastewater, and includes anticipated regulatory criteria related to indirect potable reuse sizing.
Chapter 5 – Non-potable Recycled Water Opportunities. Describes the technical basis and foundation for developing the non-potable recycled water opportunities that were considered in the Study, such as existing and future demands, seasonal considerations, and locations and capacities of existing water recycling facilities.	Appendix D – California Senate Bill 918. Provides background on State of California Department of Public Health requirements for developing uniform criteria for groundwater recharge, reservoir augmentation and direct potable reuse.
Chapter 6 – Indirect Potable Reuse Opportunities. Describes the technical basis and foundation for developing the indirect potable reuse opportunities that were considered in the Study, including reservoir augmentation and groundwater recharge, and other potential benefits of indirect potable reuse.	Appendix E –Siting Analysis Documents. Provides siting information on the Harbor Drive, Camino del Rio and Morena sites, City ownership, and an alternatives analysis performed by the City.
Chapter 7 – Area Concepts. Provides detailed, comparable options, including both non-potable recycled water opportunities and indirect potable reuse opportunities, to develop comprehensive water reuse plans within three key Study areas.	Appendix F – Conceptual Cost Estimates for the Integrated Reuse Alternatives. Provides infrastructure sizing and costs for each Integrated Reuse Alternative component.
Chapter 8 – Integrated Reuse Alternatives. Evaluates the water reuse concepts presented in Chapter 7 based on Study goals, as well as provides a comparable financial evaluation for key alternatives, including a description of the financial model and its components.	Appendix G – TBD/if required.

How Does This Study Fit into Other On-going Efforts?

The overarching objective of this Study is to develop and clearly present integrated reuse alternatives that the public and policy-makers can review and select from to guide the future of the reuse program located within the Metropolitan Sewerage System Service Area. The alternatives were evaluated to meet City, Participating Agency, and Project Stakeholder reuse goals through a 2035 planning horizon. This Study is one part of a comprehensive regional program to evaluate and develop water reuse in San Diego.



Who Participated in the Study?

The Stakeholders for this Project are comprised of the San Diego Coastkeeper, the San Diego Chapter of the Surfrider Foundation, and the Participating Agencies of the Metropolitan Wastewater Joint Power Authority (Metro JPA), who have capacity rights in the Metropolitan Sewerage System pursuant to the provisions of the 1998 *Regional Wastewater Disposal Agreement Between the City of San Diego and the Participating Agencies in the Metropolitan Sewerage System*. The San Diego County Water Authority (SDCWA), the agency that has primary responsibility for water supply planning efforts, and the Independent Rates Oversight Committee are also Stakeholders in the Study. The primary Project Team consisted of City staff from the Public Utilities Department and a consulting team from Brown and Caldwell, Black & Veatch, and CDM.

PROJECT STAKEHOLDERS

Environmental Groups
- San Diego Coastkeeper
- Surfrider Foundation, San Diego Chapter

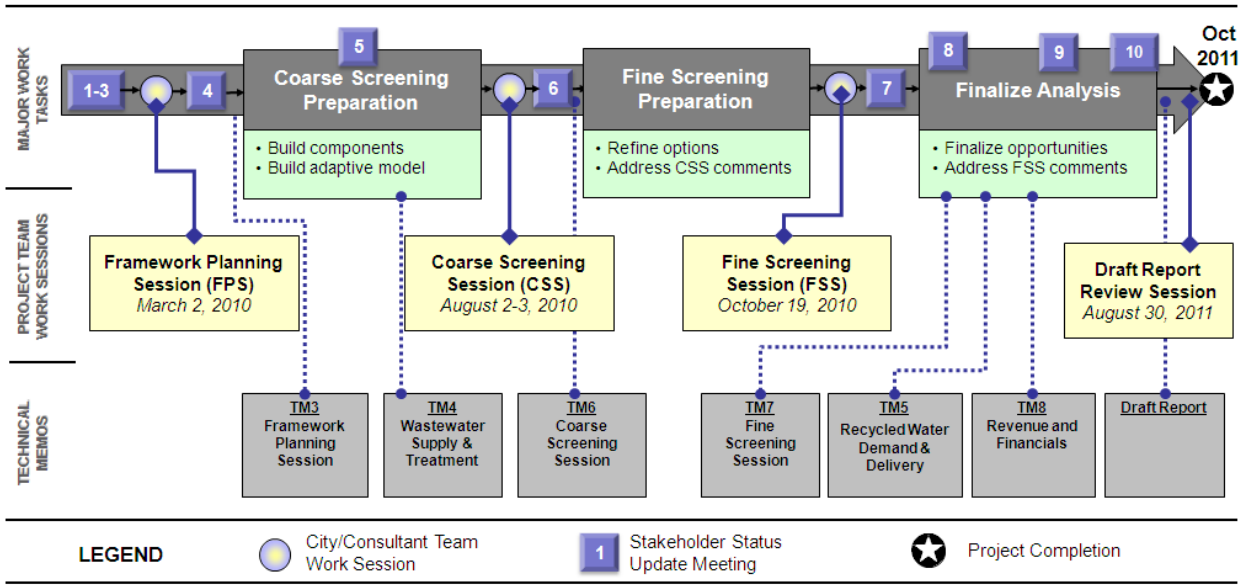
Oversight Groups
- Independent Rates Oversight Committee (IROC)

Regional Water Supplies
- San Diego County Water Authority (SDCWA)

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

What Was the Study Process?

The Study includes a number of technical evaluations and coordination steps to identify and evaluate reuse alternatives within the City as well as areas served by the Participating Agencies. Throughout the Study, regular Stakeholder Status Update meetings were held to present progress and to receive input and feedback on the activities. Eight technical memoranda were developed to document information.



How Were Alternatives Developed?

Alternatives were developed through a participatory process. Stakeholder Status Update meetings and four work sessions were used to frame, develop, refine, and communicate the Alternatives included in this Study.

Work Sessions. The Coarse Screening and Fine Screening Sessions included presentations, team exercises, and facilitated discussions. The sessions leveraged the group's creativity and diverse perspectives to improve the quality of the Alternatives presented in the Study.

What Issues and Opportunities Helped Determine the Water Reuse Target?

The water reuse target, similar to past efforts, was based on Study goals, Stakeholders' input, and findings from the preliminary technical analysis. The goal of the previous 2005 Water Reuse Study was to maximize the available capacities at the North City Water Reclamation Plant (North City Plant) and South Bay Water Reclamation Plant (South Bay Plant). This coincided with a target of approximately 20 mgd for future water reuse projects. This Recycled Water Study was initiated with a broader basis: to consider the water reuse goal to be limited *only* by the amount of wastewater available in the Metro Service Area. This more comprehensive target increased the water reuse potential to be ten times higher than previous targets, with up to 200 mgd projected at the Point Loma Plant and 15 mgd at the South Bay Plant in 2050.

Four Measures that Established the Water Reuse Target:

- Value of Water. Reliable water supplies are needed for San Diego
- Water Quality. Imported water salinity levels are becoming an issue for Southern California. Reuse can improve the ocean water quality, and indirect potable reuse can greatly reduce salinity levels, including tangible ratepayer benefits (such as extended life of water heaters, dishwashers, etc.).
- Project Size and Costs. Water reuse targets should be based on project sizing that considers costs and regulatory limits.
- Avoided Cost Savings. The water reuse target sizing should consider savings from avoided costs in the water and wastewater systems since these offsets can provide substantial economic benefits to ratepayers.

Water Supply Considerations for the Water Reuse Target. Multiple forces are driving water reuse in Southern California. Water reuse projects produce high-quality, reliable, uninterruptible local water to the region, serving the same purpose as imported untreated water. Imported untreated water rates will continue to rise, and conveyance system improvements will be needed to deliver imported water to the region's water treatment plants - unless the supply is supplemented with new local supplies. Indirect potable reuse can fulfill this need and, over time, do so at lower costs.

Water Quality Considerations for the Water Reuse Target. Two water quality considerations were taken into account in establishing a water reuse target: ocean water quality and surface regional salinity. Both are important, and both would improve through implementation of the water reuse projects identified in this Study. Ocean water quality would improve through the additional treatment facilities and diversion of wastes to the Metropolitan Biosolids Center. On land, the surface water reservoirs that receive the water, the residents that use the water, and the soil that is irrigated with the water would benefit from having water up to half the current salinity levels. Residents would benefit from softer water and extended lives of household appliances such as water heaters, dishwashers, clothes washers, and faucets.

Project Size Considerations for the Water Reuse Target. Project sizing was considered a limiting factor in developing the water reuse target. Non-potable recycled water projects, while beneficial for targeted areas, did not have enough demand potential to use a substantial portion of the available wastewater and proved costly in many instances due to the need for dual plumbed infrastructure. It also became apparent that developing larger indirect potable reuse projects to use the entire amount of wastewater available would not be practical or provide the right balance of costs and benefits. Therefore, the project size consideration (when coupled with project cost considerations) constrained the water reuse target to a preliminary range between 80 mgd and 120 mgd.

Avoided Costs at the Point Loma Plant. Avoided costs played an important role in establishing the 100 mgd reuse target.

Avoided Cost Considerations for the Water Reuse Target. San Diego has the potential to save substantial costs by investing in water reuse projects instead of expensive upgrades of the wastewater system. The savings achieved by investing in the water reuse system in lieu of wastewater system upgrades are referred to as avoided cost savings. The biggest avoided cost identified in this Study is savings related to avoided secondary treatment upgrade costs at the Point Loma Plant. While benefits at the Point Loma Plant are just one of many candidate cost incentives for the City's reuse program, they are the largest and most clearly connected to the recycled water program expansion.

The Point Loma Plant and the 2003 Wastewater Master Plan were important considerations in determining avoided cost savings. While this Study does not aim to determine whether or not secondary upgrades are needed for the full plant capacity, it does attempt to answer what the avoided cost savings would be if secondary treatment upgrades were required for varying capacities. To accomplish this, wastewater system upgrade costs were updated and analyzed against the water reuse concepts developed in this Study. One key element was the secondary treatment upgrade costs for the Point Loma Plant, as shown in the table below. While the upgrade costs increase with capacity, there is an additional cost factor caused by the limited amount of land available to build the improvements at the Point Loma Plant. At certain capacities, more expensive treatment processes are needed, causing the costs to jump. The 100 mgd offload threshold was determined to be possible, and this became the driving force in setting the final water reuse target for this Study at a minimum of 100 mgd.

Point Loma Plant - Determining Avoided Cost Savings

Primary and Secondary Treatment Processes Required	Secondary Treatment		Offloading and Cost Savings		
	Capacity (mgd)	Construction Cost ($Million)	Amount of Offset (mgd)	Avoided Cost Savings ($Million)	Key Threshold
Conventional Primary Clarifiers and Activated Sludge	30	$ 267	170	$ 786	
	40	$ 283	160	$ 770	
	50	$ 299	150	$ 754	
High Rate Primary and Secondary Clarifiers with Conventional Activated Sludge	50	$ 329	150	$ 724	
	60	$ 344	140	$ 710	
	70	$ 358	130	$ 695	
	80	$ 373	120	$ 680	
	90	$ 388	110	$ 665	
	100	$ 403	(2) 100	$ 650	
Conventional Primary Clarifiers and Biological Aerated Filters	100	$ 662	100	$ 391	**$259m savings jump**
	110	$ 684	90	$ 369	
	120	$ 706	80	$ 347	
	130	$ 728	70	$ 325	
	140	$ 751	60	$ 303	
	150	$ 773	50	$ 281	
	160	$ 795	40	$ 259	
	170	$ 817	30	$ 236	
	180	$ 839	20	$ 214	
High Rate Primary Clarifiers & Biological Aerated Filters	180	$ 998	20	$ 56	
	190	$ 1,025	10	$ 28	
	200	$ 1,052	0.4	$ 1	
	(1) 200.4	$ 1,053	0.0	$	

Offload total at the Point Loma

(1) If secondary treatment is required at the full Point Loma Plant flow, the projected capacity is 200.4 mgd and the capital costs are estimated at $1.1 billion.

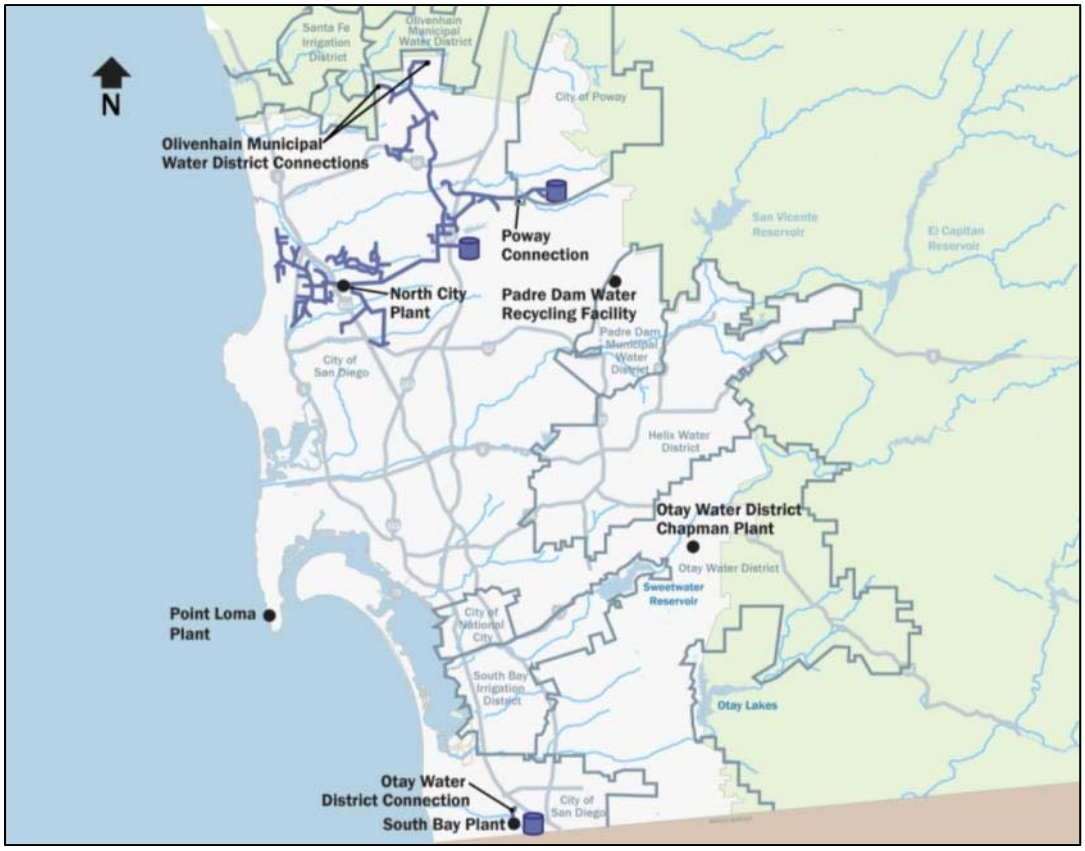
(2) Water reuse projects offload the amount of secondary treatment required at the Point Loma Plant. At 100 mgd, a $259 million savings "jump" occurs, resulting in a total avoided capital cost at Point Loma of $650 million.

Notes: Clarifiers assume chemical addition for enhanced treatment. It is recommended that high rate secondary clarifiers on conventional secondary systems be piloted to determine if the expected removal rates can be achieved.

What is the Existing Recycled Water System?

The City operates two water reclamation plants as part of the Metro System: the North City Plant and the South Bay Plant. Two additional reclamation plants (each separately owned and operated by a Participating Agency and separate from the Metro System) also offload flows before reaching the Metro System. The City also operates a non-potable recycled water system comprised of two service areas—the Northern Service Area and the Southern Service Area—supplied with recycled from the North City and South Bay Plants, respectively. Three wholesale agencies are located within the service area: City of Poway and Olivenhain Municipal Water District (Northern Service Area) and Otay Water District (Southern Service Area).

Key Components of Recycled Water System			
Reservoir	Year Commissioned	Design Capacity	Description
North City Water Reclamation Plant 	1997	30 mgd	Part of City of San Diego's Metro System. Treats wastewater generated in the Northern San Diego Region, including Cities of Del Mar and Poway, and the communities of Mira Mesa, Rancho Penasquitos, Scripps Ranch, and Rancho Bernardino. Tertiary-treated water is distributed to surrounding communities for irrigation and industrial uses. Excess wastewater ultimately flows to the Point Loma Plant.
South Bay Water Reclamation Plant 	2002	15 mgd	Part of City of San Diego's Metro System. Located in the Tijuana River Valley near the international border. Tertiary-treated wastewater is distributed to surrounding areas for non-potable recycled water use.
Padre Dam Water Recycling Facility 	1967	2.3 mgd	Owned and operated by Padre Dam Municipal Water District and treats wastewater from the City of Santee, portions of the City of El Cajon, and the unincorporated community of Lakeside. Treated wastewater that is not recycled for irrigation and industrial use is discharged to the Santee Lakes and ultimately reaches the San Diego River. Padre Dam, in conjunction with Helix Water District, is evaluating the ability to expand the plant as part of indirect potable reuse project in the El Monte Valley.
Ralph W. Chapman Water Recycling Facility 	1988	1.1 mgd	Owned and operated by Otay Water District. Recycled water is used as irrigation in Eastlake, Otay Ranch, Rancho Del Rey, and other areas of Chula Vista.



Existing Recycled Water Facilities

What Projects Will Affect Future Reuse in San Diego?

The City's 2005 Water Reuse Study recommended an indirect potable reuse project at the North City Plant that would deliver water to the San Vicente Reservoir. To begin implementing this project, the City completed construction of the Water Purification Demonstration Project in 2011 at the North City Plant. This project, and the corresponding hydraulic modeling study, at the San Vicente Reservoir will demonstrate the health, safety, and water quality benefits of indirect potable reuse. A separate project, the San Vicente Dam Raise, is currently underway and will increase the potential for integrated indirect potable reuse projects at this important regional facility.

Water Purification Demonstration Project. The City's Water Purification Demonstration Project will demonstrate how one million gallons per day can be purified using technology that is able to produce one of the most pristine sources of water available anywhere.

San Vicente Dam Raise. The San Vicente Reservoir expansion (architectural rendering shown above) and its integration with regional facilities make this reservoir an ideal candidate for indirect potable reuse.

What Opportunities Were Considered for the Reuse Solutions?

The Study focused on two primary opportunities: non-potable recycled water and indirect potable reuse.

Non-Potable Recycled Water Opportunities

Since the City has a non-potable system in place, focus was placed on expanding this system by locating new demands. The demands would then be met by expanding the distribution system from an existing plant or by constructing a new treatment facility closer to the demand. Both Citywide (increasing use within the City's service area) and wholesale (increasing supply to agencies adjacent to or already connected to the existing system) were considered through a market assessment. The market assessment showed where potential conversion customers were concentrated (for example, the Rancho Bernardo area). Based on the markets, distribution systems were developed to determine costs. An analysis of the results, including a direct comparison of an Alternative both with and without service to the Rancho Bernardo area, showed that the construction costs to dual pipe an existing community and the administrative costs required to permit, coordinate, bill and provide backflow testing were higher than the indirect potable reuse approaches for new areas. Therefore, the non-potable recycled water opportunities carried forward were focused on maximizing the existing system where most economical. The non-potable recycled water demands carried forward can be summarized as the existing demands, planned demands, and future demands (which includes 3 mgd for expanded service from the South Bay Plant occurring between 2026 and 2040).

Indirect Potable Reuse Opportunities

Achieving a water reuse target of 100 mgd reinforced the need to look for larger projects with improved economy of scale. Indirect potable reuse projects provided the needed scope and scale for this purpose. Two types of indirect potable reuse were considered: reservoir augmentation and groundwater recharge. Eleven regional reservoirs were initially considered. Three were advanced for more detailed evaluation: San Vicente Reservoir (with Dam Raise), Otay Lakes, and Lake Hodges. Eight regional groundwater basins were reviewed, and two were carried forward for more detailed evaluation: El Monte Valley Basin and San Pasqual Basin. Advancing reservoirs/basins was based on the location, costs, potential project sizes, and ability to integrate into the water system.

Benefits of Indirect Potable Reuse

- Maximizes Use of Existing Reclamation Capacity
- Provides Large Point Loma Plant Offsets
- Less Seasonally Limited than Projects with Fixed Irrigation Demands
- Superior Ability To Improve Water Quality by Significantly Reducing Total Dissolved Solids

Successful Southern California Indirect Potable Reuse Projects

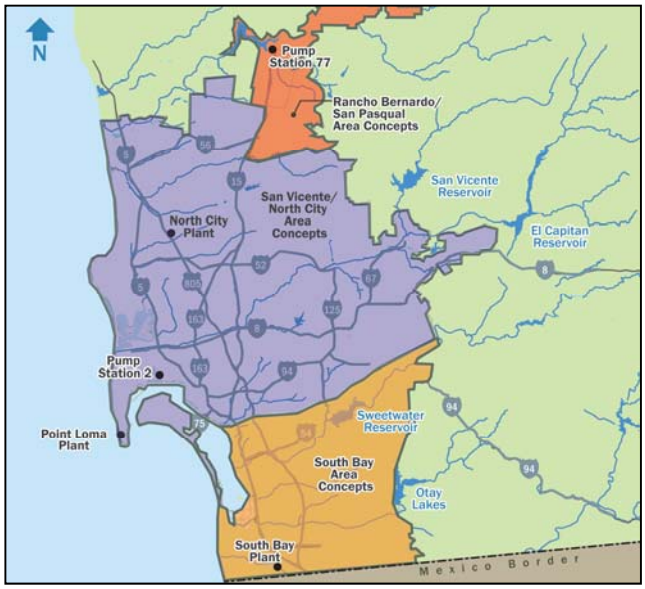
Orange County Water District's Groundwater Replenishment System. The Groundwater Replenishment System is the world's largest wastewater purification system for indirect potable reuse and it is located just north of San Diego in Orange County, California. The Orange County Groundwater Replenishment System can produce up to 70 mgd of highly purified recycled water that serves the water demands of nearly 600,000 residents.

Montebello Forebay. Located in Los Angeles County, the Montebello Forebay has been recharged dating back to 1960s. The area is currently recharged with 150,000 acre-feet of local, imported, and recycled water annually. Of the 5.6 million acre feet recharged into the basin since the 1960s, 26 percent was from recycled water sources.

West Cost, Dominguez Gap, and Alamitos Barriers. Los Angeles and Orange Counties also use seawater intrusion barriers to protect and supplement groundwater supplies. Recycled water is injected into wells along these basins to prevent high salinity seawater from reaching the groundwater basin supplies. The injected recycled water also supplements the groundwater that is extracted by wells and serves the drinking water system.

How Were Opportunities Compiled into Area Concepts?

Area Concepts were developed to provide detailed, comparable options for discussion at the Coarse Screening Session and Stakeholder Status Update meetings, and were then refined and compiled into Integrated Reuse Alternatives. The Area Concepts were strategically selected, based on the locations of available wastewater, existing facilities, and delivery points (non-potable recycled water customers, surface water reservoirs, or groundwater basins).



***Area Concepts**. Area Concepts were developed for three regions of the Metro Service Area. The Area Concepts were presented at the Coarse Screening Session.*

Opportunities were sized and then pieced together by laying out treatment and conveyance facilities. Cost information was also developed, with pumping costs being a particularly important component because of the variability of pumping costs for indirect potable reuse, non-potable water, and wastewater. The availability of this information allowed Stakeholders to compare the benefits of different approaches within each area. For example, Alternatives that required extensive wastewater pumping (which requires pumping approximately 30-percent more flow than advanced treated water), were identified as having added costs and risks compared to other Alternatives. This point led to development of the Harbor Drive Plant concept later in the Study.

Area Concept Summary

Area	Base Concept Presented at the Coarse Screening Session	Additional Considerations after Stakeholder Review
San Vicente/ North City	• Complete planned non-potable recycled water projects • Maximize indirect reuse of water produced at North City Plant with diversions from – Morena – Mission Valley • Treat and produce water at Mission Gorge • Account for El Monte Valley indirect potable reuse project	• Reduce pumping of wastewater by eliminating diversion of wastewater at Mission Valley • Treat and produce water at Harbor Drive site • Consider both split plant and consolidated plant at Harbor Drive and Mission Valley to minimize site needs • Consider additional costs and complexities related to expanded North City Plant beyond master-planned capacity of 45 mgd
South Bay	• Complete planned non-potable recycled water projects • Wastewater diversions from different locations along the South Metro Interceptor (depending on the option) • Consider serving additional non-potable recycled water demands • Indirect potable reuse of water produced at South Bay Plant	• Consider increased diversion totals by locating the diversion further North at the Spring Valley No. 8 connection
Rancho Bernardo/ San Pasqual	• Rancho Bernardo/I-15 Corridor, non-potable recycled water • San Pasqual indirect potable reuse (two variations)	• Determined that these options do not offload the Point Loma Plant and provide limited benefits to other opportunities • Consider private entities funding a majority of the improvements needed

How Were Area Concepts Refined into Integrated Reuse Alternatives?

Area Concepts were refined into Integrated Reuse Alternatives in the Fine Screening Session. Fine Screening Session participants considered a series of projects to meet the 100 mgd minimum water reuse target. The non-potable recycled water demands and the indirect potable reuse project delivery locations that advanced to the Fine Screening Session are summarized in the two adjacent tables and located as shown on the figure below.

Reservoirs, Groundwater Basins and Proposed Projects

Non Potable Recycled Water Project(s)

- NC — North City
- SB — South Bay

Indirect Potable Reuse Project(s)

- SV — San Vicente Reservoir
- EM — El Monte Valley (by others)
- OL — Otay Lakes

Non-potable Recycled Water. Expansion of the non-potable recycled water systems is planned primarily through 2015, with additional growth in South Bay through 2040 based on Otay Water District's projections, as shown below.

Non-Potable Recycled Water Projected Demands

Map Code	Agency	Existing 2009/2010		Planned 2010-2015		Planned (OWD) 2015-2026		Future (OWD) 2026-2040		Total	
		AFY	mgd	AFY	mgd	AFY	mgd	AFY	mgd	AFY	mgd
North City Plant											
NC	City of San Diego	6,394	5.7	1,959	1.7	0	0.0	0	0.0	8,353	7.4
	City of Poway	428	0.4	323	0.3	0	0.0	0	0.0	751	0.7
	Olivenhain MWD	642	0.6	458	0.4	0	0.0	0	0.0	1,100	1.0
	Total North City	7,464	6.7	2,740	2.4	0	0.0	0	0.0	10,204	9.1
South Bay Plant											
SB	City of San Diego	1,539	1.4	-639	-0.6	0	0.0	0	0.0	900	0.8
	Otay Water District	3,209	2.9	1,395	1.2	1243	1.1	3,363	3.0	9,210	8.3
	Total South Bay	4,748	4.2	756	0.7	1,243	1.1	3,363	3.0	10,110	9.0
North City and South Bay Plants											
	Total Combined	12,212	10.9	3,496	3.1	1,243	1.1	3,363	3.0	20,314	18.1

Notes: See Draft Report Table 5-3 for notes. Demands shown are average annual demands. Reductions in demands for South Bay between 2010 and 2015 are associated with changes at the International Boundary and Water Commission Plant, which will no longer require non-potable recycled water for process uses.

Indirect Potable Reuse. Three surface water augmentation projects and a groundwater recharge project were advanced into the Fine Screening Session. In addition, the El Monte Valley Groundwater Augmentation Project (being planned by others) was assumed to occur and its impacts were taken into consideration.

Indirect Potable Reuse Projects Advanced

Map Code	Reservoir or Basin	Storage Capacity (acre-feet)	Indirect Potable Reuse Potential		Key Considerations
			AFY	mgd	
Surface Water Reservoir Candidates Advanced to the Fine Screening Session					
SV	San Vicente (w/ Dam Raise) 	249,358	Up to 100,000	Up to 89	Recommended approach from 2005 Water Reuse Study. The dam raise, scheduled for completion between 2013 and 2014, will increase retention times and indirect potable reuse capacity potential, and provides the ability to distribute water throughout the region and to the largest water treatment plants.
OL	Otay Lakes 	49,849	Up to 25,000	Up to 22	Previous recommendation from 2005 Water Reuse Study, proximity to South Bay Plant. Located adjacent to the 33 mgd (2035 capacity) Otay Water Treatment Plant.
Groundwater Augmentation Project by Others Considered					
EM	El Monte Valley 	10,000 to 50,000	5,000	4.5 to 5.0	The El Monte basin is being evaluated by the Helix Water District and the Padre Dam Municipal Water District for an indirect potable reuse groundwater augmentation project. This project was considered as part of the study since wastewater flows for this project affect downstream wastewater availability in the Metro System. The detailed evaluations recently performed for the El Monte Valley project provided a baseline for extrapolating regulatory requirements and suitability for the other groundwater basins considered.

Notes: See Draft Report Tables 6-1 and 6-3 for notes. Demands shown are average annual demands.

What was the Rationale for Numbering the Integrated Reuse Alternatives?

The following summarizes the numbering system used:

Alternatives:

- **"A" Alternatives.** The "A" Alternatives expand the North City Plant to 45 mgd (the site's master-planned capacity) using the Morena Diversion. The added capacity at North City allows the Harbor Drive Plant to be smaller than the "B" Alternatives.
- **"B" Alternatives.** The "B" Alternatives maximize the existing North City Plant capacity at 30 mgd (which occurs once the initial 15 mgd indirect potable reuse project is complete). The smaller total at the North City Plant requires the Harbor Drive Plant to be larger than the "A" Alternatives.

Major Alternatives Based on North City Plant Capacities

"A" Alternatives
North City at 45 mgd

"B" Alternatives
North City at 30 mgd

Sub-Alternatives:

- **"1" Sub-Alternatives.** Alternatives "A1" and "B1" differ from the "2" and "3" alternatives by splitting the Harbor Drive water reclamation treatment processes and the advanced purification facility treatment into different sites (the advanced purification processes are located at the Camino Del Rio site described in Chapter 7).
- **"2" Sub-Alternative.** Alternatives "A2" and "B2" also relate to the Harbor Drive Plant. The "2" Alternatives place all the Harbor Drive water reclamation and advanced purification treatment processes at a combined plant along Harbor Drive (similar to how the proposed North City and South Bay Plants will be configured). The Harbor Drive Plant in these alternatives is larger, but the operation is efficiently consolidated to a single site.
- **"3" Sub-Alternative.** Alternative "B3" is the same as Alternative "B2", except that it includes a small plant in Mission Gorge to collect, treat, and convey water to the San Vicente Reservoir. This adds a fourth plant, but it is the closest location to the San Vicente Reservoir.

Sub-alternatives Based on Siting Elements

"1" Alternatives
split plant between Harbor Drive & Camino del Rio

"2" Alternatives
combined Harbor Drive Plant

"3" Alternative
combined Harbor Drive plant and an additional plant at Mission Gorge

What Elements are Included in the Integrated Reuse Alternatives?

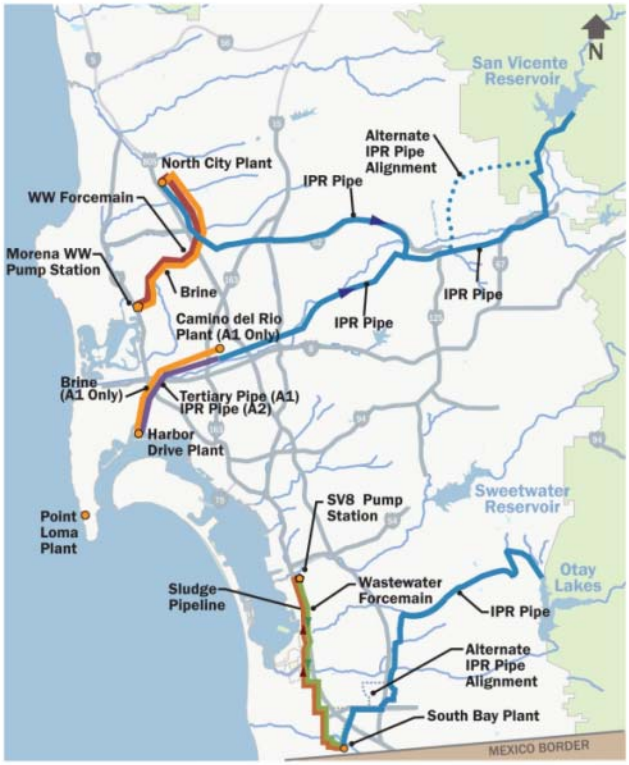
Integrated Reuse Alternatives were formed based on the project goals established by the project Stake-holders, the criteria developed at the Framework Planning Session, the screening work performed at the Coarse Screening Session, and the revision and refinement steps performed at the Fine Screening Session and subsequent Stakeholder Status Update meetings. The following table summarizes the elements included in each Integrated Reuse Alternative.

Integrated Reuse Alternative Summary - Elements Included					
Elements in the Area Concept	A1	A2	B1	B2	B3
Elements from the North City/San Vicente Area Concept Themes					
Existing non-potable recycled water demands (6.7 mgd)	✓	✓	✓	✓	✓
Planned non-potable recycled water demands (2.4 mgd)	✓	✓	✓	✓	✓
North City Plant w/indirect potable reuse to San Vicente (15.0 mgd)	✓	✓	✓	✓	✓
Morena Diversion w/North City Plant expansion & indirect potable reuse to San Vicente (11.9 mgd)	✓	✓			
Harbor Drive Plant w/indirect potable reuse to San Vicente (capacity varies depending on the Alternative: 40.9 mgd for A1/A2; 52.8 mgd for B1/B2; and 46.0 mgd for B3)	✓	✓	✓	✓	✓
Harbor Drive consolidated WRP/AWPF plant		✓		✓	✓
Harbor Drive WRP/Camino Del Rio AWPF split plant	✓		✓		
Mission Gorge Plant w/ indirect potable reuse to San Vicente (6.8 mgd)					✓
Elements from South Bay Area Concept C2					
Existing non-potable recycled water demands (4.2 mgd)	✓	✓	✓	✓	✓
Planned non-potable recycled water demands (1.8 mgd)	✓	✓	✓	✓	✓
Additional future non-potable recycled water demands (3.0 mgd)	✓	✓	✓	✓	✓
Spring Valley No. 8 Diversion to South Bay (31.1 mgd)	✓	✓	✓	✓	✓
South Bay indirect potable reuse to Otay Lakes (15.0 mgd)	✓	✓	✓	✓	✓
Elements from Other Agencies					
El Monte Valley Project (Helix and Padre Dam Municipal Water Districts)	✓	✓	✓	✓	✓

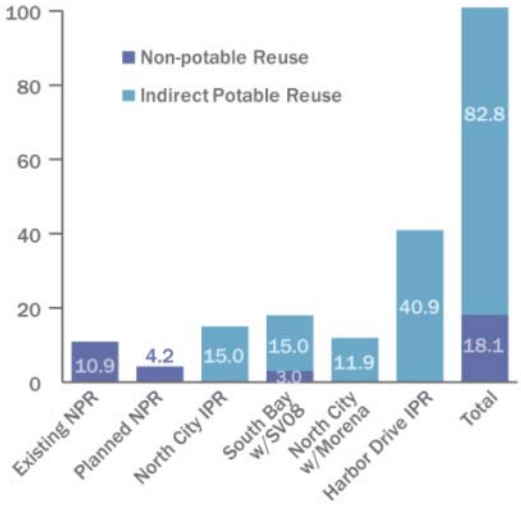
Notes: Flows for non-potable recycled water and indirect potable reuse projects are average annual totals based on the output of the plant. Flows for the Spring Valley diversion is an average annual wastewater diversion flow. WRP = Water Reclamation Plant; AWPF = Advanced Water Purification Facility

Summary of Integrated Reuse Alternative A1 and A2

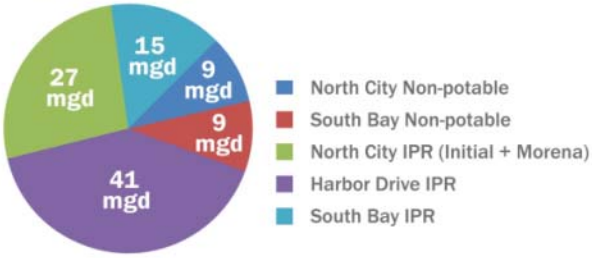
Facility Map



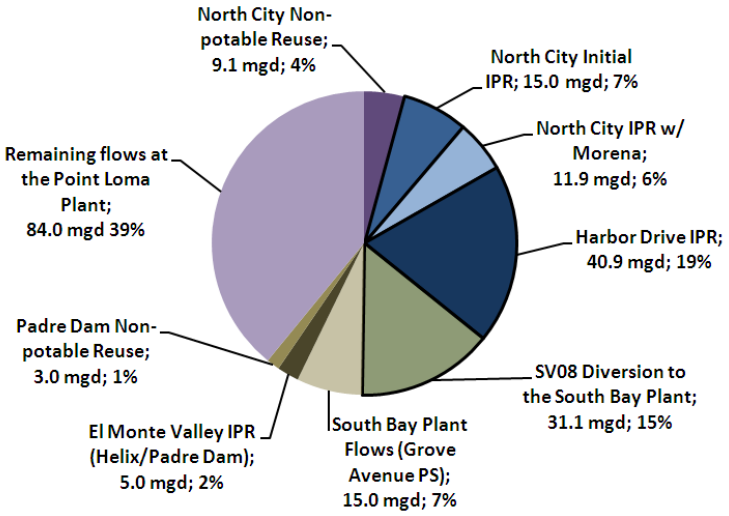
Reuse By Phase



Reuse Per Plant



A1/A2 Allocation of Metro System Flows



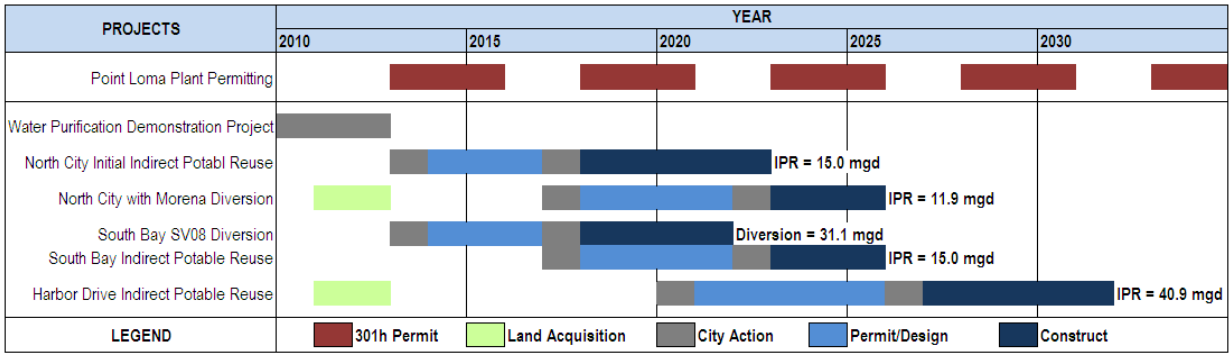
Integrated Reuse Alternatives A1 & A2

(Upper left) – Displays the facilities included in Alternatives A1 and A2. A1 differs only in that the advanced treatment processes at the Harbor Drive Plant are located at the Camino del Rio site.

(Above) – The bar chart above includes reuse totals per project and per plant for both non-potable recycled water and indirect potable reuse.

(Left) – The pie chart to the left displays the allocation of Metro System Flows. The black bordered portions represent 99 mgd of offload provided by the facilities included in this Study. Total Metro Systems flows are projected to be 215 mgd in 2050.

Summary of Integrated Reuse Alternative A1/A2 Summary (Continued)



Alternative A1/A2 Implementation Schedule

Alternative A1/A2 New Water and Point Loma Offloading per Phase (Totals in mgd)						
Item		Phase 1 North City initial	Phase 2 Morena	Phase 3 South Bay Diversion	Phase 4 South Bay IPR & 3 mgd non-potable	Phase 5 Harbor Drive
New Water	Incremental New Water	15.0	11.9	0.0	18.0	40.9
	Cumulative New Water	15.0	26.9	26.9	44.9	85.8
Point Loma Offload	Incremental RWS Offload	15.0	11.9	31.1	0.0	40.9
	Cumulative RWS Offload	15.0	26.9	58.0	58.0	98.9
	Total Offload w/other projects	32.1	44.0	75.1	75.1	116.0

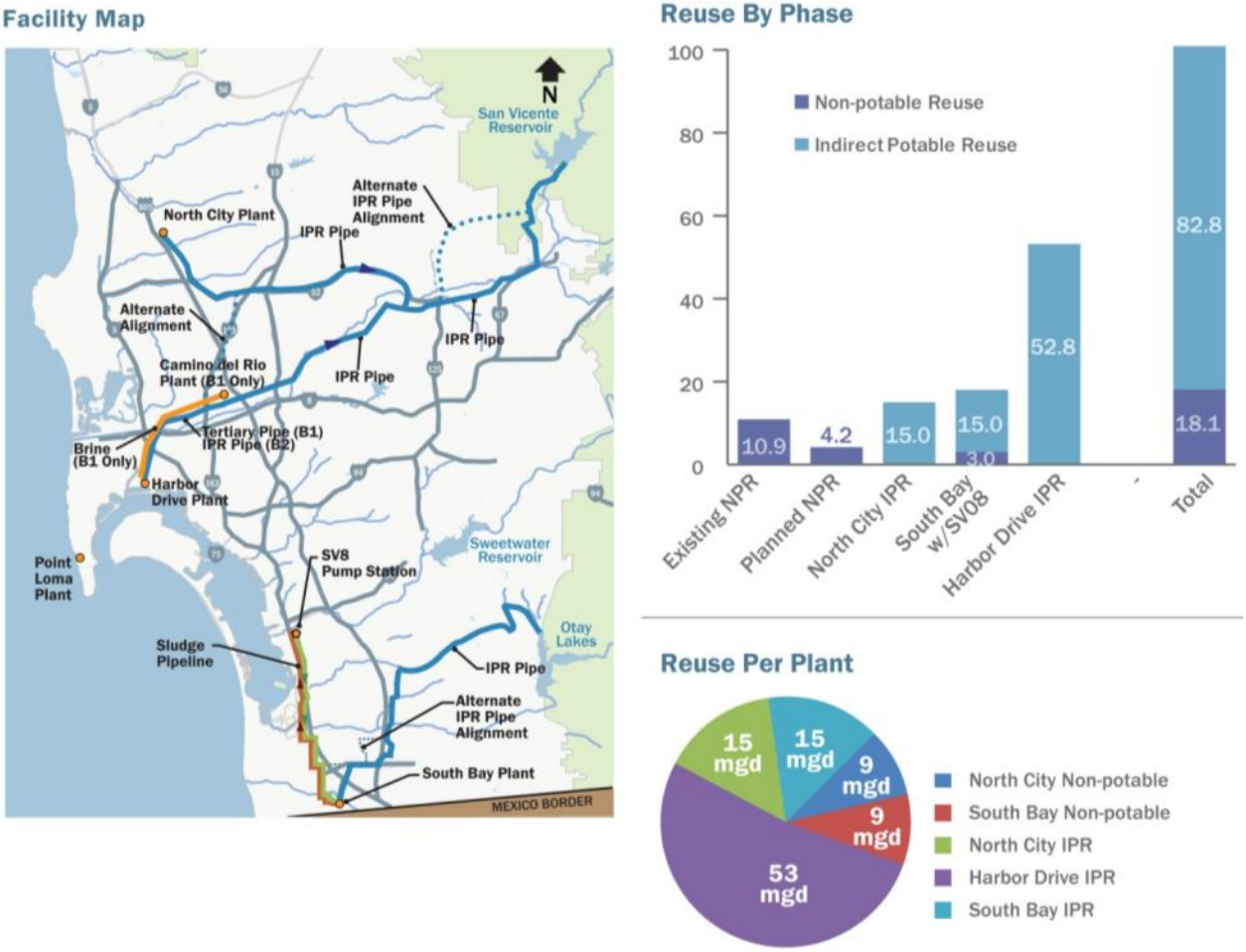
Alternative A1/A2 Capital and O&M Costs per Phase							
Item		Phase 1 North City initial	Phase 2 Morena	Phase 3 South Bay Diversion	Phase 4 South Bay IPR	Phase 5 Harbor Drive (Alternative A1)	Phase 5 Harbor Drive (Alternative A2)
Incremental Costs	Capital	$457,932,718	$335,946,476	$158,569,658	$589,829,656	$1,114,940,189	$1,128,523,583
	O&M	$17,580,040	$13,104,577	$1,518,847	$23,481,194	$51,047,746	$50,815,586
Cumulative Costs	Capital	$457,932,718	$793,879,194	$952,448,852	$1,542,278,508	$2,657,218,696	$2,670,802,091
	O&M	$17,580,040	$30,684,616	$32,203,464	$55,684,658	$106,732,404	$106,500,244

Alternative A1/A2 Unit Cost Summary		
Cost Category	Alternative A1	Alternative A2
Gross Costs (Before Avoided Facilities and Other Offset Savings)	$2,250	$2,250
Tier 1 Net Costs (With Direct Wastewater System Savings)	$1,250	$1,250
Tier 2 Net Costs (With Salt Credit Plus Tier 1 Savings)	$1,150	$1,150
Tier 3 Net Costs (With Indirect Wastewater System Savings Plus Tier 1 and Tier 2 Savings)	$800	$800

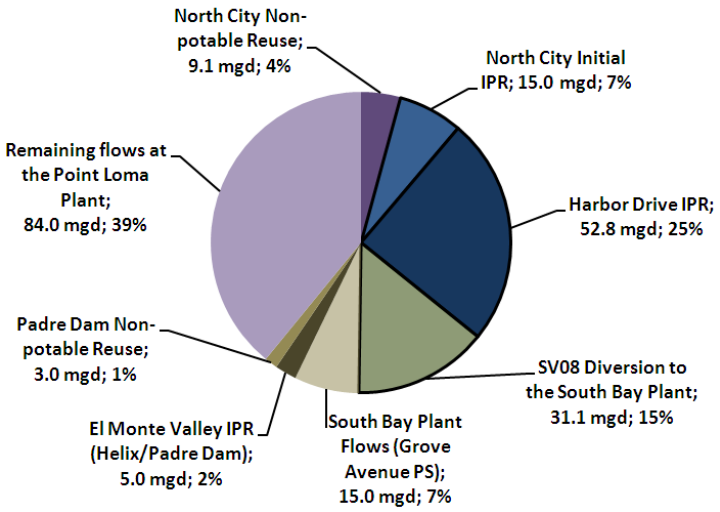
Notes for tables above:

- *Offload totals for "Other Projects" amount to 17.1 mgd and includes: 9.1 mgd for North City and 3 mgd for Padre Dam non-potable recycled water demands, and 5 mgd for El Monte Valley. South Bay and Otay Water District offloads are accounted for via the Grove Avenue Pump Station (existing) and the proposed Spring Valley 8 Diversion.*
- *Unit costs represent the average Alternative unit costs based on Favorable and Unfavorable scenarios. See section 8.5 later in this chapter for more details on the financial evaluation and unit cost descriptions. Tier 1 savings includes wastewater projects no longer necessary due to the reuse projects and offloading included in this Study. Tier 2 savings accounts for savings due to water quality improvements. Tier 3 conceptualizes the savings that could occur if maintaining chemically enhanced primary treatment at the Point Loma Plant was made possible due to the reuse program proposed in this Study.*

Summary of Integrated Reuse Alternative B1 and B2



B1/B2 Allocation of Metro System Flows



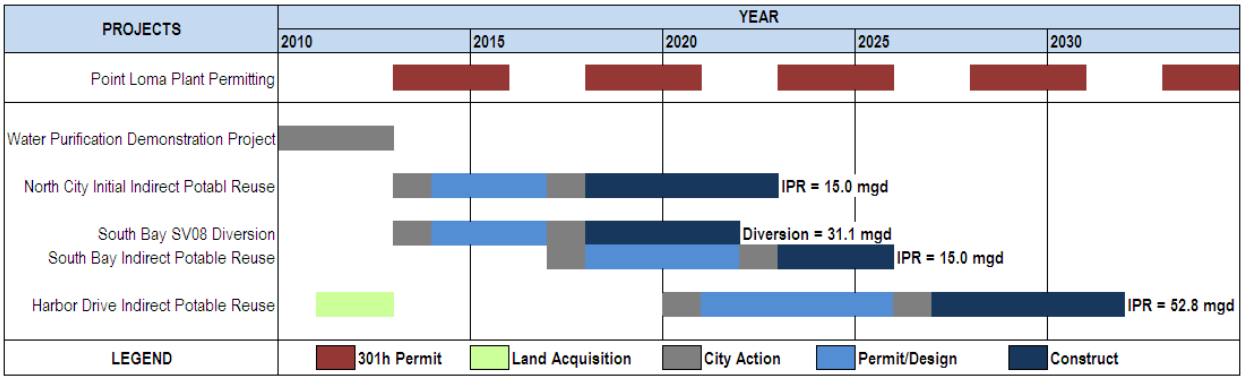
Integrated Reuse Alternatives B1 & B2

(Upper left) – Displays the facilities included in Alternatives B1 and B2.B1 differs only in that the advanced treatment processes at the Harbor Drive Plant are located at the Camino del Rio site.

(Above) – The bar chart above includes reuse totals per project and per plant for both non-potable recycled water and indirect potable reuse.

(Left) – The pie chart to the left displays the allocation of Metro System Flows. The black bordered portions represent 99 mgd of offload provided by the facilities included in this Study. Total Metro Systems flows are projected to be 215 mgd in 2050.

Summary of Integrated Reuse Alternative B1 and B2 (Continued)



Alternative B1/B2 Implementation Schedule

Alternative B1/B2 New Water and Point Loma Offloading per Phase (Totals in mgd)					
Item		Phase 1 North City initial	Phase 2 South Bay Diversion	Phase 3 South Bay IPR & 3 mgd non-potable	Phase 4 Harbor Drive
New Water	Incremental New Water	15.0	0.0	18.0	52.8
	Cumulative New Water	15.0	15.0	33.0	85.8
Point Loma Offload	Incremental RWS Offload	15.0	31.1	0.0	52.8
	Cumulative RWS Offload	15.0	46.1	46.1	98.9
	Total Offload w/other projects	32.1	63.2	63.2	116.0

Alternative B1/B2 Capital and O&M Costs per Phase						
Item		Phase 1 North City initial	Phase 2 South Bay Diversion	Phase 3 South Bay IPR & 3 mgd non-potable	Phase 4 Harbor Drive (Alternative B1)	Phase 4 Harbor Drive (Alternative B2)
Incremental Costs	Capital	$379,830,030	$158,569,658	$589,829,656	$1,293,227,104	$1,302,563,187
	O&M	$17,343,643	$1,518,847	$23,481,194	$61,167,585	$60,469,664
Cumulative Costs	Capital	$379,830,030	$538,399,689	$1,128,229,345	$2,421,456,449	$2,430,792,532
	O&M	$17,343,643	$18,862,491	$42,343,685	$103,511,270	$102,813,349

Alternative B1/B2 Unit Cost Summary		
Cost Category	Alternative B1	Alternative B2
Gross Costs (Before Avoided Facilities and Other Offset Savings)	$2,100	$2,100
Tier 1 Net Costs (With Direct Wastewater System Savings)	$1,100	$1,100
Tier 2 Net Costs (With Salt Credit Plus Tier 1 Savings)	$1,000	$1,000
Tier 3 Net Costs (With Indirect Wastewater System Savings Plus Tier 1 and Tier 2 Savings)	$600	$600

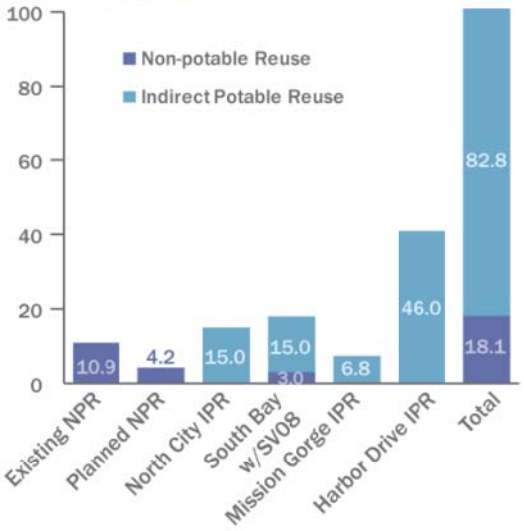
Notes for tables above:

- *Offload totals for "Other Projects" amount to 17.1 mgd and includes: 9.1 mgd for North City and 3 mgd for Padre Dam non-potable recycled water demands, and 5 mgd for El Monte Valley. South Bay and Otay Water District offloads are accounted for via the Grove Avenue Pump Station (existing) and the proposed Spring Valley 8 Diversion.*
- *Unit costs represent the average Alternative unit costs based on Favorable and Unfavorable scenarios. See section 8.5 later in this chapter for more details on the financial evaluation and unit cost descriptions. Tier 1 savings includes wastewater projects no longer necessary due to the reuse projects and offloading included in this Study. Tier 2 savings accounts for savings due to water quality improvements. Tier 3 conceptualizes the savings that could occur if maintaining chemically enhanced primary treatment at the Point Loma Plant was made possible due to the reuse program proposed in this Study.*

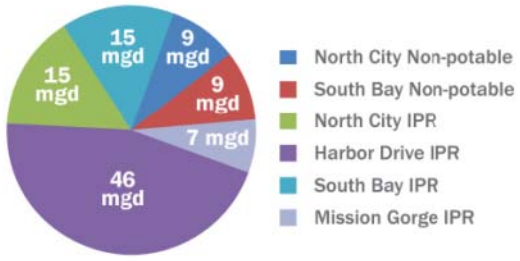
Summary of Integrated Reuse Alternative B3

Facility Map

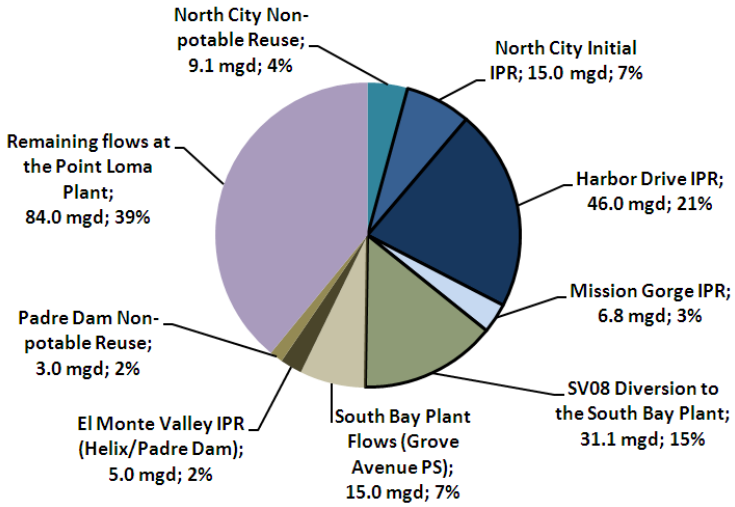
Reuse by Phase



Reuse Per Plant



B3 Allocation of Metro System Flows



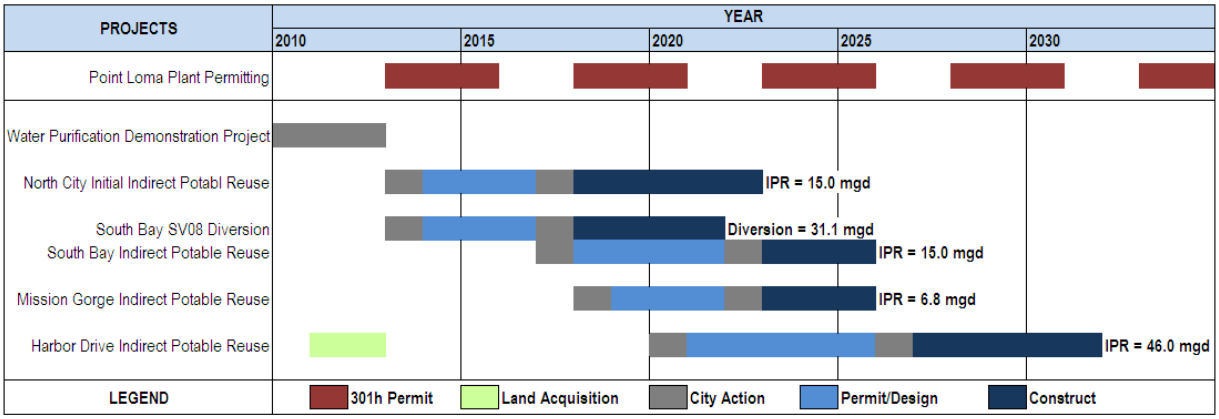
Integrated Reuse Alternative B3

(Upper left) – Displays the facilities included in Alternative B3. The Mission Gorge Plant is the only difference between this Alternative and Alternative B2.

(Above) – The bar chart above includes reuse totals per project and per plant for both non-potable recycled water and indirect potable reuse.

(Left) – The pie chart to the left displays the allocation of Metro System Flows. The black bordered portions represent 99 mgd of offload provided by the facilities included in this Study. Total Metro Systems flows are projected to be 215 mgd in 2050.

Summary of Integrated Reuse Alternative B3 (Continued)



Alternative B3 Implementation Schedule

Alternative B3 New Water and Point Loma Offloading per Phase (Totals in mgd)						
Item		Phase 1 North City initial	Phase 2 South Bay Diversion	Phase 3 South Bay IPR & 3 mgd non-potable	Phase 4 Mission Gorge	Phase 5 Harbor Drive
New Water	Incremental New Water	15.0	0.0	18.0	6.8	46.0
	Cumulative New Water	15.0	15.0	33.0	39.8	85.8
Point Loma Offload	Incremental Study Offload	15.0	31.1	0.0	6.8	46.0
	Cumulative Study Offload	15.0	46.1	46.1	52.9	98.9
	Total Offload w/other projects	32.1	63.2	63.2	70.0	116.0

Alternative B3 Capital and O&M Costs per Phase						
Item		Phase 1 North City initial	Phase 2 South Bay Diversion	Phase 3 South Bay IPR & 3 mgd non-potable	Phase 4 Mission Gorge	Phase 5 Harbor Drive
Incremental Costs	Capital	$370,875,373	$158,569,658	$589,829,656	$310,916,582	$1,196,542,227
	O&M	$17,297,196	$1,518,847	$23,481,194	$13,449,653	$54,983,841
Cumulative Costs	Cumulative Capital Cost	$370,875,373	$529,445,031	$1,119,274,687	$1,430,191,269	$2,626,733,496
	Cumulative O&M Cost	$17,297,196	$18,816,044	$42,297,238	$55,746,891	$110,730,732

Alternative B3 Unit Cost Summary	
Cost Category	Alternative B3
Gross Costs (Before Avoided Facilities and Other Offset Savings)	$2,300
Tier 1 Net Costs (With Direct Wastewater System Savings)	$1,250
Tier 2 Net Costs (With Salt Credit Plus Tier 1 Savings)	$1,150
Tier 3 Net Costs (With Indirect Wastewater System Savings Plus Tier 1 and Tier 2 Savings)	$800

Notes for tables above:

- *Offload totals for "Other Projects" amount to 17.1 mgd and includes: 9.1 mgd for North City and 3 mgd for Padre Dam non-potable recycled water demands, and 5 mgd for El Monte Valley. South Bay and Otay Water District offloads are accounted for via the Grove Avenue Pump Station (existing) and the proposed Spring Valley 8 Diversion.*
- *Unit costs represent the average Alternative unit costs based on Favorable and Unfavorable scenarios. See section 8.5 later in this chapter for more details on the financial evaluation and unit cost descriptions. Tier 1 savings includes wastewater projects no longer necessary due to the reuse projects and offloading included in this Study. Tier 2 savings accounts for savings due to water quality improvements. Tier 3 conceptualizes the savings that could occur if maintaining chemically enhanced primary treatment at the Point Loma Plant was made possible due to the reuse program proposed in this Study.*

What are the Alternative Costs and How Do They Compare with Other Water Supply Costs?

The Integrated Reuse Alternative costs are summarized in the table below. The table includes a tiered breakout of summary level costs based on two main categories – gross costs and net costs. The gross costs represent the cost to produce and deliver one acre-foot of water without including any savings from avoided facilities or other offsets savings as described above. The net costs include the savings from the avoided facilities and other offset that occur as a result of the water reuse projects. As shown, the costs for A1, A2 and B3 are nearly identical and higher than B1 and B2. For the A1/A2 comparison to B1/B2, the increased costs occur mainly due to the additional wastewater facilities and pumping needed to divert flows from Morena to the North City Plant. For the B3 comparison to B1/B2, B3 does not have the same economy of scale that the B1 and B2 Alternatives have.

Table 8-15. Unit Cost Summary (2011 $/AF)

Alternative	Gross Costs (not incl. avoided facility savings)			Net Costs (including avoided cost savings)		
	Favorable Scenario	Unfavorable Scenario	Average of Scenarios	Tier 1 Direct Wastewater System Savings	Tier 2 w/Salt Credit (Water Quality Benefit)	Tier 3 Indirect Wastewater Savings (CEPT for remaining flows)
A1	$2,000	$2,500	$2,250	$1,250	$1,150	$800
A2	$2,000	$2,500	$2,250	$1,250	$1,150	$800
B1	$1,900	$2,300	$2,100	$1,100	$1,000	$600
B2	$1,900	$2,300	$2,100	$1,100	$1,000	$600
B3	$2,100	$2,500	$2,300	$1,250	$1,150	$800

Notes:

- *Avoided costs calculated based on an average capital and operation and maintenance costs of two scenarios: 1) the 2003 Wastewater Master Plan improvements (which offloaded 75 mgd), and 2) avoiding 100 mgd of secondary improvements at the Point Loma Plant per Table 8-1 of the Draft Report. Operation and maintenance costs for the 2003 Wastewater Master Plan were estimated consistent with the assumptions used in this Study.*
- *CEPT operational cost savings for the remaining 100 mgd to 125 mgd was based on costs per Table 8-1 of the Draft Report for the remaining capacity left over after the avoided secondary improvements, with adjustments made for other water reuse projects not directly attributable to the new infrastructure included in this Study.*
- *Totals are in 2011 dollars and are based on a net present value analysis using a detailed financial model.*

The net cost tiers are summarized as follows:

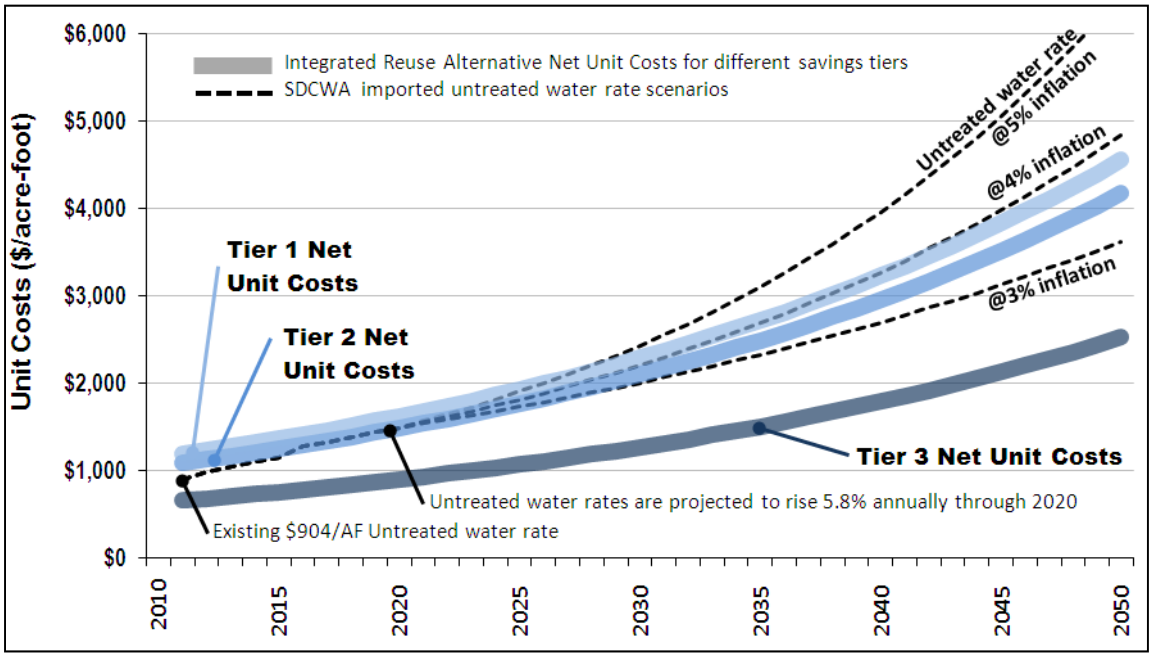
- **Tier 1: Net Costs With Direct Wastewater System Savings.** This tier includes the wastewater system savings that occur as a result of the water reuse projects in this Study. This tier represents the first threshold in which the Alternative costs should be considered for comparison to the cost of other water sources – such as imported untreated water or other new water sources. The comparison, as outlined in the next section, is very favorable compared to untreated water and more economical than most water supply concepts being proposed at this time.

Key Study Conclusion

The Study Alternative's net costs with Direct Wastewater System Savings represents the first net cost tier in which Alternative costs should be considered for comparison to the cost of other water sources – such as imported untreated water or other new water sources. The Alternative costs range from $1,100 to $1,250 per acre-foot, which compares well to the existing untreated water cost of $904 per acre foot and is more economical than most other new water supply concepts being proposed. If additional savings are realized, as described in the other net costs tiers to the right, the costs could be less expensive than the current untreated water rates.

- **Tier 2: Net Costs With the Salt Credit (Including Tier 1 Savings).** This tier includes the Direct Wastewater System Savings and adds a $100/acre-foot credit occurring as a result of the water quality benefits created by implementing indirect potable reuse projects. The savings included is attributable to benefits received by agency facilities downstream of the new projects. Additional savings (not accounted for in this total) would be experienced by homeowners and business as described in Chapter 6. Although these benefits are real, the ability to recover these savings and allocate them to the reuse program led to extracting this element as a separate unit cost tier so it may be considered separately from other savings.
- **Tier 3: Net Costs With Indirect Wastewater System Savings (including Tier 1 and Tier 2 Savings).** As described in the table above, this Study does not provide an opinion on whether the Point Loma Plant should continue to use CEPT treatment processes or upgrade to secondary processes. However, it was considered appropriate to list the net costs of the new water if the water reuse program proposed in this Study led to maintaining CEPT treatment for the remaining portion of the Point Loma Plant (on the order of 84 mgd to 100 mgd).

The Study Alternative's net unit costs were extrapolated based on a 3.5 percent inflation rate and compared to projected imported untreated water rate as shown in the figure below. The 2011 SDCWA municipal and industrial untreated water rate was $904 per acre foot. The existing rate was inflated through 2020 based on values provided by the SDCWA (which averages to a 5.8 percent annual increase), and then split into three scenarios showing 3, 4 and 5 percent inflation scenarios (shown as dashed lines). These scenarios compare well to the net unit costs of the Study's Alternatives (shown as solid lines). The Study's net costs shown are the average of all the Study Alternatives and an average of the Favorable and Unfavorable scenario (i.e., the lower cost B1/B2 Alternatives and favorable conditions would lower the reuse costs further). As shown, the average Tier 1 and Tier 2 cost curves have unit costs lower than two of the untreated water rate scenarios. If the Tier 3 savings are attributed to the projects in this Study, the program would have significantly lower unit costs than all three untreated water rate scenarios. Overall, the conclusion of this analysis supports the water reuse program proposed in this Study.



Comparison of the Study's Unit Costs for New Water to the Cost of Imported Untreated Water

The Integrated Reuse Alternative Net Costs compare well to projected untreated water rates. Untreated water rates are projected to rise 5.8 percent through 2020 and there remain many uncertainties regarding future costs associated with the Bay-Delta fix and imported water.

What Were the Other Considerations for Each Alternative?

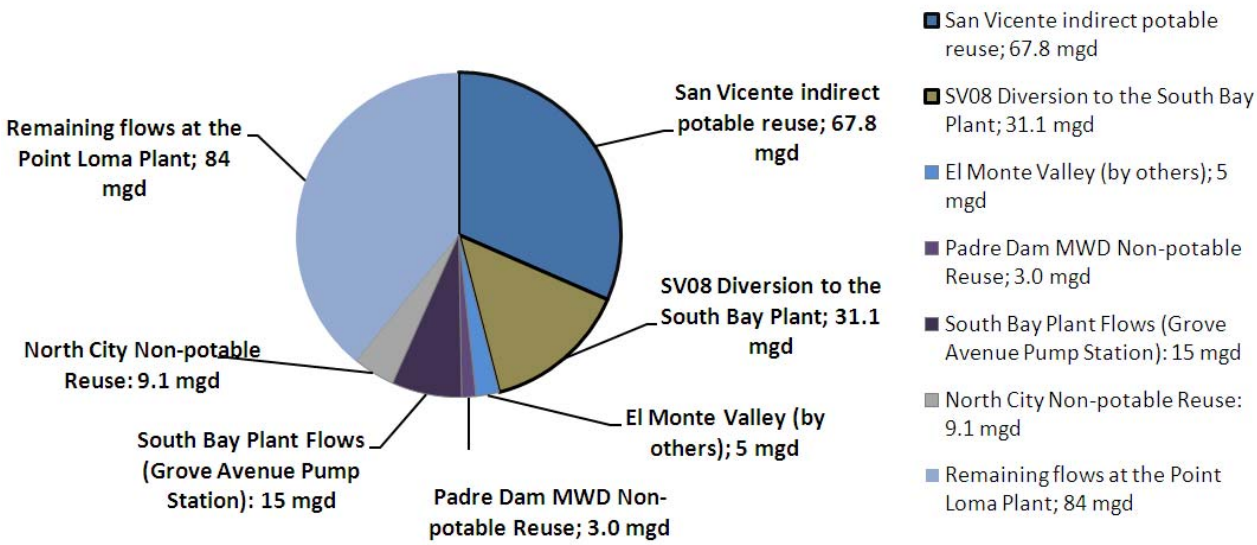
The Integrated Reuse Alternatives were evaluated during the Fine Screening Session and subsequent Stakeholder Status Update meetings. Each Integrated Reuse Alternative provides common and distinct benefits, as summarized below.

Integrated Reuse Alternative Comparative Summary

Alternative	Institutional Complexity	Technical Complexity	Treatment Plants	Wastewater Diversions	Key Infrastructure Siting and Complexity Considerations
A1	Med	High (Morena Diversion/Split Split Plant Harbor Drive-Camino del Rio)	4 North City, South Bay, Harbor Drive (WRP) w/ Camino del Rio (AWPF)	2	• Smallest area requirement at the Harbor Drive site • Challenging siting at Camino del Rio site • Challenging siting and operation of the Morena Wastewater Diversion Pump Station • Most pumping of all alternatives due to Morena Diversion • Increased costs due to added brine line
A2	Med	Med/High (Morena Diversion)	3 North City, South Bay Harbor Drive	2	• Reduced Harbor Drive Plant siting needs compared to the "B" alternatives • Challenging siting and operation of the Morena Wastewater Diversion Pump Station
B1	Med	Med/High (split Plant Harbor Drive-Camino del Rio)	4 North City, South Bay, Harbor Drive (WRP) w/ Camino del Rio (AWPF)	1	• Reduced Harbor Drive Plant siting needs compared to B2 • Minimal wastewater pumping • Challenging siting at the Camino del Rio site • Reduced ability to phase • Increased costs due to added brine line
B2	Med	Med	3 North City, South Bay, Harbor Drive	1	• Largest area requirement at the Harbor Drive site • Least cost option • Minimal wastewater and tertiary water pumping • Reduced ability to phase
B3	High (Harbor Drive site & Mission Gorge site)	High (4th Water Reclamation Plant/ Advance Water Purification Facility at Mission Gorge)	4 North City, South Bay, Harbor Drive, Mission Gorge	1	• Multiple agency collaboration could drive further economy of scale benefits • Closest plant to San Vicente Reservoir reduces overall pumping • Mission Gorge site requires interagency agreements and administration costs • Mission Gorge Plant is relatively small due to limited tributary wastewater flows. It does not have an economy of scale benefit and reduces some economy of scale benefit at the Harbor Drive Plant • Larger upstream treatment at Mission Gorge Plant impacts downstream water quality at Harbor Drive Plant • Reduced flows/concentrated waste downstream of Mission Gorge Plant may create maintenance issues

How Much is Offloaded from the Point Loma Plant?

The Study's water reuse target of 100 mgd is predominantly met by the Integrated Reuse Alternatives developed in this Study. The Alternatives each produce the same offloading of the Point Loma Plant, for a total of approximately 99 mgd as shown in the figure to the right. In addition to the 99 mgd, the El Monte Valley Project would provide an additional offloading of 5 mgd, and the North City and Padre Dam Municipal Water District non-potable recycled water systems would offload approximately 9 mgd and 3 mgd, respectively. These projects exceed the water reuse target and provide the flexibility to meet the water reuse goal even if non-potable recycled water demands do not materialize as expected, if the El Monte Project does not more forward, or if siting or other technical constraints limit planned treatment plant capacities.

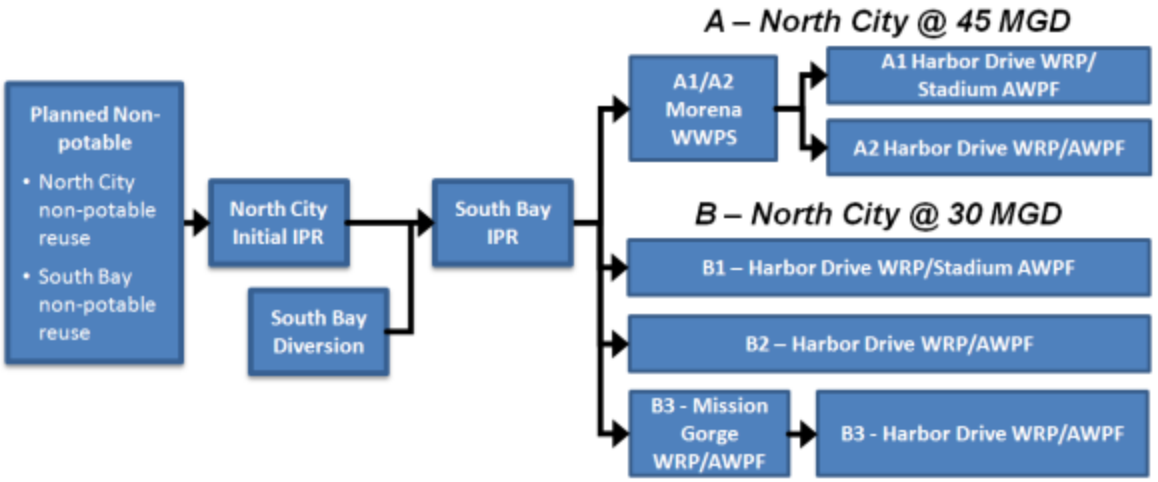


Point Loma Plant Offload

The Metro System is projected to generate 215 mgd of wastewater by 2050. 15 mgd of this total will flow to the South Bay Plant via the Grove Avenue Pump Station. The remaining 200 mgd of flow will go to the Point Loma Plant unless offloaded by creating valuable water supplies through reuse projects or by diverting the flows to the South Bay Plant. The Study maximizes reuse to offload the Point Loma Plant, resulting in significant savings from avoided wastewater system facilities.

How Will the Projects be Implemented and What Are the Key Steps?

Implementing the Integrated Reuse Alternatives involves a step-by-step process as shown in the figure below. Although part of the implementation process includes common elements regardless of the alternative, it is important to note that the latter steps are affected by these earlier phase projects. Therefore, implementation considerations are important even during the first phase projects. This section summarizes the planned implementation process and the key considerations needed to successfully implement this important program.



Recycled Water Study Project Implementation Summary

The implementation plan summarizes the basic roadmap to complete the reuse plan.

Water Purification Demonstration Project/Permitting. The Water Purification Demonstration Project and the San Vicente flow modeling are key steps of the public involvement and regulatory permitting processes to confirm the health and safety of the new water supply. The following summarizes these key permitting implementation steps:

- Pilot and San Vicente model final results
- On-going public involvement and community outreach
- CDPH and the Regional Water Board processes (whether through uniform criteria being developed by CDPH or project specific criteria)
- Advocacy by the Stakeholder group

Mayor and City Council. Support from the Mayor and City Council is essential to implement such an important program. While the reuse program appears to offer substantial cost savings to ratepayers (compared to upgrading the Point Loma Plant), support from policymakers to advance the program will be needed. The following summarizes these key Mayor and City Council implementation steps:

- Natural Resource and Culture Committee approval.
- Stakeholder advocacy in support of the Study by the Metro JPA, Independent Rates Oversight Committee and Environmental groups.
- City Council authorization.

Metro JPA Approval. As partners in the Metro System, support from the Metro JPA is also essential to implement such an important program. Support from JPA policymakers is needed to advance the program. The following summarizes these key Metro JPA implementation steps:

- Finalize the cost sharing framework, as summarized below.
- Stakeholder advocacy in support of the Study by the City, Independent Rates Oversight Committee and Environmental groups.
- Policymaker approval to support the Study and the reuse program.

Financials. Fiscal responsibility is important for all parties. For Metropolitan Wastewater System ratepayers, there is an important choice required regarding whether to fund this water reuse plan or fund the alternative improvements at the Point Loma Plant. The following summarizes key financial implementation steps:

- Finalize cost share framework concepts and agreements between the City and Participating Agencies.
- Comparative financial analyses with other water sources (if desired).
- Development of rate impacts.
- Financing plan.

Technical/Other. Implementing the reuse plan will require technical evaluations and engineering. The following summarizes these key technical implementation steps:

- Continued evaluation and monitoring of non-potable reuse demands and use trends; and wastewater flow generation. These totals will be important to finalize the size of indirect potable reuse projects.
- Continued permitting coordination as part of the Point Loma Plant 301h Modified Permit process, preferably with the intent of deferring or eliminating the need for secondary improvements.
- Detailed siting studies for new pump stations and treatment plants.
- Pilot testing of high rate systems to develop area-specific values to be used in the design of treatment systems.
- Alignment studies for new wastewater, brine, and sludge pipelines.
- SV8 Siting Study and Sweetwater River crossing concept (with possible evaluation of constructing solids handling facilities at the South Bay Plant in lieu of diverting to Point Loma Plant).
- Groundwater studies including evaluation of the San Diego Formation to determine if the groundwater basin could be a candidate for possible inclusion in future master planning efforts.
- Waste stream efficiency and recovery analysis to evaluate ways to further minimize waste streams.

Study Conclusion

Overall, the Integrated Reuse Alternatives presented in this Study achieve the Study's goals, provide a bold vision for future water reuse in the Metro Service Area, and provide savings to ratepayers. The Study's Stakeholders provided valuable opinions and diverse viewpoints that added value to the process and the alternatives developed. While water reuse has been evolving in San Diego over the past few decades, the region's master plans have helped guide decision makers with a focus on making good investments, while still being flexible to adapt to future changes. This Study endeavors to continue this tradition and be looked upon as a milestone that helped provide long-term water sustainability to the San Diego region.

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Where Can I Find More Information on Water Reuse in the City?

Website. The Public Utilities Department maintains useful information on the City's website. See below for more information.

Recycled Water Home Page. The City's Recycled Water homepage includes extensive information on water reuse, rules and regulations, information on the existing system, and frequently asked questions. The website address is: http://www.sandiego.gov/water/recycled/

Water Reuse Homepage. The Water Reuse homepage includes links to the 2005 Water Reuse Study, the Water Purification Demonstration Project, and the Full Scale Reservoir Augmentation Page. The website address is: http://www.sandiego.gov/water/waterreuse/

General Information. If you are interested in learning more about recycled water, the City's Public Utilities Department can be contacted at (619) 533-7572 or e-mail at water@sandiego.gov.

Community Presentations. Recycled water professionals are available to speak to your community group, organization, special interest club or service organization. They are qualified to deliver their expertise, answer your recycled water questions, and will customize a presentation to meet the needs of your group. To schedule a speaker, simply call our Speakers Bureau Hotline at (619) 533-6638 at least two weeks prior to your program date. Or, you may e-mail requests to waterspeakers@sandiego.gov.

Who Can I Contact for More Information on this Study?

Marsi Steirer
Deputy Director
City of San Diego
msteirer@sandiego.gov
(619) 533-4112
600 B Street, Suite 700, MS 907
San Diego, CA 92101-4587

Amer Barhoumi, P.E.
Project Manager
City of San Diego
abarhoumi@sandiego.gov
(619) 533-4186
600 B Street, Suite 700, MS 907
San Diego, CA 92101-4587

James Strayer, P.E.
Co-Project Manager
Black & Veatch
strayerjj@bv.com
(760) 525-6230
300 Rancheros Drive, Suite 250
San Marcos, CA 92069

Amy Dorman, P.E.
Senior Project Manager
City of San Diego
adorman@sandiego.gov
(619) 533-5248
600 B Street, Suite 700, MS 907
San Diego, CA 92101-4587

Victor Occiano, P.E.
Co-Project Manager
Brown and Caldwell
vocciano@brwncald.com
(858) 571-6715
9665 Chesapeake, Suite 201
San Diego, CA 92123

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AGENDA ITEM 7
Attachment

MetroTAC
2010/2011 Work Plan

MetroTAC Items	Description	Subcommittee Member(s)
Advanced Water Purification Demonstration Project	San Diego engaged CDM to design/build/operate the project for the water repurification pilot program. *2/8/11: Equipment arrived 3/2011; tours will be held when operational (June/July 2011 timeframe)*	Al Lau
Fiscal Items	The Finance committee will continue to monitor and report on the financial issues affecting the Metro System and the charges to the PAs. The debt finance and reserve coverage issues have been resolved. Refunds totaling $12.3 million were sent to most of the PA's.	Greg Humora Scott Huth Karen Jassoy Karyn Keese
Recycled Water Revenue Issue	Per our Regional wastewater Agreement revenues from SBWTP are to be shared with PA's. 4/11: City has agreed to pay out revenue to Wastewater Section and PA's credit will be on the Exhibit E adjustments at year end Open issues: Capacity reservation lease payments and North City Optimized System Debt service status.	Scott Huth Scott Tulloch Karyn Keese
Water Reduction - Impacts on Sewer Rates	The MetroTAC wants to evaluate the possible impact to sewer rates and options as water use goes down, and consequently the sewer flows go down, reducing sewer revenues. Sewer strengths are also increasing because of less water to dilute the waste. We are currently monitoring the effects of this. *2/2011:wastewater revenues are declining due to conservation and flow reductions and agencies are re-prioritizing projects to be able to cover annual operations costs*	Eric Minicilli Manny Magaña Karyn Keese
"No Drugs Down the Drain"	The state has initiated a program to reduce pharmaceuticals entering the wastewater flows. There have been a number of collection events within the region. The MetroTAC, working in association with the Southern California Alliance of Publicly-owned Treatment Works (SCAP), will continue to monitor proposed legislation and develop educational tools to be used to further reduce the amount of drugs disposed of into the sanitary sewer system. 8/2010: County Sheriff and Chula Vista have set up locations for people to drop off unwanted medications and drugs.4/11: *Local law enforcement has taken a proactive role and is sponsoring drug take back events. 3/11: TAC to prepare a position for the board to adopt; look for a regional solution; watch requirements to test/control drugs in wastewater*	Greg Humora
Flushable Items that do not Degrade	Several PAs have problems with flushable products, such as personal wipes, that do not degrade and cause blockages. MetroTAC is investigating solutions by other agencies, and a public affairs campaign to raise awareness of the problems caused by flushable products. We are also working with SCAP in their efforts to help formulate state legislation to require manufacturers of products to meet certain criteria prior to labeling them as "flushable." Follow AB2256 and offer support.	Eric Minicilli
Grease Recycling	To reduce fats, oils, and grease (FOG) in the sewer systems, more and more restaurants are being required to collect and dispose of cooking grease. Companies exist that will collect the grease and turn it into energy. MetroTAC is exploring if a regional facility offers cost savings for the PAs. The PAs are also sharing information amongst each other for use in our individual programs. *3/11: get update on local progress and status of grease rendering plant near Coronado bridge*	Eric Minicilli

MetroTAC Items	Description	Subcommittee Member(s)
"Power Tariff"	Power companies are moving to a peak demand pricing scheme which negatively impacts PAs 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. (8/2010): John Helminski at the City of San Diego is working on a sustainability project for CoSD *3/11: Prepare a position paper for the JPA board to consider 4/11: John Helminski no longer works for the City. Request update from Paula.5/31/11: Roberto Yano met with SCAP representatives. Each agency should meet with their SDG&E representative to determine if there are special programs or incentives they can qualify for .Per SCAP there is no new legislation.*	Tom Howard Paula de Sousa Roberto Yano
Recycled Water Study	As part of the secondary waiver process, San Diego agreed to perform a recycled water study within the Metro service area. That study is currently underway, and MetroTAC has representatives participating in the working groups. TM #8 Costs estimates are out and PAs provided comments on TM#8 and have asked for a technical briefing. Draft report due out mid-summer.	Scott Huth Al Lau Karyn Keese Jennifer Duffy
Recycled Water Rate Study	San Diego is working on a rate study for pricing recycled water from the South Bay plant and the North City plant. MetroTAC, in addition to individual PAs, have been engaged in this process and have provided comments on drafts San Diego has produced. We are currently waiting for San Diego to promulgate a new draft which addresses the changes we have requested. *draft study still not issued*	Karyn Keese Scott Huth Rita Bell
Metro JPA Strategic Initiatives	MetroTAC to develop success measures for the JPA strategic initiatives and suggest a schedule to complete certain items.	Scott Huth Dan Brogadir Karyn Keese
Salt Creek Diversion	9/2010: OWD, Chula Vista and San Diego met to discuss options and who will pay for project; Chula Vista and OWD are reviewing options. 2/2011: OWD and PBS&J reviewed calculations with CoSD staff; San Diego to provide backup data for TAC to review. This option is also covered in the Recycle Water Study.	Roberto Yano Manny Magaña Karyn Keese Rita Bell
Recycled Water Study Cost Allocation	*A small working group was formed to discuss options to allocate PLWTP offset project costs among the water and wastewater rate payers; Concepts will be discussed at TAC and JPA Board in near future.*	Scott Huth Roberto Yano Al Lau Karyn Keese
Board Members' Items		
Metro JPA Strategic Plan	2/2011: committee to meet 2/28/11 to plan for retreat to be held on 5/5/11 Retreat held and wrap up presented to the Commission at their June Meeting. JPA strategic planning committee to meet to update JPA Strategic Plan and prepare action items.	Augie Caires Ernie Ewin Mark Robak
Rate Case Items	San Diego is starting the process for their next five-year rate case. As part of that process, MetroTAC and the Finance Committee will be monitoring the City's proposals as we move forward.	Karyn Keese
Schedule E	MetroTAC and the Finance Committee are active and will monitor this process. Individual items related to Schedule E will come directly to the Board as they develop.	Karen Jassoy Karyn Keese
Future bonding	MetroTAC and the Finance Committee are active and will monitor this process. Individual items related to bonding efforts will come directly to the Board as they develop.	Karen Jassoy Karyn Keese
Changes in water legislation	MetroTAC and the Board should monitor and report on proposed and new legislation or changes in existing legislation that impact wastewater conveyance, treatment, and disposal, including recycled water issues	Paula de Sousa

MetroTAC Items	Description	Subcommittee Member(s)
Role of Metro JPA regarding Recycled Water	As plans for water reuse unfold and projects are identified, Metro JPA's role must be defined with respect to water reuse and impacts to the various regional sewer treatment and conveyance facilities	Scott Huth Karyn Keese
Border Region	Impacts of sewer treatment and disposal along the international border should be monitored and reported to the Board. These issues would directly affect the South Bay plants on both sides of the border.	
IROC Performance Audits	Work with IROC to identify areas to be audited; participate in audit process. 8/2010: provide the top 5 areas to audit by September IROC meeting.	Augie Caires

Completed Items	Description	Subcommittee Member(s)
Debt Reserve and Operating Reserve Discussion	In March 2010, the JPA approved recommendations developed by Metro JPA Finance Committee, MetroTAC, and the City of San Diego regarding how the PA's will fund the operating reserve and debt financing. MetroTAC has prepared a policy document to memorialize this agreement. **Project complete: 4/10**	Scott Huth Karyn Keese Doug Wilson
State WDRs & WDR Communications Plan	The Waste Discharge Requirements (WDRs), a statewide requirement that became effective on May 2, 2006, requires all owners of a sewer collection system to prepare a Sewer System Management Plan (SSMP). Agencies' plans have been created. We will continue to work to meet state requirements, taking the opportunity to work together to create efficiencies in producing public outreach literature and implementing public programs. **Project complete: 5/10**	Dennis Davies Patrick Lund
Ocean Maps from Scripps	Schedule a presentation on the Sea Level Rise research by either Dr. Emily Young, San Diego Foundation, or Karen Goodrich, Tijuana River National Estuarine Research Reserve **Project complete: 5/10**	Board Member Item
Secondary Waiver	The City of San Diego received approval from the Coastal Commission and now the Waiver is being processed by the EPA. The new 5 year waiver to operate the Point Loma Wastewater Treatment Plant at advanced primary went into effect August 1, 2010. **Project complete 7/10**	Scott Huth
Lateral Issues	Sewer laterals are owned by the property owners they serve, yet laterals often allow infiltration and roots to the main lines causing maintenance issues. As this is a common problem among PAs, the MetroTAC will gather statistics from national studies and develop solutions. 4/11: There has been no change to the issue. We will continue to track this item through SCAP and report back when the issue is active again.. **Efforts closed 3/11**	Tom Howard Joe Smith