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AGENDA
MUNICIPAL SERVICES COMMITTEE
February 9, 2016

MEMBERS

Margaret McAustin, Chair, District 2
Terry Tornek, Mayor
Andy Wilson, District 7

STAFF

Eric Klinkner, Interim General Manager
Valerie Flores, Recording Secretary

MISSION STATEMENT

The City of Pasadena is dedicated to delivering exemplary municipal services, responsive to our entire community and consistent with our history, culture and unique character.

Public meeting begins at 4:00 p.m.

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REGULAR MEETING OF THE
MUNICIPAL SERVICES COMMITTEE
Tuesday, February 9, 4:00 P.M.
100 North Garfield Avenue, Pasadena, Council Chambers

AGENDA

1. CALL TO ORDER/ROLL CALL

2. PUBLIC COMMENTS ON MATTERS NOT ON THE AGENDA

3. NEW BUSINESS

- A. Adopt A Resolution Certifying the Final Environmental Impact Report for the Pasadena Non-Potable Water Project, Adopting the Findings Pursuant to the California Environmental Quality Act, and Adopting the Mitigation Monitoring and Report Program; Approve the Pasadena Non-Potable Water Project as Described in the Environmental Impact Report; Adopt a Resolution to Authorize Submittal of Applications to Federal, State and Local Agencies for Available Funding; and Direct the City Attorney to Draft a Mandatory Non-Potable Water Use Ordinance

4. ADJOURNMENT

*Attachment

NEXT MEETING
February 23, 2016


Margaret McAustin, Chair
Municipal Service Committee

POSTING STATEMENT:

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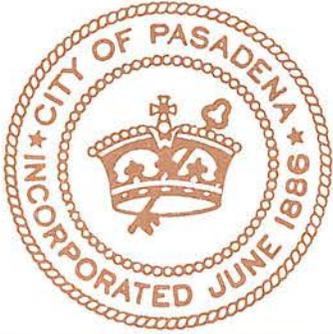

Susana Castro

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3.A



Agenda Report

February 22, 2016

TO: Honorable Mayor and City Council

THROUGH: Municipal Services Committee (February 9, 2016)

FROM: Pasadena Water and Power

SUBJECT: ADOPT A RESOLUTION CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE PASADENA NON-POTABLE WATER PROJECT, ADOPTING THE FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AND ADOPTING THE MITIGATION MONITORING AND REPORT PROGRAM; APPROVE THE PASADENA NON-POTABLE WATER PROJECT AS DESCRIBED IN THE ENVIRONMENTAL IMPACT REPORT; ADOPT A RESOLUTION TO AUTHORIZE SUBMITTAL OF APPLICATIONS TO FEDERAL, STATE AND LOCAL AGENCIES FOR AVAILABLE FUNDING; AND DIRECT THE CITY ATTORNEY TO DRAFT A MANDATORY NON-POTABLE WATER USE ORDINANCE

RECOMMENDATION:

It is recommended that the City Council:

1. Adopt a resolution certifying the Environmental Impact Report ("EIR") for the Pasadena Non-Potable Water Project (SCH #2014081091) (Attachment A), adopting the Findings Pursuant to the California Environmental Quality Act ("CEQA"), and adopting the Mitigation Monitoring and Reporting Program;
2. Approve the Pasadena Non-Potable Water Project ("Proposed Project") as described in the EIR;
3. Direct the City Clerk to file a Notice of Determination within five days;
4. Approve the exercise of the option to extend the existing Reclaimed Water Service Agreement No. 15,075 with the City of Glendale ("Reclaimed Water Agreement") for an additional 25 years;
5. Adopt a resolution to authorize the General Manager of the Pasadena Water and Power Department ("PWP") to apply to federal, state and local agencies for available grant and loan funding; and
6. Direct the City Attorney to draft a Mandatory Non-Potable Water use ordinance within 30 days. The ordinance provisions are included in Attachment B.

EXECUTIVE SUMMARY:

Over the past six years, PWP has been developing the Proposed Project as a means to provide recycled and other sources of non-potable water to PWP's customers. The Proposed Project is part of the City of Pasadena's ("City") long-term strategy to reduce its dependence on imported water from the Metropolitan Water District of Southern California ("MWD"). The Proposed Project will be implemented in six phases over the next 20 years, and when completed it will offset approximately 10% of PWP's current level of potable water use by providing over 3,000 acre-feet per year ("AFY") of non-potable supply for irrigation, cooling and industrial applications.

Sources of non-potable water include recycled water produced by the Los Angeles/Glendale Water Reclamation Plant ("LAG Plant"), located 10 miles west of Pasadena in the City of Los Angeles, as well as raw water from Arroyo Seco stream and the Devil's Gate and Richardson tunnels near Devil's Gate Dam.

The recommended actions are a necessary first step to support timely completion of grant applications, which have already been submitted in partially-complete form. The grant funding opportunities are limited and offered on a first-come, first-served basis, so it is imperative that the City move expeditiously to complete all actions necessary to complete the grant application requirements.

The recommended actions are sufficient to facilitate implementing Phase 1 of the Proposed Project in the next two to three years after all permits are obtained and contracts are authorized. Phases 2 to 6 will require additional environmental studies and public review before they can be permitted for construction.

Phase 1 includes all core facilities and the first segment of pipeline necessary to support full buildout of the Proposed Project. The five-mile pipeline will start at the point of connection with the City of Glendale ("Glendale") at Scholl Canyon landfill, connect to a new reservoir at Sheldon, and terminate at Brookside Park. Phase 1 will also include installation of two reservoirs, one in Glendale at Scholl Canyon, and one in Pasadena at the Sheldon Reservoir site, a pressure reducing station, a tunnel water pump station, improvement to existing pumping stations in Glendale, an optional micro turbine to generate electricity from the recycled water, and power transmission and fiber optic conduits along the pipeline. It will include connections to four customers (Art Center College of Design, Brookside Golf Course, Rose Bowl Stadium, and Brookside Park) with an estimated 700 AFY non-potable water demand for irrigation and cooling.

Phase 1 is expected to cost from \$18 to \$25 million, providing water at an average cost as low as \$1,000 per acre foot ("AF") at the lower cost construction with maximum grant funding, and up to \$2,124 per AF assuming the higher capital cost with no grant funding. For comparison, MWD's Tier 2 full service treated volumetric cost for imported water is currently \$1,076 per AF.

PWP published the Final EIR for the Proposed Project in December 2015 in compliance with state and federal law, and has conducted additional public outreach to solicit

community input. During the public review period for the Draft EIR 112 oral and written comments were received that raised similar types of concerns. Those concerns were organized in six general categories: (1) Project alternatives (i.e. to location of Sheldon Reservoir and to alignment of pipelines); (2) Noise; (3) Traffic; (4) Aesthetics and property values; (5) Air quality and dust; and, (6) Project implementation (i.e. project funding, costs, benefits, schedule, and approval process). Some residents objected to the proposed pipeline alignment of the preferred alternative and the location of the reservoir at Sheldon site and suggested other alternatives. The suggested alternatives were considered during the preliminary planning of Phase 1, but were not selected as the recommended alternative because of engineering and geotechnical concerns and higher costs. The EIR concluded that all impacts from the Proposed Project will be less than significant with mitigation. Staff recommends that the City Council consider and adopt a resolution certifying the EIR and authorize staff to pursue a number of additional actions to facilitate further development of Phase 1 of the Proposed Project such as grant applications, securing an extension of the Reclaimed Water Agreement for recycled water from Glendale, and initiating a process to develop a mandatory non-potable water use ordinance.

BACKGROUND:

In 1993, the City and Glendale entered into the Reclaimed Water Agreement whereby the City agreed to invest in the expansion of Glendale's recycled water system to Scholl Canyon. Glendale and the City of Los Angeles co-own the LAG treatment plant, which is located in the City of Los Angeles and can produce up to 22,000 AFY of tertiary-treated recycled. Under the Reclaimed Water Agreement, the recycled water system in Glendale was enlarged and extended northerly to the borders of Glendale and Pasadena Scholl Canyon to enable deliveries of recycled water to PWP.

The LAG Plant has been in service since 1976. Approximately 5,000 AFY of the recycled water is currently used for landscape irrigation, cooling water, and industrial uses at a number of facilities including parks, cemeteries, schools, and a power plant in Glendale and surrounding areas. Tertiary-treated recycled water is former waste water that passes through numerous treatment systems before being used for irrigation, groundwater recharge, or to meet commercial and industrial water needs; however, it is not considered suitable for drinking. The primary treatment removes the large solids from the waste water, the secondary treatment removes the smaller particles suspended in the water, the tertiary treatment is the final process to filter out the remaining solids, and is followed by disinfection before returning the water to the environment.

Under the Reclaimed Water Agreement, PWP has paid its \$6.2 million share of the capital costs, but has been unable to take deliveries of recycled water due to a lack of infrastructure to deliver and distribute the water to PWP's customers. Under this agreement, PWP would currently pay an additional \$700 per AF of water actually delivered from the LAG plant.

Non-Potable Water Resource Planning Studies

Since the Reclaimed Water Agreement was signed, PWP has studied options to deliver this source of recycled water to PWP customers on numerous occasions, particularly during California drought cycles. Invariably, the high cost of delivering the water as compared to purchasing water from MWD resulted in decisions to defer the necessary investment. Over the past six years, PWP has intensified efforts to study and develop a non-potable water program to address long-term water supply challenges.

In 2007, the City established a Water Reclamation Task Force to obtain stakeholder input on the merits of pursuing a non-potable water system and other means to address systemic water shortages facing California. The task force consisted of a group of concerned citizens with support from PWP and City staff. In May 2008, the five members from the public drafted and signed a “Proposal for a Recycled Water Plan in Pasadena” in which the group “unanimously request that the Pasadena City Council authorize the first-phase construction of a system to deliver recycled water currently available for landscape irrigation and industrial uses” (Attachment C). The plan also emphasized the importance of PWP’s ongoing water conservation efforts to “decrease its dependence on imported water, achieve urban sustainability, do its part to protect the world’s ecosystem, and reliably manage its vital water supply for years to come.”

In 2011, the City Council adopted PWP’s Water Integrated Resource Plan (“WIRP”), which established a long-term strategy to meet the City’s future demands with cost effective and reliable water supplies by developing alternative local water sources. The WIRP recommended six projects, two of which included use of recycled water produced at the LAG Plant: one for landscape irrigation of the Brookside Golf Course and surrounding park areas, and one for replenishment of groundwater with a blend of recycled water and storm water at the Eaton Canyon spreading grounds. Phase 1 of the Proposed Project will implement one of these key recommendations identified in the WIRP.

Non-Potable Water Sources

The Proposed Project includes three local water sources available to the City under its existing water rights and Reclaimed Water Agreement with Glendale:

- Recycled water from the LAG Water Reclamation Plant
- Water from two existing subterranean tunnels in the vicinity of Devils Gate Dam
- Water from the Arroyo Seco stream

These resources are expected to be sufficient to meet the anticipated maximum demand of 3,000 AFY for the system build-out. The combined sources of recycled water, tunnel water, and water from Arroyo Seco stream are referred to as non-potable water.

Proposed Project EIR

PWP's consultant prepared the EIR for the Proposed Project in compliance with the California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA"). The EIR concluded that all impacts resulting from the Proposed Project will be less than significant or less than significant with mitigation.

The EIR analyzed all six phases of the Proposed Project. However, as authorized by CEQA, Phase 1 was evaluated at a "project" level; that is in sufficient detail to allow the project to be constructed in the event the EIR is certified and the construction permits are obtained. Phases 2 to 6 were analyzed in the EIR in less detail at a "program" level, and therefore it will require additional environmental studies and public review before any of these later phases can be constructed.

In Phase 1, the project includes a distribution system to convey recycled water and tunnel water, and consists of the following components:

- Approximately five miles of new distribution pipelines, installed below ground from Scholl Canyon to the west side of Pasadena and sized to accommodate the flow of all six phases
- Two reservoirs: one in Glendale at Scholl Canyon, and one in Pasadena at the Sheldon Reservoir site to deliver water by gravity to customers
- A pressure reducing station at the intersection of Washington Boulevard and West Drive with an option to build one micro turbine at the same site to generate electricity as recycled water is delivered from Glendale to Pasadena, and to install power transmission and fiber optic conduits along the pipeline
- A tunnel water pump station at Brookside Golf Course
- Improvements to Glendale's pump system at various locations to accommodate deliveries of recycled water to Pasadena
- Connection of four customers with total demand of 700 AFY: Art Center College of Design, Brookside Golf Course, Rose Bowl Stadium, and Brookside Park.

The cost to construct all six phases would be an estimated \$50 million to supply more than 3,000 AFY to approximately 51 customers for landscape irrigation, cooling towers, and industrial use. This would offset approximately 10% of PWP's potable water use.

Highlights of future phases 2 to 6 include the following additions:

- Seventeen miles of pipelines
- Four reservoirs (one in Glendale and three in Pasadena)
- One pressure reducing station
- One pump station
- Expansion of the existing micro turbine generation facility
- Upgrades to Glendale's existing pump stations
- Major customers may include California Institute of Technology, Pasadena City College, Huntington Memorial Hospital, Jet Propulsion Laboratory, PWP's Glenarm Power Plant, numerous City parks, Caltrans, and Huntington Library

The EIR analyzes the impacts of the Proposed Project on the environment and identifies mitigations to minimize those impacts.

A Notice of Preparation and Notice of Scoping Meetings (“NOP”) for the EIR was released for 30-day public review which started on August 28, 2014. In addition to the required agencies, the NOP was mailed and e-mailed to 213 neighborhood associations, committees and individuals. The NOP was advertised in Pasadena Star News on August 28, 2014, and September 4, 2014, and in the Pasadena/San Gabriel Valley Journal News on August 28, 2014. The NOP was posted on two of the City’s webpages - Planning and PWP. Two public scoping meetings were held at Brookside Golf Course during the public review period – on Saturday, September 6, 2014, and Wednesday, September 10, 2014.

With input from both regulatory agencies and the general public during the scoping meetings, the Public Draft EIR was prepared and made available for public review from June 30, 2015 to September 14, 2015. Two public meetings were held during the public comment period – on August 13, 2015, and August 26, 2015.

The comments received during the public review period for the Draft EIR, are addressed in detail in the Final EIR. The comments stem in large part from concerns related to construction activities which will not have long-term effects on the environment or residents.

The EIR was finalized on December 23, 2015, and made available for public review on December 24, 2015 on the City’s Planning and PWP websites. The EIR is available in print at the following locations:

Pasadena Water and Power
150 S. Los Robles Avenue, Suite 200
Pasadena, CA 91101

Linda Vista Library
1281 Bryant Street
Pasadena, CA 91103

Pasadena Central Library
285 East Walnut Street
Pasadena, CA 91101

La Pintesca Library
1355 North Raymond Avenue
Pasadena, CA 91103

Pasadena City Hall
City Clerk’s Office
100 N. Garfield Avenue, Room S228
Pasadena CA 91101

The Notice of Final EIR and Public Hearing (“Notice”) was mailed to regulatory agencies and emailed to residents, neighborhood associations, organizations, and interested individuals on December 23, December 24, December 28, 2015, and January 4, 2016. The Notice was published in the Pasadena/San Gabriel Valley Journal News and Pasadena Star News on January 14, 2016.

The public hearing for the EIR certification originally scheduled for February 1, 2016 was continued to February 22, 2016. A revised Notice with the new public hearing date was e-mailed to the interested parties on January 21, 2016 and published in Pasadena Star News and Pasadena/San Gabriel Journal News on January 28, 2016.

Public Comments on EIR

A total of 112 public comments were received and addressed in the Final EIR. Multiple comments raised similar types of concerns that have been organized in six general categories as shown below along with a brief summary of the City's responses. Greater details of the comments and corresponding responses from the City are documented in the Final EIR.

1. **Project Alternatives** - A petition was submitted by residents objecting to the proposed location of the Sheldon Non-Potable Water Reservoir and the pipeline alignments on Linda Vista Avenue and North Arroyo Boulevard.

Detailed responses in the Final EIR include:

- a. Alternative alignments were evaluated, but geotechnical and engineering decisions were determined to minimize pipeline length within known seismic hazard liquefaction zones.
- b. The proposed alignments are shorter and reduce construction time, impacts, and costs.
- c. Reservoir alternatives are undesirable because of site elevations relative to overall Project location.

2. **Noise** - Concerns associated with increased noise levels during construction and operation at the Sheldon Non-Potable Water Reservoir site.

Detailed responses in the Final EIR include:

- a. Additional information is provided clarifying the type of equipment anticipated during construction and expected noise levels.
- b. Mitigation measures include noise dampening design features and sound attenuation requirements during construction.
- c. Anticipated operational noise is within existing ambient levels, and less than that of the projected 2015 noise contour for the site as described in the City's General Plan.

3. **Traffic** - The roads adjacent to the proposed construction area are currently impacted by traffic and the Proposed Project will increase the intensity.

Detailed responses in the Final EIR include:

- a. The anticipated construction crews would average 20 persons per phase and a maximum of 30 vehicle round trips per day. The proposed Mitigation Measure 3.16-1 includes preparation of a Construction Staging and Traffic Management Plan ("CSTM Plan") by the contractor once the final design is completed and the then-current traffic conditions are known, and the contractor can accurately estimate traffic conditions and management actions. The revision clarifies that the CSTM Plan needs to incorporate a number of details suggested in the comments, including:

- Length of closures for streets and/or lanes and the number of lanes closed
- Provide detour routes, outline a plan to manage traffic during Rose Bowl events, and information on construction staging sites
- Project contact information (including after-hours contact information) and enforcement/corrective action
- Dust and clean-up requirements
- Use of “clean” trucks where reasonably feasible
- Clarification that pedestrians and cyclists include children

4. **Aesthetics and Property Values** - Residents concerned with visual and land use impacts from new above ground facilities, potential crime, and hazards by operating a non-potable storage tank near homes.

Detailed responses in the Final EIR include:

- a. Additional details are provided for building footprints and layouts in Chapter 3 Clarifications, Revisions, and Corrections on page 341.
- b. A visual rendering of the proposed Sheldon Non-Potable Water Reservoir is included in the report.
- c. PWP will make every reasonable effort to minimize risks to properties during construction, including retain a full time inspector at the construction site, require the contractor to adhere to the safety standards, schedule mandatory weekly tailgate safety meetings with inspectors, contractor and project manager.

5. **Air Quality and Dust** - Concerns of public health impacts from increased dust and requested additional mitigation measures.

Detailed responses in the Final EIR include:

- a. Dust control measures will be in compliance with the South Coast Air Quality Management District rules and requirements.
- b. Best Management Practices for dust control (“BMPs”) are incorporated into the Project.
- c. Clarifications are added to the Construction Staging and Traffic Management Plan to incorporate BMPs for reducing dust.

6. **Project Implementation** – Concerns regarding project funding and costs, the extent to which benefits would only be shared among a small number of private users, a lengthy construction schedule, and the Project approval process.

Detailed responses in the Final EIR include:

- a. As described herein, PWP will aggressively pursue multiple grants and loans from federal, state, and local agencies to mitigate costs for PWP customers.
- b. The use of non-potable water offsets the demand for potable water supplies which reduces average water costs for all PWP customers.
- c. The Proposed Project improves water supply reliability by reducing the demand for more costly and uncertain imported water supplies.
- d. Construction of the proposed Sheldon Non-Potable Reservoir is anticipated to take 8-10 months.

- e. If the City Council approves the Proposed Project and certifies the Final EIR, PWP would be allowed to move forward only on the Phase 1 project. Future phases will require additional project-level CEQA review. Phase 1 requires permits prior to construction.

Funding Sources and Grant Application Authority

PWP is evaluating various financing options for Phase 1 of the Proposed Project including a combination of grants, loans, bond funding, and equity contributions. The water rate design and impacts will be driven by the relative contribution from these various sources and the details are unknown at this time. Any grant funding agreements, bond issuances, or rate modifications will require future approval and authorization by the City Council.

PWP is pursuing federal funding from the United States Bureau of Reclamation Title XVI Program, state funding from the State Water Resources Control Board Proposition 1 and Clean Water State Revolving Fund programs, and local funding from the MWD's Local Resources Program ("LRP").

Most grants require a resolution authorizing the signatory on behalf of the applicant as part of the final grant approval by the funding agencies, and some require adoption of a funding plan and rates to recover the cost of the non-potable water. Each source of funding will require an agreement between the City and the funding agency. Prior to entering into any such agreements, staff will seek appropriate authorization by the City Council at a later date.

Adopting the EIR is a necessary first step to complete the grant applications that PWP has submitted. These grant funding opportunities are competitive and offered on a first-come, first-served basis, so it is imperative that the City move expeditiously to complete all actions necessary to complete the grant application requirements.

Budget, Cost and Revenue Sources

The estimated cost for the Phase I system as currently defined with a yield of 700 AFY is \$18 million. However the total amount sought in the funding applications is higher. Grants and loans are reimbursable based on actual construction costs, up to the maximum amount of the grant agreement. As is often the case in grants, the funding amount generally cannot be increased after the funding agreements are signed. In order to reserve the maximum grant funding potential, the application project cost includes a higher than anticipated contingency of \$7 million, yielding an estimated Phase 1 project cost of \$25 million for use in grant funding applications.

The estimated average unit cost of the non-potable water can vary substantially depending upon the final project cost, amount of grant funding received, and interest rate for loans necessary to fund PWP's share of the project cost. Table 1 provides a range of estimates from \$1,000/AF to \$2,124/AF for two different cost and funding options that represent the likely best and worst case scenarios.

MWD's Tier 2 full service treated volumetric cost for imported water is currently \$1,076/AF. Like all water suppliers, MWD is experiencing significant cost pressures that will continue to drive up the cost of water it supplies at an estimated 3-5% annually. Projects such as the California Water Fix, upgrading MWD's infrastructure, and more stringent environmental and regulatory requirements are issues MWD is currently facing. Depending upon the rate and size of MWD's price escalation and the net amortized cost of capital to PWP ratepayers for the Proposed Project, the cost of non-potable water could be less than imported water right from the beginning in the best case scenario, within a few years under less optimistic assumptions, or as many as 20 years in the high cost scenario. Regardless, the cost of this non-potable supply will be substantially lower than imported supplies once the debt service has been paid off.

Table 1
Estimated Range for Funding and Water Costs for
Pasadena Non-Potable Water Project Phase 1

Assumptions and Cost Components	\$18 M Project Cost		\$25 M Project Cost	
	Max Grant	No Grant	Max Grant	No Grant
Project Capital Cost (\$)	18,000,000	18,000,000	25,000,000	25,000,000
Grant-Funded Portion	10,300,000	0	12,750,000	0
1% Low-Interest Loan-Funded Portion	7,700,000	0	12,250,000	0
1.8% State Loan-Funded Portion	0	18,000	0	25,000,000
Annual Costs (\$/year)				
Amortized Capital Cost (30 years)	298,000	782,000	475,000	1,085,000
<u>PWP O&M Cost</u>	<u>150,000</u>	<u>150,000</u>	<u>150,000</u>	<u>150,000</u>
Sub-total Annual Fixed Cost	448,000	932,000	625,000	1,235,000
Average Unit Costs for 700 AFY Supply (\$/AF)				
Amortized Capital Cost	426	1,117	679	1,550
PWP O&M Cost	214	214	214	214
Cost of Recycled Water from Glendale	700	700	700	700
MWD LRP Subsidy	-340	-340	-340	-340
Average Cost of the Non-Potable Supply	1,000	1,691	1,253	2,124

PWP will recover the debt service and operating costs of the Proposed Project through water rates that will be developed as part of the forthcoming water cost of service and rate design study.

Reclaimed Water Agreement Extension

The Reclaimed Water Agreement that entitles PWP to a portion of the recycled water produced by the LAG expires on December 31, 2017. The Reclaimed Water Agreement includes the option for the City to extend the term for an additional 25 years; however, the City and Glendale are negotiating a new contract intended to supersede the existing agreement. The PWP Interim General Manager has provided timely notice to Glendale of the City's intent to exercise the extension provisions of the Reclaimed Water Agreement in order to secure the recycled water supply in the event that a replacement agreement is not executed before December 2017.

Although the Reclaimed Water Agreement includes provisions for the General Manager to provide such notice to exercise the 25 year extension, it is recommended that the City Council explicitly approve the exercise of this option.

Mandatory Use Ordinance

Staff recommends that the City Council direct the City Attorney to draft a Mandatory Non-Potable Water Use Ordinance within 30 days in order to qualify for certain grants and comply with state policy initiatives. Due to the unprecedented water crisis in California, the State Water Resources Control Board ("State Water Board") established a Recycled Water Policy which mandates increased use of recycled water in California by year 2030. To support this policy and prior to receiving state grants and loans, the State Water Board will require the City to adopt a Mandatory Non-Potable Water Use Ordinance. Such an ordinance would establish a policy requiring the use of non-potable water for landscape irrigation, cooling, dust control, industrial applications and other non-potable uses, where practical, appropriate, and consistent with the City's long term sustainability goals. The ordinance will ensure that the state funds are not wasted and the Proposed Project will create a drought-proof, reliable local water source which will offset potable water and can be sustained over the long term.

The ordinance will define the conditions under which a property owner would be required to install dual or "purple" pipes, a separate service connection and additional metering to interconnect with the Proposed Project in order to utilize the non-potable water supply. The general conditions of the proposed Mandatory Non-Potable Water Use Ordinance, as summarized in Attachment B, include requirements that:

- Non-Potable Water shall be used whenever it is financially and technically feasible;
- Non-Potable Water use is mandatory for most irrigation purposes;
- All new construction within one mile of an existing or proposed non-potable pipeline will be evaluated for potential Non-Potable use;
- Existing water customers within 1,000 feet of a Non-Potable Water pipeline and landscape water use of 200,000 cubic feet per year (2,000 billing units) or more of potable water will be required to retrofit their service; and,
- The cost of facilities and interconnecting to the City's Non-Potable Water pipeline shall be borne by the customer.

Project Schedule/Timeline

Item/City Council Action or Approval	Timeline
Adopts EIR for the proposed project	February 2016
Adopts mandatory use ordinance	April 2016
Complete Phase 1 design	Summer 2016
Approve grant funding agreements/resolutions	Summer 2016
Obtain permits	Fall 2016
Phase I construction contract approval	Early 2017
Complete Phase I construction	Fall 2018

COUNCIL POLICY CONSIDERATION:

The Proposed Project is consistent with the City's Urban Accords goal to reduce potable water consumption ten percent by 2015 and is consistent with the General Plan Land Use Element with respect to sustainability. It will contribute to compliance with the statewide requirements to reduce the consumption of potable water 20% by year 2020 pursuant to the Water Conservation Act of 2009 (SBX7-7). The Proposed Project is also consistent with the City's Strategic Planning Goals and PWP's WIRP.

ENVIRONMENTAL ANALYSIS:

The EIR, which includes the draft and final documents, analyzes the Proposed Project at project and program levels. Eighteen environmental topics were analyzed to determine potential environmental impacts such as aesthetics, air quality, biological resources, cultural resources, hydrology and water quality, hazard and hazardous materials, etc. Phase 1 is analyzed at a detailed project level that includes new non-potable water distribution pipelines, power transmission and fiber optic conduits along the pipeline, storage reservoirs, pressure reducing stations, pump stations, and a micro turbine facility. The EIR concludes all impacts are less than significant or less than significant with proposed mitigation measures. The following four alternatives were developed for comparison with the Proposed Project and analyzed in the EIR:

- No Project (status quo)
- No Funding from the U.S. Bureau of Reclamation
- Reduced Intensity Project – Phases 1 through 4
- No Tunnel Water Alternative

Other than the No Project alternative, the Reduced Intensity Project would be considered the environmentally superior alternative because, although the Proposed Project will not result in significant environmental impacts or significant environmental impacts after mitigation, it would result in fewer impacts requiring mitigation. However, this alternative would also provide fewer benefits and not meet Project objectives because it would limit the use of the recycled water available to the City under the existing Reclaimed Water Agreement with Glendale thus hindering the City's ability to maximize local water supplies and existing water rights, and increase its reliance on imported water. As a result, PWP would purchase more water from MWD than if the Proposed Project was implemented and be more dependent on imported water supplies.

Public Comments on the Draft EIR were received, and responses to those comments were prepared and included in the Final EIR. Staff recommends that the City Council certify the EIR, adopt the Findings pursuant to CEQA, adopt the Mitigation Monitoring and Reporting Program, and direct the City Clerk to file the Notice of Determination.

FISCAL IMPACT:

The cost of the actions to certify the EIR and file the Notice of Determination, to apply for federal, state, and local funds, and prepare the draft ordinance will be approximately \$40,000. The recommended actions will set in motion additional engineering and administrative actions to complete design, specifications, and obtain permits and grants at an estimated cost of \$300,000 to \$350,000. Funding for these actions will be addressed by the utilization of existing budgeted appropriations in Water Capital Improvement Project 1013 – Reclaimed Water. Additional City Council actions will be required to authorize construction, grant agreements, or project financing. The specific fiscal impact of such actions will be addressed as they are brought forward to the City Council. The ultimate completion of Phase 1 of the Proposed Project would likely increase overall water supply costs by up to \$700,000 per year for a number of years until such time as the avoided cost of imported water supplies from MWD exceeds the fully amortized cost of non-potable water supplied by the Proposed Project.

Respectfully submitted,



Shari M. Thomas
Interim General Manager
Pasadena Water and Power

Prepared by:



Roumiana Voutchkova
Engineer

Approved by:



MICHAEL J. BECK
City Manager

Attachments:

- Attachment A – Environmental Impact Report
- Attachment B – Mandatory Non-Potable Water Use Ordinance - Provisions
- Attachment C – Water Reclamation Task Force Recommendation Letter

**Environmental Impact Report (“EIR”)
for
the Pasadena Non-Potable Water Project (SCH #2014081091)**

The EIR is available for public review on the City's website at:

<http://www.PWPweb.com/recycledwater/>

The EIR is available for public review in print at the following locations:

Pasadena Water and Power
150 S. Los Robles Avenue, Suite 200
Pasadena, CA 91101

Linda Vista Library
1281 Bryant Street
Pasadena, CA 91103

Pasadena Central Library
285 East Walnut Street
Pasadena, CA 91101

La Pintesca Library
1355 North Raymond Avenue
Pasadena, CA 91103

Pasadena City Hall
City Clerk's Office
100 N. Garfield Ave, Room S228
Pasadena, CA 91101

Mandatory Non-Potable Water Use Ordinance - Provisions

The following provisions describe in general terms the requirements that will be included in the Mandatory Non-Potable Water Use Ordinance (“Ordinance”).

- The term “**Non-Potable Water**” as used herein shall include any source of non-potable water including recycled, raw, or untreated water conveyed by the Pasadena Water and Power Department through its non-potable distribution system.
- **Policy:** Non-Potable Water shall be used whenever its use is economically justified, financially and technically feasible, and consistent with legal requirements, preservation of public health, safety and welfare, and the environment.
- **Mandatory Use:** The following land uses shall be required to use Non-Potable Water: agricultural irrigation; construction use; all landscape, park, schoolyard and golf course irrigation; landscape and/or aesthetic impoundments, and wildlife habitat. Exceptions may be granted by the City on the basis of specific health concerns or pursuant to an appeals process set forth in the Ordinance.
- **Non-mandatory Use:** At the City’s discretion, the following types of uses may require Non-Potable Water: commercial use, (including air-conditioning and toilet flushing), and industrial process.
- **Permitting:** Regardless of type of condition of use, all prospective users of Non-Potable Water shall obtain a permit from the City prior to receiving the Non-Potable Water.
- **New Construction:** All requests for water service for new construction projects submitted to the City shall be evaluated for potential Non-Potable Water use. All projects located over groundwater basins suited for Non-Potable Water use and within one (1) mile of existing or proposed Non-Potable Water facilities shall be considered for mandatory Non-Potable Water use. The City reserves the right to require customers to use Non-Potable Water in lieu of potable water for all approved uses.
- **Existing Customers:** Existing water customers who have water service connections serving existing developed property with annual landscape water use of 200,000 cubic feet per year (2,000 billing units) or more of potable water and within 1,000 feet of a Non-Potable Water pipeline will be required to retrofit said property to accommodate and use Non-Potable Water for landscape irrigation.
- **Temporary Potable Water Use for New Construction:** At the discretion of the City, potable water may be made available on a temporary basis until Non-Potable Water is made available.
- **Cost of Conversion and Interconnection:** The cost of facilities required to accommodate Non-Potable Water and interconnect to the City’s Non-Potable Water pipeline shall be borne by the customer or potential user(s) of the Non-Potable Water.



Water Reclamation Task Force

Proposal for a Recycled Water Plan in Pasadena May 2008

To the Honorable Mayor Bogaard:

Pasadena has within its reach an untapped source of water that promises to increase our available supply, help protect our city from the effects of a looming drought, buffer us from water-industry politics, ensure adequate fire protection, continue our city's legacy of environmental stewardship and preserve Pasadena's healthy landscapes for generations to come.

We unanimously request that the Pasadena City Council authorize the first-phase construction of a system to deliver recycled water currently available for landscape irrigation and industrial uses.

Who We Are

We are a group of citizens concerned about the future of our city and the instability of the water supply throughout the western states. At the invitation of Pasadena Water & Power, we have devoted several months to evaluating facts, reviewing data, interviewing water-industry experts and assessing Pasadena's future if no action is taken. While we may have come to the table with different ideas, our conclusion is singular.

Our Call for Action

It is time for Pasadena to capitalize on the \$6.3 million commitment it made in 1993, when the City Council authorized the purchase of 6,000 acre-feet of recycled water per year from the Los Angeles/Glendale Water Reclamation Plant. The Council had foreseen the droughts and population growth that we experience today.

Our city now faces a projected water shortage. It is time to put a plan into action to use the water we've been paying for since 1993. We see the need to take the first step to develop a system that will provide reclaimed water for irrigation of public landscapes and for industrial use. Because it may take up to two years for multiple regulatory agencies to approve even the first phase of construction, we must begin now.

A Dwindling Supply

Pasadena consumes 39,000 acre-feet of water per year, of which 60 percent is imported from the Metropolitan Water District (MWD). The water supplied by MWD is increasingly vulnerable. A five-year drought throughout the western states has left MWD's historic sources at very low levels. Pumping has also been restricted from the Sacramento-San Joaquin River Delta. These facts, coupled with increasing demand within MWD's service area and statewide vying for

available supply, make Pasadena's future water allocation uncertain. As a result, the Pasadena City Council declared a projected water shortage in December 2007 and directed all Pasadenans to reduce consumption by at least 10 percent. Implementing a new recycled water project can help us reach this goal.

A Feasible Plan

The recycled water plan proposed herein takes advantage of existing equipment and calls for phased implementation citywide. Phase I includes a reservoir at Scholl Canyon and piping to meet 100 percent of the irrigation needs at Brookside Park, Brookside Golf Course and the Rose Bowl. Not only are these recreational facilities closest to Scholl Canyon, the golf course is already equipped with purple pipe designated for recycled water systems. This first phase of Pasadena's recycled water distribution system would enable the City to conserve up to 1,000 acre-feet (AF) of drinking water per year, enough to serve 2,000 Pasadena homes.

The system would be expanded in two more phases to irrigate City parks, school fields, freeway landscaping and other public grounds, with additional potential for industrial uses. With a fully implemented system in place, the 6,000 AF of recycled water to which Pasadena is already entitled could meet 15 percent of the city's current demand.

A Safe, Proven Solution

The proposed project is not a pioneering endeavor. Recycled water is a proven resource that has been employed by cities throughout Los Angeles and Orange counties for decades. The recycled water available to Pasadena is treated with a state-of-the-art tertiary method. When used for irrigation and industrial purposes, recycled water meets every appropriate standard for safety and purity.

Pasadena Is Maximizing Other Options

Faced with a projected shortage and the prospect of mandatory water-use restrictions, Pasadena Water & Power continues to aggressively promote citywide conservation and water efficient methods and technologies, but these strategies alone cannot solve the problem. Other supply alternatives, including desalination of sea water, are financially and physically unfeasible at this time. Recycled water is, however, a viable solution to a great portion of our supply and demand challenges.

An Investment in a Green Future

A recycled water system is a necessary investment in Pasadena's future and, moreover, would be a clear testament to the City's commitment to sustainability and environmental protection. The Pasadena City Council made the bold move to approve two far-reaching master plans to rehabilitate the city's aging water and power delivery systems. A recycled water system would enhance these efforts to guarantee safe, reliable service for future generations.

At the same time, the City's comprehensive Green City Action Plan calls for the reduction of potable water use by 10 percent by the year 2015. Using recycled water would help the City meet this goal and set an important example of responsibility, progress and action.

We appreciate your consideration and urge you to invest in this project which will help ensure a reliable water supply to our citizens for years to come.

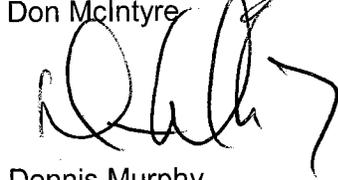
Respectfully submitted by:

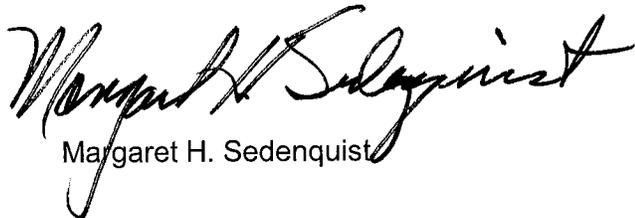
The Pasadena Water Reclamation Task Force


Joe Coulombe


Richard E. Davis


Don McIntyre


Dennis Murphy


Margaret H. Sedenquist

A Vision for Preserving Pasadena's Water Supply in the 21st Century

Presented by the Water Reclamation Task Force - May 2008

OVERVIEW

The future water supply in Southern California is facing significant challenges. Despite sporadic rainfall, the current five-year drought has been the worst the Los Angeles area has experienced in the last 130 years. The drought has extended to the Colorado River and the Sierra Nevada snow pack, typical water sources for the Metropolitan Water District of Southern California (MWD) which supplies water to our region.

For many years, California received surplus water from the Colorado River. This surplus, however, was cut back in 2003. Compounding the problem, in 2007, to protect the delta smelt fish, a U.S. District Court restricted MWD's pumping from the Sacramento-San Joaquin Delta. Locally, groundwater contamination within the Raymond Basin has constrained Pasadena's local supply, shutting down wells.

For these, and many other reasons, Pasadena's Green City Action Plan, adopted by the Pasadena City Council in 2006, urges PWP to re-evaluate and diversify its water sources. It is vital for the City to take action to preserve its current water supply and to diligently pursue new sources to ensure an adequate water supply into the 21st century.

Water Supply and Demand

To meet customer demand, the City of Pasadena relies on local groundwater wells for approximately 40 percent of its total water supply, and imported water for the remaining 60 percent. Water imported from MWD is a blend of water from the Colorado River and Northern California. About 60 percent of the city's annual water use is for irrigation and 40 percent is for domestic demand.

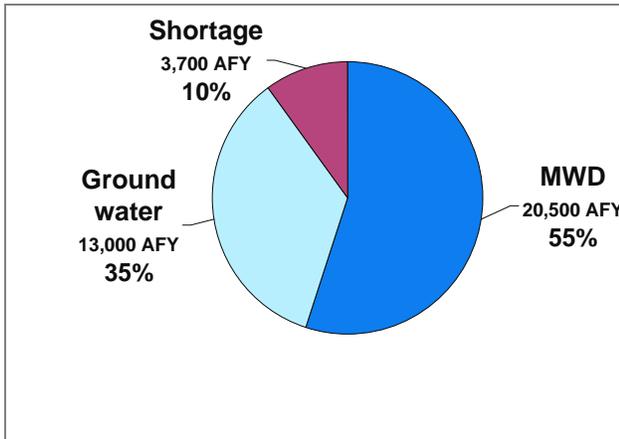
In accordance with the Green City Action Plan, the City set a goal to reduce the projected 2015 per capita potable water usage by 10 percent. Based on a projected 10 percent population growth in the PWP service area, projected demand by the year 2015 is 41,300 acre feet per year. With PWP's targeted 10 percent reduction in demand, the estimated 2015 year demand would be approximately 37,200 acre feet per year.

By 2015, the projected available supply to PWP from groundwater rights during a worst-case-scenario dry year will be 13,000 acre feet per year. This amount includes a reduction of 1,200 acre feet per year due to an anticipated lower yield from the Raymond Basin. The projected dry year supply from MWD (anticipating a 10 percent drought cut-back) is 20,500 acre feet per year. Thus, the total estimated dry year supply in 2015 is 33,500 acre feet per year.

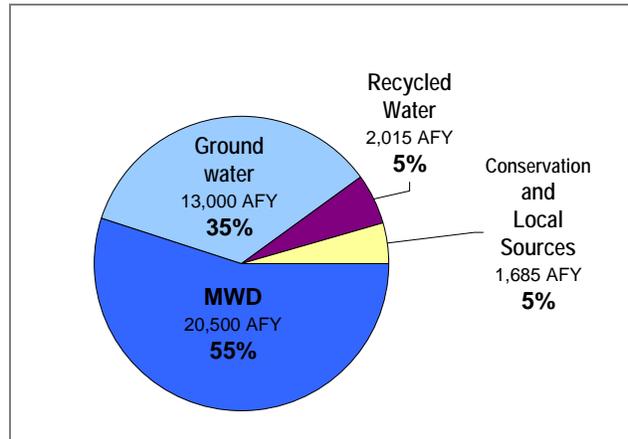
ACTIONS BY PWP TO ALLEVIATE SUPPLY SHORTAGE

The 2015 dry year supply *shortage*, then, (37,200 acre feet of demand minus 33,500 acre feet of supply) is 3,700 acre feet per year. (One acre-foot of water, which is equal to 325,829 gallons, can supply water to two average families for one year.)

This shortage could be eliminated by continuing water conservation programs, maximizing other local water sources, and a new recycled water delivery system.



Dry Year Shortage



Dry Year Supply

Water Conservation Programs

Since 1991, PWP's conservation education programs and the promotion of water-saving devices, such as high efficiency toilets, washers, showerheads, and free water urinals, have helped Pasadena conserve 54,000 acre feet of water, or an average of 3,400 acre feet per year over the past 17 years. The existing conservation programs focus on:

1. **Outdoor Water Use Efficiency** – landscape efficiency audits, rebates for weather based irrigation controllers & rotating sprinkler nozzles, replacing turf with drought-tolerant landscaping or synthetic turf for athletic fields
2. **Education** of landscaping professionals, property managers, facility managers, school officials and residents
3. **Market Sector Programs**, including audits, direct installs and rebates for city facilities, office buildings, schools, food service facilities and multi-family residences
4. **Amendment of the City's Ordinance** to allow use of water brooms and to require retrofit of plumbing fixtures upon resale of commercial or residential properties. A recent update to the City's Green Building Ordinance requires water-efficient fixtures in all new non-residential buildings of 25,000 square feet or more, new mixed-use or

residential buildings of four stories or more, and new municipal buildings of 5,000 square feet or more.

PWP would continue these efforts and, in partnership with MWD, continue to offer residential and commercial customers generous incentives for adopting the latest water-saving technology, as it is developed.

Increasing Local Water Sources

At the same time, PWP is exploring opportunities to increase the use of its local water sources. Several projects are in various stages of development, including:

1. Use of untreated water from **Devil's Gate, Wilson and Richardson tunnels** for irrigation at Brookside Golf Course. The estimated average annual production of the three tunnels is 500 acre feet per year and the estimated cost is \$80 to \$120 per acre foot. By comparison, MWD water is at least \$500 per acre foot.
2. A micro-filtration plant to treat a portion of **Arroyo Seco stream water** for potable use. The estimated production is 1,150 acre feet per year at an estimated cost of \$600 to \$700 acre feet (per the 2002 PWP Water System Master Plan). The Arroyo Seco flow is variable depending on rainfall.
3. A preliminary plan for **expansion of the existing Arroyo Seco spreading grounds** by 60 percent over the next 10 years. Per existing agreements for use of water in the Raymond Basin, a 40-square-mile underground aquifer, PWP receives credit for approximately 60 percent of the water spread at the site.
4. The **Pasadena Groundwater Storage Program**, a joint effort of MWD and PWP. Up to 54,000 acre feet of treated MWD water would be stored in the Pasadena sub-area of the Raymond Basin when imported water is plentiful. PWP could then extract and use up to 18,000 acre feet per year during droughts.

Recycled Water

Recycled water has the best potential to alleviate Pasadena's projected water shortage. The most immediate opportunity for water reuse is to proceed with construction of a distribution system for recycled water currently available to the City for landscape irrigation and industrial use.

In April 1993, Pasadena contracted with the City of Glendale to purchase 6,000 acre feet per year of recycled water from the Los Angeles/Glendale Water Reclamation Plant (LAGWRP). Under the agreement, Pasadena funded the expansion of Glendale's distribution system. Pasadena's total financial obligation to Glendale is \$6.3 million, which includes 6.25 percent interest. To date, Pasadena has invested \$4.3 million in system expansions, with a payable balance of \$200,000 per year. The contract expires in December 2017, but can be extended for an additional 25 years.

Proposed Project for a PWP Water Reuse

Built in 1976, adjacent to the Los Angeles River, the Los Angeles-Glendale Reclamation Plant now processes 20 million gallons per day of wastewater. Commercial and residential wastewater is treated with a tertiary (three-step) method which, in simple terms, employs settling tanks, beneficial bacteria and sand filters to remove waste before the water is disinfected and pumped to customers. Solids captured during the treatment process flow to the Hyperion Treatment Plant where they are processed into energy resources, soil amendments and fertilizer. When used for irrigation and industrial purposes, the resulting water meets all appropriate standards for safety and purity. Every day approximately 4.5 million gallons of recycled water from LAGWRP is reused for irrigation and industrial processes. This water reuse conserves over one billion gallons of potable water per year.

A feasibility study completed by PWP in 2005 outlined a new distribution system that would bring this recycled water from the LAGWRP to Pasadena. The system would be built in three phases at a total cost of \$33 million, would include 25 miles of new mains, and would use approximately one-third of the recycled water available to Pasadena (2,000 acre feet.) The updated project cost, based on the Engineering News Records Los Angeles Construction Cost Index for the period 2004-2007, is \$37 million. The estimated design/construction period is five years per phase.

Phase 1 - Deliver 800 to 1,000 acre feet per year from LAGWRP for landscape irrigation to customers on the west side of Pasadena, including Brookside Golf Course, Brookside Park, the Rose Bowl and nearby City parks. The estimated project cost of the first phase is \$13 million.

Phase 2 - Expand the system to deliver additional 600 to 800 acre feet per year to customers south of the 210 Freeway, including the Pasadena Power Plant, Huntington Library and Gardens, Caltech, Pasadena City College, Caltrans, City parks and high schools. The total demand for phases 1 and 2 is about 1,600 acre feet per year. The cost of the second phase is \$15 million. The total project cost for both phases is \$28 million.

Phase 3 - Expand the distribution system to deliver additional 415 acre feet per year to customers north of the 210 Freeway, including Mountain View Cemetery, Caltrans, Altadena Golf Course, schools and City parks, with a total delivery of 2,015 acre feet per year for all three phases. The estimated cost of the third phase is \$9 million. The project cost for all phases is \$37 million, including customer connection costs.

Participation and Funding

To implement the recycled water program, it is necessary for Pasadena to extend the contract with Glendale and to develop policies for water reuse, including user

incentives. Customer incentives can be provided by setting recycled water rates lower than potable water rates, or by offering assistance to finance on-site irrigation system conversion costs.

PWP has recommended that use of the recycled water be mandated when available, which will help the department meet the Green City Action Plan goal of reducing per capita potable water consumption by 10 percent by 2015.

If approved by the City Council, the recycled water project would require additional studies, including evaluation of water quality data, completion of design, and the required environmental documents. To date \$1 million has been budgeted for the engineering cost.

Implementation of Phase I of water recycling would add approximately \$4-5 million to the Water Fund Capital Program in FY 2011 and again in FY 2012 for construction costs. These costs could be financed by municipal bonds funded by the Capital Improvement Charge component of the water rates... These funds should be supplemented where possible with federal and state grants and MWD subsidies. During the construction phase, the funding requirements of the recycled water project may require postponing or reducing other Capital Improvement Program projects, such as reducing water main installation from 8 miles to 5 miles per year, in order to meet the cash flow requirements. It would be appropriate to evaluate these choices during the Council's annual review of the city's capital budget.

Finally, PWP must evaluate the potential to maximize the use of the remaining available water from LAGWRP (approximately 4,000 acre feet per year). As mentioned above, the proposed project uses approximately one-third of the contracted supply. PWP should also seek a Caltrans contribution to the project cost, evaluate dual plumbing requirements for new developments, and consider the use of gray water (untreated water captured from showers, washing machines and other domestic uses) for irrigation of residential landscaping.

Other Southern California Agencies Water Reuse Projects

Recycled water has proven itself as a new and reliable water supply for communities throughout Southern California. Water agencies in Los Angeles and Orange counties have been using recycled water for decades. In fact, there are now more than 125 recycled water distributors in California, including water agencies, water districts, water authorities, public utilities commissions, cities and counties.

The **City of Los Angeles** has used recycled water since 1979 for irrigation and industrial purposes. Currently, water from four treatment plants is used for landscape irrigation at Griffith Park, Mount Sinai, Forest Lawn Memorial Parks, Lakeside Golf Course and a 6.5-acre Japanese Garden, as well as for seawater intrusion barriers and habitat development.

The **City of Glendale** is using recycled water from LAGWRP for landscape irrigation at golf courses, schools, parks, freeway corridors and street medians, as well as for street sweeping and to serve the cooling towers at its municipal power plant.

The **City of Burbank** started using recycled water in 1967 in the municipal power plant cooling towers. Since the 1990s, expansions have brought recycled water to the city landfill, two golf courses and other landscaped areas.

Orange County is one of the major users of recycled water. In addition to implementing an aggressive groundwater recharge programs to optimize local water resources, Orange County Water District (OCWD) has for decades treated and recycled municipal wastewater for use as a reliable supplemental supply. OCWD serves 20 of the county's 24 municipalities.

In the mid-1960s, OCWD began a water reuse project known as Water Factory 21, located in Fountain Valley. The project was created to prevent seawater intrusion into the coastal land. By 1956, the water table between the cities of Newport Beach and Huntington Beach was below sea level and saltwater from the Pacific Ocean had encroached as far as five miles inland.

OCWD prevented a massive seawater intrusion by creating a barrier with the development of a groundwater recharge program. A series of 23 injection wells deliver water from Water Factory 21 into the underground aquifers to form a barrier blocking the passage of seawater. Water Factory 21 water is a blend of five million gallons per day (MGD) of reverse osmosis-treated recycled water, nine MGD of carbon adsorption-treated recycled water and 8.6 MGD of well water. This blend meets all California Department of Public Health drinking water standards and complies with the injection requirements of the California Regional Water Quality Control Board. A portion of the blended water is used to replenish the aquifers from which the county's potable water is drawn. OCWD also uses recycled water for landscape irrigation at parks, schools and golf courses, for toilet flushing, and for industrial uses, such as carpet dyeing.

Most significantly, in partnership with the Orange County Sanitation District, OCWD recently completed a Ground Water Replenishment Project to reclaim treated sewer effluent for potable use. The system works by disinfecting and filtering reclaimed water by use of microfiltration, reverse osmosis and percolation. Approximately one year after percolation, the water can be pumped out of the aquifer, chlorinated and blended for use as potable water. The first of its kind in California, the innovative project can produce up to 130 million gallons per day.

Central Basin Municipal Water District delivers recycled water from the San Jose Creek Water Reclamation Plant in Whittier and the Los Coyotes Water Reclamation Plant in Cerritos to more than 210 industrial, landscape and irrigation sites throughout southeast Los Angeles County, in the cities of Downey, Norwalk, Bell, Maywood, Bell Gardens, La Mirada, Pico Rivera, Santa Fe Springs, Whittier, Vernon, Huntington

Park, South Gate, Bellflower, Cerritos, Lynwood and Paramount, and in the unincorporated areas of East Los Angeles.

West Basin Municipal Water District provides recycled water to industrial, landscape and irrigation users throughout southwest Los Angeles County, including the cities of El Segundo, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Manhattan Beach, Palos Verdes Estates, Redondo Beach and Torrance, and portions of the unincorporated areas of Los Angeles County. By using recycled water for non-potable uses, customers such as Chevron, Exxon/Mobil, Home Depot National Training Center, Toyota Motor Sales, USA and Goodyear are conserving billions of gallons of drinking water for the region every year.



For more than 35 years, recycled water has recharged a potable water aquifer via Rio Hondo Spreading Grounds.



Irvine Ranch Water District provides recycled water for toilet flushing in high rise buildings in Irvine.

VISION FOR FUTURE WATER SUPPLY

We believe that in response to increasing demands for water, limitations on imported water supplies and the ever-present threat of drought, Pasadena must plan for the future. To ensure a sustainable water supply, Pasadena must aggressively adopt new conservation programs, maximize the use of local water sources and take advantage of available recycled water by approving the first-phase construction of a workable delivery system.

These actions will help Pasadena decrease its dependence on imported water, achieve urban sustainability, do its part to protect the world's ecosystem, and reliably manage its vital water supply for years to come.