

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 (Attachment 1) certifying the Environmental Impact Report ("EIR") for the Pasadena Non-Potable Water Project (SCH #2014081091) (Attachment 2), 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 (Attachment 3) 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 4.

02/22/2016

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MEETING OF _____

AGENDA ITEM NO. _____

MUNICIPAL SERVICES COMMITTEE RECOMMENDATION:

On February 9, 2016, the Municipal Services Committee (“MSC”) recommended that the City Council adopt and approve the staff recommendations.

EXECUTIVE SUMMARY:

Over the past twenty five 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”) and develop a long term, sustainable water supply for irrigation and other purposes that do not require a potable (drinking quality) resource. 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 implement 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 (Attachment 5) 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 (Attachment 6), a pressure reducing station and improvements to existing pumping stations in Glendale. The EIR also provides for an optional micro turbine to generate electricity from the recycled water, a tunnel water pump station, and power transmission and fiber optic conduits along the pipeline. However, these options are not included in the current project design. The Proposed Phase 1 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 into 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, and the EIR may be adopted without any statement of overriding considerations. 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 ("Agreement") whereby the City agreed to invest in the expansion of Glendale's recycled water system to Scholl Canyon with the intent that the City would ultimately take delivery of non-potable water from that system. Under the Agreement, the recycled water system in Glendale was enlarged and extended northerly to the borders of Glendale and Pasadena at Scholl. As part of the Agreement, PWP has paid \$6.2 million of the capital costs to enlarge and expand Glendale's system, 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. Based on the current terms of the Agreement, PWP would pay \$700 per AF of water actually delivered from the LAG plant.

The LAG Plant has been in service since 1976 and is located in the City of Los Angeles. The LAG Plant is co-owned by the cities of Glendale and Los Angeles and can produce up to 22,000 AFY of tertiary-treated recycled water. 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.

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 cost of constructing the facilities in the City to deliver 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 of the group 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 7). 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 Devil's 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 RMC Water and Environment prepared the EIR for the Proposed Project in compliance with 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 more detailed 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 based on current demand. 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 ("NOP") and Notice of Scoping Meetings for the EIR was released for a 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 Pintoresca 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.
 - o One suggested alternative alignment (route) through the Linda Vista area would result in approximately 2,150 feet of additional pipeline at an increased cost of \$500,000 to \$1 million. This alternative would also

increase the project's exposure to potential damage during earthquake activity.

- o Another alternative alignment involves construction of the pipeline from the non-potable tank at the Sheldon Reservoir site to the terminus of Phase I at Brookside Park. This alternative would also require an additional 1,700 feet of pipeline at an added cost of approximately \$400,000 to \$800,000. The preferred alignment is physically located to allow for future connection for Phases 5 and 6.
 - b. The preferred 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
 - b. Pipeline construction in public streets will occur in segments between 80 to 200 feet in length per day. The length is dictated by a number of factors such as existing underground utilities, tree roots, traffic flow, and soil type conditions. Depending on the construction progress, it may affect driveway access to residents living directly in front of the pipe trench. Construction in front of any home is expected to last between 1 to 3 days. At the conclusion of each work day, the contractor will place traffic rated steel plates along open trenches to permit access.
 - c. Smaller streets will be closed during construction hours to eliminate through traffic, but residents along the street will have access to their homes except during actual hours of trenching.
 - d. Typical hours of construction are 07:00 AM to 5:00 PM, but hours can be flexible to minimize traffic issues or accommodate residents along the construction route. The design drawings and specifications will require the construction hours on smaller streets to be limited from 8:30 a.m. to 3:30 p.m. At the end of each work day, the street will be re-opened for through traffic.
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 (Attachment 8).
 - 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.

MWD's LRP is a reimbursement incentive paid on a monthly basis for delivery of recycled water. The LRP began in 1982 and was targeted to bring online projects that would supply approximately 174,000 AFY. To date 23 projects were approved that provide approximately 111,000 AFY. The remaining target is approximately 63,000 AFY. In FY 2017 MWD allocated approximately \$44M for eligible projects. The financial incentive depends on the option selected by the City and only actual deliveries of

recycled water are eligible. Tunnel water and stream water are existing sources and therefore cannot offset imported MWD water. There are three options for the incentives as shown in Table 1.

**Table 1
 MWD LRP Incentives**

Options	Maximum Amount (\$/AF)	Notes
Option 1 - Sliding scale rate for 15 years	475	Calculated annually based on the difference between the actual project cost exceeding MWD's prevailing water rate (blended Tier 1 and Tier 2 costs). When the project cost reaches MWD rate, the reimbursements will stop.
Option 2 - Sliding scale rate for 25 years	340	Similar to Option 1, with reimbursements for up to 25 years if the project costs remain higher than MWD prevailing rate.
Option 3 - Fixed rate	305	Provides more predictable and constant reimbursement. Calculated at the beginning of the term based on Option 2 minus 10% discount. The reimbursement will continue regardless of the increase of MWD rates.

For all options the project must perform for the full twenty-five year term.

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, as shown in Table 1, can vary substantially from \$1,000/AF to \$2,124/AF 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. In addition, PWP will incur costs to procure the recycled water from Glendale, as shown in Table 3, and may receive LRP subsidies from MWD in varying amounts. This range of costs represents 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 2
 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 (may vary)	-340	-340	-340	-340
Average Cost of the Non-Potable Supply	1,000	1,691	1,253	2,124

**Table 3
 Cost of the Recycled Water per the Recycled Water Agreement with Glendale**

Component	Amount (\$/AF)	Notes
O&M	240	Actual costs based on the City's proportional share of LADWP and Glendale's costs
Pumping	415	Actual costs to pump the water from the treatment plant at elevation 430 feet to Scholl Canyon based on the City's proportional share of LADWP and Glendale's costs
Commodity	45	Calculated based on MWD Tier 1 rate

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 (“BU”) 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.

A total of approximately 170 PWP water customers would meet the proposed annual usage and proximity criteria when the project is fully built out, including about 25 single family residential customers. These customers would be required to utilize non-potable water under the proposed Mandatory Use Ordinance if it is financially and technically feasible.

PWP has identified four residential properties near the Phase 1 project that meet the annual usage criteria; however, none of these customers would be subject to mandatory use due to the technical infeasibility of interconnecting residential services with the high pressure pipeline.

Project Schedule/Timeline

Table 4 summarizes the anticipated project schedule for Phase 1.

**Table 4
Phase 1 Project Schedule**

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:

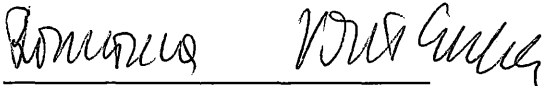
The cost of the actions to certify the EIR and file the Notice of Determination, to apply for federal, state, and local funds, and prepare the draft ordinance will be approximately \$40,000. The recommended actions will set in motion additional engineering and administrative actions to complete design, 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:



STEVE MERMELL
Interim City Manager

Attachments:

- Attachment 1 - CEQA Resolution
- Attachment 2 - Environmental Impact Report
- Attachment 3 - Funding Resolution
- Attachment 4 - Mandatory Non-Potable Water Use Ordinance - Provisions
- Attachment 5 - Phase 1 Proposed Alignment Map
- Attachment 6 - Sheldon Reservoir Map
- Attachment 7 - Water Reclamation Task Force Recommendation Letter
- Attachment 8 - Sheldon Reservoir Rendering