



Request for Proposals (RFP)
for
Preparation of
Integrated Water and Wastewater
Resources Management Plan (IWWRMP)

RFP #201908-02

August 2019

City of South Pasadena
Public Works Department
1414 Mission Street
South Pasadena, California 91030

PROPOSALS DUE: SEPTEMBER 30, 2019

The City of South Pasadena (City) is requesting proposals from qualified firms to prepare the City's Integrated Water and Wastewater Resources Management Plan (IWWRMP), which will include an integrated plan for potable water, recycled/non-potable water, sewer, and stormwater management/services. Upon completion, the IWWRMP will holistically characterize the City's various water resources, as well as identify short- and long-term water operation and management strategies to better cope with future changing water supply sources, weather fluctuations, and commodity values.

I. CITY PROFILE AND BACKGROUND

The City of South Pasadena (City) is located approximately six miles northeast of downtown Los Angeles, on the west side of the San Gabriel Valley between the cities of Pasadena, San Marino, Los Angeles, and Alhambra. Founded in 1874 by Indiana Colony, the City encompasses 3.44 square miles and was incorporated as a General Law city of the State of California on March 2, 1888. With a population of approximately 26,000, the City is known for its beautiful, historically significant homes on tree-lined streets, for its excellent public schools and for a small-town atmosphere in the midst of greater Los Angeles. The City is a full-service city, with some of the existing utilities services described below.

Potable Water

The City's existing potable water system is operated and managed by the City's Public Works Department. Generally, the City's potable water is predominantly supplied by groundwater pumped from the Main San Gabriel Basin (Main Basin). The City also has one imported water connection (USG-2) with the Metropolitan Water District of Southern California (MWD) system via Upper San Gabriel Municipal Water District (USGMWD). Moreover, the City maintains interconnections with neighboring water agencies, including: Pasadena Water and Power, City of Alhambra, and California American Water Company (CalAm). Such interconnections are utilized as necessary to augment the City's water supply, during atypical situations.

The City's water distribution system consists of four groundwater wells, five storage reservoirs, 2 elevated tanks, and six booster pumping stations, which provide water service to approximately 6,200 connections in five pressure zones (e.g. Bilickie, Magnolia, Central, Pasadena, and Raymond). The City has historically used approximately 4,300 to 4,400 AF of water per year; however, due to recent water conservation effort, the City now pumps approximately 3,400 – 3,500 AFY. This pumping amount may be supplanted by other water sources, during certain years due to groundwater quality and/or operational deficiencies (e.g. low water well production, etc.).

In March 2012, the City completed the development of a hydraulic model using the Innovyze's (formerly MWH Soft) H₂OMAP[®] Water hydraulic modeling software. The model development effort included data collection, demand allocation, and calibration/validation.

Recycled Water

USGMWD, the recycled water wholesaler in the area, is proceeding with its Indirect Reuse Replenishment Project (IRRP), which continues to expand its recycled water system for direct non-potable use as well as for supplemental groundwater recharge. Upon completion, direct recycled water use will be available to certain areas in the San Gabriel Valley. Groundwater replenishment will be enhanced to better safe guard the area from future drought.

Today, direct recycled water for non-potable use is not available to the City of South Pasadena. The nearest USGMWD recycled water service lines are located in the vicinity of the Whittier Narrows area. In South Pasadena's proximity, the City of Pasadena presently obtains its recycled water from the Burbank-Glendale plant.

Stormwater System

The City's existing stormwater drainage system is maintained by both the City and the Los Angeles County Flood Control District (LACFCD). Rainfalls, urban runoffs, and surface flow from upstream areas, are generally collected and conveyed through a network of streets, catch basins and drainage pipes, ultimately making their way to the various Receiving Water Bodies (RWB).

Under the 2012 Municipal Separate Storm Sewer System (MS4) Permit, the City (as a co-permittee) is required to pursue means to reduce the discharge of pollutants from the MS4 and to protect water quality, as to satisfy the appropriate water quality requirements under the Clean Water Act. To ensure compliance, the City participated in the Upper Los Angeles River (ULAR) Enhanced Water Management Program (EWMP), which monitors and reports stormwater constituents and compliance progress, as well as identify Best Management Practices (BMPs) to comply with the permit requirements. Under the ULAR EWMP, the compliance targets for the City focus primarily on three sub-basins, namely: Arroyo Seco, Rio Hondo, and L.A. River.

Notably, the EWMP has also identified certain regional projects that would capture stormwater runoffs and possibly recharge the groundwater basin. The successful implementation of such projects may involve alterations to certain existing drainage flows, which could result in changing dry- and wet weather flows in selective pipelines, as well as increase groundwater recharge/elevation in localized areas of the basin. The flow changes (increase or decrease) in different pipelines may possibly open opportunities in the future for innovative stormwater system management strategies (e.g. low-flow diversion, stormwater reuse, etc.).

Sewer System

The City's sewer collection system consists of approximately 306,240 linear feet (58 miles) of sewer pipe lines. Of the pipe lines, nearly 90% are 8-inch diameter vitrified clay pipe (VCP), and the balance are of various sizes (6", 10", 12", 15", 18", etc.). The City has a lift station at the Arroyo South Park restrooms installed approximately ten years ago, a lift station at the Mission Meridian Parking Garage installed in 2003, as well as a lift station and force main at the Arroyo Seco Golf Course installed in July 2016. The City presently does not own or operate any pump stations or treatment facilities.

Between 2009 and 2011, the City conducted a system-wide closed-circuit television (CCTV) inspection of the sewer network, identified defects, and prioritized improvements based on condition ratings. Between 2014 and 2017, the City rehabilitated approximately 60% of the collection system. Specifically, 173,860 linear feet (33 miles) were rehabilitated with trenchless cured-in-place-pipe (CIPP) technology and spot repairs; and 5,988 linear feet (1.13 miles) were replaced by open trench construction. As part of this effort, the City had also acquired as-built information and digital files, which contain detailed pipe line information (e.g. length, diameter, slope, material, condition, etc.).

Prior to the rehabilitation effort, the City's collection system was generally between 60 to 90 years old. The City also had experienced some sewer overflows due to sewer defects and root intrusion. Today, the City's system is performing satisfactorily; however, the City desires to

modernize its tools and employ a more systematic approach to maintaining and its sewer system.

In July 2009 the City adopted a Sanitary Sewer Management Plan (SSMP) that has received several updates over the last ten years. The SSMP is in need of a comprehensive update after the installation of the sewer lift station and completion of recent sewer line rehabilitations.

II. SCOPE OF WORK

The objectives and tasks of the City's Integrated Water and Wastewater Resources Management Plan are generally described below.

A. Potable and Recycled Water Master Plan.

1. Inventory and assess the existing condition of the water infrastructure and operational activities.
2. Develop a GIS-based digital file/database and asset management of existing water system.
3. Update the City's existing water model (conversion to the latest InfoWater). Recalibration/validation of the model is optional (optional task).
4. Review the City's 2015 Urban Water Management and the City's latest General Plan land use information; work with the City to develop a future dataset; and conduct forecasts of potable water and recycled water demand.
5. Research and review documents on existing and future imported water, recycled water, and ground water recharge plans, prepared by the USGMWD, Main Basin Watermaster, MWD, and neighboring agencies (e.g. Pasadena, Glendale, etc.); and identify future changing water supplies and opportunities.
6. Review the Upper Los Angeles River Enhanced Water Management Plan (ULAR EWMP) and the Rio Hondo/San Gabriel River EWMP, and identify future regional stormwater capture projects that can contribute to groundwater recharge in the Main Basin and/or Raymond Basin.
7. Based on future changing weather and water supplies/sources, develop operational and infrastructure strategic plan that encompasses the following considerations: storage/recovery program, fluctuations in imported water supplies/pricing, energy and commodity pricing, neighboring agency partnership opportunities, changing groundwater levels, and financial/grant opportunities.
8. Identify existing potable water infrastructure deficiencies based on existing asset conditions (e.g. age, leakage report, pressure, capacity) and future demand.
9. Identify future recycled water opportunities to serve future recycled water demand.
10. Develop an infrastructure maintenance and life-cycle replacement plan (along with prioritization of improvements) for the potable water system.
11. Develop a long-term capital improvement program that would support maintenance and life-cycle replacement of existing infrastructure, as well as future capacity enhancement, operational flexibility and strategies. The potable water program should include, as necessary and appropriate, additions/upsized backbone transmission mains, reservoirs, and booster stations, wells, etc. The recycled water program should include infrastructure concept(s) necessary to capitalize on future opportunities (from

neighboring agencies and/or USGVMWD) to serve future meaningful demand. Consultant shall clearly identify the purposes (e.g. capacity enhancement, replacement, operational flexibility, etc.) of individual CIP projects in the long-term CIP for both potable and recycled water CIP.

12. Review the past 5 years water operational expenditures, maintenance records, as well as past and future CIP funding needs. Develop a financial strategic plan that addresses revenue sources and funding strategies for sustainable future CIP and on-going operational/maintenance flexibility requirements.
13. Provide trainings to staff on the use/application of the Water Model.
14. Attend public meetings and make presentations (a minimum of two public meetings/presentations in additional working meetings with staff).

B. Stormwater System Plan.

1. Review the county's existing stormwater/drainage system data.
2. Review the latest City stormwater project concepts (currently under development by City pursuant to MS4 permit requirements; projects may locate either inside or outside city limits).
3. Develop a GIS-based digital file of existing drainage system (including pipe size, manhole locations, inlets, outfalls, etc.) and stormwater mitigation projects.

C. Sewer System Master and Management Plan (SSMMP).

1. Review the recently completed citywide CCTV inspection, as-built, and other digital files of the city's sewer system.
2. As necessary, update the GIS-based digital file of existing sewer system and asset condition.
3. Develop a sewer model utilizing the latest fixture discharge rates.
4. Calibrate and validate the sewer model (optional task).
5. Using the latest General Plan land use and fixture discharge rates, conduct a future forecast of sewage discharge (e.g. Wet & Dry conditions).
6. Develop a long-term capital improvement program that would support maintenance and life-cycle replacement of existing infrastructure, as well as future sewer flow.
7. Update the City's Sanitary Sewer Management Plan (SSMP). The SSMP must be in compliance with all regulatory requirements, and shall include (at a minimum) the following elements:
 - a) Organization Structure in charge of Sanitary Sewer Overflows (SSOs)
 - b) Legal Authority
 - c) Operation and Maintenance (O&M)
 - Preventative Maintenance Program (including CCTV inspection & flushing frequencies), Operational Procedures, Owner vs. City responsibilities, etc.
 - Capital rehabilitation and Replacement Program
 - Recommended O&M Staffing and Equipment

- d) Overflow Emergency Response Plan
 - e) Fats, Oils, and Grease (FOG) Control Program
 - f) Design and Performance Provisions.
 - g) System Evaluation and Capacity Assurances Plan (e.g. CIP)
 - h) Monitoring, Measurement and Program Modifications
 - i) SSMP Program Audits
 - j) Communication Program
8. Provide trainings to staff on the use/application of the Sewer Model.
 9. Provide trainings on the key components of the SSMP.
 10. Develop a financial plan that encompasses revenue sources and funding strategies for sustainable future CIP and on-going operational/maintenance requirements. The CIP financing should separate funding sources for capacity enhancement projects vs. maintenance/operation capital projects.

D. GIS System and CIP Integration.

1. Integrate the potable water, recycled water, stormwater, and wastewater GIS files into a common platform (e.g. google earth or similar). The platform should be one that involves little-to-no license fee and ease of use for non-GIS/non-technical individuals, as well as allows for future expansion to include Pavement Management Information System (PMIS) and other municipal information layers.
2. Provide trainings to staff on the use/application of the integrated GIS system.
3. Based on the overlay of the various CIPs developed, develop an integrated master CIP.

E. Integrated Water and Wastewater Resources Management Plan (IWWRMP) Documentation.

The IWWRMP document shall include the following key chapters or independent documents: (1) Executive Summary, (2) Introduction, (2) Land Use and Population Projections, (4) Potable and Recycled Water Master Plan, (5) Stormwater Plan, (6) Sewer System Master & Management Plan (SSMMP), (7) Integrated CIP, (8) Integrated Financial Plan, and (9) Appendices. Each of the system plan chapter (except the Appendices) must be submitted as a deliverable to the City, and should contain sufficient information to function as an independent document, summarizing existing conditions, assumptions, work efforts, findings, and CIP. The Integrated CIP should include the prioritization of the different system overlays and CIP. The Integrated Financial Plan should identify various financing strategies (e.g. impact fees, bonds, grants, utilities rate setting, etc.) to support the ongoing maintenance and operation, capacity enhancements, and infrastructure replacement needs. The consultant is welcome to propose a different documentation format for consideration; for example, the SSMMP to be presented in two chapters, Master Plan and Management Plan. The Consultant shall provide all deliverables to the City in electronic and paper file format at completion of services.

III. PROPOSAL SUBMITTAL REQUIREMENTS

A. RFP Questions

All questions with regard to this RFP shall be submitted by e-mail to Mr. Julian Lee, Deputy Public Works Director, at JLee@southpasadenaca.gov. The City reserves the right to respond to any or none of the questions, depending on their merit.

B. Contract Award Schedule

The tentative schedule for contractor selection and Professional Services Agreement (PSA) award is provided below. The City reserves the right to make changes to the schedule, as deemed beneficial to the City's interest.

RFP Issuance:	August 22, 2019
Proposals Due:	September 30, 2019
Contractor Interview (if any)	October 10, 2019 (Tentative)
PSA Award by City Council	November 6, 2019 (Tentative)

C. Proposal Submission

Interested parties must submit five (5) printed copies of their proposal along with an electronic version. Each proposal copy is limited to 120 total pages (or 60 double-sided pages) for all of its content (e.g. transmittal cover, table of contents, proposal, etc), excluding the cover and the fee proposal (to be provided in separate sealed envelope).

All proposals must be submitted no later than 4:00 p.m. on September 30, 2019. Proposals received after the deadline will not be considered. Proposals shall be submitted to:

City of South Pasadena
Public Works Department
Attn: Julian Lee, Deputy Public Works Director
1414 Mission Street
South Pasadena, CA 91030

The outside of the submittal package shall be clearly marked as "**Proposal for Integrated Water and Wastewater Resources Management Plan,**" and shall include all required information and documents as stated herein. Submission of a proposal shall constitute acknowledgement and acceptance of all terms and conditions contained in this RFP, including all exhibits, attachments, and any amendments or addendum issued by the City.

D. Proposal Format

The proposal shall be organized and submitted in accordance with requirements below. Proposals not

1. Background: Provide a description of your firm's background and project qualifications.
2. Firm's Experience & References: Provide a list of similar projects, clients and references that your firm has completed work for in the past 5 years.

3. **Staff's Experience:** Provide resumes describing the qualifications of the staff that will be working on this project. Provide a list of similar projects and clients that your proposed Project Manager and Project Engineer have completed work for in the past 5 years.
4. **Sub-consultant's Experience:** Provide a list of all proposed subconsultants, their background and qualifications, and degree of involvement.
5. **Project Understanding:** Provide a brief statement of your firm's project understanding, a list of the project's critical element(s), and your firm's proposed methodology and/or approach. The consultant is encouraged to elaborate on its recommended scope of services, and how its proposed approach will best serve the City's interest and at a minimal cost. Additionally, Consultant should describe its approach to managing resources, including a description of the role(s) of any sub-consultants, if applicable, their specific responsibilities, and how their work will be supervised. Identify methods that the consultant will use to ensure quality, budget, and schedule control.
6. **Fee Proposal:** In a separate **sealed envelope labeled "Fee Proposal for IWWRMP,"** submit fee proposal for a grand total not-to-exceed-fee as well as a subtotal fee for each key task/component (e.g. potable and recycled water, sewer system, etc.) as described in the Scope of Work section, with cost breakdowns in terms of hours per task for each proposed personnel. Also include a fee schedule of current hourly rates for applicable personnel. The fee proposal must state the number of meetings, presentations, and trainings included with each key task. The separate sealed fee proposal envelope must be submitted along with the entire proposal package.

After selection of the most qualified consultant, the City reserves the right to negotiate and modify the fee proposal, such as deletion of certain optional tasks, etc.

7. **Schedule:** Provide a detailed schedule as well as description of tasks, subtasks and deliverables.
8. **Acceptance statement:** Submit a signed statement that the firm accepts all the terms and conditions outlined in the City's standard consultant services agreement, and can meet all insurance requirements made part of the agreement, unless otherwise stated in the proposal exceptions.
9. **References:** Provide a minimum of three (3) references the City may contact concerning your performance on other similar projects preferably in Southern California area. Include a brief description of the work provided for each reference. You may offer more than three recent similar contracts if desired. The references should include the start date of the contract and the date of completion for each contract.
10. **Proposal Exceptions:** The Proposer must identify any and all exceptions to the terms and conditions in the RFP process (inclusive of the standard consultant services agreement, insurance, etc.), and identify the firm's proposed specific changes for consideration by the City. By submitting a proposal, your firm acknowledge and accept all terms and conditions in this RFP process, including all addendum, amendments, or supplements; unless otherwise explicitly stated in the exceptions.

E. Evaluation of Proposals

All proposals will be reviewed based on the firm's ability to provide services that meet the requirements set forth in this RFP, as well as the company's responsiveness, qualifications, past experience, and fee. The City reserves the right to make such investigations as it deems necessary to determine the ability of the Proposer to provide services meeting a satisfactory level of performance in accordance with the City's requirements.

By submitting a proposal, each Proposer represents and warrants the following:

- All terms and conditions as presented in this RFP process are acknowledged and accepted, unless otherwise explicitly stated in the Proposal;
- The Proposer has not in any manner sought collusion to secure any improper advantage over any other person submitting a proposal; and
- The Proposer has not, and will not, offer any City employee any gratuity, discount, or offer of employment in connection with the award of contract by City.

Interviews and presentations by one, several, or all of the proposers may be requested by the City, if deemed necessary to fully understand and compare the proposer's capabilities and qualifications. The adequacy, depth, and clarity of the proposal will influence, to a considerable degree, its evaluation.

F. Attachments

Attachments to this RFP are summarized below and provided for review and submittal use.

Attachment "A" -- Sample Professional Services Agreement (PSA)