



Harbor/South Bay Water Recycling Project Modification

Section 7001, Annual Report to Congress

Rich Nagel
General Manager
richardn@westbasin.org

17140 S. Avalon Blvd.
Suite 210
Carson, CA 90746
310.217.2411
www.westbasin.org

Introduction

In accordance with Section 7001 of the Water Resources Reform and Development Act of 2014, West Basin Municipal Water District ("West Basin") submits this proposal to the United States Army Corps of Engineers (USACE) for a modification to the USACE Harbor/South Bay Water Recycling Project, Los Angeles ("the Project"), as previously authorized by Section 502(b)(43) of the Water Resources Development Act of 1999 (Public Law 106-53), as amended by Public Law 106-554.

1. Provide the name of all non-Federal interests planning to act as the sponsor, including any non-Federal interest that has contributed or is expected to contribute toward the non-Federal share of the proposed feasibility study or modification.

West Basin Municipal Water District is the sole non-Federal interest planning to act as the sponsor of the Project.

One of the largest municipal water districts in California, West Basin serves a population of nearly one million people with roughly 151,000 acre-feet of safe, reliable water annually. Through a variety of initiatives, West Basin helps mitigate the effects of the California drought by decreasing the area's reliance on imported water. In addition to delivering recycled water, West Basin has longstanding programs in conservation, education, and ocean water desalination research that are fundamental to long-term water reliability in the region.

2. State if this proposal is for a feasibility study or a modification to an authorized USACE project or feasibility study and, if a modification, specify the authorized project or study.

This proposal is a modification to the authorized USACE Harbor/South Bay Water Recycling Project Los Angeles, as previously authorized by Section 502(b)(43) of the

Water Resources Development Act of 1999 (Public Law 106-53), as amended by Public Law 106-554.

West Basin is guiding regional investments in innovative water programs and technologies to build reliability into the local water supply. West Basin's Water Reliability 2020 Program aims to reduce the amount of imported water from the region from 63% to 33% by the year 2020. As part of this program to reduce the region's dependence on imported water and improve water reliability, West Basin would like to continue its partnership with the U.S. Army Corps of Engineers to expand the use of recycled water through the Harbor/South Bay portions of Los Angeles County. Already through this partnership, the Project has increased the amount of recycled water used throughout the region and has been instrumental in West Basin's ability to successfully construct more than twenty project laterals and pump stations with nearly 100 miles of combined pipelines. This Project has garnered support from cities, residents, organized labor, educational institutions, community and environmental organizations, and local, state and federal elected officials throughout the region.

3. State the project purpose of the proposed study or modification.

Currently, West Basin is seeking a modification that would raise the authorization ceiling of the existing Project from \$35 million to \$70 million in order to deliver recycled water to areas not currently served by the Project by building additional laterals, pump stations, and treatment facilities. Specifically, the modification will allow West Basin to: 1) complete the pipeline delivery system for maximum delivery of recycled water by constructing ten new pipeline laterals, 2) construct additional satellite treatment facilities and pump stations in order to ensure water quality and meet the needs of individual water users, and 3) expand the microfiltration capacity at the Edward C. Little Water Recycling Facility in order to maximize recycled water production, improve overall water quality, and increase local water reliability. To achieve this goal, West Basin is proposing to construct fifteen new and vital projects.

New Pipeline Laterals: The proposed modification for the Project would help fund the construction of ten new lateral pipelines that would deliver recycled water to priority high volume water users throughout the Harbor/South Bay Region. Once completed, these lateral projects would deliver approximately 6,251 acre-feet per year (AF/y) of drought-proof recycled water, to the Cities of Carson, Torrance, Rolling Hills Estates, Rolling Hills, Rancho Palos Verdes, Palos Verdes Estates, Gardena, Inglewood, Lawndale, Culver City and unincorporated portions of Los Angeles County. Please see the attached map, Exhibit A. Specifically, these lateral pipeline projects include:

1. **Cal Trans 405/Figueroa Lateral.** This 0.2-mile pipeline project would provide 24 AF/y of recycled water to a high-visibility site located at the interchange of the 405 and 110 freeways.
2. **Carson Street Lateral Extensions – East.** This project would require a 0.5-mile pipeline and would deliver 48 AF/y of recycled water to three sites including Carnegie Middle School, Calas Park, and the Caltrans 405 onramp.
3. **Carson Street Lateral Extension – West.** This 1-mile pipeline project would provide 45 AF/y of recycled water to three sites including Carson High School, White Middle School, and the City of Carson Veteran’s Park.
4. **Palos Verdes Lateral.** This project would provide an additional 450 AF/y of recycled water to numerous high-volume water use sites throughout the Palos Verdes Peninsula and would extend the existing Madrona Lateral project to a currently underutilized section of the recycled water distribution system. The completion of this project would provide numerous benefits, including improved water quality, additional water pressure to the system, and a more sustainable water supply available to a high water use area.

5. **Palos Verdes Golf Course Lateral.** This project would extend the Anza I and II laterals, previously constructed in partnership with the U.S. Army Corps of Engineers, 2.5 miles and would deliver an additional 200 AF/y of recycled water to the Palos Verdes Golf Course, which has already been retrofitted and is ready to utilize recycled water.

6. **Kenneth Hahn Park Lateral.** This project would extend the distribution system to the north and would deliver approximately 454 AF/y of recycled water to numerous high-volume water use sites including Ladera Park, Plains Exploration and Production (PXP, oil and gas) and Norman Houston Park. This pipeline would be positioned for additional future development of Holy Cross Cemetery, Culver City, and the Baldwin Hills Overlook.

7. **Larch Avenue Park Lateral.** This project would extend an existing pipeline to reach Larch Avenue Park in the City of Lawndale and would deliver 3 AF/y of recycled water.

8. **North Gardena Lateral.** This 1-mile pipeline project would extend the existing distribution system further into the City of Gardena and would deliver 17 AF/y of recycled water to two sites in a disadvantaged community (Fukai Park and Peary Middle School).

9. **Torrance Transit Center Lateral.** This 0.5-mile pipeline would deliver 10 AF/y of recycled water to the Transit Center.

10. **Tesoro Wilmington/Air Products Lateral.** These industrial customers have the potential to conserve enough water to serve 10,000 typical homes by converting to recycled water. Once completed, this pipeline project would deliver 5,000 AF/y of recycled water.

New Pipeline Lateral TOTAL

6,251 AF/y

purification facility that produces five types of “designer” recycled water to meet the region’s needs. As the drought continues, an increased supply of recycled water conserves valuable drinking water supplies. The following projects are included in the modification proposal:

14. Evoqua Expansion – Phase IV Microfiltration. This project would include constructing two additional basins with each basin accommodating thirteen racks of microfiltration membranes, which will increase this individual system’s microfiltration capacity by 33 percent. The benefits include operational reliability, redundancy, and flexibility in ensuring a reliable supply of water to the West Coast Basin Seawater Barrier, which serves to protect the local aquifer from seawater contamination. This will increase capacity of this individual treatment train from approximately 8 million gallons per day (8,945 AF/y) to 10.64 million gallons per day (11, 899 AF/y), for a total increase of 2,954 AF/y.

15. Pall Expansion – Phase V Microfiltration. This project would include the installation of two additional racks of microfiltration membranes, which will increase this individual system’s microfiltration capacity by an additional 33 percent. The benefits include operational reliability, redundancy, and flexibility in ensuring a reliable supply of water to the West Coast Basin Seawater Barrier. This will increase capacity of this individual treatment train from 7.5 million gallons per day (8,395 AF/y) to 9.97 million gallons per day (11,165 AF/y), for a total increase of 2,770 AF/y.

Microfiltration Capacity Expansion TOTAL	5,724 AF/y
---	-------------------

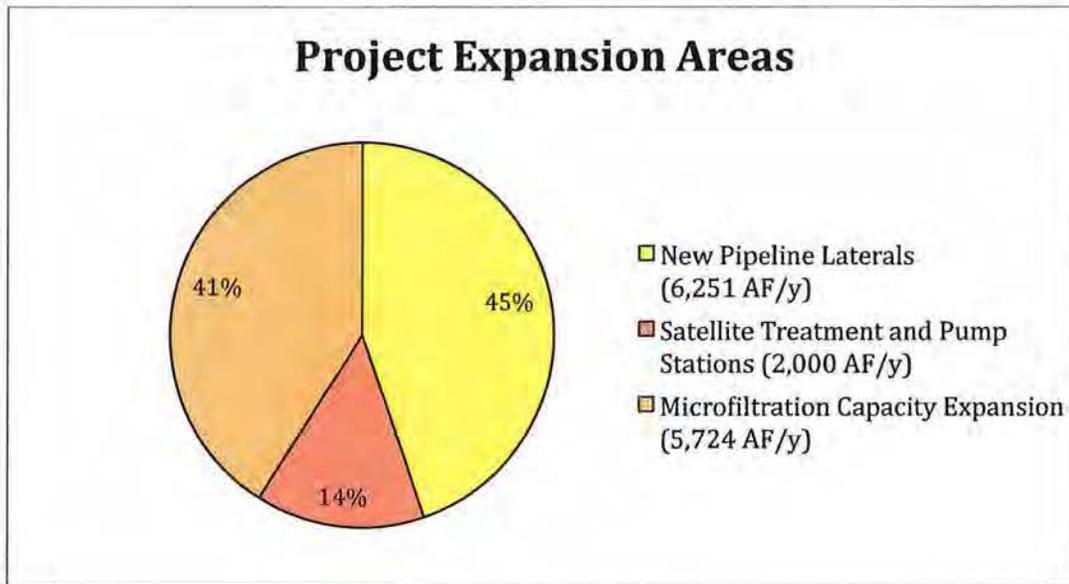


Figure 1

OVERALL TOTAL 13,975 AF/y

Through the expansion of the Project, West Basin will deliver an additional 13,975 AF/y, which roughly equates to an additional 4.5 billion gallons per year of recycled water to the region. Drought, climate change, and a growing population all put a strain on the already scarce and fragile water supply. By increasing the authorization ceiling through this modification, the U.S. Army Corps of Engineers will help ensure an adequate water supply for the Los Angeles region that meets current and future demands.

4. Provide an estimate, to the extent practicable, of the total cost of the proposed study or modification.

The proposed modification request includes a \$35 million increase in project authorization, raising the ceiling to \$70 million. This increased authorization would represent roughly 25% of the total proposed project cost (\$138.1 million), as illustrated in Figure 2. The balance would be funded by West Basin Municipal Water District, future grants from the State of California and other local partners.

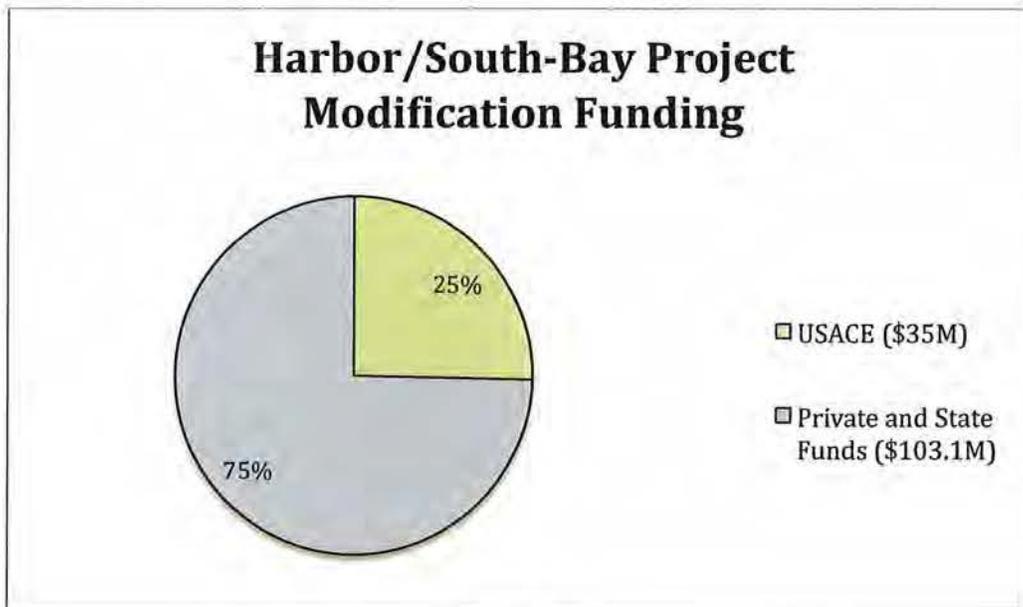


Figure 2

5. Describe, to the extent practicable, the anticipated monetary and non-monetary benefits of the proposal including benefits to the protection of human life and property; improvement to transportation; the national economy; the environment; or the national security interests of the United States.

The Project will deliver sustainable recycled water throughout Coastal Los Angeles County. This type of project is vital to providing a reliable, sustainable, and environmentally friendly supply of water for Southern California, which imports most of its water from Northern California and the Colorado River. With these sources of water becoming increasingly limited, agencies such as West Basin are working to reduce their dependence on energy intensive imported water sources. Recycled water provides many environmental benefits, and for every acre-foot of recycled water used, an acre-foot of potable water is saved. At the Edward C. Little Water Recycling Facility, West Basin produces five unique designer waters to meet

specific customer needs, including water for commercial, industrial, and landscape irrigation purposes, conserving the region's potable water supply for drinking water and other such uses.

The Project will also provide numerous environmental benefits, which greatly impacts the economy. The Pacific Ocean, which drives Southern California's tourism industry, greatly benefits from the region's recycled water efforts. The existing Harbor/South Bay Project has directly resulted in a decrease in ocean pollution, by reducing wastewater ocean discharge flows by 30 million gallons per day, which would otherwise be discharged to the ocean.

The proposed lateral pipeline projects, along with the satellite treatment facilities and increased microfiltration capacity at the Edward C. Little Water Recycling Facility, would allow for the delivery of an additional 13,975 acre-feet of recycled water each year, with no adverse impact on the environment. This is the equivalent of the average water used by approximately 111,792 southern California residents each year. The dramatic increase of available water in the region would improve quality of life and mitigate reoccurring drought conditions, which are likely to increase due to climate change.

The region is home to a thriving aerospace industry, petroleum refining, and auto industries, all of which are important components to the local and state economy. West Basin delivers high quality recycled water at the volumes needed to provide customers with a reliable water supply for each respective industry. West Basin's recycled water program serves sites such as Exxon Mobil, Tesoro, Chevron, Los Angeles Air Force Base, Stub Hub Center, Raytheon, Los Angeles International Airport, NRG Power Services, Goodyear, American Honda, Toyota USA, three colleges, and the West Coast Basin Seawater Barrier.

6. Describe if local support exists for the proposal.

The local support for the Harbor/South Bay Water Recycling Project is widespread and includes municipalities, businesses, environmental organizations, and elected officials. A compilation of support letters for the Project is attached hereto as Exhibit B.

7. State if the non-Federal interest has the financial ability to provide for the required cost share.

The remaining 75% (or \$103.1M) of the project modification will be funded by West Basin Municipal Water District, future grants from the State of California, and other local partners. West Basin does have the financial ability to provide its share of the cost, as it has demonstrated in the past. To date, the Harbor/South Bay Project has received \$33.3 million dollars from the U.S. Army Corps of Engineers and \$588 million dollars of private and state funds, as seen in Figure 3.

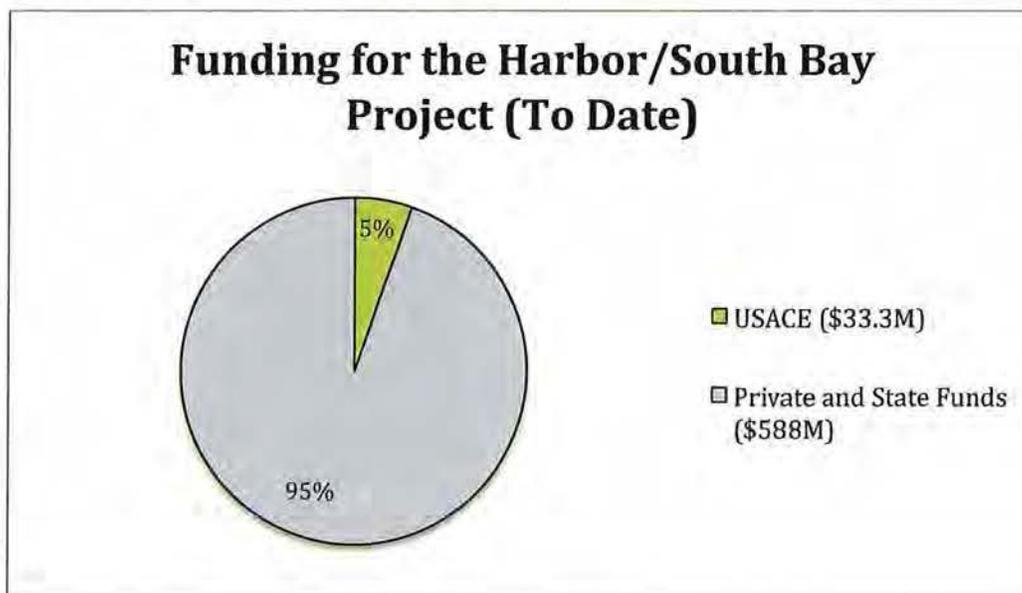


Figure 3

Additionally, West Basin's latest credit ratings from Moody's and Standards & Poor's are AA2 and AA- respectively. In order to maintain these ratings, West Basin has set internally budgeted debt coverage goals, updated financial policies, and adjusted rates as appropriate. West Basin's focus on fiscal policies and metrics has allowed West Basin to maintain these strong credit ratings resulting in low-cost financing for its capital projects. West Basin's credit rating scores are included as Exhibits C and D, and its annual report is attached as Exhibit E.

8. Submit a letter or statement of support from each associated non-Federal interest.

West Basin has passed a board resolution in support of the proposed modification, which is attached as Exhibit F.