



Los Angeles  
Department of  
Water & Power

RESOLUTION NO. \_\_\_\_\_

**BOARD LETTER APPROVAL**

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**RICHARD F. HARASICK**  
Senior Assistant General Manager  
Water System

A blue ink signature of Nancy H. Sutley, written in a cursive style, is positioned above a horizontal line.

**NANCY H. SUTLEY**  
Chief Sustainability Officer

A blue ink signature of Martin L. Adams, written in a cursive style, is positioned above a horizontal line.

**MARTIN L. ADAMS**  
Chief Operating Officer

A blue ink signature of David H. Wright, written in a cursive style, is positioned above a horizontal line.

**DAVID H. WRIGHT**  
General Manager

**DATE:** February 13, 2018

**SUBJECT:** Amendment No. 1 to Agreement No. 47879 With Black & Veatch Corporation and Agreement No. 47880 With URS Corporation Americas for the North Haiwee Dam Seismic Improvement Project

**SUMMARY**

Proposed Amendment No. 1 (Amendment) to Agreement Nos. 47879 and 47880 (Agreements) for the North Haiwee Dam Seismic Improvement Project (Project) will ratify and increase the Agreement amounts by \$3,000,000 and \$500,000 to new amounts not to exceed \$12,000,000 and \$4,500,000 (budgeted) respectively, and will extend the Agreement terms by eight years. All other terms and conditions of the Agreements will remain unchanged.

The original Agreements' budget and duration were primarily expended for the extensive fault trenching work, geotechnical field investigation, advanced engineering design and analysis, and environmental documentation due to the complex site conditions and the prolonged regulatory agency permitting process. The Amendment will allow LADWP to retain the accumulated knowledge, project specific experience, specialized expertise, and continuity of Black & Veatch Corporation (Black & Veatch) with their subconsultant URS Corporation Americas (URS) as the Engineer of Record for the dam; and URS as the prime consultant for the environmental services, to support the completion of this project through the final design, construction and post-construction phases.

City Council approval is required in accordance with Charter Section 373.

## **RECOMMENDATION**

It is requested that the Board of Water and Power Commissioners (Board) adopt the attached Resolution recommending City Council's approval of the Amendment to Agreement No. 47879 with Black & Veatch and Agreement No. 47880 with URS as required in Charter Section 373.

## **ALTERNATIVES CONSIDERED**

The following alternatives were considered to complete the seismic improvements mandated by the California Department of Water Resources Division of Safety of Dams (DSOD):

- A. Transfer tasks supported by Black & Veatch, URS, and their subconsultants to LADWP staff. This alternative is not a viable option because LADWP does not have the experience and expertise to perform the field and laboratory testing, and professional services that are provided by Black & Veatch, URS, and their subconsultants. The independent review services required for this project cannot be performed by LADWP staff. In addition, consultant services will provide staff augmentation to perform these tasks along with other core functions in the Water System Capital Improvement Program and Operations and Maintenance Program. This alternative will disrupt the work currently in progress, result in higher project costs, and will not allow LADWP to meet the projected milestones.
- B. Advertise a new Request for Proposal and award new geotechnical services and environmental services contracts. This alternative is not a viable option because it will not be possible for new consultants to meet the project design and construction schedule since they would not have accumulated knowledge and site-specific project experience that is held by the current vendors. This alternative will result in higher project costs, and will not allow LADWP to meet the project milestones.

## **FINANCIAL INFORMATION**

The terms of the current eight-year Agreements expired on February 3, 2018. The Amendment will ratify and increase Agreement No. 47879 amount by \$3,000,000 and Agreement No. 47880 by \$500,000; and extend the Agreement's terms by eight years to February 3, 2026. All other terms and conditions will remain unchanged. Funding for the Amendments is budgeted.

Agreement No.	Current Maximum Expenditure	Requested Amendment No. 1 Amount	Amended Maximum Expenditure
47879	\$9,000,000	\$3,000,000	\$12,000,000
47880	\$4,000,000	\$500,000	\$4,500,000

The Project encountered delays with the environmental permitting process and additional field investigations which deferred the engineering design and analyses. The environmental permit needed from the California Department of Fish and Wildlife prior to performing the field investigations took an extensive amount of time for approval. Based on the field investigation findings, supplementary fault investigations was performed which was not originally planned. Lastly, scope changes required additional environmental and engineering efforts.

The hourly rates for both Amendments are determined to be fair and reasonable. They are higher than the original Agreement rates, but in line with the Consumer Price Index. Additionally, the hourly rates are consistent with Agreement No. 47805 for geotechnical services which expires in 2024, and Agreement No. 47823 for geotechnical services which expires in 2019. Both Agreement option years were recently renewed and have similar scopes of work to the Amendments.

## **BACKGROUND**

On December 1, 2009, the Board adopted Resolution No. 010172 authorizing the execution of Agreement No. 47879 with Black & Veatch and Agreement No. 47880 with URS for the Project. The Resolution was approved under City Council File No. 09-2939 on January 26, 2010.

The Project is to construct a new earth filled embankment dam, North Haiwee Dam No. 2 (NHD2), north of the existing North Haiwee Dam (NHD) to mitigate the seismic hazard of the North Haiwee Reservoir (NHR). The location of NHD2 requires LADWP to realign portions of the existing Cactus Flats Road and the existing Los Angeles Aqueduct (LAA) channel.

The NHR currently operates at a restricted water elevation, which substantially reduces the reservoir's storage capacity and limits the flexibility of aqueduct operations. The restricted reservoir elevation was imposed by the DSOD in response to a seismic-stability evaluation conducted by the LADWP Geotechnical Engineering Group (GEG) of the Water Engineering & Technical Services Division. The Project will maximize public safety, restore reservoir storage capacity, and reduces the risk of an interruption to the LAA water supply. It is essential that both Amendments be approved to assist LADWP in completing the Project's design, environmental documents and special studies, and construction.

The Project field investigation was delayed over 2 years due to the longer than expected Incidental Take Permit process required by the California Department of Fish and Wildlife. Subsequently DSOD requested a supplementary fault investigation to address the potential fault rupture hazard at the proposed new dam site. The unanticipated extensive fault investigation took 3.5 years to complete. The challenging subsurface soil and groundwater conditions beneath the proposed dam site also

required further foundation characterization and advanced engineering analyses to develop suitable ground improvement techniques. This increased the original design schedule by an additional 2 years.

Black & Veatch and URS have played key roles in assisting LADWP with the comprehensive field investigations, design analysis, and permitting process with regulatory agencies through planning and design. The challenging site conditions led to extensive geotechnical field investigations, non-standard field and laboratory testing, advanced dam seismic stability analysis, and sophisticated foundation improvement design in order to obtain approval from DSOD. The Project will be the first new dam approved by DSOD utilizing the deep soil mixing method for dam foundation.

Currently, design is scheduled to be completed in June 2018 with the Cactus Flats Road realignment construction starting in October 2018 and the NHD2 construction starting in August 2020. The entire project is expected to be completed in January 2025. The Amendment will provide the additional funds and duration to support the completion of the project through the final design, construction and post-construction phases.

Since the award of Agreement No. 47849 and Agreement No. 47880, Black & Veatch and URS have performed satisfactorily within the approved budget for requested services without any noted complaints or concerns.

In accordance with the Mayor's Executive Directive No. 4, the City Administrative Officer's (CAO) report was approved on January 23, 2018.

### **ENVIRONMENTAL DETERMINATION**

Determine item is exempt pursuant to California Environmental Quality Act Guidelines Section 15060(c)(3). In accordance with Section 15060 (c)(3) of the California Environmental Quality Act (CEQA) Guidelines, an activity is not subject to CEQA if it does not meet the definition of a project. Section 15378 (b)(5) states that organizational or administrative activities that will not result in direct or indirect physical changes in the environment do not meet that definition. Therefore, the amendment of a contract to provide as needed environmental compliance support services is not subject to CEQA.

### **CITY ATTORNEY**

The Office of the City Attorney reviewed and approved the Resolution and Amendment as to form and legality.

### **ATTACHMENTS**

- Procurement Summary
- Resolution
- Amendment
- CAO Report