



● **Board of Directors**  
***Engineering and Operations Committee***

2/8/2022 Board Meeting

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**7-3**

**Subject**

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Authorize an agreement with La Cañada Design Group, Inc., in an amount not to exceed \$4,400,000 for preliminary design to upgrade Metropolitan's Water Quality Laboratory, and an agreement with Rincon Consultants, Inc., in an amount not to exceed \$550,000 for environmental support services; the General Manager has determined that this proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

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Metropolitan's Water Quality Laboratory at the La Verne site was constructed in two phases, with the original portion of the building being constructed nearly 40 years ago. Upgrades to both portions of the building are needed to increase the seismic performance and to efficiently address new and evolving water quality issues and regulations. These upgrades will increase the level of seismic performance of this essential facility in accordance with current earthquake projections and updated building codes. Concurrent with the seismic upgrades, the building will be reconfigured and expanded to improve the building's overall functionality in light of the current high-volume sample handling, while looking to the future so that contaminants of emerging concern (CECs) can also be processed at the laboratory. This approach of simultaneously addressing the laboratory and seismic upgrades to the building provides an efficient way to reduce overall project costs and operational impacts when compared to other potential implementation alternatives.

This action authorizes an agreement for preliminary design to upgrade Metropolitan's Water Quality Laboratory, and a second agreement to support the preparation of environmental documentation for planned facility upgrades at the La Verne site.

**Details**

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**Background**

The Water Quality Laboratory is located on the grounds of the F. E. Weymouth Water Treatment Plant in the city of La Verne. The building houses Metropolitan's central laboratory that conducts over 300,000 water quality analyses each year to comply with treated water standards and support studies of emerging contaminants and the assessment of future treatment technologies. The Water Quality Laboratory was constructed in two phases. The south wing of the building was constructed in 1985, and the north wing was added in 1998. Each wing was designed and constructed in accordance with the building code requirements and water quality needs of their time. However, water quality requirements for safe water delivery have evolved significantly in the last 25 years, and the building's internal configuration does not meet current or future laboratory needs. Additionally, industry knowledge of earthquakes and seismic design has greatly improved since the 1994 Northridge earthquake, leading to the development of more stringent seismic design requirements that apply to this building as a Metropolitan essential facility.

The La Verne site is located approximately 1.5 miles from the Sierra Madre-Cucamonga Fault, which can generate a 7.0 magnitude earthquake. Under the current seismic code, the building is vulnerable to damage in the event of a major earthquake. In January 2018, Metropolitan's Board authorized final design of seismic upgrades and related building improvements for the Water Quality Laboratory. Those designs are currently underway.

A recently completed functional assessment of the laboratory was conducted by a specialized consulting firm with national expertise in municipal drinking water laboratories. The assessment concluded that the laboratory was not

adequately configured to meet increased demands from anticipated water quality and laboratory regulations within the next six to ten years. Since the construction of the north wing, water quality requirements, laboratory sample handling practices, and safety and accessibility standards have significantly evolved. Future regulations and newly identified CECs such as per- and polyfluoroalkyl substances and microplastics will require dedicated facilities such as clean-rooms and properly separated work areas to avoid cross-contamination, which are not available within the current open concept building configuration. In addition, the existing fire control system must be replaced to meet updated fire codes; and building upgrades must be implemented to meet the latest Americans with Disabilities Act safety and accessibility standards.

To address these issues, the currently envisioned Water Quality Laboratory building improvements will provide the following benefits:

- Enhanced operation – Planned work includes construction of a building addition with new laboratory spaces to accommodate specialized equipment and supporting infrastructure to meet the latest regulatory requirements and sample handling standards. This will also include reconfiguration of existing laboratory spaces, conference rooms, offices, and common areas to improve functional efficiency of the existing building; and isolation of sensitive work areas to address analysis for emerging contaminants.
- Enhanced sustainability – Planned work includes installation of new drought tolerant landscaping, and rainwater collection systems; and installation of a new roof for the entire building and a new chiller system to improve energy efficiency of the HVAC system. The upgrades to the building will be designed to achieve Leadership in Energy and Environmental Design (LEED) certification for the building once the project is completed. This sustainability approach will be consistent with Metropolitan's sustainability goals for new and upgraded facilities.

Metropolitan staff with support from specialty cost estimating consultants, local contractors, and laboratory experts identified scenarios for constructing the improvements. Three cost/benefit scenarios were assessed based on space requirement needed to maintain laboratory functionality: (1) enhancement and reconfiguration of the existing laboratory within the existing footprint; (2) enhancement and reconfiguration of the existing laboratory with a 30,000-square-foot supplemental building; and (3) a new water quality laboratory at the La Verne site. Scenario 1 retrofits the existing floor plan with no building expansion, and this approach would only serve future laboratory needs through the next five to eight years. Scenario 2 and 3 result in a laboratory with additional space that will provide a modernized layout with enhanced functionality and will serve future laboratory needs for several decades. A new laboratory (Scenario 3) is estimated to cost approximately \$1,200 per square foot, as compared to \$900 per square foot for the recommended building expansion option (Scenario 2). For the purposes of the scenario assessment described above, 30,000-square-feet of additional space was added to the existing building for a total of 90,000-square-foot building under Scenario 2. In Scenario 3, a new 90,000-square-foot laboratory was assessed.

Staff concluded that Scenario 3, a new laboratory is the least cost-effective alternative and would utilize space that may be needed for future treatment processes on the Weymouth plant site. Additionally, a new facility would require extension of utilities through critical plant operating areas.

Staff recommends proceeding with preliminary design of Scenario 2, which includes laboratory functional upgrades in conjunction with the ongoing design effort for building's seismic upgrades, as well as an expansion of the existing building footprint. Staff plans to evaluate phasing construction and impact on existing staff and building operations during preliminary design. Preliminary design of the laboratory functional upgrades will be jointly performed by Metropolitan staff and a specialized firm. A consulting agreement for specialized engineering and technical services to support the laboratory functional upgrades and seismic upgrades is recommended at this time. Staff will return to the Board with a final recommendation on the additional square footage to be added to the retrofitted building once the detailed space planned efforts are concluded. Staff will return to the Board to authorize consultant agreements for final design, if needed, and award of a construction contract.

The planned improvements for the Water Quality Laboratory necessitate additional environmental investigation and documentation to meet CEQA requirements. Metropolitan's Board certified an EIR in April 2015 to address a number of on-going projects at the La Verne site, including the Water Quality Laboratory upgrades. Design changes and other improvements were made to some of these projects since then. These needed improvements

will be assessed with a new CEQA document. Staff recommends proceeding with the preparation of environmental documentation by a specialty consulting firm, as detailed below, to address the planned facility upgrades at the La Verne site.

In accordance with the April 2020 action on the biennial budget for Fiscal Years 2020/21 and 2021/22, the General Manager will authorize staff to proceed with the actions described herein, pending board authorization of the agreements described below. Based on the current Capital Investment Plan (CIP) expenditure forecast, funds for the work to be performed pursuant to this action during the current biennium are available within the Capital Investment Plan Appropriation for Fiscal Years 2020/21 and 2021/22 (Appropriation No. 15517). Funds required for work to be performed pursuant to the subject agreement after Fiscal Year 2021/22 will be budgeted within the Capital Investment Plan Appropriation for Fiscal Years 2022/23 and 2023/24. This project has been reviewed in accordance with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP Evaluation Team to be included in the System Reliability Program.

### **La Verne Water Quality Laboratory Upgrades – Preliminary Design**

Planned preliminary design activities will be conducted with a hybrid effort of consultants and Metropolitan staff; consultant activities are described below. Metropolitan staff will plan and coordinate preliminary design with the facility's users; perform site surveys and geotechnical investigations; structural and civil design, project management, and consultant oversight.

A total of \$7.28 million is required for this work. Allocated funds include \$4,400,000 for design by La Cañada Design Group, Inc., and \$550,000 for environmental support services by Rincon Consultants, Inc., as described below. Allocated funds for Metropolitan staff activities include \$1,171,600 for structural and civil design, and technical oversight and review of consultant's work; \$861,840 for surveying, environmental support, project management, and project controls; and \$296,560 for remaining budget.

The total cost of the project to comprehensively upgrade the functional capabilities and seismic resiliency of the Water Quality Laboratory will be re-evaluated during design. Currently, the future construction contract is estimated to range from \$80 million to \$100 million. **Attachment 1** provides the allocation of the required funds.

### **Engineering Services (La Cañada Design Group, Inc.) – New Agreement**

La Cañada Design Group, Inc. is recommended to provide preliminary design to upgrade the functional capabilities of the Water Quality Laboratory. La Cañada Design Group was prequalified through Request for Qualification No. 1182 and was selected based on the firm's expertise in the discipline-specific technical aspects of this project, and its extensive experience with new laboratories, retrofit of laboratories, and other essential facilities. In addition, La Canada Design Group is performing architectural design for the seismic upgrades to the Water Quality Laboratory, and their work in this area will be coordinated and consolidated with design efforts that Metropolitan staff are currently performing.

The planned preliminary design activities will include: (1) preparation of a 3D model of all laboratory facilities and components; (2) functional evaluation and space modification including laboratory equipment improvements, and other items required for the laboratory modernization; (3) staff relocation planning and laboratory staff coordination; (4) development of final design criteria and conceptual layout drawings for the building improvements; (5) integration of building improvements design with seismic upgrade elements; (6) LEED design coordination; (7) development of a Class 3 construction cost estimate; and (8) preparation of technical reports required for the implementation of the improvements.

This action authorizes an agreement with La Cañada Design Group, Inc. for a not-to-exceed amount of \$4,400,000 to provide preliminary design to upgrade the functional capabilities of Metropolitan's Water Quality Laboratory. For this agreement, Metropolitan has established a Small Business Enterprise (SBE) participation level of 25 percent. La Cañada Design Group, Inc. is a certified SBE firm, and thus achieves 100 percent SBE participation. The planned subconsultants for this work are listed in **Attachment 2**.

### **Environmental Support Services (Rincon Consultants, Inc.) – New Agreement**

Rincon Consultants, Inc. (Rincon) is recommended to provide environmental support services for planned facility upgrades at the La Verne site, which includes improvements to the Water Quality Laboratory. Rincon was

prequalified through Request for Qualification No. 1265, based on the firm's extensive experience with CEQA compliance and environmental clearances, and its specific experience with facility environmental investigations and documentation.

The planned scope of work includes performing technical studies which address issues such as air quality, traffic, noise and cultural resources; and preparing environmental documentation and related CEQA correspondence.

This action authorizes an agreement with Rincon Consultants, Inc. for a not-to-exceed amount of \$550,000 to provide environmental support services for the planned facility upgrades at the La Verne site. For this agreement, Metropolitan has established a Small Business Enterprise (SBE) participation level of 25 percent. The planned subconsultants for this work are listed in **Attachment 2**.

### **Alternatives Considered**

Alternatives considered for completing preliminary design activities for upgrades to the Water Quality Laboratory included assessing the availability and capability of in-house Metropolitan staff to conduct this work.

Metropolitan's staffing strategy for utilizing consultants and in-house Metropolitan staff has been: (1) to assess current work assignments for in-house staff to determine the potential availability of staff to conduct this work; and (2) for long-term rehabilitation projects, when resource needs exceed available in-house staffing or require specialized technical expertise.

In the case of this project, Metropolitan staff maintains the core competencies and technical capabilities to perform the design work related to the structural retrofit of the laboratory as well as performing the project's geotechnical and civil design work. The consultant will be relied upon to conduct the detailed architectural space planning effort, architectural design of the interior components of the laboratory space, as well as design of specialized mechanical, electrical and plumbing upgrades to the building. In this manner, in-house staff will continue to address a baseload of work on capital projects, while the professional services agreement will be relied upon to perform work that falls outside of the core competencies of in-house staff. This approach will allow for the efficient, competent and timely completion of this project.

### **Summary**

This action authorizes new agreements with: (1) La Cañada Design Group, Inc. for a not-to-exceed amount of \$4,400,000 to provide preliminary design to upgrade the functional capabilities and seismic resiliency of Metropolitan's Water Quality Laboratory in La Verne; and (2) Rincon Consultants, Inc. for a not-to-exceed amount of \$550,000 to provide environmental support services for the planned facility upgrades at the La Verne site.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2020/21 capital expenditure plan. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Lists of Subconsultants, and **Attachment 3** for the Location Map.

### **Project Milestone**

January 2024 – Complete design of seismic and functional upgrades to Metropolitan's Water Quality Laboratory

### **Policy**

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Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 51073, dated January 9, 2018, the Board authorized final design of seismic upgrades and building improvements to the Water Quality Laboratory and the Field Engineering Building.

By Minute Item 50092, dated April 14, 2015, the Board certified that the EIR for the Weymouth Plant Improvements has been completed in compliance with CEQA and the State CEQA deadlines.

By Minute Item 51963, dated April 14, 2020 the Board appropriated a total of \$500 million for projects identified in the Capital Investment Plan for Fiscal Years 2020/21 and 2021/22.

## California Environmental Quality Act (CEQA)

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### CEQA determination for Options #1 and #2:

The proposed actions are categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed actions consist of basic data collection and resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed actions qualify for a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

### CEQA determination for Option #3:

None required

## Board Options

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### Option #1

- a. Authorize an agreement with La Cañada Design Group, Inc. for a not-to-exceed amount of \$4,400,000 to provide preliminary design to upgrade the functional capabilities of Metropolitan's Water Quality Laboratory at the La Verne site.
- b. Authorize an agreement with Rincon Consultants, Inc. for a not-to-exceed amount of \$550,000 to provide environmental support services for the planned facility upgrades at the La Verne site.

**Fiscal Impact:** \$7.28 million in capital funds. Approximately \$1.5 million in capital funds will be incurred in the current biennium and has been previously authorized. The remaining capital expenditures will be funded from future CIP budgets following board approval of those budgets.

**Business Analysis:** This option will allow for the simultaneous seismic and functional upgrades of the Water Quality Laboratory in a cost effective and efficient manner. These activities will fully extend the functional service of laboratory for the next 30 years and meet the CEQA requirements for projects located at the La Verne site.

### Option #2

- a. Do not authorize an agreement with La Cañada Design Group, Inc. for a not-to-exceed amount of \$4,400,000 to provide preliminary design to upgrade the functional capabilities of Metropolitan's Water Quality Laboratory at the La Verne site.
- b. Authorize an agreement with Rincon Consultants, Inc. for a not-to-exceed amount of \$550,000 to provide environmental support services for the planned facility upgrades at the La Verne site.

**Fiscal Impact:** \$1.05 million in capital funds. Approximately \$150,000 in capital funds will be incurred in the current biennium and has been previously authorized. The remaining capital expenditures will be funded from future CIP budgets following Board approval of those budgets.

**Business Analysis:** Under this option, the environmental work for the La Verne site planning efforts and the seismic upgrades of the laboratory will continue. Design work for the laboratory's functional upgrades and expansion would be deferred to a future date as in-house staff does not have the specialized engineering and technical capabilities for this type of work.

### Option #3

Do not proceed with either agreement at this time.

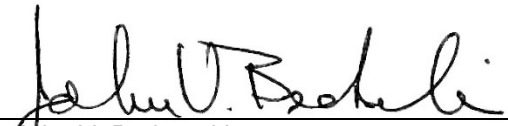
**Fiscal Impact:** None

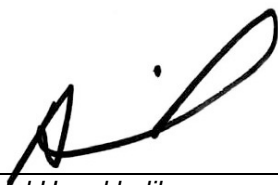
**Business Analysis:** This option would forego an opportunity to provide functional upgrades for the Water Quality Laboratory. Multiple future improvements would be required to the laboratory in the next decades to keep the facility's functionality up to modern industry standards which would increase costs and may diminish Metropolitan's ability to comply with water quality and laboratory requirements. Under this option, seismic upgrades to the laboratory will continue to proceed as originally planned. This option will also forego an opportunity to address the CEQA requirements for other planned projects at the La Verne site.

## Staff Recommendation

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Option #1

  
\_\_\_\_\_  
John V. Bednarski  
Manager/Chief Engineer  
Engineering Services  
1/20/2022  
Date

  
\_\_\_\_\_  
Adel Hagekhalil  
General Manager  
1/26/2022  
Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Lists of Subconsultants**

**Attachment 3 – Location of Map**

Ref# es12143021

### Allocation of Funds for Water Quality Laboratory Upgrades

|                                                   | <b>Current Board<br/>Action<br/>(Feb. 2022)</b> |
|---------------------------------------------------|-------------------------------------------------|
| Labor                                             |                                                 |
| Studies & Investigations                          | \$ -                                            |
| Preliminary Design                                | 1,171,600                                       |
| Owner Costs (Program mgmt.,<br>envir. monitoring) | 861,840                                         |
| Submittals Review & Record Drwgs.                 | -                                               |
| Construction Inspection & Support                 | -                                               |
| Metropolitan Force Construction                   | -                                               |
| Materials & Supplies                              | -                                               |
| Incidental Expenses                               | -                                               |
| Professional/Technical Services                   | -                                               |
| La Cañada Design Group, Inc.                      | 4,400,000                                       |
| Rincon Consultants Inc.                           | 550,000                                         |
| Right-of-Way                                      | -                                               |
| Equipment Use                                     | -                                               |
| Contracts                                         | -                                               |
| Remaining Budget                                  | 296,560                                         |
| <b>Total</b>                                      | <b>\$ 7,280,000</b>                             |

The total amount expended to date to upgrade the Water Quality Laboratory is approximately \$3.1 million. The total cost of the project to comprehensively upgrade the functional capabilities and seismic resiliency of the Water Quality Laboratory will be re-evaluated during design. Currently, the future construction contract is estimated to range from \$80 million to \$100 million.

**The Metropolitan Water District of Southern California**  
**Subconsultants for Agreement with La Cañada Design Group, Inc.**

| <b>Subconsultant and Location</b>  |                             |
|------------------------------------|-----------------------------|
| Hazen and Sawyer                   | Los Angeles, California     |
| P2S, Inc.                          | Long Beach, California      |
| Lenax Construction Services, Inc.  | Pasadena, California        |
| MIG, Inc.                          | Los Angeles, California     |
| AWC West                           | Stevenson Ranch, California |
| ZC Sustainability                  | Santa Monica, California    |
| Krai Charuwat Design Visualization | Long Beach, California      |
| Blackman and Forsyth               | Santa Monica, California    |
| Coffman Engineers, Inc.            | Los Angeles, California     |
| Newson Brown Acoustics LLC         | Culver City, California     |

**The Metropolitan Water District of Southern California**  
**Subconsultants for Agreement with Rincon Consultants Inc.**

| <b>Subconsultant and Location</b> |                         |
|-----------------------------------|-------------------------|
| Translutions, Inc.                | Tustin, California      |
| Penhall Company                   | Gardena, California     |
| Sunstar Laboratories, Inc.        | Lake Forest, California |

