



• **Board of Directors**

Organization, Personnel and Technology Committee

11/9/2021 Board Meeting

7-14

Subject

Authorize an increase of \$985,000 to an agreement with PlanNet, LLC for a new not-to-exceed amount of \$2.885 million for professional services in support of the Datacenter Modernization Relocation project; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

Executive Summary

The Datacenter Modernization Relocation project consists of relocating the Metropolitan datacenters to a modernized datacenter in an in-region or out-of-region location. The modernized datacenter would provide sufficient computing power to meet current and future capacity and reliability needs and increase the reliability rating level from Tier-1 to at least Tier-3.

This action authorizes an amendment to increase the not-to-exceed amount of a professional services agreement by \$985,000 to migrate the existing datacenter to the new primary off-site datacenter. This increase is due to project delays due to COVID-19, including supply chain delays, the need to divert staff to critical IT needs to support a broad and rapid shift to telework, an increase in equipment costs, and the need to add additional cybersecurity safeguards. 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).

Details

Background

To improve the overall resiliency of information technology infrastructure that supports all of the enterprise business systems, the Datacenter Modernization Relocation project will create new primary and backup datacenter colocation sites to support all enterprise information technology systems. A colocation site is a datacenter facility where Metropolitan will lease space for servers and other computing hardware and subscribe for infrastructure services to maintain system uptime and connectivity.

In July 2019, the Board authorized an agreement with PlanNet in an amount not to exceed \$1.9 million to modernize and relocate the datacenter. Efforts to equip the primary site in an out-of-region colocation facility have been in process the past year, while the in-region back-up site was fully deployed in August 2021. The project encountered numerous delays during the planning and execution of completed and current phases due to COVID-19 restrictions in place since March 2020, such as in-person work at Metropolitan's Headquarters was not permitted, reduced-access directives at off-site locations, and resource availability of staff and consultants. Further, technical complexities were encountered, such as additional cybersecurity safeguards to facilitate secure teleworking remote access for the project team, protracted procurement due to supply chain delays for parts sourced domestically and overseas, and staff resources that were diverted to other urgent necessity roles due to COVID-19. Lastly, equipment costs were significantly higher than originally estimated due to supply chain and limited chips availability. This action authorizes an amendment to increase the not-to-exceed amount of a professional services agreement to complete the migration of the existing datacenter to the new primary off-site datacenter location.

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 to

increase the agreement 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). 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.

Datacenter Modernization Relocation

In June 2016, an assessment of the existing enterprise data center environments and related Information Technology (IT) infrastructure was conducted to identify the outstanding needs and to develop a comprehensive data center strategy. The assessment used American National Standard's Telecommunications Infrastructure Standard for Data Centers 942 (TIA-942) requirements and data center tier standards to evaluate the quality and reliability of data centers using a four-tier system, with Tier 4 being the most reliable ranking. TIA-942 specifications included domain requirements for applications and procedures regarding network architecture, access, security, electrical design, file storage, backup and archiving, system redundancy, database management, web and application hosting, content distribution, protection against physical hazards, and power management.

The assessment identified opportunities to upgrade data centers from the current Tier-1 ranking for the primary datacenter, and Tier-2 for the back-up site, into a minimum Tier-3 environment, which is the recommended reliability rating achieved by other large water and electrical utilities in California. The relocation option surfaced because several locations and building deficiencies could not be remediated.

The assessment report showed that the 10-year total cost of ownership of operating the current data center was the same as relocating the data center to an in-region or out-of-region location. A similar cost analysis was presented for the back-up site.

As a result of RFP-1211, PlanNet, LLC ("PlanNet") was awarded \$1,900,000 for professional services to relocate Metropolitan enterprise data center systems to qualified colocation data center services providers.

A total of \$8,354,900 was required for the completion of Datacenter Modernization Relocation work. In addition to the amount of the contract, other allocated funds included: \$1,350,900 for labor; \$3,320,000 for materials and supplies; \$695,000 for other professional services; and \$1,089,000 for remaining budget. This project was reviewed and recommended by Metropolitan's CIP Evaluation Team. Funds for this work to be performed pursuant to this agreement are available within Capital Investment Plan Appropriation for Fiscal Years 2019/20 and 2020/21 (Appropriation No. 15509).

Professional Services (PlanNet, LLC) – Amendment to Agreement

In March 2019, PlanNet was selected among six respondents in Request for Proposals No. 1211 for the Datacenter Modernization Relocation project. The Board authorized the General Manager to enter into an agreement for \$1.9 million with PlanNet in July 2019. Since then, PlanNet has worked closely with staff to provide project management assistance, migration planning, support procurement and installation of hardware and software, coordinate server, storage, and network testing, and application system deployments. Due to schedule delays and additional complexities due to COVID-19, staff has determined that there is reasonable justification for an extended completion date and to request an increase in the agreement amount. On a parallel note, operational priorities from various IT infrastructure teams involved in COVID-19 remediation also delayed this project, necessitating an increase in the time needed for IT staff to complete their tasks in conjunction with PlanNet's consultants. This included coping with the complexities of cloud migrations, adding new fault-tolerant and secure networks, additional testing to ensure reliable automated failover of key systems, and workarounds necessary to adapt and overcome COVID-19 related delays.

Summary

This action authorizes an increase of \$985,000 to an agreement with PlanNet, LLC to an amount not to exceed \$2.885 million for professional services in support of the Datacenter Modernization Relocation project.

This project has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds are available within the fiscal year 2021/22 capital expenditure plan. See **Attachment 1** for the Financial Statement.

Project Milestones

Datacenter Modernization Relocation project approval – July 2019

Datacenter physical build and commission – March 2021

Network installation and testing – May 2021

Server and Storage Systems installation and testing – November 2021

Application Systems migration to Primary out-of-region facility – December 2022

Policy

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

Metropolitan Water District Administrative Code Section 8140: Competitive Procurement

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 51661, dated July 9, 2019, the Board approved agreement with PlanNet, LLC not to exceed \$1.9M.

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)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines as it involves a commitment to a specific project that includes minor alterations to existing facilities, and reconstruction and replacement of existing public facilities with no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under Class 1, Class 2, Categorical Exemptions (Sections 15301 and 15302) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options

Option #1

Authorize an increase of \$985,000 to an agreement with PlanNet, LLC for a new not-to-exceed amount of \$2.885 million for professional services in support of the Datacenter Modernization Relocation project.

Fiscal Impact: Expenditure of \$10.369 million in capital funds. All costs will be incurred in the current biennium and \$8,354,900 have been previously authorized.

Business Analysis: This option will complete the installation of all necessary hardware and software to furnish the Primary Datacenter.

Option #2

Do not proceed with an increase to the agreement amendment at this time.

Fiscal Impact: None

Business Analysis: This option will delay the completion of the datacenter modernization and relocation project.

Staff Recommendation

Option #1



Charles Eckstrom
Information Technology, Group Manager

10/19/2021

Date



Adel Hagekhalil
General Manager

10/21/2021

Date

Attachment 1 – Financial Statement

Ref# it12684011

Allocated Funds for Datacenter Modernization Relocation Project

	Current Board Action (Nov. 2021)
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt.)	-
Submittals Review & Record Drwgs	-
Construction Inspection & Support	-
Metropolitan Force Construction	-
Materials & Supplies	-
Incidental Expenses	-
Professional/Technical Services	985,000
Equipment Use	.
Contracts	-
Remaining Budget	-
Total	\$ 985,000