



CITY OF

NEWPORT BEACH

City Council Staff Report

May 14, 2019
Agenda Item No. 16

TO: HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

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TITLE: Approval and Adoption of the 2019 Water Master Plan (17W02)

ABSTRACT:

The 2019 Water Master Plan (WMP) is an engineering and planning document that evaluates the condition of the City's water infrastructure, models the hydraulic system to evaluate delivery capacity and fire flow requirements, and recommends Capital Improvement Program (CIP) projects over the next 30 years so as to maintain the desired performance and integrity of the City's water system. This document has now been completed to the satisfaction of staff and is recommended for City Council's review, approval and adoption.

RECOMMENDATIONS:

- a) Determine this action is exempt from the California Environmental Quality Act (CEQA) pursuant to Sections 15060(c)(2) and 15060(c)(3) of the CEQA Guidelines because this action will not result in a physical change to the environment, directly or indirectly; and
- b) Review, approve and adopt the 2019 Water Master Plan.

FUNDING REQUIREMENTS:

This plan identifies necessary capital improvement projects and their anticipated cost over the next 30 years in order to maintain the desired performance and integrity of the City's water system. The completion of this Water Master Plan document is an important element and one of the primary factors considered in determining City water rates. Funding for each of the recommended projects in the master plan will require separate approvals as part of the annual budget process with funds generated by current and future water rate fees.

This 2019 WMP recommends increases to annual spending levels for water CIP projects over the next 30 years. This amounts to an average annual spending increase of \$2.2 million on water capital projects over current levels in order to properly maintain the system. Upon City Council review and approval of this WMP, the increased capital funding needs will be factored with other operational, maintenance and reserve funding needs into the 2019 Water Rate Study, currently underway by the Utilities Department, with support by the Public Works and Finance Departments.

DISCUSSION:

The City entered into a Professional Services Agreement with Arcadis on February 14, 2017 to prepare and complete the 2019 WMP. The last comprehensive WMP for the City was completed in 1999 followed by an update in 2008. Because substantial time has elapsed since the last comprehensive WMP was completed and there have been many system changes since 2008, a new WMP is needed to reflect completed water infrastructure projects since the last update, current and projected water supply and demand information, and advancements in hydraulic water system modeling capabilities. In general, it is good practice for municipalities to update its WMP on a regular basis (every 10-20 years) in order to assess the current condition of its water infrastructure and plan for future water infrastructure improvements. Priorities and schedules for planned projects change based on new condition data becoming available, coordination with other City projects such as street paving or utility undergrounding district formations, and new technologies such as state of the art leak detection and artificial intelligence.

The 2019 WMP is comprised of an Executive Summary and fourteen (14) chapters including many tables and figures. The executive summary was posted on the City of Newport Beach Public Works website for public review on March 13th, with the entire document available for review on April 30th (see link under Attachments).

In summary, the City's water system is in very good condition in terms of emergency storage, pumping capacities, ability to meet or exceed water demand, and providing adequate fire flow protection. This is largely attributed to the City's proactive approach to infrastructure maintenance and improvements as demonstrated by the completion of many water CIP projects over the past years. Some of the major completed water CIP projects since the 2008 update include:

1. Big Canyon Reservoir Flow Metering Vault and Treatment Improvements
2. Balboa Island Water Main Replacement (Phase 1)
3. Lido Village Water Main Replacement
4. Several Water Well Rehabilitation Projects
5. Newport Boulevard Transmission Water Main Replacement
6. Corona del Mar Transmission Water Main Improvements
7. 16th Street (Utilities Yard) Pump Station Modifications

Several minor deficiencies were identified in the 2019 WMP. All of these minor deficiencies will be addressed in the proposed 30-year water CIP (FY 2019/20 through FY 2048/49). Suggested water CIP projects are separated into three categories. The following summarizes estimated costs for each category and the total estimated costs for the entire 30-year water CIP:

| <u>Project Category</u> | <u>2019 Estimated Cost</u> |
|--|-----------------------------------|
| Pipeline Replacement and Relinings | \$103,540,000* |
| Facilities Projects | \$60,451,000* |
| Pressure Reducing Stations | \$1,207,000* |
| Total (without inflation) | \$165,198,000* |
| Total (30 year with 2.5% inflation per year) | \$216,715,000 |
| Estimated Average Annual Expenditure | \$7,223,833 |

*Current 2019 dollars and includes FY 2018/19 CIP projects

As shown above, an estimated \$7.2 million per year in water CIP projects over the next 30 years is recommended to provide for proper water system supply, major maintenance and replacement. The current average annual water CIP funding has been approximately \$5 million for the last 10 years. The primary factors that contribute to this higher annual expenditure level are the annual cost of inflation, inclusion of asbestos concrete pipe replacement, and incorporation of the advanced metering infrastructure. To accomplish this recommended new level of major maintenance and replacement, an increase to annual water CIP funding will be reviewed and considered as part of the 2019 Water Rate Study currently underway by the Utilities Department.

ENVIRONMENTAL REVIEW:

Staff recommends the City Council find this action is not subject to the California Environmental Quality Act (CEQA) pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly or indirectly.

NOTICING:

The agenda item has been noticed according to the Brown Act (72 hours in advance of the meeting at which the City Council considers the item).

ATTACHMENT:

Attachment A – 2019 Water Master Plan Executive Summary

The entire 2019 Water Master Plan is available on the City Website at:

<https://www.newportbeachca.gov/government/departments/public-works/water-master-plan>