



City of Costa Mesa

Agenda Report

77 Fair Drive
Costa Mesa, CA 92626

File #: 22-819

Meeting Date: 7/28/2022

TITLE:

REVIEW OF PROPOSED IMPROVEMENTS TO THE TEWINKLE LAKE SYSTEM

DEPARTMENT: PUBLIC WORKS DEPARTMENT/MAINTENANCE SERVICES
DIVISION

PRESENTED BY: ROBERT RYAN, MAINTENANCE SERVICES MANAGER

CONTACT INFORMATION: ROBERT RYAN, MAINTENANCE SERVICES MANAGER, (714)
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RECOMMENDATION:

Receive community input and provide recommendations to staff regarding the proposed improvements to the TeWinkle Lake system.

BACKGROUND:

TeWinkle Park is a 49-acre park dedicated in 1965 in honor of the first mayor of the City of Costa Mesa, Charles TeWinkle. The TeWinkle Park Lakes are artificial water features consisting of two (2) lakes, two (2) ponds, an intermediate pond, five (5) streams, nearly two (2) acres of water surface, and approximately 3,250 feet of shoreline. A partial renovation of the lakes was undertaken in 2004. Over the past several years, water leakage has developed in the two primary lakes, resulting in significant water loss as well as undermining of the lake bed and surrounding soil areas.

The intermediate pond, along with the dual streams were not constructed during the prior renovation and lack waterproofing. In addition, staff has observed excess water percolation and infiltration losses into the soil below and around the lakes. Pumps, the gravel bed biological filter, as well as the aeration systems, have been non-functioning and are in need of repair. The water quality of the lakes have also been compromised due to excess nutrient input.

At their regularly scheduled meeting on December 7, 2021, the City Council approved an agreement between the City and Pacific Advanced Civil Engineering (PACE). PACE will be responsible for performing the engineering design evaluation of the lake systems, and producing a set of working plans, specifications and estimates that will address existing deficiencies. In addition to improving the functionality and operational efficiency of the lake system, the project also seeks to enhance the safety, aesthetic and recreational value of the lakes at TeWinkle Park. Funding for the construction phase will be requested in future fiscal years.

ANALYSIS:

The "Assessment Report and Recommendations" report prepared by PACE Engineering is included

as Attachment 1. Key findings from the report included opportunities for improvements in the following areas:

- Replacement of the lake liner in order to minimize seepage.
- Replacement of the damaged shorelines Redesigning of the lake edges in order to improve water movement, shoreline access and landscape.
- Upgrades to the lake system to improve water clarity and appearance.
- Addition of landscape improvements in order to encourage waterfowl to designated areas in order to minimize waste on sidewalks and other usable park areas.

The total construction cost to implement all of the recommended improvements to the TeWinkle lake system is estimated to be approximately \$2 million.

The Parks, Arts and Community Services Commission is requested to review the initial report and proposed design options for improvements. Community input received at the Commission meeting, as well as any Commission recommendations, will be considered for incorporation into the final design.

ALTERNATIVES:

No alternatives were considered for this item.

FISCAL REVIEW:

Funding for the design phase of TeWinkle Park Lakes Upgrades Project is included in the FY 2021-22 and FY 2022-23 budgets. Construction phase funding will be requested in future budget cycles.

LEGAL REVIEW:

No legal review is required for this item as it is administrative in nature.

CONCLUSION:

The Assessment Report & Recommendations from PACE of proposed improvements and overall design elements of TeWinkle Lake Improvements are being submitted to the Commission for review and public input. This input, along with any Commission recommendations, will be considered for incorporation into the scope of the project.