




Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Jon Cicirelli

SUBJECT: SEE BELOW

DATE: February 21, 2023

Approved 

Date 3/2/23

COUNCIL DISTRICT: 8

SUBJECT: ACTIONS RELATED TO THE LAKE CUNNINGHAM SHORELINE AND WATER QUALITY REPORT AND PROTOTYPE WETLAND RESTORATION PROJECT

RECOMMENDATION

- (a) As recommended by the Neighborhood Services and Education Committee on December 8, 2022, accept the report on the Lake Cunningham Shoreline and Water Quality Report.
- (b) Adopt a resolution authorizing the City Manager to submit a grant application and negotiate and execute a grant agreement with the Santa Clara Valley Open Space Authority for an amount up to \$250,000 for Design and Environmental Review of a one-acre Prototype Wetland Restoration Project.

SUMMARY AND OUTCOME

Design and environmental clearance of the Prototype Wetland Restoration Project may guide future park alterations to transition irrigated and fertilized turf to a wetland landscape that may contribute to improved water quality at Lake Cunningham Regional Park (Park). The Prototype Wetland Restoration Project seeks to address three goals:

1. Improve water quality through natural filtering processes;
2. Offer visual amenity along existing walking trail; and
3. Advance the Parks, Recreation, and Neighborhood Services Department's Strategic Goal of "Nature" through development of a more typical landscape along the man-made lake.

Once developed, the wetland landscape is expected to reduce and/or capture fertilizers from surrounding landscape and reduce collection of biological waste from wildlife that currently nests or resides on the lake edge. Prototyping acknowledges uncertainty of results. Data gathered will shape future work plans.

The Santa Clara Valley Open Space Authority (OSA) grant and City's budget resources would be used for Design and Environmental Clearance tasks. Approval of the recommendation would supplement and leverage City funds that are currently planned to be included in the 2023-2024 Proposed Capital Budget.

BACKGROUND

The Park is 203 acres with a 50-acre lake within the park. The site is bound by East Capital Expressway, Tully Road, South White Road, and Cunningham Avenue. The lake is a shallow, artificial body of water constructed between 1979 and 1983 that serves as a recreational attraction and as a flood detention basin. The Park is framed by levee structures as part of a Santa Clara Valley Water District (Valley Water) project to reduce the potential for localized flooding that would occur from 100-year flood events.

The Park is substantially developed upon City of San José property. The City and Valley Water jointly operate at the park per a 1978 Joint Use Agreement that is currently being updated. The agreement supports recreational uses within a site that can capture and retain significant stormwater events. The agreement requires consultation and approval of improvements by Valley Water to ensure that detention capacity is not reduced.

The Park is classified by the Parks, Recreation, and Neighborhood Services Department as a "regional park" for its scale and unique features. The Park offers several miles of trails, an action sports park, water theme park (via private contract with Raging Waters), picnic areas, and approximately 20 acres of open space fields for recreation. The open space fields are impacted by a high-water table which contributes to large areas of turf being soggy and difficult for staff to sustain in a healthy condition for public enjoyment. Swimming, boating, and fishing were once available at the lake prior to the deterioration of water quality in the late 1990s.

The Lake Cunningham Shoreline and Water Quality Study¹ (Study) was prepared in collaboration with the Department of Public Works and consultant Environmental Science Associates. The Study was substantially completed in May 2022. The Study's primary objectives were to:

- Document water quality and concerns;
- Document some sources for water quality issues;

¹ <https://www.sanjoseca.gov/home/showpublisheddocument/87390>

- Recommend remedies to address water quality issues;
- Develop rough order of magnitude construction costs for potential projects; and
- Address erosion and restore/relocate a perimeter walking path.

The Study does not define the systems and conditions needed to meet a water quality level necessary for swimming. The Study defines a large-scale wetland development project, from which the Prototype Wetland Restoration Project seeks to deliver a modest one-acre installation for analysis.

ANALYSIS

Lake Cunningham has had deteriorating water conditions since initial development in the 1980s. Parks, Recreation, and Neighborhood Services Department staff has attempted to improve water quality in past years and staff has tested lake water over many years. Staff investigated mechanical systems to increase oxygen levels with fountains and aerators, and neither were successful. These approaches could not address the high concentration of nutrients from waterfowl fecal material and fertilizers, shallow depth, and the high water temperature of the lake.

Lake Cunningham lacks the natural features that would sustain water quality. The lake does not have a reliable or constant freshwater inflow. The lake lacks the benefit of functional outlets that would support water circulation and potentially transport contaminants. In its present state, the lake's water quality has declined as concentration of contaminants increase without the normal flushing processes common to a natural lake. Matters are made worse by the site's historic use for cattle grazing and high levels of phosphorus and nitrogen found in the lake basin and surrounding open space.

The Study identifies conversion of turf shoreline to wetland landscape and is seen as one contributory means to improve water quality. Design and future construction of approximately one-acre would convert underutilized recreational turf to a wetland landscape by altering the shoreline grading and introducing plant suitable for the wet environment. This change would limit non-native birds and capture fertilized run-off. The Prototype Wetland Restoration Project would not significantly impede recreation, as turf area cannot be sustained for recreation. Regardless of outcomes, the Prototype Restoration Wetland Project would yield useful data to inform staff on the impact and how to strategically scale it for a larger site. Staff recommends that future projects be paired with an update to the Park Master Plan to ensure public input and awareness of changing park conditions and resources. Staff believes that pursuing a smaller-scale project for data collection and assessment of impact is beneficial. Conversion of a one-acre site is sufficiently large to study and record data to inform future project development.

The intent of the Prototype Wetland Restoration Project is to transition low-growing recreational turf grass to a seasonal alkali wet meadow, with tall native grasses, low growing shrubs, and

trees. This leads to an area with emergent wetland plants that collectively discourage Canada geese, encourage multiple bird and terrestrial species (land-based animals), and cease the need for the Parks, Recreation, and Neighborhood Services Department staff to fertilize turf adjacent to the lake.

Data gathered would guide the scoping of future projects that could be developed in consultation with the community.

Valley Water has participated in the Study and would be engaged for technical reviews and permitting for any future work at the site. The agreement that governs joint use of the park requires that Valley Water approve the project changes. The Study did not raise concerns for Valley Water and staff would conduct initial reviews with Valley Water staff early in the design process to reduce risk of an infeasible project proposal. Valley Water's primary concern is to avoid alterations at the Park that would reduce the function and capacity of the flood detention facility or reduce the current one-percent floodplain (100-year flood) capacity of the site.

OSA Grant

The OSA's Measure Q program aims to fund projects that will improve the quality of life by increasing access to nature for urban residents. Measure Q, the Open Space, Wildlife Habitat, Clean Water, and Increased Public Access measure approved by voters in November 2014 increases the capacity of the OSA to protect and preserve natural open space areas for future generations by: improving parks, open spaces and trails; protecting land around creeks, rivers, and streams to prevent pollution and improve local water quality; preserving and restoring wildlife habitat and natural areas; expanding public access; enhancing environmental education; and protecting scenic hillsides. Through this \$24 annual parcel tax, OSA receives approximately \$7.9 million per year for open space protection. This funding helps achieve the goals and objectives of the *Santa Clara Valley Greenprint*, which serves as OSA's strategic vision to inform investments in open space protection.

The OSA Measure Q program is expected to provide a total of \$1.5 million during this cycle to support projects that bring nature to urban residents. The maximum grant range is \$250,000, with a 25% match required. Staff seeks City Council authorization to submit an OSA grant application, and to negotiate and execute a corresponding grant agreement for the Design and Environmental Documentation phase of the Prototype Wetland Restoration Project for a total estimated cost of \$388,000, of which \$250,000 would be grant funded. As all project costs are fronted by the recipient prior to reimbursement of eligible expenses, as part of the 2023-2024 Proposed Capital Budget, staff plans to front the cost from the Construction Tax and Property Conveyance Tax Fund: Parks Purposes Council District #8 (\$190,000) and the Subdivision Park Trust Fund (\$198,000) funds. OSA reports that notice of grant awards will be released in July 2023. The Department of Public Works estimates that the preparation of Design and Environmental Documents will take less than one year.

Staff submitted a pre-application to OSA in early December 2022 for full Prototype Wetland Restoration Project development. This pre-application assumed additional studies, design and construction. Staff received notice from OSA that the pre-application was accepted and requested a formal application. Since that pre-application, staff has coordinated with OSA and obtained support to limit the scope to Design and Environmental Documentation. This better aligns with available funding and supports the necessary future approval by City Council of CEQA clearance prior to advancing the project to construction. OSA suggests that including construction funds in the budget could strengthen the competitiveness of the application.

In addition to the \$388,000 project funding for Design and Environmental Documents discussed above, the 2023-2024 Proposed Capital Budget will also set aside an additional \$545,000 in a reserve (Construction Tax and Property Conveyance Tax Fund: Parks Purposes Council District #8, \$345,000 and the Lake Cunningham Fund, \$200,000) as seed funding for future construction costs. The total budgeted allocation for the City in 2023-2024 would be \$933,000. However, the total cost of construction is not known at this time.

Climate Smart San José Analysis

The recommendation in this memorandum has no effect on Climate Smart San José energy, water, or mobility goals.

EVALUATION AND FOLLOW-UP

Staff will return to City Council for CEQA approval and additional budget authorization prior to proceeding with construction.

FISCAL/POLICY ALIGNMENT

- Aligned with Parks, Recreation, and Neighborhood Services Strategic Plan for 2020-2040; ActivateSJ, and especially the Stewardship principal intent to “Take care of what we have” and Nature principal to “Protect Natural Areas.”
- Aligned with Envision San José 2040, Goal MS-3 – Water Conservation and Quality. The Prototype Wetland Restoration Project uses a landscaped-based treatment measure to reduce water pollution.

COST SUMMARY/IMPLICATIONS

The total estimated cost for the Prototype Wetland Project, though unknown at this time, is expected to exceed the initial seed funding of \$933,000 anticipated for inclusion in the 2023-

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2024 Proposed Capital Budget. Additional resources, including the identification of additional grant funding, will be required.

Should the project ultimately proceed to construction, the level of ongoing maintenance costs is also unknown, as the City does not currently maintain a wetland environment. The prototype approach provides staff with an opportunity to assess and document the resources needed to sustain this landscape at the Park and can guide the feasibility of future commitments.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the City Manager's Budget Office, the Public Works Department, and the Planning, Building, and Code Enforcement Department.

PUBLIC OUTREACH

The Study was presented to the Neighborhood Services and Education Committee on December 8, 2022. This meeting was publicly noticed.

No public outreach was conducted in preparation of the Study. The Study was a technical assessment of options and solution.

This memorandum will be posted on the City's Council Agenda website for the March 14, 2023 City Council meeting.

COMMISSION RECOMMENDATION/INPUT

No commission recommendation or input is associated with this action.

CEQA

Not a Project, File No. PP17-006, Grant Application with no commitment or obligation to enter into an agreement at the time of application.

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PUBLIC SUBSIDY REPORTING

This item does not include a public subsidy as defined in section 53083 or 53083.1 of the California Government Code or the City's Open Government Resolution.

/s/

JON CICIRELLI

Director, Department of Parks,

Recreation and Neighborhood Services

For questions, please contact Sara Sellers, Interim Deputy Director, at sara.sellers@sanjoseca.gov or (408) 793-5528.