Agenda Item No. 15

File Code No. 570.05

# CITY OF SANTA BARBARA

## COUNCIL AGENDA REPORT

**AGENDA DATE:** September 13, 2016

**TO:** Mayor and Councilmembers

**FROM:** Creeks Division, Parks and Recreation Department

**SUBJECT:** Conceptual Design Contract For The Restoration Of The Andrée Clark Bird Refuge

**RECOMMENDATION:** That Council:

A. Authorize the Parks and Recreation Director to execute a Professional Services Agreement with Anchor QEA, LLC in the amount of $137,000 to perform technical studies and prepare conceptual design plans for restoration of the Andrée Clark Bird Refuge; and

B. Authorize the Parks and Recreation Director to approve expenditures of up to $14,000 for extra services from Anchor QEA, LLC that may result from necessary changes in the scope of work.

**DISCUSSION:**

Background

The Andrée Clark Bird Refuge (Bird Refuge) is a 29-acre lake located on the east end of Santa Barbara. The lake is an historic salt marsh that was dredged in the late 1920's to provide a year-round water feature and improve habitat for open water bird species. The Bird Refuge is an important aesthetic feature of the City and provides wildlife habitat as well as recreational open space for the community.

Poor water quality conditions and strong odors at the lake have been problematic since the 1930's. In the past ten years, the poor water quality (low dissolved oxygen levels, cyanobacteria blooms, poor water clarity, and strong odor) has continued to deteriorate due to the accumulation of nutrients, lack of flushing storm events, and drought conditions.

The Bird Refuge is unique when compared to other small lakes for two primary reasons: 1) it is very shallow, and 2) it does not flush on a regular basis, so nutrients are continually deposited, but not removed from the system. Because of these unique characteristics, most of the water quality improvement techniques that often work for small lakes would be, or have proven to be, ineffective in the Bird Refuge.

Various strategies to improve water quality and reduce odor events have been proposed and/or implemented during the last 80 years (dredging, copper sulfate, supplemental water, etc.). None of these techniques have proved to be cost effective or successful in the long-run.

In an effort to develop a long-term solution to the deteriorating water quality, wildlife habitat, and periodic odor events, the Creeks Division started intensive water quality monitoring of the Bird Refuge in 2012. The same year, the Creeks Division also implemented a pilot project to improve water quality by increasing circulation and dissolved oxygen within a section of the lake. Although continued water quality monitoring has provided valuable data for assessing potential solutions, the pilot project has not significantly increased dissolved oxygen.

Restoration Alternatives

Over the last two years, the Creeks Division evaluated a number of potential techniques for improving water quality conditions in the Bird Refuge. Staff reviewed all existing City documentation related to improving water quality and reducing odor in the Bird Refuge and met with several technical experts.

The goals of the current project are to improve water quality, wildlife habitat (aquatic and avian), and aesthetics, and reduce odors while maintaining current flood protection. The final conceptual design will strive to meet the identified goals using a cost effective approach for which necessary permits are likely to be granted. Eight alternatives were identified for preliminary consideration. Generally speaking, the alternatives employed different strategic combinations of dredging, filling, flushing, probiotics, and hydrologic restoration.

The alternatives were presented to the City's Sustainability Council Committee on June 20, 2016. Based on estimated cost, feasibility, and potential for success in meeting the project goals, the Sustainability Council Committee recommended that the Creeks Division focus on three of the alternatives for further assessment. These alternatives are: 1) Make no physical changes to the Bird Refuge and allow continued deposition of nutrients and sediment; 2) Improve flushing of the lake through modifications to the weir and weir gate at Cabrillo Boulevard and the ocean outfall on East Beach; 3) Improve flushing of the lake by modifications to the weir and weir gate at Cabrillo Boulevard and ocean outfall on East Beach, periodic mechanical opening of the ocean outfall on East Beach, and partial dredging and filling of the lake to increase water depth, improve habitat, reduce lake surface area, and provide additional recreation features (i.e., trail around the lake).

Because the Bird Refuge is a sensitive wetland in the Coastal Zone, any proposed project at the site will likely require permits from the City Planning Commission, as well as

numerous state and federal regulatory agencies including the California Coastal Commission, Regional Water Quality Control Board, California Department of Fish and Wildlife, U.S. Army Corps of Engineers, National Atmospheric and Oceanic Administration, and U.S. Fish and Wildlife Service.

Technical Services Scope of Work/Consultant Selection

Following the Sustainability Council Committee meeting, staff developed a scope of work for Anchor QEA, LLC to perform engineering and scientific analysis on the three project options, and to develop a final conceptual design for restoration of the Bird Refuge. Specifically, the conceptual design contract will include topographic and bathymetric surveying, hydraulic modeling, flood zone mapping, biological surveys, structural engineering, coastal process modeling, and construction cost estimates.

As part of a competitive bid process in December 2014, Anchor QEA, LLC was selected to develop a dredging feasibility report for the Bird Refuge. Anchor QEA, LLC successfully completed the feasibility report on time and within budget. Anchor QEA, LLC is familiar with the Bird Refuge and has developed considerable baseline knowledge of the issues and potential solutions at the site. In addition, Anchor QEA, LLC has extensive experience in coastal engineering and coastal wetland restoration, having designed over ten major coastal engineering projects within California. Anchor QEA, LLC billing rates for this project will remain the same as those provided in the competitive 2014 RFP process, which represents a fair and reasonable price to complete the scope of work.

Timeline

With Council approval of the contract, the technical studies and conceptual design phase will begin in October 2016. During the design process there will be two public meetings, as well as focused outreach to stakeholders including permitting agencies and the adjacent neighborhood. Input from the public and various stakeholders will be incorporated into the design, and a preferred alternative will be identified. Final concept design plans will be delivered in May 2017. During 2017 and 2018, grant applications will be submitted to obtain additional project funding, and permitting, environmental review, and land–use approvals will be completed. Final design plans and construction bidding will be completed in early 2019 with project construction anticipated during the summer of 2019.

**BUDGET/FINANCIAL INFORMATION:**

The cost to perform technical studies and prepare the concept design plans is $137,000. A ten percent change order of $14,000 is also included to cover any cost increases that may result from necessary changes to the scope of work. With contingency funds, the total cost for the Anchor QEA, LLC contract is $151,000. Funds for this project are included in the Creeks Division's Fiscal Year 2017 Capital Improvement Fund.

A copy of the contract/agreement is available for public review in the City Clerk's Office.

**SUSTAINABILITY IMPACT:**

The purpose of the restoration project is to improve water quality and wildlife habitat in the Andrée Clark Bird Refuge. These efforts will contribute to local, regional, and federal objectives of improving water quality and wetland habitat.

**PREPARED BY:** George Johnson, Creeks Supervisor

**SUBMITTED BY:** Jill E. Zachary, Parks and Recreation Director

**APPROVED BY:** City Administrator's Office