



Legislation Details (With Text)

File #: 22-1054 **Version:** 1 **Name:** PW/PRM - Rainbow Lagoon Pump Replacement Project D1

Type: Resolution **Status:** Adopted

File created: 8/18/2022 **In control:** City Council

On agenda: 9/6/2022 **Final action:** 9/6/2022

Title: Recommendation to adopt resolution authorizing City Manager, or designee, to execute a contract, and any necessary documents including any necessary subsequent amendments, with Xylem Water Solutions USA, Inc., of Charlotte, NC, for the purchase of submersible fill pumps for the Rainbow Lagoon Facility, in an amount of \$145,242, with a 10 percent contingency in the amount of \$14,524, for a total contract amount not to exceed \$159,766, for a period of one year. (District 1)

Sponsors: Public Works, Parks, Recreation and Marine

Indexes:

Code sections:

Attachments: 1. 090622-C-12sr&att, 2. RES-22-0154.pdf

Date	Ver.	Action By	Action	Result
9/6/2022	1	City Council	approve recommendation and adopt	Pass

Recommendation to adopt resolution authorizing City Manager, or designee, to execute a contract, and any necessary documents including any necessary subsequent amendments, with Xylem Water Solutions USA, Inc., of Charlotte, NC, for the purchase of submersible fill pumps for the Rainbow Lagoon Facility, in an amount of \$145,242, with a 10 percent contingency in the amount of \$14,524, for a total contract amount not to exceed \$159,766, for a period of one year. (District 1)

City Council approval is requested to enter into a contract with Xylem Water Solutions USA, Inc. (Xylem), for furnishing and delivering submersible fill pumps for the Rainbow Lagoon Pumps Replacement Project (Project).

The Rainbow Lagoon (Lagoon) is a 5.5 acre manmade saltwater lagoon that is located in what is now filled tide lands, where subtidal and intertidal habitat historically were present. The Lagoon was constructed between the late 1960's early and 1970's when Shoreline Drive and the Convention Center complex was originally built. The Lagoon is a unique recreational amenity and serves as functioning marine habitat for fish and wildlife and is regulated by the California Coastal Commission under CDP #5-91-193. The City of Long Beach (City) is obligated to maintain, protect, and preserve the lagoon as a functioning marine habitat under its Coastal Development Permit.

The Lagoon sits at a higher elevation than the adjacent Rainbow Harbor. Water replenishment and tidal exchange is manually conducted through the raising and lowering of weirs and the activation of fill pumps that allow the replenishment and exchange of seawater between the lagoon and Rainbow harbor (i.e. water is pulled in via pumps). It is

environmentally and regulatorily recognized that fresh seawater and tidal exchange is critical for an ecologically balanced and healthy waterbody, regardless of whether this is done manually through mechanical pumps or naturally through streams, inlets, or sloughs. This fresh seawater is critical and provides a bulk of the water supply and circulation to the Lagoon. However, a separate and antiquated aeration system also provides limited oxygen through a series of underwater piping along certain areas of the Lagoon.

Recently, the main fill pump and secondary fill pump have failed due to age and deterioration; the pumps, while previously having been serviced on a regular basis, are now beyond repair and replacement is required and critical. New fill pumps are necessary to supply, replenish, maintain, and circulate fresh seawater to the Lagoon thereby providing needed oxygen to the water body. Without the water replenishment provided by the fill pumps, the Lagoon will eventually suffer due to anoxic conditions (lack of oxygen). Anoxic conditions will exacerbate the growth of undesired algae blooms in warm and hot weather, and the risk of significant algae blooms will result in algae out-competing resident fish of oxygen and would likely result in fish die-off.

An Exception to Policy is being requested to procure Flygt Submersible NP with patented N Technology that features a unique impeller shape and design, as well as a self-cleaning impeller from Xylem Water Solutions as quickly as possible. This is a request to expedite the procurement of specialty pumps that are necessary for the aquatic functioning of the water body to avoid habitat impacts. The timely acquisition of these pumps is imperative to the health of the saltwater lagoon, to avoid risk of fish and marine organism die-off, and any potentially nuisance odor conditions. The request for a sole source procurement is to allow for the purchase of Flygt Submersible NP with patented N Technology, specialty pumps, which are the only pumps that can support this intensive pumping operation. This approval will allow Parks, Recreation and Marine (PRM) Queensway Bay Maintenance staff to perform the critical maintenance operations required to replenish and exchange water between the Rainbow Harbor and the lagoon absent natural tidal connections.

PRM maintenance staff have conducted extensive research and determined that the Flygt Submersible NP Pumps provided by Xylem possess a unique shape and design and self-cleaning impeller, which is required for a wet-well, submerged application in a marine environment where pumps and pipes experience marine growth and pull in debris. Within a marine environment, mechanical systems often experience constant marine organism growth. Previous pumps utilized by PRM staff in other locations, frequently become clogged due to these conditions, and Flygt pumps have the technology to minimize the risk of clogging and therefore would reduce pump failure in the near and long-term. Based on the experience of the PRM maintenance staff, pumps with this technology are the only pumps that will meet PRM's saltwater pumping needs. Flygt is the sole provider of this patented N technology and Xylem Water Solutions USA, Inc., is the sole distributor of Flygt products.

Much larger capital improvements for the Lagoon are anticipated to be needed, including coping repair, electrical system upgrades, vault repairs, and replacement of aeration and circulation pumps. These improvements are anticipated to be designed, engineered and

publicly bid; however immediate installation of brand new pumps are critical to avoid costly events associated with habitat impacts and species loss.

City Charter Section 1801 requires that contracts for City purchases be awarded to the lowest responsible bidder after a competitive bid process, but allows for awards without a competitive bid process if accompanied by a Resolution adopted by City Council.

This matter was reviewed by Deputy City Attorney Vanessa S. Ibarra on August 10, 2022, Purchasing Agent Michelle Wilson on August 9, 2022, and by Budget Management Officer Nader Kaamoush on August 22, 2022.

City Council action to adopt a Resolution and award a contract concurrently is requested on September 6, 2022 to ensure the contract is in place expeditiously.

The total amount of the contract will not exceed \$159,766 , inclusive of a 10 percent contingency. The total estimated cost of the Project is \$551,354 including the larger capital improvements for the Lagoon that are anticipated to be needed, which includes the contract award, consulting services, design, plan check and permit inspection fees, utility fees, construction support, project labor compliance, and related project support. The Project has sufficient appropriation in the Tidelands Operating Fund Group in the Public Works Department. On May 24, 2012, the State Lands Commission (SLC) approved expenditures for a more comprehensive Rainbow Lagoon Pump Replacement Project, which included concrete vault repairs, in the amount of \$500,000. The project was bid, however, a contract was not awarded due to higher than expected bid results and pricing. Some funding is instead proposed to be used on a separate set of pumps, which provide water supply to the Lagoon. The annual operating and preventative maintenance costs for the pumps is estimated at \$10,000, which is appropriated in Tidelands Operating Fund Group in Parks, Recreation, and Parks and Marine Department. This recommendation has no staffing impact beyond the normal budgeted scope of duties and is consistent with existing City Council priorities. There is no local job impact associated with this recommendation.
Approve recommendation.

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RECREATION AND MARINE

APPROVED:

THOMAS B. MODICA
CITY MANAGER