CITY COUNCIL AGENDA STATEMENT

CITY OF CHULA VISTA

July 9, 2019 File ID: **19-0304**

TITLE

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CHULA VISTA APPROVING A CONSULTANT SERVICES AGREEMENT WITH DELORENZO INTERNATIONAL INC. FOR THE DEVELOPMENT OF A SCOPE OF WORK FOR A CITYWIDE SMART IRRIGATION SYSTEM

RECOMMENDED ACTION

Council adopt the resolution.

SUMMARY

In January 2019, a request for proposals (RFP) was posted to solicit professional consultant services to develop scope of work, including detailed specifications, for a turnkey smart irrigation controls system for city parks, city medians other city-owned sites such as the Civic Center and related infrastructure. The proposal does not include an assessment of irrigation systems in the open space districts as most already have smart irrigation systems installed. The resulting deliverables will be used to solicit contractors to implement a Citywide Smart Irrigation system.

ENVIRONMENTAL REVIEW

The Director of Development Services has reviewed the proposed project for compliance with the California Environmental Quality Act (CEQA) and has determined that the project qualifies for a Categorical Exemption pursuant to State CEQA Guidelines Section 15301 Class 1 (Existing Facilities), Section 15302 Class 2 (Replacement or Reconstruction), Section 15303 class 3 (New Construction or Conversion of Small Structures), Section 15304 Class 4 (Minor Alterations to Land), and Section 15061(b)(3), because it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment. Thus, no further environmental review is required.

BOARD/COMMISSION/COMMITTEE RECOMMENDATION

The Parks and Recreation Commission met for a Special Meeting on June 20, 2019 and recommended City Council approve a consultant services agreement with DeLorenzo International Inc. for the development of a scope of work for a Citywide Smart Irrigation System.

DISCUSSION

BACKGROUND

City staff operates and maintains 498 acres comprising 65 parks. The city's largest park, Rohr Park, spans nearly 60 acres. There are also other City-owned sites (Civic Center, libraries, medians, and Fire Stations) that are controlled by city-maintained irrigation systems. There are currently 6 different irrigation control systems and many of the irrigation control systems have failed and no longer have communication capability. Some sites currently are controlled via stand-alone irrigation controllers accessible on-site only; some sites currently are controlled by a central monitoring/control system only accessible via a single off-site computer; and some sites are controlled by several cloud-based monitoring/control systems accessible via any device capable of connecting to the internet. The city intends to replace all the failed irrigation systems utilizing Measure P funding and transition all irrigation systems to Smart Irrigation systems capable of being monitored and controlled remotely from any device capable of connecting to the internet.

On January 11th, 2019, the city issued a RFP for a Citywide Smart Irrigation System. The city received two proposals from interested firms. After City staff completed its review of the proposals, both firms were invited to interview with a team of subject matter experts from the City including representatives from the Community Services Department, Information and Technology Department, Development Services Department and Purchasing Divisions. Following the completion of the interview, the selection committee determined DeLorenzo International Inc. to be the best qualified firm to provide the described services. The consultant selection process was conducted in accordance with Section 2.56.110.C of the City of Chula Vista Municipal Code.

CONSULTANT BUSINESS NAME	RANK
DeLorenzo International	1
VDLA	2

WHAT IS SMART IRRIGATION?

- Smart irrigation systems tailor watering schedules and run times automatically to meet specific landscape needs. This can be done through utilizing localized weather data and an automatic calculation of evapotranspiration (ET*) and adjust watering schedules daily, or by utilizing sensors to determine the levels of moisture in the soil and adjust watering schedules accordingly. (*ET is the combination of evaporation from the soil surface and transpiration by plant material.)
- Smart irrigation systems are operational from anywhere a device can connect to the internet.
- Smart irrigation systems connect to sensors that can detect leaks or excessive flow and automatically control a master valve to shut down and flag the user of the condition, saving up to hundreds of gallons of water for each occurrence.
- Smart irrigation systems operate by making data-informed decisions and can provide detailed reports of water use and schedules in relation to weather conditions.

PROJECT

The scope of work will include an evaluation of the City's existing irrigation systems and master irrigation controls inventory; an assessment report; and the development of a citywide smart irrigation system with a priority list of work that needs to be accomplished for the City to implement a smart irrigation system and replace failed infrastructure. This work will be done in three-phases:

- Phase 1: Evaluate Existing Irrigation Systems. This will include on-site visits; several tests to review static and dynamic water pressure; controller, pump, master valve and flow sensor assessments.
- Phase 2: Condition Assessment Report and Water Conservation Estimates. Establish a priority of projects; review for water efficiency of the system.
- Phase 3: Bid Ready Performance Specifications. Provide bid ready performance specifications for irrigation system replacements, upgrades, and/or improvements needed per priority projects identified in Phase 2.

This study is funded by Measure P from the Park Infrastructure line item in the Infrastructure, Facilities and Equipment Expenditure Plan for a total of $230,000. The initial condition assessment that was attached to the RFP performed by a third-party irrigation consultant provided a cursory evaluation of parks with sports fields but did not include detailed specifications necessary for a biddable scope of work. This information will be used as a starting point for DeLorenzo International in Phase 1.

SMART CITY

The City of Chula Vista's smart city strategic action plan improves the lives of Chula Vista residents by enabling the city to provide superior government services, better respond in emergency situations and attract high-quality jobs. The strategic action plan has four goals: Connected City; Responsive City; Transparent City; Innovative City. This study would align with the following Smart City goals:

- Connected City – by upgrading all irrigation controls to internet-based, data driven operations;
- Transparent City – by using data analytics to support irrigation demands and use;
- Innovative City – to enhance environmental sustainability by ensuring all irrigation systems have sensors to detect leaks or excessive flow, soil moisture, and weather conditions.

DECISION-MAKER CONFLICT

Staff has reviewed the decision contemplated by this action and has determined that it is not site-specific and consequently, the real property holdings of the City Council members do not create a disqualifying real property-related financial conflict of interest under the Political Reform Act (Cal. Gov't Code § 87100, et seq.).

Staff is not independently aware, and has not been informed by any City Council member, of any other fact that may constitute a basis for a decision-maker conflict of interest in this matter.

CURRENT-YEAR FISCAL IMPACT

This study is funded by Measure P under CIP PRK0326 from the Park Infrastructure line item in the Infrastructure, Facilities and Equipment Expenditure Plan. The total cost of the study is $230,000.

ONGOING FISCAL IMPACT

At the completion of this study, City staff will make a presentation to both the Measure P Citizen Oversight Committee and the City Council regarding the recommendations of the Citywide Smart Irrigation System. Once the recommendations are considered and the scope of work is defined for the needs of the smart irrigations systems, the Public Works Department will issue a RFP for the selection of a contractor to perform the work identified in the scope. The size of the citywide irrigation project will depend on the funding available. At this time, a total of $2.5 million has been appropriated under Measure P for replacement of irrigation systems at parks, medians, libraries, Civic Center, and Fire Stations.

Measure P - Irrigation System

	Appropriated	Spent to Date	Available
Sports Courts & Fields	$ 2,000,000	$ (218,249.71)	$ 1,781,750.29
Park Infrastructure	$ 500,000	$ (2,440.88)	$ 497,559.12
Total	$ 2,500,000	$ (220,690.59)	$ 2,279,309.41

Notes:

An additional $1.5 million will be allocated to irrigation systems under Measure P.

The additional funding will be considered as part of future budget allocations.

Funding for the irrigation consultant will be paid out of the Park Infrastructure category.

This is in order to fund the Sport Courts and Field irrigations systems due to their high usage.

At this time, staff cannot provide a reasonably accurate estimate for full implementation of a Smart Irrigation system as there are too many variables that are currently unknown and will need to be vetted by this study. This report does not commit the City to any further expenditures and any future expenditures will be considered by the City Council.

ATTACHMENTS

1. Two-Party Agreement - DeLorenzo
2. Citywide Smart Irrigation Proposal – DeLorenzo International Inc
3. Citywide Smart Irrigation Proposal Clarifications 05-31-19

Staff Contact: Tracy Lamb, Director of Community Services