

CIP EXPENSE DETAIL

DATE OF COUNCIL CONSIDERATION:
CONTACT DEPARTMENT(S):

11/20/14
WPD

SUBJECT:

Authorize award and execution of a contract with SUTRON CORPORATION to provide flood monitoring equipment in an amount not to exceed \$191,600.

CURRENT YEAR IMPACT:

Department:	Watershed
Project Name:	FEWS Telemetry and SCADA Improvements
Fund/Department/Unit:	4850 6307 7104
Funding Source:	DUF Funds
Current Appropriation:	300,000.00
Unencumbered Balance:	112,842.00
Amount of This Action:	<u>(112,842.00)</u>
Remaining Balance:	<u>0.00</u>
Department:	Watershed
Project Name:	Fews Evaluations
Fund/Department/Unit:	4850 6307 7101
Funding Source:	DUF Fund
Current Appropriation:	2,627,497.00
Unencumbered Balance:	123,300.72
Amount of This Action:	<u>(78,758.00)</u>
Remaining Balance:	<u>44,542.72</u>

ANALYSIS / ADDITIONAL INFORMATION:

As identified in the City's Corrective Action Plan for the Halloween Flood of 2013, rain gauge radio communications were delayed by as much as one hour during the flood due to latency in data transmissions. This latency was due to limitations in existing telemetry architecture of the Flood Early Warning System (FEWS), which utilizes a single radio frequency and a single radio tower for receiving flood-gauge transmissions. These network limitations, caused a lowering of rainfall depth data that are provided into the flood forecast models, which caused the flood forecasts to be inaccurate.

This purchase request is complementary to the proposed Lower Colorado River Authority (LCRA) interlocal agreement, where the FEWS flood gauge telemetry system is proposed to be migrated over to the LCRA Open Sky Telecommunications radio network. This network is currently being used with the LCRA "Hydromet" system that provides real-time stream level and precipitation information.

This purchase request is for the data loggers made by SUTRON CORPORATION that will be replaced in all FEWS rain and stream level gauges. These data loggers are an essential component of the migration process.

The LCRA also utilizes Sutron data loggers in their Open Sky Telecommunications radio network which includes multiple radio towers. This will allow FEWS to migrate the rain gauge communications system to LCRA's open Sky network and improve the communication speed and reliability of gauge data transmission. The FEWS network will transmit timely and accurate information to a central database which is responsible

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for processing information into flood forecast maps in addition to passing the information to the National Weather Service and to the public.