

CIP EXPENSE DETAIL

DATE OF COUNCIL CONSIDERATION:
CONTACT DEPARTMENT(S):

11/20/14
WPD

SUBJECT:

Authorize negotiation and execution of a 60-month interlocal agreement with Lower Colorado River Authority to provide equipment and services to the Watershed Protection Department for provisioning and operation of its Flood Early Warning System data radio network, including a 15 percent contingency for network equipment, for a total amount not to exceed \$187,158 for the initial 60-month term, with subsequent unlimited year-to-year renewal options in the amount of \$10,800 for each 12-month renewal term.

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:	300,000.00
Amount of This Action:	(187,158.00)
Remaining Balance:	<u>112,842.00</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.

The proposed Agreement will allow for migration of the existing FEWS flood gauge telemetry system from City of Austin radio tower infrastructure to the LCRA Open Sky Telecommunications radio network – to take advantage of multiple receiver sites and more robust bandwidth for faster and more reliable data transmission. It will also allow for migration of the current FEWS database to a more robust, stand-alone server.

Expected results of this migration are better protection of the public from flood hazards through utilization of an existing radio communication infrastructure with more reliable coverage and greater bandwidth than the current network. This will minimize latency in data transfer while improving accuracy and timeliness of flood gauge information received.

As part of this Agreement, the City will purchase radio equipment from LCRA for installation at FEWS flood gauge sites. LCRA will also provide radio programming and network configuration services to accommodate the transfer of flood-gauge data from LCRA's network to WPD's FEWS server.