

Attachment A

Transportation, Infrastructure and Innovation Subcommittee



City of Phoenix

City Council Report

Agenda Date: 10/2/2019, Item No. 13

Water Services Department Drought Resiliency Infrastructure Program Update

This report provides the Transportation, Infrastructure and Innovation Subcommittee an update on the Water Services Department's (WSD) Drought Resiliency Infrastructure Program.

THIS ITEM IS FOR INFORMATION AND DISCUSSION.

Summary

The Colorado River is over-allocated and may not be able to supply water adequate to meet demands in the future. Lake Mead, Arizona's main reservoir, has been experiencing alarmingly low water levels entering into the 20th year of drought.

Over many decades, Phoenix Water Services has acquired water supplies from the Salt and Verde Rivers that can be used to meet demands in areas of Phoenix normally served with Colorado River water. However, the Phoenix water system lacks the infrastructure to move Salt and Verde River water to the northern area of Phoenix that is currently supplied by Colorado River water. Major upgrades to the water system are necessary to ensure safe and reliable drinking water to our customers during times of severe shortage on the Colorado River and to provide water system resiliency. The new infrastructure improvements will allow water to be moved from the 24th Street and Deer Valley Water Treatment Plants to the areas of Phoenix currently dependent on Colorado River water.

The improvements will include 12 miles of new pipelines, 4 booster stations to transport and boost clean water throughout the water distribution system, and pressure-reducing-valve stations to regulate and maintain safe water pressure to provide better water distribution. The cost of this infrastructure is approximately \$300 million.

Design of the improvements began in early 2019. Construction is anticipated to start in January 2020 and continue through the end of 2022. Construction is segmented into three main pipeline projects and two pump station projects:

Pipeline Project 1

Installation of new 66-inch water main along with a 48-inch water main in the area of

the Phoenix Mountain Preserve and nearby neighborhoods from 20th Street and Maryland to 32nd Street and Shea Boulevard. Design and construction of a 60 million-gallons-per-day (mgd) booster pump station at the 24th Street Water Treatment Plant. Project 1 is currently in the 30% design process. Construction in neighborhoods begins January 2020. Construction in the Mountain Preserve is scheduled for May 2021.

Pipeline Project 2

Installation of a new 66-inch water main in the area of 32nd Street from Shea Boulevard to Bell Road. Design and construction of a 60 mgd booster pump station near 32nd Street and Bell Road. Project 2 is currently in the 30% design process. Construction is scheduled for September 2020.

Pipeline Project 3

Installation of a new 42-inch water main in the area of 35th Avenue from Thunderbird Road to Grovers Avenue. Project 3 is currently in the 30% design process. Construction is scheduled for September 2020.

Deer Valley Water Treatment Plant Booster Pump Station

Design and construction of a 40 mgd booster pump station. This project is currently in the 30% design process. Construction is scheduled for September 2020.

Central and Deer Valley Road Booster Pump Station

Installation of a new 60-inch pipeline at Central and Deer Valley Road. Design and construction of a 60 mgd booster pump station on Central Avenue south of Deer Valley Road. This project is currently in the 30% design process. Construction is scheduled for September 2020.

The project team began reaching out to schools and stakeholders in all affected areas in May 2019 to introduce the project and receive customer input. Staff is presenting to Phoenix Sonoran Preserve and Mountain Parks/Preserves Committee in September and to the Phoenix Mountains Preservation Council in October.

The project team has also created a public outreach program to inform and educate residents, businesses, community groups, organizations, schools, faith groups, and recreational groups about the impact of the infrastructure upgrades in their community. The public outreach program includes a hotline project phone number, project email address, community meetings, business meetings, mountain preservation group meetings, fire and police coordination, press releases, direct mail, door hangers, social media platforms, newsletters, City Council engagement, youth activities in schools, a public art project, coordination with City departments, WSD website, traffic signage,

park & trails signage, community groups (HOA/Block Watch/Village meetings) and other community events.

Responsible Department

This item is submitted by Deputy City Manager Karen Peters and the Water Services Department.