CENTRAL MESA REUSE PIPELINE

PRE-SUBMITTAL MEETING
WEDNESDAY APRIL 29, 2020
8:00AM
Project Description

- Utilize delivery of reclaimed water produced at the Northwest Water Reclamation Plant (NWWRP) as part of a water exchange agreement with the Gila River Indian Community (GRIC).

- Design Services Package 1 – Design of upgrades, replacements, or new equipment associated with delivery of reclaimed water by means of new in-line pumping and equalization storage systems.

- Design Services Package 2 – Design of approximately 9.5 miles of a new large diameter 36-inch and/or 42-inch waterline from approximately Val Vista and Quenton Drives to Baseline and Recker Roads.
Design Services
Package 1

- Design of upgrades, replacements, or new equipment as deemed necessary to support delivery and pumping of the reclaimed water along the preferred alignment.

- Potential Improvements (Pending Final Hydraulic Analysis):
  - Northwest Water Reclamation Plant (NWWRP)
  - Southeast Water Reclamation Plant (SEWRP)
  - Greenfield Water Reclamation Plant
  - New in-line pump system and/or equalization storage reservoir along the chosen pipeline alignment.
Northwest Water Reclamation Plant

- Design of upgrades, replacements, or new equipment as deemed necessary to support delivery and pumping of the reclaimed water along the preferred alignment

- Potential improvements to the plant’s effluent pumps currently utilized to send plant effluent to the Granite Reef Underground Storage Project (GRUSP) recharge basins approximately 9 miles northeast of NWWRP.
Southeast Water Reclamation Plant

- Design of upgrades, replacements, or new equipment as deemed necessary to support delivery and pumping of the reclaimed water along the preferred alignment

- Potential improvements to the plant’s effluent pumps currently utilized to send plant effluent to the Greenfield Water Reclamation plant approximately 8 miles southwest of SEWRP.
Greenfield Water Reclamation Plant

• Design of upgrades, replacements, or new equipment as deemed necessary to support delivery and pumping of the reclaimed water along the preferred alignment

• Potential improvements to the plant’s effluent pumps currently utilized to send plant effluent to the Gila River Indian Community (GRIC) approximately 4.5 miles southwest of the Greenfield Plant.
New In-line Pump Station and/or equalization storage reservoir

- Design of upgrades, replacements, or new equipment as deemed necessary to support delivery and pumping of the reclaimed water along the preferred alignment

- Potential new in-line pump station and/or equalization storage reservoir along existing or proposed pipeline alignment as identified by the Final Hydraulic Analysis currently underway.
Design Services Package 2

- Design of approximately 9.5 miles of a new large diameter 36-inch and/or 42-inch Concrete Cylinder Pipe (CCP) waterline from approximately Val Vista and Quenton Drives to Baseline and Recker Roads.

- Preferred Alignment Option Pending Final Alignment Study and Hydraulic Analysis
  - RWCD
  - Canal Water Wheel
  - RWCD Right-of-Way
  - City of Mesa Right-of-Way
  - East Maricopa Floodway (EMF)
  - EMF/City of Mesa Right-of-Way Hybrid
RWCD Alignment Options

- RWCD Water Wheel
  - Utilize RWCD’s Main Canal to convey the reclaimed water from Val Vista Drive and McDowell Road directly to the GRIC through open channel flow methodology.

- RWCD Right-of-Way
  - Construct pipeline connecting the NWWRP to the SEWRP utilizing RWCD’s Right-of-Way parallel to the RWCD Main Canal.
City of Mesa Right-of-Way Alignment Option

- Construct a pipeline connecting the NWWRP (Val Vista Drive & Quenton Drive) to near the SEWRP (Baseline Road & Recker Road) utilizing City Right-of-Way exclusively.

- Alignment Challenges
  - Heavily Trafficked Arterial Roadways
  - Tight utility corridors
  - US-60 Crossing at Greenfield
  - Multiple Arterial/Arterial intersections
  - Significant up-front utility investigation/potholing effort
East Maricopa Floodway Alignment Options

- East Maricopa Floodway Alignment
  - Construct a pipeline connecting the NWWRP to the SEWRP utilizing the East Maricopa Floodway (EMF) Right-of-Way.

- East Maricopa Floodway/City of Mesa Right-of-Way Alignment
  - Construct a pipeline connecting the NWWRP to the SEWRP utilizing a combination of City and EMF Rights-of-Way.
• The City of Mesa is seeking up to four qualified consulting firms or teams to provide complete design services for the programming, final design, construction documents, and potential construction services for the following design elements:

• ADDENDUM NO. 1
  • Questions pertaining to the Design Services selection process or contract issues should be directed to Donna Horn of the Engineering Department at donna.horn@mesaaz.gov.

• ADDENDUM NO. 2
  • All qualified firms that are interested in providing Firms should submit a single SOQ in response to this RFQ. Firms must indicate which of the Design Packages (Design Package 1; Design Package 2; or Design Packages 1 and 2) for which the firm wishes to be considered.
Questions/Sign-In

- Questions will be accepted in the Teams Chat
  - Click on the “Show Conversation” button

- Attendance Sign-in form

  - https://forms.gle/qCmUaLadqnwP8XF6