

TO: James L. App, City Manager
FROM: Doug Monn, Public Works Director
SUBJECT: Contract for Construction of a Lake Nacimiento Water Recovery Well
DATE: September 2, 2014

NEEDS: For City Council to authorize a Water-Treatment-Plant budget revision and construction contract revision with Cushman Contracting Corporation to construct a Nacimiento Recovery Well.

FACTS:

1. During the summer of 2013, the City began using Lake Nacimiento water to supplement its Salinas River Underflow flow wells at the Thunderbird well field as a drought mitigation measure. Water is discharged and infiltrated into the dry Salinas River channel adjacent to the well field to support well levels, mitigate seasonal water level declines, and maintain well production rates.
2. Examination of well water quality data and recent computer modeling of the well field indicate that up to 90% of the recharge can be recovered under optimal conditions. This is an import fact as the wellfield provides a significant drought buffer when Nacimiento water is introduced.
3. The addition of a fifth shallow well at the wellfield will be for the purpose of recovering percolated Nacimiento water (not native underflow) in both dry and normal years. This additional well will allow for increased use of Nacimiento water
4. AECOM determined that the additional flows from the new recovery well would require modifications of the water treatment plant high-service pump station and a shared water main.
5. Cushman Contracting is the General Contractor for the construction of the City's Water Treatment Plant and has developed costs and construction plans for drilling/installing the new well and appurtenances.
6. Construction of the recovery well will be completed by mid December and the associated water main needed to connect the well to the existing distribution system by the end of March 2015.

ANALYSIS &

CONCLUSION: The Nacimiento Water Treatment Plant will have a daily capacity of 2.4 million gallons. The City has a peak daily capacity from the Nacimiento pipeline of 7.14 million gallons. Therefore, during the summer season (when the new water treatment plant is operational) the City will have 3,290gpm of additional pipeline capacity. Taking advantage of this additional pipeline capacity and importing surface

water will prove an important tool to offset basin river water pumping, and to provide a significant drought buffer.

During dry years the City's underflow-enhancement infrastructure allows for percolating up to 3,000 gpm of Nacimiento water into the Salinas River. Up to 90% of the percolated water can be recovered by underflow wells, greatly enhancing water-system reliability. Even during normal rainfall years when existing wells are operating at full capacity, the addition of this new recovery well will enhance use of the Nacimiento water supply. A modeling study completed by Cleath Harris Geologists (May 21, 2014) indicates that a new Nacimiento recovery well would increase total wellfield production by a minimum of about 290 gallons per minute (0.42 million gallons per day).

Installation of this recovery well will allow the City to put to beneficial use more of its Nacimiento entitlement. The construction of a new Nacimiento recovery well will: (1) Allow for increased use of Nacimiento water during both drought and normal rainfall years, and (2) provide additional water production capacity to meet peak summer demands.

The cost components for well construction are as follows:

\$67,117 - Installation of 400-feet of 10-inch restrained joint pip and increase onsite main from 8-10 inch (180 feet).

\$135,872 – Installation of new Nacimiento recovery well per attached specification

\$42,160 – Upgrade, pumps, motors, and electrical equipment in high service pump station to account for increased head requirement.

Total Requested Budget Revision = \$245,149

Current Authorized Budget (including Contingency) = \$12,084,600

Total Budget (if budget revision is authorized) = \$12,329,749

Original Contract w/ Cushman Contracting Corporation: \$10,986,000

Revised Contract Amount (if approved): \$11,231,149

POLICY

REFERENCE: Cal Water Code 7043, 7075

FISCAL

IMPACT: Expenditures will be from the existing water fund reserves.

OPTIONS:

- a. Authorize Water-Treatment-Plant construction contract budget revision in the amount of \$245,149 and authorize contract revision with Cushman Contracting Corporation for the purpose of constructing a Nacimiento water recovery well.
- b. Amend, modify, or reject the above option.

RESOLUTION NO. 14-XXX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES AUTHORIZING A WATER-TREATMENT-PLANT BUDGET REVISION AND CONSTRUCTION CONTRACT REVISION TO CONSTRUCT A NACIMIENTO RECOVERY WELL.

WHEREAS, during the summer of 2013, the City began using Lake Nacimiento water to supplement its Salinas River Underflow flow wells at the Thunderbird well field as a drought mitigation measure.

WHEREAS, the addition of a fifth shallow well at the well field to recover Nacimiento water would enable the City to increase its beneficial use of its Nacimiento entitlement, and

WHEREAS, Cushman Contracting Corporation has submitted a reasonable fee proposal to construct the recovery well and requisite water treatment plant upgrades.

THEREFORE, BE IT RESOLVED AS FOLLOWS:

SECTION 1. The City Council of the City of Paso Robles does hereby Authorize Water-Treatment-Plant budget increase in the amount of \$245,149 (increasing the authorized budget from \$12,084,600 to \$12,329,749) and authorizes a contract revision with Cushman Contracting Corporation for the purpose of constructing a Nacimiento water recovery well.

PASSED AND ADOPTED by the City Council of the City of Paso Robles this 2nd day of September 2014 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Duane Picanco, Mayor

ATTEST:

Caryn Jackson, Deputy City Clerk