FINDING OF NO SIGNIFICANT IMPACT

Drinking Water Quality Improvements
for the Pomerene Domestic Water Improvement District, Pomerene, Arizona

December 19, 2014

The U.S. Environmental Protection Agency (EPA) Region 9 intends to authorize the award of Border Environment Infrastructure Funds (BEIF) to the Pomerene Domestic Water Improvement District (PDWID). EPA Region 9’s authorization of a grant award for the proposed project is a federal action requiring compliance with the National Environmental Policy Act (NEPA), 42 USC §§4321-4370(f). In accordance with NEPA; Council of Environmental Quality Regulations, 40 CFR §§1500.1–1508.28; and EPA NEPA regulations, 40 CFR Part 6, EPA Region 9 has prepared an environmental assessment (EA) describing the environmental impacts associated with the proposed project, and which is available upon request. Based upon the analysis in the EA, EPA has prepared this finding of no significant impact (FONSI) which documents EPA Region 9’s decision that the proposed project will not have a significant effect on the environment.

Purpose and Need for the Project

The purpose and need for water quality improvements within the PDWID system is to provide consistent and reliable long-term compliance with arsenic and fluoride drinking water quality standards. Since 2009, PDWID has operated arsenic treatment systems at drinking water wells in an effort to meet the EPA standard for arsenic in drinking water at 10 parts per billion (ppb), published in the Federal Register on January 22, 2001 (66 FR 6976), and under Arizona Department of Environmental Quality (ADEQ)’s delegated authority to enforce this rule.

The PDWID has had instances of violations to the arsenic primary maximum contaminant level (MCL) standard. In addition, no treatment or systematic blending is currently being implemented within the PDWID for fluoride. Historically, fluoride has been “incidentally” blended in the storage tanks with water from the other wells delivered via the distribution system. This is not an effective blending and compliance strategy due to the possibility of exceeding secondary MCL fluoride levels if well sources with high fluoride concentrations are in operation for an extended period of time. Given the historic water quality challenges in this system, drinking water quality compliance is a key concern for the PDWID.
Project Location and Description

PDWID provides water service for approximately 370 household connections within the unincorporated community of Pomerene in Cochise County, Arizona. Pomerene is located approximately two miles north of Benson, Arizona.

The proposed project will construct new well transmission pipelines to combine and deliver water from Well Nos. 3 and 4 to storage tanks, and connect and blend Well No. 6 with treated water from Well No. 2. Blended water from Well No. 6 and Well No. 2 will be delivered to the storage tank through the existing line from Well No. 2. In addition, improved arsenic treatment systems will be installed within the well sites on previously-disturbed and fenced areas. The well sites will include the well, well head appurtenances and an existing small arsenic treatment unit housed within a built structure. Blending water from the PDWID wells will ensure compliance with arsenic and fluoride water quality standards. See Figure 2 for the existing water system facilities and Figure 10 for the proposed water system improvements. These figures are attached to this FONSI.

The following infrastructure will be required for this alternative:

- Well No. 6 pumping equipment including a new power supply (existing three phase power is approximately 500 feet away from the well site), electrical, controls and civil site work;
- Approximately 7,300 linear feet (Lf) of 6-inch water line from Well No. 6 to Well No. 2;
- Approximately 2,400 Lf of 4-inch water line to deliver from Well No. 4 across Tumbleweed Lane to Old Pomerene Road and Whiskey Road;
- Approximately 700 Lf of 4-inch water line to deliver from Well No. 3 to Old Pomerene Road and Whiskey Road;
- Approximately 3,000 Lf of 4-inch water line to deliver form Old Pomerene Road and Whiskey Road across Whiskey Road and Sonora Verde Drive to the storage tank site;
- Arsenic treatment modifications at Well Nos. 2, 3, and 4 to allow for lead/lag operation of treatment vessels; and
- System-wide telemetry control system.

The following operational changes would be implemented under this alternative:

- Well Nos. 3 and 4 will no longer discharge directly into the water distribution system but will be combined with Well Nos. 2 and 6 and discharge to the distribution system at a single point of entry leaving the storage tank;
- All wells will feed the storage tanks, and the tanks will float on the system to meet water system demands; and
- An ADEQ-approved blending plan would be required which will be incorporated into the new telemetry control system to ensure operation of well combinations per the blending plan requirements.
In preparing the EA, EPA examined the No Action alternative, as well as six Action Alternatives to improve drinking water quality within the PDWID system. Action Alternatives were evaluated on the ability to: 1) meet system-wide compliance with the arsenic primary MCL of 10 ppb; 2) meet system-wide compliance with the fluoride primary MCL of 4.0 mg/L; 3) allow for system-wide blending and fluoride treatment alternatives to meet the fluoride secondary MCL of 2.0 mg/L; and 4) maintain consistency and reliability of long-term compliance.

Environmental Consequences and Conditions

After carefully considering the regulatory, environmental (both natural and human) and socio-economic factors as described in the EA, EPA Region 9 has not identified any significant impacts to the environment that would result from the implementation of the proposed project.

In accordance with the provisions of the National Historic Preservation Act (NHPA), EPA notified ten Native American governments with cultural affiliation in southern Arizona concerning the potential for Traditional Cultural Places in the vicinity of the proposed project or other issues of concern that need to be addressed. No impacts to Traditional Cultural Places were identified.

In addition, as required by Section 106 of the National Historic Preservation Act, 16 U.S.C.470, and the Arizona State Historic Preservation Act, A.R.S. §41-861 et seq., a Cultural Resources Inventory of the proposed project area was conducted. The inventory concluded that work within the project area would not impact historic properties. On October 30, 2014, EPA received official concurrence from the Arizona State Historic Preservation Office on the determination of no adverse effect on historic properties from the proposed project.

Finally, under the Endangered Species Act of 1973, an appraisal of the project site was conducted to determine if any threatened or endangered species were located on the site. No threatened or endangered species or critical habitat was identified.

Public Review

EPA made the EA and the unsigned FONSI available for public review at the EPA Region 9 office, and through EPA’s website at http://www.epa.gov/region9/nepa/epa-generated/#pomerene and the Border Environment Cooperation Commission website. Notice of the proposed project and the public comment period was published in the Arizona Daily Star. EPA did not receive any public comments on the EA or the unsigned FONSI prior to the close of the public comment period on December 8, 2014.

Finding

Based upon the information contained in the EA, and after an opportunity for public comment, EPA has determined the proposed project will not result in significant impacts to the environment and an environmental impact statement is not required. This FONSI is final upon signature. EPA
will not recirculate this FONSI for public review, but will make it available to any individual upon request.

Jane Diamond
Director, Water Division

12/22/2014
Date
Well No. 6
(Out of Operation)
Flow 150 gpm
Arsenic 22.6 ppb
Fluoride 0.6 mg/L

Well No. 1
Not For Potable Use

Well No. 3
Flow 80 gpm
Arsenic 22.3 ppb
Fluoride 0.4 mg/L

Well No. 4
Flow 120 gpm
Arsenic 22.7 ppb
Fluoride 0.4 mg/L

Storage Tanks 1 & 2
(530,000 Gallons Total)

Well No. 2
Flow 100 gpm
Arsenic 10.8 ppb
Fluoride 3.4 mg/L

Well No. 6
Proposed Flow 175 gpm
Arsenic 7.0 ppb
Fluoride 3.8 mg/L

Legend
- Existing Well
- Existing 1 Inch Water Main
- Existing 2 Inch Water Main
- Existing 4 Inch Water Main
- Existing 8 Inch Water Main
- Water Improvement District Boundary
- City of Benson

POMERENE DOMESTIC WATER
IMPROVEMENT DISTRICT

Existing Water System Facilities

Figure 2

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Tucson, Arizona 85730
(520) 566-5450

T16S, R30E, Portion of Sections 27, 28, 33, 34, & 35,
T17S, R30E, Portion of Sections 2, 3, & 7
Cochise County, Arizona,
Gallina Flat East & Benson USGS 7.5' Quadrangle