Mission Union School Water System Improvements Project

Summary Form – Additional Pages

Project Description:

The primary project goal is to provide Mission School students and faculty with safe and reliable drinking water. To best meet the primary goal, the project's key objectives are:

- Supply safe and reliable drinking water;
- Comply with regulatory requirements;
- Meet the water system's O&M needs;
- Be financially viable;
- Satisfy public concerns; and
- Meet environmental requirements.

The proposed project consists of installing a new well with a deeper well screen interval to reach deeper groundwater that is not affected by nitrate contamination. The proposed project also includes a new potable water storage tank and water booster pump system. These components are explained in more detail below.

Water Supply Well

This well is anticipated to reach groundwater between 394 and 700 feet below ground surface, which should not contain elevated nitrate concentrations. The new well would be constructed with stainless steel wire wrapped screen from approximately 394 to 700-feet below ground surface (bgs).

Water Pumps and Storage Tank

A submersible well pump will pump water from the well into the top of the new 10,000-gallon bolted steel water storage tank. An air gap will be created by placing the tank overflow below the inlet connection. Water will flow from the bottom of the storage tank to a duplex pressure pump, which will deliver water to the existing water distribution system. The location of the proposed pressure pumps and storage tank is shown in **Figure 6**; an enlarged diagram of the water storage tank is provided as **Figure 8**.

Water Lines

A dedicated water line will run from the well outlet to the new bolted steel storage tank adjacent to the well. Water will flow from the storage tank to a duplex pressure pump, which will deliver water to the existing water distribution system. The existing water distribution system supplies domestic water to the School, fills the existing fire water tank through an air gap, and provides irrigation water through a backflow preventer. This simple configuration matches the existing water supply while providing stored domestic water to meet the MDD.

Project Construction

Site Preparation

The proposed project would cover approximately 781 sf of total area and would be located within previously disturbed areas. In addition, approximately 12,500 sf of temporary staging areas would also be located on the Mission School Campus. Site preparation for the proposed project would consist of proper destruction of the existing well, which may include downhole blasting of the well screen, as well as removal of the existing wellhead, 500-gallon hydropneumatics tank, pump, pressure tank, and above ground piping. A shipping container would be removed from the area as part of site preparation.

Construction

The proposed project would cover approximately 781 sf of total area and would be located within previously disturbed areas. The proposed project would construct a new well compound nearby the well removed as part of the demolition phase. The well compound structure would house the wellhead, appurtenances, well pump, booster pump, pressure tank, and connective piping. A propane powered backup generator would also be installed to allow well operation in the event of a power outage.

Construction equipment is anticipated to include a truck mounted drill rig for construction of the new well, a forklift used to deliver materials to the site, and an excavator for excavation, compaction and shallow trenching within the 781 sf building area. An estimated 250 cubic feet (cf) of soil cuttings from the construction of the new well would be stockpiled and hauled off site, as well as any additional soils resulting from excavation for structural foundation. The total amount of cut would not exceed 1,000 cf of soil.

Schedule

Construction is anticipated to occur over the course of approximately two (2) months. Construction is expected to begin in 2024. The anticipated schedule of these construction activities is as follows:

1. Site Preparation & Demolition: This phase will last approximately two (2) weeks.
2. Construction: This phase will last approximately three (3) weeks.

Construction Circulation and Access

During construction, the project site would be accessed by Foothill Road. It is currently unknown how many vehicle trips would be generated by the construction of the proposed project. The proposed project's staging areas would be located on the Mission Union School campus, to the west of the proposed well and also in vacant areas along the site’s frontage on Foothill Road. No off-site staging of construction equipment would be required.

Project Operation

The proposed project would result in new aboveground components consisting of a 10,000 gallon storage tank mounted on a concrete pad and a new well/pump building. The well/pump building will house a wellhead, pressure pump, pressure tank, various appurtenances, a Supervisory Control and Data Acquisition (SCADA) system, control panels, and electrical panels. A propane powered generator would also be used during operation in the event of a power outage. Mission School’s water system operator currently visits the project site at least once per month to provide operations and maintenance services, including water sampling and ongoing monitoring and maintenance. The water system operator would continue to visit the project site at the same frequency following completion of the proposed project. It is not expected the proposed project will require additional regular maintenance compared to existing conditions once operational and it is not anticipated that Mission School will need to hire additional employees to maintain the proposed project.

Impacts and Mitigation Measures

Biological Resources

Construction of the project could result in direct and/or indirect impacts to raptors and other nesting avian species (e.g., wildlife harassment or mortality and nest abandonment) associated with construction activities (e.g., noise, dust, vegetation removal, erosion and sedimentation, and hazardous material spills).

Mitigation Measures

BIO-1 To avoid and reduce impacts to nesting raptors and other nesting avian species, construction activities can be timed to avoid the nesting season period. Specifically, construction activities can

be scheduled after September 1 and before January 31 to avoid impacts to these species. Alternatively, if avoidance of the nesting period is not feasible, a qualified biologist shall be retained to conduct pre-construction surveys for nesting raptors and other protected avian species within 250 feet of proposed construction activities if construction occurs between February 1 and August 31. Pre-construction surveys will be conducted no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). Because some bird species nest early in spring and others nest later in summer, some breed multiple times in a season, surveys for nesting birds may be required to continue during construction to address new arrivals. The necessity and timing of these continued surveys will be determined by the qualified biologist based on review of the final construction plans.

If raptors or other protected avian species nests are identified during the pre-construction surveys, the qualified biologist will notify the project applicant and an appropriate no-disturbance buffer will be imposed within which no construction activities or disturbance should take place as determined by the qualified biologist to ensure avoidance of impacts to the individuals. The buffer will remain in place until the young of the year have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist

Cultural Resources

Although not anticipated, there is the potential for inadvertent discovery of archaeological resources during construction, which may result in potential inadvertent damage or disturbance to a resource.

Mitigation Measures

CR-1 Prior to the initiation of any ground-disturbing activities, a cultural resource sensitivity training led by a qualified archaeologist shall be conducted for all construction personnel. The training shall include the regulatory contexts guiding the proposed project and governing the protection of cultural resources, guidance for identifying cultural resources, protocols to follow in case of inadvertent discoveries, and contact information for key Project personnel, the lead agency, and the Monterey County Sheriff-Coroner. Documentation that this training occurred shall be provided to the lead agency.

CR-2 If archaeological resources are unexpectedly discovered during construction, work shall be halted within 150 feet of the find until it can be evaluated by a qualified professional archaeologist. If the resource is considered significant and/or unique, ground disturbance shall be halted until an archaeological consultant has been retained, and a comprehensive Archaeological Research Design and Treatment Plan is developed by the archaeological consultant and approved by the Lead Agency and Project proponent.

Although not anticipated, there is the potential for inadvertent discovery of human remains and potential inadvertent damage or disturbance during construction.

CR-3 If human remains are unexpectedly discovered during construction, work shall be halted within 150 feet of the find. The County Coroner shall be notified in accordance with provisions of Public Resources Code 5097.98-99 in the event human remains are found and the Native American Heritage Commission shall be notified in accordance with the provisions of Public Resources Code section 5097 if the remains are determined to be of Native American origin. The Commission will designate a Most Likely Descendant who will be authorized to provide recommendations for management of the Native American human remains. (California Public Resources Code Section 5097.98; and Health and Safety Code Section 7050.5)