

US EPA ARCHIVE DOCUMENT

**Yucaipa Valley Water District
Regional Brineline Extension Project
Mitigation Measures**

The following mitigation measures will be incorporated into the Yucaipa Valley Water District's proposed project:

AIR QUALITY

Due to the limited construction activities associated with the proposed action, construction emissions would be well below the federal de minimis levels. However, the following mitigation measures will be included to ensure effects related to air quality remain below significance thresholds during construction:

AIR-1

Best available control measures shall be used during grading. The menu of enhanced dust control measures includes the following:

- Cover all haul trucks or maintain at least 2 feet of freeboard.
- Cover or water daily any on-site stockpiles of debris, dirt or other dusty material.
- Use adequate water and/or other dust palliatives shall be used on all disturbed areas in order to avoid particle blow-off.
- Wash down or sweep paved streets as necessary to control trackout or fugitive dust.
- Cover or tarp all vehicles hauling dirt or spoils on public roads if sufficient freeboard is not available to prevent material blow-off during transport.
- Ground cover would be re-established through seeding and watering on the disturbed parts of the construction area.

AIR-2

Equipment emissions shall be reduced by implementing the following:

- Equipment should be properly tuned and maintained.
- Encourage car pooling for construction workers.
- Limit lane closures to off-peak travel periods.
- Park construction vehicles off traveled roadways.
- Encourage receipt of materials during non-peak traffic hours.
- Minimize obstruction of through traffic lanes from construction equipment or activities to the greatest extent feasible.

NOISE

The project construction noise will be short-term and temporary in nature, and will be in compliance with applicable standards. However, to ensure that the proposed action construction activities would remain in compliance with all local jurisdictional noise requirements the following mitigation measure has been included:

NOISE-1

In order to comply with the applicable noise ordinances, the Yucaipa Valley Water District (District) shall require that construction activities for the proposed action be restricted to the hours of 7:00 AM to 6:00 PM Monday through Friday and would not operate on Sundays or Federal holidays, except in the event of an emergency.

WATER RESOURCES

Sedimentation to drainages in the project area could have adverse effects on water quality. Accidental spills or disposal of potentially harmful materials used during construction could wash into and pollute surface waters or groundwater. Additionally, inadvertent returns caused by hydrofracture that could occur during the directional drilling proposed at the Santa Ana River could cause the deposition of small amounts of bentonite drilling fluid within surface waters. These potential impacts would be short-term (during the construction phase) and would be mitigated to below levels of significance by implementing the following mitigation measures:

HYDRO-1

Short-term water quality impacts during construction shall be minimized by complying with federal and state regulations for groundwater discharge into surface water bodies. All discharges shall be in compliance with RWQCB requirements. If dewatering activities associated with trenching, boring and excavation result in possible exposure to contaminated groundwater and/or soils, the District shall ensure compliance with the State of California CCR Title 24 Health and Safety Regulations as managed by the San Bernardino County Department of Environmental Health. Additionally, the District shall ensure compliance with the Clean Water Act and National Pollutant Discharge Elimination System regulations regarding water discharge from construction activities to surface waters. Additionally, the project would be required to prepare and implement a stormwater pollution prevention plan (SWPPP) to protect water quality.

HYDRO-2

The construction contractor shall be required to implement best management practices (BMPs) during construction in accordance with the plans and specifications prepared for the project, the General Construction Storm Water Permit (NPDES Order 99-08-DWQ), and to the satisfaction of the District Engineer. These BMPs shall address temporary soils stabilization, temporary sediment control, wind erosion control, tracking control, and non-stormwater management. The following best management practices shall be adhered to during construction:

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- Gravel bags, silt fences, etc. shall be placed along the edge of the project site in order to contain particulate.
- All concrete washing and spoils dumping will occur in a designated location.
- Construction stockpiles, uncovered material and dumpsters will be covered in order to prevent blow-off or runoff during weather events.
- A pollution control education plan shall be developed by the General Contractor and implemented throughout all phases of development and construction.
- Severe weather event erosion control facilities shall be stored on site for use as needed.

HYDRO-3

All equipment and vehicles required for construction, maintenance and operation shall be refueled or maintained within paved roadways or designated staging areas. All stationary equipment, such as motors or generators, shall be stored on the existing access road, drip pans shall be placed under all potential discharge conduits or leaks. All connections and fittings of hoses shall be periodically checked for leaks.

HYDRO-4

All project related spills of hazardous materials shall be reported to the appropriate entities, including the USFWS, CDFG, RWQCB, and shall be cleaned up immediately. Contaminated soils shall be removed to approved disposal areas.

WETLANDS

Temporary indirect impacts from inadvertent returns associated with directional drilling could affect water quality if located within a flowing stream channel in the Santa Ana River. Potential temporary indirect impacts to jurisdictional waters and wetlands would be reduced to less than significant through the implementation of the following mitigation measure:

BIO-1

Immediate containment and/or clean-up of inadvertent returns associated with directional drilling would occur, as well as monitoring and quantification of impact by a qualified biologist. Depending on the amount of material, the inadvertent return may be removed. If it needs to be removed, the material would be removed by hand tools. The area would be accessed by whatever means were feasible (i.e., on foot, by boat, etc.).

PUBLIC HEALTH AND SAFETY

The proposed action would place pipeline primarily under existing roadways, within public right-of-ways. However, any potential impacts resulting from exposure to contaminated soils can be mitigated to less than significant by incorporating the following mitigation measures:

HAZ-1

The Riverside and/or San Bernardino Department of Environmental Health and California Regional Water Quality Control Board shall be contacted regarding provisions for possible reuse as backfill soils impacted by hydrocarbons. If necessary, excavated soils shall be placed on an impermeable liner and covered with an impermeable material to prevent spread of contaminated materials. A health and safety plan shall be prepared to manage and dispose of impacted soil, if encountered during construction.

HAZ-2

Air monitoring shall be conducted during construction of the proposed action for the presence of hydrocarbons near the gas-station sites referenced in the Hazardous Sites Record Search (See Brineline Extension Project Environmental Assessment).

HAZ-3

The District shall have a qualified hazardous materials professional on site while working in areas where contamination may be encountered. The responsibility of this professional would be to monitor the work site for contamination and to implement mitigation measures as needed to prevent exposure to workers or the public. These measures may include signage and dust control.

SURFACE RESOURCES

Project construction is expected to last approximately one year. Therefore, trenchless construction activities may take place during the rainy season and soil erosion may potentially occur. Implementation of the following mitigation measure would reduce potential soil erosion impacts to less than significant:

GEO-1

In accordance with the SWPPP to be prepared under the State General Construction Permit, work crews will use approved erosion control measures including the use of gravel bags and construction of catch basins during grading operations. The project will implement short-term construction best management practices including applicable application protection erosion control measures.

During trenchless construction, caving during excavation could occur. Impacts associated with caving during excavation activities would be mitigated to less than significant by implementing the following mitigation measure:

GEO-2

All trenchless construction activities shall comply with OSHA and CALOSHA requirements. Excavated areas shall be shored or sloped back for stability. Trench shields may be used in place of shoring or sloping the excavation, provided that OSHA and CALOSHA requirements are

followed. Any shoring designs shall be reviewed by the geotechnical engineer or other qualified personnel. Excavation conditions shall be checked in the field and adjusted as necessary.

Implementation of the following mitigation measures would ensure that seismic hazards including rupture of a known fault would be reduced to a level of less than significant:

GEO-3

The District shall perform design-level geotechnical investigations to evaluate the potential for liquefaction and seismic instability to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project design. Specifically, this shall include measures such as the over-excavation of unsuitable base soils and geologic units, the proper composition, placement, and compaction of all construction fill, and the utilization of appropriate construction materials and methods.

GEO-4

Design and construction shall be implemented under the direct supervision of a licensed civil engineer under consultation with a geotechnical engineer or engineering geologist as prescribed by the California Board of Consumer Affairs. These professionals shall be licensed in California by the California Board of Consumer Affairs.

THREATENED AND ENDANGERED SPECIES

Based on the results of a literature search, reconnaissance surveys and habitat assessments, no special-status wildlife species are known to occur within the project footprint. In general, the project footprint is limited to existing disturbed/developed areas and special-status wildlife species are not expected to occur. However, suitable habitat for burrowing owl (*Athene cunicularia*), a California Species of Concern, was identified along approximately 1,000 feet of the proposed action within existing disturbed areas near the WRWRF. No burrowing owl or burrowing owl sign were observed during the habitat assessment on December 30, 2008, but due to the presence of suitable burrow resources, direct impacts to burrowing owl could occur if present during construction. Potential direct impacts to burrowing owl would be avoided through implementation of the following mitigation measure:

BIO-2

A preconstruction survey must be conducted by a qualified biologist within one week of intended construction. The survey must include a single morning and evening visit to the project limits (as shown on Figure 3-1) and an additional 500-foot buffer around the project limits (where legal access is provided). The survey will include a 100% walk over survey within the project limits to search all potential burrows for burrowing owl sign (i.e., feathers, white-wash, pellets, insect or small mammal remains). The remaining areas may be methodically surveyed by 10 meter transects. All burrows detected will be physically inspected for burrowing owl signs. In areas

where legal access is not available, visual/audio survey methods are recommended to get as close to complete coverage as possible. Areas buffered from the construction by buildings or topography need not be surveyed.

If burrowing owl nests are found to be occupied, construction will not occur during the breeding season (February 1 through August 31).

If burrowing owl burrows are detected within the construction zone, burrows will be replaced at a 2:1 ratio. Replacement burrows should be installed in suitable habitat as near to the project as feasible (although a 500-foot buffer is recommended). After the replacement burrows have been installed, passive exclusion of occupied burrows should commence by installing one-way doors at all occupied burrow entrances. These should be left in place for a period of three days prior to initiation of construction. After three days, the burrows should be carefully disassembled to verify that the owls were safely excluded. Burrow replacement and passive exclusion shall be implemented by a qualified biologist.

Although there are no records of Santa Ana sucker occurring in the Santa Ana River in the vicinity of the proposed action, there are records of Santa Ana sucker occurring along a 2 mile reach of the river approximately 3 miles downstream from the proposed action. If present, and if inadvertent returns associated with directional drilling occur within flowing portions of the Santa Ana River, potential temporary indirect impacts to Santa Ana sucker would be reduced to less than significant through implementation of the following mitigation measure:

BIO-3

Potential temporary indirect impacts to Santa Ana sucker due to inadvertent returns associated with directional drilling proposed at the Santa Ana River would be avoided by having a qualified biologist monitor all directional drilling activities in the river if flowing water is present during construction. If inadvertent returns occur where flowing water is present, all directional drilling activities will be immediately halted and adjustments made to the drilling process to prevent additional hydrofracture from occurring.

During the breeding season, construction-related noise could result in indirect impacts to the California gnatcatcher, least Bell's vireo and southwestern willow flycatcher if occupied habitat is located within 500 feet of the project footprint. In order to avoid indirect impacts to California gnatcatcher, least Bell's vireo and southwestern willow flycatcher due to construction-related noise, the following mitigation measure would be implemented:

BIO-4

Potential indirect impacts to special-status wildlife that could occur adjacent to the proposed action due to construction-related noise would be avoided by restricting construction activities during the breeding season (February 15 through August 31 for gnatcatcher, April 10 through

July 31 for vireo, and May 15 through July 15 for flycatcher) where suitable habitat areas are located within 500 feet. If construction adjacent to suitable habitat areas cannot be avoided during the breeding season, focused surveys would be required prior to construction to determine if adjacent habitat is occupied. If construction adjacent to occupied habitat during the breeding season is proposed, potential indirect impacts would be avoided by implementing noise attenuation measures to ensure that noise levels within 500 feet of occupied habitat do not exceed an hourly average of 60 dBA.

CULTURAL RESOURCES AND HISTORIC PROPERTIES

The following mitigation measure has been included to reduce the potential impacts to cultural resources:

CUL-1

All ground disturbing activities during construction of the proposed action will be monitored by a qualified archaeologist to ensure avoidance. Any cultural resources discovered during construction will be tested to determine significance and mitigated through avoidance or data recovery. Should data recovery be necessary, it will be done as mandated by the National Historic Preservation Act (NHPA) and CEQA, and the Soboba Band of Luiseno Indians and other appropriate Tribes shall be consulted. Any artifacts or fossils impacted during construction will be repaired by the archaeological monitor to a point of identification and YVWD will pay potential curation fees.

The possibility exists of encountering unknown paleontological resources within the proposed action alignment. Implementation of the following mitigation measure would reduce impacts to paleontological resources to below a level of significance:

CUL-2

The District shall use monitoring to ensure that if during construction any evidence of paleontological resources are uncovered, then all drilling/earth moving activity shall be halted, the District shall hire a qualified paleontologist to assess the situation and recommend appropriate measures. Upon review of the paleontologist's report, the District and the paleontologist, will determine the steps to be taken before construction may continue, but shall not allow any significant damage to occur to any paleontological resources.

Due to the sensitive nature of potential Native American burials, the following mitigation measure will be included to reduce the impacts if human remains are discovered during site preparation:

CUL-3

A qualified archeologist shall monitor all earth moving and excavation activities during construction of the proposed action. A Native American Monitor, assigned by the Soboba Band of Luiseno Indians, shall monitor all earth moving and excavation activities during construction

of the proposed action. In the event human remains are discovered during construction, all excavation or ground disturbance in the vicinity of the find shall be halted and a coroner contacted. If the coroner determines that the remains are Native American, then the Native American Heritage Commission shall be contacted within 24 hours who will make recommendations on means of treating the remains. If other cultural resources are discovered, then testing shall be conducted to determine significance of the resource. Any significant resources should be avoided or recovered through a data recovery program.

LAND USE AND INFRASTRUCTURE

In order to mitigate for potential impacts, the following mitigation measures have been included:

LU-1

The District or its construction contractor shall provide advance notice, between two and four weeks prior to construction, by mail to all residents or property owners within 300 feet of the project site alignment. The announcement shall state specifically where and when construction will occur in the area. If construction delays of more than seven days occur, an additional notice shall be made, either in person or by mail.

LU-2

On site notification of recreational access closures at least 30 days in advance shall be conducted through the posting of signs and/or notices at all public entrances and/or other areas of high visibility.

TRANSPORTATION

During construction of the proposed action, it is expected that the impacts on transportation and traffic maybe significant and cause congestion and delays at intersections and on the street system. In order to reduce these short-term traffic impacts to less than significant, the following mitigation measures would be implemented:

TRA-1

A traffic control plan shall be prepared by the District for approval by the Cities of San Bernardino, Loma Linda, Redlands, and Yucaipa as well as unincorporated areas of San Bernardino County and Riverside County. The traffic control plan shall show all signage, striping, delineate detours, flagging operations, and any other devices which will be used during construction to guide motorists safely through the construction zone and allow for a minimum of one lane of travel. The traffic control plan shall also include provisions for coordinating with local emergency service providers regarding construction times and locations of lane closures as well as specifications for bicycle lane and pedestrian safety. The District's construction contractors shall coordinate traffic diversions, street and lane closures, and obstruction of intersections with each of the jurisdictions prior to commencing construction activities through the development of routing and detour plans.

This traffic control plan shall be prepared in accordance with each of the jurisdictions traffic control guidelines and will be prepared to ensure that access will be maintained to individual properties, and that emergency access will not be restricted. Additionally, the Plan will ensure that congestion and delay of traffic resulting from project construction are not substantially increased and will be of a short-term nature.

The limits of construction of work area(s) and suggested alternate traffic routes for through traffic will be published in a local newspaper periodically throughout the construction period. In addition, the construction contractor shall provide not less than a 2-week written notice prior to the start of construction by mailing to owners/occupants along streets to be impacted during construction.

During construction, the District shall ensure that continuous, unobstructed, safe and adequate pedestrian and vehicular access to and from public facilities such as schools and parks. If normal access to these facilities is blocked by construction for more than four hours in any given work day, alternative access will be provided. The District shall coordinate with each facility's administrators in preparing a plan for alternative access.

During construction, the District shall maintain continuous vehicular and pedestrian access to residential driveways from the public street to the private property line, except where necessary construction precludes such continuous access for reasonable periods of time. For example, when the pipeline is initially be excavated, access to the individual driveways may be closed during the course of a workday. Access will be reestablished at the end of the workday. If a driveway needs to be closed or interfered with as described above, the construction contractor shall notify the owner or occupant of the closure of the driveway at least five working days prior to the closure.

Methods to maintain safe, vehicular and pedestrian access includes the installation of temporary bridge or steel plates to cross over unfilled excavations. Whenever sidewalks or roadways are removed for construction, the District shall place temporary sidewalks or roadways promptly after backfilling until the final restoration has been made.

The traffic control plan shall include provisions to ensure that the construction contractor's work in any public street does not interfere unnecessarily with the work of other agencies such as emergency service providers, mail delivery, school buses and waste services.

Although limited in duration, construction activities could affect parking for local residences and businesses. The following mitigation measure has been included to offset any potential impact:

TRA-2

The District shall post signage 24 hours in advance of trenching activities along affected streets to notify residences and businesses that might be inconvenienced by the proposed action.