

Summary Form for Electronic Document Submittal**Form F**

Lead agencies may include 15 hardcopies of this document when submitting electronic copies of Environmental Impact Reports, Negative Declarations, Mitigated Negative Declarations, or Notices of Preparation to the State Clearinghouse (SCH). The SCH also accepts other summaries, such as EIR Executive Summaries prepared pursuant to CEQA Guidelines Section 15123. Please include one copy of the Notice of Completion Form (NOC) with your submission and attach the summary to each electronic copy of the document.

SCH #: _____

Project Title: Canyon Tunnel ProjectLead Agency: South San Joaquin Irrigation DistrictContact Name: Forrest Killingsworth, Engineering Department ManagerEmail: fkillingsworth@ssjid.com Phone Number: (209) 249-4600Project Location: Calaveras County, Stanislaus County, and Tuolumne County*City**County*

Project Description (Proposed actions, location, and/or consequences).

See attached Project Description.

Identify the project's significant or potentially significant effects and briefly describe any proposed mitigation measures that would reduce or avoid that effect.

See attached Mitigation Monitoring and Reporting Program.

If applicable, describe any of the project's areas of controversy known to the Lead Agency, including issues raised by agencies and the public.

No known areas of controversy.

Provide a list of the responsible or trustee agencies for the project.

Oakdale Irrigation District

Description of Project

Project Background and Purpose

The Project consists of a new water conveyance tunnel (approximately 12,000 lineal feet, 1,000 feet hard rock and 11,000 feet soft rock) to bypass approximately 12,250 lineal feet of existing canal, referred to as the Joint Supply Canal (JSC). The purpose of the Project is to improve long-term reliability of this critical water supply system because existing canal segments along this bypass reach are extremely vulnerable to catastrophic failure, primarily due to unstable rock slopes that are present along the canyon wall above the JSC.

The JSC provides water supply for both South San Joaquin Irrigation District (SSJID) and Oakdale Irrigation District (OID). SSJID provides JSC maintenance and is the lead agency for this project. The JSC is located along the north bank of the Stanislaus River in Calaveras and Stanislaus Counties, California, near the town of Knights Ferry. Water is diverted into the JSC at Goodwin Dam; Goodwin Dam was constructed circa 1913 and was raised in 1958. Goodwin Dam is operated by the Tri-Dam Project, an agency owned jointly by SSJID and OID. The maximum design flow capacity of the existing JSC is approximately 1,250 cubic feet per second (cfs); the existing flows and annual diversion limits would not be modified as a part of this Project but would increase the reliability of supplies. Based on subsurface conditions data and evaluation of potential tunneling methods, a recommended tunnel route was selected. The Project evaluated is a tunnel intake located upstream of the dam; with a submerged intake from the existing forebay pool approximately 20 feet from the dam.

Project objectives would be as follows:

- Increase water supply reliability: The Project would increase reliability of supplies available for both SSJID and OID.
- Reduce rockfall hazard: The Project would provide rockfall protection, thus limiting/minimizing/preventing rocks, sand, gravel, trees, and other material cleanup within the canal, by redirecting flows through the tunnel thus minimizing rockfall issues/concerns.
- Increase Safety: Provide much safer working conditions for facilities maintenance personnel.

Project Description

The work would include temporary construction access, laydown, and staging areas; permanent downstream tunnel portal and tie-in to the existing canal; approximately 12,000 lineal feet of new tunnel; permanent upstream tunnel portal and tie-in to either the existing Goodwin Reservoir; and permanent access improvements leading to the existing Goodwin Dam right abutment:

The Project specifically includes the following components:

- Construction of approximately 12,000 feet tunnel; approximately 16-foot-wide by 13.8-foot-high;
- Use of existing roads paved and dirt roads to be rehabilitated where necessary;
- Rehabilitation of an existing barge landing and new barge platform:
 - Sectional barge would consist of eight pre-cast concrete segments (each 10 feet by 15 feet) with a combined 30-foot by 40-foot area, measuring 7 feet in depth, which is required for 65,000 pound of live load weight during construction;
 - Rehabilitation of the existing landing would be constructed at the same location and same footprint at the south shore of Goodwin Dam Reservoir at the current parking lot location;
 - Protective cofferdam would be used to dewater around the existing barge landing;
 - Tensioned guide cable would be secured for barge movement alignment;

- South end would be attached below the reconstructed concrete landing with rock bolts;
 - North end would be attached to the existing concrete trash rack wall; and
 - Electric winches would be used to move the barge platform back and forth.
- Improve and re-align existing livestock fences including barbed wire fencing and panel gates;
- Tunnel inlet would start on the north side of the reservoir, upstream of the dam, above the existing diversion canal and on the dry side of the forebay and trash rack;
- Installation of new control gates at the tunnel inlet;
 - The tunnel size would be approximately 16 feet in diameter
- Temporary installation of stop logs at the existing trash rack for forebay dewatering;
- Installation of a concrete cover cap over the existing forebay to provide rockfall protection;
- Existing ram pump to be abandoned;
 - Proposed vertical conduit to be drilled vertically to tunnel for upland property owner (well with steel casing, removable screen and sump at tunnel sidewall, submersible solar power pump);
- Existing canal gates at dam to remain for side-spill
- Existing canal inlet gates to be abandoned
- Tunnel Outlet would be located at the south end of the Project area at the downstream portal.
- The proposed Canyon Tunnel would bypass the existing canal for approximately 12,000 feet and tie back into the existing canal through a downstream tunnel portal.

Construction Phases are as follows and are referenced throughout the document:

1. Excavate Portal Work Area
2. Shotcrete Portal Face
3. Excavate First 916 LF D + S
4. Tunnel Excavation, Stage 1 Shotcrete
5. Stage 2 Shotcrete
6. Place Concrete Slab D+S and Invert Concrete
7. Tunnel Cleanup

Cultural Area of Potential Effect

The cultural Area of Potential Effect (APE) for ground disturbing activities is approximately 8.5 acres outlined below:

Tuolumne County

Existing Staging Area (barge landing and related improvements) = 16,560 sf = ~0.4 acres

Existing Access Road (may need to be widened) = 780 lf @ 16'w = 12,480 sf = ~0.3 acres

Stanislaus County

Existing Access Road (From Diversion Works – improvements to restore conditions following construction) = 5,481 lf @ 16'w = 87,696 sf = ~2.2 acres

Temporary Contractor Laydown Area (improve then reclaim) = ~3 acres

Calaveras County

New Barge Landing/Cap over Upstream Portal = 12,093 sf = ~0.3 acres

Existing Access Road (To Downstream Tunnel Portal and Staging Area - improvements to restore conditions following construction) = 1,508 lf @ 16'w = 24,128 sf = ~ 0.6 acres

New Downstream Tunnel Portal and Staging Area = 19,446 sf = ~ 0.5 acres

Temporary Construction Staging, Spoils Pile/Staging Area with connecting Road (improve then reclaim) = 49,285 sf = ~ 1.2 acres

Construction Schedule

Construction will occur over two to three years and consist of several phases including clearing, grading, and excavation. Equipment maintenance visits are anticipated to occur weekly.

Equipment

Construction equipment would include air compressors, all-terrain vehicles, concrete mixers, concrete pumps, concrete vibrators, electric generators, excavators, light plants, loaders, water pumps, dump/haul trucks, road header tunneling machine, various hand tools, forklift, drill rig, grout pump, concrete transit trucks, and a temporary barge to transport equipment. Temporary construction staging area would be located within the Project boundary and used for storage of materials and equipment.

Operation and Maintenance

Operation and maintenance of the facility would be consistent with current activities to maintain infrastructure. The new water conveyance tunnel and associated infrastructure would have the same intent and operational needs as the existing JSC. SSJID would be responsible for operation and maintenance of the Project. Current maintenance equipment access to the north abutment is provided through the JSC during the non-irrigation season (annually November through February). Because the bypassed segment of JSC will be abandoned and no longer available for access, future permanent access to the north abutment will be provided by the new barge.

Setting and Surrounding Land Uses

The Project is located within Calaveras, Stanislaus, and Tuolumne Counties, north of the unincorporated community of Knights Ferry, California. This area lies within the foothills of the Sierra Nevada Mountain Range adjacent to the San Joaquin Valley. The topography is made up of rolling hills with elevations ranging from approximately 300 to 700 feet, with underlying rock formations of older metamorphic rock and younger volcanic flows and sandstone. The hills are made up of large oak woodland and grassland habitat. Outside of the community of Knights Ferry are residential homes and ranches on larger lot sizes.

Like most of California, the Sierra foothills experience a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures range between 70- and 90-degrees Fahrenheit (°F), but often exceeds 100 °F. Winter minimum temperatures are near 40 °F. The average annual precipitation is approximately 13 inches, falling mainly from October to April.

CHAPTER 5 MITIGATION, MONITORING, AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Project in portions of Calaveras County, Stanislaus County, and Tuolumne County, as a part of SSJID’s Project. The MMRP lists mitigation measures recommended in the IS/MND for the Project and identifies monitoring and reporting requirements.

Table 5-1: Mitigation, Monitoring, and Reporting Program presents the mitigation measures identified for the Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of **Table 5-1** identifies the mitigation measure. The second column, entitled “When Monitoring is to Occur,” identifies the time the mitigation measure should be initiated. The third column, “Frequency of Monitoring,” identifies the frequency of the monitoring of the mitigation measure. The fourth column, “Agency Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by the Lead and Responsible Agencies to ensure that individual mitigation measures have been complied with and monitored.

Table 5-1: Mitigation, Monitoring, and Reporting Program

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Aesthetics						
AES-1	All new permanent outdoor lighting shall be hooded or have protective shielding to direct and minimize light downward so as not to shine on adjacent properties or nearby sensitive receptors.	During construction activities	Once, near project completion	SSJID		
AES-2	At a minimum, the construction contractor shall minimize project-related light and resulting glare to the maximum extent feasible, given safety considerations when used. Color-corrected halide lights will be used. Portable lights will be operated at the lowest allowable wattage and height and will be raised to a height no greater than 20 feet. All lights will be screened and directed downward toward work activities and away from the night sky and nearby residents and sensitive visual resource areas to the maximum extent possible. The number of nighttime lights used will be minimized to the greatest extent possible.	During construction activities	Daily during construction activities	SSJID		
AES-3	Material and equipment shall be brought to staging areas during daytime hours, to the extent possible, to minimize nighttime traffic lights going to and from the site.	During construction activities	Daily during construction activities	SSJID		
AES-4	The contractor shall install visual barriers as needed to obstruct nighttime lighting and glare from sensitive receptors, namely near residential or sensitive visual resource areas to contain and focus necessary nighttime lighting.	During construction activities	Daily during construction activities	SSJID		
Air Quality						
AIR-1	Phase 4 of construction shall utilize an USEPA Tier 4 Final-certified generator with emission factors not exceeding: iii. CO – 0.342g/bhp-hr iv. NOx – 0.322g/bhp-hour	During construction, Phase 5	Daily during construction activities	SSJID		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	<p>All other equipment will meet Statewide average emissions.</p> <p>OR</p> <p>Temporary grid-delivered electrical service shall power a minimum of 2,000 horsepower of Phase 4 equipment. All other equipment will meet statewide average emissions.</p>					
Biological Resources						
BIO-1	<p>(WEAP Training): Prior to initiating construction activities (including staging and mobilization), all personnel associated with Project construction will attend mandatory Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in identifying special status resources that may occur in the APE. The specifics of this program will include identification of the sensitive species and suitable habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. This training will discuss special status species, describe the laws and regulations in place to provide protection of these species, identify the penalties for violation of applicable environmental laws and regulations, and a list of required protective measures to avoid “take.” A fact sheet conveying this information, along with photographs or illustrations of sensitive species with potential to occur onsite, will also be prepared for distribution to all contractors, their employees, and all other personnel involved with construction of the Project. All employees will sign a form documenting that they have attended WEAP training and understand the information presented to them.</p>	Prior to construction activities	One time training prior to construction activities	SSJID		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
BIO-2	<p>(BMPs): The Project proponent will ensure that all workers employ the following best management practices (BMPs) in order to avoid and minimize potential impacts to special status species:</p> <ul style="list-style-type: none"> • Vehicles will observe a 15-mph speed limit while on unpaved access routes. • Workers will inspect areas beneath parked vehicles prior to mobilization. If special status species are detected beneath vehicles, the individual will either be allowed to leave of its own volition or will be captured by the qualified biologist (must possess appropriate collecting/handling permits) and relocated out of harm's way to the nearest suitable habitat beyond the influence of the Project work area. "Take" of a listed (rare, threatened, or endangered) species is prohibited. • The presence of any special status species and/or any wildlife mortalities will be reported to the Project's designated biologist and the appropriate regulatory agencies 	During construction activities	Daily during construction activities	SSJID		
BIO-3	<p>(Avoidance): The Project's construction activities will occur, if feasible, between September 16 and January 31 (outside of nesting bird season) in an effort to avoid impacts to nesting birds.</p>	Prior to the start of construction activities	Once, prior to the start of construction	SSJID		
BIO-4	<p>(Pre-construction Surveys): If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist will conduct pre-construction surveys for active nests within ten (10) days prior to the start of construction. The survey will include the proposed work area and surrounding lands within 50 feet. If no active nests are observed, no further mitigation is required. Raptor nests are considered "active" upon the nest-building stage.</p>	If activities must occur within nesting bird season (February 1 to September 15)	Daily during construction activities to avoid impacts to nesting birds.	SSJID		
BIO-5	<p>(Establish Buffers): On discovery of any active nests or breeding colonies near work areas, the biologist will</p>	During construction activities upon	Daily, upon discovery of any active nests or	SSJID		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Construction buffers will be identified with flagging, fencing, or other easily visible means, and will be maintained until the biologist has determined that the nestlings have fledged.	discovery of active nests or breeding colonies near work areas.	breeding colonies near work areas			
BIO-6	(Pre-construction Surveys): A pre-construction survey will be performed for construction activities that fall between March 1 and September 30 (bat maternity season) to identify current bat roosting locations in oak trees near the dam and around the tunnel outlet prior to the start of construction. A qualified biologist will conduct the survey 7 days or less prior to construction.	Seven days or less prior to construction if construction activities fall between March 1 and September 30 (bat maternity season)	One time survey, seven days or less prior to construction	SSJID		
BIO-7	(Avoidance): Impacts and interactions with bat species are to be avoided whenever possible through timing of work, method selections, and retention of feature that provide naturalized habitat.	During construction activities March 1 through September 30	Daily during construction activities March 1 through September 30	SSJID		
BIO-8	(Establish Buffers): On discovery of any bat roosts near work, the dam, or tunnel outlet, a qualified biologist will determine appropriate construction setback distances (buffer zones) to minimize disturbance and avoid take. Construction buffers will be identified with flagging, fencing, or other easily visible means, and will be maintained until the biologist has determined that the roost will no longer be impacted by construction.	During construction activities upon discovery of any bat roosts	Daily during construction activities upon discovery of any bat roosts	SSJID		
BIO-9	(Disturbance to Trees): In addition to complying with the Tuolumne County Oak Tree Ordinance, if a tree or trees must be removed a qualified biologist will inspect the tree prior to removal to verify that the tree is not active roosting habitat. Once the tree is deemed clear of bats, the tree will be removed within two days.	During the first two days of construction at the roost location found along the cliff side above the canal and river	During the first two days of construction	SSJID		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
BIO-10	(Pre-construction Surveys): A qualified botanist/biologist will conduct focused botanical surveys for Chinese Camp brodiaea, Greene's tuctoria, forked hare-leaf, Hoover's calycadenia, Mariposa clarkia, Mariposa cryptantha, and Merced monardella, according to CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (2018) for areas where ground disturbance will occur and prior to the start of construction.	Prior to the start of construction activities during known blooming periods for these species	One pre-construction survey prior to the start of construction	SSJID		
BIO-11	(Avoidance): If special status plants are identified during a survey, a disturbance-free buffer and use of exclusion fencing will be placed around the area as not to disturb the plants or its root system.	During construction activities, if special status plants are identified	Daily during construction	SSJID		
BIO-12	(Formal Consultation): If rare plant individuals or populations or sensitive natural communities are detected within Project work areas during the focused botanical survey, and the plants cannot be avoided, the Project proponent will initiate consultation with CDFW and/or USFWS to determine next steps for relocation or to obtain an Incidental Take Permit (ITP).	Areas where ground disturbance will occur and prior to the start of construction.	A onetime focused botanical survey according to CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (2018)	SSJID		
Cultural Resources						
CUL-1	(Archaeological Resources): In the unlikely event that archaeological resources (sites, features or artifacts) are unearthed or exposed during any stage of Project construction activities, work in the area of discovery will cease until the area is evaluated by a qualified archaeologist. If mitigation is warranted, the project proponent will abide by recommendations of the archaeologist on site.	During construction and ground disturbing activities	In the event archaeological resources (sites, features or artifacts) are unearthed or exposed during any stage of Project construction activities	SSJID		
CUL-2	(Human Remains): In the unlikely event that any human remains are discovered on the Project site, the appropriate County Coroner (Calaveras County, Stanislaus County, and/or Tuolumne County) must be	During construction activities	Daily or as needed in the event that any human remains are	SSJID		

Mitigation, Monitoring, and Reporting Program						
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	notified of the discovery (California Health and Safety Code, Section 7050.5) and all activities in the immediate area of the find or in any nearby area reasonably suspected to overlie adjacent human remains must cease until appropriate and lawful measures have been implemented. If the Coroner determines that the remains are not recent, but rather of Native American origin, the Coroner will notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours to permit the NAHC to determine the Most Likely Descendent of the deceased Native American.		discovered on the Project site			
Geology and Soils						
GEO-1	A final geologic data report and geotechnical baseline report to verify the optimal alignment for the tunnel will be completed for the Project.	Prior to construction and tunneling activities	One final report prior to construction or tunneling activities	SSJID		
Hydrology and Water Quality						
HYD-1	Refer to GEO-1 .	Refer to GEO-1 .	Refer to GEO-1 .	SSJID		
Noise						
NOI-1	Refer to BIO-6 through BIO-11 .	Refer to BIO-6 through BIO-11	Refer to BIO-6 through BIO-11	SSJID		
Tribal Cultural Resources						
TCR-1	(Cultural Awareness Training): Prior to construction, a Cultural Awareness Training Program shall be provided to all construction managers and construction personnel prior to commencing ground disturbance work at the project site. The training shall be prepared and conducted by a qualified archaeologist to the satisfaction of the District. The training shall be a length of time adequate to explain applicable statutes, regulations, enforcement provisions; the prehistoric and historic environmental setting and context, local tribal groups; show sample artifacts; and what prehistoric and historic archaeological deposits look like at the surface and when exposed during construction. The training may be discontinued to new	Prior to construction	One Cultural Awareness Training prior to construction activities	SSJID		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	workers to the site when ground disturbance is completed. Construction personnel shall not be permitted to operate equipment within the construction area unless they have attended the training. A list of the names of all personnel who attended the training and copies of the signed acknowledgement forms shall be submitted to the District for their review and approval.					
TCR-2	(Inadvertent Discoveries): In the case of any inadvertent discoveries at any time during the duration of construction or implementation, SSJID shall contact Calaveras Band of Mi-Wuk Indians for further information, investigation, and guidance on the process for handling such discoveries.	During construction and all ground disturbing activities	In the event any inadvertent discoveries are unearthed or exposed during any stage of Project construction activities	SSJID		
TCR-3	(Monitoring): The District will continue to collaborate with the Chicken Ranch Tribe to identify areas that may require tribal monitoring during ground disturbing activities. Once areas have been identified within the cultural area of potential effect (APE) and agreed upon by both parties, a qualified representative will monitor for tribal resources during ground disturbing activities, as needed. Tribal monitoring will end at the conclusion of the ground disturbance activities, including project site grading and ground excavation/trenching activities.	During construction and ground disturbing activities in identified areas within the cultural APE	Daily monitoring during construction and all ground disturbing activities in identified areas within the cultural APE	SSJID		
Wildfire						
WLD-1	(Fire Safety Plan): Prior to the start of construction, the contractor shall coordinate with the CAL FIRE to prepare a Fire Safety Plan for use during construction. The Fire Safety Plan will contain notification procedures and emergency fire precautions including, but not limited to, the following: <ul style="list-style-type: none"> • Dry grass shall be cut low or removed from construction equipment staging areas. 	Prior to the start of construction activities	One time preparation of Fire Safety Plan prior to construction activities. Precautionary procedures daily during construction activities	SSJID		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	<ul style="list-style-type: none"> All internal combustion engines, stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory-installed (type) muffler in good condition. Equipment parking areas (staging areas) shall be cleared of all extraneous flammable materials. Personnel shall be trained in the practices of the Fire Safety Plan relevant to their duties. Construction personnel will be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. Smoking shall be prohibited in wildland areas and will be limited to designated and paved areas. 					
WLD-2	Water trucks shall be on site at all times during construction.	During construction activities	Daily during construction activities	SSJID		
WLD-3	All construction vehicles on site during construction shall have a fire extinguisher in the event that there is a fire emergency.	During construction activities	Daily during construction activities	SSJID		
WLD-4	Construction crew shall have water backpacks available during construction activities that may create sparks, to combat fire during construction activities near dry, vegetative area in the event that there is a fire emergency.	During construction activities	Daily during construction activities	SSJID		