

Attachment A

Truckee River Interceptor Pipeline Rehabilitation Project – Project Description

PROJECT DESCRIPTION

Truckee River Interceptor Pipeline Rehabilitation Project

Background and Location

Tahoe-Truckee Sanitation Agency (T-TSA) is proposing a maintenance project to rehabilitate a portion of the Truckee River Interceptor (TRI) pipeline located east of Lake Tahoe along Highway 89 and the Truckee River in Placer County, California (Figure 1). The Truckee River corridor is a highly used recreation area for whitewater rafting, fly fishing, bicycling, and hiking. The project would take place along the section of the TRI pipeline between manhole (MH) 32 to MH 36 (Figure 2). The TRI conveys wastewater from Tahoe City to T-TSA's Water Reclamation Plant in Martis Valley, east of the town of Truckee, California. The majority of the TRI was installed in the 1970s. The TRI flows south to north and is comprised of 19.5 miles of gravity pipeline with 181 manholes ranging in diameter from 18 to 42 inches. Most of the pipeline is unlined reinforced concrete pipe (RCP) with approximately 0.5-miles of epoxy-lined ductile iron pipe (DIP) and 0.5-miles of pipe that has been rehabilitated using cured-in-place pipe (CIPP). The T-TSA owns and operates the TRI and the regional Water Reclamation Plant (WRP). The TRI conveys wastewater via gravity from five member districts in the north and west Lake Tahoe region along the Truckee River to the WRP. The member districts are Alpine Springs County Water District, North Tahoe Public Utility District, Olympic Valley Public Service District, Tahoe City Public Utilities District (TCPUD), and Truckee Sanitary District. T-TSA does not own or operate any of the gravity sewer mains or laterals that convey wastewater to the TRI. There is no redundancy for the TRI in the event of a failure. The majority of the TRI follows the Truckee River and is located in or adjacent to the floodplain, with multiple crossings of the Truckee River.

Project Purpose

The purpose of the proposed project is to rehabilitate an existing section of the 19.5-mile-long sewer pipeline located under and adjacent to the Truckee River between MH 33 and 35 that is showing signs of deterioration and potential failure. TRI pipeline failure in this vicinity would have significant consequences on the ecologically sensitive Truckee River and the riverbanks and to the adjacent communities of Tahoe City, Alpine Meadows, Olympic Valley, and Truckee. Currently, there is no redundancy for the TRI if it were to experience a failure, which could result in untreated sewage spilling into the Truckee River. The project will rehabilitate the existing pipeline segment and its manholes, to support environmental stewardship of the surrounding community, and provide T-TSA with a long-term, cost-effective solution to maintaining TRI operation while reducing the likelihood of future failures.

This project is the result of T-TSA's February 2022 Collection System Master Plan, which included rehabilitation recommendations for two segments of the TRI that cross the Truckee River. Using closed-circuit television (CCTV) data, it was determined that these segments have a high chance of failure due to coating failures and corrosion that will compromise the pipeline's structural integrity. A pipeline failure in this vicinity would run the risk of untreated sewage spilling into the Truckee River and necessitate emergency response/repair, which would likely require major construction activities in and near the Truckee River.

This pipeline rehabilitation project would reduce the likelihood of future failures, using non-invasive (trenchless) rehabilitation methods that will avoid direct impacts to or work in the Truckee River, only require temporary construction-related impacts, and result in far fewer impacts to the Truckee River corridor, as well as reduce potential public health risks, as P to traditional open-cut trenching methods.

Project Description

The Project would consist of pipeline rehabilitation work utilizing trenchless CIPP methods on approximately 1,410 linear feet (LF) of 24-inch DIP and include rehabilitation of manholes (MH) 33 to 35 located along the same segment (Figure 3). As there is no redundancy to the TRI pipeline, the limits of construction are likely to extend from MH-32 to MH-36 due to the associated flow bypassing requirements, and access constraints during construction. To address this critical aging pipeline and protect the pristine Truckee River and adjoining habitats and communities, T-TSA is planning to proactively rehabilitate the pipeline in 2025, with a targeted construction window of post Labor Day through October 15th. As part of the project, three manholes (MH-33, MH-34, MH-35) would be concurrently rehabilitated with the pipeline. The proposed temporary flow bypass route would start on the upstream end at MH-32, which is located next to the Truckee River Bike Trail, and would terminate on the downstream end at (i.e., discharge into) MH-36, which is located off the bike path in a developed / gated dirt road in a private property area with secured right of entry for construction. T-TSA also owns an easement along the TRI that will be utilized during the project.

Construction activities will include the following:

Installation of Temporary Erosion and Sediment Controls and Visible Construction Limits:

The project will comply with the California Regional Water Quality Control Board Lahontan Region's Order No R6T-2203-0004 (*General Waste Discharge Requirements for Small Construction Projects, including Utility, Public Works, and Minor Streambed / Lakebed Alteration Projects in the Lahontan Region excluding the Lake Tahoe Hydrologic Unit*). The contractor will install temporary best management practices (BMPs) to protect water quality; BMPs may include installation of straw wattles, silt fencing, and other typical temporary erosion and sediment controls. The contractor, in coordination with a qualified biologist, will also install fencing or other materials to visibly define construction limits in the vicinity of any potentially sensitive environmental resources such as the Truckee River banks and any adjacent wet or ponded areas.

Installation of Temporary Bypass Pumping, Bike Trail Detours, and Traffic Controls:

The current recommended set of temporary bypass piping and bike detour options attempt to minimize traffic disruptions on Hwy 89, when construction activities necessitate the need for temporary but complete bike trail closures. Tourist and local vehicular traffic on Hwy 89 is expected to experience nominal delays around work zones, especially near the turnout parking

areas where construction vehicles will park and stage to have better access to the project area. The following traffic control measures will be incorporated into the contract documents to aid the contractor in developing its traffic control plan:

- Place barriers around bypass pumping equipment and CIPP staging areas
- Place “No Parking” signs on both sides of streets. Locations will be identified at the 75% design stage.
- Maintain emergency access
- Establish temporary detours and cross walks along the bike trail, as required, over the bypass piping
- Assign flaggers to direct traffic around closed bike lanes and possibly along Hwy 89 when construction vehicles are parking or unloading equipment.
- Have contract documents consider Hwy 89 bus and school traffic, along with traffic associated with holidays and regional events.
- Confirm contract documents mandate a post-Labor-Day start to minimize the peak traffic season in and around the trails and project area.

Temporary Sewer Bypass System: Once the erosion and traffic controls are in place, the contractor will install a temporary sewer bypass system that includes pumps, valves and temporary pipelines to maintain wastewater flows around the project area 24 hours a day during rehabilitation. Pumps would be operated using generators.

Temporary Staging and Access: Temporary staging will occur primarily along the TCPUD-operated bike trail and the immediately adjacent lands, as well as on adjacent private land. There is a parking area along Hwy 89 near MH-33 that will likely be used for staging construction trucks. The contractor may clear and grub several small access paths adjacent to the MHs (32-36) to perform the bypass pumping, bypass piping installation, and pipeline rehabilitation.

Pipeline Rehabilitation: The project will utilize CIPP, which is a trenchless rehabilitation method, to rehabilitate the existing pipeline segment. The project is expected to utilize either ultraviolet (UV)-cured CIPP or water-cured CIPP.

UV-cured CIPP utilizes a liner composed of an epoxy composite layer with resin (polyester or vinyl ester) and reinforced with glass materials, and a polypropylene layer on the pipe’s inside surface. The host pipe is dewatered, cleaned, and inspected using CCTV. UV-curing can be performed by pulling the UV liner through the pipes from existing manholes, then installing UV cure equipment in the existing manholes. The liner tube is then pulled into the host pipe and inflated with air. After installation, the resin is cured by UV light, by pulling a light train through the pipeline. Following completion, the rehabilitated pipeline is once again inspected using CCTV, and bypass flows are re-introduced. A staging area that can accommodate the lining equipment (CCTV truck, UV-cure truck, winch) is expected to be approximately 50 ft by 15 ft, but the dimensions can vary based on the configuration of the insertion manhole and available space.

Water-cured CIPP utilizes a liner comprised of an epoxy and polyester fiber composite layer. A polypropylene layer on the inside surface acts as a barrier between the resin and the water used to cure the liner. The liner tube is either inverted into the host pipe using water or pulled into the pipeline using a winch. After installation, the resin is cured by circulated heated water. For this project, the curing can be performed through existing manholes. A temporary staging area approximately 25 ft by 25 ft around one manhole is required for an inversion tower, and an

approximately 10 ft by 50 ft area will also be necessary to temporarily accommodate the liner storage truck and boiler trucks.

Construction demobilization and stabilization: After the pipeline and manhole rehabilitation is complete, the contractor will install permanent BMPs to stabilize the disturbed soils. BMPs may include hydroseeding of native seed mixes, container planting, temporary irrigation, weeding of invasives, or other revegetation activities, and the installation of biodegradable soil binders. Potential effects on these resources are expected to be short-term and less than significant. Based on the limited construction-related temporary impacts anticipated to the ‘uplands’ and riparian habitats within floodplain of the Truckee River, the project is not expected to trigger the need for federal permits (e.g., USACE Section 404) and is only expected to require a limited number of environmental regulatory permits from state agencies.

Project Impacts

The impacts from the project are anticipated to be minimal, as the project will have a limited, straight-forward scope of work with a limited disturbance area, no permanent impacts, and a construction duration of approximately 6 weeks. The proposed CIPP curing methods are considered standard, and would utilize BMPs to minimize noise and odors typically generated during the curing process itself, which has a duration of approximately 3 weeks or less. Avoidance and minimization measures (AMMs) such as avoiding construction during nesting bird season, avoiding construction during the winter/’wet’ season, conducting pre-construction surveys for sensitive species, and flagging or staking sensitive habitats for avoidance, will be utilized. T-TSA will seek permits from the California Department of Fish and Wildlife (CDFW) and the Lahontan Regional Water Quality Control Board (RWQCB) for work within the Truckee River floodplain and its riparian habitats, and potentially a permit from the U.S Forest Service (USFS). With the complete avoidance of direct impacts to or work within the waters of the Truckee River, no permit from the U.S. Army Corps of Engineers is expected to be required.

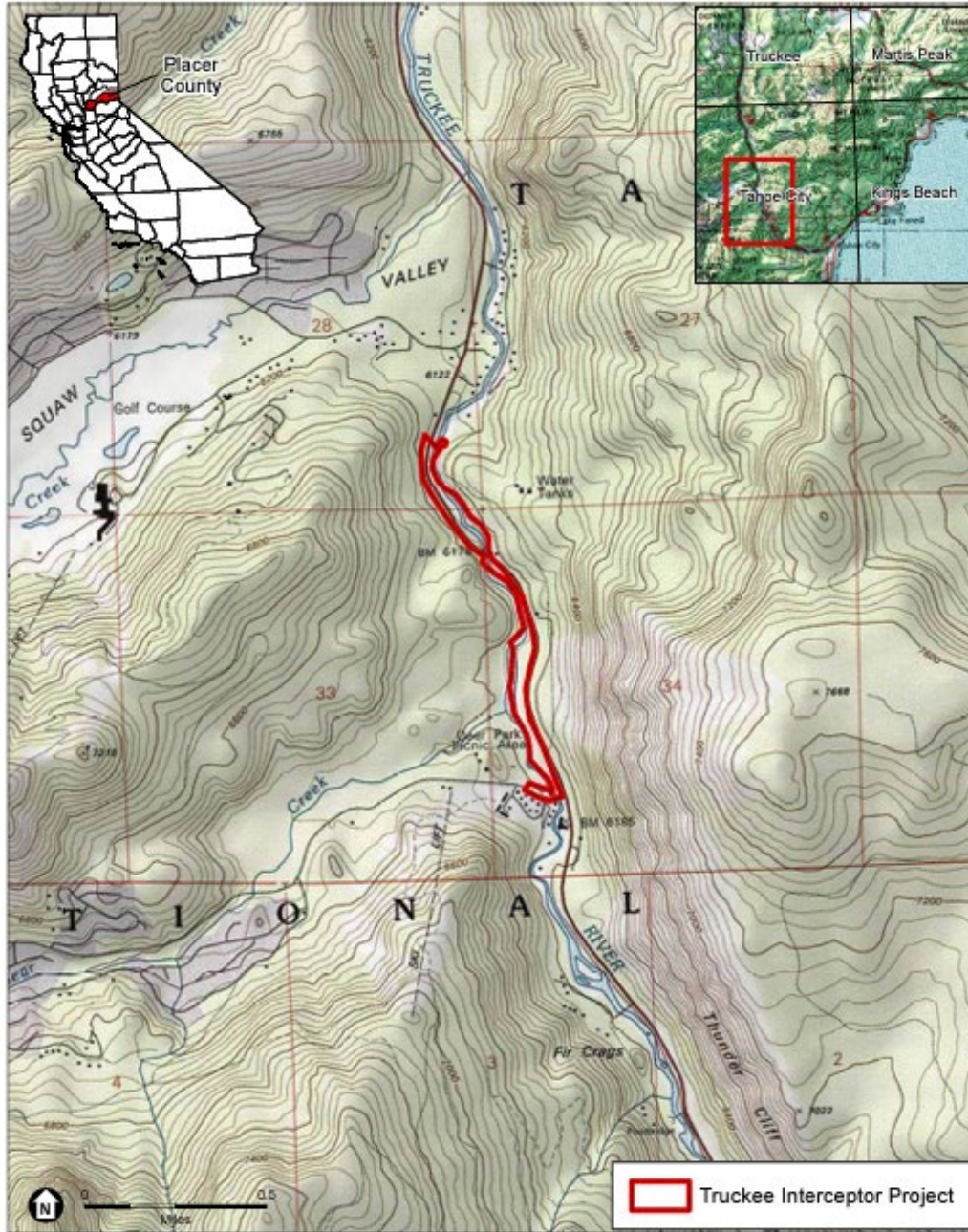
Environmental Science Associates (ESA) conducted a biological resources survey for the project on June 5, 2024, as well as conducting database searches for known sensitive species in the project vicinity. In summary, nesting birds, special-status fish, special-status reptiles and amphibians, and potentially jurisdictional waters and wetlands could be present in the vicinity of the Project site, and therefore there is potential for direct or indirect impacts from construction activities on these biological resources. However, the project’s proposed BMPs and AMMs will avoid, and where complete avoidance is not feasible, will minimize, any potential temporary project-related disturbances to these sensitive biological resources. With design strategies to completely avoid impacts to the Truckee River and limit project impacts to temporary construction-related impacts only, and with the implementation of BMPs and AMMs designed to protect these resources, potential effects on these resources are expected to be less than significant. Furthermore, no incidental take permits for impacts to state- or federal- listed species or designated critical habitats are expected to be required.

ESA also conducted a cultural resources survey for the project in June 2024. The results of a records search were obtained from the North Central Information Center of the California Historical Resources Information System on June 3, 2024 (File No. PLA-24-61). ESA also contacted the Native American Heritage Commission (NAHC) on June 3, 2024, to request a search of the NAHC’s Sacred Lands File (SLF) and a list of Native American representatives who may have interest in the Project. The NAHC replied on June 11, 2024, indicating that the

SLF has no record of any cultural resources in the Project vicinity, and included a list of Native American representatives who may be interested in the Project. T-TSA will contact the representatives on that list with a description of the project and an opportunity to communicate any concerns and/or participate in the identification of sensitive resources.

ESA archaeologists also completed a pedestrian surface survey of the project area on June 10, 2024. Based on the results of the records search, background research, and surface survey, no cultural resources would be impacted by the project and there is a low potential to uncover buried cultural materials during project implementation. This conclusion is in part based upon the project's proposed trenchless pipeline rehabilitation methods (which require very minimal ground/below ground disturbance) and the ability to limit the extent and location of above-ground temporary staging and bypass piping disturbance. Despite the negative findings and low potential, the discovery of buried archaeological resources during ground disturbance cannot be entirely discounted. As such, the contractor will be required to halt work and allow a qualified archaeologist to inspect any pre-contact or historic-era archaeological resources encountered during construction, within 24 hours of discovery.

Figure 1 TRI Overview Map



SOURCE: USGS

Truckee River Interceptor Project . D2023000789

Figure 2 Proposed Project Area / Sewer Alignment / MH Locations

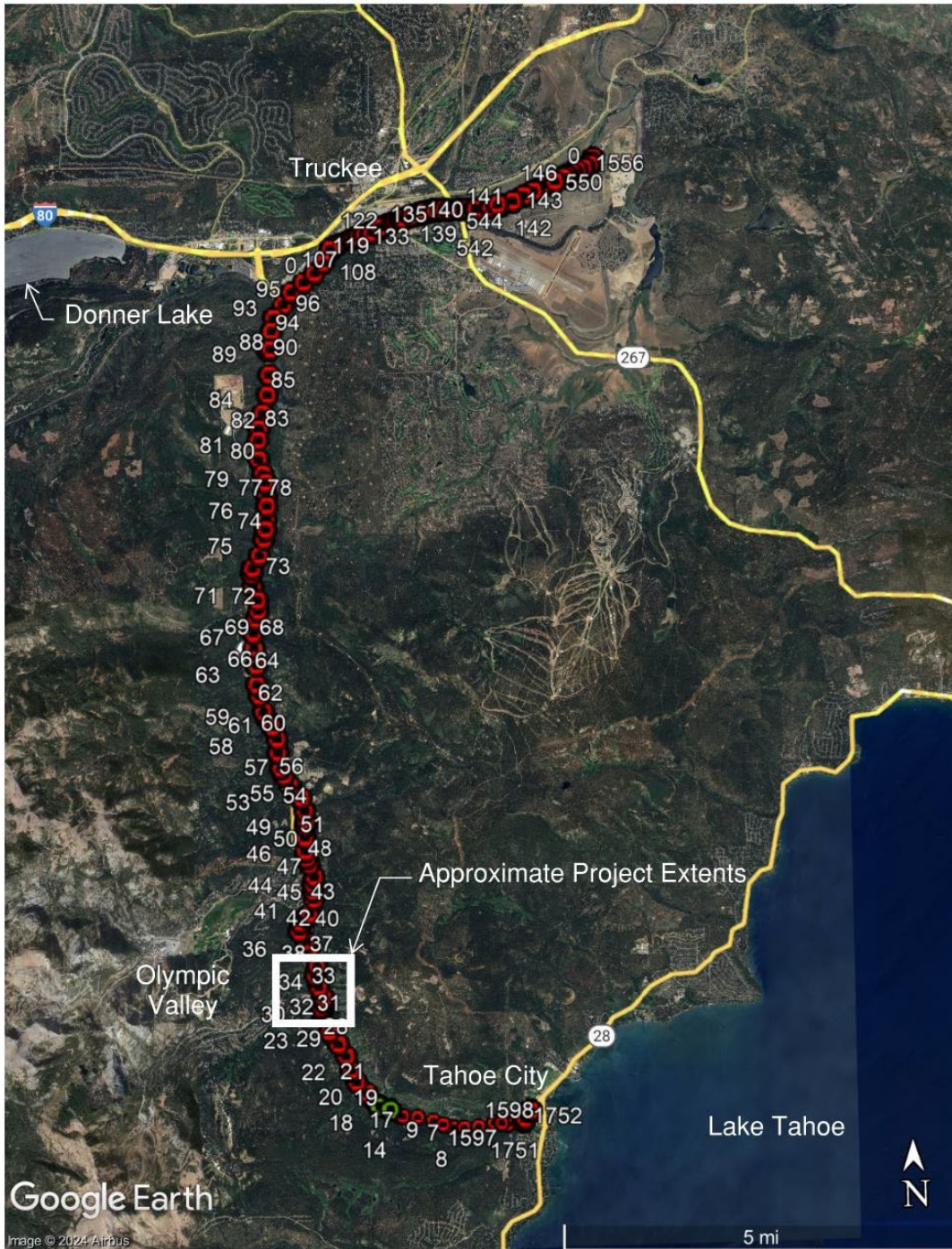


Figure 3 Project Site / Location Details

