



City of Morro Bay  
Water Reclamation Facility Project

WWTP Removal and Restoration Plan  
SPECIAL CONDITION NO. 7

FINAL | January 2023

**APPROVED**

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COASTAL COMMISSION  
CENTRAL COAST DISTRICT OFFICE  
725 FRONT ST., STE. 300  
SANTA CRUZ, CA 95060

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## Abbreviations

AFY	acre-feet per year
BOD	biochemical oxygen demand
CCC	California Coastal Commission
CDP	Coastal Development Permit
City	City of Morro Bay
CWA	Clean Water Act
DDW	Division of Drinking Water
ft	feet
MGD	Million Gallons per Day
Plan	WWTP Removal and Restoration Plan
WWTP	Existing Wastewater Treatment Plant
WRF	New Water Reclamation Facility
Site	Existing WWTP Site
TSO	Time Schedule Order
ADWF	Average Dry Weather Flow

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## Section 1

# PROJECT BACKGROUND

On July 11, 2019, the California Coastal Commission (CCC) approved Coastal Development Permit (CDP) 3-19-0463 for the City of Morro Bay's (City's) Water Reclamation Facility (WRF) Program and on July 19, 2019, the City received the Notice of Intent (NOI) which included the CCC's specific requirements.

The existing Morro Bay-Cayucos Wastewater Treatment Plant (WWTP) is located at 160 Atascadero Road in Morro Bay and is jointly owned and operated by the City of Morro Bay (City) and the Cayucos Sanitary District. The WWTP was originally built in 1954 in a low-lying area near the outlet of Morro Creek to the Pacific Ocean, and it provided wastewater treatment services for the City and to the unincorporated community of Cayucos, located approximately six miles to the north. The WWTP was built before modern state and federal water quality standards, and does not meet federal Clean Water Act (CWA) standards for full secondary treatment. Instead, the WWTP has been operating under a CWA waiver for full secondary treatment requirements for biochemical oxygen demand (BOD) and total suspended solids (TSS) since 1984. In 2018, the City received a Time Schedule Order (TSO) from the Central Coast Regional Water Quality Control Board (RWQCB) requiring compliance with full CWA secondary treatment requirements by February 28, 2023.

Because of the age of the existing wastewater treatment plant, its failure to meet core CWA water quality standards and the possibility of potential fines/penalties for failure to meet the RWQCB's mandate for CWA compliance by 2023, the City has been pursuing a new upgraded wastewater treatment facility for more than a decade. The City and the Cayucos Sanitary District initially proposed to redevelop the wastewater treatment plant at its current site, but the CDP was appealed to the CCC, and ultimately in 2013, the CCC denied the City's redevelopment-in-place proposal on the basis of inconsistencies regarding avoiding coastal hazards, land use priorities, recycled water provisions and public view protections.

Following the CDP denial and given the CCC's direction to the City and the Cayucos Sanitary District on the appropriate path for upgraded wastewater and water reclamation functions, the City developed criteria for a potential Water Reclamation Facility (WRF) Program, including coastal hazards avoidance through inland plant relocation, water quality improvement through compliance with applicable water quality standards, and water supply security through recycled water.

The City's WRF Program meets Coastal Act consistency on many fronts—for the protection and enhancement of coastal resources, for providing essential public services to Morro Bay residents and visitors, and for developing a local, sustainable, natural disaster and drought resilient water supply. The WRF is the first Wastewater Treatment Facility in California to be relocated away from Coastal and Flood Hazards and provides the City the ability to reliably treat and safely dispose of wastewater during Tsunami, Flood and other Natural Disasters.

Additionally, the WRF Program provides the City the ability to capture and treat a critical water supply that is currently lost to the ocean and utilize it to enhance groundwater recharge in the Morro Basin with advanced purified water through an Indirect Potable Reuse (IPR) recycled water program. This will enable the City to be able to extract up to approximately 80 percent of its existing potable water demands without the threat of seawater intrusion. The WRF Program provides the City with a water supply that will be available regardless of future hydrologic conditions, including climate change, and enables the City to improve the resiliency of its water supply portfolio to mitigate against future droughts and SWP infrastructure failures. Having this local, resilient supply will provide water security



for the City, reduce its reliance on Sacramento-San Joaquin Delta imports, improve local groundwater quality, and increase the City's potential to provide water to other local water utilities to improve regional water supply reliability and resilience.

## Section 2

# PROJECT COMPONENTS

Since 2019, the City initiated construction of the WRF and associated Conveyance facilities (e.g. pipelines, pump stations, etc.) to convey wastewater from the existing WWTP to the WRF, treated effluent to the ocean outfall for disposal and advanced purified water to the Morro Basin for groundwater recharge via injection.

The WRF Program includes construction of a new one Million Gallon per Day (MGD) advanced treatment facility on South Bay Boulevard north of Highway 1, two new lift stations, approximately 3.5 miles of pipelines and wells to inject the purified water. The current schedule includes completion of WRF and Conveyance infrastructure in 2022, WRF operation by February 2023 and IPR operation in 2025.

Within one year of operation of the WRF, the CDP requires the existing WWTP to be decommissioned, demolished, and restored to a safe and level configuration that roughly matches the surrounding areas. The process of decommissioning the WWTP will be further explained below.

## Section 3

# DOCUMENT PURPOSE

This Plan discusses how the City proposes to decommission the existing WWTP, demolish and remove plant components, and restore the site to a configuration roughly matching the surrounding areas. The Morro Bay Water Reclamation Facility Project is virtually broken into four separate project components including: WRF, Conveyance, Existing WWTP Decommissioning, and Recycled Water. As previously discussed, the Special Conditions required by the CDP are being addressed in phases, meeting the requirements of the Special Conditions for each component of the project in the order they are constructed. The objective of this WWTP Removal and Restoration Plan (Plan) is to meet the requirements of Special Condition No. 7 for CDP 3-19-0463 (WWTP Decommissioning component) and to present the information required prior to the operation of the WRF.

## Section 4

# WWTP REMOVAL AND RESTORATION PLAN

### Overview

This section of the Plan provides an overview of the decommissioning of the existing WWTP. For the purposes of this Plan, decommissioning is assumed to mean shutdown, demolition, and removal of WWTP facilities and infrastructure at the site followed by backfilling, compaction, and grading to leave it cleared, cleaned and available for other uses in the future.

### 4.1 Existing WWTP Site

The WWTP was originally constructed in 1953 with subsequent expansions in 1964 and 1982. The WWTP currently has an Average Dry Weather Flow (ADWF) rating of 2 MGD though the secondary treatment facilities are only rated at 1 MGD. Flow in excess of 1 MGD requires bypassing a portion of the primary effluent and blending with disinfected secondary effluent prior to discharge to an ocean outfall.

The existing WWTP site is shown on Figure 1. Features to be noted regarding the site include:

- The WWTP site is located at 160 Atascadero Road in Morro Bay. The site is located approximately 300 feet north of Morro Creek.
- As shown on Figure 1, the roughly 5.7 acre site is bordered by the City's Corporation Yard to the east, a trailer storage facility to the south, and an RV park to the west. The surrounding facilities, including the City's Corporation yard, the trailer storage facility and the RV park will remain in place and are not included in the WWTP decommissioning.
- A self-contained household hazardous waste and electronic waste collection facility operated by IWMA is co-located on the WWTP site. This facility will be removed at the time of WWTP decommissioning and relocated, potentially to the WRF site.

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Figure 1. Existing WWTP and Site Surroundings



## 4.2 Shutdown

The primary influent to the existing WWTP will be re-directed to the new Pump Station A via manhole interception along Atascadero road. Once the flow has been diverted at this manhole, there will be no new influent to the WWTP. The liquid treatment train will be taken out of service and the treatment basins and facilities will be cleaned and drained to the headworks where it will be pumped to Pump Station A located next to the City Corporation Yard.

The digesters and sludge drying beds will stay in service initially until the remaining sludge has been processed through and meets the stabilization and dewatering requirements of the current NPDES permit at which point it can be transported offsite for disposal. Once the digesters and other treatment components are emptied of sludge, the demolition can begin.

## 4.3 Demolition and Removal of the WWTP

The process of demolition and disposition of all materials/facilities is described below.

### 4.3.1 WWTP Structure Inventory and Disposition

The existing structures within the fence line of the existing WWTP are identified on Figure 2 and they will be demolished and removed as a part of this work except the following:

- Air Release Structure – This outfall structure will be left in place and is necessary for the future operation of the new WRF.

The structures to be demolished include:

- Administration Building
- Headworks
- Primary Sedimentation Tanks
- Biofilter Pump Station and Motor Control Center (MCC) Building
- Biofilters
- Secondary Sedimentation Tank
- Secondary MCC Building
- Chlorine Building
- Chlorine Contact Tank
- Digesters
- Maintenance Building
- Hydropneumatic Tank
- Waste Gas Burner
- Collection Shed
- Sludge Drying Beds

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Demolition of the structures described above comprises a footprint of 41,000 square feet. This value does not include the household hazardous waste facility which is operated by the San Luis Obispo IWMA. As described previously, this structure will be relocated by IWMA prior to commencing decommissioning activities. Due to its proximity to the ocean, dewatering is potentially necessary during demolition of below grade structures.

The demolition and removal of the twelve sludge drying beds located on the southern end of the site will add approximately 69,000 square feet of demolition work. Areas on the site not covered by structures or sludge drying beds are either paved or covered with some type of surfacing such as landscape rock. Approximately 52,000 square

feet of on-site paving will need to be demolished and removed. The approximately 87,000 square feet of landscape rock and dirt surfacing will not be removed but will be regraded with the site at the conclusion of the demolition activities.

The City and CCC are in discussions regarding the potential to retain select buildings at the WWTP for use as Parks Maintenance facilities until the future use for the Site is determined. As described in the City's Plan Morro Bay (approved General Plan/Local Coastal Land Use Plan), the Site has a land use designation of Visitor Serving Commercial and Open Space/Recreation and the City is required to prepare a Master Plan for the long-term use of the Site prior to redevelopment. The City would like to make use of some of the existing onsite buildings for Parks Maintenance activities as the existing adjacent Maintenance Division buildings are in poor shape and are at the end of their useful life. Repurposing the existing WWTP buildings for parks maintenance functions, saves the cost of replacing the existing maintenance buildings, improves the work environment for maintenance staff and will allow them to operate more efficiently, while also reducing demand for existing facilities and/or new development in the Coastal Zone. The buildings in consideration for being retained onsite after decommissioning include the Maintenance Building, Admin Building, Chlorine Building, and the Collection Shed. These facilities are shown in Figure 2 below with a green label. If Coastal Staff is in agreement with the City's desire to retain the buildings at the WWTP, the City would submit an application to amend CDP 3-19-0463 to accommodate this change if that is the preferred course of action to bring about the change.



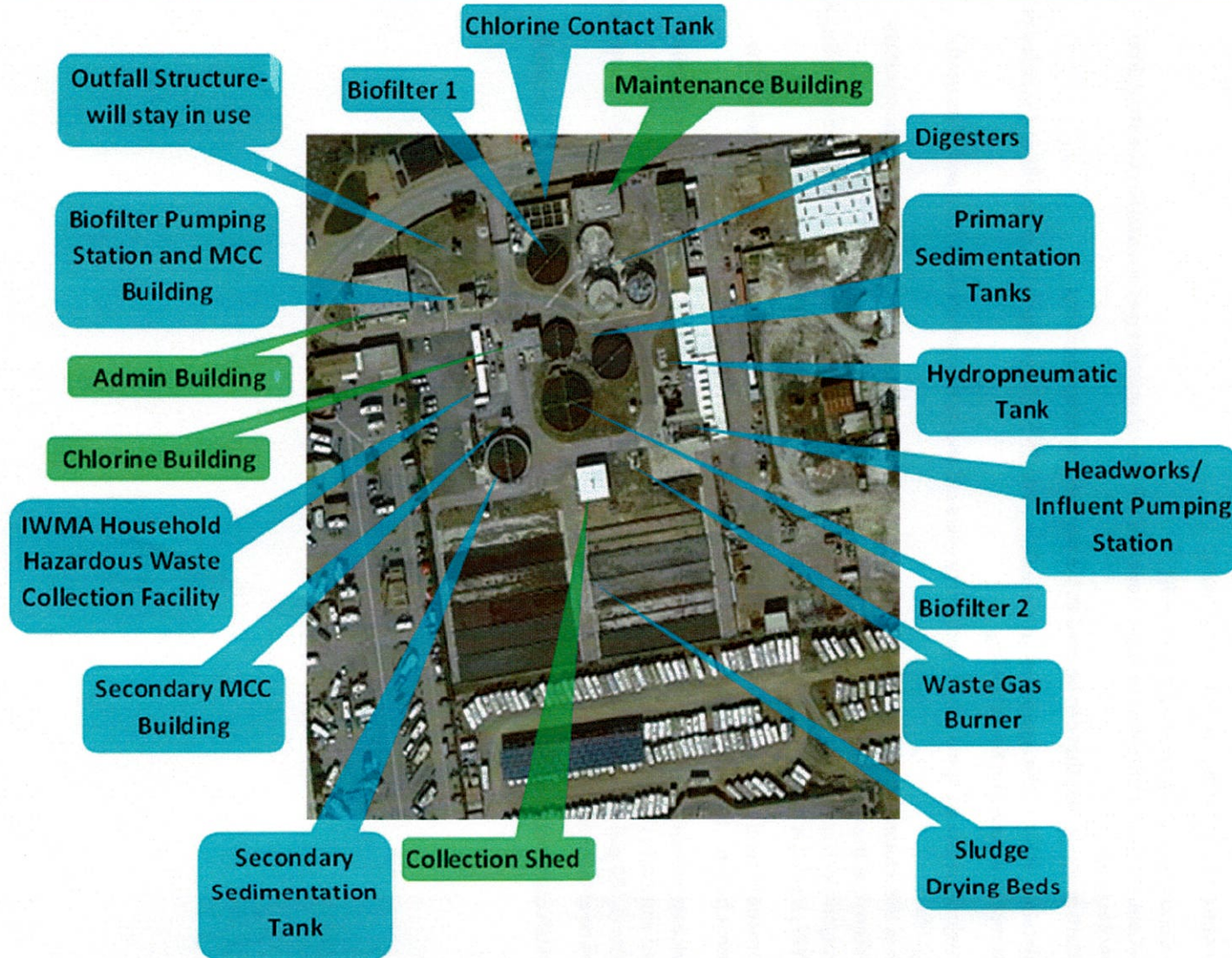


Figure 2. Site Building and Structure Layout

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#### 4.3.2 WWTP Equipment Inventory and Disposition

The principal process and non-process equipment associated with the existing WWTP has been inventoried and will be recommended for one of the following removal dispositions:

- Discard – Contractor will haul material to a landfill.
- Salvage – Contractor will dismantle the equipment and sell the salvageable metal materials like steel, iron, and copper for scrap.
- Reuse – Items or equipment that can be used at the new WRF or other locations.

Although well maintained, most of the equipment at the existing WWTP has been identified to be either discarded or salvaged. This assumption is based on the following:

- The majority of the equipment is at least thirty years old and nearing or exceeded the end of its useful design life.
- Much of this equipment was designed for specific treatment process parameters and these parameters are different at the new WRF.
- The majority of the equipment is required to keep the existing WWTP in service during the construction of the WRF, making it infeasible to remove the equipment and keep the WWTP in service.

Heavy equipment made of steel and iron that is not deemed reusable is assumed to have a salvageable value. The laboratory equipment from the administration building is assumed to be reusable.

The industrial lubricants, solvents, and other materials associated with the equipment in the maintenance building would be restocked and used at the WRF. Chemical stores of ferrous chloride (2,500 gallon tank owned by City), sodium hypochlorite (6,000 gallon tank owned by supplier), and sodium bisulfite (1,000 gallon tank owned by supplier) would be managed so as to be minimal at the time of decommissioning.

Any unused chemicals could either be returned to the vendor if unopened, used at the new WRF, sold, or discarded.



### 4.3.3 Structure and Equipment Disposal

Once the demolition is complete, the construction waste would be hauled to one of several Class 3 landfills located near Morro Bay. The closest is the Cold Canyon Landfill, shown on Figure 3, which is located approximately 23 miles away from the WWTP. Hazardous waste materials would need to be hauled to a Class 1 or Class 2 landfill such as the Kettleman Hills Waste Management Facility in Kettleman, California, which is approximately 80 miles away from the project site.



Figure 3. Construction and Hazardous Waste Haul Routes

### 4.4 Restoration

At this point, the site will have treatment facilities and equipment removed from the site. The removal of all underground utilities and structures will likely require the import of fill to bring the site to a flat and level grade. Once the site is brought up to grade, and the surface is level and graded with natural drainage, a thin layer of crushed rock will be placed on the site.

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The City intends to keep the perimeter fence on the site to protect the facilities that will stay in place (Outfall structure). The existing fence is a chain link with privacy slats. There are two driveways with gates that enter the site, as seen in Figure 4: One on the North side of the site on Atascadero Road (Gate/Driveway 1); another on the West side of the Site adjacent to the Administration Building (Gate/Driveway 2). The driveways and gates will remain in place to provide secure access to the Site.

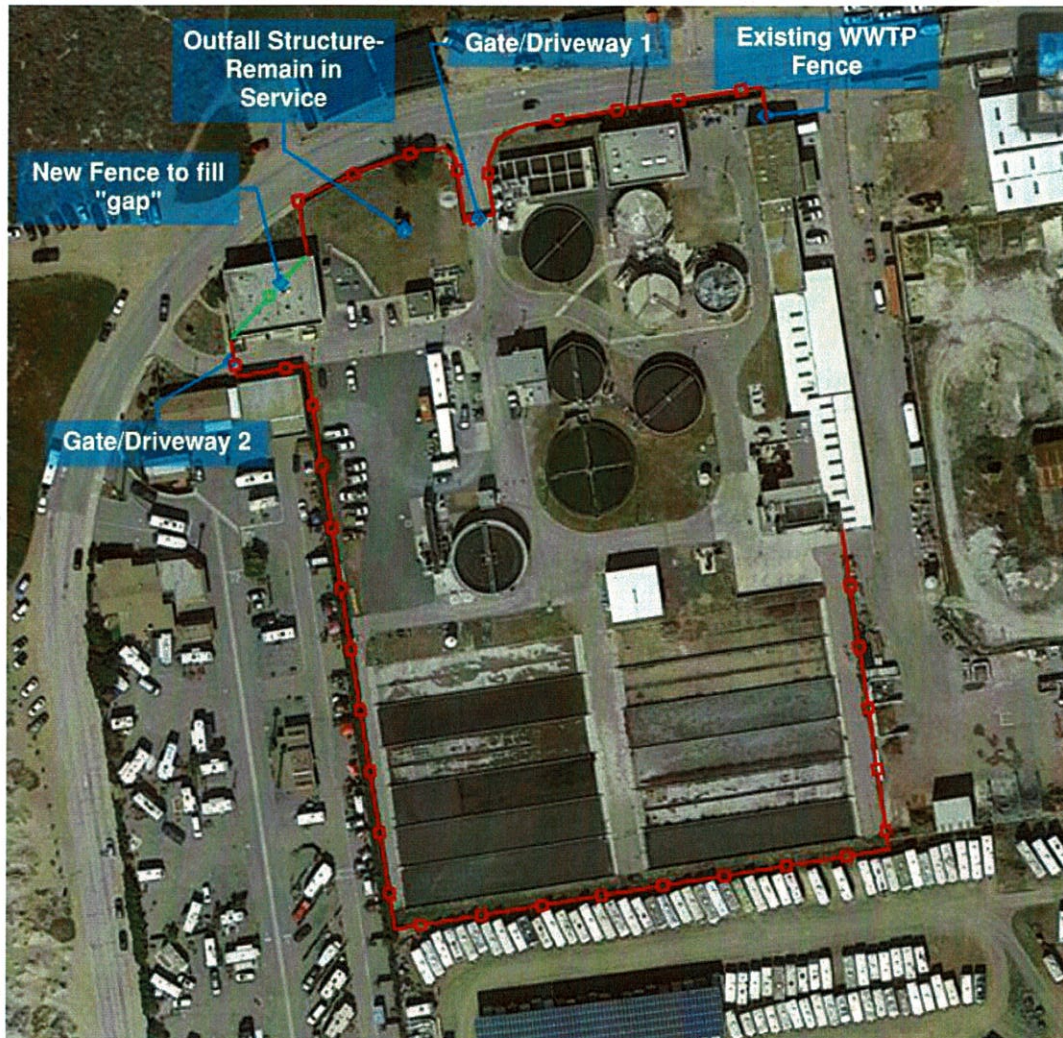


Figure 4. Site Plan/Security

There will be a "gap" in the existing fence if the administration building is demolished. The fence will be continued and the "gap" will be closed with the same style of fencing. As mentioned earlier, the City is working with CCC staff on the potential retention of select buildings. If the CDP is amended and the Administration Building is retained, there will be no need to fill the "gap" here. The East side of the Site also has a "gap" in the fence but it is secured with the existing City Corporation Yard.



#### 4.5 Regulatory Environment

The decommissioning will proceed in compliance with several key regulatory requirements of State, Local and Federal Agencies having jurisdiction over the decommissioning, demolition and site restoration work proposed in this Plan.

Permitting of the decommissioning work will be incorporated in with the City's overall WRF project-A complete list of all the permitting and regulatory requirements are listed in the EIR. Prior to demolition, a Phase 1 ESA will be performed to better define the presence of hazardous materials and contamination that supports the findings in the EIR. The results of the Phase 1 ESA and associated mitigation requirements for any identified contaminants will be included in the Special Condition 2 - Construction Plan, which will be submitted to Coastal Commission Staff for approval prior to initiating WTP Removal and Restoration construction activities.

#### 4.6 Decommissioning Process Summary

The existing plant will continue in operation until the new WRF is in full operation and the collection system is no longer delivering flow to the existing WWTP. At that time, the decommissioning process can begin, and the following steps are anticipated:

1. Flow to the existing WWTP has ceased and the liquid treatment train is taken out of service. Liquid train basins and process units can be pumped down, cleaned and demolition can begin. Liquid from the cleaning process can be pumped to the new Pump Station A or treated onsite.
2. The digesters and sludge drying beds stay in service initially until the remaining sludge has been processed through and meets the stabilization and dewatering requirements of the current NPDES permit at which point it can be transported offsite for disposal.
3. Once emptied of sludge, the digesters and drying beds can be cleaned and demolition can begin. Liquid from the cleaning process can be pumped to the new Pump Station A or treated onsite.
4. Complete demolition and removal of all structures from the site is to be performed. The disposition of construction materials and equipment (reuse, salvage or disposal) shall be as per the demolition construction plans. Facilities associated with the household hazardous waste program will be removed by IWMA.
5. Facilities identified, which are to be part of the new treatment system such as the connection point for the new land outfall to the existing ocean outfall, shall be protected and upgraded as necessary.
6. Structures and equipment are to be completely removed (above and below grade) along with all buried yard-piping. Trenches and excavations left behind from the demolition work are to be backfilled and compacted with clean fill and brought up to grade.
7. Disposal of hazardous waste and remediation of contaminated soils are to be performed in accordance with the requirements of the EIR for any hazardous waste and contamination detected during the Phase I ESA or found during the demolition process.
8. Upon completion of the demolition work and upgrades performed on facilities which are to remain, the site is to be graded to fit the basic drainage pattern of the surrounding topography and is to be surfaced with a thin layer of crushed rock or gravel.

Upon completion of the above steps, the decommissioning task should be finalized and the site should be left in a condition from which the work associated with the future use for the site can begin.

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