



## TULARE IRRIGATION DISTRICT

6826 Avenue 240 ■ Tulare, CA 93274

Phone Number: (559) 686-3425

Fax Number: (559) 686-3673

# NOTICE OF PREPARATION AND SCOPING MEETING(S) NOTICE

**FROM:** Tulare Irrigation District  
6826 Avenue 240  
Tulare, CA 93274

**TO:** Interested Agencies, Organizations, and Individuals

**DATE:** October 2, 2020

**SUBJECT: Notice of Preparation of a Draft Environmental Impact Report**

The Tulare Irrigation District (TID), as the Lead Agency under the California Environmental Quality Act (CEQA), will be coordinating the preparation of an Environmental Impact Report (EIR) for the proposed McKay Point Reservoir Project. The Proposed Project is located on approximately 500 acres adjacent to the Lower Kaweah River and St. Johns River. TID is requesting identification of environmental issues and information that you or your organization believes should be considered in the EIR.

**Project Title:** McKay Point Reservoir Project

**Project Applicant:** Project joint owners – Tulare Irrigation District (TID), the Consolidated Peoples Ditch Company (CPDC), and the Visalia and Kaweah Water Company (VKWC).

**Assessor's Parcel Number(s):** The Project site is comprised of portions of the following Assessor's Parcel Numbers (APN's): 113-070-016-000, 113-080-005-000, 113-080-008-000, 113-090-001-000, 113-100-002-000.

**Project Location:** Located in Tulare County, California, the Project site lies between and to the south of both Lake Kaweah (2.5 miles northeast of the site) and Bravo Lake (1.5 miles northwest of the site); 1.0 miles northwest of the community of Lemon Cove; and 2.5 miles southeast of the community of Woodlake (Figure 1). The Project site is located approximately 1.0 mile west-southwest of the intersection of State Highways 216 and 198, in Sections 3 and 4, Township 18 South, Range 27 East, Mount Diablo Base and Meridian.

The surrounding land uses in the Project area are mining, agricultural, and residential. The adjacent lands to the north, northeast, southwest and west are currently being used for aggregate mining operations, and the areas south and east of the Project site are used intensively for agricultural and, to a limited extent, for rural residential purposes.

**Project Background:** TID is a public agency organized and existing pursuant to Division 11 of the California Water Code. CPDC and VKWC are mutual water companies organized and existing pursuant to Division 3 of the California Corporations Code. The Project Owners are all members of the Kaweah and St. Johns Waters Association (Association), which oversees the surface water rights and diversion operations on the Kaweah River. VKWC is also a mutual water company formed under Section 200 of the California Corporations Code. Together they are the Owners of the Project.

**Project Summary:** The Owners propose to develop approximately 200 acres within the 500-acre McKay Point property into a surface water storage and re-regulation reservoir (the Proposed Project). The reservoir would be located on the north side of the divergence of the Lower Kaweah River and St. Johns River.

The Project would consist of the following phases: excavation of the site for the reservoir; construction of the reservoir; and operation of the reservoir. The Owners would contract with West Coast Sand and Gravel (WCSG) to excavate the site to allow for the construction of the reservoir. After the excavation and construction of the reservoir, the McKay Point Reservoir would be used as a surface water storage / re-regulation reservoir. The reservoir would also be used to optimize groundwater recharge within the Owners service areas (Figure 2).

Discretionary approvals would be required for the Project; therefore, the Project is subject to CEQA. TID is the Project Applicant on behalf of the Owners and is the CEQA Lead Agency.

The Owners' objectives in proposing the Project include the following:

- Capturing and re-regulating water made available to the Owners during flood releases from Lake Kaweah.
- Capturing and re-regulating water entitlements belonging to the Owners released from Lake Kaweah.
- Capturing and re-regulating water released for the Owners during peak power enhancement flows from the Terminus Hydropower Plant (Lake Kaweah).
- Capturing and re-regulating any other water sources on the Kaweah River that may be made available to the Owners.
- Allowing other entities with water rights on the Kaweah River to capture and/or re-regulate flows when designated by the Owners.
- Allowing other entities to capture and/or re-regulate flows of the Lower Kaweah River and St. Johns River for purposes of storm water runoff and flood prevention with permission of the Owners and Kaweah/St. Johns water rights interests.

- Constructing the reservoir in such a way that revenue can be obtained to offset the construction and development costs.
- Locating the reservoir adjacent to the Kaweah River to allow for off-stream access to surface water storage, thus minimizing the need for pipelines.

To accomplish these objectives, the Owners propose to construct and operate the Project to:

- Divert and receive water immediately upstream of the divergence of the Lower Kaweah River and St. Johns River, commonly referred to as McKay Point.
- Provide a water storage capacity of approximately 4,600 acre-feet.
- Deliver water back to either the Lower Kaweah River or the St. Johns River, as needed.
- Provide additional storage capacity for storm water layoff and flood prevention.
- Coordinate all such diversions and deliveries to and from the reservoir with the Kaweah Delta Conservation District and the Kaweah and St. Johns River Association.
- Contract with WCSG to excavate the site for the reservoir and process the excavated material into a marketable product (primarily construction grade aggregate). TID would receive revenue from the sale of the excavated material that could be used to offset the construction and development costs.

A detailed Project Description is attached to this NOP.

**Potential Environmental Effects:** An EIR will be prepared to evaluate the Proposed Project's environmental impacts and analyze Project alternatives. The topic areas anticipated to be analyzed in detail in the EIR include Air Quality, Greenhouse Gas Emissions, Health Risks, Biological Resources, Cultural Resources, Geology and Soil, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Tribal Cultural Resources, and Wildfire.

**Public Review Period:** October 2, 2020 and ends on November 2, 2020.

**Responses and Comments:** Please send your responses and comments by November 2, 2020 to the following address or email:

Maya Rohr  
Project Manager  
Sespe Consulting, Inc.  
3990 Old Town Avenue, Suite A203  
San Diego, CA 92110  
Phone: (805) 275-1515  
Email: [mrohr@sespe.com](mailto:mrohr@sespe.com)

**Scoping Meeting:** TID will hold two scoping meetings for the Proposed Project to receive comments on the scope and content of the EIR. In accordance with the Governor's Executive Order (N-29-20) and the declared State of Emergency, including social distancing directives as a result of the COVID-19 virus, these Scoping Meetings will be held remotely. There will not be a

physical location for these meetings. Members of the public may participate in the Scoping Meetings remotely via the scheduled dates, times, and following options. The scoping meeting is scheduled as follows:

**Scoping Meeting 1**

**Date:** October 15, 2020  
**Time:** 5:30 p.m. – 8:30 p.m.  
**Place:** Online (WebEx)  
**WebEx Link:** <https://bit.ly/343WV9a>  
**Meeting Number:** 126 477 3382  
**Meeting Password:** McKay (62529 for phone systems)  
**Video Link:** [1264773382@webex.com](https://1264773382.webex.com)  
**Video Number:** 173.243.2.68 (enter meeting number)  
**Phone Number:** +1-415-655-0001 (enter meeting number)  
**Access Code:** 126 477 3382

**Scoping Meeting 2**

**Date:** October 16, 2020  
**Time:** 9:00 a.m. – 12:00 p.m.  
**Place:** Online (WebEx)  
**WebEx Link:** <https://bit.ly/3kUUUmr>  
**Meeting Number:** 126 662 8580  
**Meeting Password:** McKay (62529 for phone systems)  
**Video Link:** [1266628580@webex.com](https://1266628580.webex.com)  
**Video Number:** 173.243.2.68 (enter meeting number)  
**Phone Number:** +1-415-655-0001 (enter meeting number)  
**Access Code:** 126 662 8580

**Agencies:** In accordance with California Code Regulations, Title 14, Section 15082 (b), the TID requests your agency's view on the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the Proposed Project. Your agency may need to use the EIR prepared by the TID when considering any permits that your agency must issue, or other approvals for the Proposed Project.

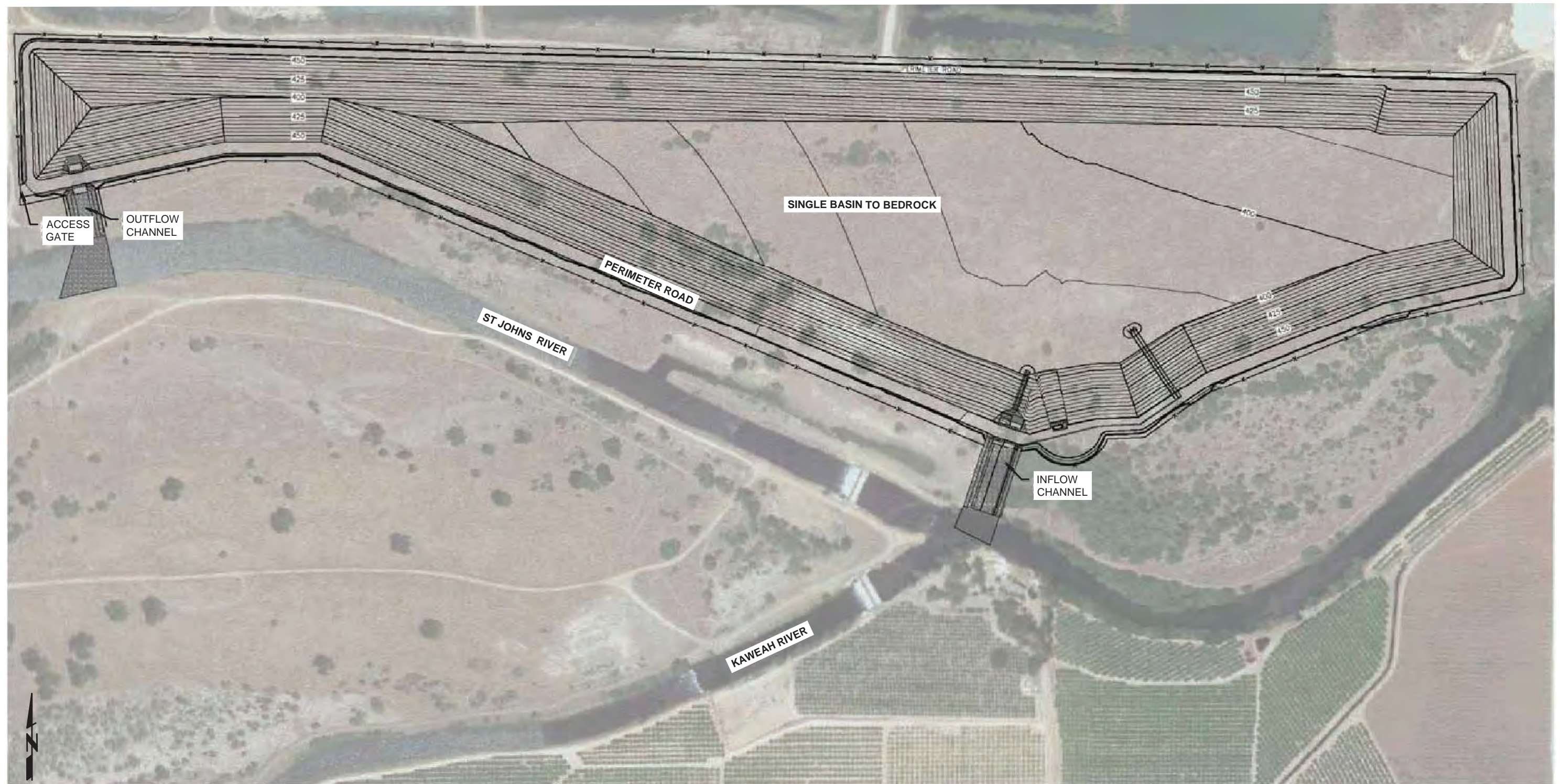
If you have additional information please contact Maya Rohr, Project Manager, at (805) 275-1515 or via email at [mrohr@sespe.com](mailto:mrohr@sespe.com).

**Document Availability:** This Notice of Preparation can be viewed on the TID website at: <https://tulareid.org/engineering-capital-projects>. The notice is also posted in the outside noticing box located in front of the Tulare Irrigation District office at the following address: 6826 Avenue 240 – Tulare, CA 93274.

If you have additional information please contact Maya Rohr, Project Manager, at (805) 275-1515 or via email at [mrohr@sespe.com](mailto:mrohr@sespe.com).

## FIGURES





SOURCE MATERIAL FROM:  
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CONSULTING, INC.

374 Poli Street, Suite 200 • Ventura, CA 93001  
(805) 275-1515 • [www.sespeconsulting.com](http://www.sespeconsulting.com)

**McKAY POINT RESERVOIR  
FINAL RESERVOIR  
SITE PLAN**

SCALE: HORIZ. AS SHOWN VERT. AS SHOWN	FIGURE NUMBER <b>2</b>
DRAWN BY: G. CAMUS	DATE: JULY 2020
CHECKED BY: GS	

## PROJECT DESCRIPTION

**1.0 PROJECT DESCRIPTION****1.1 Project Overview**

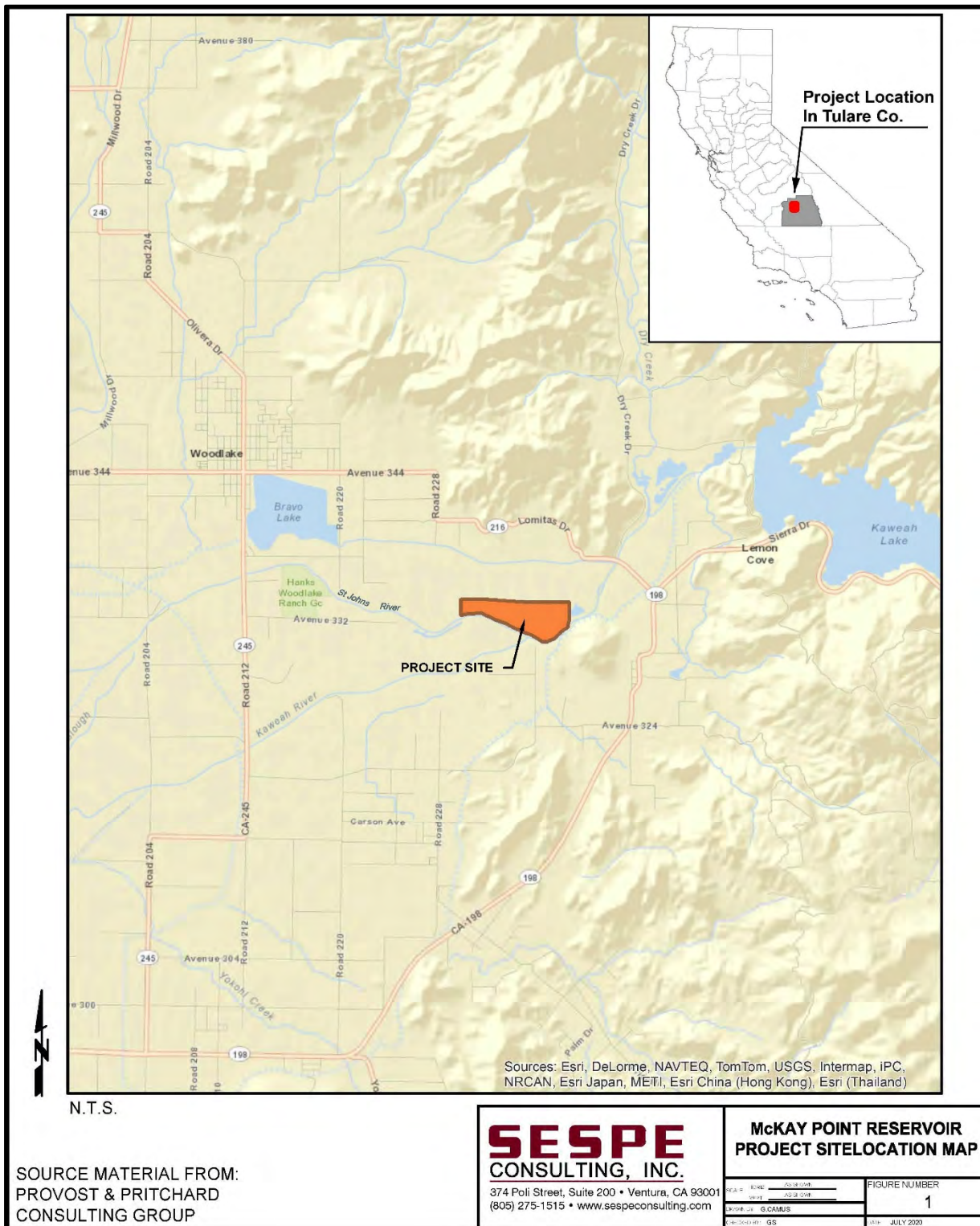
Tulare Irrigation District (TID), the Consolidated Peoples Ditch Company (CPDC) and the Visalia and Kaweah Water Company (VKWC) are the Owners of approximately 500 acres of land adjacent to the Lower Kaweah River and St. Johns River in Tulare County, California, referred to as the McKay Point property. Together, the Owners are the holders of pre-1914 and post-1919 appropriative water rights on the Kaweah and/or the St. Johns Rivers, and they own storage capacity rights in Lake Kaweah formed by the impoundment of water behind the Terminus Dam.

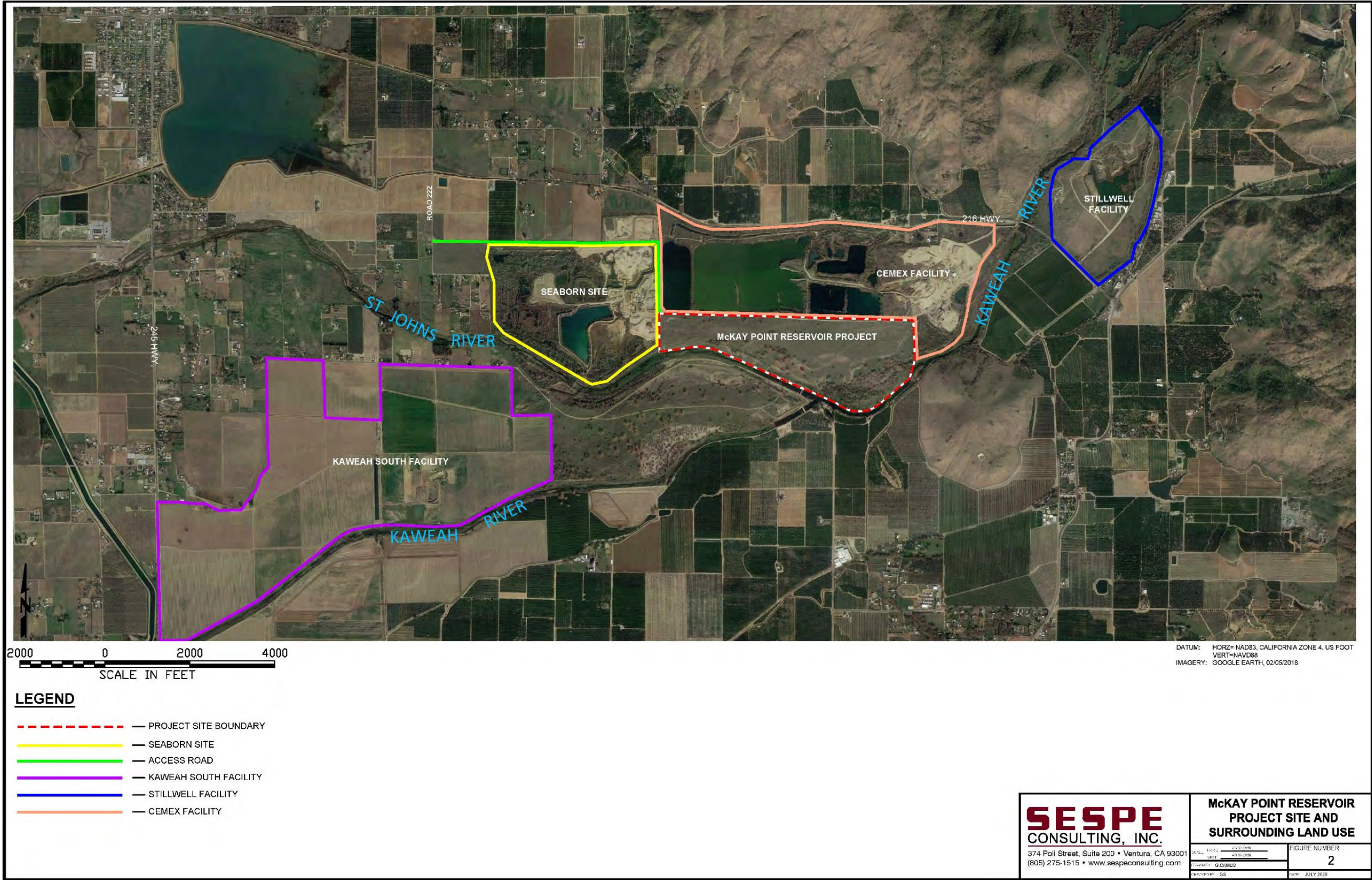
TID is a public agency organized and existing pursuant to Division 11 of the California Water Code. CPDC and VKWC are mutual water companies organized and existing pursuant to Division 3 of the California Corporations Code. The Owners are all members of the Kaweah and St. Johns Waters Association (Association), which oversees the surface water rights and diversion operations on the Kaweah and St. Johns River. VKWC is also a mutual water company formed under Section 200 of the California Corporations Code.

The Owners propose to develop approximately 200 acres within the 500-acre McKay Point property into a surface water storage and re-regulation reservoir (the proposed Project). The reservoir would be located on the north side of the divergence of the Lower Kaweah River and St. Johns River. The surrounding land uses are mining, agricultural, and residential (Figure 1 – Project Site Location Map, Figure 2 – Project Site and Surrounding Land Use).

The Project would consist of the following phases: excavation of the site for the reservoir; construction of the reservoir; and, operation of the reservoir. The Owners would contract with West Coast Sand and Gravel (WCSG) to excavate the site to allow for the construction of the reservoir. After the excavation and construction of the reservoir, the McKay Point Reservoir would be used as a surface water storage/re-regulation reservoir. The reservoir would also be used to optimize groundwater recharge within the Owners service areas.

Discretionary approvals would be required for the Project; therefore, the Project is subject to the California Environmental Quality Act (CEQA). TID is the Project Applicant on behalf of the Owners and is the CEQA Lead Agency.





## 1.2 Project Objectives

The Owners' objectives in proposing the Project include the following:

- Capturing and re-regulating water made available to the Owners during flood releases from Lake Kaweah.
- Capturing and re-regulating water entitlements belonging to the Owners released from Lake Kaweah.
- Capturing and re-regulating water released for the Owners during peak power enhancement flows from the Terminus Hydropower Plant (Lake Kaweah).
- Capturing and re-regulating any other water sources on the Kaweah River that may be made available to the Owners.
- Allowing other entities with water rights on the Kaweah River to capture and/or re-regulate flows when designated by the Owners.
- Allowing other entities to capture and/or re-regulate flows of the Lower Kaweah River and St. Johns River for purposes of storm water runoff and flood prevention with permission of the Owners and Kaweah/St. Johns water rights interests.
- Constructing the reservoir in such a way that revenue can be obtained to offset the construction and development costs.
- Locating the reservoir adjacent to the Kaweah River to allow for off-stream access to surface water storage, thus minimizing the need for pipelines.

To accomplish these objectives, the Owners propose to construct and operate the Project to:

- Divert and receive water immediately upstream of the divergence of the Lower Kaweah River and St. Johns River, commonly referred to as McKay Point.
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- Deliver water back to either the Lower Kaweah River or the St. Johns River, as needed.
- Provide additional storage capacity for storm water layoff and flood prevention.
- Coordinate all such diversions and deliveries to and from the reservoir with the Kaweah Delta Conservation District and the Kaweah and St. Johns River Association.
- Contract with WCSG to excavate the site for the reservoir and process the excavated material into a marketable product (primarily construction grade aggregate). TID would receive revenue from the sale of the excavated material that could be used to offset the construction and development costs.

### **1.3 Environmental Setting**

#### **1.3.1 Regional Setting**

The Project site is located near the western boundary in the low foothills of the Sierra Nevada Geomorphic Province of California. The southern San Joaquin Valley bounds this part of the Sierra Nevada to the west and the Great Basin to the east. The Project site is drained by the Kaweah River, which drains to the ephemeral Tulare Lake in the southern end of the San Joaquin Valley, and by the St. Johns River, which becomes Cross Creek, before draining into the Tulare Lake bottom near Corcoran.

The *Foothill Growth Management Plan Element* of the *Tulare County General Plan* describes the area climate as typical of the foothill region, with cool rainy winters having a mean daily temperature ranging from 40° to 50° F and hot dry summers where daytime temperatures can exceed 100° F.

During the summer months, a high-pressure system off the west coast of California prevents precipitation from occurring in the foothills. During the winter, this high-pressure system is intermittent, allowing Pacific storms to bring rainfall to the foothills. Rainfall increases with elevation in the foothills and ranges from approximately 10 inches at the base to 25 inches at 3,000 feet. Most of this precipitation occurs between November and April.

During daytime there is a dominant southeasterly wind flow pattern towards the Tehachapi Mountains. At night, this flow is reversed by winds that flow from the Sierra mountain and foothill canyons.

Biological resources in the region have been modified by past and present land uses. Prior to human settlement, this region was dominated by riparian vegetation within the floodplains, with stands of valley oak and interior live oak on higher ground. Herbaceous wetland bottoms and upland native grassland communities were common in this vegetation mosaic. The extensive oak forests and riparian/wetland habitats hosted a diverse and abundant wildlife community. Cattle grazing and deforestation of the oaks in the early- to mid-1800s for agriculture substantially altered both the floodplain and channel vegetation.

Currently in the foothills, the vegetation ranges from annual grasses in open areas to dense shrubs and trees. Much of the native vegetation in the area has been replaced by introduced species or has been eliminated by cultivation and overgrazing. Agriculture is currently the main land use in the region, although narrow strips of riparian vegetation grow along remnant tributaries.

#### **1.3.2 Project Site Setting**

Historically, the Project site has been used for cattle grazing under lease arrangements. The CEMEX Lemon Cove aggregate facility is immediately to the north, and their Stillwell Aggregate Mine is approximately 1.0 miles to the northeast of the Project site. The Kaweah River Rock aggregate mining and processing facility is located immediately to the west on the Seaborn site, and the Kaweah South Project lies approximately 1.0 miles to the southwest of the Project site (Figure 2 – Project Site and Surrounding Land Use). These figures illustrate how adjacent lands to the north, northeast, southwest, and west are currently being used for aggregate mining operations, and the areas south and east of the Project site are used for agricultural and, to a limited extent, for rural residential purposes.

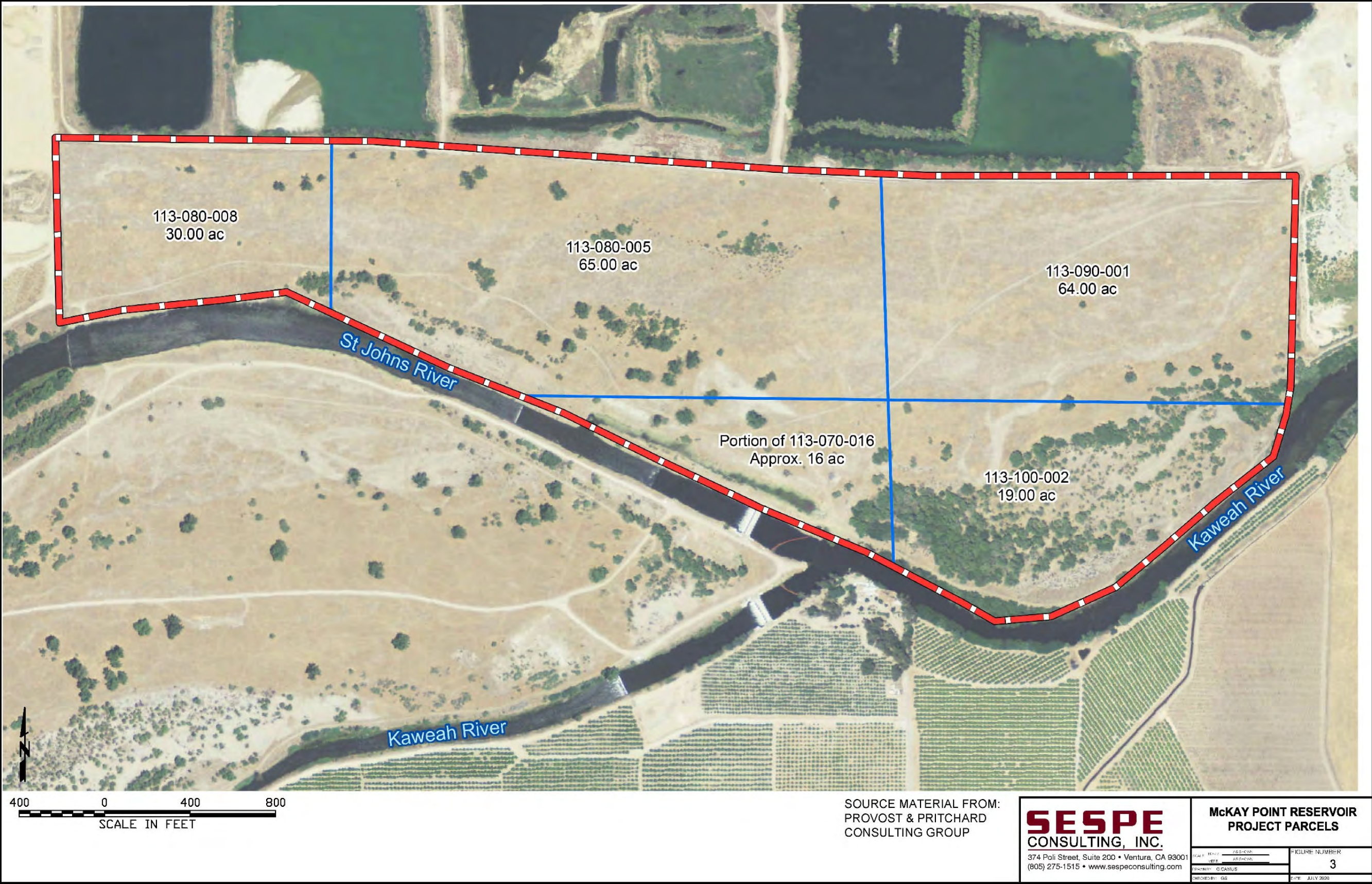
Most of the Project site is vegetated with non-native grasses except for a small portion of ground along the adjacent Kaweah River above McKay Point, which is vegetated by native trees and shrubs. The surface soil at the Project site primarily consists of loose, medium-grained sand with occasional gravel and cobbles. Grasses and trees are present and these increase in density with proximity to the nearby rivers. The Project site topography is relatively level with a depression in the southeast corner. Site surface drainage is generally to the south and southeast toward the Kaweah River and generally to the south and southwest toward the St. Johns River. The Project site elevation decreases from approximately 472-feet above mean sea level (amsl) on the northeastern end of the property, to approximately 454-feet amsl on the southwestern end.

The long-term water-level measurements for wells in the area indicate a stability of groundwater levels, except for temporary declines during drought periods. Test borings within the Project site indicate depth to groundwater ranges from 20- to 7-feet below ground surface (bgs), with corresponding groundwater level elevations ranging from 438- to 459-feet amsl.

Table 1 lists the Assessor's Parcels occupied by the Project site and provides the parcel size, Tulare County General Plan Designation, Zoning, and Mineral Resources designation for each assessor's parcel numbers (APN). Figure 3 – Project Parcels identifies where the parcels are located on the Project site.

**Table 1 Assessor's Parcel Numbers, General Plan, Zoning and Mineral Resources**

APN	APN Acres	Tulare County General Plan Land Use Designation	Zoning	Mineral Resources
113-070-016-000 (portion)	16.00	Rural Valley Lands Plan, Valley Agricultural	AE-20	Aggregate Resource Area
113-080-005-000	65.00	Rural Valley Lands Plan, Valley Agricultural	AE-20	Aggregate Resource Area
113-080-008-000	30.00	Rural Valley Lands Plan, Valley Agricultural	AE-20	Aggregate Resource Area
113-090-001-000	64.00	Rural Valley Lands Plan, Valley Agricultural	AE-20	Aggregate Resource Area
113-100-002-000	19.00	Rural Valley Lands Plan, Valley Agricultural	AE-20	Aggregate Resource Area



## **1.4 Regulatory Setting**

TID is the Lead Agency for purposes of administering the requirements of the CEQA, and for preparing the Project EIR. TID is also the Project Applicant on behalf of the Owners. The County is a Responsible Agency under CEQA.

Because WCSG would process material taken from the Project site during excavation of the reservoir as a marketable product (construction grade aggregate), TID would be required to comply with the Surface Mining and Reclamation Act (SMARA) and obtain the County's approval of a Surface Mining Permit, Reclamation Plan, and Financial Assurance Cost Estimate. The Tulare County Code and Zoning Ordinance states that a Special Use Permit would not be required in addition to the surface mining permit.

## **1.5 Reservoir Operations**

### **1.5.1 Overview**

The Owners would utilize the reservoir and its facilities to manage their surface water supplies to increase the long-term availability of irrigation supplies, groundwater recharge supplies, and power enhancement via water re-regulation. As a result, the Project would provide multiple benefits, including:

- Flow re-regulation for better surface water utilization.
- New water yield for irrigation purposes by capturing damaging and unutilized floodwater and returning it to the rivers to be used by water users served by the Owners or other Association Units. This includes the ability to increase groundwater recharge efforts.
- Flood control by capturing and temporarily holding damaging floodwater at times when downstream interests, including the City of Visalia, may otherwise see damaging flood flows.
- Seasonal flow re-regulation for increased hydroelectric power generation and revenue production by extending the power generation season.
- Optimize the capture of water released during peak power enhancement flows from the Terminus Hydropower Plant (at Lake Kaweah) for later release when needed downstream.

#### **1.5.1.1 McKay Point Check Structures**

The existing McKay Point Check Structures include the water control facilities owned and operated by the Kaweah Delta Water Conservation District and the Kaweah and St. Johns Rivers Association. The structures consist of two check structures, one on the St. Johns River and one on the Lower Kaweah River, each with nine automated gates. The structures can be operated such that the gates on the St. Johns River side can be raised, therefore shunting more flows down the Lower Kaweah River. Because CPDC, VKWC, and TID hold many of the rights to the waters of the Kaweah River system, water released from the reservoir and shunted into the Lower Kaweah River in this manner would serve CPDC and VKWC customer needs, as well as TID customer needs if necessary.

In a similar manner, the McKay Point Check Structures can be operated such that the gates on the Kaweah River side can be raised, therefore shunting more flows down the St. Johns River. Because TID holds rights to waters of the St. Johns River, water released via the outflow channel would serve TID customer needs.

#### **1.5.1.2 Inflow Channel Management**

The inflow and outflow channels would be constructed perpendicular to the Lower Kaweah River and St. Johns River (Figure 4 – Final Reservoir Site Plan). The inflow channel would provide flow into the reservoir via a reinforced concrete control structure. The control structure would include an approach apron, reinforced concrete floor, a flow/level control gate, walls, and a deck on top of the structure. The bottom of the river channel and the banks of the inflow channel would be rip-rapped to prevent erosion.

To receive river water into the reservoir, the electrically operated weir on the inflow channel would be lowered. The water level in the Kaweah River can also be raised at the same time, by raising the gates at the McKay Point Check Structures. Water would flow by gravity into the reservoir up to a maximum flow rate of 500 cubic feet per second (cfs) via the inflow channel. Upon achieving water level equilibrium between reservoir and river, the electrically operated weir would be raised. As the level of the river recedes, either by the passing of the flood peak, or by lowering the gates on the McKay Point Check Structures, the electrically operated weir would serve to hold water in the reservoir.

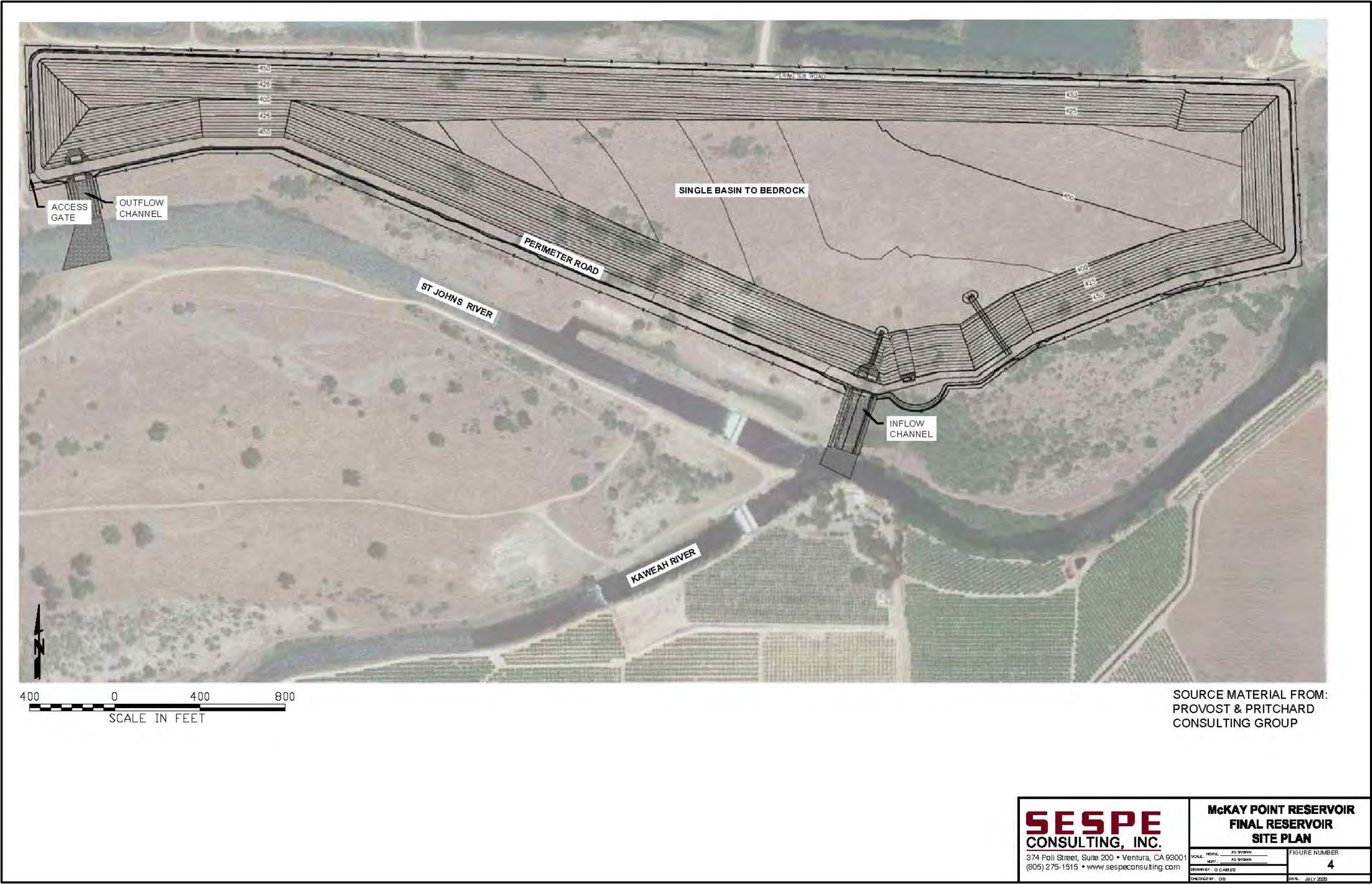
#### **1.5.1.3 Outflow Channel Management**

##### **1.5.1.3.1 Gravity-Flow Water Delivery into the St. Johns River and Kaweah River**

When the St. Johns River water level is lower than that of the reservoir, lowering the electrically operated weir on the outflow channel would deliver water by gravity flow into the St. Johns River up to a maximum flow capacity of 900 cfs. The average flow rate of return would approximate 125 to 150 cfs because the flow rate would reduce gradually to zero as the level of the reservoir approaches the level of the outflow channel.

When the Kaweah River water level is lower than that of the reservoir, lowering the electrically operated weir on the inflow channel would deliver water by gravity flow into the Kaweah River at a flow capacity of 500 cfs. This would be done in concert with the raising of the St. Johns River control structure, since the inflow channel is upstream of the divergence of the St. Johns River from the Kaweah River. The average flow rate of return would approximate 125 to 150 cfs because the flow rate would reduce gradually to zero as the level of the reservoir approached the level of the inflow channel.

The outflow channel would provide flow out of the reservoir via a reinforced concrete control structure. The control structure would include a reinforced concrete floor, flow/level control gate, walls, and a deck on top of the structure. The bottom of the river channel and the banks of the Outflow Channel would be rip-rapped to prevent erosion.



The inflow channel could also be used in reverse as an outflow facility to deliver releases to the Kaweah River. When the Kaweah River water level is lower than that of the reservoir, lowering the electrically operated weir on the inflow channel would deliver water by gravity flow into the Kaweah River at a flow capacity of 500 cfs. The average flow rate of return would be approximately 125 to 150 cfs because the flow rate would reduce gradually to zero as the level of the reservoir approached the level of the inflow channel.

Water delivery in this manner is limited by the amount of water being stored at a level higher than that of the inflow channel (i.e., approximately 15-feet of additional storage). Once the level of the reservoir falls below that of the inflow channel, the floating barge pump and its related piping would be used as described below.

#### **1.5.1.3.2 Pumped Water Delivery into the St. Johns River or Lower Kaweah River**

To release water to the St. Johns River or the Lower Kaweah River when the river water levels are higher than that of the reservoir, and the reservoir is lower than the Inflow or outflow channels, the water would be pumped from the reservoir, via an electrical pump, and discharged into the Kaweah River, upstream of the McKay Point Check Structures. The pump, or series of pumps, would have an approximate maximum flow rate of 160 cfs. When this is done, the McKay Point Check Structures would be operated to direct flow into the St. Johns River or the Lower Kaweah River.

#### **1.5.1.4 Supervisory Control and Data Acquisition**

Supervisory Control and Data Acquisition (SCADA) equipment would be used to:

- Monitor Reservoir and river levels;
- Monitor and operate the inflow channel, outflow channel, and floating barge pump; and
- Monitor and coordinate with the automated gates of the McKay Point Check Structures with the Kaweah Delta Water Conservation District and the Kaweah and St. Johns River Association.

SCADA equipment would permit remote monitoring, control, and operations by TID operators from TID's offsite office. In addition, TID operators would have the ability to set the control gates in either a condition of flow control or level control. In flow or level control, the gates would autonomously operate to maintain a desired flow, or a desired elevation, respectively, in the river channels.

#### **1.5.1.5 Flood Control/Storm Water Management During Operations**

The Project's water turnout facilities would allow the diversion of up to 500 cfs. With 4,600 acre-feet of total capacity, the reservoir could go from empty to full in just 5 days. This relatively short time span coincides with most of the local peak rain/flood events. The local peak rain/flood events are also of relatively short duration, with much of the flood water coming from the uncontrolled Dry Creek, which enters Kaweah River midway between the Project site and the Terminus Dam Reservoir (a distance of approximately 1.1 miles upstream from the Project site). The ability to capture 500 cfs of floodwater is significant, considering that such a flow might otherwise impact the levees protecting the City of Visalia.

#### **1.5.1.6 Distribution of Stored Water/Reduced Energy Use and Greenhouse Gases**

Although there would be no hydroelectric power generation at the Project site, the Project would have the ability to re-regulate releases made from Lake Kaweah. This would allow the Terminus Hydropower Plant outlets to produce more peak period power and some ability to generate more energy overall. The Kaweah River Power Authority is engaged in the planning and design for another hydropower unit at Terminus Dam. Such an additional generator adds to the potential for the Project to be useful to optimize energy generation.

If requested, the Project would be able to increase the instantaneous flow rate through the Terminus Hydropower Plant hydroelectric generators in order to release more water than is needed by downstream interests. For example, during on-peak power generation periods from noon to 6:00 p.m., releases from Lake Kaweah can be increased, thereby enhancing the ability to meet peak power generation demands and the generation of additional revenues. Releases from Lake Kaweah would then be reduced during off-peak hours and make-up irrigation deliveries would be made out of captured water within the Project. The ability to re-regulate flows in an "after-bay" facility associated with, and downstream of, the Terminus Hydropower Plant could provide a constant and consistent flow to downstream interests. One of the benefits of the Project is that the reservoir would have the ability to provide such an "after-bay" function.

The Project also serves to extend the generation season by allowing the releases from Lake Kaweah through the hydroelectric generators to be made during a shorter period of time, but at higher flow rates. This would allow the hydroelectric generators to function when they would otherwise be shut off because they do not have enough flow through them to operate.

The Kaweah River Power Authority (an entity comprised of the Kaweah Delta Water Conservation District and TID) owns the hydroelectric generation facilities at Terminus Dam on Lake Kaweah. It is envisioned that agreements would be developed to compensate the Owners for the power generation and revenue enhancement created by the Project. Any additional kilowatt-hours of energy generated, including that during on-peak hours, would aid in reducing greenhouse gas emissions from alternative traditional power sources.

#### **1.5.1.7 Re-regulation for More Efficient Water Utilization**

When flood control releases are required from Lake Kaweah, or when Dry Creek or Yokohl Creek are running, water must be diverted to groundwater recharge basins or otherwise disposed. This is because there is reduced irrigation demand from the Owners' water users during periods of heavy rainfall. The Project would allow flood releases to be diverted and stored temporarily until the demand for irrigation water resumes or groundwater recharge facilities located downstream have capacity to receive more surface water. When diverted and stored, such water would be sold/delivered directly to irrigation users, thereby saving the significant amount of energy otherwise consumed through groundwater recharge and subsequent recovery.

#### **1.5.1.8 New Yield**

The Project would have the ability to capture some of this floodwater, and it would be held in the reservoir until it can be safely returned to the Lower Kaweah River and St. Johns River for direct use or recharge. The reservoir could fill and empty multiple times during wet years when there is sufficient dry time to safely,

effectively and beneficially return the water to the Lower Kaweah River and St. Johns River. Through this floodwater recapture it is estimated the Project could provide approximately 4,600 acre-feet per year of new yield.

#### **1.5.1.9 Water Management within the Excavation/Completed Reservoir**

During long-term operations as a water management facility, it is intended that the reservoir remain relatively empty and void of local groundwater in order to provide maximum space to receive Kaweah River water as directed by the Owners. A slurry wall installed around the reservoir, is intended to minimize the groundwater inflows to approximately 500 gallons per minute (gpm). This would serve to keep the reservoir in a near dry condition when not being used for storage. If needed, de-watering would be conducted to maintain dry conditions. Seepage into the excavation would be captured at a designated location within the reservoir, and would then promptly be placed back into the aquifer via an infiltration gallery consisting of onsite ditches that could be covered with granular materials to minimize evaporation.

#### **1.5.1.10 Operational Control**

During Project operations and management, the Owners would have daily control over the reservoir and related facilities, which include the use of the SCADA equipment to monitor and control the facility remotely. TID staff would also perform routine onsite inspections to ensure the reservoir is operating properly.

#### **1.5.1.11 Traffic During Operations**

The routine operation of the Project would be conducted from TID's offsite office; therefore, the number of employees routinely driving to the site would be minimal. Operation and maintenance of the Project would generate only nominal traffic primarily associated with maintenance operations.

#### **1.5.1.12 Mobile Equipment Used During Operations**

During the operations and maintenance of the reservoir, there would be limited equipment usage, but equipment could be needed to perform minor grading of the access road and to remove any debris that collects in the bottom of the reservoir. The following equipment would be used annually for a singular maintenance operation:

- Grader
- Loader
- Diesel Aboveground Storage Tank (AST)
- Dump Truck
- Generators

#### **1.5.1.13 Onsite Hazardous Materials During Operations**

A diesel AST (approximately 10,000 gallons), diesel generators, and a generator building near the inflow chute would be used during operations. The diesel generators would provide power to the floating pump station. The Owners are currently evaluating the cost-effectiveness of a direct power supply from a power company and other options for power. These activities would be done in compliance with the requirements of a Hazardous Materials Business Plan (HMBP), Storm Water Pollution Prevention Plan (SWPPP), Spill Prevention, Control, and Countermeasure (SPCC) Plan and with the hazardous waste generator and AST regulations as described in Chapter 4.10 of the EIR.

**1.5.1.14 Utilities During Operations**

Electrical power would be provided by Southern California Edison (SCE) from nearby power lines.

**1.5.1.15 Lighting During Operations**

Except for the security lighting, no nighttime lighting is proposed and/or required.

**1.5.1.16 Administration, Security, and Public Safety During Operations**

The perimeter of the reservoir site would be fenced and all facilities secured. Random and frequent visits from Owners staff would provide added security.

**1.6 Project Phases**

Prior to the operational phase of the Project, the site must be prepared. The preparation of the site includes the excavation of a pit with sufficient capacity to meet the Project needs for water storage. After the pit has been prepared, the reservoir would be constructed. Therefore, the Project would have the following three distinct phases: Reservoir Excavation, Reservoir Facility Construction, and Reservoir Operations. The operation of the McKay Point Reservoir is described above in Section 1.5. The following sections discuss the phases of the Project that are required to construct the reservoir.

**1.6.1 Reservoir Excavation**

In order to construct the reservoir, the site must be excavated to a depth and surface area that meet the Project's water storage capacity requirements. This would be done by WCSG. WCSG would likely begin the reservoir excavation in the western portion of the Project site and would progress eastward. The excavated area would result in an open pit with a surface area of approximately 110 acres and a depth of approximately 60 feet bgs. Final slopes are anticipated to be approximately 3:1, horizontal:vertical (h:v) in order to minimize any bank erosion from the wind and water. Because the excavated material would be taken offsite to be processed at the adjacent WCSG facility as a marketable product, the County considers the excavation of the Project site subject to SMARA requirements for surface mining. Therefore, all activities associated with the reservoir excavation would be conducted in accordance with SMARA requirements (Figure 4 – Final Reservoir Site Plan).

Overburden is the material located above the aggregate. Initial testing indicates that the overburden would be between 6- to 12-feet deep, comprised primarily of very sandy material (60 to 80 percent) in the top 20-feet. Below 20-feet, the material is comprised largely of gravel (40 percent) and sand (40 to 48 percent), and lesser amounts of silts and clays (12 to 20 percent).

Excavation is expected to proceed at an approximate rate of 920,000 gross tons per year but could vary based on market demand. The excavation and storage of aggregate would be coordinated with WCSG such that the historical maximum production rate of the processed aggregate by WCSG would not be exceeded. Once processed, approximately 70 percent of the excavated materials would be of marketable quality, which is referred to as net tons. This means a year's excavation of 920,000 gross tons would produce approximately 644,000 net tons of marketable construction-grade aggregate.

The gross volume calculations are based on the excavation of approximately 110 acres to a depth of 60-feet bgs at the deepest point of the reservoir. The gross volume of excavated material is estimated to be 9.3 million cubic yards, of which approximately 73,200 cubic yards of material would be used as fill in association with the construction of the perimeter road. Net of fill, the Project would excavate a gross volume of approximately 9.2 million cubic yards. At an assumed density of 1.5 tons per cubic yard, this equates to 13.8 million gross tons and 9.66 million net tons of excavated material as presented in Table 2 below. This volume of excavated material is derived by comparing final basin design with pre-excavated topography. Additional cut/fill volumes would be associated with reservoir facility construction in the form of backfill against the slurry wall to achieve 3:1 final slopes. Figure 4 shows the final reservoir site plan and contours. Table 2 provides a summary of the excavation.

**Table 2      Excavation Phase Summary**

<b>Gross Tons</b>	<b>Net Tons <sup>1</sup></b>	<b>Area (acres)</b>
13.8 million	9.66 million	110

<sup>1</sup> Net tons are the marketable construction-grade aggregate derived through processing. Net tons equate to approximately 70 percent of the gross tons processed.

#### **1.6.1.1      Disposition of Excavated Materials**

Approximately 70 percent of the excavated material is expected to be PCC-grade aggregate which can be used as aggregate and in aggregate-containing products, such as concrete and asphalt. Excavated materials would be transported by off-road trucks or a conveyor system to the adjacent Seaborn site where WCSG would process it into marketable Portland cement concrete (PCC)-grade construction materials. WCSG would also have the ability to bring a mobile processing plant onto the Project site.

Although the mining and processing activities at the Seaborn site are not part of this Project, the potential environmental impacts associated with the processing of the material excavated at the Project site in order to construct the reservoir would be considered indirect impacts.

Sand and gravel (aggregate) mining and processing activities have been conducted at the Seaborn site since the late 1940's. The WCSG production rate of the Project's excavated aggregate would not exceed the historical aggregate processing production rate (baseline) at the Seaborn site of an average of 500,000 tons per year (TPY) and a maximum of 650,000 TPY as achieved in 2005. Therefore, the number of on-road trucks transporting the material offsite on public roads to WCSG's customers would not result in an increase to the baseline number of trucks.

The overburden and excess fines resulting from the excavation of the reservoir would be stored on the Seaborn site such that the Project site could be excavated to maximum extent possible allowing for maximum water storage in the reservoir (Figure 5 – Project Site and WCSG Processing Facility). The remainder of the fines could be sold by WCSG as slurry used in nonstructural concrete or as miscellaneous fill material, as WCSG has done in the past with overburden and fines resulting from their mining activities.

**1.6.1.2 Water Use and Management During Reservoir Excavation**

Because the groundwater table on the Project site is at a depth of seven to 20 feet below the ground surface, water within the excavated areas would be dewatered to allow access to the excavation area by wheeled equipment. Pumped water would be stored or recirculated in ponds at the adjacent Seaborn site and/or recirculated in onsite infiltration galleries, consisting of ditches that could be covered with granular materials, where it would percolate back to groundwater. If needed, towards the end of the excavation, a slurry wall could be installed around the facility to keep the reservoir in a near dry condition. However, due to the nature of the clay material present at the site, alternatives to a slurry wall that keep the infiltration below 500 gpm may be considered.

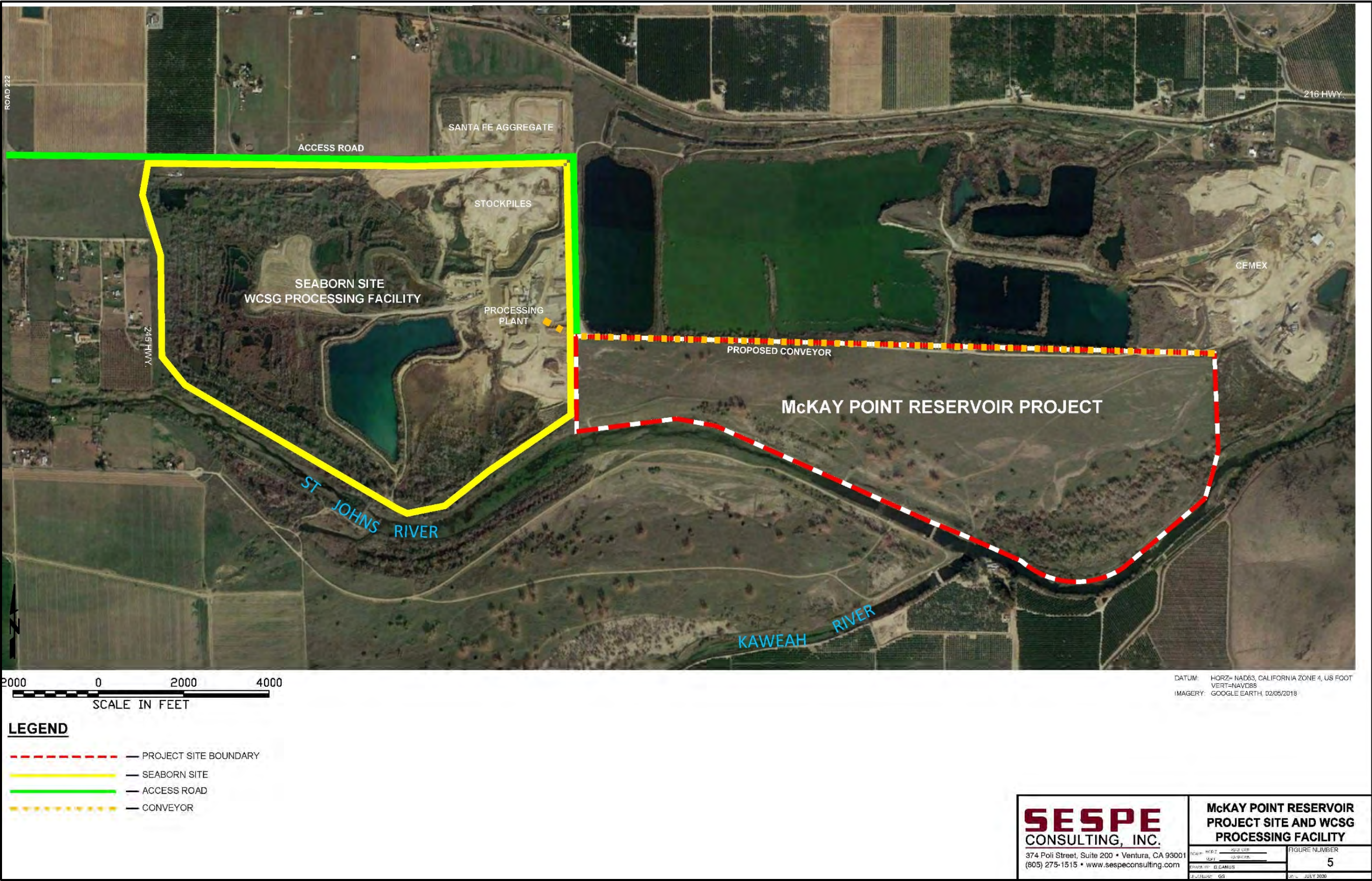
Water used at the Project site would primarily be to control fugitive dust and would be drawn from within the onsite excavation, or an adjacent pond on the Seaborn site, by pumps and applied by a water truck. Total water consumption during excavation activities would average 3.5 million gallons per year (i.e., approximately 11 acre-feet per year). The amount used daily would vary, depending on season, wind and soil conditions.

**1.6.1.3 Days and Hours of Operation and Employment During Reservoir Excavation**

Approximately 7 to 12 employees would be required during the excavation of the reservoir site. Excavation would occur between 4:00 a.m. (or dawn if later) and 6:00 p.m., Monday through Saturday, and continue until the desired depth and extent of excavation achieves reservoir design.

**1.6.1.4 Traffic During Reservoir Excavation**

Excavated materials would either be transported to the adjacent Seaborn site by off-road haul trucks or by a conveyor system. There would be no use of public roads. Once the aggregate is at the WCSG processing plant on the Seaborn site it would be processed in accordance with the regulatory requirements that apply to the Seaborn site and WCSG operations (i.e., SMARA regulations, San Joaquin Valley Air Pollution Control District (SJVAPCD) permitting and prohibitory rules). The material would be transported offsite to WCSG's customers by on-road trucks. The number of trucks on public roads associated with WCSG's sale of the processed excavated material from the Project site would not increase from the baseline level of truck traffic (160 trips per day) leaving the Seaborn site. This is because the rate that WCSG processes the Project's excavated material would not be allowed to exceed the baseline production rate from the previous operations at the Seaborn site of an average of 500,000 TPY and a maximum of 650,000 TPY as achieved in 2005.



The excavation phase of the Project would require only 7 to 12 employees and access would be through the Seaborn site entrance to the Project site. This would be consistent with the baseline number of employees previously required during the mining and processing activities at the Seaborn site. For evaluation purposes, it is assumed that each employee would make 2 trips per day (inbound and outbound). This would result in a maximum of 24 trips on peak days, assuming all 12 employees are onsite as compared to the 35 employee trips per day during mining and processing activities at the Seaborn site. As a result, the Project would generate only nominal traffic on public roadways, which would not result in a significant increase from baseline operations at the Seaborn site.

Access for employees and service vehicles would be via Road 222 through the Seaborn site to the entrance to the Project site (Figure 5 – Project Site and WCSG Processing Facility).

Note that a single-way trip is referred to as a “trip” and a round trip (going from the WCSG facility to their customers and the return trip by the truck back to the facility) is referred to as a “load” (two one-way trips).

#### **1.6.1.5 Mobile Equipment Used During Reservoir Excavation**

Excavated material would either be transported to the Seaborn site for processing by a conveyor system or off-road trucks. The equipment used during the excavation of the site would include:

- Excavator
- Off-road Haul Trucks
- D9 Dozer
- Loader
- Portable Generator
- Grader
- Water Truck
- Scraper
- Back Hoe
- Pneumatic Pumps

#### **1.6.1.6 Onsite Hazardous Materials During Reservoir Excavation**

During excavation, there would be no significant quantities of hazardous materials stored on the Project site. Fueling by use of fuel trucks and minor maintenance may occur onsite. These activities would be done in compliance with the requirements of the site SWPPP and with the hazardous material and waste generator regulations (California Code of Regulations (CCR) Title 22).

#### **1.6.1.7 Administration, Security, and Public Safety During Reservoir Excavation**

The office and restroom facilities at the adjacent Seaborn site would be used in addition to onsite portable toilets, if necessary. Security personnel would monitor the Project site during nighttime and during the weekends. The perimeter of the excavation site would be fenced and all facilities secured.

#### **1.6.2 Reservoir Facility Construction**

Construction of the reservoir would create a storage capacity of approximately 4,600 acre-feet, and would include the following components illustrated in Figure 4 – Final Reservoir Plan:

- Inflow channel – 500 cfs capacity.
- Electrically operated weir for the Inflow Channel control.

- Inflow chute.
- Energy dissipation pool - Based upon the drilling logs, it is expected bedrock would be encountered at the proposed final elevation. However, if the excavation does not get down to bedrock, installation of an energy dissipation pool at the base of the Inflow Chute would prevent the potential scouring effects of the water entering the reservoir.
- Floating barge pump – 160 cfs capacity to deliver into the Kaweah River upstream of the existing McKay Point Check Structures.
- Above-ground diesel tank, generators and generator building.
- Floating barge pump discharge piping.
- Outflow Channel – up to 900 cfs capacity gravity flow into the St. Johns River.
- Electrically operated weir for the outflow channel control.
- Slurry wall to cut off groundwater seepage into/out of the reservoir (to be installed towards the end of excavation).
- Access gate.
- Perimeter berm, perimeter road and truck turnaround (the inflow and outflow channels will pass under the perimeter road in concrete structures).

The inflow and outflow structures would require excavation and grading to prepare the site for installation. Inflow/outflow grading would consist of clearing and grubbing of approximately 3 acres, excavation of 20,000 cubic yards, and the placement of approximately 9,000 cubic yards of rip-rap. Construction of the in/out-flow building would consist of finish grading and minor excavation of approximately 600 cubic yards and the placement of approximately 1,100 cubic yards of concrete. Construction of the reservoir is further discussed in Chapter 4.3.5.4 – Construction Phase Emissions in the DEIR.

The Department of Water Resources (DWR), Division of Safety of Dams has jurisdiction over projects that create a dam over 25-feet in height or will have an impounding capacity of 50 acre-feet or more (Water Code Section 6002). However, artificial barriers less than 6-feet in height, or that have a storage capacity of less than 15 acre-feet are not considered dams subject to DWR jurisdiction (Water Code Sections 6003, 6025). The retention of water within the reservoir would be below grade and would not require the use of artificial barriers greater than 6-feet in height. Therefore, the Project does not exceed these criteria and is not regulated as a dam. The excavation of the pit for the construction of the reservoir would meet the engineering and safety requirements as set forth in SMARA.

#### **1.6.2.1 Slurry Walls**

Depending upon the amount of groundwater seepage, towards the end of the excavation process, a slurry wall may need to be installed around the reservoir's perimeter to minimize groundwater seepage into/out of the reservoir. Slurry walls are below-grade walls that restrict groundwater flow or support excavations and structures, using soil-bentonite or cement-bentonite. If needed, a slurry wall would be installed to slow or eliminate groundwater from flowing into the reservoir during construction, and to maintain an evacuated

state as part of the long-term operations (i.e., a full reservoir has limited water re-regulation value). However, due to the nature of the clay material present at the site, alternatives to a slurry wall that keep the infiltration below 500 gpm may be considered.

Once the slurry wall is installed around the reservoir, the Owners would minimize the dewatering flows to approximately 500 gpm during reservoir facility construction and long-term reservoir operation. The slurry wall would be a permanent fixture of the reservoir facility and would serve as an essential feature to maintain dewatered storage space to receive water diversions by the Owners.

Slurry wall construction consists of clearing and grubbing approximately 26 acres, excavating approximately 109,000 cubic yards of native soil, and poring of the slurry wall into the excavated trench. Excavated soils would be hauled to an onsite screening/mixing site and screened for use in the slurry wall mix. Approximately 4,000 dry tons of bentonite and 56,000 tons of silty/clay fines would be delivered to the site for use in the slurry wall. Excess native soils would either be spread or stored onsite. Construction slurry consisting of a bentonite-water slurry would be pumped into the trench to hold the sides of the trench open during construction. A mixture of bentonite, imported silty/clay fines and native soil would be used for the final slurry wall. The slurry wall material would be hauled from the mixing site and placed into the trench. A final native soil cap consisting of approximately 10,000 cubic yards would be placed on top of the slurry wall. Chapter 4.3.5, Table 4.3-15 – Slurry Wall Excavation and Installation in the DEIR provides additional detail on the construction of the slurry wall.

#### **1.6.2.2 Days and Hours of Operation and Employment During Construction**

Approximately 7 to 12 employees would be required during the construction of the reservoir facilities, which would occur between 4:00 a.m., or dawn if later, and 6:00 p.m., Monday through Saturday, until completed. Nighttime construction activities are not proposed.

#### **1.6.2.3 Traffic During Construction**

The Project would only require 7 to 12 employees during the construction of the reservoir; therefore, the number of employees traveling to the site would be minimal and consistent with the baseline number of employees previously required during the mining activities at the Seaborn site. Each employee is assumed to make 2 trips per day (inbound and outbound), which would result in a maximum increase of 24 trips on peak days, assuming all 12 employees are onsite. Access for reservoir facility construction employees and service vehicles would be via Road 222, through the Seaborn site entrance to the Project site. As a result, the Project would generate only nominal traffic on public roadways, which would be comparable to that being experienced during the Seaborn site mining and processing operations.

#### **1.6.2.4 Mobile Equipment Used During Construction**

The equipment used for the construction of the reservoir facilities, such as inlet and outlet features, includes:

- |               |                 |                       |
|---------------|-----------------|-----------------------|
| • Excavator   | • Loader        | • Cranes              |
| • Backhoe     | • Compactor     | • Trenchers           |
| • Water Truck | • Cement Trucks | • Portable Generators |

- Grader
- Cement Pumps
- Pneumatic Pumps

#### **1.6.2.5 Onsite Hazardous Materials During Construction**

During construction, there would not be significant quantities of hazardous materials stored on the Project site. Fueling by use of fuel trucks and minor maintenance may occur onsite. These activities would be done in compliance with the requirements of a site SWPPP and with the hazardous material and hazardous waste generator regulations.

#### **1.6.2.6 Utilities During Construction**

Electrical power would be provided by SCE from nearby power lines.

#### **1.6.2.7 Lighting During Construction**

Except for the security lighting, no nighttime lighting is proposed and/or required.

#### **1.6.2.8 Administration, Security, and Public Safety During Construction**

The office and restroom facilities at the adjacent Seaborn site would be used in addition to onsite portable toilets, if necessary. Security personnel would monitor the Project site during the weekends and at night. The perimeter of the excavation site would be fenced and all facilities secured.

### **1.6.3 Background and Relationship to the Seaborn Site and WCSG Processing Facility**

As discussed above, the material excavated from the Project would be transported to the adjacent Seaborn site where the aggregate would be processed by WCSG. Off-road haul trucks or a conveyor system located on the Project site would be used to transport excavated material to the Seaborn site. The transportation of material to the WCSG processing facility would not require the any haul trucks to use public roads. The Project would not result in additional haul trucks on public roadways.

Surface mining and the processing of aggregates has occurred at the Seaborn site since 1948. The first use permit for the Seaborn site was issued by the County in 1958. Subsequent expansions to the mine site were approved in 1963 (M-2 UP#63-21) and in 1966 (M-2 UP#66-11). Following the adoption of SMARA, a Surface Mining Reclamation Plan (PMR 79-04) was approved for the Seaborn site in 1980. The 1980 Reclamation Plan described the reclaimed end use of the property as a lake with stable slopes and vegetation along the banks. In 2001, an amendment to the approved Reclamation Plan was granted by the County authorizing the use of an additional 20 acres to the north of the Seaborn site for the storage of processed aggregate, rock crusher parts and heavy equipment storage. The 2001 amendment only modified the PMR 79-04 to address the 20-acre stockpile area and described final reclamation of the 20-acre area as the removal of all equipment and product stockpiles, followed by a return to its pre-site disturbance use of irrigated pasture.

The mining, processing and reclamation activities at the Seaborn site are not part of this Project. However, the potential impacts associated with the transportation to and processing of the aggregate excavated to construct the Project reservoir are evaluated in this DEIR. The previous production rates and traffic records from the Seaborn processing activities have been reviewed and are used in this CEQA evaluation to identify

the existing environmental baseline for comparison purposes to determine the change from baseline and potential impacts that this Project would have.

### **1.7 Reclamation Plan**

As discussed above, because the excavated material taken from the Project site would be sold as a marketable product, the excavation phase of the Project would require a Surface Mining Permit and the preparation and County approval of a Reclamation Plan in accordance with the requirements of SMARA and the Tulare County Zoning Ordinance, Chapter 25 (Surface and Mining Reclamation). Section 7-25-1085 of the County Ordinance Code (Permit) states as follows:

*Except as provided in sections 7-25-1090 and 7-25-1095 of this Article, any person who proposes to engage in surface mining operations within the unincorporated area of Tulare County shall, prior to the commencement of such operations, obtain a permit to mine, approval of a reclamation plan and approval of financial assurances in accordance with the provisions of this Chapter, the Act and the regulations. (emphasis added)*

A Reclamation Plan was prepared for review and comment by the Division of Mine Reclamation (DMR), and review and approval by the County as the SMARA Lead Agency. The Reclamation Plan was developed in compliance with the reclamation standards set forth in SMARA Regulations (14 CCR Sections 3700 to 3713). The identified end use of the excavation is the creation of the McKay Point Reservoir to be used as a surface water storage/re-regulation reservoir. The reservoir can also be used to optimize groundwater recharge within the Owners service areas.