CHAPTER 2
Project Description

2.1 Overview

The California Department of Water Resources (DWR) proposes to implement the Perris Dam Emergency Release Facility Project (proposed project) to modify the existing emergency release structure for the Perris Dam and to construct a water conveyance facility to connect with the Perris Valley Channel in the event DWR executes an emergency drawdown to drain the reservoir. This section describes the location of the proposed project, identifies project objectives, presents the project description, and briefly describes construction activities associated with implementation of the project.

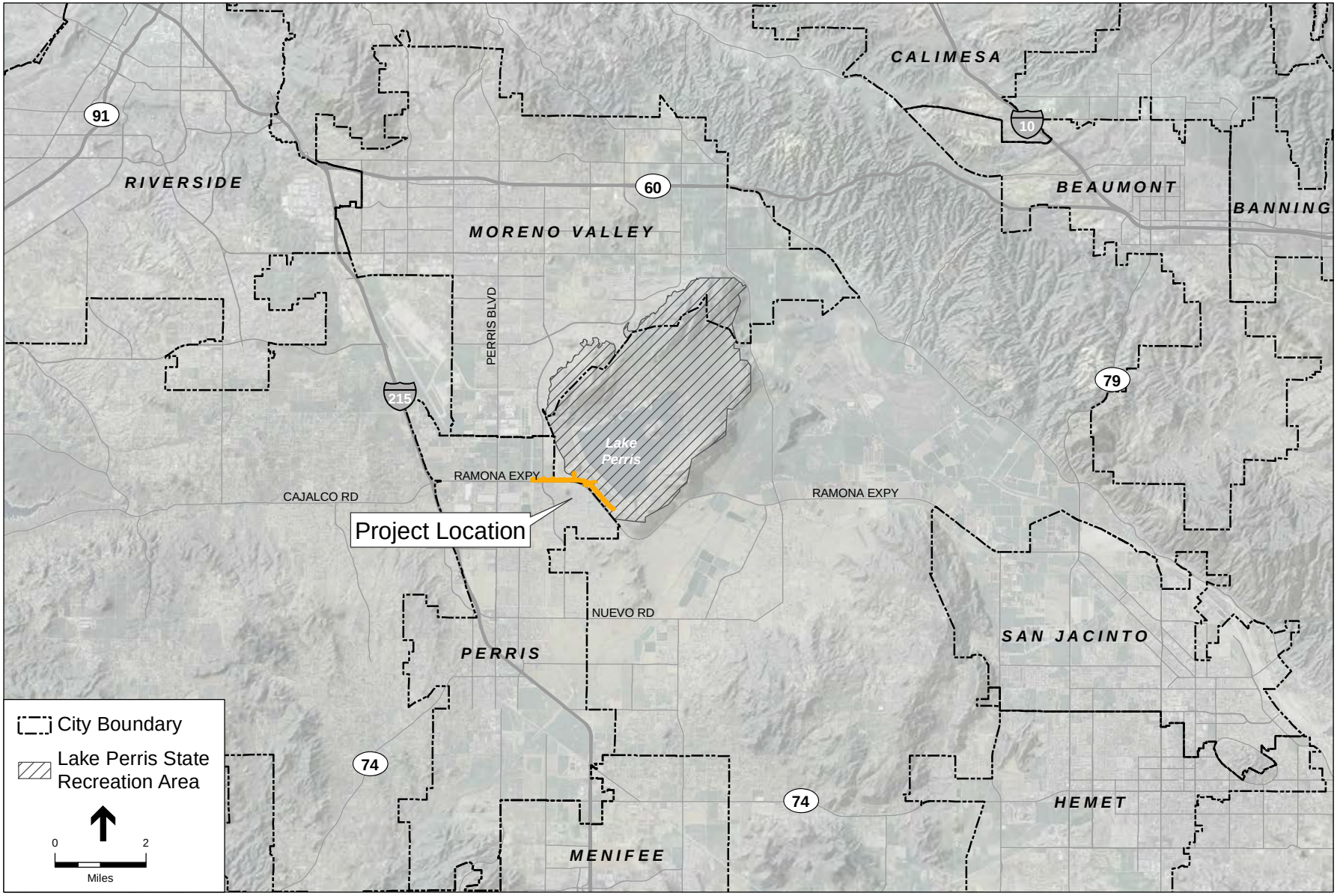
2.2 Project Location

The proposed project is located in an unincorporated portion of western Riverside County approximately 15 miles south of the city of Riverside and partially within the city of Perris (**Figure 2-1**). The proposed project would be constructed partially within the Lake Perris State Recreation Area (SRA), the Lake Perris Fairgrounds, and DWR property north of Ramona Expressway and would connect to the Perris Valley Channel (**Figure 2-2**).

The proposed project components cover approximately 75 acres. The proposed project is composed of modifications to the existing emergency release structure and the construction of a water conveyance facility connecting the existing emergency release structure to the Perris Valley Channel. The proposed project is composed of three distinct sections: SRA Segment, Fairgrounds Segment, and Western Segment (Figure 2-2).

2.3 Project Background

The Perris Dam's current (original) emergency release facility consists of a 12.5-foot-diameter steel-lined concrete pipe that transitions to a rectangular concrete outlet, where flow is controlled by a 12-foot-tall by 6-foot-wide slide gate. Downstream of the slide gate, the outlet is capped off by a bolted steel bulkhead. The release structure's design flow capacity is 3,800 cubic feet per second (cfs) to accommodate a rapid release when the reservoir is at maximum operating elevation of 1,588 feet. In the event Perris Dam is ever determined to be in a condition of imminent failure, DWR would perform a controlled emergency operation to drain the reservoir. In its current configuration, once the release is initiated, the water would form its own overland channel and result in an inundation area of approximately 715 acres to the southwest of the dam. At the time the dam was constructed, downstream areas were largely undeveloped, so an emergency release operation would not have posed significant risk to life or improved property.

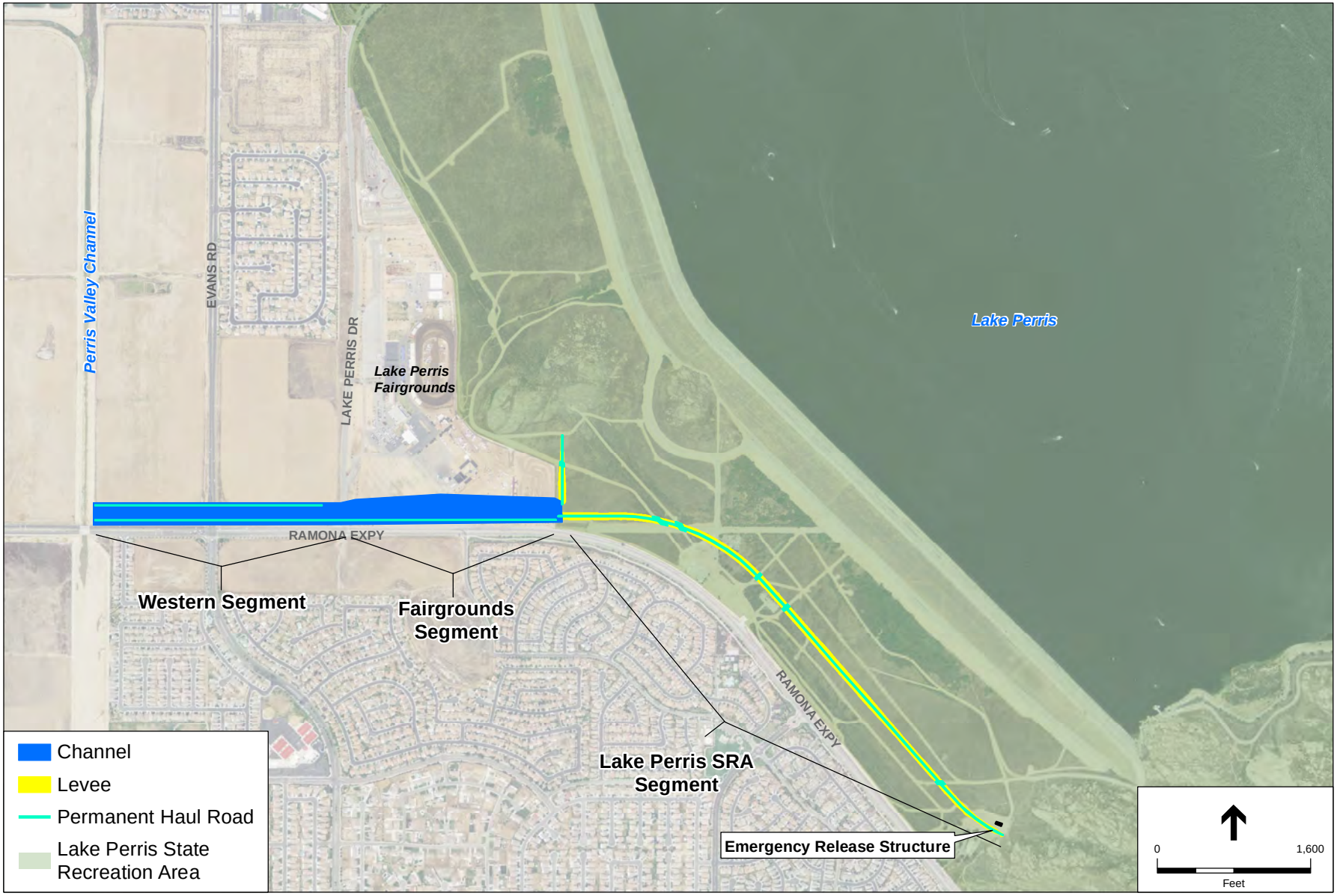


SOURCE: ESRI; Riverside County GIS, 2014.

Perris Dam Emergency Release Facility . 120083.02

Figure 2-1

Regional Location



SOURCE: Bing Maps.

Perris Dam Emergency Release Facility . 120083.02

Figure 2-2
Proposed Project

Over time, the land that would otherwise be inundated by an emergency release from Perris Dam has been significantly developed, primarily with residential properties. It should be noted, however, that the probability that an emergency drawdown operation of the reservoir will ever be required is low. The project currently underway to strengthen the Perris Dam foundation will further reduce the likelihood that an emergency release will ever be needed.

The emergency release structure would most likely be operated in the aftermath of a major seismic event that renders the dam structurally unsound and in a state of imminent failure. A seismic event of sufficient magnitude to impair the dam has a small chance of occurring. The dam is currently being remediated to survive a Maximum Credible Earthquake (MCE), which further reduces the risk that DWR would ever need to drain the reservoir. Nevertheless, the possibility exists that an operation to perform an emergency release of water from the reservoir might be necessary, and if undertaken with existing conditions, would inundate downstream properties. The project is being proposed to reduce that risk to downstream property.

In November 2011, DWR certified the Perris Dam Remediation Program Final Environmental Impact Report (EIR), which included three components: dam remediation, outlet tower replacement, and emergency outlet extension. The DWR Director did not authorize the third component of the project as a result of public comments received on the Draft EIR, and the emergency outlet extension component was not certified with the Final EIR. DWR committed to redesigning the emergency outlet extension. The proposed project is the revised alternative to the emergency outlet extension component. Construction of the dam remediation project was initiated in summer of 2014 and is expected to be completed by the end of 2017.

The emergency outlet extension (water conveyance facility), as described in the Perris Dam Remediation Program Draft EIR, analyzed the emergency release capacity at 1,500 cfs along with associated conveyance facility alternatives. It has since been determined by the California Division of Safety of Dams (DSOD) that the release capacity of the existing outlet structure cannot be decreased to 1,500 cfs and must remain at the current 3,800 cfs capacity to accommodate the maximum operating reservoir elevation of 1,588 feet. As such, the water conveyance improvements described in this Draft EIR are larger and appropriately sized for the required release capacity of 3,800 cfs. However, it should be noted that DWR is preparing an Emergency Operations and Maintenance Manual that would outline procedures to control the release flows up to 3,800 cfs, to minimize the possibility of inundating property adjacent to the Perris Valley Channel, until such time that Riverside County Flood Control District completes ultimate build-out of the Perris Valley Channel, which could then safely convey the full 3,800 cfs emergency release.

2.4 Project Objectives

The objectives of the proposed project are to:

- Construct improvements to reduce the risk to public safety and property resulting from the execution of an emergency operation to drawdown Lake Perris;
- Reduce the risk to DWR Operations and Maintenance staff from operating the emergency release structure; and
- Improve the emergency release structure such that it can be reliably operated to drawdown Lake Perris to meet Division of Safety of Dams (DSOD) emergency drawdown requirements.

2.5 Project Description

DWR is proposing to modify the existing release structure, and construct a water conveyance facility that would reliably control a reservoir release and convey emergency flows from Lake Perris in the event of an emergency drawdown. Figure 2-2 depicts the location of the proposed project.

2.5.1 Release Structure Modification

The proposed project would modify the existing emergency release structure by removing the existing bulkhead and replacing it with one or more automated valves, which add flexibility, redundancy, and reliability to the structure, resulting in a facility that is safer to operate in the event of an emergency. A portion of the emergency release structure would need to be demolished and rebuilt around the new valves. The modified release structure would integrate with the old design and ensure that a release would not damage the critical portions of the structure. The emergency release structure would maintain a maximum of 3,800 cfs design capacity, but would be operated in accordance with an operation plan for the Perris Dam Emergency Release Facility (Emergency Operations and Maintenance Manual) to operate within the capacity of the downstream Perris Valley Channel whenever possible.

2.5.2 Conveyance Facility

The proposed conveyance facility improvements would safely convey up to a maximum release of 3,800 cfs to the Perris Valley Channel. If an emergency operation was initiated, water would be directed by a levee system across the open SRA land between the dam and the Ramona Expressway (the SRA Segment), toward a channel across the southern end of the Lake Perris Fairgrounds (Fairgrounds Segment), and finally conveyed in a channel north of Ramona Expressway to the Perris Valley Channel (Western Segment). These conveyance facilities are discussed separately below and in the following pages and are described as segments (see Figure 2-2).

SRA Segment

Two levees, the Main Levee and North Training Levee, would be constructed as part of the emergency release conveyance facility improvements along the SRA Segment (see **Figure 2-3**). The Main Levee would be approximately 6,000 feet long, up to 10 feet high, and up to 87 feet wide at the bottom with 3:1 slopes. Refer to **Figure 2-4** for a conceptual cross-section of the levee design. The North Training Levee would be approximately 685 feet long, up to 8 feet high, and up to 60 feet wide at the bottom with 3:1 slopes. A training levee is designed to help constrain and guide discharged water toward a desired location in a more controlled manner. The two levees would direct flow from the emergency release structure downhill toward the northwest, and would "funnel" the water toward a new drainage basin and concrete weir located at the edge of the SRA and the Fairgrounds. The flattened drainage basin upstream of the weir would cover approximately 1.5 acres. The concrete weir would be approximately 1 foot high, 5 feet wide, and 130 feet long.

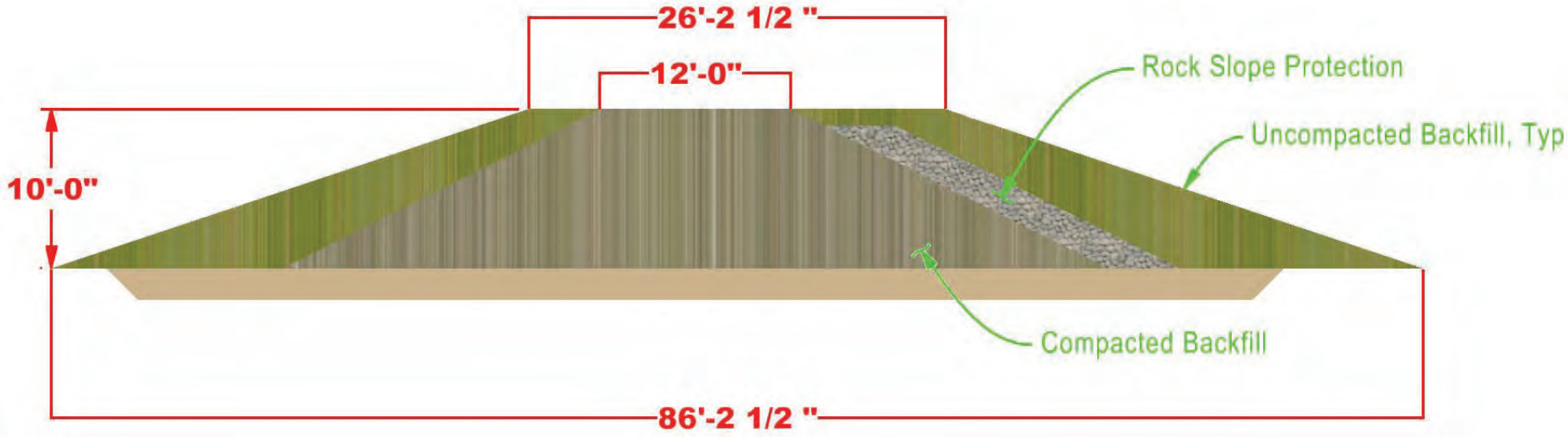
All levees within the SRA would be constructed from native soil. If improvements to the foundation soils under the levees are needed, it is likely that a temporary trench would be excavated and then backfilled and compacted. A layer of rock on the water side would be placed on the levees to protect the embankment from erosion during an emergency release. The rock would be overlain by a minimum of 2 feet of native soil to provide habitat for the Stephens' kangaroo rat and Los Angeles pocket mouse. This form of levee construction is atypical, as levees generally are not constructed to be actively used by wildlife, and has been designed in coordination with a small-mammal biologist to serve both its primary function as a water conveyance system and its secondary function of providing suitable burrowing habitat for small mammals. The design and function of the levees will not be compromised by use of wildlife for habitat because the rock layer would maintain the levee's stability during a flow event.

Rock materials for the levees would be obtained from the Perris Dam quarry in the Bernasconi Hills north of the dam during the construction of the Dam Remediation Project and stockpiled within a staging area below the dam. The proposed project would require approximately 60,000 tons of rock. **Figure 2-5** shows the locations of the staging area where the rock would be stockpiled. Soil would be obtained on-site from excavations of the Fairgrounds Segment and the Western Segment. The levees would be revegetated with native grasses and forbs to replace habitat that was temporarily disturbed during construction. A 20-foot-wide dirt access road would be constructed on top of each levee for periodic maintenance checks of the levee system. To compensate for additional roadway surfaces created on top of the levees, an equal quantity of existing roadways would be decommissioned and restored with native vegetation. **Figure 2-6** shows the proposed levees, access roads, and restoration areas.

SOURCE: Google Earth

Perris Dam Emergency Release Facility . 120083.02

Figure 2-3
SRA Segment



SOURCE: DWR

Perris Dam Emergency Release Facility . 120083.02

Figure 2-4

Conceptual Levee Design

SOURCE: ESRI.

Perris Dam Emergency Release Facility . 120083.02

Figure 2-5

Staging Areas and Haul Route

SOURCE: ESRI

Perris Dam Emergency Release Facility . 120083.02

Figure 2-6
Restoration Area

Fairgrounds Segment

The Fairgrounds Segment would receive water from the drainage basin in the SRA Segment and deliver it to the Western Segment. Water would be conveyed from this segment through an unlined trapezoidal channel. The channel would be designed for dual function, and would allow for the channel area to be used for designated Lake Perris Fairground activities. Because emergency releases from the dam are extremely unlikely, it would be possible to alter the side slopes of the unlined trapezoidal channel to develop a joint-use area with the Lake Perris Fairgrounds. For example, the western area of the Fairgrounds currently used for parking could still be used for parking by flattening the northern slopes to 10:1 (instead of a typical 2:1 slope). This would create a ditch that is 320 feet wide, while preserving the majority of the existing parking area. Further, side slopes (4:1) on the eastern area currently leased to the motocross track could allow motocross activities within the conveyance channel after construction. The channel would be 25 feet deep on the east end to 11 feet deep on the west end. Side slopes would be consistent with existing conditions. Using the discussed examples of a dual-use area (10:1 side slope in the parking and 4:1 side slope in the motocross track), the channel would cover an area of approximately 13 acres, but 10 of those acres could be used by the Fairgrounds post construction (see **Figure 2-7**). A permanent access road would be required on the southern side, and the Lake Perris Fairgrounds sign located along the property's southwest corner would need to be relocated to accommodate the channel.

Within the Fairgrounds Segment, the conveyance channel would cross under two roads: one at the Lake Perris Fairgrounds' eastern entrance at Avalon Parkway and the other at Lake Perris Drive. Partial or full road closures may be necessary during the construction of both under-crossings and the associated bridges. Access to the Lake Perris SRA and the Lake Perris Fairgrounds would be maintained during any such closures via either the Avalon Parkway entrance or the Lake Perris Drive entrance. DWR will coordinate with the Fairgrounds to ensure that construction activities would not occur during Lake Perris Fairground's Southern California Fair, the fairgrounds' annual main event. DWR would halt construction activities for the duration of fair activities. The conveyance channel in this segment would be constructed below grade, as depicted in Figure 2-7. A large volume of material would be excavated during channel construction, stockpiled on-site, and used to construct the levees.

SOURCE: Google Earth

Perris Dam Emergency Release Facility . 120083.02

Figure 2-7
Fairgrounds Segment

Western Segment

The Western Segment would be developed as an unlined, earthen, trapezoidal channel. The channel would be approximately 2,500 feet long, with a 120-foot top width and 80-foot bottom, and nine feet deep with 2:1 side slopes. The side slopes would be stabilized with rock slope protection. The earthen channel would occupy approximately 24 acres. A permanent 15-foot access road would be required on both sides of the channel.

The earthen channel would connect the Fairgrounds Segment to the Perris Valley Channel. The channel would parallel the Ramona Expressway and would be constructed within and adjacent to an existing right-of-way (ROW).

Similar to the other two road crossings in the Fairgrounds Segment, this segment would cross Evans Road and a bridge would need to be constructed. Evans Road would experience temporary, partial or full road closures during construction.

A control structure at the connection to the Perris Valley Channel would be constructed to control the flow depth within the channel. Either a concrete weir, or a series of box culverts and an embankment across the channel would be constructed. Scour protection would be provided at the junction to protect the Perris Valley Channel from erosion damage. **Figure 2-8** shows the Western Segment.

SOURCE: Google Earth

Perris Dam Emergency Release Facility . 120083.02

Figure 2-8
Western Segment

2.6 Construction Characteristics

2.6.1 Construction Schedule

The proposed project would take up to 3 years to construct. **Table 2-1** summarizes the proposed construction and estimated durations for those activities.

TABLE 2-1
CONSTRUCTION DURATION

Construction Activity	Emergency Release Facility
Bridge Construction	
Option A – Partial Closure	24 months
Option B – Full Closure	12 months
Demolition	8 months
Preliminary Activities and Site Preparation	2 months
Grading/Excavation	10 months
Drainage/Utilities/Sub-Grade	5 months
Project Construction	17 months
Paving	2 months
Rip Rap	5 months
Total Construction Duration	**36 months**

NOTE: There is potential for construction of segments to occur simultaneously. Additionally, construction work may not occur in a linear manner.

SOURCE: DWR

In general, construction activities would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday, with weekend and nighttime work needed particularly during construction of the bridges.

2.6.2 Truck and Worker Commute Trips

On an average work day, construction traffic to and from the site would average 142 round-trips by trucks and 45 round-trips by personal vehicles. Peak construction traffic would depend on the number of activities performed concurrently and the length of time construction materials would be delivered to the site.

2.6.3 Construction Activities

The following describes construction activities required for the proposed project. These activities may occur in a different order than presented here and activities may occur concurrently.

Preliminary Activities

Site Preparation

Construction zones would be cleared and grubbed of vegetation, debris, and large rocks using scrapers and other ground-clearing equipment. The project would temporarily clear over 40 acres for the staging areas, emergency release structure improvements, and construction of the levees, drainage basin, weir, and earthen channel.

Existing paved and dirt roads would be used for hauling and transporting materials within the project site (see Figure 2-5). In addition, the large electronic sign at the Fairgrounds entrance would be removed during construction. DWR would ensure that the Fairgrounds sign is relocated and reconnected after construction to its pre-project condition in an appropriate location. The final reconfiguration and reconnection of the sign would be determined in coordination with the Fairgrounds.

Staging and Stockpiling Activities

During construction, several staging areas would be located around the project site. As shown in Figure 2-5, staging areas would be located at the current release structure; around the levees; at the intersections of Lake Perris Drive, Evans Road, and the Perris Valley Channel; along the Old Ramona Expressway; and in existing SRA storage yards.

Normal construction-related activities would occur within the staging area, including the following:

- Stockpiling material
- Staging of construction equipment, cement, and rock
- Delivery of fuel and fueling/maintenance of construction equipment (daily)
- Construction administration and meetings (project trailers) (daily)
- Worker restrooms
- Visitor parking and sign-in area
- Temporary storage for other equipment and materials (concrete forms, scaffolding, etc.) (daily)

Levee Construction

The proposed project includes excavation along the base of the proposed levees in preparation for recompaction of the soil to stabilize the foundation. As material is excavated, scrapers or haul trucks and other equipment would be used to move the material throughout the project site. Materials would be temporarily stockpiled within designated staging and stockpiling areas (see Figure 2-5).

All levees within the SRA would be constructed from native soil. If improvements to the soils under the levees are needed, it is likely that a temporary trench would be excavated and then backfilled to improve the foundation. A layer of rock would be placed on the water side of the levees to protect the embankment from erosion during an emergency release. The rock would be

overlain by a minimum of 2 feet of native soil. Rock materials for the levees would be obtained from the Perris Dam quarry located in the Bernasconi Hills north of the dam during the construction of the Perris Dam Remediation Project and stockpiled within staging areas below the dam. As described, Figure 2-5 shows the locations of the staging areas where the rock may be stockpiled. Soil would be obtained on-site and from excavations of the Fairgrounds Segment and Western Segment.

Compaction of the levees and backfill materials would be accomplished with a sheeps foot or vibratory roller capable of obtaining required densities with allowable moisture content. The material would be obtained directly from the project site. Prior to placement, the material would be sufficiently mixed and moisture conditioned, using disking equipment, motor graders, and water trucks, if necessary. The material would be placed in uniform, horizontal layers. The edges would likely be overbuilt and trimmed back to final grade.

Unlined Trapezoidal Channel Construction

The unlined trapezoidal channel would be constructed by excavating with scrapers or excavators and haul trucks to the rough shape required. The excavation would be wider at the top and narrower at the bottom. Once the rough shape of the channel is constructed, bulldozers or graders would be used to form the finished grade. The channel would be excavated deeper and wider than the design grade and the soil would be replaced and compacted with soil compactors if necessary, and rock slope protection would be installed.

Road Crossings

Bridge Construction

The project includes two options for the construction of the bridge crossings. Option A would require partial lane closures and Option B would require full roadway closures.

The construction of bridges, regardless of option, would consist of the similar activities. The existing roadway and soil would be removed to design depth to construct the new channel using excavators and haul trucks. Foundation piles may be driven (or drilled and cast-in-place) into the soil at each end of the bridge and at mid-channel to support the bridge structure. The concrete portions of the bridge structure would then be constructed independently, including abutments, intermediate piers, bridge deck, and barriers. Each portion would consist of a cycle of setting formwork, placing steel reinforcement and concrete, and removal of formwork, involving laborers, cranes, concrete pumps, forklifts, and generators to complete the work.

Option A

The bridge crossings on Evans Road and Lake Perris Drive would be constructed in two phases with a partial road closure, allowing a reduced number of lanes of traffic to pass north and south through the construction zones while the bridges are under construction. With the two-phase option, the bridge is constructed in two separate parts (halves) with a joint running lengthwise down the middle of the bridge, connecting the two halves to form a single structure when completed. In this scenario, half of the existing roadway is initially closed down for construction of the first half of the new bridge, and all traffic is routed through the construction zone in a reduced number of lanes on the other half of the road. When the first half of the bridge is completed, the traffic lanes are then shifted over to the newly constructed half of the bridge, with

traffic continuing to pass through the construction zone in a reduced number of lanes. The remaining half of the roadway is then closed and the second half of the bridge is constructed.

An additional three-part construction scenario with two phases would also be possible for the bridge construction at Evans Road. In this scenario, the bridge is constructed in thirds, with two joints running lengthwise, joining all three parts to form a single structure upon completion. The outer lanes of the roadway are initially closed and all traffic is routed down the middle of the existing roadway through the construction zone in a reduced number of lanes. The outer two thirds of the bridge are then constructed. When the outer two thirds of the bridge are completed, the traffic lanes are shifted onto the newly-constructed parts and traffic is carried through the construction zone in a reduced number of lanes on the new parts of the bridge. The remaining roadway down the center is then closed and the last, middle third of the bridge is constructed.

Construction of the partial road closure option would take approximately 24 months.

Option B

The second bridge construction option includes a full roadway closure at Lake Perris Drive and Evans Road immediately north of Ramona Expressway. For the Lake Perris Drive closure, this option would include the temporary construction of a short, temporary 5-lane paved road just to the east of Lake Perris Drive within the Lake Perris Fairgrounds property (currently a dirt lot used for overflow event parking). This temporary road would serve as a detour route around the construction zone during the closure period. The temporary detour would include a new, temporary signalized intersection at Ramona Expressway, and would run northward from Ramona Expressway and veering slightly to the west just south of the Lake Perris Fairgrounds entrance and connect back to Lake Perris Drive. The temporary road would maintain the full current capacity of Lake Perris Drive, with no change in the traffic conditions and would maintain full access to the Lake Perris SRA and the Lake Perris Fairgrounds.

The full roadway closure option at Evans Road would require the implementation of a detour route. The traffic analysis (see Appendix F) determined that the best detour option for the proposed project would be to utilize Perris Boulevard as the primary detour route, with east-west connections to the north along Krameria Avenue and Iris Avenue. Traffic would join existing routes on Ramona Expressway at Perris Boulevard and at the Krameria Avenue and Iris Avenue intersections of Lasselle Street.

Bridges under Option B would be constructed in one phase. Construction of the full roadway closure option would take approximately 12 months.

Box Culvert Construction

A box culvert system may be used to pass the emergency flow under Avalon Parkway (see Figure 2-7 for a graphic depiction of a box culvert). Construction of the box culvert is expected to close the access road for approximately 2 months with traffic diverted to Lake Perris Drive. The area surrounding to access road would be excavated down to the emergency channel grade. Large concrete box culverts would be constructed off-site and then delivered and placed in the bottom of the excavation. Soil backfill would be placed and compacted around and over the box culverts

to the roadway elevation. Road base material and asphalt would be placed to complete the roadway surface.

Connection to Perris Valley Channel Construction

The construction of the connection to the Perris Valley Channel would be similar to that of the unlined trapezoidal channel. To control flow, either an overflow weir or culvert system would be constructed. If a culvert system is selected, the construction would be similar to the box culvert construction. If an overflow weir is required, the construction would require the activities described below.

Overflow Weir Construction

The construction of the overflow weir would require soil to be excavated by scrapers or excavators to the bottom elevation of the channel. The excavated soil would be hauled by truck to construct the levees or to temporary staging/stockpile areas nearby. Graders and compactors would prepare the subgrade surface for the base of the weir.

Steel reinforcement would be constructed for the base of the structure with the aid of cranes if necessary. Wood formwork would then be constructed and concrete would be placed to complete the construction of the base structure. Concrete placement would require concrete pump trucks, power generators, and cranes, in addition to the concrete delivery trucks.

Table 2-2 depicts the equipment needs required to implement each project component and the construction sequence. It is anticipated that approximately 177,000 cubic yards (cy) of soil would be excavated from the project site and would be recompacted and used to construct the levees, as well as other structures for the project.

TABLE 2-2
CONSTRUCTION EQUIPMENT REQUIRED FOR THE EMERGENCY RELEASE FACILITY

Equipment	Demolition	Site Preparation	Grading/ Excavation	Rip Rap	Construction	Paving
Air Compressors	2				1	
Backhoes	2		1		1	
Cement and Mortar Mixers					1	
Compactor			2			
Cranes					2	
Crawler Tractors		1	1	2		
Crushing/Proc. Equipment	1					
Excavator			1			
Generator Sets	1				2	
Graders		1	2			
Haul Trucks	2	1	6		2	2
Loaders		1		1		
Off-Highway Trucks				6		
Pavers						1
Paving Equipment						1
Rollers						1
Rough Terrain Forklifts		1			2	
Rubber Tired Loaders	1	2	1		1	1
Scraper		1				
Signal Boards	4					
Skid Steer Loaders	1				1	
Sweepers/Scrubbers						1
Pickup Truck	1	1	1	1	4	1
Boom Truck	1				1	
Water Truck		1	2	1		
Service Truck			1	1		
Total Equipment	**16**	**10**	**18**	**12**	**18**	**8**

NOTE: The types and quantities of equipment are approximate and intended only for estimating construction related impacts. Actual equipment types and quantity may vary.

SOURCE: DWR, 2013

2.7 Overview of Project Alternatives

The proposed project includes analysis of five alternatives to the proposed project. These are summarized below and described in more detail in Section 6.0 *Alternatives Analysis*.

2.7.1 SRA Segment Alternatives

Alternative 1: Channel Only

This alternative would construct an unlined, open trapezoidal channel for the entire length of the emergency release facility, commencing at the emergency release structure to the Perris Valley Channel. The proposed project's SRA Segment levees would not be constructed and would be replaced by the unlined channel. All other components, including the Fairgrounds and Western Segments and the emergency release structure improvements would be implemented similarly to what was described for the proposed project.

2.7.2 Fairgrounds Segment Alternatives

Alternative 2: Concrete-lined Channel

This alternative would construct a rectangular concrete chute approximately 60 feet wide and 6 feet deep with vertical side walls. The concrete chute would occupy an area of approximately 7 acres along the southern edge of the Fairgrounds. Both the northern and southern areas would require an access road. All other components, including the SRA and Western Segments and the emergency release structure improvements, would be implemented similarly to what was described for the proposed project.

Alternative 3: Unlined Channel

This alternative would construct a slower flowing, unlined trapezoidal channel, similar to that described for the proposed project. However, the channel would have a smaller footprint and this alternative would not allow for Lake Perris Fairgrounds activities within the channel. The channel would be 25 feet deep on the east end gradually becoming 11 feet deep on the west end, and would be approximately 140 feet wide at the top and 100 feet at the bottom with 2:1 side slopes. The trapezoidal channel would occupy approximately 12 acres along the southern edge of the Fairgrounds. Both the northern and southern areas would require an access road. All other components, including the SRA and Western Segments and the emergency release structure improvements, would be implemented similarly to what was described for the proposed project.

Alternative 4: Fully Covered Fairgrounds Segment

Under this alternative, the proposed emergency release facility improvements within the Fairgrounds Segment would be constructed underground as either a box culvert or pipeline. One access road would be required. All other components, including the SRA and Western Segments and the emergency release structure improvements, would be implemented similarly to what was described for the proposed project.

2.7.3 No Project Alternative

The No Project Alternative, or Alternative 5, assumes that the proposed Perris Dam Emergency Release Facility Project would not be implemented. No project components would be constructed.

2.8 Discretionary Approvals Required for the Project

Table 2-3 presents a preliminary list of the agencies and entities, in addition to DWR, that would use this Draft EIR in their consideration of specific permits and other discretionary approvals that may apply to the project. This Draft EIR is intended to provide these agencies with information to support their decision-making processes. The table also lists the types of activities that would be subject to these requirements.

TABLE 2-3
DISCRETIONARY PERMITS POTENTIALLY REQUIRED

Agency	Permits and Authorizations Required	Activities Subject to Regulations
Regional Water Quality Control Board	Storm Water Pollution Prevention Plan (SWPPP)	Control runoff from construction sites
Riverside County Flood Control and Water Conservation District	Encroachment Permit	Connection with Perris Valley Channel
Riverside County Habitat Conservation Agency	Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) Consistency	Activities within potential SKR habitat and Core H of the SKR HCP that could result in potential take of the species
City of Perris	Local Encroachment Permits	Construction access within city of Perris roadways
U.S. Army Corps of Engineers	Clean Water Act Section 404 Permit	Discharge of dredged or fill material into waters of the United States
California Department of Fish and Wildlife	Lake or Streambed Alteration Agreement (Section 1602 of Fish and Game Code)	Any activity that may substantially modify a river, stream, or lake