Draft Program EIR for the

Lakeland Village MDP

JANUARY 2014

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AQMP	Air Quality Management Plan
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAFE	corporate average fuel economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CASSA	Criteria Area Species Survey Area
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
CHP	California Highway Patrol
CIWMB	California Integrated Waste Management Board
CNEL	community equivalent noise level
CNRP	Comprehensive Nutrient Reduction Plan
CO	carbon monoxide
CO_2E	carbon dioxide equivalent
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DBESP	Determination of Biologically Equivalent or Superior Preservation
DHS	Department for Health Services
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
ECA	Environmental Constraints Analysis
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
EVMWD	Elsinore Valley Municipal Water District
FEMA	Federal Emergency Management Agency
GP	general plan
GWP	global warming potential
H_2O	water vapor
HFC	hydrofluorocarbon

HSWA	Hazardous and Solid Waste Amendments Act
IS	Initial Study
L_{dn}	day-night average level
L_{eq}	equivalent energy level
LST	localized significance threshold
MBTA	Migratory Bird Treaty Act
MDP	Lakeland Village Master Drainage Plan
MMT	million metric ton
mpg	miles per gallon
mph	miles per hour
MS4	municipal separate storm sewer system
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
Mw	Maximum Earthquake Magnitude
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEPSSA	Narrow Endemic Plant Species Survey Area
NF_3	nitrogen trifluoride
NO	nitric oxide
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
PEIR	Program Environmental Impact Report
PFC	perfluorocarbon
PM_{10}	inhalable particulate matter
$PM_{2.5}$	fine particulate matter
RCPG	Regional Comprehensive Plan and Guide
RCRA	Resource Conservation and Recovery Act
ROW	right-of-way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act

SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SF_6	sulfur hexafluoride
SFHA	Special Flood Hazard Area
SHMA	Seismic Hazards Mapping Act
SO_2	sulfur dioxide
SO_x	sulfur oxides
TAC	toxic air contaminant
TMDL	total maximum daily load
UST	underground storage tank
VOC	volatile organic compound
WDR	Waste Discharge Requirement
WQ Basin	Water Quality Basin

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EXECUTIVE SUMMARY

ES-1.1 Introduction

The Riverside County Flood Control and Water Conservation District (District) proposes to prepare a Program Environmental Impact Report (PEIR) for the implementation of the Lakeland Village Master Drainage Plan (MDP). Implementation of the MDP consists of three separate components: administration of the MDP, future construction of the MDP facilities, and future operations and maintenance of the MDP facilities. Implementation of the MDP is hereinafter referred to as the Project.

ES-1.2 Document Purpose

The Draft PEIR has been prepared by the District, as the lead agency, to inform decision makers and the public of the potential significant environmental effects associated with the Project. This Draft PEIR has been prepared in accordance with the California Environmental Quality Act of 1970 (CEQA; California Public Resources Code, Section 21000 et seq.) and the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) published by the Public Resources Agency of the State of California (14 CCR 15000 et seq.).

This Draft PEIR provides a programmatic level analysis for the Project as described in Section 3.0 of this Draft PEIR. Pursuant to Section 15168 of the CEQA Guidelines, a programmatic-level environmental analysis will enable the District to examine the overall effects of the Project and adopt the Project. Following this approach, when future individual MDP facilities are proposed, the District or any other jurisdiction having approval related to the MDP facility (i.e., County of Riverside, City of Lake Elsinore, or City of Wildomar) will be required to examine each facility on its own merits and prepare a facility-specific environmental document, such as an initial study (IS) leading to a negative declaration, mitigated negative declaration, supplemental environmental impact report (EIR), or subsequent EIR. Pursuant to Section 15168(c)(2) of the CEQA Guidelines, if the District or any other jurisdiction having approval related to the MDP facility finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the responsible agency can approve the activity as being within the scope of the Project covered by the PEIR, and no new environmental document would be required. Since many of the MDP facilities may be designed and/or constructed as part of private development projects processed by the County of Riverside, City of Lake Elsinore, or City of Wildomar, the facility-specific analysis may be included as part of the environmental documentation and CEQA process for a development project.

ES-1.3 Project Location

The Project is located within Lakeland Village, in the City of Lake Elsinore, City of Wildomar, and unincorporated Riverside County, California (see Figure ES-1, Regional Map). The Project area, which

encompasses approximately 13 square miles, is generally bounded by Lake Elsinore to the north, the ridgeline of the Santa Ana Mountains to the south, Bryant Street and Sheila Lane to the east, and Riverside Drive to the west (see Figure ES-2, Vicinity Map).

The Project study area encompasses 16 separate watersheds. These watersheds are characteristically steep with high debris production potential. Runoff originating from these watersheds generally flows northeasterly, across Grand Avenue (the community's principal thoroughfare) and into Lake Elsinore. Existing land use within the study area is predominantly residential or vacant open space. The majority of the existing developments are located within the northerly portion of the study area.

The Project may be found within Township 6 South, Ranges 4 and 5 West, Sections 10, 11, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, and 36 of the Alberhill, Elsinore, Sitton Peak, and Wildomar 7.5 Series U.S. Geological Survey (USGS) Topographic Quadrangle Maps.

ES-1.4 Project Description

Background

Since the 1980s, all flooding concerns and complaints received from Lakeland Village residents have been documented by District staff. Over the years, various concerns and complaints have been received from local residents through phone calls, letters to the District, community meetings, and the District's annual budget hearing process. The concerns discussed below are representative of those concerns expressed by the residents.

Most of the existing properties located in the Lakeland Village area were subdivided as far back as the early 1900s, long before the Subdivision Map Act granted local agencies the authority to regulate and control the design of subdivisions to protect public health and safety. Consequently, most subdivisions within the Lakeland Village community were developed without consideration of the area's significant flood hazards and without adequate flood protection and drainage infrastructure in place.

Within the Lakeland Village area, the Federal Emergency Management Agency (FEMA) has designated and mapped four separate Special Flood Hazard Areas (SFHAs). These SFHAs indicate areas that are especially prone to flood hazards (i.e., subject to a 1% annual chance of being flooded). The SFHAs are located in the general vicinity of Gregory Place, Baldwin Boulevard, Maiden Lane, and Santa Rosa Drive (located in watersheds D, H, L, and M, respectively). There are approximately 210 existing structures located within the SHFAs. These structures are subject to high flood hazards and are typically subject to mandatory purchase of flood insurance under the provisions of the National Flood Insurance Program.

Grand Avenue is the major thoroughfare into and out of the Lakeland Village community and provides access to the adjacent Cities of Lake Elsinore and Wildomar. Stormwater runoff from each of the 16 watersheds must cross Grand Avenue on its way to Lake Elsinore. In general, Grand Avenue lacks

adequate drainage improvements (road culverts) to convey significant stormwater flows. Therefore, vehicular travel along Grand Avenue during storm events is a major concern for the Lakeland Village residents. In a large storm event, Grand Avenue would likely become impassable, rendering the area inaccessible and isolated.

Project Baseline

Existing drainage facilities that currently provide some level of flood protection within the study area are as follows: Lime Street Channel, Ortega Channel Lateral A-1, Ortega Channel, Ortega Channel Lateral A, Ortega Channel Lateral A-1 Debris Basin, Ortega Channel Lateral A-2, Lakeland Village Channel, Churchill Street Drainage Ditch, Stoneman Street Channel, Corydon Channel, Palomar Channel, Ontario Way Storm Drain, Tract 23111 Drainage Ditch, Sedco–Bryant Street Storm Drain Stage 1, and Sedco–Bryant Street Storm Drain and Debris Basin. These facilities constitute the physical baseline condition of the Project area.

The watersheds in the Lakeland Village area are considered to have high debris production potential and the area has historically experienced excess debris deposition. When fires occur within the steep canyons, vegetation is destroyed, which leaves the soil more susceptible to erosion. During high intensity rainfall events, the debris originating from fires, along with eroded sediment, is swiftly carried downstream towards Lake Elsinore. This combination of debris and stormwater runoff is referred to as "bulked flow" and includes sand, silt, and vegetative debris from the Santa Ana Mountains. As the bulked flow drains to Lake Elsinore, debris is deposited in the flatter areas, causing severe property damage. Additionally, the excess debris and sediment that eventually flows into Lake Elsinore may contribute to water quality degradation of the lake.

Debris from the nearby Santa Ana Mountains also creates a major problem for the existing Ortega Channel/Storm Drain. A portion of this facility is constructed on a very mild slope in which the bulked flow moves slowly and sediment tends to settle out. As the sediment accumulates inside the storm drain, the blockage reduces the hydraulic capacity of the facility and makes it susceptible to overflow. To ensure adequate capacity of the channel at all times, frequent routine maintenance is required, which over time has become costly.

Lastly, Lake Elsinore is currently listed as a 303(d) impaired water body. The Santa Ana Regional Water Quality Control Board (RWQCB) has identified nutrients, specifically nitrogen and phosphorous, as the principal cause of impairment. Very few, if any, of the existing developments within the Lakeland Village area were required to implement water quality best management practices (BMPs) as a condition of their development. Thus, "first flush" events typically collect and carry trash, dirt, and other pollutants directly to the lake. Addressing the area's urban runoff will help to improve the existing water quality of Lake Elsinore. For purposes of the analysis in the Draft PEIR, the existing drainage facilities and setting described above as they exist at the time of the release of the Notice of Preparation (NOP) is

considered part of the baseline physical condition by which the District determines whether an impact is considered to be significant (in accordance with Section 15125(a) of the CEQA Guidelines).

The CEQA analysis of a master drainage plan is more complex than the typical project because master drainage plans have a variety of purposes that are implemented over time; in fact, some parts of the plan could be implemented many years in the future or not at all, which makes the use of a PEIR for the CEQA analysis appropriate.

Administration of the MDP

The first component of the Project being analyzed in this Draft PEIR consists of the preparation of and, ultimately, the adoption of the Project and its use as a long-range planning document. The MDP will be a guide for the alignment, type, size, and cost of major existing and proposed facilities (MDP facilities) (see Tables ES-1 and ES-2) within the watershed to address the current and future drainage needs of Lakeland Village and the surrounding area. The drainage boundary of the Project is drawn to include all of the watershed area that contributes to the drainage problems in the community. The MDP facilities would contain the 100-year flood discharge.

The MDP has a variety of planning uses. The MDP will not only be relied upon by the County of Riverside as it reviews and approves existing and proposed development in the Lakeland Village area, but if adopted, it can be used by the Cities of Lake Elsinore and Wildomar as they review and approve new development. New development may be required to construct MDP facilities or set aside rights-of-way for the future construction of the facilities. The local jurisdictions can also use the MDP to identify MDP facilities and costs for inclusion in capital improvement programs. Finally, the local jurisdictions can use the MDP for long-range planning of other public infrastructure projects like roads or utility pipelines.

Future Construction of the MDP Facilities

The second component of the Project being analyzed in this Draft PEIR is the reasonably foreseeable impacts resulting from construction of the MDP facilities. The MDP identifies the approximate location, size, and type of MDP facilities needed to alleviate and control flooding within the Project boundary. The alignments and type of facility depicted in the MDP can change as more detailed information becomes available during the design process. For example, the locations of underground utilities, new development patterns, or the results of subsequent focused biological surveys may necessitate a shift in alignment or change in facility type (i.e., concrete channel to underground pipe). To add to that uncertainty, the construction of the MDP facilities will be accomplished in discrete phases over a number of decades.

Despite this future environment of uncertainty and change, the Draft PEIR still must identify the general types of construction activities anticipated and their associated impacts. Table ES-1 lists the types of

drainage improvements (i.e., new facilities and upgrades to existing ones) proposed in the MDP and Table ES-2 provides a detailed description of each of the individual MDP facilities.

Subsequent CEQA analysis would be required when specific MDP facilities are proposed for construction, but those future construction projects would be able to tier from the PEIR. Actual construction of the MDP facilities may occur as a result of conditions of approval on development projects or capital improvement projects undertaken by the County of Riverside, the City of Lake Elsinore, the City of Wildomar, or the District.

Future Operations and Maintenance of the MDP Facilities

The final component of the Project to be analyzed in this Draft PEIR is the reasonably foreseeable impact of future operation and maintenance activities. Once a facility is constructed, it will require maintenance in order to retain flood control capacity. It is expected that the District will operate and maintain all the MDP storm drains, channels, and basins.

Maintenance of storm drains and concrete channels typically consists of keeping these facilities and their side drains clear of debris and sediment, as well as repairing access roads and fences. On rare occasions, major repairs may be required following damaging storm events. Thus, major grading will not routinely occur while maintaining the underground storm drains and open concrete channels. To maintain the constructed MDP facilities, the District will occasionally use equipment similar to the types used to construct the proposed MDP facilities.

The routine maintenance of the channels and basins will likely require the following activities: the removal of deposition, repair of eroded slopes, and reduction of fire hazard by annual mowing and application of herbicides as well as the maintenance activities described in the previous paragraph. Vegetation must be removed or mowed annually (or as necessary) to provide the designed hydraulic capacity.

Development of the Project Alternatives

In 2010, the District conducted an Environmental Constraints Analysis (ECA; Appendix B to this PEIR) that studied five preliminary scenarios for the Project. The five preliminary scenarios (labeled as Alternatives 1–5) in the ECA explored the feasibility of debris removal, water quality mitigation, floodplain management, and environmental avoidance. The ECA was prepared to assist the District in identifying key environmental issues so that the District could refine the five preliminary scenarios into three CEQA alternatives for the environmental impact analysis, as discussed in Section 8.0 of this document. Based on the ECA, engineering feasibility, and other Project objectives, the District selected the proposed Project (see Figure ES-3a and Figure ES-3b, Proposed MDP Facilities, and Tables ES-1 and ES-2).

Table ES-1
Summary of MDP Facilities

Type of Improvement	Facility Name
Upsizing of the existing facilities	• Lakeland Village Channel • Ortega Channel Outlet • Lime Street Channel/Line A
New open channels	• Channel A • Line O-10 • Line M • Line L • Lakeland Village Channel
New storm drains	• Line O-10 • Line O-20 • Line N • Lateral N-1 • Line M • Line K • Line K-1 • Line J • Line I • Line I-1 • Lakeland Village Channel • Line H • Line H-1 • Line H-2 • Line G • Line F • Line F-1 • Line E • Line D • Line C • Line C-1 • Lime Street Channel/Line A
New debris basins	• Line O-10 • Line O-20 • Line N • Line K • Line I • Lakeland Village Channel • Line F • Line B/Ortega Channel • Line A
New water quality basins	• Line N • Line G • Ortega Outlet • Line A

Note: See Figure ES-3a and Figure ES-3b, Proposed MDP Facilities.

Table ES-2 provides a detailed description of the proposed and existing MDP facilities.

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
A	**Proposed**	Line A Debris Basin	Debris basin	Line A Debris Basin is located at a point approximately 350 ft west of the intersection of Jamieson and Orange Street, just upstream of existing Lime Street Channel, and has a volume of 9.3 ac-ft. and an approximate ROW of 1.5 ac. The debris basin consists of a 36 in low-flow outlet pipe and a spillway structure.	Storage = 9.3 ac-ft Approx. ROW = 1.5 ac		690
		Line A and Lime Street Channel	Floodwalls	Floodwalls ranging in height from 1 to 2 ft would be added to the existing Lime Street Channel. The improved Lime Street Channel will ultimately have a uniform height ranging from 4.5 to 5.5 ft.	Depth = 1 ft	1,631	690
					Depth = 2 ft	773	900
			RCP	The upstream origin of Line A begins as a 72 in RCP at the downstream terminus	Diameter = 72 in	921	840

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				of existing Lime Street Channel located at the intersection of Hill Street and Laguna Avenue. From there, the 72 in RCP extends northerly in Hill Street until it connects to the existing Lime Street Channel. The 72 in RCP would replace the existing 42 in RCP.			
		Line A Water Quality Basin	Water Quality Basin	Located at the northwest corner of the intersection of Hill Street and Grand Avenue. The water quality basin would require a connection to the existing drainage system of the existing tract located at the southwest corner of the intersection of Grand Avenue and Hill Street. The water quality basin has a volume of 5.5 ac-ft and approximate ROW of 3.3 ac.	Storage = 5.5 ac-ft Approx. ROW = 3.3 ac		

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
	Existing	Line A and Lime Street Storm Drain	Trapezoidal channel	The construction of the Lime Street Channel was completed in 1963. The Lime Street Storm Drain is a concrete trapezoidal channel whose upstream origin is located at a point approximately 350 ft west of the intersection of Jamieson and Orange Street. The channel extends northeasterly toward Laguna Avenue, transitions into a 42 in RCP, then heads northerly toward Lake Elsinore. The channel has a base width of 3 ft, a sideslope of 1:1, and depths ranging from 3.5 ft to 4.5 ft.	Base width = 3 ft Sideslope = 1:1 Depth = 3.5 to 4.5 ft	2,995	Information not available
			RCP		Diameter = 42 in	750	Information not available
B	**Proposed**	Line B (Ortega Channel) Debris Basin	Debris basin	Ortega Channel Debris Basin is located at a point approximately 700 ft south of the intersection of Shoreline and	Storage = 15.7 ac-ft Approx. ROW = 1.6 ac		836

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				Lighthouse Drive, just upstream of the existing Ortega Channel, and has a volume of 15.7 ac-ft and an approximate ROW of 1.6 ac. The debris basin has a 36 in low-flow outlet pipe and a spillway structure.			
		Line B (Ortega Channel) Outlet	Floodwall	1 ft floodwalls would be added to the existing Ortega Channel outlet located on the north side of Grand Avenue.	Depth = 1 ft	727	1,400
		Line B Water Quality Basin	Water quality basin	The Line B Water Quality Basin is located at the southeast intersection of Serena Way and Grand Avenue and has an approximate volume of 5.0 ac-ft and an approximate area footprint of 3.2 ac.	Storage = 5.0 ac-ft Approx. ROW = 3.2 ac		
	Existing	Ortega Channel Debris	Debris basin	The Ortega Channel Debris Basin is located south of the	Storage = not available Approx. ROW		Information not available

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
		Basin		southernmost end of Welford Place and is located upstream of existing Ortega Channel Lateral A.	= 1.4 ac		
		Ortega Channel	Trapezoidal channel	The construction of Ortega Channel was completed in 1995. Ortega Channel is a concrete trapezoidal channel whose upstream origin is located at a point approximately 800 ft south of the intersection of Shoreline and Lighthouse Drive. The channel extends northerly towards Ortega Highway. At Ortega Highway, the channel transitions into an 84 in RCP and extends along Ortega Highway for approximately 815 ft. At this point, the 84 in RCP transitions into a 96 in RCP and extends into Lake Terrace Drive for	Typical base width = 5 ft Typical top width = 17 ft Sideslope = 1.5:1 Depth = 4 ft	1,678	870
			RCP		Diameter = 84 in	815	1,123
			RCP		Diameter = 96 in	280	1,123
			RCP		Diameter = 120 in	430	1,400
			RCB		Width = 10.5 ft Depth = 6 ft	100	1,400
			Trapezoidal Channel		Typical width = 2 ft Typical top width = 17 ft Typical depth = 5 ft Sideslope = 1.5:1	1,355	950

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				approximately 280 ft. The 96 in RCP then transitions into a 102 in RCP and extends parallel to Lake Terrace Drive for approximately 430 ft. At Grand Avenue, the 102 in RCP transitions into a 10.5 ft wide by 6 ft deep reinforced concrete box (RCB). From there, the concrete trapezoidal channel begins and extends parallel to Serena Way towards Lake Elsinore. The channel has a typical base width of 2 ft and sideslope of 1.5:1.			
	Existing	Ortega Channel Lateral A	RCP	The construction of Ortega Channel Lateral A was completed in 1992. Ortega Channel Lateral A is an RCP ranging in size from 54 in to 60 in in diameter. The upstream origin is at the existing Ortega Channel Debris Basin outlet and	Diameter = 54–60 in	1,858	604

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				the RCP extends northerly in Welford Place toward Lake Ridge Road. At Lake Ridge Road, the RCP extends easterly in Lake Ridge Road toward Grandview Drive. At Grandview Drive, the RCP extends northerly in Grandview and terminates at its confluence with existing Ortega Channel.			
	Existing	Ortega Channel Lateral A-1	RCP	The construction of Ortega Channel Lateral A-1 was completed in 1992. Ortega Channel Lateral A-1 is a 48 in RCP whose upstream origin is at the intersection of Trabuco Drive and Laguna Avenue. The RCP extends northerly in Laguna Avenue until it terminates at its confluence with existing Ortega Channel Lateral A.	Diameter = 48 in	440	114

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
	Existing	Ortega Channel Lateral A-2	RCP	The construction of Ortega Channel Lateral A-2 was completed in 1994. The upstream origin of the lateral is near the intersection of Grandview Avenue and Lakeridge Road. From there, the 36 in RCP extends northerly in Grandview until its confluence with the existing Ortega Channel Lateral A.	Diameter = 36 in	140	85
C	**Proposed**	Line C	RCP	The upstream origin of Line C is at the intersection of Windward Way and Grand Avenue as a 48in RCP. From there, the 48 in RCP extends easterly in Grand Avenue, transitions into a 60 in, then a 78 in RCP. Near the intersection of Blanche Drive and Grand Avenue, the 78 in RCP transitions into a 90 in	Diameter = 48 in	903	108
			RCP		Diameter = 60 in	350	264
			RCP		Diameter = 78 in	330	354
			RCP		Diameter = 90 in	280	522

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				RCP and extends northerly towards Lake Elsinore.			
		Line C-1	RCP	The upstream origin of Line C-1 is near the intersection of Santa Rosa Drive and Grand Avenue as a 48 in RCP. The RCP then extends westerly in Grand Avenue and transitions into a 66 in RCP. Near Blanche Drive, the 66 in RCP transitions into a 78 in RCP and confluences with the proposed Line C.	Diameter = 48 in	433	84
			RCP		Diameter = 66 in	155	90
			RCP		Diameter = 78 in	255	174
D	**Proposed**	Line D	RCP	The upstream origin of Line D is at a point approximately 840 ft south of the southern end of Santa Rosa Drive as a 60 in RCP. From there, the RCP extends northerly toward Santa Rosa Avenue, continues in Santa Rosa Avenue,	Diameter = 60 in	1,313	780
			RCP		Diameter = 66 in	380	780
			RCP		Diameter = 72 in	340	780
			RCP		Diameter = 78 in	140	780

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				transitions into a 66 in, 72 in, and 78 in RCP, then a daylight/outlet structure with an approximate length of 105 ft, width of 40 ft, and a maximum depth of 6.5 ft.			
E	**Proposed**	Line E	RCP	The upstream origin of Line E is near the intersection of the future alignment of Union Avenue and Esther Street as a 54 in RCP. From there, the RCP would extend northerly in Esther Street and transition into a 72 in RCP as it continues northerly and parallel to Olive Street towards Lake Elsinore.	Diameter = 54 in	904	204
			RCP		Diameter = 72 in	224	336
F	**Proposed**	Line F Debris Basin	Debris basin	The Line F Debris Basin is located at a point approximately 1,090 ft southwest of the intersection of Evergreen Street and Union Avenue at the	Storage = 2.6 ac-ft Approx. ROW = 1.9 ac		215

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				upstream origin of proposed Line F and has a volume of 2.6 ac-ft and approximate ROW of 1.9 ac. The debris basin consists of a 36 in outlet pipe and a spillway structure.			
		Line F	RCP	The upstream origin of Line F is at a point approximately 1,090 ft southwest of the intersection of Evergreen Street and Union Avenue as a 42 in RCP. From there, the 42 in RCP extends easterly toward a point located approximately 1,000 ft southeast of the intersection of Evergreen Street and Union Avenue. Near this point, the 42 in RCP transitions into a 60 in RCP, a 66 in RCP, and then a daylight/outlet structure with an approximate length of 75 ft, width of	Diameter = 42 in	727	215
			RCP		Diameter = 60 in	1,218	465
			RCP		Diameter = 66 in	377	540

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				25 ft, and a maximum depth of 4.5 ft as it extends northerly and parallel to Evergreen Street toward Lake Elsinore.			
		Line F-1	RCP	The upstream origin of Line F-1 is at a point approximately 370 ft southwest of the intersection of Akley and Gillette Street as a 42 in RCP. From there, the 42 in RCP extends northwesterly for approximately 1,040 ft to its point of confluence with the proposed Line F.	Diameter = 42 in	1,037	195
G	**Proposed**	Line G	RCP	The upstream origin of Line G is near the intersection of Deeble Entrance and Grand Avenue as a 54 in RCP. From there, the 54 in RCP transitions into a 66 in RCP and continues westerly along Grand toward	Diameter = 54 in	312	138
			RCP		Diameter = 66 in	180	168
			RCP		Diameter = 66 –in	225	276
			RCP		Diameter = 72 in	330	330

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				Adelfa Street. Near Adelfa Street, the 66 in RCP transitions into a 72 in RCP, then a daylight structure/outlet with an approximate length of 65 ft, width of 15 ft, and maximum depth of 6.5 ft as it continues northeasterly toward Lake Elsinore.			
		Line G Water Quality Basin	Water quality basin	A 4.0 ac-ft water quality basin with an approximate ROW of 1.9 ac is proposed at the southwest corner of the intersection of Grand Avenue and Adelfa Street. The water quality basin is located west of an existing development located at the southeast corner of the intersection of Adelfa Street and Grand Avenue. The water quality basin would require a connection to the existing development drainage	Storage = 4.0 ac-ft Approx. ROW = 1.9 ac		

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				system.			
H	**Proposed**	Line H (Adelfa Channel)	RCP	The upstream origin of Line H is at Gillette Street as a 48 in RCP. From there, the 48 in RCP extends easterly towards Zellar Street and then northerly in Zellar Street. At Cottrell Boulevard, the 48 in RCP transitions into a 66 in RCP and extends easterly in Cottrell Boulevard. At Landerville Boulevard, the 66 in RCP transitions into an 84 in RCP and continues easterly in Cottrell Boulevard and then northerly in Blackwell Boulevard toward Lake Elsinore.	Diameter = 48 in	819	375
			RCP		Diameter = 66 in	50	375
			RCP		Diameter = 66 in	791	500
			RCP		Diameter = 84 in	1,924	960
			RCP		Diameter = 84 in	600	1,000
		Line H-1	RCP	The upstream origin of Line H-1 is approximately 127 ft south of Cottrell Boulevard in Adelfa Street. From there, the	Diameter = 42 in	127	125

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				42 in RCP extends northerly in Adelfa Street until its confluence with the proposed Line H.			
		Line H-2	RCP	The upstream origin of Line H-2 is near the intersection of Brand Street and Anthony Ave as a 60 in RCP. From there, the 60 in RCP extends easterly in Anthony Avenue and heads northerly in Landerville Boulevard. At Peeler Avenue, the 60 in RCP transitions into a 54 in RCP and continues in Landerville Boulevard until its confluence with the proposed Line H at Cottrell Boulevard.	Diameter = 60 in	464	460
			RCP		Diameter = 54 in	710	460
		Lakeland Village Channel Debris/ Attenuation Basin	Debris/ attenuation basin	The debris/attenuation basin is proposed approximately 350 ft south of the southernmost end of Blackwell Boulevard	Storage = 97 ac-ft Approx. ROW = 10.8 ac		
			Basin outlet		Diameter = 66 in	100	515

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				and has a volume of 97 ac-ft and an approximate ROW of 10.8 ac.			
		Lakeland Village Channel	Rectangular channel	The upstream origin of the existing Lakeland Village Channel begins near the southernmost end of Blackwell Boulevard at the proposed debris/attenuation basin outlet. From there, the existing channel extends parallel to Baldwin Boulevard along the geographic low until it terminates at Lake Elsinore. The existing Lakeland Village Channel would remain and improvements would be made to the existing undersized culverts at Nelson, Hayes, Bobrick, MacKay, Brightman,	Width = 12 ft Depth = 4 ft	557	515
			Nelson RCB Culvert		Width = 12 ft Depth = 4 ft	65	515
			Hayes RCB Culvert		Width = 12 ft Depth = 4 ft	65	515
			Bobrick RCB Culvert		Width = 12 ft Depth = 4 ft	65	515
			MacKay RCB Culvert		Width = 12 ft Depth = 4 ft	65	515
			Brightman RCB Culvert		Width = 12 ft Depth = 4 ft	65	515
			Sutherland RCB Culvert		Width = 12 ft Depth = 4 ft	65	515
			Raley RCB Culvert		Width = 12 ft Depth = 4 ft	65	515
			Grand RCB Culvert		Width = 12 ft Depth = 4 ft	65	515
			Rectangular channel		Width = 12 ft Depth = 4 ft	614	515

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				Sutherland, Raley, and Grand to meet the existing capacity. The existing channel downstream of Grand Avenue would be removed and replaced with a 12 ft wide by 4 ft deep rectangular channel sized to convey 515 cfs.			
	Existing	Lakeland Village Channel	Rectangular channel	The construction of Lakeland Village Channel was completed in 1955. Lakeland Village Channel is a concrete-bottom rectangular channel with Elmwood fence and rock pill channel walls. The upstream origin is near Nelson Avenue. The channel then extends northerly along existing wash and terminates at Lake Elsinore.	Width = 12 ft Depth = 4 ft	1,850	Information not available
			Rectangular channel		Width = 7 ft Depth = 4.5 ft	600	Information not available
I	**Proposed**	Line I Debris	Debris basin	The Line I Debris Basin is located at a point	Storage = 3.0 ac-ft		220

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
		Basin		approximately 265 ft south of Hayes Street and upstream of proposed Line I. The debris basin has a volume of 3.0 ac-ft and an approximate ROW of 0.9 ac. The debris basin consists of a 36 in outlet pipe and a spillway structure.	Approx. ROW = 0.9 ac		
		Line I	RCP	The upstream origin of Line I is at a point approximately 265 ft south of Hayes Street as a 36 in RCP. From there, a 36 in RCP extends northerly in Wood Street. At Broomall Avenue, the 36 in RCP transitions into a 48 in RCP and continues in westerly in Broomall Avenue. At Dowman Street, the 48 in RCP transitions into a 72 in RCP and continues northerly in Dowman Street, easterly in	Diameter = 36 in	491	220
			RCP		Diameter = 48 in	429	220
			RCP		Diameter = 72 in	548	490
			RCP		Diameter = 72 in	761	650
			RCP		Diameter = 90 in	490	705

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				Brightman Avenue, and then northerly in Lorimer Street. At Grand Avenue, the 72 in RCP transitions into a 90 in RCP and outlets into Lake Elsinore.			
		Line I-1	RCP	The upstream origin of Line I-1 begins near the intersection of Baldwin Boulevard and Brightman Avenue as a 42 in RCP. From there, the 42 in RCP extends easterly in Brightman Avenue and transitions into a 48 in RCP at Churchill Street. The 48 in RCP extends easterly in Brightman Avenue until its confluence with the proposed Line I at Lorimer Street.	Diameter = 42 in	585	60
			RCP		Diameter = 42 in	250	100
			RCP		Diameter = 48 in	240	150
			RCP		Diameter = 48 in	540	185
	Existing	Churchill Street Drainage Ditch	Drainage ditch	The upstream origin of the Churchill Street drainage ditch is located at Grand Avenue. From	Base width = 2.5 ft Approximate depth = 3 ft	609	Information not available

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				there, a drainage ditch with a base width of 2.5 ft, depth of approximately 3 ft, and sideslope of 1.5:1, located on the west and east sides of Churchill Street, extends northerly toward Lake Elsinore.	Sideslope = 1.5:1		
J	**Proposed**	Line J	RCP	The upstream origin of Line J is near the intersection of Brightman Avenue and Benner Street as a 54 in RCP. From there, the 54 in RCP extends westerly in Brightman Avenue toward Turner Street. At Turner Street, the 54 in RCP transitions into a 60 in RCP. The 60 in RCP continues northerly in Turner Street and transitions into a 5 ft wide by 5 ft deep RCB. At Grand Avenue, the RCB transitions into a 7 ft wide by 5 ft deep RCB. The 7 ft wide by	Diameter = 54 in	556	126
			RCP		Diameter = 60 in	436	228
			RCB		Width = 5 ft Depth = 5 ft	212	228
			RCB		Width = 7 ft Depth = 5 ft	450	336

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				5 ft deep RCB then transitions into a daylight/outlet structure with an approximate length of 350 ft, width of 7 ft, and maximum depth of 5 ft as it extends northerly toward Lake Elsinore.			
K		Line K Debris Basin	Debris basin	Line K Debris Basin is located at the southernmost end of Ginger Lane, upstream of the proposed Line K, and has a volume of 7.4 ac-ft and an approximate ROW of 4.8 ac. The debris basin consists of a 36 in outlet pipe and spillway structure.	Storage = 7.4 ac-ft Approx. ROW = 4.8 ac		527
	Proposed	Line K	RCP	The upstream origin of Line K is near the southernmost end of Ginger Lane. From there, the 60 in RCP extends northerly in Ginger Lane towards Grand Avenue. At Grand	Diameter = 60 in	1,275	527
			RCP		Diameter = 78 in	617	527
			RCB		Width = 7 ft Depth = 5 ft	944	527

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				Avenue, the 60 in RCP transitions into a 78 in RCP and extends easterly in Turtle Dove Drive. The 78 in RCP transitions into a 7 ft wide by 5 ft deep RCB, then into a daylight structure/outlet with an approximate length of 200 ft, width of 7 ft, and maximum depth of 5 ft as it continues easterly in Turtle Dove Drive toward Lake Elsinore.			
		Line K -1	RCP	The upstream origin of Line K-1 begins near the intersection of Kathryn Way and Grand Avenue as a 36 in RCP. The 36 in RCP extends westerly in Grand Avenue and then easterly and parallel to Vail Street. Near Lake Elsinore, the 36 in RCP transitions into a daylight/outlet structure with an approximate length of	Diameter = 36 in	1297	63

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				265 ft, width of 10 ft and maximum depth of 3 ft.			
L	**Proposed**	Line L	Rectangular channel	The upstream origin of Line L begins at a point approximately 696 ft south of Grand Avenue. From there, the 6 ft wide by 5 ft deep rectangular channel extends along the geographic low. At Grand Avenue, the open channel transitions into a 7 ft wide by 7 ft deep RCB. The RCB then transitions into a 15 ft wide by 5 ft deep, to a 18 ft wide by 10 ft deep, to a 15 ft wide by 8 ft deep, to a 60 ft wide by 5 ft deep rectangular channel, then a daylight/outlet structure with an approximate length of 180 ft, width of 60 ft, and maximum depth of 5 ft, and outlets into	Width = 6 ft Depth = 5 ft	765	535
			RCB		Width = 7 ft Depth = 7 ft	110	535
			Rectangular channel		Width = 15 ft Depth = 5 ft	1,071	535
			Rectangular channel		Width = 18 ft Depth = 10 ft	323	535
			Rectangular channel		Width = 18 ft Depth = 10 ft	120	1,453
			Rectangular channel		Width = 15 ft Depth = 8 ft	606	1,453
			Rectangular channel		Width = 15 ft Depth = 8 ft	240	1,573

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				Lake Elsinore.			
M	**Proposed**	Line M	RCP	The upstream origin of Line M is near the southern end of Koves Road as a 60 in RCP. The 60 in RCP extends northerly in Koves Road and transitions into a 66 in RCP. At Grand Avenue, the 66 in RCP transitions into a 72 in RCP and extends westerly in Grand Avenue towards Gregory Place. At Gregory Place, the 72 in RCP transitions into a 90 in RCP and continues northerly in Gregory Place. At the geographic low, the 90 in RCP transitions into a 15 ft wide by 8 ft deep and then a 15 ft wide by 10 ft deep rectangular channel and confluences with the proposed Line L.	Diameter = 60 in	1,365	480
			RCP		Diameter = 66 in	832	614
			RCP		Diameter = 72 in	369	653
			RCP		Diameter = 90 in	1,173	710
			RCP		Diameter = 90 in	178	869
			Rectangular channel		Width = 15 ft Depth = 8 ft	806	869
			Rectangular channel		Width = 15 ft Depth = 8 ft	264	901
			Rectangular channel		Width = 15 ft Depth = 10 ft	130	901

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
N	**Proposed**	Line N Debris Basin	Debris basin	Line N Debris Basin is located a point approximately 690 ft south of Morrell Lane, just upstream of the proposed Line N, and has a volume of 9.3 ac-ft and approximate ROW of 2.9 ac. The debris basin consists of a 36 in low-flow outlet pipe and spillway structure.	Storage = 9.3 ac-ft Approx. ROW = 2.9 ac		822
		Line N	RCP	The upstream origin of Line N is at a point approximately 690 ft south of Morrell Lane, just downstream of the proposed Line N debris basin. From there, the 66 in RCP extends northerly towards Morrell Lane. At Morrell Lane, the 66 in RCP transitions into a 90 in RCP and continues northerly in Morrell Lane towards Grand Avenue. At Grand	Diameter = 66 in	614	822
			RCP		Diameter = 90 in	1,316	1,018
			RCP		Diameter = 90 in	1,000	1,050
			RCP		Diameter = 102 in	600	1,066
			RCP		Diameter = 102 in	1,860	1,236
			RCB		Width = 12 ft Depth = 7 ft	812	1,293
			Rectangular channel		Width = 20 ft Depth = 7 ft	398	1,369

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				Avenue, the 90 in RCP transitions into a 102 in RCP. The 102 in RCP extends westerly in Grand Avenue and northerly in Stoneman Street. At approximately 1,859 ft into Stoneman Street, the 90 in RCP transitions into a 12 ft wide by 7 ft deep RCB. From there, the RCB transitions into a 20 ft wide by 7 ft deep open channel, then a daylight/outlet structure with an approximate length of 230 ft, width of 50 ft, and maximum depth of 4 ft as it extends toward Lake Elsinore.			
		Lateral N-1	RCP	The upstream origin of Lateral N-1 is at a point approximately 367 ft west of Stoneman Street as a 36 in RCP. From there, the 36 in RCP extends easterly	Diameter = 36 in	1,152	130

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				until its confluence with proposed Line N.			
		Line N Water Quality Basin	Water quality basin	Line N Water Quality Basin is located at the southwest corner of the intersection of Palomar and Stoneman Street. The water quality basin has an approximate volume of 5.9 ac-ft and an approximate ROW of 3.7 ac and would require a connection to the drainage system of the tract located west of the proposed water quality basin.	Storage = 5.9 ac-ft Approx. ROW = 3.7 ac		
	Existing	Stoneman Street Channel	Trapezoidal channel	The construction of Stoneman Street Channel was completed after 1966. Stoneman Street is a paved trapezoidal channel and has a typical base width of 24 ft and 6:1 sideslopes. The upstream origin begins near Stoneman Street at a point	Base width = 24 ft Sideslopes = 6:1	1,011	Information not available

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				approximately 1,015 ft south of Grand Avenue and extends northerly in Stoneman Street until it terminates approximately 300 ft north of Grand Avenue.			
O	**Proposed**	Line O-10 Debris Basin	Debris basin	Line O-10 Debris Basin is located near the intersection of Skylark Drive and Cissna Place, just upstream of the proposed Line O-10 and has a volume of 9.1 ac-ft and an approximate ROW of 1.8 ac. The debris basin consists of a 36 in RCP outlet and spillway structure.	Storage = 9.1 ac-ft Approx. ROW = 1.8 ac		502
		Line O-10	RCP	The upstream origin of Line O-10 is near the intersection of Skylark Drive and Cissna Place as a 66 in RCP. From there, the 66 in RCP extends northerly in Skylark Drive. At Grand Avenue, the 66 in RCP	Diameter = 66 in	2134	502
			RCP		Diameter = 78 in	2276	532
			Rectangular channel		Width = 20 ft Depth = 10 ft	1,293	779
			Rectangular channel		Width = 14 ft Depth = 8 ft	30	779

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				transitions into a 78 in RCP and extends easterly in Grand Avenue. At the geographic low between Gill Lane and Corydon Road, the 78 in RCP transitions into a 20 ft wide by 10 ft deep open channel. Just before the connecting to the existing Palomar Channel, the 20 ft wide by 10 ft deep transitions into a 14 ft by 8 ft deep open channel.			
		Line O-20 Debris Basin	Debris basin	Line O-20 Debris Basin is located at a point approximately 1,060 ft south of Grand Avenue on Borchard Drive, just upstream of the proposed Line O-20, and has a volume of 6.7 ac-ft and an approximate ROW of 2.1 ac.	Storage = 6.7 ac-ft Approximate ROW = 2.1 ac		356
		Line O-20	RCP	The upstream origin of Line O-20 is at a point	Diameter = 60 in	1,215	356

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
			RCP	approximately 1,060 ft south of Grand Avenue on Borchard Drive. From there, the 60 in RCP extends northerly in Borchard Drive. At Grand Avenue, the 60 in RCP transitions into a 72 in RCP, extends westerly in Grand Avenue and connects to the existing 78 in RCP in Ontario Way. The downstream terminus of the existing 78 in RCP transitions into a proposed 7 ft wide by 7 ft deep RCB. The RCB then transitions into a daylight/outlet structure with an approximate length of 300 ft, width of 50 ft, and maximum depth of 5 ft as it outlets into Lake Elsinore.	Diameter = 72 in	592	356

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
	Existing	Corydon Channel	RCB	The construction of Corydon Channel was completed after 2006. Corydon Channel is a rectangular concrete channel with an average width of approximately 28.7 ft and depth of 12.5 ft. The upstream origin begins at Union Street as a double 14 ft wide by 8 ft deep RCB, transitions into a rectangular channel extending parallel to Union Street, transitions into a double 14 ft wide by 8 ft deep RCB and terminates at the confluence with existing Palomar Channel.	Width = 2–14 ft Depth = 8 ft	80	1,174
			Rectangular channel		Typical base width = 28.7 ft Depth = 12.5 ft	317	1,174
			RCB		Width = 2–14 ft Depth = 8 ft	101	1,174
		Palomar Channel	RCB	The construction of Palomar Channel was completed after 2006. Palomar Channel is a stone riprap-lined	Triple width = 14 ft Depth = 4.2 ft	160	1036
			Trapezoidal channel		Base width = 22 ft	706	2233

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				channel. The upstream origin begins at Corydon Street as a triple 14 ft wide by 4.2 ft deep RCB and transitions into a trapezoidal channel with base width ranging from 22 to 24 ft, top width ranging from 70 to 76 ft, depth ranging from 12 to 13 ft respectively, and sideslope of 2:1. The trapezoidal channel extends northerly along Old Coach Road. At Palomar Street, the trapezoidal channel transitions into a 2–14 ft wide by 8 ft deep RCB.	Top width = 70 ft Depth = 12 ft Sideslope = 2:1		
					Base width = 24 ft Top width = 76 ft Depth = 13 ft Sideslope = 2:1	1245	2374
			RCB		Double width = 14 ft Depth = 8 ft	95	2374
		78 in RCP in Ontario Way	RCP	Upstream origin begins at Grand Avenue then extends northerly in Ontario Way towards Lake Elsinore for approximately 2,800 ft.	Diameter = 78 in	2,800	516

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
P	**Proposed**	Channel A	Trapezoidal channel	The upstream origin of Channel A begins at the downstream terminus of Sedco-Bryant Street Storm Drain Stage 1. From there, the 40 ft wide by 6 ft deep trapezoidal channel extends westerly along the geographic low. At Corydon Road, the trapezoidal channel transitions into a 42 ft wide by 6 ft deep RCB. The 42 ft wide by 6 ft deep RCB would replace the existing 42 ft wide by 4 ft deep RCB.	Width = 40 ft Depth = 6 ft Sideslope = 2:1	1,573	1,115
			RCB		Width = 42 ft Depth = 6 ft	60	1,115
	EXISTING	Sedco-Bryant Street Storm Drain Stage 1	RCP	The construction of Bryant Street Storm Drain Stage 1 was completed in 2008. The Bryant Street Storm Drain Stage 1 is a 30 in RCP. The upstream origin begins near Palomar Street.	Diameter = 30 in	2,131	18

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				The storm drain then extends southerly in Bryant Street for approximately 1,325 ft then northerly and parallel to Union Street for approximately 810 ft where it terminates at the confluence with proposed Channel A.			
		Sedco-Bryant Street Storm Drain	RCP	The construction of Bryant Street Storm Drain was completed after 2006. Bryant Street Storm Drain is a system of RCPs ranging in size from 42 in to 66 in. The upstream origin is at the existing Bryant Street Debris Basin Outlet located at the southernmost end of Sweet Nectar Road. From there, the storm drain extends northerly in Sweet Nectar Road and continues northerly in Bryant Street to Grand Avenue. The	Diameter = 42 in	1,027	245
			RCP		Diameter = 48 in	860	292
			RCP		Diameter = 54 in	677	304
			RCP		Diameter = 66 in	1,027	313

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				storm drain then travels northerly in Grand Avenue for approximately 1,016 ft, where it terminates.			
			Drainage ditch Tract 23111	The upstream origin of the paved ditch begins at the downstream terminus of Sedco-Bryant Street Storm Drain at Grand Avenue. From there, the paved ditch extends northerly and parallel to Bryant Street until it confluences with the proposed Channel A and existing Sedco-Bryant Street Storm Drain Stage 1.	Typical base width = 4 ft Typical top width = 12 ft Typical depth = 2 ft	2667	Information not available
		Sedco-Bryant Street Debris Basin	Debris basin	The construction of Bryant Street Debris Basin was completed after 2005. The Bryant Street Debris Basin is located upstream of the existing Bryant Street Storm Drain at	Storage = 1.2 ac-ft		245

Table ES-2
Detailed Project Description

Proposed Lakeland Village MDP Facilities							
Watershed	*Proposed/ Existing*	*Facility Name*	*Facility Type*	*Facility Description*	*Facility Size*	*Approximate Facility Length (ft)*	*100-Year Q (cfs)*
				the southernmost end of Sweet Nectar Road and has a volume of 1.2 ac-ft.			

Source: District 2012
ft = foot/feet; cfs = cubic foot/feet per second; ac-ft = acre-foot/feet; ac = acre(s); in = inch(es); RCP = reinforced concrete pipe___; RCB = reinforced concrete box; ROW = right-of-way

ES-1.4.1 Project Objectives

A clear statement of Project objectives allows for the analysis of reasonable alternatives to the Project. Reasonable alternatives, both on and off site, must be analyzed per Section 15126.6 of the CEQA Guidelines. The Project is intended to meet the following objectives, based on the concerns of the Project area:

1. Reduce the level of risk from flooding and debris flows to existing/future development and infrastructure to below the 100-year level.[1]
2. Provide all-weather access along Grand Avenue by conveying 100-year tributary flood flows below the traveled way.
3. Provide a master drainage plan at the lowest construction and right-of-way acquisition cost.
4. Economically manage debris to ensure that the 100-year design capacity is maintained during major storm events.
5. Consider, and where feasible, incorporate regional water quality facilities to mitigate for the impacts from existing development and to improve the water quality of Lake Elsinore.
6. Avoid or minimize the impacts to potentially sensitive areas.

ES-1.4.2 Other Public Agencies Who May Use This CEQA Document or Issue Permits for Portions of the MDP Facilities

In addition to CEQA compliance, the Project is also being reviewed for the need to obtain permits and approvals under other federal, state, and local laws that may be applicable to the construction and maintenance of the MDP facilities. While these other permits and approvals are independent of the Draft PEIR, they will be coordinated as closely as possible. The following is a list of the permits potentially required for the future construction and maintenance of the MDP facilities.

U.S. Army Corps of Engineers

A Clean Water Act Section 404 permit will be required if the construction or maintenance of the MDP facilities involves the discharge or dredged or fill material within waters of the United States or adjacent wetlands.

RWQCB, Santa Ana Region

Compliance with the National Pollutant Discharge Elimination System Construction General Permit will be required for grading activities of 1 acre or larger.

[1] The 1% annual chance flood event.

If a 404 permit is required, then a Section 401 Water Quality Certification will be required.

A Waste Discharge Permit will be required if ground dewatering is necessary during tunneling activities or if waste is discharged into waters of the state.

California Department of Fish and Wildlife

A Fish and Game Code Section 1600 Streambed Alteration Agreement will be required if a jurisdictional streambeds or stream banks will be altered.

California Department of Transportation

Encroachment permits for crossings of State Route 74 will be required. Water Pollution Control Plans will also be required.

County of Riverside

Encroachment permits will be required to construct the MDP facilities within road rights-of-way.

City of Lake Elsinore

Encroachment permits will be required to construct the MDP facilities within road rights-of-way.

City of Wildomar

Encroachment permits will be required to construct the MDP facilities within road rights-of-way.

ES-1.5 Summary of Environmental Impacts

Table ES-3, Summary of Environmental Impacts and Mitigation Measures, provides a summary of the impact analysis related to the Project. The table identifies a summary of the significant environmental impacts resulting from the Project pursuant to the CEQA Guidelines Section 15123(b)(1); for more detailed discussion, please see Section 4.0 of this document. Table ES-3 also lists the applicable mitigation measures related to identified significant impacts, as well as the level of significance after mitigation is identified. As stated in Section 2.0 of the Draft PEIR, the IS prepared and circulated with the NOP for public review of the Project concluded that the Project would not result in significant impacts to agricultural resources, land use/planning, mineral resources, population/housing, public services, and recreation; therefore, these resource areas are not addressed in the Draft PEIR and consequently not mentioned in Table ES-3.

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
Aesthetics		
Substantial adverse effect on a scenic vista. / **Significant**	No feasible measures proposed.	Significant and unavoidable
Substantially degrade the existing visual character or quality of the site and its surroundings. / **Significant**	No feasible measures proposed.	Significant and unavoidable
Air Quality		
Violate any air quality standard or contribute substantially to an existing or projected air quality violation. / **Significant**	**AIR-1:** For all MDP facilities, to minimize impacts related to particulate matter (PM_{10} and $PM_{2.5}$) generation from construction activities, consistent with SCAQMD Rule 403, the District shall ensure that fugitive dust generated by grading and construction activities will be kept to a minimum, with a goal of retaining dust on the site. The contractor shall be required to comply with the applicable provisions of SCAQMD Rule 403 and implement appropriate fugitive dust control measures that include watering, stabilized construction access to reduce tracking of mud or dirt onto public roads, covering trucks hauling loose materials off site, and street sweeping. **AIR-2:** The following measures shall be adhered to by the District and its contractors during project grading and construction to reduce NO_x from construction equipment related to water quality basins (or an activity of similar magnitude): a) All off-road construction equipment with engines rated at greater than 100 horsepower shall be equipped with California Air Resources Board certified Tier 3 or better engines. Records shall be maintained by the contractor and provided to the District to verify the horsepower, model year, and tier of all equipment engines. b) The contractor shall maintain construction equipment in tune per	Significant and unavoidable

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	the manufacturer's specifications and make available maintenance records to the District upon request.	
Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). / **Significant**	**AIR-1:** See above. **AIR-2:** See above.	Significant and unavoidable
Expose sensitive receptors to substantial pollutant concentrations. / **Significant**	**AIR-1:** See above.	Less than significant
Biological Resources		
Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. / **Significant**	**BIO-1:** Suitable habitat has been identified within the Project boundary within the NEPSSA, CASSA, and Burrowing Owl Survey Areas (see Table 4.3-4). All MDP facility alignments and impact footprints shall be reviewed by the District, City of Lake Elsinore, or City of Wildomar during project design in order to determine if suitable habitat conditions have changed from the analysis contained herein. If no changes have occurred, and no suitable habitat is present for CASSA species, NEPSSA species, or burrowing owls, then no further surveys are needed. For the MDP facilities identified as having suitable habitat on Table 4.3-4, those facilities will require habitat assessments and focused surveys conducted by a qualified biologist during the appropriate season. If species are found to be present in the footprint, further measures as recommended by the District's, City of Elsinore's, or City of Wildomar's qualified biologist shall be taken to avoid or minimize adverse project effects to these species and their habitat. Per Section 6.3.2 of the MSHCP, the District, City of Lake Elsinore or City of Wildomar shall avoid 90% of the areas providing long-term conservation value for the target	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	species. For burrowing owls, if owls are found in the impact area of an MDP facility, Species Objective 5 from the MSHCP shall be implemented. If avoidance is not feasible, then individual projects will require the approval of a Determination of Biologically Equivalent or Superior Preservation (DBESP) pursuant to the requirements of Section 6.3.2 of the MSHCP including appropriate mitigation, i.e., on-site or off-site enhancement, restoration, establishment (creation), preservation, relocation and/or payment into habitat mitigation banks or in lieu fee programs, or a combination of one or more of these options. **BIO-2:** In order to avoid violation of the MBTA and California Fish and Wildlife Code, the District, City of Lake Elsinore and/or City of Wildomar shall ensure that site-preparation activities (removal of trees and vegetation) shall be avoided, to the greatest extent possible, during the nesting season (generally February 1 to August 31) of potentially occurring native and migratory bird species. If site-preparation activities are proposed during the nesting/breeding season (generally February 1 to August 31), a pre-activity field survey shall be conducted by the District's, City of Lake Elsinore's or City of Wildomar's qualified biologist to determine if active nests of species protected by the MBTA or the California Fish and Wildlife Code are present in the construction zone. If active nests are not located within the a future MDP facility alignment and appropriate buffer (i.e., within 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected bird nests (non-listed), or within 100 feet of	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	sensitive or protected songbird nests), construction may be conducted during the nesting/breeding season. However, if active nests are located during the pre-activity field survey, no grading or heavy equipment activity shall take place within at least 500 feet of an active listed species or raptor nest, 300 feet of other sensitive or protected (under MBTA or California Fish and Wildlife Code) bird nests (non-listed), or within 100 feet of sensitive or protected songbird nests until the nest is no longer active. **BIO-3:** All future MDP facilities within the mapped survey area Burrowing owls shall have a qualified biologist conduct a pre-construction survey for resident burrowing owls within 30 days prior to commencement of grading and construction activities. If ground-disturbing activities in these areas are delayed or suspended for more than 30 days after the pre-construction survey, the area shall be resurveyed for owls. Take of active nests shall be avoided. The pre-construction survey and any relocation activity will be conducted following accepted protocols and in coordination with the Regional Conservation Authority (RCA), California Department of Fish and Wildlife (CDFW), and U.S. Fish and Wildlife Service.	
Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. / **Significant**	**BIO-4:** As Permittees to the MSHCP, the District, City of Lake Elsinore, or City of Wildomar shall ensure that the construction of each future MDP facility shall be compliant with Section 6.1.2 of the MSHCP and documented as such. For areas not excluded as artificially created, the MSHCP requires 100% avoidance of riparian/riverine areas. If avoidance is not feasible, then individual projects will require the approval of a DBESP	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	including appropriate mitigation, i.e., on-site or off-site enhancement, restoration, establishment (creation), preservation, payment into habitat mitigation banks or in lieu fee programs, or a combination of one or more of these options, to offset the loss of functions and values as they pertain to the MSHCP Covered Species. If riparian vegetation will be impacted, then focused surveys for least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo will be required if suitable habitat is present. If avoidance is not feasible, then individual projects will require the approval of a DBESP including appropriate mitigation, i.e., on-site or off-site enhancement, restoration, establishment (creation), preservation, payment into habitat mitigation banks or in lieu fee programs, or a combination of one or more of these options. **BIO-5:** The District, City of Lake Elsinore, or City of Wildomar shall conduct Project-specific jurisdictional delineations to determine the limits of the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board, and CDFW jurisdiction for the MDP facilities listed in Table 4.3-5. Impacts to jurisdictional waters will need to be verified by the corresponding regulatory agency. If impacts are anticipated, then jurisdictional water will either a) be completely avoided or b) necessary permits from requisite jurisdictions will be obtained. Obtaining permits may include mitigation for impacts, which would most likely include similar mitigation to that offered in a DBESP such as restoration, creation and enhancement of resources in exchange for impacts from the project (same as	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	MM HYDRO-4). The District, the City of Lake Elsinore, or the City of Wildomar shall be responsible for obtaining required regulatory permits for any jurisdictional features prior to ground disturbance.	
Have a substantial adverse effect on biological resources involved within a jurisdictional water features as defined by federal, state, or local regulations (e.g., Section 404 of the Clean Water Act, Section 401 of the Clean Water Act, Section 1602 of California Fish and Game Code, Porter-Cologne Water Quality Control Act, etc.) through direct removal, filing, hydrological interruption, or other means. / **Significant**	**BIO-5:** See above.	Less than significant
Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. / **Less than significant**	None required	N/A
Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. / **Less than significant**	None required	N/A
Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. / **Significant**	**BIO-1:** See above. **BIO-3:** See above.**BIO-6:** MDP facilities located within MSHCP Criteria Cells will require submittal of a JPR to the RCA by the District, City of Lake Elsinore, or City of Wildomar as Permittees to the MSHCP for review and approval to illustrate that the MDP facility does not affect the Reserve Assembly, demonstrate consistency with Sections 6.1.2, 6.1.3, 6.1.4, and 6.3.2, and demonstrate that the appropriate surveys and applicable mitigation measures (refer to **MM BIO-1** through **MM BIO-5**, and **MM BIO-8**) have been conducted.	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	BIO-7: A biological resource assessment shall be prepared by a qualified biologist during the design phase of each MDP facility. The biological resource assessment shall include project location, project description, regulatory context, methods for field surveys including weather, dates, and time of surveys, mapping, and results of the biological assessment. Since the Project is located within the Western Riverside County MSHCP Plan Area, the biological resources assessment shall also include a MSHCP Consistency Analysis and Findings pursuant to Sections 6.1.2, 6.1.3, 6.3.2, and 6.1.4 of the MSHCP. For MDP facilities located within a Criteria Cell, the biological resource assessment shall be included as part of the JPR application. **BIO-8:** As Permittees to the MSHCP, the District, City of Lake Elsinore, or City of Wildomar shall ensure where appropriate, future MDP facilities shall be surveyed for vernal pools and/or fairy shrimp habitat and documented as such. For areas not excluded as artificially created, the MSHCP requires 100% avoidance of vernal pools and fairy shrimp habitat. If avoidance is not feasible, then individual projects will require the approval of a DBESP including appropriate mitigation to offset the loss of functions and values as they pertain to the MSHCP covered species. Vernal pools and other seasonal ponding depressions will also need to be evaluated for Riverside and Vernal pool fairy shrimp.	
Cultural Resources		
Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. / **Significant**	**CUL-1:** Prior to final design of flood control facilities, a cultural resources survey not within an existing road rights-of-way shall be completed by a	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	qualified archaeologist. The survey shall include an updated site records search at the Eastern Information Center (EIC) to locate all previously recorded archaeological sites within the proposed construction area of Master Drainage Plan (MDP) facilities. The survey shall assess the direct and indirect impact of the MDP facility. Consultation with the Pechanga Band of Luiseño Indians (Pechanga Tribe) shall be initiated at the beginning of the survey to request additional site information and requested participation in the Project. If the record search indicates that the area has been surveyed and the study is not older than 5 years, a reconnaissance survey shall verify the condition and location of any previously recorded archaeological sites. If previously recorded sites are relocated during the survey, any changes in site condition shall be documented on appropriate State Department Parks and Recreation (DPR) forms, documented in the final technical study as described further in **MM CUL-3** and submitted to the EIC and the Pechanga Tribe (upon request). Any prehistoric or historic sites identified during the survey shall be recorded on appropriate DPR forms, discussed and described in the technical study, and submitted to the EIC and the Pechanga Tribe (upon request). **CUL-2:** If the cultural resources survey determines that construction of an MDP facility would potentially impact a prehistoric or historic archaeological site and avoidance is not feasible, the Riverside County Flood Control and Water Conservation District (District), City of Lake Elsinore, or City of Wildomar shall have a qualified	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	archaeologist develop a testing program which includes the excavation of shovel test pits and/or test units, in consultation with the Pechanga Tribe. The testing program shall fully define the boundaries of surface and subsurface materials, evaluate the integrity and significance of the site and collect surface and subsurface artifacts. The program shall include mapping of all site features, artifacts, and excavation locations. Related laboratory work shall be conducted to treat the materials that are recovered from the archaeological investigations in consultation with the Tribe. If construction of an MDP facility would potentially impact a historic architectural resource structure because the MDP facility cannot be moved to avoid the resource, a survey of the structure by a qualified architectural historian shall be required to assess the structure's significance. A review of primary and secondary documentary sources, such as tax assessor records, historic fire insurance maps, city directories, aerial photographs, and local building permit files, shall be conducted. The assessment shall take into account any events with which the structure is associated, any persons who may have lived in the structure, distinctive architectural characteristics, methods of construction, or association with a notable architect/designer. The assessment by the architectural historian shall recommend to the District, the City of Lake Elsinore, or the City of Wildomar guidelines to assist in the maintenance, repair, and renovation of the resource, if applicable. **CUL-3:** For MDP facilities not within existing roads or road rights-of-way	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	that have prepared a cultural resources survey per **MM CUL-1** and **MM CUL-2** described above, a technical report shall be prepared that documents all of the information gathered from the survey, data gathered from the testing program of prehistoric or historic archaeological sites, and consultation efforts with the Pechanga Tribe. The report shall identify any significant cultural resources and evaluate the potential impacts to those resources, providing an analysis based upon a regional, landscape viewpoint. If any site evaluated would be impacted by construction of a proposed component, additional project-specific mitigation measures shall be required to reduce the level of impacts. These mitigation measures shall include one of the following or a combination thereof: a) Redesign of the proposed component to avoid the significant cultural resource, thereby avoiding significant impacts. b) A data recovery program to recover sufficient cultural materials to exhaust the research potential of the site such that construction shall no longer represent a significant impact. **CUL-4:** A data recovery program shall be required whenever avoidance from construction of MDP facilities has been demonstrated to be infeasible. The data recovery program shall include the excavation of a sufficiently large percentage of a subsurface deposit such that the research potential of the deposit will be exhausted. Typically, a 5% sample of the deposit will be required; however, sample sizes in the data recovery program will be	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	determined on a per site basis in consultation with the Pechanga Tribe. Laboratory analysis and research shall be conducted to catalog all recovered materials and interpret the data. Interpretation of the site shall take into account the traditional beliefs and customs of the Tribe. **CUL-5:** Indirect impacts may be identified where construction of MDP facilities would occur adjacent to a significant resource. In cases where construction activities are planned adjacent to known cultural resources, temporary fencing shall be placed around the site boundary by the Project archaeologist and the Pechanga Tribe prior to the start of construction activities to prevent access to the site. All temporary fencing shall be removed once the construction activities are completed. **CUL-6:** Ground disturbances associated with construction of proposed MDP facilities that contain recorded archaeological sites identified in the cultural records survey (**MM CUL-1** and **MM CUL-2**) and archaeological sites identified in the technical report (**MM CUL-3**), regardless of significance, shall be monitored by a qualified archaeologist. Monitoring of construction activities shall ensure that any materials uncovered during construction activities are identified and adequately recorded. If the site is prehistoric, a local Native American observer shall also be retained by the District, the City of Lake Elsinore, or the City of Wildomar to monitor construction activities. Not all MDP facilities will be constructed by the District. For District-administered contracts, monitors from	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	the Tribe shall be allowed to monitor grading and ground-disturbing activities pursuant to the executed Master Cultural Resources Treatment and Tribal Monitoring Agreement between the Pechanga Tribe and the District. Additionally, the hired contractor would use the District's plans and specifications, which would include all the mitigation measures outlined in this section. For MDP facilities located in the Cities of Lake Elsinore and Wildomar where those jurisdictions will have lead agency authority over the project constructing the MDP facility, the cities can utilize the mitigation measures outlined herein, or prepare its own California Environmental Quality Act (CEQA) document with mitigation measures and/or incorporation conditions of approval in its project approval process that addresses monitoring activities within proximity to recorded archaeological sites. **CUL-7:** A pre-construction workshop shall be conducted by a qualified archaeologist for an MDP facility not located within roads or roads right-of-way. The workshop shall address the following: review the types of archaeological resources that may be uncovered; provide examples of common archaeological artifacts to examine; describe why monitoring is required; identify monitoring procedures; describe what would temporarily stop construction and for how long; describe a reasonable worst-case resource discovery scenario (i.e., discovery of intact human remains or a substantial midden deposit); and describe reporting requirements and the responsibilities of the construction	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	supervisor and crew. The workshop shall make attendees aware of prohibited activities, including unauthorized collecting of artifacts, which can result in impact on cultural resources. **CUL-8:** In the event cultural remains are encountered during construction of any MDP facilities, work shall stop immediately until a qualified archaeologist is retained to determine the potential significance of the find. If the remains are prehistoric, the District, the City of Lake Elsinore, or the City of Wildomar shall contact the Pechanga Tribe and abide by the District and Pechanga Master Agreement related to treatment of resources unexpectedly uncovered. Measures per the Master Agreement between the District and the Pechanga Tribe shall include: giving all cultural items, including ceremonial items and archaeological items to the Pechanga; waiving ownership of any items found in favor of the Pechanga; no photography shall be taken of any articles found; and no destructive testing shall occur on ceremonial and/or sacred objects and human remains unless permission is granted by the Pechanga Tribe.	
Cause a substantial adverse change in the significant of an archaeological resource pursuant to §15064.5. / **Significant**	**CUL-1:** See above. **CUL-2:** See above. **CUL-3:** See above. **CUL-4:** See above. **CUL-5:** See above. **CUL-6:** See above. **CUL-7:** See above.	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	CUL-8: See above.	
Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. / **Significant**	**CUL-9:** A literature search, and/or paleontological resources field survey (or surveys) by a certified paleontologist shall be completed prior to construction of any MDP facility that lie within the High or Undetermined potential sensitivity paleontological resource area. Relevant treatment for the site as recommended by the Society for Vertebrate Paleontology shall be applied, if needed. If the results of such survey (or surveys) identify the presence of potentially significant paleontological resources, avoidance or other appropriate measures (such as excavation, analysis, and interpretation of resources) potentially leading to curation in perpetuity in a facility that meets the standards of the State of California Guidelines for the Curation of Archaeological Collections and 36 CFR 79, shall be implemented. **CUL-10:** In the unlikely event that paleontological resources such as vertebrate, plant, or invertebrate fossils are discovered during construction or site disturbance, work shall stop within the area of the discovery and the District, along with possibly the County of Riverside, the City of Lake Elsinore, or the City of Wildomar Planning Department, shall be contacted so that a qualified paleontologist can be consulted to determine the extent or quality of the find and make recommendations for further action, if necessary.	Less than significant
Geology and Soils		
Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction. / **Significant**	**GEO-1**: In order to ensure individual MDP facilities are placed on the least unstable areas, or designed in a way to address any unstable geologic conditions (i.e., liquefaction), grading	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	and earthwork construction shall conform to *Standard Specifications for Public Works Construction* (the "Greenbook") and grading specifications shall be developed by a geotechnical consultant hired by the Riverside County Flood Control and Water Conservation District (District), the City of Lake Elsinore, or the City of Wildomar. Typical earthwork considerations include: • Remedial grading requirements for any given site are determined based on a site-specific geotechnical investigation to provide stable ground for any proposed structures. Generally, the upper weathered formational materials or loose soils are removed until dense, relatively "non-compressible" soils (alluvium or Formation materials) are encountered. • Topsoil and vegetation layers, root zones, and similar surface materials are typically not suitable for reuse as engineered fill and are normally stripped and either stockpiled for reuse in landscape areas or removed from the site. Most alluvial materials and bedrock materials are considered suitable for reuse as compacted engineer fills. However, excavations in the bedrock materials may generate oversize materials that are difficult to handle in engineered fills. Typically, cobbles and boulders larger than 6 inches in diameter are not placed in structural fill under settlement-sensitive improvements and may require special handling and grading procedures. **GEO-2:** In order to provide a safe and stable earthfill dam that would be associated with debris basins or water quality basins, during all phases of construction and operation, the following criteria must be met in accordance with the U.S. Department	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	of the Interior, Bureau of Reclamation, *Design of Small Dams* (BOR 1987): a) The embankment, foundation, abutments, and reservoir rim must be stable and must not develop unacceptable deformations under all loading conditions brought about by construction of the embankment, reservoir operation, and earthquake. b) Seepage flow through the embankment, foundation, abutments, and reservoir rim must be controlled to prevent excessive uplift pressures; piping; instability; sloughing; removal of material by solutioning; or erosion of material into cracks, joints, or cavities. The amount of water lost through seepage must be controlled so that it does not interfere with planned Project functions. c) The reservoir rim must be stable under all operating conditions to prevent the triggering of a landslide into the reservoir that could cause a large wave to overtop the dam. d) The embankment must be safe against overtopping or encroachment of freeboard during occurrence of the IDF (inflow design flood) by the provision of sufficient spillway and outlet works capacity. e) Freeboard must be sufficient to prevent overtopping by waves. f) Camber should be sufficient to allow for settlement of the foundation and embankment, but not included as part of the freeboard. g) The upstream slope must be protected against wave erosion, and the crest and downstream	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	slope must be protected against wind and rain erosion. **GEO-3:** In order to address risk of seismic activities such as land spreading or slope instability, future proposed MDP facilities will be assessed by the District, the City of Lake Elsinore, or the City of Wildomar through a qualified geologist to determine whether they are located in areas prone to these types of seismic activities. If so, a geotechnical report (field exploration and borings) shall be prepared during the design phase. The geotechnical report shall include a site-specific seismic evaluation to determine the intensity of ground shaking on the specific MDP facility. MDP facilities within a liquefaction hazard zone per the Riverside County General Plan shall also be evaluated for liquefaction-induced settlement. An analysis of lateral spreading affects to properties adjacent to the lake edge and where future MDP facilities are proposed as well as a review to determine whether the potential for landsliding or slope instability exists shall be performed by a qualified geologist and provided to the District during the design phase. Additionally, future site-specific geologic review shall be performed to determine whether the potential for land sliding or slope instability exist, especially for MDP facilities located on the higher elevations of the Project boundary.	
Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides or mudflows.	**GEO-2:** See above. **GEO-3:** See above.	Less than significant
Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and	**GEO-1:** See above. **GEO-2:** See above.	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	**GEO-3:** See above.	
Greenhouse Gas Emissions		
Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. / **Less than significant**	**AIR-2**: See above.	Less than significant
Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. / **Less than significant**	**AIR-2:** See above.	Less than significant
Hazards and Hazardous Materials		
Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. / **Significant**	**HAZ-1:** As part of the final design of each Master Drainage Plan (MDP) facility, the design engineer or designee shall check the MDP facility alignments for any properties or nearby properties listing on the most recent Hazardous Waste and Substance List provided by the Riverside County Department of Environmental Health pursuant to Section 65962.5 of the Government Code. Also, before proposed MDP facilities are constructed, the proponent should generate a report from Enviromapper, GeoTracker, and EnviroStor to ensure no new waste sites with reported releases have been documented within proximity to the facilities. If the location of said MDP facility is on the Hazardous Waste and Substances List, Enviromapper, GeoTracker, or EnviroStor, avoidance of that property or properties will be the first consideration; if avoidance is infeasible, **MM HAZ-2** shall be implemented. **HAZ-2:** If the selected MDP facility traverses a site listed on the Hazardous Waste and Substances List, Enviromapper, GeoTracker, or EnviroStor, and avoidance is not feasible or if there are other indications that a site could be contaminated, a	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	Phase I Environmental Site Assessment (ESA) for the MDP facility will be prepared by a consultant hired by the Riverside County Flood Control and Water Conservation District (District), the City of Lake Elsinore, or the City of Wildomar. If the Phase I ESA prepared pursuant to the current ASTM standards identifies possible contamination along the MDP facility alignment, then all recommended subsurface investigation measures listed in the Phase I ESA will be implemented by the District, the City of Lake Elsinore, or the City of Wildomar. Based on subsurface investigations characterizing subsurface contamination, remediation measures (such as excavation of contaminated soil, bioremediation, or soil-vapor extraction), shall be implemented for the applicable MDP facility or an alternative facility alignment will be chosen. The District, the City of Lake Elsinore, or the City of Wildomar shall be responsible for reviewing and complying with the recommendations of the Phase I ESA. **HAZ-3:** All environmental investigation and/or remediation shall be conducted under a work plan approved by jurisdictional regulatory agencies overseeing hazardous waste cleanups until the applicable regulatory standard is met. **HAZ-4:** Prior to any excavation, grading activities, or soil removal on known contaminated sites, or if contaminated soil (i.e., soil with visible sheen or detectable odor) is encountered during construction, a complete characterization of the soil will be conducted by qualified personnel hired by the District, the City of Lake Elsinore, or the City of Wildomar Prior	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	to the disposal of excavated materials, soil sampling shall be conducted in accordance with the County of Riverside Department of Environmental Health Site Assessment and Cleanup, Corrective Action Guidelines document (County of Riverside 2007). The guidelines set forth the number of samples to be collected per volume of stockpiled soil (i.e., two random samples from stockpiles less than 10 cubic yards); sample analytical methods depend on the current and historical property use and known contamination. If the soil is contaminated, it shall be properly disposed of according to California's Land Disposal restrictions (22 CCR 19). If site remediation involves the removal of contamination, then contaminated material shall be transported off site by a licensed handler/hauler to a licensed hazardous waste disposal facility. **HAZ-5:** If during construction of a specific MDP facility, soil and/or groundwater contamination is suspected, construction in the area of the suspected contamination shall cease and appropriate health and safety measure shall be implemented. The construction contractor shall contact the respective jurisdictional enforcement agency (i.e., City of Lake Elsinore, City of Wildomar, County of Riverside) to obtain the necessary information on appropriate measures and their implementation. The measures recommended by the applicable enforcement agency will be implemented.	
Hydrology and Water Quality		
Violate or conflict with any adopted water quality standards or waste discharge requirements. / **Significant**	**HYDRO-1**: During any construction or maintenance activities that require ground disturbance for future Master Drainage Plan (MDP) facilities, the	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	Riverside County Flood Control and Water Conservation District (District), County of Riverside, and Cities of Lake Elsinore and Wildomar shall comply with the current statewide Construction General Permit for projects resulting in land disturbances of 1 acre. Where projects result in disturbance to less than 1 acre of land, the District, County of Riverside, and Cities of Lake Elsinore and Wildomar shall comply with the local grading ordinance and install best management practices (BMPs) to ensure that sediment is not transported beyond the project limits or into sensitive areas such as wetlands and water bodies. A De Minimus discharge shall be obtained from the RWQCB when required for dewatering activities. **HYDRO-2**: Future landscape maintenance activities using pesticides (i.e., herbicides or rodenticides) around the MDP facilities shall be phosphorus and nitrogen free or be in conformance with the phosphorus and nitrogen Total Maximum Daily Loads (TMDLs) outlined in the 303(d) list for Lake Elsinore. **HYDRO-3**: Prior to construction of future MDP facilities that may be located in waters of the United States or waters of the state, the District, County of Riverside, and Cities of Lake Elsinore and Wildomar shall obtain all necessary permits to comply with the federal Clean Water Act (CWA) state discharge permitting requirements, 404 Permits, 401 Permits, 1602 Permits, and California Porter-Cologne Water Quality Control Act permit. Restoration, enhancement, or creation may be required as a result of these regulatory permits and could include	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	such activities on MDP facilities (such as within basins) or could occur off site, but within the same watershed. Mitigation ratios shall be determined at the time specific MDP facilities are proposed for construction in the future.	
Result in substantial discharges of typical stormwater pollutants (e.g., sediment from construction activities, hydrocarbons and metals from motor vehicles, nutrients and pesticides from landscape maintenance activities, metals or other pollutants from industrial operation) or substantial changes to surface water quality including, but not limited to, temperature, dissolved oxygen, pH, or turbidity. / **Significant**	**HYDRO-1**: See above.	Less than significant
Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). / **Less than significant**	None required.	N/A
Substantially alter the existing drainage pattern of the site or area, including through the alteration of a watercourse or wetland, in a manner which would result in substantial erosion or siltation on- or off-site.	**HYDRO-1:** See above. **HYDRO-4**: Project-specific jurisdictional delineations will be required to determine the limits of the U.S. Army Corps of Engineers (ACOE), RWQCB, and California Department of Fish and Wildlife (CDFW) jurisdiction for the MDP facilities listed in Table 4.3-5. Impacts to jurisdictional waters will need to be verified by the corresponding regulatory agency. If impacts are anticipated, then either a) jurisdictional water will be completely avoided or b) necessary permits from requisite jurisdictions will be obtained. Obtaining permits may include mitigation for impacts, which would most likely include similar mitigation to	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	that offered in a Determination of Biological Equivalent or Superior Preservation (DBESP) such as restoration, creation and enhancement of resources in exchange for impacts from the project (same as **MM BIO-5**).	
Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.	**HYDRO-1**: See above. **HYDRO-4**: See above.	Less than significant
Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems. / **Less than significant**	None required.	N/A
Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. / **Less than significant**	None required.	N/A
Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow. / **Less than significant**	None required	N/A
Noise		
Expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. / **Significant**	**NOISE-1:** In order to mitigate the noise impact associated with construction noise in the City of Lake Elsinore, and in order to address the City of Lake Elsinore's noise criteria related to construction noise, the Riverside County Flood Control and Water Conservation District (District) or entity constructing a Master Drainage Plan (MDP) facility within the City of Lake Elsinore shall ensure or require prior to grading or demolition permit issuance that: • All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers. • Construction noise reduction methods	Significant and unavoidable

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible. Unattended construction vehicles shall not idle for more than 5 minutes when located within 200 feet from residential properties. • During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from the residences. • During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise sensitive receptors. A plan should be provided to the City of Lake Elsinore identifying the staging areas prior to issuance of a construction permit. Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners and residents to contact the job superintendent if necessary.	
Expose people to or generate excessive ground-borne vibration or ground-borne noise levels. / **Less than significant**	None required.	N/A
Cause a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. / **Significant**	**NOISE-1:** See above.	Significant and unavoidable
Transportation/Traffic		
Conflict with an adopted plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to	**TRANS-1:** To reduce traffic congestion or disruption that may occur during individual Master Drainage Plan (MDP) facility construction or maintenance activities, especially the MDP facilities located within existing road alignments, prior to construction, the Riverside County Flood Control	Less than significant

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. / **Significant**	and Water Conservation District (District), City of Lake Elsinore, City of Wildomar, or developers shall prepare a Traffic Control Plan. The Traffic Control Plan will detail and coordinate all traffic movement through the project area and will be implemented throughout project construction. The Traffic Control Plan will also ensure that private property and emergency access will be maintained at all times. Methods to maintain access may include, but are not limited to: temporary bridge crossings (i.e., steel plates or structural design bridges) for all driveway entrances to be closed to vehicular access for any period exceeding 4 hours; use of construction signs, barricades and delineators; and the use of flaggers during construction. All work proposed by the District, City of Lake Elsinore, City of Wildomar, or developers, within state right-of-way requires lane and shoulder closure charts. Also, all roadway features such as signs, pavement delineation, roadway surface, etc. within the State right-of-way must be protected, maintained in a temporary condition, and/or restored by the District, City of Lake Elsinore, City of Wildomar, or developers. The Traffic Control Plan shall be prepared in accordance with the California Department of Transportation (Caltrans) *Manual of Traffic Controls for Construction and Maintenance Work Zones*. If work requires complete road closure, then the public shall be notified within 10 days of that closure. **TRANS-2:** In order to address potential impacts along State Route (SR) 74, the District, City of Lake Elsinore, City of Wildomar, or developer shall obtain an Encroachment Permit from the Caltrans for any project activities	

Table ES-3
Summary of Environmental Impacts and Mitigation Measures

Threshold / Impact Before Mitigation	Mitigation Measures	Level of Impact After Mitigation
	within SR 74 including but not limited to alterations to existing improvements and conform to current Caltrans design standards and construction practices. **TRANS-3:** In order to ensure that construction activities within SR 74 conform to current Caltrans design standards and construction practices, prior to encroachment permit issuance, the District, City of Lake Elsinore, City of Wildomar, or developers shall submit street, grading and drainage construction plans to Caltrans for review and approval.	
Conflict with an adopted congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the appropriate congestion management agency for designated roads or highways. / **Significant**	**TRANS-1:** See above.	Less than significant
Conflict with adopted policies, plans, or programs regarding public transit, bicycle, pedestrian facilities, or other alternate transportation or otherwise decrease the performance or safety of such facilities. / **Significant**	**TRANS-1:** See above.	Less than significant
Utilities		
Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? / **Less than significant**	None required.	N/A

ES-1.6 Areas of Controversy/Issues to Be Resolved

Section 15123(b) (2) of the CEQA Guidelines requires that areas of controversy known to the lead agency must be stated in the EIR summary. Issues of interest to the public and public agencies were identified during the 30-day public comment period of the IS and NOP. A public scoping meeting was held at the District on September 28, 2011.

Written comments from agencies and interested parties in response to the NOP were received from the following:

- Native American Heritage Commission
- California Department of Transportation
- California Department of Fish and Wildlife
- South Coast Air Quality Management District
- Linda Ridenour.

The IS, NOP, distribution list, and comment letters received during the NOP review period are included in Appendix A of this Draft PEIR.

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved; this includes the choice among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved for the Project include decisions by the District, the County of Riverside, and the Cities of Lake Elsinore and Wildomar as to whether this Draft PEIR adequately describes the potential environmental impacts of the Project, the recommended mitigation measures should be adopted or modified, additional mitigation measures need to be applied, the Project should or should not be approved as proposed, or the Project should be modified based on the alternatives considered in this Draft PEIR.

ES-1.7 Summary of Project Alternatives

Section 15126.6 of the CEQA Guidelines identifies the parameters within which consideration and discussion of alternatives to the Project should occur. As stated in this section of the guidelines, alternatives must focus on those that are reasonably feasible and that attain most of the basic objectives of the Project. Each alternative must be capable of avoiding or substantially lessening any significant effects of the Project. During the Draft PEIR analysis, impacts to greenhouse gas emissions and utilities and service systems were found to be less than significant and no mitigation measures were necessary. With mitigation incorporated, impacts to biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and traffic remain less than significant. Even with mitigation incorporated, impacts to air quality and noise were found to be significant and unavoidable for construction emissions only. Impacts related to aesthetics were found to be significant

and there are no feasible mitigation measures that could be implemented that would reduce or minimize impacts to scenic resources. Cumulatively, the Draft PEIR will demonstrate that the Project does not contribute to significant impacts to biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, transportation and traffic, and utilities and service systems. However, cumulative impacts to aesthetics and noise are considered significant and a Statement of Overriding Conservation is required. The rationale for selecting the alternatives to be evaluated and a discussion of the "No Project" alternative are also required, per Section 15126.6.

This Draft PEIR includes an evaluation of the following alternatives:

- Alternative 1 – No Build Alternative
- Alternative 2 – Upsizing Facilities
- Alternative 3 – Debris Basins and Floodplain Buyout.

Alternative 1 is the **No Project Alternative**; thus, there are no new facilities proposed under this alternative. For this alternative, flood protection is only provided by the existing District and non-District maintained drainage facilities within the Lakeland Village area. Existing drainage facilities include Lime Street Channel, Ortega Channel Lateral A-1 Debris Basin, Ortega Channel, Ortega Channel Lateral A, Ortega Channel Lateral A-1, Ortega Channel Lateral A-2, Lakeland Village Channel, Churchill Street Drainage Ditch, Stoneman Street Channel, Corydon Channel, Palomar Channel, Ontario Way Storm Drain, Tract 23111 Drainage Ditch, Sedco–Bryant Street Storm Drain Stage 1, and Sedco–Bryant Street Storm Drain and Debris Basin.

Alternative 2, the **Upsizing Facilities Alternative**, consists of a network of open channels and storm drains large enough to convey bulk flows originating from the Santa Ana Mountains. Alternative 2 proposes 21 underground storm drains (approximately 45,000 linear feet), four open channels (approximately 9,000 linear feet), two debris basins, and one debris/detention basin. The proposed storm drains and open channels are sized to convey "bulked flows" (i.e., flows that include both stormwater runoff and its associated debris load) to Lake Elsinore. The two debris basins are proposed upstream of the existing Ortega and Lime Street Channels to capture sediment before entering the channels. These channels historically have been subject to debris accumulation and frequent maintenance due to relatively flat slopes. A debris/detention basin is proposed upstream of the existing Lakeland Village Channel to capture debris and attenuate flow during a 100-year storm event.

Alternative 2 also proposes improvements to the following existing facilities:

- Lime Street Channel – Floodwalls (2 feet high) would be added to the top of the channel. The existing 48-inch diameter pipe along Hill Street would be replaced with a 72-inch pipe.

- Ortega Channel – Floodwalls (2 feet high) would be added to the portion of Ortega Channel downstream of Grand Avenue.
- Lakeland Village Channel – The existing double 36-inch culverts located at Nelson Avenue, Bobrick Avenue, MacKay Avenue, Brightman Avenue, Sutherland Avenue, Raley Avenue, and Grand Avenue would be replaced with a 12-foot by 4-foot reinforced concrete box.

Alternative 3, the **Debris Basins plus Floodplain Buyout Alternative**, is a drainage system that consists of open channels, storm drains, and debris basins. Alternative 3 proposes 17 underground storm drains (approximately 37,000 linear feet), four open channels (approximately 7,000 linear feet), and eight debris basins. Like Alternative 2, Alternative 3 includes improvements to the existing Lime Street, Ortega, and Lakeland Village Channels, such as flood walls and larger culverts. Alternative 3 also proposes the acquisition of properties and the removal of over 200 structures located within the FEMA mapped SFHAs. This alternative also proposes enlarging the existing culverts located along Grand Avenue, including those located within the SFHAs, to convey the 100-year storm flow.

Table ES-4, Comparison of Alternatives, provides a summary of the alternatives impact analysis considered in the Draft PEIR and identifies the areas of potential environmental effects per CEQA, and ranks each alternative as better, the same, or worse than the proposed Project with respect to each issue area that was found to have potentially significant impacts. The analysis comparing the impacts of the alternatives with the preferred alternative is discussed further in Section 8.0 of this Draft PEIR.

Table ES-4
Comparison of Alternatives

Environmental Issue Area	Proposed Project	Alternative 1 – No Project	Alternative 2 – Upsizing Facilities	Alternative 3 – Debris Basins and Floodplain Buyout
Aesthetics – Scenic resources	Significant, no feasible mitigation proposed	Better	Slightly better	Slightly better
Air Quality – Air quality standard	Significant even with mitigation	Better	Better	Better
Air Quality – Cumulatively considerable contribution to a criteria pollutant	Significant even with mitigation	Better	Better	Better
Air Quality – Sensitive receptors	Less than significant with mitigation incorporated	Better	Same	Same
Biological Resources – Candidate, sensitive, or special-status species	Less than significant impacts with mitigation incorporated	Slightly better	Same	Worse

Table ES-4
Comparison of Alternatives

Environmental Issue Area	Proposed Project	Alternative 1 – No Project	Alternative 2 – Upsizing Facilities	Alternative 3 – Debris Basins and Floodplain Buyout
Biological Resources – Riparian habitat	Less than significant impacts with mitigation incorporated	Better	Same	Better
Biological Resources – Jurisdictional water features	Less than significant impacts with mitigation incorporated	Better	Same	Better
Biological Resources – Native resident or migratory fish or wildlife species	Less than significant	Same	Same	Same
Biological Resources – Local policies or ordinances	Less than significant	Slightly better	Same	Same
Biological Resources – Conflict with the provisions of an adopted habitat conservation plan	Less than significant impacts with mitigation incorporated	Better	Same	Same
Cultural Resources – Historical resources	Less than significant impacts with mitigation incorporated	Better	Same	Same
Cultural Resources – Archaeological resources	Less than significant impacts with mitigation incorporated	Better	Same	Same
Cultural Resources – Paleontological resources	Less than significant impacts with mitigation incorporated	Better	Same	Same
Geology and Soils – Seismic-related ground failure	Less than significant impacts with mitigation incorporated	Slightly better	Same	Same
Geology and Soils – Landslides or mudflows	Less than significant impacts with mitigation incorporated	Worse	Same	Same
Geology and Soils – On- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse	Less than significant impacts with mitigation incorporated	Better	Same	Same

Table ES-4
Comparison of Alternatives

Environmental Issue Area	Proposed Project	Alternative 1 – No Project	Alternative 2 – Upsizing Facilities	Alternative 3 – Debris Basins and Floodplain Buyout
Hazards and Hazardous Materials – List of hazardous materials sites	Less than significant impacts with mitigation incorporated	Better	Same	Same
Hydrology and Water Quality – Violate adopted water quality standards or waste discharge requirements	Less than significant impacts with mitigation incorporated	Worse	Worse	Worse
Hydrology and Water Quality – Substantial discharges of typical stormwater pollutants or substantial changes to surface water quality	Less than significant impacts with mitigation incorporated	Worse	Worse	Worse
Hydrology and Water Quality – Substantial depletion of groundwater supplies or interference with groundwater recharge	Less than significant	Better	Worse	Better
Hydrology and Water Quality – Substantially alter existing drainage pattern that would result in substantial erosion or siltation on- or off-site	Less than significant impacts with mitigation incorporated	Better	Same	Same
Hydrology and Water Quality – Substantially alter existing drainage pattern that would result in flooding on- or off-site	Less than significant with mitigation	Worse	Same	Same

Table ES-4
Comparison of Alternatives

Environmental Issue Area	Proposed Project	Alternative 1 – No Project	Alternative 2 – Upsizing Facilities	Alternative 3 – Debris Basins and Floodplain Buyout
Hydrology and Water Quality – Runoff water	Less than significant	Worse	Same	Same
Hydrology and Water Quality – Flooding	Less than significant	Worse	Same	Same
Hydrology and Water Quality – Inundation by seiche, tsunami, or mudflow	Less than significant	Worse	Same	Same
Noise – Noise levels	Significant even after mitigation	Better	Same	Same
Noise – Ground-borne vibration or ground-borne noise levels	Less than significant	Better	Same	Same
Noise – Ambient noise	Significant even with mitigation	Better	Same	Same
Transportation/ Traffic – Circulation system	Less than significant impacts with mitigation incorporated	Worse	Same	Same
Transportation/ Traffic – Congestion management program	Less than significant with mitigation	Better	Same	Same
Transportation/ Traffic – Alternate transportation	Less than significant with mitigation	Better	Same	Same

ES-1.8 References

Caltrans (California Department of Transportation). 2011. "Route 74 – Scenic Highway." Accessed September 9, 2011. http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm.

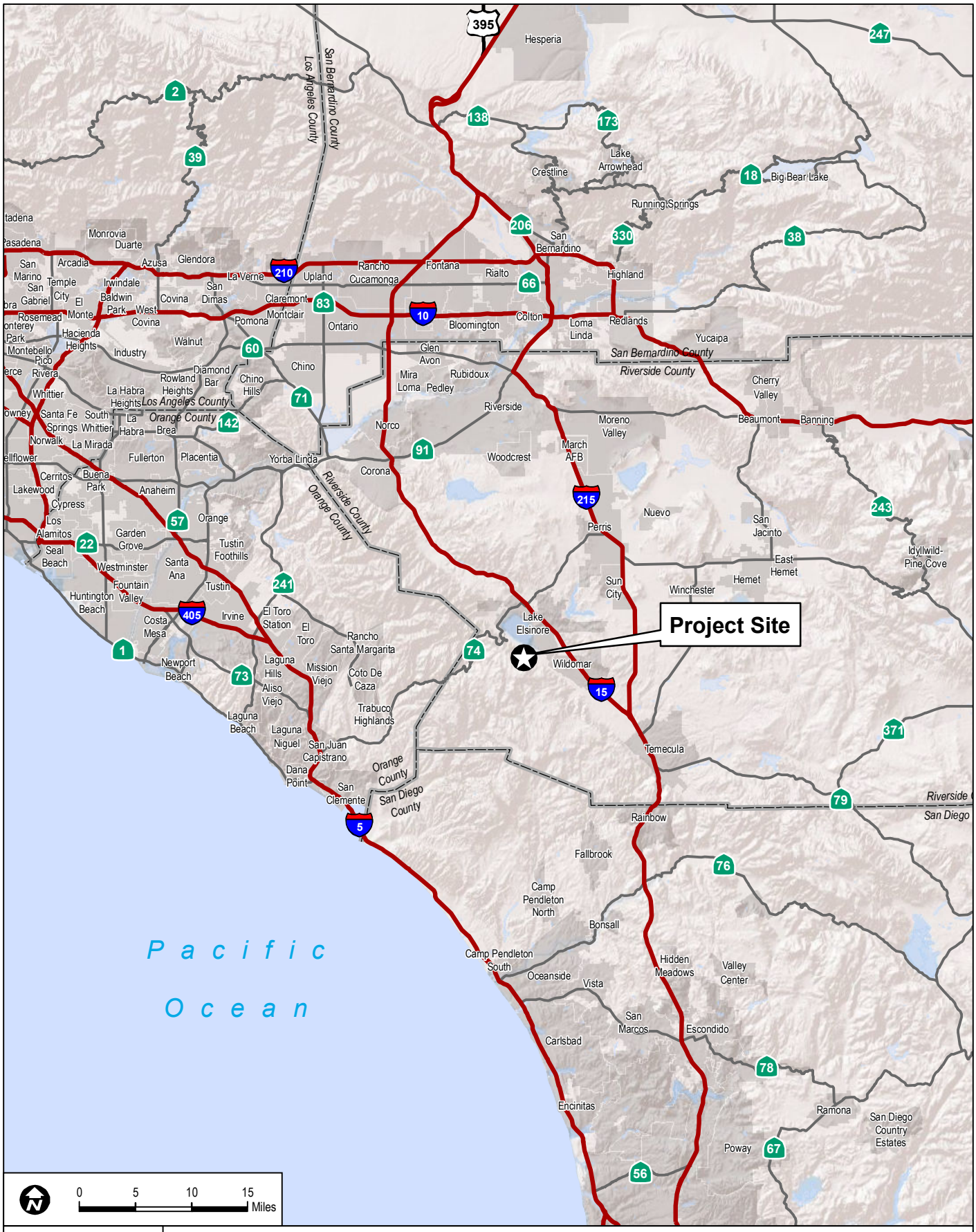

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FIGURE ES-1

Regional Map

LAKELAND VILLAGE MDP DRAFT PROGRAM EIR

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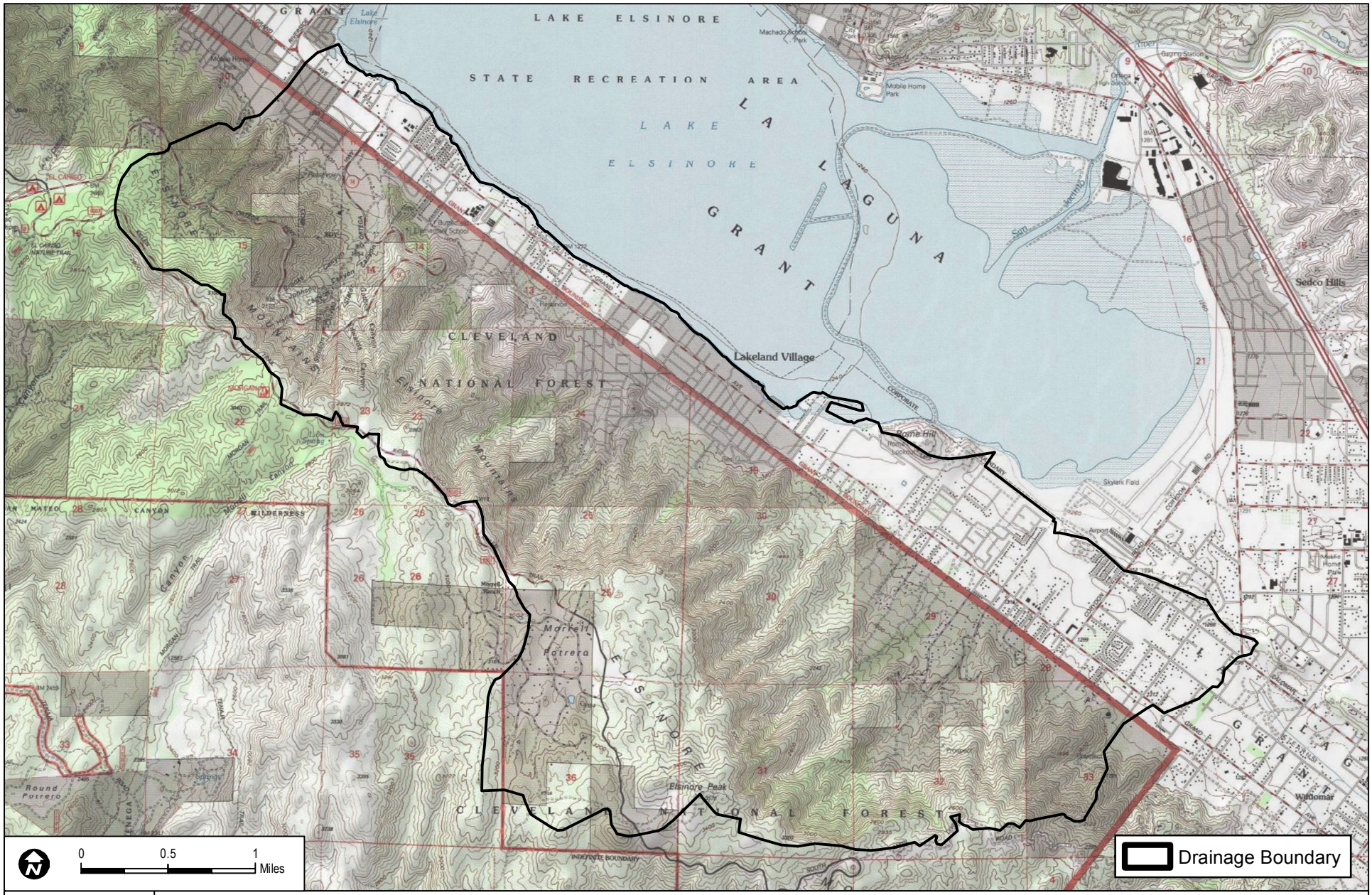

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SOURCE: USGS 7.5-Minute Series Alberhill, Elsinore and Wildomar Quadrangles.

FIGURE ES-2

Vicinity Map

LAKELAND VILLAGE MDP DRAFT PROGRAM EIR

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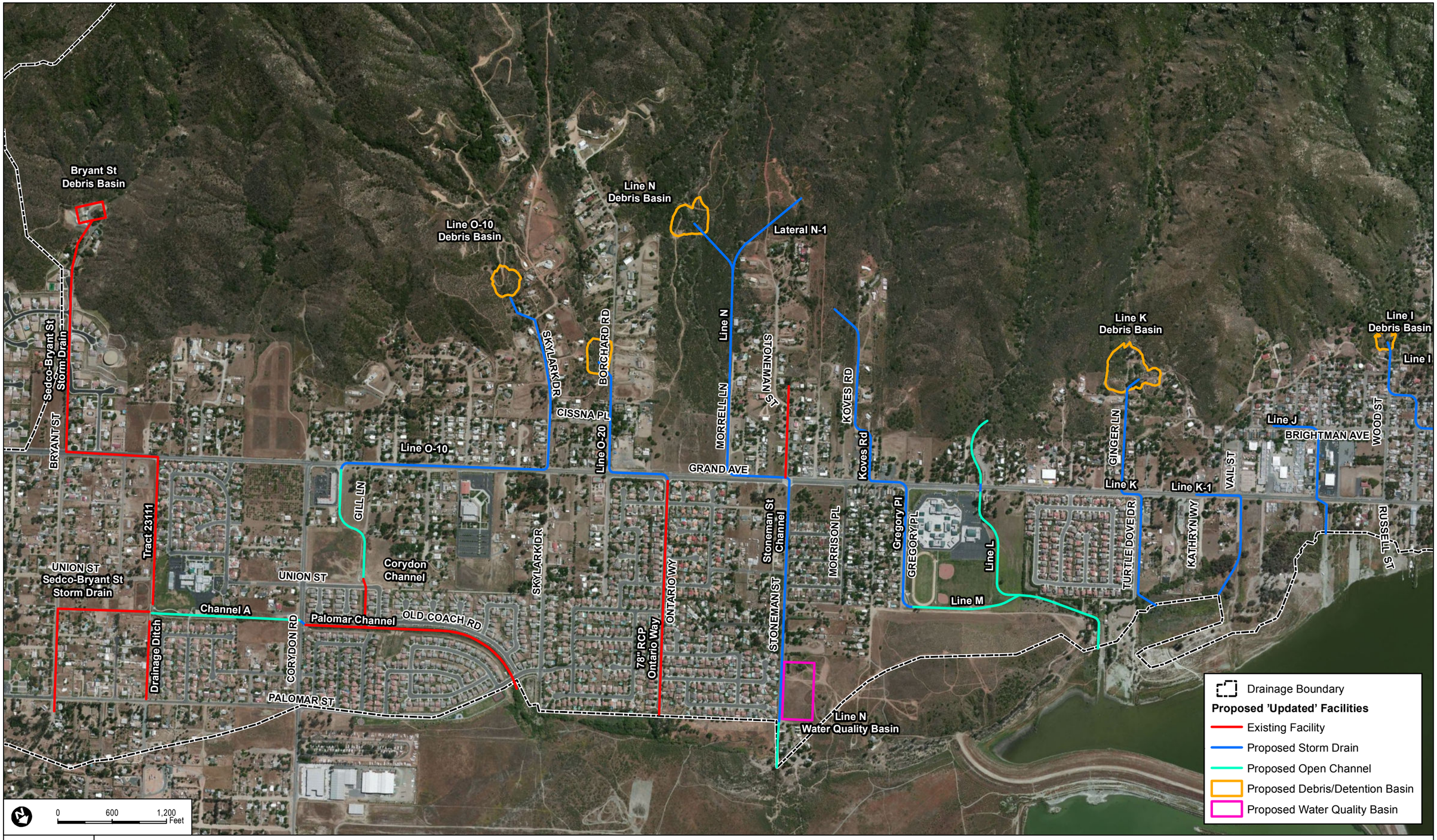

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SOURCE: Riverside County Flood Control and Water Conservation District 2012; County of Riverside MSHCP; Bing Maps

FIGURE ES-3a

Proposed MDP Facilities (Left)

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SOURCE: Riverside County Flood Control and Water Conservation District 2012; County of Riverside MSHCP; Bing Maps

FIGURE ES-3b

Proposed MDP Facilities (Right)

LAKELAND VILLAGE MDP DRAFT PROGRAM EIR

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