# REVISIONS TO THE MITIGATION MONITORING AND REPORTING PROGRAM

# DEVIL'S GATE RESERVOIR SEDIMENT REMOVAL AND MANAGEMENT PROJECT PASADENA, CA (LOS ANGELES COUNTY)

State Clearinghouse No. 2011091084

Prepared for:

# LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

P.O. Box 1460 Alhambra, California 91802-1460





Prepared by:



1801 E. Park Court Place, Building B Santa Ana, California 92701

October 2017



### **Devil's Gate Reservoir Sediment Removal and Management Project**

	Implementation	Monitoring	Enforcement	Level of Significance	rification of Co	omnliance	
Mitigation Measure	Phase*	Phase*	Agency	After Mitigation	Initial	Date	Remarks
AIR QUALITY						<u> </u>	
<b>MM AQ-1</b> : LACFCD shall require all construction contractors during the sediment removal phase of the Proposed Project to use only sediment removal dump trucks that meet the EPA's emission standards for Model Year 2010 2007 or later.	Final Plans and Specifications; Pre- Sediment Removal; Sediment Removal; Reservoir Management	Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant			
MM AQ-2: LACFCD shall require all construction contractors during the sediment removal phase of the Proposed Project to use off-road equipment that meets, at a minimum, EPA's emission standards for Tier 3 equipment.	Final Plans and Specifications; Pre- Sediment Removal; Sediment Removal; Reservoir Management	Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant			
BIOLOGICAL RESOURCES						1	
MM BIO – 1: A qualified biological monitor shall be present during initial ground- or vegetation-disturbing project-related activities to provide measures and monitor for wildlife in harm's way. This includes initial ground- or vegetation-disturbing project-related activities at the annual start of each year of sediment removal or maintenance activities. Following initial project-related activities, a qualified monitoring biologist shall be present as necessary to maintain the implemented protection measures and monitor for additional species in harm's way. These protection measures shall include, as appropriate: redirecting wildlife, identifying areas that may require exclusionary devices (e.g., fencing), or capturing and relocating wildlife outside the work area. Any captured species shall be relocated to adjacent appropriate habitat that is contiguous to adjacent habitat and not impacted by project-related disturbance activities.	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant			
<b>MM BIO – 2</b> : Within 90 days prior to ground-disturbing activities, a sensitive species educational briefing shall be conducted by a qualified biologist for construction personnel. The biologist will identify all sensitive resources that may be encountered onsite, and construction personnel will be instructed to avoid and report any sightings of sensitive species to LACFCD or the monitoring biologist. Educational briefings shall be repeated annually for the duration of the sediment removal.	Final Plans and Specifications; Pre- Sediment Removal; Sediment Removal; Reservoir Management	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant			
MM BIO – 3: Within 90 days prior to ground-disturbing activities, a preconstruction survey shall be conducted by a qualified biologist for the presence of any sensitive species in harm's way, including coast range newt, the southwestern pond turtle, and the two-striped garter snake. If sensitive species are observed in harm's way, the qualified biologist will develop and implement appropriate protection measures for that species. These protection measures shall include, as appropriate: redirecting the species, constructing exclusionary devices (e.g., fencing), or capturing and relocating wildlife outside the work area. Preconstruction surveys shall be repeated annually for the duration of the sediment removal. Observations of special status species made during these surveys shall be recorded onto a CNDDB field data sheet and submitted to CDFW for inclusion into the CNDDB.	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant			

## Devil's Gate Reservoir Sediment Removal and Management Project

Mitigation Measure	Implementation	Monitoring	Enforcement	Level of Significance	Ve	rification of Con	npliance				
Willigation Weasure	Phase*	Phase*	Agency	After Mitigation	Initial	Date	Remarks				
MM BIO – 4: LACFCD, in consultation with a qualified biologist, will employ bird exclusionary measures (e.g., mylar flagging) prior to the start of bird breeding season to prevent birds nesting within established boundaries of the project. Prior to commencement of sediment removal activities within bird breeding season (March 1-August 31), a preconstruction bird nesting survey shall be conducted by a qualified biologist for the presence of any nesting bird within 300 feet of the construction work area. The surveys shall be conducted 30 days prior to the disturbance of suitable nesting habitat by a qualified biologist with experience in conducting nesting bird surveys. The surveys shall continue on a weekly basis with the last survey being conducted no more than 3 days prior to the initiation of clearance/construction work. Preconstruction surveys shall be repeated annually for the duration of the sediment removal.	Final Plans and Specifications; Pre- Sediment Removal; Sediment Removal; Reservoir Management	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant							
If an active nest is found, the qualified biologist will develop and implement appropriate protection measures for that nest. These protection measures shall include, as appropriate, construction of exclusionary devices (e.g., netting) or avoidance buffers. The biologist shall have the discretion to adjust the buffer area as appropriate based on the proposed construction activity, the bird species involved, and the status of the nest and nesting activity; but shall be no less than 30 feet. Work in the buffer area can resume once the nest is determined to be inactive by the monitoring biologist.											

#### **Devil's Gate Reservoir Sediment Removal and Management Project**

	lumban antation	Manifesian	Enforcement	Lovel of Cinnificance	V.	Verification of Compliance		
Mitigation Measure	Implementation Phase*	Monitoring Phase*	Enforcement Agency	Level of Significance After Mitigation	Initial	Date	Remarks	
<ul> <li>MM BIO – 5: Within 30 days prior to commencement of vegetation or structure removal activities, a preconstruction bat survey shall be conducted by a qualified biologist for the presence of any roosting bats. Acoustic recognition technology shall be used if feasible and appropriate. If either a bat maternity roost or hibernacula (structures used by bats for hibernation) are present, a qualified biologist will develop and implement appropriate protection measures for that maternity roost or hibernacula. These protection measures shall include, as appropriate: safely evicting non-breeding bat hibernacula, establishment of avoidance buffers, or replacement of roosts at a suitable location. These measures shall also include as appropriate:         <ul> <li>To the extent feasible, trees that have been identified as roosting sites shall be removed or relocated between October 1 and February 28.</li> <li>When trees must be removed during the maternity roost season (March 1 to September 30), a qualified bat specialist shall conduct a preconstruction survey to identify those trees proposed for disturbance that could provide hibernacula or nursery colony roosting habitat for bats.</li> <li>Trees identified as potentially supporting an active nursery roost shall be inspected by a qualified biologist no greater than 7 days prior to tree disturbance to determine presence or absence of roosting bats.</li> <li>Trees determined to support active maternity roosts will be left in place until the end of the maternity season (September 30).</li> <li>If bats are not detected in a tree, but the qualified biologist determined that roosting bats may still be present, trees shall be removed as follows:</li></ul></li></ul>	Final Plans and Specifications; Pre- Sediment Removal; Sediment Removal; Reservoir Management	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant	Initial	Date	Remarks	
<ul> <li>MM BIO – 6: Riversidean Alluvial Fan Sage Scrub habitat shall be restored and/or enhanced at a 1:1 ratio by acreage. LACFCD, with the help of professional restoration ecologists, will develop the means and methods of successful restoration and enhancement of this sensitive habitat. Measures to achieve not less than a 1:1 replacement, or no net loss, of Riversidean Alluvial Fan Sage Scrub shall include but not be limited to the following:         <ul> <li>Conduct a vegetation survey within the impact area prior to commencement of vegetation removal activities to verify the impact acreage of Riversidean Alluvial Fan Sage Scrub.</li> <li>Identify and map the selected mitigation Aareas where Riversidean Alluvial Fan Sage Scrub will be enhanced or restored shall be mapped using aerial photographs. Priority for mitigation site locations shall be onsite, offsite within Arroyo Seco subwatershed, and offsite within the greater Los Angeles</li> </ul> </li> </ul>	Reservoir Management  Prepare Habitat Restoration Plan Identify/Map Mitigation Sites Install Plant Materials Monitor Installation Install Irrigation, if Necessary Prepare As-Built Report Conduct Maintenance Prepare Monitoring Reports	Reservoir Management  Identify Reference Sites Conduct Qualitative and Quantitative Monitoring Conduct Maintenance Implement Adaptive Management Measures, if Necessary Prepare Monitoring Reports Prepare Annual Reports Achieve Mitigation Site Sign-Off	Los Angeles County Flood Control District	Less than significant				

MITIGATION MONITORING AND REPORTING PROGRAM									
	Devil's Gate Reservoir S	ediment Removal and Ma	nagement Project						
	Implementation	Monitoring	Enforcement	Level of Significance	Verifica	tion of Compliance			
Mitigation Measure	Phase*	Phase*	Agency	After Mitigation	Initial	Date Remarks			
River watershed.  Select offsite reference sites where Riversidean Alluvial Fan Sage Scrub is the established plant community. The reference sites will be used to establish the necessary performance standards to which the mitigation site will be measured. Performance standards to which the mitigation site will be measured. Performance standards to which the mitigation site will be measured. Performance standards to which the mitigation site will be measured. Performance standards to which the mitigation site site species, percent cover of nonnative and invasive plant species, and native plant species richness (number of different plant species).  Prepare and implement a site-specific Habitat Restoration Plan that will result in the successful restoration and enhancement at the selected mitigation sites. The Habitat Restoration Plan, at a minimum, shall include guidelines and specifications for the following:  Site-specific container plant (if applicable) and seed palettes, Irrigation plan, Nonnative and invasive plant species removal, Maintenance and monitoring schedule, Qualitative and quantitative monitoring methodologies, Selection criteria of reference sites, Performance standards of the mitigation sites, Monitoring reports and annual reports schedule, Mitigation long-term management plan, and Funding description for implementation and long-term management.  Prepare an as-built plan after the installation of the plant and seed materials has been completed to document the acreage of each restored or enhanced plant community on the mitigation sites and to show that not less than a 1:1 replacement of sensitive habitats has been achieved.  Quantitatively monitor the mitigation sites until the performance standards have been met and restoration and enhancement of not less than 1:1 replacement of Riversidean Alluvial Fan Sage Scrub has been achieved.  Implement adaptive management measures if, during monitoring, the mitigation sites do not demonstrate measurable progress toward achieved.  Correctively re-grade ar	Phase*	Phase*	Agency	After Mitigation	Initial	Daté Remarks  Remarks			

#### MITIGATION MONITORING AND REPORTING PROGRAM **Devil's Gate Reservoir Sediment Removal and Management Project Verification of Compliance** Implementation Monitoring **Enforcement Level of Significance Mitigation Measure** Phase\* Phase\* After Mitigation **Agency** Initial Date Remarks o Close trails or install barriers if human caused impacts are damaging the mitigation sites. • Implement and monitor the required mitigation at alternative sites, chosen based on same priority methodology, if the mitigation sites do not achieve the performance standards after the implementation of adaptive management measures. LACFCD shall conduct qualitative and annual quantitative monitoring and prepare annual monitoring reports until the established performance standards are achieved. Ensure the allocation and encumbrance of the funding necessary to implement the Habitat Restoration Plan, adaptive management measures, alternative mitigation sites (if necessary), and long-term management and protection of the mitigation sites. MM BIO - 7: Within 90 days prior to ground-disturbing activities, a qualified biologist Los Angeles County Flood Pre-Sediment Removal; Pre-Sediment Removal; Less than significant shall conduct a tree survey within the project footprint to identify native city-**Control District** Sediment Removal; Sediment Removal; protected trees that would will be removed or potentially affected by the Proposed Reservoir Management Reservoir Management Project, and native city-protected trees that can be avoided, and native city-protected trees that will require root zone protection. LACFCD would will-replace native city-Conduct Tree Survey Identify Reference Sites Identify and Protect Oak Conduct Qualitative and protected trees that cannot be avoided. The replacement is expected to be at a up to Tree Root Zones Quantitative Monitoring 1:1 ratio by canopy acreage. The biological monitor shall implement measures to Identify/Map Mitigation Sites • Conduct Maintenance protect the root zone of oak trees that may be impacted immediately adjacent to the Prepare Habitat Restoration Implement Adaptive project site and along access roads. The acreage occupied by the canopies of the Management Measures, if Install Plant Materials native city-protected trees to be removed will determine the appropriate level of tree Necessary Monitor Installation Prepare Monitoring Reports replacement. LACFCD shall identify tree replacement areas that are no less than the Install Irrigation, if Necessary • Prepare Annual Reports acreage of the native city-protected tree canopies to be removed. Priority for tree Achieve Mitigation Site Sign-Prepare As-Built Report replacement locations shall be onsite, offsite within Arroyo Seco subwatershed, and Conduct Maintenance offsite within the greater Los Angeles River watershed. The number of replacement Prepare Monitoring Reports trees installed by LACFCD will be greater than the number of trees to be removed should the replacement tree be smaller and younger than the tree to be removed. LACFCD shall monitor the survival of the replacement trees for 5 years and replace those that do not survive within the monitoring period, ensuring that not less than 1:1 ratio of replacement, or no net loss, has been achieved.

#### Devil's Gate Reservoir Sediment Removal and Management Project

Mitigation Measure	Implementation Phase*	Monitoring Phase*	Enforcement Agency	Level of Significance After Mitigation	Verification of Compliance	Mitigation Measure	Implementation Phase*
ANA DIO Co A combination of qualter and 1000 L 100 L 100 L					Initial	Date	Remarks
MM BIO – 8: A combination of onsite and offsite habitat restoration, enhancement,	Reservoir Management	Reservoir Management	Los Angeles County Flood	Less than significant			
and exotic <u>plant</u> removal shall be implemented by LACFCD at a 1:1 ratio for impacted <u>riparian habitat</u> , sensitive <u>natural communities</u> , <u>habitat</u> and jurisdictional waters.	Prepare Habitat Restoration	• Identify Reference Sites	Control District				
Habitat restoration/enhancement shall include use of willow cuttings and exotic	<u>Plan</u>	• Conduct Qualitative and					
<u>plant</u> species removal. Non-native, weedy habitats within the basin shall be utilized	• Identify/Map Mitigation Sites	Quantitative Monitoring					
whenever possible as mitigation sites. <u>LACFCD</u> , with the help of professional	• <u>Install Plant Materials</u> • <u>Monitor Installation</u>	<ul><li>Conduct Maintenance</li><li>Implement Adaptive</li></ul>					
restoration ecologists, will develop the means and methods of successful restoration	• Install Irrigation, if Necessary	Management Measures, if					
and enhancement of riparian habitat, sensitive natural communities, and	Prepare As-Built Report	Necessary					
jurisdictional waters. Measures to achieve not less than a 1:1 replacement, or no net	<ul><li>Conduct Maintenance</li><li>Prepare Monitoring Reports</li></ul>	<ul> <li>Prepare Monitoring Reports</li> <li>Prepare Annual Reports</li> </ul>					
loss, of riparian habitat, sensitive natural communities, and jurisdictional waters shall	Prepare Monitoring Reports	• Achieve Mitigation Site Sign-					
include but not be limited to the following:		Off					
• Conduct a vogetation curvey within the impact area prior to commercial of							
• Conduct a vegetation survey within the impact area prior to commencement of vegetation removal activities to verify the impact acreages of riparian habitat							
(Riparian Woodland and Mule Fat Thickets), sensitive natural communities							
(Coastal Sage Scrub), and jurisdictional waters (federally protected wetlands).							
Identify and map the selected mitigation areas where riparian habitat, sensitive							
natural communities, and federally protected wetlands will be enhanced or							
restored. Priority for mitigation site locations shall be onsite, offsite within							
Arroyo Seco subwatershed, and offsite within the greater Los Angeles River							
watershed.							
• Select offsite reference sites where riparian habitats (Riparian Woodland and							
Mule Fat Thickets) and sensitive natural communities (coastal sage scrub) are the							
established plant communities and where federally protected wetlands are							
present. The reference sites will be used to establish the necessary performance							
standards to which the mitigation site will be measured. Performance standard							
parameters will include percent cover of native plant species, percent cover of nonnative and invasive plant species, native plant species richness (number of							
different plant species), structural patch richness, and wildlife use.							
<ul> <li>Prepare and implement a site-specific Habitat Restoration Plan that will result in</li> </ul>							
the successful restoration and enhancement at the selected mitigation sites. The							
Habitat Restoration Plan, at a minimum, shall include guidelines and							
specifications for the following:							
<ul> <li>Site-specific container plant and seed palettes,</li> </ul>							
<ul> <li>Irrigation plan,</li> </ul>							
<ul> <li>Nonnative and invasive plant species removal,</li> </ul>							
Maintenance and monitoring schedule,							
<ul> <li>Qualitative and quantitative monitoring methodologies,</li> </ul>							
Selection criteria of reference sites,     Performance standards of the mitigation sites.							
<ul> <li>Performance standards of the mitigation sites,</li> <li>Monitoring reports and annual reports schedule,</li> </ul>							
Mitigation long-term management plan, and							
o Funding description for implementation and long-term management.							
<ul> <li>Prepare an as-built plan after the installation of the plant and seed materials has</li> </ul>							

	MITIGATION MO	NITORING AND REPORTING	PROGRAM				
	Devil's Gate Reservoir	Sediment Removal and Ma	nagement Project				
Mitigation Measure	Implementation	Monitoring	Enforcement	Level of Significance		ication of Co	
been completed to document the acreage of each restored or enhanced plant	Phase*	Phase*	Agency	After Mitigation	Initial	Date	Remarks
community on the mitigation sites to show that the sites contain not less than a							
1:1 replacement of riparian habitats, sensitive natural communities, and							
federally protected wetlands has been achieved.							
<ul> <li>Quantitatively This mitigation measure shall be monitored for success for five</li> </ul>							
years following implementation the mitigation sites until the performance							
standards have been met and restoration and enhancement of not less than 1:1							
replacement of riparian habitats, sensitive natural communities, and federally							
protected wetlands has been achieved.							
Implement adaptive management measures if, during monitoring, the							
mitigation sites do not demonstrate measurable progress achieving the							
necessary performance standards or if unforeseen circumstances							
damage the mitigation sites. Adaptive management measures will							
include but not be limited to:							
<ul> <li>Correctively re-grade areas if hydrologic or other</li> </ul>							
conditions negatively affect the mitigation sites,							
o Add soil amendments if problem soils may be inhibiting							
plant growth,							
o Replant if plant survival is low or to increase plant species							
cover or diversity,							
<ul> <li>Install different plant species for plant species which are</li> </ul>							
not surviving, and							
<ul> <li>Close trails or install barriers if human caused impacts are</li> </ul>							
damaging the mitigation sites.							
<ul> <li>Implement and monitor the required mitigation at alternative sites if the</li> </ul>							
mitigation sites do not achieve the performance standards after the							
implementation of adaptive management measures. LACFCD shall							
conduct qualitative and annual quantitative monitoring and prepare							
annual monitoring reports until the established performance standards							
are achieved.							
• Ensure the allocation and encumbrance of the funding necessary to							
implement the Habitat Restoration Plan, adaptive management							
measures, alternative mitigation sites (if necessary), and long-term							
management and protection of the mitigation sites.							
Submit a A-report of the monitoring results shall be submitted annually,      the process following involves the monitoring results and the monitoring results are a few and the monitoring results are a few and the monitoring results.							
during the five years following implementation of the restoration and							
enhancement activities at the mitigation sites, to resource agencies as							
required by the Section 401 Certification, Section 404 permit, and a Streambed Alteration Agreement until the mitigation sites have met the							
performance standards.							
performance standards.							
CULTURAL RESOURCES							
MM CUL-1: If sediment removal or reservoir management activities exceed the depth	Final Plans and	Sediment Removal;	Los Angeles County Flood	Less than significant			
of the historic flood deposits and encounter native sediments, these activities will be	Specifications; Pre-	Reservoir Management	Control District				
monitored by a qualified archaeologist. In the event this occurs and historic or	Sediment Removal;						
archaeological materials are observed, the excavation in the proximity of the	Sediment Removal;						

#### **Devil's Gate Reservoir Sediment Removal and Management Project**

Anti- it an	Implementation	Monitoring	Enforcement	Level of Significance	Ve	rification of Com	pliance
Mitigation Measure	Phase*	Phase*	Agency	After Mitigation	Initial	Initial	Initial
discovery should be diverted until a qualified archaeologist and/or paleontologist	Reservoir Management						
evaluates the discovery.							
MM CUL-2: If sediment removal or reservoir management activities exceed the depth	Final Plans and	Sediment Removal;	Los Angeles County Flood	Less than significant			
of the historic flood deposits and encounter native sediments, these activities will be	Specifications; Pre-	Reservoir Management	Control District				
monitored by a qualified paleontologist. In the event that this occurs and	Sediment Removal;						
paleontological materials are observed, the excavation in the proximity of the	Sediment Removal;						
discovery should be diverted until a qualified paleontologist evaluates the discovery.	Reservoir Management						
MM CUL-3: In the event human remains are discovered, all work in the area must be	Final Plans and	Sediment Removal;	Los Angeles County Flood	Less than significant			
halted until the County Coroner identifies the remains and makes recommendations	Specifications;	Reservoir Management	Control District				
regarding their appropriate treatment pursuant to PRC Section 5097.98.	Sediment Removal;						
	Reservoir Management						
LAND USE AND PLANNING							
MM LAN-1: Temporary impacts to designated recreational facilities and trails shall be	Final Plans and	Pre-Sediment Removal;	Los Angeles County Flood	Less than significant			
minimized through advance communication and redirection to the nearest facility in	Specifications; Pre-	Sediment Removal;	Control District				
the vicinity of the Proposed Project. Prior to completion of final plans and	Sediment Removal;	Reservoir Management					
specifications, the LACFCD shall review the plans and specifications to ensure that	Sediment Removal;						
they contain proper language requiring that signs be posted at the nearby parking lots	Reservoir Management						
and trailheads at least one month in advance of sediment removal activities.							
NOISE/VIBRATION							
MM N-1: The LACFCD shall restrict the operation of any off-road construction	Final Plans and	Sediment Removal;	Los Angeles County Flood	Less than significant			
equipment that is powered by a greater than 200-horsepower engine from operating	Specifications; Pre-	Reservoir Management	Control District				
within 180 feet of any offsite residential structure. Equipment that is not performing	Sediment Removal;						
any earth-moving activities and is solely operating for entering or leaving the site via	Sediment Removal;						
the access roads to the reservoir is exempted from this requirement.	Reservoir Management						

#### Devil's Gate Reservoir Sediment Removal and Management Project

Mitigation Measure	Implementation Phase*	Monitoring Phase*	Enforcement Agency	Level of Significance After Mitigation	Verification of Compliance Initial	Mitigation Measure Date	Implementation Phase* Remarks
TRANSPORTATION/TRAFFIC							
MM TRA-1: Proposed Project haul trucks will not deliver to the Vulcan Material	Final Plans and	Sediment Removal;	Los Angeles County Flood	Implementation of			
Reliance Facility during the PM peak period.	Specifications; Pre-	Reservoir Management	Control District	mitigation measures			
	Sediment Removal;			would reduce impacts			
	Sediment Removal;			but not to a level of			
	Reservoir Management			less than significant			
MM TRA-2: Proposed Project haul trucks will not deliver to the Boulevard Pit during	Final Plans and	Sediment Removal;	Los Angeles County Flood	Implementation of			
the PM peak period.	Specifications; Pre-	Reservoir Management	Control District	mitigation measures			
	Sediment Removal;			would reduce impacts			
	Sediment Removal;			but not to a level of			
	Reservoir Management			less than significant			

<sup>\*</sup>The Implementation and Monitoring phases are broken down into four categories: Final Plans and Specifications; Pre- Sediment Removal; Sediment Removal; and Reservoir Management. "Final Plans and Specifications" indicates that the mitigation measure must be incorporated into the final approved design, plans, and specifications for the project. "Pre- Sediment Removal" refers to measures that are required prior to the start of the sediment removal phase. "Sediment Removal" refers to all aspects of the Reservoir Management phase.