

# Devil's Gate Reservoir Restoration Project Fourth Quarter Compliance Report Activities Occurring Between October 2022 and December 2022

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**LIST OF ACRONYMS AND ABBREVIATIONS**

<b>Term</b>	<b>Description</b>
CDFW	California Department of Fish and Wildlife
CNDDDB	California Natural Diversity Database
ESA	Environmentally Sensitive Area
ITP	Incidental Take Permit
LACFCD	Los Angeles County Flood Control District
LACPW	Los Angeles County Department of Public Works
MMRP	Mitigation Monitoring and Reporting Program
USFWS	U.S. Fish and Wildlife Service

## 1.0 INTRODUCTION

### 1.1 Purpose

This Quarterly Compliance Report was prepared to document the activities that occurred at the Devil's Gate Reservoir Restoration Project (Project) site located in the city of Pasadena, Los Angeles County, California during the fourth quarter of 2022 (October through December). This Quarterly Compliance Report satisfies Condition 6.7 in the Incidental Take Permit (ITP) No. 2081-2016-031-05 that was issued for the Project from the California Department of Fish and Wildlife (CDFW), dated July 16, 2018.

Condition 6.7 in the ITP states:

"The Designated Representative or Designated Biologist shall compile the observation and inspection records identified in Condition of Approval 6.6 into a Quarterly Compliance Report during time periods when Initial Sediment Removal and Habitat Restoration activities have occurred. Quarterly Compliance Reports and a copy of the MMRP table with notes showing the current implementation status of each mitigation measure shall be submitted to CDFW's Regional Representative and Headquarters CESA Program."

This is the seventeenth report (Quarterly Compliance Report Number 17) submitted in accordance with ITP Condition number 6.7. This report covers activities that were conducted at the Project site between October 1 and December 31, 2022.

## 2.0 COVERED ACTIVITIES

### 2.1 Biological Monitoring

Per Condition 6.6 in the ITP, "The Designated Biologist shall be on site daily when Covered Activities occur and when Covered Species are present, and weekly when Covered Species have potential to be present."

Per Condition 2.10a of the Streambed Alteration Agreement "...the Permittee shall have the Designated Biologist on site daily when protected species may be present to ensure that no impacts occur to protected species that are not authorized."

Per Conservation Measure 10 of the USFWS Informal Section 7 Consultation "If construction occurs between September 1 to March 14 (outside of the vireo breeding and nesting season), a designated construction monitor will conduct twice weekly inspections of the project site.

Daily monitoring of construction activities by a Designated Biologist occurred when ground-disturbing activities were taking place at the Project site. Daily monitoring of restoration activities was ongoing during the fourth quarter. Table 1 shows Project working dates and the biological monitors that were present on each date.

Devil's Gate Reservoir Restoration Project  
Fourth Quarter 2022 Compliance Report

Table 1. Monitors Onsite During Work Days.		
Date	Construction Monitors	Restoration Monitors
10/3/2022	No Work	Michael Walsh, Josh Harris
10/4/2022	Jill Coumoutso*	Michael Walsh, Maddy Panzino
10/5/2022	Carla Marriner*	Alec Mang, Maddy Panzino
10/6/2022	Verity Richardson	Alec Mang, Josh Harris
10/7/2022	Eliza McLean	Alec Mang, Verity Richardson
10/10/2022	No Work – Indigenous Peoples' Day	Michael Walsh, Maddy Panzino
10/11/2022	Eliza McLean	Michael Walsh, Maddy Panzino
10/12/2022	Eliza McLean	Alec Mang, Verity Richardson
10/13/2022	Jill Coumoutso*	Alec Mang, Josh Harris
10/14/2022	Jill Coumoutso*	Alec Mang, Josh Harris
10/17/2022	Jill Coumoutso*	Dawn Garcia, Verity Richardson
10/18/2022	Jill Coumoutso*	Dawn Garcia, Maddy Panzino
10/19/2022	Eliza McLean	Alec Mang, Carter Warwick
10/20/2022	Carter Warwick	Alec Mang, Verity Richardson
10/21/2022	Carter Warwick	Alec Mang, Josh Harris
10/24/2022	Carter Warwick	Michael Walsh, Maddy Panzino
10/25/2022	No Construction Activities Occurred	Michael Walsh, Maddy Panzino
10/26/2022		Alec Mang, Carla Marriner
10/27/2022		Alec Mang, Carter Warwick
10/28/2022		Alec Mang, Carter Warwick
10/31/2022		Michael Walsh
11/1/2022		Michael Walsh, Carter Warwick
11/2/2022		Alec Mang, Eliza McLean
11/3/2022		Alec Mang, Carter Warwick
11/4/2022		Alec Mang, Carter Warwick
11/7/2022		Michael Walsh
11/8/2022		No Work due to weather
11/9/2022		Alec Mang, Carter Warwick
11/10/2022		Alec Mang, Josh Harris
11/11/2022		Alec Mang, Carter Warwick
11/14/2022		Michael Walsh, Eliza McLean
11/15/2022		Michael Walsh, Eliza McLean
11/16/2022		Alec Mang, Eliza McLean
11/17/2022		Alec Mang, Maddy Panzino
11/18/2022		Alec Mang, Carter Warwick
11/21/2022		Dawn Garcia, Maddy Panzino
11/22/2022		Dawn Garcia, Eliza McLean
11/23/2022		Alec Mang, Josh Harris
11/24/2022		<b>No Work – Thanksgiving</b>
11/25/2022		<b>No Work – Day After Thanksgiving</b>
11/28/2022		Michael Walsh, Carter Warwick
11/29/2022		Michael Walsh, Carla Marriner
11/30/2022		Alec Mang, Eliza McLean
12/1/2022		Alec Mang, Eliza McLean
12/2/2022		Alec Mang, Maddy Panzino
12/5/2022		Michael Walsh, Verity Richardson
12/6/2022		Michael Walsh, Eliza McLean
12/7/2022		Carley Adams, Maddy Panzino
12/8/2022		Verity Richardson, Eliza McLean
12/9/2022	Carter Warwick, Maddy Panzino	
12/12/2022	Verity Richardson, Eliza McLean	
12/13/2022	Carla Marriner, Eliza McLean	

Table 1. Monitors Onsite During Work Days.

Date	Construction Monitors	Restoration Monitors
12/14/2022		Carley Adams, Eliza McLean
12/15/2022		Maddy Panzino, Eliza McLean
12/16/2022		Maddy Panzino, Eliza McLean
12/19/2022		Alden Lovaas, Maddy Panzino
12/20/2022		Alexandra Dorough, Eliza McLean
12/21/2022		Maddy Panzino, Eliza McLean
12/22/2022		Carla Marriner, Josh Harris
12/23/2022		Eliza McLean, Josh Harris
12/26/2022		<b>No Work – Christmas Day</b>
12/27/2022		Carter Warwick, Eliza McLean
12/28/2022		Alden Lovaas, Eliza McLean
12/29/2022		Alden Lovaas, Josh Harris
12/30/2022		Carter Warwick, Eliza McLean

\*LBV Designated Biologist

## 2.2 Project Construction Activities

The following Project construction activities were conducted onsite during this reporting period:

- Project construction activities in the form of annual maintenance activities including sediment hauling continued through October 24, 2022.
- Sediment Removal hauling activities included the loading of sediment within the Project site into bottom-dump haul trucks using excavators and front loaders.
- Small areas of emergent vegetation were cleared using bulldozers, skid steers and front loaders in preparation for hauling activities. All areas were surveyed prior to removal and all vegetation removal was within the Project boundaries and monitored by the Designated Biologist on site.

Construction monitoring logs from this quarter detailing daily activities are included in Appendix A.

## 2.3 Habitat Restoration Activities

The following habitat restoration activities were conducted onsite during this reporting period:

- Restoration activities continued from October 1, 2022 through December 31, 2022.
- Low-growing non-native plants including perennial pepperweed (*Lepidium latifolium*), black mustard (*Brassica nigra*), lamb's quarters (*Chenopodium album*), poison hemlock (*Conium maculatum*), brome grass (*Bromus* sp.), riggut brome (*Bromus diandrus*), red-stemmed filaree (*Erodium cicutarium*), smilgrass (*Piptatherum miliaceum*), sweet alyssum (*Lobularia maritima*), Bermuda grass (*Cynodon dactylon*), pokeberry (*Phytolacca americana*), tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), Jerusalem thorn (*Parkinsonia aculeata*), redshank (*Persicaria maculosa*), corn (*Zea mays*), tomato (*Solanum lycopersicum*), Himalayan blackberry (*Rubus armeniacus*), dodder (*Cascuta* sp.), short podded mustard (*Hirschfeldia incana*), white horehound (*Marrubium vulgare*), and tree of heaven (*Alianthus altissima*), were removed from DG-

1, DG-W-1 (Johnson Field), DG-W-1, DG-W-2 Mining Pit and Mining Pit Outlet, DG-2, DG-2 New Channels, DG-2-WOUS, DG-2B, DG-3A, DG-4, DG-4A, DG-4B, DG-4-WOUS, DG-4 Drainage, DG-4 Sheetflow, DG-4C, DG-5 DG-EMA East Side, DG-EMA West Side, and Flint Wash Temporary Impact Area onsite restoration areas and the side slopes of the basin, by hand pulling, using hand tools (shovels, hoes, rakes and clippers) and using weed whackers and chainsaws on occasion. Pulled plants were removed from restoration sites daily and placed into onsite dumpsters that were emptied regularly.

- Native plants including dodder (*Cascutta californica*), annual burweed (*Ambrosia acanthacarpa*), horseweed (*Erigeron canadensis*), and rough cockleburr (*Xanthium strumarium*) were removed to reduce competition for nutrients and water for planted container plants.
- Collected and planted cuttings of mulefat [*Baccharis salicifolia*], and willow [*Salix* sp.] in basins in DG-2.
- Maintained and monitored irrigation system, and watered cuttings.

Habitat restoration monitoring logs for this quarter detailing daily activities are included in Appendix B.

## 2.4 Adaptive Management Activities

During the fourth quarter reporting period LACPW completed the removal of trees located within the mitigation areas that were identified as being infested with the invasive short hole borer (ISHB). The purpose of the removal of the trees infested with ISHB was to eliminate the beetle-infested material from the mitigation areas and to minimize the spread of this invasive beetle species. Only larger existing trees in the mitigation areas that were dead or in a condition unlikely to recover were removed and none of the container plants or stakes that were installed as part of the habitat restoration implementation effort were included in the removal effort as they did not show any signs of infestation. An Adaptive Management Report for the ISHB tree removal activities was prepared and is included in Appendix C. An addendum to the City Protected Tree Survey Report for the additional trees removed is included in Appendix D.

## 3.0 SATISFACTION OF ITP CONDITIONS

All provisions in the ITP were adhered to during Project activities conducted during this reporting period. No non-compliances were documented during this reported period. No direct or indirect take to listed species or Covered Species occurred during this reporting period. The next Quarterly Compliance Report will cover the next reporting period from January 1 to March 31, 2023.

## 4.0 MITIGATION MONITORING AND REPORTING PROGRAM

Per Condition 6.7 of the ITP, Table 2 presents the Mitigation Monitoring and Reporting Program table that was prepared for the Recirculated Portions of the Final Environmental Impact Report with notes showing the current implementation status of each mitigation measure.

Table 2. Devil's Gate Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM 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	Date	Remarks
<b>BIOLOGICAL RESOURCES</b>							
<p><b>MM BIO – 1:</b> 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.</p>	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant		11/28/18 - ongoing	A qualified biologist was present during all initial ground- or vegetation-disturbing construction related activities occurred during the 2022 fourth quarter reporting period. A qualified biologist continued to be present during restoration activities requiring vegetation removal during the 2022 fourth quarter reporting period. See Table 1 for details.
<p><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 the Los Angeles County Flood Control District (LACFCD) or the monitoring biologist. Educational briefings shall be repeated annually for the duration of the sediment removal.</p>	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		11/28/18 - ongoing	An initial training was conducted on the first day of construction (Nov 28, 2018). Additional trainings were provided on an as-needed basis to new project personnel afterwards during the 2022 fourth quarter reporting period.
<p><b>MM BIO – 3:</b> 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, southwestern pond turtle, and 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 California Natural Diversity Database (CNDDDB) field data sheet and submitted to CDFW for inclusion into the CNDDDB.</p>	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Pre-Sediment Removal; Sediment Removal; Reservoir Management	Los Angeles County Flood Control District	Less than significant		11/01/18 - 11/27/18, 3/15/19 - 4/14/19, 3/1/20 - 5/19/20, 3/17/21-3/26/21 07/19/22-07/28/22	Breeding season surveys for least Bell's vireo were completed in the third quarter reporting period. Preconstruction surveys for sensitive species ahead of annual maintenance activities were conducted by qualified biologists on July 19, 25, 26, and 28 2022. No preconstruction surveys took place during the fourth quarter of 2022.
<p><b>MM BIO – 4:</b> 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 three days prior to the initiation of clearance/construction work. Preconstruction surveys shall be repeated annually for the duration of the sediment removal. 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</p>	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		3/15/19 - 4/14/19, 3/16/20 - 5/19/20 3/1/21-4/16/21 7/28/22-8/30/22	Preconstruction surveys for nesting birds were completed during the third quarter of 2022. Active bird nests within 500 feet of the Project site were documented and appropriate no-work buffers were established. Designated Biologists monitored Project construction and restoration activities daily during the nesting season. The fourth quarter reporting period is outside of the nesting bird season.

Table 2. Devil's Gate Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM 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	Date	Remarks
resume once the nest is determined to be inactive by the monitoring biologist.							
<p><b>MM BIO – 5:</b> 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:</p> <ul style="list-style-type: none"> <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 seven 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: <ul style="list-style-type: none"> <li>Pushing the tree down with heavy machinery instead of felling the tree with a chainsaw.</li> <li>First pushing the tree lightly two to three times with a pause of 30 seconds in between each nudge to allow bats to become active, and then pushing the tree to the ground slowly.</li> <li>Allowing the tree to remain in place for 24 to 48 hours until inspected by the qualified biologist for presence or absence of roosting bats.</li> </ul> </li> </ul> <p>The qualified biologist shall document all bat survey, monitoring, and protection measure activities and prepare a summary report for LACFCD.</p>	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		11/06/18 – 11/08/18 10/05/23-10/10/23	Preconstruction bat surveys were conducted prior to the initiation of project activities in the fourth quarter of 2018. Additional preconstruction bat surveys were conducted ahead of ISHB tree removal activities during the 2022 fourth quarter reporting period. The report for these surveys is included as an attachment to Appendix C.
<p><b>MM BIO – 6:</b> 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:</p> <ul style="list-style-type: none"> <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 areas where Riversidean Alluvial Fan Sage Scrub will be enhanced or restored using aerial photographs. Priority for mitigation site locations shall be onsite, offsite within Arroyo Seco subwatershed, and offsite within the greater Los Angeles River watershed.</li> <li>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 standard parameters will include percent cover of native plant species, percent cover of nonnative and invasive plant species, and native plant species richness (number of different plant species).</li> <li>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: <ul style="list-style-type: none"> <li>Site-specific container plant (if applicable) and seed palettes,</li> <li>Irrigation plan,</li> </ul> </li> </ul>	Reservoir Management	Reservoir Management	Los Angeles County Flood Control District	Less than significant		11/19/18 - ongoing	Restoration activities were continued during the 2022 fourth quarter reporting period.

Table 2. Devil's Gate Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM 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	Date	Remarks
<ul style="list-style-type: none"> <li>o Nonnative and invasive plant species removal,</li> <li>o Maintenance and monitoring schedule,</li> <li>o Qualitative and quantitative monitoring methodologies,</li> <li>o Selection criteria of reference sites,</li> <li>o Performance standards of the mitigation sites,</li> <li>o Monitoring reports and annual reports schedule,</li> <li>o Mitigation long-term management plan, and</li> <li>o Funding description for implementation and long-term management.</li> </ul> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul> <p>Implement adaptive management measures if, during monitoring, the mitigation sites do not demonstrate measurable progress toward achieving the necessary performance standards or if unforeseen circumstances damage the mitigation sites. Adaptive management measures will include but not be limited to:</p> <ul style="list-style-type: none"> <li>o Correctively re-grade areas if hydrologic or other conditions negatively affect the mitigation sites,</li> <li>o Add soil amendments if problem soils may be inhibiting plant growth,</li> <li>o Replant if plant survival is low or to increase plant species cover or diversity,</li> <li>o Install different plant species for plant species that are not surviving, and</li> <li>o Close trails or install barriers if human-caused impacts are damaging the mitigation sites.</li> </ul> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul>							
<p><b>MM BIO – 7:</b> Within 90 days prior to ground-disturbing activities, a qualified biologist shall conduct a tree survey within the project footprint to identify native city-protected trees that would be removed or potentially affected by the Proposed Project, native city-protected trees that can be avoided, and native city-protected trees that will require root zone protection. LACFCD would replace native city-protected trees that cannot be avoided. The replacement is expected to be at a 1:1 ratio by canopy acreage. The biological monitor shall implement measures to protect the root zone of oak trees that may be impacted immediately adjacent to the project site and along access roads. The acreage occupied by the canopies of the native city-protected trees to be removed will determine the appropriate level of tree replacement. LACFCD shall identify tree replacement areas that are no less than the acreage of the native city-protected tree canopies to be removed. Priority for tree replacement locations shall be onsite, offsite within Arroyo Seco subwatershed, and offsite within the greater Los Angeles River watershed. The number of replacement 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 five 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.</p>	<p>Pre-Sediment Removal; Sediment Removal; Reservoir Management</p> <ul style="list-style-type: none"> <li>• Conduct Tree Survey</li> <li>• Identify and Protect Oak Tree Root Zones</li> <li>• Identify/Map Mitigation Sites</li> <li>• Prepare Habitat Restoration Plan</li> <li>• Install Plant Materials</li> <li>• Monitor Installation</li> <li>• Install Irrigation, if Necessary</li> <li>• Prepare As-Built Report</li> <li>• Conduct Maintenance</li> <li>• Prepare Monitoring Reports</li> </ul>	<p>Pre-Sediment Removal; Sediment Removal; Reservoir Management</p> <ul style="list-style-type: none"> <li>• Identify Reference Sites</li> <li>• Conduct Qualitative and Quantitative Monitoring</li> <li>• Conduct Maintenance</li> <li>• Implement Adaptive Management Measures, if Necessary</li> <li>• Prepare Monitoring Reports</li> <li>• Prepare Annual Reports</li> <li>• Achieve Mitigation Site Sign-Off</li> </ul>	Los Angeles County Flood Control District	Less than significant		10/02/2018 – 10/05/2018	Preconstruction tree surveys were conducted prior to the initiation of project activities in the fourth quarter of 2018. No surveys related to this measure were required during the 2022 fourth quarter reporting period. Restoration activities were continued during the 2022 fourth quarter reporting period. An addendum to the City-Protected tree survey report was prepared to account for additional trees removed during the ISHB tree removal activities. This report is included in Appendix D.

Table 2. Devil's Gate Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM 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	Date	Remarks
<p><b>MM BIO – 8:</b> A combination of onsite and offsite habitat restoration, enhancement, and exotic plant removal shall be implemented by LACFCD at a 1:1 ratio for impacted riparian habitat, sensitive natural communities, and jurisdictional waters. Habitat restoration/enhancement shall include use of willow cuttings and exotic plant species removal. Non-native, weedy habitats within the basin shall be utilized whenever possible as mitigation sites. LACFCD, with the help of professional restoration ecologists, will develop the means and methods of successful restoration and enhancement of riparian habitat, sensitive natural communities, and jurisdictional waters. Measures to achieve not less than a 1:1 replacement, or no net loss, of riparian habitat, sensitive natural communities, and jurisdictional waters shall include but not be limited to the following:</p> <ul style="list-style-type: none"> <li>• 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).</li> <li>• 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.</li> <li>• 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.</li> <li>• 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: <ul style="list-style-type: none"> <li>○ Site-specific container plant and seed palettes,</li> <li>○ Irrigation plan,</li> <li>○ Nonnative and invasive plant species removal,</li> <li>○ Maintenance and monitoring schedule,</li> <li>○ Qualitative and quantitative monitoring methodologies,</li> <li>○ Selection criteria of reference sites,</li> <li>○ Performance standards of the mitigation sites,</li> <li>○ Monitoring reports and annual reports schedule,</li> <li>○ Mitigation long-term management plan, and</li> <li>○ Funding description for implementation and long-term management.</li> </ul> </li> <li>• 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 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.</li> <li>• Quantitatively monitor 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.</li> <li>• 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 style="list-style-type: none"> <li>○ Correctively re-grade areas if hydrologic or other conditions negatively affect the mitigation sites,</li> <li>○ Add soil amendments if problem soils may be inhibiting plant growth,</li> </ul> </li> </ul>	<p>Reservoir Management</p> <ul style="list-style-type: none"> <li>• Prepare Habitat Restoration Plan</li> <li>• Identify/Map Mitigation Sites</li> <li>• Install Plant Materials</li> <li>• Monitor Installation</li> <li>• Install Irrigation, if Necessary</li> <li>• Prepare As-Built Report</li> <li>• Conduct Maintenance</li> <li>• Prepare Monitoring Reports</li> </ul>	<p>Reservoir Management</p> <ul style="list-style-type: none"> <li>• Identify Reference Sites</li> <li>• Conduct Qualitative and Quantitative Monitoring</li> <li>• Conduct Maintenance</li> <li>• Implement Adaptive Management Measures, if Necessary</li> <li>• Prepare Monitoring Reports</li> <li>• Prepare Annual Reports</li> <li>• Achieve Mitigation Site Sign- Off</li> </ul>	<p>Los Angeles County Flood Control District</p>	<p>Less than significant</p>		<p>11/19/18 - ongoing</p>	<p>Restoration activities were continued during the 2022 fourth quarter reporting period.</p>

Table 2. Devil's Gate Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM 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	Date	Remarks
<ul style="list-style-type: none"> <li>○ Replant if plant survival is low or to increase plant species cover or diversity,</li> <li>○ Install different plant species for plant species that are not surviving, and</li> <li>○ Close trails or install barriers if human-caused impacts are damaging the mitigation sites.</li> <li>● Implement and monitor the required mitigation at alternative sites 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.</li> <li>● 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.</li> <li>● Submit a report of the monitoring results annually 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.</li> </ul>							

\*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 Sediment Removal phase. "Reservoir Management" refers to all aspects of the Reservoir Management phase.

## **LIST OF APPENDICES**

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Appendix A: Construction Monitoring Logs

Appendix B: Habitat Restoration Monitoring Logs

Appendix C: Adaptive Management Report for the Invasive Shot Hole Borer Tree Removal

Appendix D: City Protected Tree Survey - Addendum

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**APPENDIX A**

Construction Monitoring Logs

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Jill Coumoutso**  
**Date of Log: October 4, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	07:00	64 °F	0-3 MPH	0 %
<b>End of Day</b>	15:00	85 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

Loading sediment into dump trucks for us removal from site. Skip loader, excavator, three bulldozers, water truck and dump trucks.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

NUWO, RTHA, BEWR, CASJ, ACWO, CAQU, WCSP, BUSH, CALT, SPTO, CORA, California Ground squirrel, Western whiptail

**Did You Observe any Non-Compliance Issues?**  Yes  No

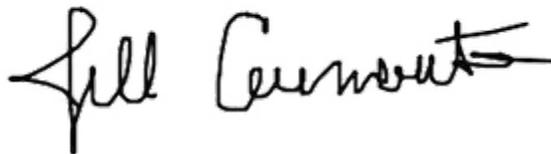
**Log Entry**

Sediment being removed from two large dirt piles. Skiploader loading into dump trucks at southern most pile, and excavator loading from larger northern most dirt pile.

**Additional Comments**

N/A

**Signature**





**Loading\_sediment\_into\_dump\_truck\_faceSW.jpg**  
-118.17223411944445 34.19186614999996



**Excavator\_loading\_sediment\_into\_truck\_faceW.jpg**  
-118.17196439722223 34.19232729444444



**Bulldozer\_compling\_dirt\_for\_excavator\_faceNW.jpg**  
-118.17224363888889 34.19201742777778



**Bulldozer\_creating\_dirt\_mound\_for\_removal\_faceSW.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carla Marriner**  
**Company: ECORP**  
**Date of Log: October 5, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	59 °F	0-3 MPH	30 %
End of Day	15:05	86 °F	0-3 MPH	10 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

1. Piling up & hauling dirt.
2. Three dozers: two D8 and one D7; one front loader/excavator; two water trucks; 5-10 dump trucks
3. Los Angeles (LA) County Public works PM; operators

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BUSH, HOFI, CASJ, SOSP, Coyote , CORA, NUWO , CALT, BEWR, NOMO, MODO, SPTO, ANHU, AMKR, BLPH , LEGO, KILL, RTHA, Western fence lizard, Side blotched lizard, Coastal whiptail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

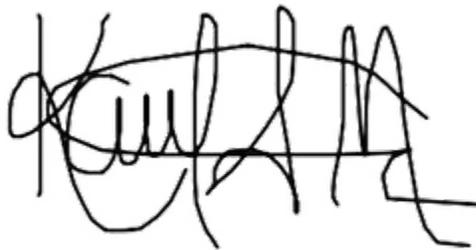
0630: Arrived onsite & talked to one of the operators. Work will primarily occur within the northern and middle portions of the reservoir.

1500: Ground disturbance/soil removal activities ended for the day.

**Additional Comments**

N/A

**Signature**





**Sediment\_removal\_activities\_within\_basin\_facingSW.jpg**  
-118.17153780555556 34.19261552777775



**Front\_loader\_loading\_dumptrucks\_facingSE.jpg**  
-118.17228162500001 34.19295105555554



**D8\_at\_northern\_end\_FacingW.jpg**  
-118.1710683 34.19475872222222



**soilpiles\_equipemt\_northernportion\_facingN.jpg**  
-118.17248735277778 34.19200309166666

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Verity Richardson**  
**Company: ECORP**  
**Date of Log: October 6, 2022**

	<b>Time</b>	<b>Temperature (°F)</b>	<b>Wind Range (MPH)</b>	<b>Cloud Cover (%)</b>
<b>Start of Day</b>	06:30	63 °F	0-3 MPH	100 %
<b>End of Day</b>	15:10	82 °F	4-6 MPH	40 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

1. Loading and hauling dirt.
2. One excavator, track tracked dozers, one front loader, one skid steer, two water trucks, one road cleaner, 25 haulage trucks (dump trucks)
3. Los Angeles County Public Works (LACPW)

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, CASJ, SOSP, CORA, Amazona sp., KILL, CALT, GBHE, MODO, RTHA, NUWO, COHA, coastal whiptail, California ground squirrel, common side blotched lizard, monarch butterfly, cabbage white butterfly, Coyote, western honey bee

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site - combination lock not part of link.  
0700: Conducted pre-works construction sweep.  
0720: Monitored crew moving dirt into piles at northern end of site.  
0845: Swept main entrance road to check for wildlife activity on road and in vicinity.  
0920: Swept main exit road to check for wildlife activity on road and in vicinity.  
0945: Monitoring loading and hauling activities.  
1125: Swept main exit road to check for wildlife activity on road and in vicinity.  
1155: Swept main entrance road to check for wildlife activity on road and in vicinity.  
1220: Monitored ground disturbance activities.  
1352: Observed coastal whiptail.  
1415: Swept main exit road to check for wildlife activity on road and in vicinity.  
1445: Swept main entrance road to check for wildlife activity on road and in vicinity.  
1510: End of monitoring.

**Additional Comments**

N/A

**Signature**



TrackedDozer\_Excavator\_GradingNend\_facingN\_100622.jpg  
-118.17198975000001 34.19253752777777



**ExcavatorLoadingHaulageTruck\_facingN\_100622.jpg**  
-118.17226467500001 34.19269905555555



**HaulingDirt\_Grading\_spraying\_facingN\_100622.jpg**  
-118.17220898611112 34.192643472222215



**LoadingHaulageTrucks\_facingE\_100622.jpg**  
-118.1725967222222 34.19278705555556

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: October 7, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:45	61 °F	0-3 MPH	100 %
<b>End of Day</b>	15:00	87 °F	4-6 MPH	20 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

1. Sediment removal, grading.
2. Four dozers, one excavator, two water trucks.
3. Operators from Public Works.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, RCPA, CORA, WCSP, SAVS, CASJ, CAKI, MODO, SOSP, YRWA, BUSH, OATI, BEWR, DOWO, common side-blotched lizard, California ground squirrel, western tiger swallowtail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: Arrived on site.

0710: Crew headed into reservoir.

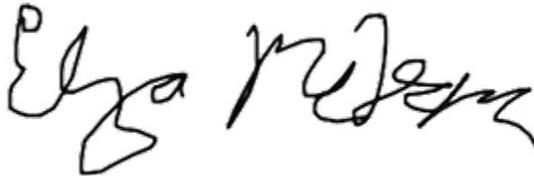
0710-1500: Monitored sediment removal and grading.

1500: Crew finished work for the day. Left site.

**Additional Comments**

N/A

**Signature**





**Dozer\_loading\_sediment\_facingNW.jpg**  
-118.17239011111111 34.19188686111111



**Excavator\_loading\_sediment\_facingNW.jpg**  
-118.17199530555555 34.19228372222222



**Grading\_facingSW.jpg**  
-118.170887425 34.193814111111111



**Mid\_reservoir\_end\_of\_day\_facingNW.jpg**  
-118.17174320555556 34.192340499999999

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: October 11, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:45	63 °F	0-3 MPH	100 %
<b>End of Day</b>	15:00	76 °F	4-6 MPH	75 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

1. Sediment removal, grading
2. 3 dozers, 1 frontloader, 1 excavator, 1 water truck
3. ISCO and Public Works operators

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, RCPA, WCSP, CASJ, WEME, BUSH, YRWA, California ground squirrel, common side-blotched lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: Arrived on site.

0705: Crew headed into reservoir.

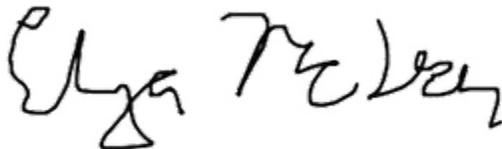
0705-1500: Monitored sediment removal.

1500: Crew finished work for the day. Left site.

**Additional Comments**

N/A

**Signature**





**Grading\_N\_Reservoir\_facingNW.jpg**  
-118.17081741666667 34.19403886111111



**Sediment\_removal\_facingSE.jpg**  
-118.17216872222222 34.19347025



**Sediment\_removal\_facingE.jpg**  
-118.17241015277779 34.192870013888886



**Mid\_reservoir\_end\_of\_day\_facingSW.jpg**  
-118.17075613055556 34.19409308333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: October 12, 2022**

	<b>Time</b>	<b>Temperature (°F)</b>	<b>Wind Range (MPH)</b>	<b>Cloud Cover (%)</b>
<b>Start of Day</b>	06:45	65 °F	0-3 MPH	25 %
<b>End of Day</b>	15:00	80 °F	7-9 MPH	35 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

1. Sediment removal, grading
2. Dozers, front loader, excavator, water truck
3. ISCO and Public Works operators

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RCPA, CALT, CASJ, WCSP, HOFI, BUSH, YRWA, AMRO, CORA, RTHA, California ground squirrel, common side-blotched lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: Arrived on site.

0705: Crew headed into reservoir.

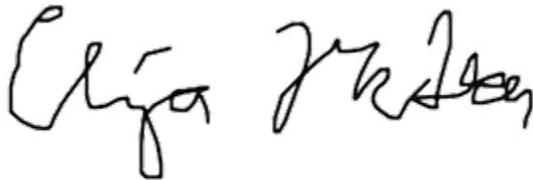
0705-1500: Monitored sediment removal and grading.

1500: Crew finished work for the day. Left site.

**Additional Comments**

N/A

**Signature**





**Grading\_facingW.jpg**  
-118.17082275 34.19400283333333



**Sediment\_removal\_facingSE.jpg**



**Piling\_sediment\_facingE.jpg**



**Mid\_reservoir\_end\_of\_day\_facingNW.jpg**  
-118.1716325555556 34.19246208333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Jill Coumoutso**  
**Company: ECORP**  
**Date of Log: October 13, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	07:00	64 °F	0-3 MPH	100 %
<b>End of Day</b>	15:00	75 °F	0-3 MPH	25 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

Compile sediment into mounds for removal from site. One excavator, two bulldozers, two skip loaders, water truck, dump trucks, one grader

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, ACWO, NOFL, CAQU, CASJ, HOFI, NOMO, BUSH, CORA, RTHA, WCSP, BEWR, MODO, OATI, KILL, RCPA, California ground squirrel, Side-blotched lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

Excavator and skid loader collecting sediment from one pile and loading up dump trucks for removal from site. Grader and bulldozers grading and compiling sediment into two piles.

**Additional Comments**

N/A

**Signature**





**Excavator\_loading\_sediment\_into\_dumptruck\_faceW.jpg**  
-118.17152056944445 34.19265958333333



**Grading\_compiling\_sediment\_faceW.jpg**  
-118.17146381944445 34.19302983333333



**Skiploder\_loading\_dumptruck\_faceS.jpg**  
-118.1715328000001 34.19300415

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Jill Coumoutso**  
**Company: ECORP**  
**Date of Log: October 14, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:45	63 °F	0-3 MPH	100 %
<b>End of Day</b>	15:00	75 °F	0-3 MPH	25 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

Grading and compiling sediment into mounds for removal. Two bulldozers, two skip loaders, excavator, water truck, dump trucks

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BEWR, CORA, WCSP, AMCR, RSHA, KILL, COYE, BGGN, CASJ, ACWO, CALT, BUSH, CAQU, Desert cottontail, Western whiptail (2), Side blotched lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

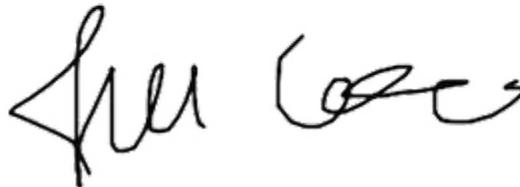
**Log Entry**

Working from three sediment piles. Excavator collecting from one pile and skip loaders collecting from other two piles.

**Additional Comments**

N/A

**Signature**





**Excavator\_filling\_truck\_with\_sediment\_facingW.jpg**  
-118.1715235 34.19245330555555



**Dump\_trucks\_lining\_up\_to\_collect\_sediment\_facingS.jpg**  
-118.17227597222222 34.19205647222222



**Bulldozer\_grading\_compile\_sediment\_facingNW.jpg**  
-118.17165631666667 34.192414674999995



**Skiploader\_filling\_dump\_truck\_facingN.jpg**  
-118.17131035 34.19305130555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Jill Coumoutso**  
**Company: ECORP**  
**Date of Log: October 17, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	07:00	68 °F	0-3 MPH	0 %
<b>End of Day</b>	15:00	81 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

Grading taking place two bulldozers, one skid steer, one skip loader, one grader, water truck

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

SOSP, CALT, WCSP, CASJ, NOFL, BEWR, YRWA, HOFI, BGGN, BLPH, CATH, NOMO, RTHA, OATI, CORA, RCPA, Side-blotched lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

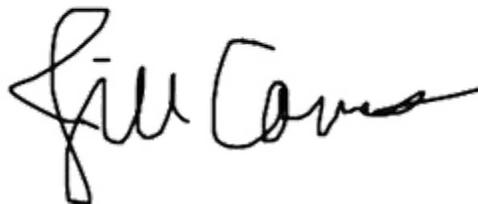
**Log Entry**

Two Bulldozers grading on site, one on North end and one on south end. Starting to compile sediment into pile on north end. Grader and skid steer both grading, skip loader moving boulders

**Additional Comments**

N/A

**Signature**





**Bulldozer\_grading\_faceS.jpg**  
-118.17277550833334 34.191088602777775



**Bulldozer\_grading\_faceN.jpg**  
-118.17149939722222 34.19301925



**Skid\_steer\_grading\_faceNW.jpg**  
-118.17071959444445 34.19407168055555



**Compile\_sediment\_faceN.jpg**  
-118.17137116666667 34.19330447222216

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Jill Coumoutso**  
**Company: ECORP**  
**Date of Log: October 18, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:45	63 °F	0-3 MPH	0 %
<b>End of Day</b>	15:00	88 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

Grading, compile sediment, creating ramp. Three bulldozers, two skip loaders, one grader, two water trucks.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, CORA, WCSP, HOFI, AMKE, AMCR, RSHA, BEWR, CASJ, BGGN, OATI, Side-blotched lizard, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

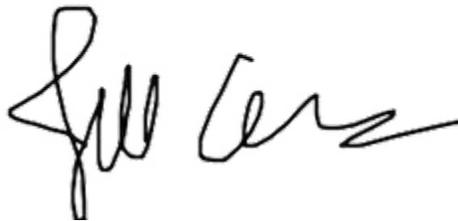
**Log Entry**

Grading, sediment compiling and removal, ramp was created near North end.

**Additional Comments**

N/A

**Signature**





**Bulldozer\_creating\_ramp\_facingSW.jpg**  
-118.17085075 34.19384097222222



**Skiploader\_loading\_sediment\_into\_truck\_facingS.jpg**  
-118.17252598611111 34.19160016666666



**Bulldozer\_grading\_facingSE.jpg**  
-118.17320911111112 34.191500766666664



**Ramp\_created\_in\_hillside\_facingW.jpg**  
-118.17152009722223 34.192654833333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: October 19, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:45	71 °F	0-3 MPH	0 %
<b>End of Day</b>	15:00	91 °F	4-6 MPH	5 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

1. Sediment removal.
2. Two dozers, one front loader, one motor grader, one excavator, two water truck
3. Isco and Public Works operators.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, RCPA, CORA, BLPH, WCSP, YRWA, MODO, HOFI, CASJ, California ground squirrel, common side-blotched lizard, Western toad

**Did You Observe any Non-Compliance Issues?**  Yes  No

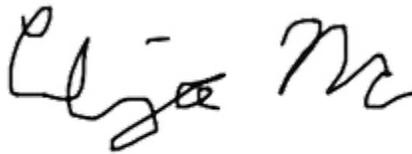
**Log Entry**

0645: Arrived on site.  
0705: Crew headed into reservoir.  
0705-1500: Monitored sediment removal.  
1500: Crew finished work for the day. Left site.

**Additional Comments**

N/A

**Signature**





**Piling\_sediment\_facingNW.jpg**  
-118.17216409722222 34.19213669444444



**Piling\_sediment\_facingSW.jpg**  
-118.17253661111111 34.191604972222216



**Grading\_facingE.jpg**  
-118.1722506 34.19301833333333



**Mid\_reservoir\_end\_of\_day\_facingS.jpg**  
-118.17075071111111 34.19408030555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: October 20, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:40	68 °F	0-3 MPH	15 %
<b>End of Day</b>	15:00	88 °F	4-6 MPH	10 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

Sediment removal, grading, and construction of north access road. Two dozers, two haul trucks, one loader, two water trucks.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, HOFI, CASJ, KILL, BUSH, WCSP, MODO, CAKI, Amazona spp, coyote, fence lizard, whiptail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0640: On site.

0705: Roads and work area clear.

0710: Equipment moving. Two dozers. one moving material near East drainage channel. One pushing sediment on North side.

0730: Loader and haul truck enter site.

0750: Blade and bobcat grading equipment storage area and access road.

0830: Complete road check. Sediment loaded into haul trucks and taken to North access road.

0900: Dozer grading East edge of basin, up against East EMA slope. Monitored to keep work in project area.

1000: Continuing to haul sediment to North access road.

1030: Compacting slope at North access road.

1115: Complete road check.

1130: Lunch.

1215: Grading sediment near new North access road with dozers.

1445: End work, equipment headed back to storage area.

**Additional Comments**

N/A

**Signature**

02/2



North\_access\_road\_facingSW.jpg



**Loading\_haul\_trucks\_facingNW.jpg**



**Compacting\_north\_access\_road\_facingSW.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: October 21, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:45	61 °F	0-3 MPH	0 %
<b>End of Day</b>	15:00	80 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

Two dozers, two loaders, two work trucks, two water trucks. Grading sediment on North side.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Amazona spp., AMCR, WCSP, BUSH, KILL, CATO, CASJ, BEWR, MODO, cottontail, fence lizard, whiptail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: On site.

0705: Road check complete. Work area clear.

0715: Equipment moving. Two dozers pushing sediment on North side by new access road.

0800: Exit roads clear.

0835: Loader picking rocks from East slope up against EMA area. Monitored to keep work in appropriate boundary.

0900: Rocks being moved to North edge to outline mound supporting a telephone pole in the work area.

1030: Road check complete.

1130: Crew takes lunch.

1245: Road check complete. Dozers continue to grade sediment on North side.

1445: Equipment moving back to storage area. End work.

**Additional Comments**

N/A

**Signature**





**Dozers\_grading\_facingNE.jpg**



**Loader\_picking\_rocks\_facingSW.jpg**



Graded\_north\_side\_facingNW.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: October 24, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:45	52 °F	0-3 MPH	0 %
<b>End of Day</b>	08:35	56 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Construction Monitoring

**Construction Activity:**

Public works crew. Demobilizing equipment.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, HOFI, Amazona spp., AMCR

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: On site.

0700: Roads and work area clear.

0715: No crew on site. Contact Tony Rothwell who said maintenance work was complete and the plan for the day was to move equipment out using North exit by JPL. No equipment will be operating in basin.

0745: Public works crew arrive. Confirm plan to demobilize equipment.

0815: Exit roads checked.

0830: Spoke to Maddy (restoration monitoring) who agreed to periodically check roads being used to demobilize.

0835: Depart.

**Additional Comments**

N/A

**Signature**





Equipment\_storage\_area\_facingSW.jpg

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**APPENDIX B**

Habitat Restoration Monitoring Logs

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: October 3, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	59 °F	0-3 MPH	0 %
<b>End of Day</b>	13:45	79 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of five weeding by hand and with line trimmers in DG-4A/DG-4.

**Did you observe any special-status species?**  Yes  No

Yellow warbler

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

LEGO, BUSH, RCPA, WREN, HAWO, CALT, AMCR, HOFI, EUST, BEWR, ANHU, MODO, ALHU, OATI, ACWO, WEBL, CASJ, DEJU, BLPH, NUWO, ROPI, CORA, SOSP, WIWA, GHOW, YEWA, RSHA, CAQU, CAKI, RTHA, California ground squirrel, Western fence lizard, orb weaver.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Surveyed work area while crew gathered tools.

0650: Crew began weeding DG-4A and the edges of DG-4 on the far southeastern corner of DG-4A (the "primrose" clearing). Three crew members used line trimmers; primary targets were *Chenopodium album* and Pepperweed. Crew also removed some aggressive native forbs which include *Ambrosia acanthacarpa*, *Erigeron canadensis*, and *Xanthium strumarium* because they will likely plant this area and those species will compete with container plants for sunlight/water/nutrient resources.

1045: Crew member opened large in-ground Yellowjacket hive, escaped before being stung. Advised crew to avoid by 30 feet.

**Additional Comments**

Signature





**photo\_1-20221003-before\_weeding\_facingW.jpg**  
-118.1764458888889 34.18945299444444



**photo\_2-20221003-after\_weeding\_facingW.jpg**  
-118.1763865 34.189438325

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: October 3, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	04:45	57 °F	0-3 MPH	0 %
<b>End of Day</b>	14:45	83 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed removal within DG-2; focus on removing *Cuscata californica* from container plants.
2. None
3. Gothic; crew of eight plus Cesar Olmos (foreman).

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RCPA, ACWO, CASJ, ALHU, COHA, LEGO, BEWR, CAQU, WCSP, CALT, WIWA, SOSPO, WREN, BLPH, SPTO, common side blotched lizard, whiptail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0545: Arrived on site. Carley and Maddi arrive, we drive down to Johnson Field to meet Gothic crew.  
0610: Found out crew would be arriving at 0630.  
0630: Gothic crew arrives. Carley, Maddi and I go ahead to clear DG-2. Crews plan was to focus on removing *Cuscata californica* from container plants.  
0710: Carley and Maddi leave.  
0748: Spoke to Cesar, said the crew would be turning on some valves for the irrigation system. Crew was trying to catch up on work after being off for a week.  
0845: Crew takes a break.  
1115: Crew continues to pull *Cuscata californica* within DG-2.  
1145: Crew takes lunch.  
1237: Crew returns from lunch.  
1245: Cesar said he was sending two workers to rake pulled vegetation from the channels.  
1400: Crew continues with pulling *Cuscata californica*.  
1434: Crew cleaning up.  
1444: Crew leaving site.

**Additional Comments**

N/A

Signature

A handwritten signature in black ink, consisting of a large, stylized initial 'D' followed by a series of connected, cursive-like strokes.

Before\_weed\_removal\_within\_DG-2\_area\_facing\_northeast.jpg  
-118.17110695555556 34.19317765277778



**Weed\_removal\_during\_within\_DG-2\_facing\_northeast.jpg**



**After\_weed\_removal\_within\_DG-2\_facing\_northeast.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: October 4, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	63 °F	0-3 MPH	0 %
<b>End of Day</b>	14:45	86 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six hand pulling weeds in DG-4/DG-4A

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WREN, ACWO, RCPA, NUWO, WCSP, CALT, AMCR, COHA, LEGO, SOSOP, RSHA, HOFI, NOFL, BUSH, BLPH, EUCD, MODO, CAKI, San Diego gopher snake, southern pacific rattlesnake, California chorus frog, Western toad, WEME, SPTO, WEBL.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Surveyed work area while crew set up.

0645: Monitored weeding in DG-4A and DG-4. Crew continued as they had yesterday, pushing through areas which had been staked to remove Chenopodium and pepperweed (and aggressive native forbs where required).

1030: Crew member reported finding a large rattlesnake, advised crew to avoid.

1300: Worked on inventory of staked areas.

1430: Crew began wrapping up pulling while I inspected the site.

**Additional Comments**

N/A

Signature





**photo\_1-20221004-before\_weeding\_facingS.jpg**  
-118.1766386666668 34.18942210277776



**photo\_2-20221004-after\_weeding\_facingS.jpg**  
-118.17661411111112 34.18948961111111



**photo\_3-20221004-before\_weeding\_facingN.jpg**  
-118.17647293333334 34.18949798888889



**photo\_4-20221004-after\_weeding\_facingN.jpg**  
-118.17645652777779 34.18958018611111

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: October 4, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	62 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	87 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Irrigation and dodder removal.
2. Hoses, buckets, hand tools.
3. Gothic landscaping, Caesar Olmos and crew of ten.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Desert cottontail, California ground squirrel, side blotch lizard, Western fence lizard, coastal whiptail, RCPA, BEWR, CATH, ACWO, CORA, AMCR, SOSP, WCSP, RTHA, CASJ, CALT, HOFI, SPTO, BGGN, ANHU, BLPH, BUSH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrive on site.

0645: Attend morning tailboard. Crew to be removing dodder and catching up on irrigation.

0650 crew begins work in Johnson field and DG-2 areas, irrigating with hoses/buckets and removing dodder by hand.

0650-1430: Monitored crew while work continued. No corrective action required.

**Additional Comments**

N/A

**Signature**





**CrewBeginningDodderRemoval.jpg**  
-118.17213780555556 34.19042267499999



**IrrigatingCuttings.jpg**  
-118.17090525555557 34.19138428611111



**WateredCuttingsDG-2.jpg**  
-118.17197513333333 34.190180372222216



**DodderRemovalJohnsonField.jpg**  
-118.17194519444445 34.19160655555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: October 5, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	60 °F	0-3 MPH	0 %
<b>End of Day</b>	14:31	86 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Dodder removal.
2. Hand shovels, hoes.
3. Gothic Landscape, Cesar Olmos and crew of five.

**Did you observe any special-status species?**  Yes  No

Yellow warbler

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Desert cottontail, side blotch lizard, Western fence lizard, coastal whiptail, RCPA, BEWR, CATH, ACWO, CORA, AMCR, SOSP, WCSP, RTHA, CASJ, CALT, HOFI, SPTO, BGGN, ANHU, BLPH, BUSH, COYE, WREN, YRWA, NUWO, YEWA, CAKI

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630 Arrive on site.

0650: Crew begins work in Johnson Field removing dodder by hand.

1100: Observed female yellow warbler foraging on telegraph weed near north fence of Johnson field.

1430: Crew finishes work for the day.

1435: Depart site.

**Additional Comments**

N/A

**Signature**





**Dodder\_Removal\_Mulefat.jpg**  
-118.17193741666667 34.19176427777777



**Irrigated\_Mulefat\_JohnsonField.jpg**  
-118.17147293333333 34.19077561111111



**Dodder\_Removal\_CoyoteBush.jpg**  
-118.17211974166668 34.19189006666666

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 5, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	60 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	83 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of four hand pulling weeds in DG-4A.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, WCSP, ANHU, SOSP, RSHA, ACWO, CALT, SPTO, MODO, WREN, CASJ, CAQU, CORA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the work area. Crew began pulling at 0705. The crew worked in DG-4A and moved West towards the primrose fields. Crew stopped pulling at 1430 and began cleanup.

**Additional Comments**

N/A

**Signature**





**photo\_VegetationRemoval\_before\_facingW-.jpg**  
-118.1764645277778 34.189608880555554



**photo\_2-VegetationRemoval\_before\_facing\_W-.jpg**  
-118.17652340000001 34.18955331944444



**photo\_3-VegetationRemoval\_After\_facingW-.jpg**  
-118.17646183333333 34.18965721111111



**photo\_4-VegetationRemoval\_After\_facingW-.jpg**  
-118.17654755555556 34.189586399999996

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: October 6, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	86 °F	0-3 MPH	100 %
<b>End of Day</b>	14:50	82 °F	4-6 MPH	34 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Pulling Cuscata californica and watering container plants in DG-2.
2. None.
3. Gothic; eight crew members plus Cesar Olmos (foreman).

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BEWR, NOMO, LEGO, RCPA, ACWO, CALT, WCSP, CASJ, CATH, GBHE, WEBL, SPTO, RCKI, HOWR, YRWA

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site at the same time as several workers.

0640: Spoke to Cesar about work and work area. Crew would continue to pull Cuscata californica in DG-2 and water container plants.

0655: Crew beginning work.

0739: Checked on crew watering container planes and crew pulling Cuscata californica.

0915: Break.

0930: Return from break.

1200: Lunch.

1238: Return from lunch.

1335: Spotted rattlesnake within DG-2. Informed Cesar Olmos and a handful of crew members in the area.

**Additional Comments**

N/A

**Signature**





**Crews\_beggining\_to\_water\_plants\_facing\_northeast.jpg**



**Before\_weeding\_in\_DG-2\_facing\_southwest.jpg**



Crew\_during\_weeding\_effort\_in\_DG-2\_facing\_south.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 6, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	62 °F	0-3 MPH	100 %
<b>End of Day</b>	14:30	79 °F	4-6 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

Natures Image crew of five hand pulling weeds in DG-4A.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WREN, LEGO, AMCR, CORA, RSHA, BUSH, RSHA, OCWA, BEWR.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630 I cleared the work area. Crew began pulling at 0700. The crew worked in DG-4A and moved West towards the primrose fields. Crew stopped pulling at 1430 and began cleanup.

**Additional Comments**

N/A

**Signature**





**photo\_1-VegetationRemoval\_before\_facingW-.jpg**  
-118.17658768055556 34.18959706944444



**photo\_2-VegetationRemoval\_during\_facingE-.jpg**  
-118.17674341666667 34.18956631944444



**photo\_3-VegetationRemoval\_during\_facingW-.jpg**  
-118.17672841666668 34.18968646111111



**photo\_4-VegetationRemoval\_after\_facing\_W-.jpg**  
-118.17659272222222 34.189613861111106

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Verity Richardson**  
**Company: ECORP**  
**Date of Log: October 7, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:20	62 °F	0-3 MPH	100 %
<b>End of Day</b>	15:00	89 °F	0-3 MPH	20 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

1. Maintaining restoration areas: Removing non-natives from Johnson's field and south of Johnson field.
2. Hand tools - hoes, rakes, clippers etc.
3. Gothic landscaping, Cesar Olmos (foreman) plus nine crew

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Cottontail, Southern pacific rattlesnake, cabbage white, California ground squirrel, carpenter bee, coastal whiptail, common side blotched lizard, western toad, CAQU, MALL, RTHA, ACWO, ANHU, CORA, parrot sp., CALT, SOSP, WCSP, WREN, CASJ, BLPH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0620: Met crew at Johnson Field.

0630: Tailboard meeting.

0645: Crew begin removing dodder, wild carrot, non-native grass, from Johnson's field and area South. Collecting into bags and removing from the site.

1139: Observed coastal whiptail.

1500: End of day.

**Additional Comments**

N/A

**Signature**

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.



**RemovingDodder\_restablishingWaterbasins\_100722.jpg**  
-118.17227802777778 34.18995942777777



**RemovingDodderfromRestorationArea\_100722.jpg**  
-118.17231392777778 34.18987213888889



**RemovingNonNatives\_100722.jpg**  
-118.1722786666667 34.190011111111104



**WeedRemoval\_100722.jpg**  
-118.1717349638889 34.19021346111111

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 7, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	59 °F	0-3 MPH	0 %
End of Day	11:00	81 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

Natures Image crew of six hand pulling weeds in DG-4A.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

LEGO, WCSP, CALT, CASJ, WREN, AMCR, CORA, SOSP, ACWO, BUSH, Coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the work area.

0700: The crew began pulling weeds. The crew focused on clearing vegetation around irrigation lines and around planted trees. The crew continued working in DG-4A working west into the primrose fields.

**Additional Comments**

N/A

**Signature**





**photo\_1-VegetationRemoval\_before\_facingS-.jpg**  
-118.17692222222223 34.18957222222222



**photo\_2-VegetationRemoval\_after\_facingS-.jpg**  
-118.17697222222223 34.18968611111111

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: October 10, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	64 °F	4-6 MPH	100 %
End of Day	13:48	78 °F	0-3 MPH	20 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

Natures Image crew of six weeding DG-4A

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, WREN, LEGO, CASJ, WCSP, CALT, CAQU, RSHA, NOFL, ACWO, WEME, RCPA, MODO, CAKI, BUSH, ANHU, southern pacific rattlesnake, western toad, western fence lizard, common side blotched lizard, California ground squirrel, HOFI, ECDO,

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Cleared work area for crew.

0650: Crew began weeding DG-4A in the "primrose" area just next to the trail. Areas which had been staked were being choked out by aggressive native herbs (*Erigeron canadensis*, *Ambrosia acanthocarpa*, *Xanthium strumarium*), so the crew removed those where appropriate along with pepperweed, poison hemlock, and tree of heaven.

0730: A crew member reported a Yellowjacket hive, advised crew to avoid area.

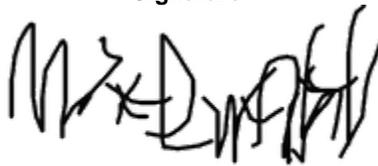
1200: Observed a juvenile southern pacific rattlesnake next to the parking lot. Advised crew to take a path which avoids that area.

1345 Crew wrapped up for day, left site.

**Additional Comments**

N/A

**Signature**





**photo\_1-20221010-before\_weeding\_facingW.jpg**  
-118.17696447222222 34.18959619444444



**photo\_2-20221010-after\_weeding\_facingW.jpg**  
-118.17694758333334 34.18962802777777



**photo\_3-20221010-before\_weeding\_facingE.jpg**  
-118.17694483333334 34.189999924999995



**photo\_4-20221010-after\_weeding\_facingE.jpg**  
-118.17688541666668 34.19003075

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: October 10, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	61 °F	0-3 MPH	100 %
<b>End of Day</b>	14:35	80 °F	0-3 MPH	10 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

1. Dodder and pepper weed removal, irrigation system repair.
2. Hand tools (hoes, shovels, rakes, pliers, etc.).
3. Gothic landscape, Cesar Olmos and crew of six landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Desert cottontail, California ground squirrel, western toad, side blotch lizard, western fence lizard, coastal whiptail, gopher snake, Red-crowned parrot, CATH, ACWO, CORA, AMCR, SOS, WCSP, RTHA, COHA, CASJ, CALT, HOFI, SPTO, BGGN, ANHU, NOMO, BLPH, BUSH, COYE, WREN, YRWA

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrive on site.

0655: Crew begins work in Johnson Field and DG-2, pulling weeds (pepper weed) and removing dodder by hand.

1000: Two crew member fix leak in irrigation system.

1300: Crew begins pulling weeds in EMA east side.

1430: Crew finishes work for the day.

1440: Depart site.

**Additional Comments**

N/A

**Signature**





**Removing\_Pepperweed.jpg**  
-118.17225692777778 34.18995489722222



**Maintenance\_DG-2Area.jpg**  
-118.17228686111112 34.18934855555554



**Removing\_Dodder.jpg**  
-118.1722800777778 34.19003161111111



**Weed\_AbatemetEMA.jpg**  
-118.17373009722223 34.18771430555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: October 11, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	62 °F	0-3 MPH	100 %
<b>End of Day</b>	13:45	74 °F	0-3 MPH	35 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

Natures Image crew of six weeding DG-4A.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RSHA, BUSH, SPTO, COHA, CAQU, CASJ, AMCR, BEWR, LEGO, BLPH, NOFL, RTHA, MODO, ROPI, ACWO, CALT, NUWO, WCSP, YRWA, WEBL, WEME, ECDO, ANHU, WREN, RCPA, HAWO, RCKI, BGGN, HUVI, DEJU, OATI.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Surveyed work area while crew set up.

0650: Crew began weeding DG-4A near the perimeter trail (the 'primrose' area).

1200: A Cooper's hawk made a kill near crew, but the bird appeared visibly agitated. Moved crew south to next clearing, gave the area a brief survey.

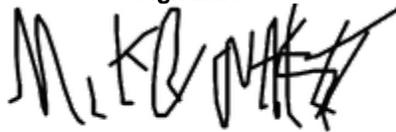
1245: Checked and the COHA was still eating. Told crew we would not continue working in that vicinity for rest of day; and that cleanup should only be limited to piles which were adjacent to the trail and out of line of site.

1330: Monitored the removal of these tarps; was done quietly and by hand. Kubota was pushed in neutral for ~100 feet before starting so it didn't get scared off.

**Additional Comments**

Did not take an after photo because it was too close to the hawk mentioned above; did not want to scare it away from its kill.

**Signature**





photo\_1-20221011-before\_weeding\_facingN.jpg  
-118.17689936111111 34.19013195833333



**photo\_2-20221011-hauling\_tarps.jpg**  
-118.17538168333334 34.192398930555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: October 11, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:40	61 °F	0-3 MPH	100 %
<b>End of Day</b>	14:30	77 °F	0-3 MPH	60 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

1. Irrigation maintenance, some weeding and dodder removal.
2. Hand tools (shovels, rakes, hoes, etc.)
3. Gothic landscape, Cesar Olmos and crew of nine landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Monarch butterfly, western toad, side blotch lizard, western fence lizard, coastal whiptail, RCPA, CATH, ACWO, CORA, AMCR, SOSP, WCSP, RTHA, COHA, CASJ, CATO, HOFI, SPTO, BGGN, ANHU, NOMO, BLPH, BUSH, COYE, WREN, YRWA, CAQU, RCKI, OATI, Desert cottontail, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrive on site.

0640: Crew begins work in EMA east side area, pulling nonnative weeds with hand tools.

0720: Spoke with Tony Rothwell from public works. Public works doesn't want the Gothic truck to be down in the basin area (in the way of haul trucks) during sediment removal activities.

0730-1420: Gothic crew begins maintenance activities in DG-2, attending to irrigation system. Crew cut back/ removed some ambrosia to better access irrigation system. Also planted some mulefat and willow propagations where ambrosia was. Small amounts of dodder and weed removal was done throughout the day.

1430: Crew finishes work for the day.

1435: Depart site.

**Additional Comments**

N/A

**Signature**





**EMA\_before\_weeding\_facingN.jpg**  
-118.17381416666667 34.18788852777777



**Container\_Plant\_Maintenance\_DG-2.jpg**  
-118.17291070833333 34.188470205555554



**Irrigation\_Maintenance\_DG-2.jpg**  
-118.17204268611111 34.19106166666666



**Planting\_Willow\_DG-2.jpg**  
-118.17270540833334 34.18895296666666

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Verity Richardson**  
**Company: ECORP**  
**Date of Log: October 12, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:20	64 °F	0-3 MPH	20 %
<b>End of Day</b>	14:55	82 °F	0-3 MPH	60 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

1. Removal of non-native vegetation.
2. Hand tools - hoes, clippers, shovel.
3. Cesar Olmos, Jonathan, and eight crew members.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RCPA, CALT, CATH, CORA, WREN, CASJ, ACWO, LEGO, BUSH, RTHA, Side- blotched lizard, Western toad, California ground squirrel, cottontail, harvester ant, Western honey bee, bee fly, monarch butterfly, coastal whiptail, cabbage white butterfly, Western tiger swallowtail,

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0620: Arrived on site.

0630: Tail gate meeting with crew.

0645: Began pulling non-natives in DG-2 and DG-2-WOUS, primarily dodder and tree of heaven.

1139: Observed coastal whiptail.

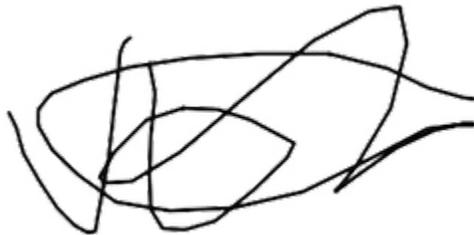
1435: Carrying bags of removed vegetation back to the dump.

1455: End of monitoring.

**Additional Comments**

N/A

**Signature**

A handwritten signature in black ink, consisting of several overlapping loops and lines, positioned below the 'Signature' label.



**Removing\_Dodder\_DG-2\_101222.jpg**  
-118.17252279166667 34.19027723333333



**Worker\_removing\_dodder\_101222.jpg**  
-118.17257356944445 34.190781861111105



**Restoring\_irrigation\_basins\_DG-2\_101222.jpg**  
-118.17175161111112 34.19016736111111



**Restoring\_basins\_removing\_Dodder\_101222.jpg**  
-118.17175822222222 34.19017683333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 12, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	61 °F	0-3 MPH	75 %
End of Day	13:30	76 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

Natures Image crew of five pulling weeds in DG-4A "primrose field".

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

LEGO, CAQU, CALT, ACWO, WCSP, CASJ, MODO, SOSP, BUSH, BEWR, WREN, alligator lizard, coyote

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the work area.

0700: The crew began pulling weeds around the East edges of "primrose".

0830: I checked under vegetation piles left from the previous day. I moved one alligator lizard out from under the pile.

0915: One crew member cleaning up vegetation piles. The rest of the crew continued pulling weeds.

1330: The crew stopped pulling a began cleanup.

**Additional Comments**

N/A

**Signature**





**photo\_1-VegetationRemoval\_before\_facingE.jpg**  
-118.17665044444445 34.19034198888889



**photo\_2-VegetationRemoval\_during\_facingW.jpg**  
-118.17697380555556 34.19068305555555



**photo\_3-VegetationRemoval\_after\_facingE.jpg**  
-118.1766623333334 34.190319036111106

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: October 13, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	57 °F	0-3 MPH	100 %
<b>End of Day</b>	14:43	79 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

1. Water line and container plant maintenance
2. None. Hand tools were used.
3. Gothic; Cesar Olmos (foreman) plus ten crew members.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

KILL, CATH, CALT, ACWO, CASJ, CORA, HOSP, RCPA, RSHA, BUSH, OATI, WCSP, BEWR

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Crew members begin arriving.

0640: Spoke to Cesar about the plan for the day. He said they would be fixing water lines and basins of container plants in DG-2 and DG-2B.

0645: Site walk of area.

0728: Crew began fixing basins of container plants and fixing water lines to plants.

1145: Lunch.

1245: Return from lunch.

1259: Crew is continuing to fix basins and watering container plants.

1415: Cesar says the crew will pick up where they left off tomorrow.

1420: Crew cleaning up.

1433: Crew leaving site while I finish my log.

**Additional Comments**

N/A

**Signature**





Prior\_to\_maintancece\_of\_basins.jpg



After\_maintenance\_of\_basins.jpg



Crew\_fixing\_basins\_and\_irrigation\_facing\_south.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 13, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	59 °F	0-3 MPH	100 %
<b>End of Day</b>	14:00	78 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

Natures Image crew of six hand pulling weeds in DG-4 East of "primrose".

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BUSH, CASJ, WREN, ACWO, AMCR, CALT, CAQU, SOSP, WCSP.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the work area.

0700: The crew began pulling weeds in the forested area East of "primrose". The crew continued pulling until 1400 and then stopped for cleanup.

**Additional Comments**

N/A

**Signature**





photo\_1-VegetationRemoval\_before\_facingS.jpg



photo\_2-VegetationRemoval\_before\_facingE.jpg



**photo\_3-VegetationRemoval\_after\_facingS.jpg**



**photo\_4-VegetationRemoval\_after\_facingE.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: October 14, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	61 °F	0-3 MPH	100 %
<b>End of Day</b>	14:09	76 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Container plant basin and water line maintenance in DG-2 areas.
2. None. Hand tools only.
3. Gothic; Cesar Olmos (foreman) and ten crew members.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RSHA, CASJ, GHOW, LEGO, BEWR, RCPA, BUSH, ANHU, CALT, WIWA, GBHE, WCSP, HOSP, NOMO, CATH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0625: Crew members begin to arrive.

0640: I clear the work areas within DG-2.

0700: Crew begins to work in DG-2 and DG-2B. Crew is fixing water lines and basins of container plants.

0745: Three crew members switch to pulling *Cuscuta californica* in DG-2 WOUS.

0845: Break.

1130: Spoke with Cesar before he left for the day. Said the crew would continue with the work until the end of the day.

1230: Lunch.

1300: Return from lunch.

1400: Crew is cleaning up.

**Additional Comments**

N/A

**Signature**





**Basin\_prior\_to\_fixing.jpg**



**Basin\_after\_being\_fixed.jpg**



Crew\_pulling\_cuscata\_within\_DG-2\_WOUS\_facing\_north.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 14, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	59 °F	0-3 MPH	100 %
<b>End of Day</b>	11:00	67 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

Natures Image crew of five hand pulling weeds in DG-4.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CASJ, ACWO, MODO, LEGO, SOSP, WCSP, BUSH, CORA, RTHA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

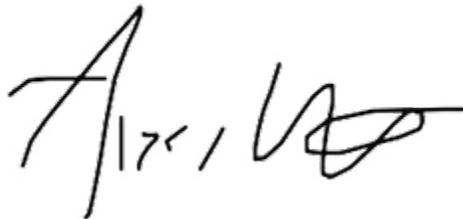
**Log Entry**

0630: I cleared the area for work. The crew began weeding at 0650 in DG-4 on the edge of "primrose". Crew stopped weeding at 1100 and began cleanup.

**Additional Comments**

N/A

**Signature**





photo\_1-VegetationRemoval\_before\_facingE-.jpg



photo\_2-VegetationRemoval\_before\_facingE-.jpg



**photo\_3-VegetationRemoval\_after\_facingE-.jpg**  
-118.17670823611111 34.19069733333333



**photo\_4-VegetationRemoval\_after\_facingE-.jpg**  
-118.17677787777778 34.19059783333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Verity Richardson**  
**Company: ECORP**  
**Date of Log: October 17, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:20	56 °F	0-3 MPH	30 %
<b>End of Day</b>	14:52	83 °F	0-3 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Restoration Activity:**

1. Removing non-native vegetation.
2. Hand tools (hoes).
3. Cesar, Jonathan plus eight crew members.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, CASJ, COHA, CALT, RCPA, CAQU, SOSPO,

Coastal whiptail, California ground squirrel, Monarch butterfly, side-blotched lizard, Western toad, Western honey bee, cabbage white butterfly

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0620: Arrived on site.

0640: Tailboard meeting.

0650: Crew began pulling dodder from Johnson's Field and reshaping basins around plants.

1255: Coastal whiptail observed basking on irrigation pipe.

1435: Crew began collecting bags of vegetation and took to exit.

1450: End of monitoring.

**Additional Comments**

N/A

**Signature**

A handwritten signature in black ink, consisting of several overlapping loops and lines, appearing to be a stylized name.



**ReshapingBasins\_JohnsonsField\_101722.jpg**  
-118.17179639444446 34.19202505555554



**RemovingDodder\_JohnsonsField\_101722.jpg**  
-118.17112776111112 34.19126865555554

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Dawn Garcia**  
**Company: Stillwater**  
**Date of Log: October 17, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	56 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	81 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Nature's Image (IT) Genero, Ed, Linda, Carlos, Ryan hand pulling. Another NI crew of four plus Raul helping in DG-4 site covered with chenopodium.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RCPA flying west, AMCR flying east (big numbers at dawn), Western toads very cold in AM, still some 1" size. CALT, NOFL, WREN, NUWO, BEWR, HOFI, ANHU, BUSH, COHA (adult), CORA, SPTO, ACWO, LEGO, BUSH, WREN, WCSP, SOSP, CSJA, BLPH, RSHA, BTPI, RCKI, AMGO, OATI, 30+parakeet flyover with red on face, ORJU, BANO feather, many lizards.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: Crew starts weeding east of primrose mostly dead pepperweed. Avoiding patches of poison oak. Crew of two comes in and weeds dense understory of chenopodium. Some native nettle, blackberry and mugwort mixed in 0830 all crew in southern most part of DG-4A. Continued here the rest of the day.

**Additional Comments**

Potential snake burrow but dig by coyote (?) in DG4A site where crew works. Looks unused and overgrown. Found a Barn Owl feather here too. Plucking post had multiple species killed here including western tanager and quail.

**Signature**





**Pre-weeding\_site\_facing\_N\_DG4.jpg**  
-118.17642368055556 34.19069205555555



**Pre-weeding\_DG4A\_southern\_area.jpg**  
-118.17735446111112 34.18906052777778



**post-weedingDG4A\_southern\_area.jpg**  
-118.1773097222223 34.189062111111106



**Wildlife\_use\_of\_weeded\_areas\_raptor\_pluck\_post.jpg**  
-118.1764432222223 34.190675166666665

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: October 18, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	62 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	89 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Irrigation maintenance, container plant maintenance, watering.
2. Hand tools (shovels, rakes, etc.).
3. Gothic landscape, Cesar Olmos, and crew of nine landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Monarch butterfly, Western toad, side blotch lizard, Western fence lizard, coastal whiptail, RCPA, CATH, ACWO, CORA, AMCR, SOSP, WCSP, RTHA, CASJ, CALT, HOFI, SPTO, ANHU, NOMO, BLPH, BUSH, COYE, WREN, CAQU, TUVU, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

06:30: Arrive on site.

06:45: Crew begins work in Johnson field, maintaining irrigation lines and dirt rings around container plants.

12:45: Crew begins work in DG-2, doing the same maintenance activities.

14:30: Crew finishes work for the day.

14:35: Depart site.

**Additional Comments**

N/A

**Signature**





**Fixing\_Irrigation\_Line\_Johnson\_Field.jpg**  
-118.17182646111111 34.19091363055555



**Planter\_Maintanance\_Johnson\_Field.jpg**  
-118.1717354888889 34.19108063055554



**Planter\_After\_Maintenance.jpg**  
-118.17158950833334 34.19136651388889



**Watering\_Johnson\_Field.jpg**  
-118.17085929444445 34.19139016666665

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Dawn Garcia**  
**Company: Stillwater**  
**Date of Log: October 18, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	60 °F	0-3 MPH	0 %
<b>End of Day</b>	13:30	89 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of eight with Raul, handpulling weeds.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

HOFI, CALT, LEGO, AMCR, RCPA, SPTO, BEWR, CSJA, NUWO, EUST, ANHU, NOFL, ACWO, COHA (young), SOSP, BNOW (another feather found weeding area). RSHA, YRWA, WCSP, CORA, CALT, RCKI, SPTO, WTSW, BUSH, NOMO, ALHU, BTGR, alligator, side-blotched, fence lizards, gopher snake, BLPH, HOWR, TOWA, OCWA, OATI

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: Head down to DG4A, South site to resume handpulling invasives. Plenty of natives here too including nettle, mugwort, blackberry. Crew all here. Linda checks irrigation.

0830: I walk the site at crew break. Find large dark , fat tailed snake. No rattling.

0900: Rest of day, crew continues east, covering a lot of ground. Edwardo finds a small gopher snake. Carlos finds a large alligator lizard.

**Additional Comments**

heated up last 2 days.

**Signature**





**pre-weeding\_section\_facing\_north.jpg**  
-118.17730763888889 34.189059880555554



**pre-weeding\_facingW\_DG4A.jpg**  
-118.17716381944444 34.18885906944444



**post\_weeding\_facing\_N.jpg**

-118.1772882777778 34.18901561111111



**Example\_of\_multiple\_post\_weeded\_areas\_DG4A.jpg**

-118.17723497222222 34.18885623055555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: October 19, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	66 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	92 °F	4-6 MPH	5 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew, Caesar, Jonathan

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, LEGO, HOFI, BUSH, BEWR, COYE, AMCR, CALT, CASJ, RSHA, ACWO, KILL, BLPH, MOD0, cottontail, California ground squirrel, whiptail, western fence lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0650: Tailboard. Caesar said the crew planned to mostly do detail work and fix irrigation in DG-2. Not many nonnatives left for them to pull.

0845: Crew break.

0945: Continuing detail work, mostly pulling dodder and fixing irrigation.

1100: Hauling dead ambrosia out of DG-2 to dumpster.

1146: Crew lunch.

1315: Continuing to remove dodder and dead vegetation.

1430: End work.

**Additional Comments**

N/A

**Signature**





**Gothic\_crew\_facingW.jpg**



**Irrigation\_work\_facingN.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 19, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	69 °F	0-3 MPH	0 %
End of Day	13:30	86 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six weeding in DG-4 and DG-4A.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RSHA, CASJ, CAQU, WREN, ANHU, SOSP, WCSP, MODO, LEGO, BUSH, ACWO, AMCR, coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area for work. One coyote den was found during pre-clearance and crews stayed clear of that area.

0700: The crews began weeding.

0900: Tree removal crews showed up and began work in the "mining pit". Our crew was far enough south to not be in the way of any tree removal activities.

1330: Crews stopped weeding and began cleanup.

**Additional Comments**

N/A

**Signature**





**photo\_1-Vegetation Removal before facingW-.jpg**  
-118.17708758333333 34.18927034166666



**photo\_2-Vegetation Removal before facingE-.jpg**  
-118.17687656944445 34.18928880555555



**photo\_3-Vegetation Removal\_after\_facingW-.jpg**  
-118.17704098611111 34.18924526944444



**photo\_4-Vegetation Removal\_after\_facingE.jpg**  
-118.17686127777779 34.18926019444444

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Verity Richardson**  
**Company: ECORP**  
**Date of Log: October 20, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:20	68 °F	0-3 MPH	80 %
<b>End of Day</b>	14:45	89 °F	0-3 MPH	40 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing non-native (poison hemlock) and dodder from restoration areas (Johnson's field, DG-2, DG-2-WOUS), restoring basins around plants.
2. Hand tools e.g. hoes, rakes, shovels.
3. Gothic - Cesar Olmos with nine workers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, COHA, CASJ, ALHU, CALT, CAQU, ANHU, Coyote, western toad, cottontail, side-blotched lizard, California ground squirrel, monarch butterfly

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0620: Arrived on site met crew.

0635: Tailboard meeting.

0710: Crew began pulling dodder and poison hemlock from Johnson's field, DG-2 and DG-2 WOUS.

1425: Moving collected vegetation in bags to dumpster.

1440: End of monitoring.

**Additional Comments**

N/A

**Signature**





**Restoring\_Basins\_DG-2-WOUS\_102022.jpg**  
-118.17230525833334 34.18989700833333



**Removing\_Dodder\_and\_Poison\_Hemlock\_DG-2-WOUS\_102022.jpg**

-118.17226304444445 34.18990674166666



**Crew\_removing\_dodder\_DG-2\_102022.jpg**  
-118.1723975 34.19064030555554

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 20, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	67 °F	0-3 MPH	25 %
<b>End of Day</b>	01:30	81 °F	4-6 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six removing weeds in DG-4A near the bank of the basin.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, WREN, KILL, BUSH, CALT, WEBL, RTHA, ACWO, CAQU, CASJ

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area for work.

0650: The crew began pulling weeds in DG-4A working East toward the basin.

1330: The crew stopped weeding and began cleanup.

**Additional Comments**

N/A

**Signature**





photo\_1-Vegetation\_Removal\_before\_facingE.jpg



photo\_2-Vegetation\_Removal\_after\_facingE.jpg  
-118.17644026111111 34.18925005555554



photo\_3-Vegetation\_Removal\_before\_facingS.jpg



photo\_4-Vegetation\_Removal\_after\_facingS.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: October 21, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:24	59 °F	0-3 MPH	0 %
<b>End of Day</b>	14:23	80 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Fixing irrigation lines to container plants, fixing container plant basins and pulling weeds.
2. Hand tools only.
3. Gothic; crew of nine plus Cesar Olmos (foreman).

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CATH, KILL, LEGO, CASJ, ACWO, RSHA, RCPA, BUSH, RCKI, SPTO, WCSP, CALT, YRWA, BEWR, Side blotched lizard, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0624: Arrived on site. Several crew members here sitting in their cars.

0644: Crew has a tailboard with Cesar.

0648: Spoke to Cesar, said the plan was to fix irrigation lines to plants, fixing basins of container plants and pull non-natives.

0700: Crew begins pulling *Lepidium latifolium* behind water tank in DG-3A.

0728: Crew fixing container plant basins in DG-2.

0747: Cesar said he was heading out for the day. The crew would continue with the rest of the work.

0845: Break.

0918: Crew back from break.

1032: Crew continues with same work in DG-2.

1230: Lunch.

1316: Crew returns from lunch.

1416: Crew cleaning up.

**Additional Comments**

N/A

**Signature**





**Non-natives\_prior\_to\_weeding\_DG-3A.jpg**



**DG-3A\_after\_non-natives\_are\_pulled.jpg**



**DG-3A\_during\_weeding\_facing\_north.jpg**



**Container\_plant\_after\_being\_fixed.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 21, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	60 °F	0-3 MPH	0 %
End of Day	11:00	73 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image (NI) crew of six pulling weeds in DG-4A along the side slope of the basin.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BUSH, ACWO, HOFI, WREN, AMCR, CALT, BLPH, BEWR.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area.

0700: The crew began weeding.

0830: Edison tree crews arrived to trim along the west road under the power lines. Tree crews blocked most of the road making it difficult to get NI vehicles close. Most of the crew began removing tarped vegetation around 1000 due to the long walk. NI crew finished weeding at 1100 and began cleanup.

**Additional Comments**

N/A

**Signature**





**photo\_1-Vegetation\_Removal\_before\_facingS.jpg**



**photo\_2-Vegetation\_Removal\_after\_facingS.jpg**



**photo\_3-Vegetation\_Removal\_before\_facingW.jpg**



**photo\_4-Vegetation\_Removal\_after\_facingW.jpg**

-118.1765414 34.18891934722222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: October 24, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	51 °F	4-6 MPH	0 %
End of Day	14:00	73 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six weeding in DG-4 with hand tools.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WREN, CALT, BUSH, AMCR, RCPA, WEBL, ACWO, NUWO, CASJ, MODO, WBNU, ANHU, SOSP, NOMO, WEME, WCSP, DEJU, NOFL, San Diego alligator lizard, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Surveyed work area while crew set up.

0645: Crew began weeding DG-4. Work area was a phase one planted area just south of the lowest DG-4A clearing, primary targets were *Chenopodium album* and *Lepidium latifolium*. Some Smilo grass in area. Keyed out *Persicaria lapathifolia* with Jepson manual- advised crew not to remove.

1200: Crew moved to a DG-4 planted area adjacent to the trail. Primary targets were Himalayan blackberry and smilo grass. Re educated crew on difference between native and nonnative blackberries; both were on site.

1345: Crew began wrapping up while I inspected the site.

**Additional Comments**

Found a new invasive species for the site- 3 *Phytolacca americana* plants. Had crew remove them carefully; this is the first recent sighting of that species on site to my knowledge.

Signature





**photo\_1-20221024-before\_weeding\_facingS.jpg**  
-118.17718608333334 34.188755538888884



**photo\_2-20221024-after\_weeding\_facingS.jpg**  
-118.17719034444445 34.18875212499999



**photo\_3-20221024-pre\_weeding\_facingE.jpg**  
-118.1775478888889 34.1892558972222



**photo\_4-20221024-post\_weeding\_facing\_E.jpg**  
-118.1775283888889 34.18923416666665

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: October 24, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	53 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	73 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement in EMA, container plant maintenance in DG-2.
2. Hand tools (shovels, rakes, etc.).
3. Gothic landscape, Cesar Olmos and crew of ten landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Monarch butterfly, western toad, side blotch lizard, western fence lizard, coastal whiptail, RCPA, CATH, ACWO, CORA, AMCR, SOSP, WCSP, RTHA, CASJ, CALT, HOFI, SPTO, ANHU, YRWA, NOMO, BLPH, BUSH, COHA, WREN, CAQU, TUVU, RCKI, WTSW, desert cottontail, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrive on site.

0655: Crew begins work on southern end of DG-2, maintaining dirt rings around container plants.

0740: Confirmed that construction will not occur in the basin today, Crew begins weed abatement in Episodic maintenance area (EMA) using hand tools.

1400: Crew begins loading pulled weeds into truck.

1430: Crew finishes work for the day.

1435: Depart site.

**Additional Comments**

N/A

**Signature**





**EMA\_Before\_facingN.jpg**  
-118.17378716666667 34.18790634166666



**EMA\_During\_facingN.jpg**  
-118.17375016666666 34.18788030555555



**EMA\_After\_facingN.jpg**  
-118.17376658333333 34.18789004722222



**EMA\_After\_facingS.jpg**  
-118.17300465833334 34.18954947222222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: October 25, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	53 °F	0-3 MPH	0 %
End of Day	13:30	74 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of ten hand pulling weeds in DG-4 near the basin slope.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, BGGN, AMCR, SOSP, WCSP, BUSH, HOFI, LEGO, RCPA, KILL, NOFL, CORA, NUWO, CAQU, COHA, RSHA, BTYW, AMKE, BEWR, YRWA, ACWO, RCKI, San Diego alligator lizard, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Surveyed work area while crew set up.

0655: Crew began weeding DG-4/DG-4A near the edge of the basin; primary target was *Chenopodium album*. One crew member on irrigation. Noted a lot of *Tamarisk* sp. seedlings on the bottom of the basin slope, see photograph.

0730: Relocated a large San Diego alligator lizard.

0900: Found a coyote den, advised crew to avoid. Appeared active.

1200: Three crew members began removing tarps while rest of crew continued. Crew was allowed to park the Kubota and a work truck near the weeding area in the basin. Specifically explained that nobody was to drive into the EMA or the non-vegetated channel inside of it; showed drivers exactly where they were allowed to park.

1315: Whole crew moved onto cleanup, inspected site.

**Additional Comments**

N/A

**Signature**





**photo\_1-20221025-pre\_weeding\_facingS.jpg**  
-118.17651902777779 34.188914436111105



**photo\_2-20221025-post\_weeding\_facingS.jpg**  
-118.17661511111112 34.188953444444444



photo\_3-20221025-Tamarisk\_in\_basin\_facingN.jpg  
-118.17672833333334 34.18807721388889

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: October 25, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	53 °F	0-3 MPH	0 %
<b>End of Day</b>	14:15	75 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement in EMA and side slopes.
2. Hand tools (shovels, rakes, etc.).
3. Gothic landscape, Cesar Olmos and crew of ten landscapers

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

western toad, side blotch lizard, western fence lizard, RCPA, CATH, ACWO, CORA, AMCR, SOSF, WCSP, RTHA, CASJ, CALT, HOFI, SPTO, ANHU, YRWA, BLPH, BUSH, HOWR, BEWR, CAQU, RCKI, AMPI, desert cottontail, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrive on site.

0655: Crew continues weed abatement effort in Episodic maintenance area (EMA) using hand tools.

0800: Crew moves to side slopes EMA near dam for weed abatement.

1330: Crew begins weed abatement near Altadena drainage.

1410: Crew finishes weeding for the day.

1415: Depart site.

**Additional Comments**

N/A

**Signature**





**EMA\_before\_facingN.jpg**  
-118.1729845555556 34.19039925833333



**EMA\_after\_facingNE.jpg**  
-118.17302830555556 34.19031758333333



**EMA-SideSlopes\_facingS.jpg**  
-118.1745262222223 34.1861879166666



**Altadena\_weeding\_facingW.jpg**  
-118.1731594444445 34.1872888111111

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carla Marriner**  
**Company: ECORP**  
**Date of Log: October 26, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:40	52 °F	0-3 MPH	30 %
<b>End of Day</b>	14:30	74 °F	4-6 MPH	10 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed removal; irrigation check; trash removal; general maintenance activities occurring within restoration site Southeast (SE) and East (E).
2. Hand tools.
3. Gothic landscape - Cesar and crew ~11 workers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RTHA, COHA, CASJ, BEWR, HOFI, BUSH, CALT, AMCR, Amazonia sp., LEGO, YRWA, WCSP, SOSP, WREN, MODO, CATH, OCWA, RSHA, CORA, CAQU, BHGR, Squirrel, Cottontail, Western fence lizard, Painted lady butterfly, Monarch butterfly

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: Met with landscape contractor. Crew mobilized to the SE portion of restoration site to remove weeds.

0700: Started walking the perimeter of restoration sites with Cesar.

0730: Maintenance activities occurring including irrigation valves checks.

0845: Crew-break

Maintenance activities - bio monitoring: Crew has been working on the restoration site removing dodder from shrubs and tree branches and other small weeds - picking up trash, fixing irrigation valves.

1150: Lunch break.

1230: Maintenance activities continue on the eastern portion.

1230-1430: Monitored weed removal the rest of the day/coordinated activities with landscape contractor.

1430: End of maintenance activities for the day.

**Additional Comments**

N/A

**Signature**





**Weeding\_activities\_facingS.jpg**  
-118.17249773055556 34.18941172222222



**Mulefat\_cuttings.jpg**

-118.17250692500001 34.18935372777777



**View\_of\_restoracion\_site\_SE\_facingN.jpg**  
-118.17275879166667 34.188894194444444



**Contractor\_removing\_Nonnative\_dodder.jpg**  
-118.17194806111111 34.190541819444444

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 26, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	51 °F	0-3 MPH	0 %
End of Day	14:00	73 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six pulling weeds in DG-4A and one crew member on irrigation.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

MODO, CASJ, ACWO, BTYW, BUSH, HUVI, RSHA, AMCR, BEWR, HOFI, SOSP.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area. One coyote den was found, and I created at 25-foot buffer. Crews began weeding at 0710 in DG-4A along the basin and worked their way south.

1315: Crew drove Natures Image truck into basin to load up vegetation. Crews stopped pulling at 1400.

**Additional Comments**

N/A

**Signature**





**photo\_CoyoteDen-facingW.jpg**  
-118.17672163888889 34.18873987222222



**photo-VegetationRemoval-before-facingS.jpg**



**photo\_VegetationRemoval\_after\_facingS.jpg**  
-118.1769326555556 34.1887303333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Date of Log: October 27, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	54 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	74 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic restoration crew.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, RSHA, AMCR, CALT, CATH, SOSP, LEGO, BLPH, WREN, NOMO, HOFI, AMKE, Amazona spp., coyote, BGGN, ACWO, NOFL, RCKI

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: Tailboard.

0650: Begin working on backside of DG-2. Fixing basins and irrigation. Removing small sections of dodder.

0930: Crew break.

1000: Continue dodder removal.

1130: Checking irrigation for damage from animals.

1200: Lunch.

1230: Continue to remove dodder on back side of DG-2.

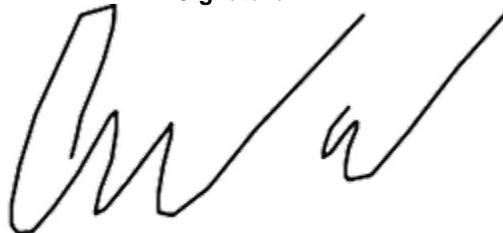
1420: End work.

1430: Depart.

**Additional Comments**

N/A

**Signature**





Maintained\_irrigation\_basin.jpg



Dodder\_removal\_facingE.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 27, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	51 °F	0-3 MPH	0 %
End of Day	13:30	70 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image (NI) crew of six weeding in DG-4 and one NI crew member on irrigation.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

SBMU, YRWA, BLPH, AMCR, CALT, CORA, WCSP, MODO, BEWR, HOFI, SOSP.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I surveyed the work areas.

0700: The crew finished off weeding where they left off the day before in DG-4A.

0745: We moved to the far South end in DG4 along the basin ramp. The crew worked their way back north along the ramp.

1330: The crew stopped weeding and began cleanup.

**Additional Comments**

N/A

**Signature**





photo\_1-VegetationRemoval-before-facingW.jpg



photo\_2-VegetationRemoval-during-facingS.jpg



**photo\_3-VegetationRemoval-after-facingW.jpg**  
-118.17684776388889 34.18676

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: October 28, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	54 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	76 °F	4-6 MPH	40 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic restoration crew.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BLPH, WCSP, LEGO, Amazona spp., ACWO, CATH, CASJ, HOFI, AMCR, RCKI, CALT, BGGN, ANHU, RSHA, NOFL, cottontail, California ground squirrel, western fence lizard, whiptail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site. Crew having issues with lock on North side, drove around to use South access.

0705: Work starts in DG-2. Continuing to do detail work, removing small sections of dodder. Continue checking irrigation.

0830: Bagging removed vegetation to be hauled out.

0930: Crew break.

1000: Continue removing dodder.

1100: Cesar departs.

1200: Lunch.

1230: Checking basins/irrigation/pulling dodder.

1330: Bagging up removed vegetation to be hauled out.

1430: End of work.

**Additional Comments**

N/A

**Signature**





Dodder\_removal\_facingSE.jpg



DG-2\_after\_dodder\_removal\_facingNE.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: October 28, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	54 °F	0-3 MPH	0 %
<b>End of Day</b>	11:00	72 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image (NI) crew of seven weeding in DG-4 and one crew member on irrigation.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, SOSP, BLPH, WEME, AMKE, COHA, WTSW, CALT, CASJ, BEWR, BUSH, ACWO, HOFI, MODO, RCPA, WCSP, KILL, YRWA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area for work.

0700: The crew began weeding at the south end working their way North. Crew stopped weeding at 1100 and began cleanup.

**Additional Comments**

N/A

**Signature**





**photo\_1-Vegetation\_Removal\_before\_facingN.jpg**



**photo\_2-Vegetation\_Removal\_during\_facingN.jpg**



photo\_3-Vegetation\_Removal\_after\_facingN.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: October 31, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	57 °F	0-3 MPH	20 %
End of Day	13:45	79 °F	4-6 MPH	80 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image (NI) crew of eight weeding in the Flint wash.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RCPA, AMCR, SOSF, YRWA, CALT, WREN, BUSH, BEWR, ACWO, NOFL, HOFI, COHA, NUWO, EUST, BTPI, LEGO, ANHU, MGWA, BLPH, WCSP, KILL, CORA, coyote, California ground squirrel, desert cottontail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site, coordinated with foremen.

0645: Surveyed work area.

0655: Cleared crew to weed the Flint wash. Clearly delineated borders of the polygon so the crew knew where to weed since this area is new to them. Primary weeds were: *Chenopodium album*, pepperweed, and castor bean. Natives were sparse, but included *Ambrosia acanthocarpa*, *Salix goodingii* and mulefat. Identified several coyote dens, most looked inactive or sparsely used. Had crew avoid working directly near the openings or standing over them.

1330: crew began wrapping up while I inspected the site.

**Additional Comments**

Macgillivray's warbler (very uncommon, but not special-status) observed in flint wash.

**Signature**





**photo\_1-20221031-pre\_weeding\_facingS.jpg**  
-118.17661158333334 34.18636900555555



**photo\_2-20221031-post\_weeding\_facingS.jpg**  
-118.17662452777778 34.18639630833333



**photo\_3-20221031-pre\_weeding\_facingNE.jpg**  
-118.17659344444445 34.186386049999996



**photo\_4-20221031-post\_weeding\_facingNE.jpg**  
-118.1765855138889 34.1863657916667

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: November 1, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	57 °F	0-3 MPH	10 %
<b>End of Day</b>	14:30	70 °F	4-6 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew, removing dodder throughout Johnson field and DG-2.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, CATH, ACWO, RSHA, CASJ, AMCR, coyote, CALT, BUSH, RCKI, cottontail, MODO, NOFL, NOMO, SPTO, BGGN, western fence lizard, whiptail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site.

0645: Tailboard. Crew doing some watering on NE side of Johnson field. Still some dodder spread sparsely though out DG2 and Johnson field.

0930: Crew break.

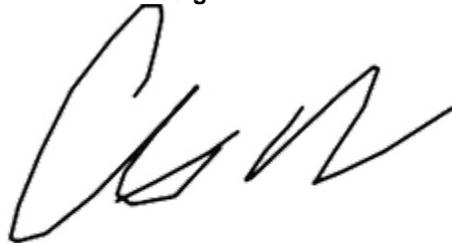
1000: Continue watering individual basins.

1430: Depart site.

**Additional Comments**

N/A

Signature





Photo\_1\_irrigated\_basins\_facingE.jpg



photo\_2-removed\_dodder.jpg



photo\_3-watering\_materials\_facingSW.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: November 1, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	55 °F	4-6 MPH	7 %
End of Day	13:45	68 °F	0-3 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of nine weeding the Flint Wash, foreman Genaro.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, CORA, YRWA, RSHA, RCPA, BLPH, HOFI, WCSP, SOSP, EUST, LEGO, WTSW, CASJ, coyote, desert cottontail, fox squirrel.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Surveyed work area while crew set up.

0650: Cleared crew to work in Flint Wash. Numerous new/less common weeds in channel included barnyard grass, *Persicaria maculosa* (*P. lapathifolia*, a native, also present), *Zea mays* (corn), *Solanum lycopersicum* (tomato), palm trees, castor bean and tree tobacco. Monitored weeding. A possibility active coyote den was avoided by 20 feet.

1000: Some crew members went slightly east, up the hill. Primary target in this area was *Chenopodium album*, some pepperweed.

1330: Crew wrapped up while I inspected the site.

**Additional Comments**

N/A

Signature





**photo\_1-20221101-before\_facingS.jpg**  
-118.1762802222223 34.18636372777774



**photo\_2-20221101-after\_facingS.jpg**  
-118.1762645833334 34.18635791666665



**photo\_3-20221101-before\_facingW.jpg**  
-118.17616982222222 34.186357486111106



**photo\_4-20221101-after\_facingW.jpg**  
-118.17584136111111 34.186356436111105

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: November 2, 2022**

	<b>Time</b>	<b>Temperature (°F)</b>	<b>Wind Range (MPH)</b>	<b>Cloud Cover (%)</b>
<b>Start of Day</b>	06:15	56 °F	4-6 MPH	95 %
<b>End of Day</b>	09:15	57 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing dodder.
2. Shears, rakes.
3. Crew of eight, Gothic Landscaping.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Bullfrog, desert cottontail, RSHA, CALT, ACWO, WCSP, AMCR, YRWA, CASJ

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Tailboard meeting.

0700: Crew started work: removing dodder from native vegetation.

0845: Started raining. Crew took a break to wait out the rain.

0915: Crew and I left site due to rain. Restoration will continue as usual tomorrow.

**Additional Comments**

N/A

**Signature**





**Rain\_break\_facingNW.jpg**  
-118.1713951388889 34.1922743055555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 2, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	53 °F	0-3 MPH	100 %
<b>End of Day</b>	14:00	65 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six weeding in DG4 West of the truck ramp.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BLPH, KILL, AMCR, RSHA, YRWA, HOFI, BEWR, RCPA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

Crew planned to weed in the Flint Wash area but the creek was flowing and blocking access to the area (photo 1).

We continued weeding in DG-4A on the South side just West of the truck ramp.

0930-1010: Crew stopped work to avoid moderate downpour. Work picked up again at 1015. Crew continued working North and ended at 1400.

**Additional Comments**

N/A

**Signature**





photo\_1-FlintWash\_facingE-.jpg



photo\_2-VegetationRemoval\_before\_facingN.jpg



photo\_3-Vegetation\_Removal\_after\_facingN-.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: November 3, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	4-6 MPH	30 %
<b>End of Day</b>	14:30	62 °F	7-9 MPH	30 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew. Weed removal on East restoration site.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WREN, LEGO, CASJ, Amazona spp, AMCR, BUSH, HOFI, RSHA, MODO, HETH, NOFL, ACWO, CALT, BGGN, KILL, western fence lizard, whiptail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site.

0710: Tailboard and safety briefing for crew.

0725: Crew begins detail work on West side of DG-2.

0930: Break.

1000: Continue detail work.

1030: Haul out bags of clippings to dumpster North of Johnson Field.

1200: Lunch.

1230: Checking irrigation and watering individual basins.

1300: Continue detail work, removing dodder.

1420: End work.

1430: Depart site.

**Additional Comments**

N/A

**Signature**





photo\_1-crew\_safety\_meeting.jpg



photo\_2-dodder\_clippings\_facingNW.jpg



photo\_3-new\_irrigated\_basin\_facingE.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 3, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	7-9 MPH	15 %
<b>End of Day</b>	13:45	63 °F	10-12 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image (NI) crew of nine weeding in DG-4 on the South end.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, YRWA, KILL, WCSP, SOSP, HOFI, BLPH, MODO, CORA, RSHA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I checked Flint Wash and determined it was still unsafe to cross (pic 1). The crew continued working at the South end in DG-4 at 0715. Crew continued working North and stopped weeding at 1345 and began cleanup.

**Additional Comments**

N/A

**Signature**





photo\_1-Flint\_Wash-facingE.jpg



photo\_2-Vegetation\_Removal\_before-facingN-.jpg



photo\_3-Vegetation\_Removal\_after-facingN\_.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: November 4, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	49 °F	0-3 MPH	40 %
<b>End of Day</b>	14:30	67 °F	4-6 MPH	35 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew, East side restoration. Removing weeds.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

HOFI, WCSP, RSHA, CASJ, BGGN, ACWO, NOFL, WREN, ANHU, AMCR, AMKE, MODO, BUSH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site.

0645: Tailboard.

0650: Crew begins removing dodder. Not much left to be removed. Small detail work. 0900: Crew break.

0930: Dodder removal along middle stretch of Johnson Field.

1045: Checking irrigation for leaks.

1100: Cesar departs.

1130: Crew lunch.

1200: Continue detail work along W side of DG-2, some small patches of dodder.

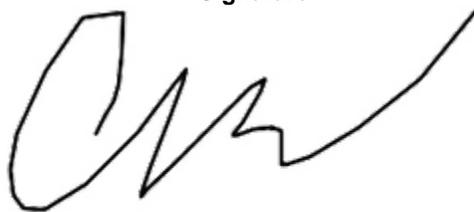
1415: End work.

1430: Depart site.

**Additional Comments**

N/A

**Signature**





photo\_1-dodder\_removal\_in\_DG2\_facingN.jpg



photo\_2-work\_area\_post\_removal\_facingE.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 4, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	45 °F	0-3 MPH	0 %
End of Day	11:00	64 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image (NI) crew of eight weeding at Flint Wash.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

KILL, CORA, CASJ, CALT, YRWA, MODO, OATI, SOSP, WCSP, RCPA, coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

Flint wash was finally dry enough to continue work. 0630 I checked for safe crossing and cleared the area for weeding.

0700: The crew began weeding on the East side of the upper bank of Flint Wash. I kept crews 20 feet away from steep banks along the wash for safety. I found coyote burrows, most old and one possibly active on the Northeast side of the upper bank, crews avoided this area. Crew stopped weeding at 1100.

**Additional Comments**

N/A

**Signature**





photo\_1-Vegetation\_Removal\_before-facingE-.jpg



photo\_2-Vegetation\_Removal\_during-facingS-.jpg



photo\_3-Vegetation\_Removal\_after-facingE-.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: November 7, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	57 °F	4-6 MPH	100 %
End of Day	11:15	57 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of eight weeding in DG-4B.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, AMCR, NOFL, ACWO, CALT, RSHA, CASJ, BUSH, WBNU, RCKI, BEWR, SPTO.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Coordinated with Foremen on plan for day; moved to DG-4B from flint wash; rain was decided to be too big a hazard for working there.

0645: Monitored weeding in DG-4B. Primary target was perennial pepperweed and Cuscuta growing on container plants. Raining on and off for day, crew would wait out heavier events in nearby cars.

1100: Called work for the day- rain got too heavy. Photographed site and left.

**Additional Comments**

N/A

Signature





**photo\_1-20221107-pre\_weeding\_facingN.jpg**  
-118.1751326666667 34.19198506944444



**photo\_2-20221107-post\_weeding\_facingN.jpg**  
-118.17511733333333 34.19204656944444



**photo\_3-20221107-pre\_weeding\_facingS.jpg**  
-118.1751254 34.19197709444444



**photo\_4-20221107-post\_weeding\_facingS.jpg**  
-118.17513041666668 34.19203234722222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: November 9, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	0-3 MPH	0 %
<b>End of Day</b>	02:30	62 °F	7-9 MPH	5 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew, East side restoration.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

HOFI, AMCR, Amazona spp, CASJ, CATH, CALT, ACWO, BGGN, WCSP, NOFL, RCKI, MALL, KILL, CORA, BUSH, RSHA

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site.

0655: Tailboard. Plan is to continue detail work. Not many new weeds despite recent rain.

0830: Fixing basins after rain erosion.

0930: Crew break.

1000: Continue basin work.

1200: Crew lunch.

1230: Continue detail work in Johnson Field.

1330: Fixing basins on North slope of Johnson Field.

1420: End work.

1430: Depart site

**Additional Comments**

N/A

**Signature**





photo\_1-reservoir\_basin\_facing\_SW.jpg



photo\_2-Johnson\_Field\_basin\_work\_facingE.jpg



photo\_3-basin\_after\_restoration.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 9, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	50 °F	0-3 MPH	25 %
<b>End of Day</b>	14:00	59 °F	7-9 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of nine hand pulling weeds.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

COHA, CORA, CAQU, HOFI, CALT, SPTO, SOSP, YRWA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: We began in the North end in the chaparral area. I cleared the area and the crew began weeding at 0700. Mostly small patches of mustard in the area. The crew fanned out over DG-4 working South. By 1330 they reached the SE edge of the chaparral area and continued cleaning around the planted mulefat. Crew stopped weeding at 1400 and began cleanup.

**Additional Comments**

Electrical pole on fire at the North West corner by the horse stables. Fire crews and Edison arrived around 0945. Fire put out around 1030. Fire contained to the pole.

**Signature**





photo\_1-Vegetation\_Removal\_Start\_Area\_facingS-.jpg



photo\_2-Vegetation\_Removal\_during\_facingS\_.jpg



photo\_3-Vegetation\_Removal\_End\_Area\_facingN\_.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: November 10, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:32	43 °F	0-3 MPH	0 %
<b>End of Day</b>	14:38	65 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Container plant basin maintenance.
2. No equipment used. Hand tools only.
3. Gothic; Cesar (foreman) plus eight workers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, CALT, RCPA, RTHA, CASJ, RUHU, BGGN, BEWR, HOFI, MODO, BLPH, RCKI, YRWA, CAQU, NOMO, CORA California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0632: Arrived on site. Several crew members already here.  
0638: Tailboard. Crew will be focusing on fixing container plant basins that have degraded during the rain storm.  
0645: Crew began work.  
0824: Crew continuing to work within Johnson Field fixing basins.  
0845: Break.  
1100: Crew continuing with basin maintenance.  
1145: Lunch.  
1311: Five crew members break off to conduct maintenance in DG-2.  
1424: Cleaning up.

**Additional Comments**

N/A

**Signature**





Crew\_conducting\_basin\_maintenance\_facing\_west.jpg



Crew\_fixing\_basins\_and\_pulling\_dodder\_facingNW.jpg



**Finished\_product\_of\_basin\_maintenance.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 10, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	44 °F	0-3 MPH	0 %
<b>End of Day</b>	14:00	62 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of nine pulling weeds in DG-4.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, RCPA, CAQU, ACWO, SOSP, SPTO, CALT, CATH, MODO, BLPH, TUVU, AMCR, BUSH, BEWR, coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

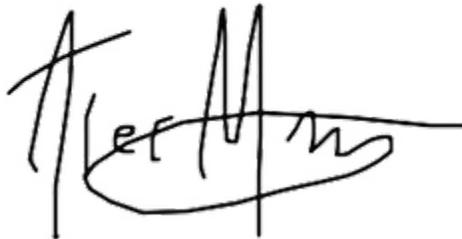
0630: I cleared the area for work.

0700: Crew began working in the mulefat patch at the end of DG-4 chaparral area. Crew finished this area around 0800 and moved to the North West corner of the chaparral area, pulling newly sprouting mustard all about a foot tall (pic 3). Crew stopped weeding at 1400 and began cleanup.

**Additional Comments**

N/A

**Signature**





photo\_1-Vegetation\_Removal\_start\_mulefat\_facingE-.jpg



photo\_2-Vegetation\_Removal\_during\_facingE-.jpg



photo\_3-Vegetation\_Removal\_mustard\_facingS.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: November 11, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	47 °F	0-3 MPH	30 %
<b>End of Day</b>	02:30	69 °F	4-6 MPH	60 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew, east side restoration.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, AMCR, CORA, HOFI, ACWO, CANG, MALL, KILL, CALT, NOFL, BGGN, RSHA, BUSH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site.

0645: Tailboard. Some horehound popping up on Northwest side of Johnson Field, crew will start there. They would like to repair basins on West slope but still too slick after rains.

0930: Break.

1000: Continue detail work in Johnson Field.

1200: Crew lunch.

1230: Detail work in DG-2.

1300: Checking irrigation for leaks.

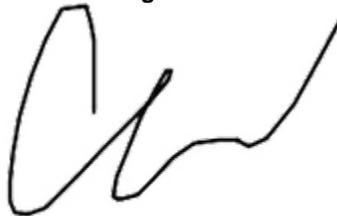
1415: End work.

1430: Depart site.

**Additional Comments**

N/A

**Signature**





photo\_1-horehound\_to\_be\_removed.jpg



photo\_2-horehound\_removal\_facingSW.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 11, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	46 °F	0-3 MPH	15 %
End of Day	12:00	63 °F	0-3 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of five pulling weeds in DG-4 and DG-4C.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, WCSP, BEWR, CALT, ACWO, CASJ, MODO, CAKI, CANG, MALL, KILL, RSHA, HOFI, Coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I began clearing the work area. The crew began weeding at 0700 in DG-4/DG-4C along the hillside West of the mining pit. The crew worked their way from North and ended near the parking lot at 1100 and began cleanup.

1115-1200: I did the bi-weekly photo points task.

**Additional Comments**

N/A

**Signature**





photo\_1-Vegetation\_Removal\_begining\_Area-facingS-.jpg



photo\_2-Vegetation\_Removal\_before\_facingE\_.jpg



photo\_3-Vegetation\_Removal\_after\_facingE\_.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: November 14, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	46 °F	0-3 MPH	0 %
<b>End of Day</b>	14:00	69 °F	7-9 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of 13 weeding in DG-W-2 mining pit with hand tools and an electric saw.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RSHA, YRWA, ACWO, WCSP, CALT, AMCR, CASJ, HOFI, BUSH, RCKI, NOFL, CAQU, BEWR, CATH, BGGN, LISP, CAKI, LEGO, MODO, California ground squirrel, Common side blotched lizard, Western toad, Coastal whiptail, RCPA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site, surveyed work area while crew mobilized.

0645: Crew began weeding DG-W-2 mining pit. Primary target was pepperweed, which was still very short in stature and scattered. Crew also removed horse weed from planting basins in an area where it was very thick and re-formed them.

1000: Crew removed a nonnative palo verde sapling (DBH 1.5) using a motorized saw.

1230: Found a large leak in mining pit, advised crew to repair. Crew was nearing south end of mining pit.

1350: Crew began wrapping up while I surveyed the site.

**Additional Comments**

N/A

Signature





**photo\_1-20221114-pre\_weeding\_facingN.jpg**  
-118.17421861111112 34.19366527777775



**photo\_2-20221114-post\_weeding\_facingN.jpg**  
-118.17395963888889 34.19368797222222



**photo\_3-20221114-pre\_basin\_maintenance\_facingE.jpg**  
-118.17376761944445 34.19362751111111



**photo\_4-20221114-post\_basin\_maintenance\_facingE.jpg**  
-118.17373023333334 34.19366123333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: November 14, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	46 °F	0-3 MPH	0 %
<b>End of Day</b>	14:45	67 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Mounding dirt around container plants to increase water retention, removing dodder.
2. Hand tools.
3. Crew of eight, Gothic Landscaping.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CANG, SOSA, RCPA, RWBL, WCSP, HOFI, KILL, GCKI, CALT, CASJ, MALL, California ground squirrel, Desert cottontail, Western fence lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew headed to work area, started working.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Dirt\_mounding\_facingW.jpg**  
-118.17278372222222 34.18881613888889



**Dirt\_mounding\_facingS.jpg**  
-118.17265467777779 34.18903896666665



Removed\_dodder\_facingS.jpg  
-118.17227188333334 34.19005801666666



**Vegetation\_to\_be\_removed\_facingNE.jpg**  
-118.17233559444445 34.18981329444444

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: November 15, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	4-6 MPH	0 %
<b>End of Day</b>	13:45	68 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of nine weeding DG-W-2 mining pit, DG-4, DG-4 WOUS.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CAQU, CASJ, YRWA, AMCR, WCSP, CALT, DEJU, ACWO, CANG, MALL, BUSH, RCPA, BGGN, KILL, AMWI, AMCO, HOFI, RNDU, BUFF, RUDU, REDH, CASJ, RSHA, NOFL, CORA, WEBL, CAKI, LEGO, EUST, BLPH, NUWO, CATH, ECDO, MODO, EAGR, OATI, ALHU, RTHA, SAPH, WEME, RCKI, WREN, WBNU, BEWR, ANHU, HETH, OCWA, California ground squirrel, common side blotched lizard, western fence lizard.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site, surveyed work area while crew set up.

0645: Crew began weeding DG-W-2 mining pit. Primary targets were poison hemlock and pepperweed, both of which were very scattered. Crew quickly worked through mining pit.

0900: Crew moved to the far northern end of DG-4 WOUS, headed south. Similar targets/density, work continued to move very fast.

1335: Crew began wrapping up for the day, they had finished most of DG-4 WOUS.

**Additional Comments**

N/A

Signature





**photo\_1-20221115-pre\_weeding\_facingW.jpg**  
-118.17438654444445 34.19250238888888



**photo\_2-20221115-post\_weeding\_facingW.jpg**  
-118.17442558333333 34.19243797222216

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: November 15, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	47 °F	0-3 MPH	0 %
<b>End of Day</b>	14:45	70 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Mounding dirt for water retention; removing dodder, pepperweed, carrot.
2. Hand tools.
3. Crew of ten, Gothic Landscaping

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RCPA, CALT, HOFI, AMCR, YRWA, VESP, WCSP, CANG, WREN, HOLA, SAPH, CASJ, Western fence lizard.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew headed to work area, started work.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Carrot\_sp\_to\_be\_removed\_facingN.jpg**  
-118.1723452777778 34.190020591666666



**Mounding\_dirt\_facingSE.jpg**  
-118.1716910222223 34.190236



**Nonnative\_to\_be\_removed\_facingE.jpg**  
-118.1715904027778 34.1905238805555



**Dodder\_to\_be\_removed\_facingNE.jpg**  
-118.1723320388889 34.1896961111111

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: November 16, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	54 °F	7-9 MPH	0 %
<b>End of Day</b>	14:45	71 °F	7-9 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Mounding dirt around natives for water retention, removing nonnatives.
2. Hand tools.
3. Crew of ten, Gothic Landscaping.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

YRWA, HOFI, ANHU, RCKI, AMCR, CALT, RTHA, CASJ, California ground squirrel, Western fence lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

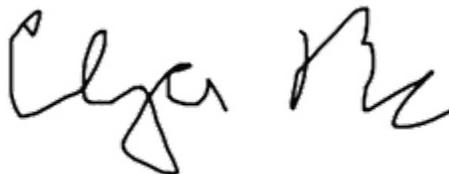
**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew headed to work area, started work.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Filled\_in\_ruts\_facingS.jpg**  
-118.17363654166667 34.18616815555555



**Sapling\_exclusion\_fence\_facingSE.jpg**  
-118.17289634444445 34.18853026666666



**Planted\_cuttings\_facingE.jpg**  
-118.17288045000001 34.18855113055555



**Removed\_lambs\_quarters\_facingW.jpg**  
-118.17286065 34.18862291666667

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 16, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	55 °F	4-6 MPH	0 %
End of Day	14:00	71 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six pulling weeds.

Did you observe any special-status species?  Yes  No

Were any least Bell's Vireo detected?  Yes  No

**List of species observed while monitoring:**

CALT, ACWO, CASJ, RCKI, AMCO, CANG, MALL, AMWI, LEGO, BUSH, SAPH, RSHA, SPTO, DEJU, BLPH, AMCR, CORA, RTHA, WCSP, ALHU, Coyote.

Did You Observe any Non-Compliance Issues?  Yes  No

**Log Entry**

0630: I cleared the area for work and crews began weeding at 0700 in DG-4B/DG-4 along the parking area working their way South.

1200: The crew moved into boulder and began weeding there until 1400.

**Additional Comments**

N/A

**Signature**





photo\_1-VegetationRemoval-during-facingN-.jpg



photo\_2-VegetationRemoval-during-facing-S\_.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: November 17, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	45 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	73 °F	4-6 MPH	5 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Irrigation maintenance, container plant maintenance.
2. Hand tools (shovels, rakes, etc.)
3. Gothic landscape, Cesar Olmos and crew of nine landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

western fence lizard, side-blotched lizard, LEGO, RCKI, MODO, ACWO, CORA, AMCR, SOSP, BEWR, WCSP, RTHA, CASJ, CALT, HOFI, KILL, ANHU, NOMO, BLPH, BUSH, WREN, CAQU, NOFL, coyote, California ground squirrel, desert cottontail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

06:30: Arrive on site.

06:45: crew begins work in Johnson Field, staking irrigation lines to direct flow of water and fixing leaks. Also maintaining dirt rings around container plants.

07:30: Worker found a dead CALT in container plant in Johnson Field. He said this was the second dead CALT he's found this week.

14:30: Crew finishes work in Johnson Field for the day.

14:35: Depart site.

**Additional Comments**

N/A

**Signature**





**Irrigation\_Leak\_Johnson\_Field.jpg**  
-118.17187712500001 34.19210993611111



**CALT\_carcass\_Johnson\_Field.jpg**  
-118.17209087222223 34.19163725



**Irrigation\_Maintenance\_Johnson\_Field.jpg**  
-118.17169194444445 34.19213544444444



**Irrigation\_Line\_Repaired.jpg**  
-118.17186621388889 34.19211320555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 17, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	4-6 MPH	0 %
<b>End of Day</b>	14:00	70 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of three weeding at boulder (DG-4A).

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BLPH, MALL, CANG, CASJ, CALT, ACWO, CORA, AMCR, HOFI, YRWA, CAQU, SAPH, RCKI, WBNU, CAKI.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the work area. Crews continue working "boulder" today and moving south. Crews stopped weeding at 1400 and began cleanup.

**Additional Comments**

N/A

**Signature**





photo\_1-Vegetation\_Removal\_before\_facingE\_.jpg



photo\_2\_Vegetation\_Removal\_during\_facingE\_.jpg



photo\_3\_Vegetation\_Removal\_after\_facingE\_.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: November 18, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	0-3 MPH	0 %
<b>End of Day</b>	12:15	67 °F	0-3 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew, east side restoration.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, WCSP, CASJ, MALL, CANG, WREN, HOFI, GBHE, KILL, RCKI, SAPH, CALT, BGGN, SOSP, ACWO, BLPH, NOFL, RTHA

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site.

0645: Tailboard. Plan to check entirety of irrigation system for leaks. Not many weeds to be pulled, only small detail work. Cesar to depart immediately for another site.

0900: Crew break. 0930: Working in South section by construction staging area. Detail work.

1100: Move back to detail work in DG2. Small sections of dodder.

1215: End work.

**Additional Comments**

N/A

**Signature**





photo\_1-irrigation\_work.jpg



photo\_2-checking\_irrigation\_facingS.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 18, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	49 °F	0-3 MPH	0 %
<b>End of Day</b>	11:00	67 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of four pulling weeds in DG-4A.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, LEGO, CALT, NOFL, CASJ, HOFI, ANHU, TUVU, RSHA, RCKI, BGGN, BUFF, MALL, CANG, KILL, BLPH, YRWA, CAQU, CORA, coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area for work.

0650: Crews began weeding in "boulder" picking up from previous day. Crews continued moving south through the open field of "boulder".

1100: Crews began clean up.

**Additional Comments**

N/A

**Signature**





photo\_1-Vegetation\_Removal\_during\_facingN\_.jpg



photo\_2-Vegetation\_Removal\_during\_facing-S-.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Dawn Garcia**  
**Company: Stillwater**  
**Date of Log: November 21, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	45 °F	0-3 MPH	10 %
<b>End of Day</b>	14:00	72 °F	4-6 MPH	50 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Restoration, Natures Image crew weeding at boulder area. Genero, Edwardo, Linda, Ryan. Using hula hoes and shovels to weed in compact ground at boulder.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, ALHU, ANHU, AMCR, CALT, RCPA, HOFI, BUSH, BEWR, NOFL, NUWO, ACWO, CSJA, WREN, LEGO, SOSP, YRWA, SPTO, RCKI, BGGN, CAQU, RSHA, COHA, RTHA, PUF1.

In reservoir: REDH, BUFF, HOME, CANG, MALL, RUDU, RNDU, AMCO, EAGR, KILL, AMPI

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Meet with crew, recap last weeks activities.

0645: Survey the day's weeding area at boulder DG-4A. Crew starts at 0700. The ground is frosty and compact. They work in the same area all day. Progress is slower, but detailed, because weeds are small. Birds (YRWA,WCSP,CALT, BLPH, BUSH, RCKI) are foraging in the area post weeded spots. BLPH using shovel handle as perch during crew break! Crew finished pulling at 1330, break, then cleanup.

**Additional Comments**

the site looks really good from N -S and I was able to traverse through it. There are thousands of seedlings sprouting throughout the restoration and it is difficult to differentiate in mixed patches (photo 3). The crew will wait on these areas until the plants are larger.

**Signature**





**photo\_1Small\_numerous\_patches\_of\_pepperweed\_for\_removal.jpg**  
-118.17484950000001 34.19042994444444



**photo\_2Boulder\_weeding\_area\_looking\_north.jpg**  
-118.17482969444445 34.19041436111111



**photo\_3Mixed\_emerging\_seedlings.jpg**  
-118.1751269722223 34.19088916666665



**photo\_4post-weeding\_pepperweed\_removal.jpg**  
-118.1748642777779 34.19047289999996

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: November 21, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	50 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	73 °F	4-6 MPH	70 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Irrigation maintenance, container plant maintenance.
2. Hand tools (shovels, rakes, etc.).
3. Gothic landscape, Crew of six landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

western fence lizard, CANG, MALL, CALT, BGGN, YRWA, RCKI, SPTO, ACWO, CORA, AMCR, SOSP, BEWR, WCSP, RTHA, CASJ, HOFI, ANHU, BUSH, WREN, coyote, California ground squirrel, desert cottontail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

06:30: Arrive on site.

06:50: Crew begins maintenance activities in DG-2.

08:00-9:30: Crew does a walk through of EMA side slopes and pulls any weeds they see.

10:00: Crew resumes maintenance activities in DG-2.

12:30: Crew re-staked irrigation line on south end of east side slopes that had fallen.

14:30: Crew finishes work for the day.

14:35: Depart site.

**Additional Comments**

N/A

**Signature**





**Container\_Plant\_Maintenance\_DG2.jpg**  
-118.1727068555556 34.18896106666664



**Weed\_Abatement\_EMA.jpg**  
-118.17280248611111 34.19070458333333



**Repaired\_Irrigation\_Line.jpg**

-118.17305762222223 34.18695797222222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: November 22, 2022**

	<b>Time</b>	<b>Temperature (°F)</b>	<b>Wind Range (MPH)</b>	<b>Cloud Cover (%)</b>
<b>Start of Day</b>	06:15	52 °F	4-6 MPH	15 %
<b>End of Day</b>	14:45	71 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of six, Gothic Landscaping.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, WCSP, CASJ, SPTO, ANHU, HETH, SOSP, WREN, RCKI, CANG, CORA, KILL, AMCO, MALL, RTHA

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew headed to work area, started working.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Irrigation\_on\_facingNW.jpg**  
-118.1716787222223 34.19206676111111



**Carrot\_sp\_to\_be\_removed\_facingW.jpg**  
-118.1723225833334 34.1900346



**Nonnatives\_to\_be\_removed\_facingE.jpg**  
-118.17229151666668 34.18993916666666



**Flowering\_elderberry\_facingNE.jpg**  
-118.17256763888889 34.18946401388889

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Dawn Garcia**  
**Company: Stillwater**  
**Date of Log: November 22, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	49 °F	0-3 MPH	5 %
<b>End of Day</b>	14:00	72 °F	4-6 MPH	5 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Raul foreman brings crew of two, plus regular four. Natures Image.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

In reservoir: CANG, MALL, REDU, RUDU, AMCO, KILL. In restoration: BLPH, LEGO, CAKI, NOFL, NUWO, ACWO, SOSP, WCSP, CHSP, YRWA, WEBL, HOFI, MODO, BTPI, BEWR, BGGN, BUSH, CALT, SPTO, RSHA, CATH, SAPH. Many small and quick lizards moving around as the day heats up.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Crew meets and continues at boulder. Crew of six using hand hoes and shovels continue to pull pepperweed. Linda weeds/irrigates the tire wash. Irrigated plants are growing well, invasive chenopodium is surrounding plant wells and pulled until lunch time. After lunch crew move South across the trail to weed and rake under mulefat. DG-4. I remove old nest buffer flags. Crew stops weeding at 1345. Clean up and haul the rest of the day.

**Additional Comments**

Geese are gone both afternoons, I dont know where they go. Many small songbirds are using the recently weeded areas, on the ground and plants.

**Signature**





**Weeding\_continues\_in\_boulder\_DG-4A\_lookingNW.jpg**  
-118.17482825 34.19047705555554



**Reservoir\_provides\_waterfowl\_habitat.jpg**  
-118.1747456388889 34.19035461944444



**Linda\_weeds\_SW\_planted\_area.jpg**  
-118.17815255555556 34.18665898055555



**DG4A\_maintenance\_South\_of\_Boulder\_lookingW.jpg**  
-118.17506261111112 34.1901321

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: November 23, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:23	44 °F	0-3 MPH	0 %
End of Day	13:55	73 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement; crew focused on pulling *Eriodum cicutarium*, *Lepidium latifolium*, *Marrubium vulgare*.
2. Hand tools.
3. Gothic; crew of ten plus Cesar Olmos (foreman).

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BEWR, CANG, WCSP, RCKI, CASJ, AMCR, BGGN, ACWO, CALT, ANHU, HOFI, LEGO, MALL, WEKI, SPTO, CAQU

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0623: Arrived on site. Several crew members already here, waiting in their cars.  
0630: Tailboard. Crew would be working on side slopes (episodic maintenance). The focus would be to work northeast and pull all non-natives.  
0700: Arrived at side slopes. Crew began working.  
0845: Break.  
0912: Cesar leaving the site. He said the crew would continue with weed abatement along the side slope then into DG-1.  
1019: Crew split up. Four crew members are working within DG-1 working northeast pulling non-natives. Remaining crew went with Johnathon to conduct work within DG-2.  
1100: DG-2 crew rejoins with crew working northeast in DG-1.  
1145: Lunch.  
1245: Crew returns from lunch.  
1300: Crew would be shifting back to Johnson Field for the remainder of the day.  
1315: Johnathon takes one crew member with him to turn off the water.

**Additional Comments**

N/A

**Signature**





**Nicotiana\_glauca\_that\_was\_pulled.jpg**



**Crew\_working\_along\_side\_slope\_facing\_west.jpg**



**Crew\_weeding\_within\_DG-1\_facing\_northeast.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 23, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	51 °F	0-3 MPH	0 %
<b>End of Day</b>	12:00	71 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of seven pulling weeds. Tools used: shovels, trowels and rakes.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

YRWA, BUSH, RCKI, CANG, MALL, CALT, CASJ, AMCR, RTHA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area for work. Crew began working at 0700 in DG-4 just south of boulder. Crews finished weeding at 1200 and began cleanup. I also took the bi-weekly photo report.

**Additional Comments**

N/A

**Signature**





photo\_1-Vegetation Removal before facing\_W\_.jpg



Vegetation Removal facing\_S\_during-.jpg



photo\_3-Vegetation Removal facing S after .jpg  
-118.17517513888889 34.19023882222222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: November 28, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	48 °F	0-3 MPH	100 %
End of Day	14:00	61 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of nine weeding in DG-4.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, CALT, CASJ, ACWO, NOFL, HOFI, BUSH, AMCR, CORA, RCPA, WREN, YRWA, CATH, RSHA, BEWR, western fence lizard, California ground squirrel, CAKI.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Cleared crew to work in DG-4 south of the boulder clearing.

0645: Gave a new Natures Image employee WEAP training.

0720: Resumed monitoring weed removal. Primary targets were pepperweed and mustard. Noted that basin is now empty of water. New crew member given tour of site by Raul and Generro until 0830, after which he joins the weeding crew.

1200: A Natures Image crew member informed me that an irrigation timer was stolen from the fence line between 9 and 12, it was discovered while coming back from break.

1345: Crew began wrapping up, inspected site.

**Additional Comments**

N/A

**Signature**





**photo\_1-20221128-pre\_weeding\_facingS.jpg**  
-118.1753267777778 34.19011506944444



**photo\_2-20221128-post\_weeding\_facingS.jpg**  
-118.17533894444445 34.190093936111104

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: November 28, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	51 °F	0-3 MPH	100 %
<b>End of Day</b>	14:20	56 °F	0-3 MPH	75 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic restoration crew, east side restoration.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, Amazona spp, AMCR, WREN, RCKI, CALT, BGGN, HOFI, RTHA, NOFL, BUSH, ACWO

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On-site.

0705: Crew begins working just North of staging area at Johnson field.

0720: Jonathan relays that the bathrooms and some of the irrigation lines had been vandalized over the long weekend.

0815: Cesar arrives. Crew working their way north towards JPL.

0900: Break.

0930: Work resumes on north side. Small detail work.

1200: Lunch.

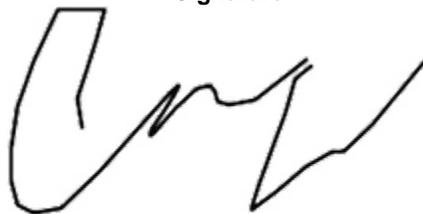
1230: Work resumes in Johnson field. Checking irrigation and detail work.

1420: End work.

**Additional Comments**

N/A

**Signature**





**photo\_1-crew\_working\_north\_side\_facingN.jpg**



**photo\_2-detail\_work\_facing\_NW.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: November 29, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	45 °F	4-6 MPH	30 %
<b>End of Day</b>	14:00	58 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image (NI) crew of eight weeding DG-4, DG-4A.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RSHA, NOFL, AMCR, YRWA, ACWO, BEWR, CALT, SOSR, COHA, HOFI, NUWO, ANHU, AMRO, CASJ, WREN, BUSH, BLPH, WCSP, RCPA, CAKI, California ground squirrel.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Cleared crew to work in DG-4 and DG-4A while they set up.

0645: Monitored weeding in DG-4A and DG-4. In DG-4A, crew targeted resprouting pepperweed moving up irrigation rows, some patches of native Phacelia cicutaria. In DG-4, crew worked to clean up planting basins which had some pepperweed and poison hemlock.

1345: Crew began wrapping up, I surveyed site and picked up trash etc. Crew had mostly finished the patch of DG-4A they were working in.

**Additional Comments**

N/A

**Signature**





photo\_1-20221129-pre\_weeding\_basin\_facingS.jpg  
-118.17550015 34.1900551222222



photo\_2-20221129-post\_weeding\_basin\_facingS.jpg  
-118.17546129166666 34.19015394444444



**photo\_3-20221129-pre\_weeding\_facingN.jpg**  
-118.17548093333333 34.19047548333333



**photo\_4-20221129-post\_weeding\_facingN.jpg**  
-118.17545630555556 34.19048866666666

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carla Marriner**  
**Company: ECORP**  
**Date of Log: November 29, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	46 °F	0-3 MPH	20 %
<b>End of Day</b>	14:30	61 °F	0-3 MPH	20 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed removal; irrigation check; trash removal & general maintenance activities.
2. Hand tools.
3. Cesar project manager (PM); crew ten people.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

COHA, MODO, WCSP, MODO, HOFI, CALT, SCJA, CAQU, CATH, AMCR, ANHU, BGGN, RTHA, OCWA, BEWR, RSHA, ACWO, BLPH, SAPH, YRWA, AMKE, Squirrel, Western fence lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived at Johnson Field.

0640: Crew arrived onsite & started planning activities for the day. Trash removal, irrigation, NNG will be conducted throughout the day.

0700: Crew started weed removal activities on the SE portion of the restoration site.

0730: Part of the crew moved to the southern portion to pick up trash.

0830: Crew is removing nonnative species and checking irrigation valves along the SE portion of the restoration site.

0900: Break.

0930-1200: Crew continued conducting maintenance activities - NNG and pepperweed removal.

1200: Lunch break.

1230 -1430: Crew continued working near slopes and SE portion removing nonnative herbaceous species/general maintenance activities.

**Additional Comments**

N/A

**Signature**





photo\_1-nonnative\_herbaceous\_species\_removal\_facingS.jpg  
-118.1723065138889 34.18939498333333



photo\_2\_crew\_removing\_trash\_facingSW.jpg  
-118.1740772500001 34.18617538055554



photo\_3\_crewirrigating\_mulefat\_cuttings\_facingS.jpg  
-118.17177689444445 34.19045915555555



photo\_4\_cleaning\_mulefat\_shrub\_basin.jpg  
-118.17214087222223 34.191407375

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: November 30, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	44 °F	0-3 MPH	85 %
<b>End of Day</b>	14:45	59 °F	7-9 MPH	75 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of eight, Gothic Landscaping.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, OATI, YRWA, WCSP, CALT, HOFI, VESP, CEWA, desert cottontail.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew headed to work area, started working.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Weeding\_facingSE.jpg**  
-118.17342609722223 34.18652327777777



**Watering\_plants\_facingN.jpg**  
-118.17328296666668 34.18666975555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: November 30, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	58 °F	0-3 MPH	100 %
<b>End of Day</b>	14:00	62 °F	0-3 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of eight pulling weeds in DG-4, DG-4A.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

KILL, ACWO, CASJ, CALT, WCSP, SOSP, SPTO, RCPA, BUSH, AMCR, coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area for work.

0700: Crews began weeding along the East side of "boulder". Crews moved though the forested area moving East and ended at 1400 to begin cleanup.

**Additional Comments**

N/A

**Signature**





photo\_1-VegetationRemoval-during-facing-W\_.jpg



photo\_2-VegetationRemoval-before-facing-E\_.jpg



photo\_3-VegetationRemoval-after-facing-E-.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 1, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	47 °F	4-6 MPH	100 %
<b>End of Day</b>	14:45	54 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of eight, Gothic Landscaping.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

HOFI, HOSP, YRWA, CALT, CASJ, OATI, ACWO, AMCR, CAQU, ANHU, RTHA, desert cottontail, coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew headed to work area, started work.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Walkway\_raked\_facingSW.jpg**  
-118.1722887111112 34.18996906944444



**Nonnatives\_facingE.jpg**

-118.1723037222222 34.189876013888885

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: December 1, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	0-3 MPH	100 %
<b>End of Day</b>	13:30	54 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six pulling weeds.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CAQU, ACWO, RCPA, CALT, CASJ, BLPH, DEJU, MODO, AMCR, RTHA, RSHA, SPTO, BUSH.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area for work. Crews began weeding at 0700 in DG4 on the East side just South of the parking lot. Crews worked until 1330 and it started raining so we stopped pulling and began cleanup.

**Additional Comments**

N/A

**Signature**





**photo\_1-VegetationRemoval-before-facingW\_.jpg**



**photo\_2-VegetationRemoval-after-facingW\_.jpg**



photo\_3-VegetationRemoval-during-facingW\_.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: December 2, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	08:10	49 °F	0-3 MPH	100 %
<b>End of Day</b>	13:35	56 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Irrigation maintenance, container plant maintenance and planting.
2. Hand tools (shovels, hoes, etc.).
3. Gothic landscape, Cesar Olmos and crew of nine.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, ACWO, CORA, CATH, SOSP, WCSP, RTHA, CASJ, HOFI, ANHU, BUSH, California ground squirrel.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0810: Arrived on site, crew are waiting in their cars for the rain to stop.

0930: Crew begins work in DG-2, doing rounds to check for weeds or irrigation lines that need repair. Irrigation was not turned on today due to rain.

1000: Two workers plant what appears to be two mulefat cuttings on east side of DG-2.

1315: Crew begins gathering tools to put away.

1330: Crew finished work for the day.

1335: Depart site.

**Additional Comments**

N/A

**Signature**





**Container\_Plant\_Maintenance\_DG-2.jpg**  
-118.17226709166667 34.19004638888889



**Planting\_DG-2.jpg**  
-118.17198379166668 34.18999422222222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alec Mang**  
**Company: Stillwater**  
**Date of Log: December 2, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	0-3 MPH	100 %
<b>End of Day</b>	11:00	52 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of six pulling weeds.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RSHA, DEJU, ACWO, MODO, MALL, BUSH, RCKI, coyote.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: I cleared the area for work. Crews began weeding at 0715 in DG-4 North of "primrose" pulling hemlock and small patches of mustard, right along the edge of DG-4A. We had light rain in the morning which ended around 0930. Crews continued weeding until 1100 and then began cleanup after lunch.

**Additional Comments**

N/A

**Signature**





**photo\_1-VegetationRemoval-before-facing-E\_.jpg**



**photo\_2-VegetationRemoval-during-facing-E\_.jpg**



photo\_3-VegetationRemoval\_facingE\_after-.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Verity Richardson**  
**Company: ECORP**  
**Date of Log: December 5, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	56 °F	0-3 MPH	70 %
<b>End of Day</b>	14:40	60 °F	0-3 MPH	50 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Restoration - removing invasive weeds primarily poison hemlock.
2. Hand tools - hoes.
3. Gothic landscaping - Cesar, Jonathan and crew of six.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, YRWA, CORA, ACWO, RTHA, CASJ, ANHU, red-crowned parrot, RCKI, cottontail, western fence lizard, western toad, BLPH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site, attended tailboard.

0655: Crew began pulling and hoeing poison hemlock at the southern end of DG-2-WOUS.

0730: Met with Michael Walsh from Stillwater to discuss protocol for west side monitoring.

0800: Continued monitoring poison hemlock removal in DG-2-WOUS.

1015: Crew began removing poison hemlock in the West section of DG-2.

1045: Jonathan was stung by a European honeybee.

1120: Crew split between removing hemlock in DG-2 and DG-2-WOUS.

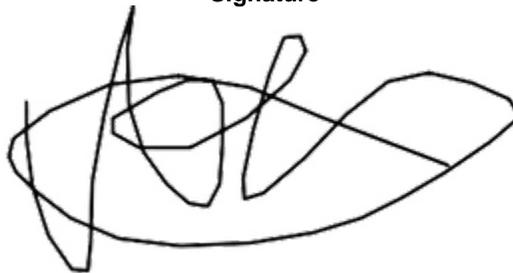
1240: Crew split between removing hemlock in DG-2 and DG-2 new channels.

1440: End of monitoring.

**Additional Comments**

N/A

**Signature**





**Hoeing\_poisonhemlock\_DG2\_120522\_facingN.jpg**  
-118.1724679 34.18929472222222



**Hand\_pulling\_Invasives\_DG-2\_120522\_facingNE.jpg**  
-118.17248969444445 34.18940942777775



Hand\_Pulling\_Poison\_hemlock\_DG2WOUS\_facingS\_120522.jpg  
-118.17229873611112 34.18992273333333



Hoeing\_poison\_hemlock\_DGWOUS2\_facingS\_120522.jpg  
-118.17228960277778 34.18996908333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: December 5, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	49 °F	0-3 MPH	50 %
End of Day	14:00	59 °F	4-6 MPH	10 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of seven weeding DG-4 and DG-4 drainage.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, ACWO, CATH, NUWO, CALT, AMCR, RSHA, BUSH, RCPA, CASJ, WBNU, LEGO, DEJU, OATI, MODO, ANHU, RCKI, desert cottontail, fox squirrel, WREN, RTHA.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site. Crew began getting ready, discussed plan for day with foreman Genarro.

0650: Monitored weeding in DG-4/DG-4 drainage; slightly east of DG-5. Primary target was poison hemlock; 1/2 of which was still holding seed. Some pepperweed in area.

0730: Met with Verity Richardson for a touch-base before ECORP takes over.

0750: Resumed monitoring.

1200: Took Linda and Ed around the site, marked all phase 1 irrigation boxes with red flags; crew is to begin doing bi-monthly watering for the marked boxes.

1345: Crew began wrapping up while I inspected the site.

**Additional Comments**

N/A

Signature





**photo\_1-20221205-pre\_weeding\_facingE.jpg**  
-118.1759290277778 34.19070936111111



**photo\_2-20221205-post\_weeding\_facingE.jpg**  
-118.17598019444445 34.19070470833333



**photo\_3-20221205-pre\_weeding\_facingN.jpg**  
-118.1759548888889 34.19072152777775



**photo\_4-20221205\_post\_weeding\_facingN.jpg**  
-118.17587936111111 34.19084577777774

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Michael Walsh**  
**Company: Stillwater**  
**Date of Log: December 6, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	45 °F	4-6 MPH	20 %
<b>End of Day</b>	14:00	57 °F	4-6 MPH	30 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew of seven weeding in DG-4 drainage; DG-4.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CAKI, CATH, WCSP, BUSH, AMCR, YRWA, ACWO, RSHA, ANHU, MODO, WREN, HOFI, CALT, NOFL, BGGN, BEWR, CASJ, DEJU, OATI, COHA, RTHA, California ground squirrel, western toad.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site. Tailgate with crew.

0650: Monitored weeding in DG-4 and DG-4 drainage. Primary targets were Tree of heaven, poison hemlock, and perennial pepperweed. Talked to crew about not tilling dirt to remove seedlings still in cotyledon stage.

1345: Crew began wrapping up while I inspected the site for water bottles etc.

**Additional Comments**

N/A

Signature





**photo\_1-20221206-pre\_weeding\_facingS.jpg**  
-118.1758552222222 34.19063518611111



**photo\_2-20221206-post\_weeding\_facingS.jpg**  
-118.1758465277778 34.19062073055555



**photo\_3-20221206-pre\_weeding\_facingS.jpg**  
-118.1758694277778 34.19052740555555



**photo\_4-20221206-post\_weeding\_facingS.jpg**  
-118.17586486111112 34.19051908333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 6, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	45 °F	4-6 MPH	50 %
<b>End of Day</b>	14:45	57 °F	4-6 MPH	50 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of eight, Gothic Landscaping.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, RTHA, EUCD, CASJ, YRWA, RCKI, CANG, CALT, WCSP, ACWO, ALHU, OATI, BLPH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew headed to work area, started working.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Horehound\_to\_be\_removed\_facingE.jpg**  
-118.17224200000001 34.18938166666666



**Nonnative\_grass\_to\_be\_removed\_facingW.jpg**  
-118.1722891388889 34.1894122222222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: December 7, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	40 °F	0-3 MPH	5 %
<b>End of Day</b>	14:25	58 °F	4-6 MPH	40 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Irrigation maintenance, container plant maintenance, weed abatement.
2. Hand tools (shovels, rakes, etc.).
3. Gothic landscape, Cesar Olmos and crew of nine landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Western fence lizard, BGGN, CALT, ACWO, CORA, AMCR, CAQU, NOFL, SOSPO, WCSP, RTHA, CASJ, HOFI, YRWA, ANHU, BUSH, RCKI, BEWR, California ground squirrel, desert cottontail tail, coyote, pocket gopher, fox squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

06:30: Arrive on site.

07:00: Crew begins weed abatement (mostly poison hemlock and horehound) in DG-2, west of Johnson field. The crew bags pulled weeds as they move through an area.

09:30: Crew begins watering container plants on east side of Johnson Field.

10:30: Crew begins weed abatement on north edge of Johnson Field.

12:45: Crew begins weed abatement on east edge of Johnson Field.

14:20: Crew finishes work for the day, begins throwing away weeds.

14:30: Depart site.

**Additional Comments**

N/A

**Signature**





**Weed\_Abatement\_DG-2.jpg**  
-118.17222025833334 34.19133772222222



**After\_Weeding\_DG-2.jpg**  
-118.17236311111111 34.19158366666666



**Weed\_Abatement.jpg**  
-118.17203632500001 34.19204158333333



**Watering\_JohnsonField.jpg**  
-118.17101131111112 34.19131447222222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carley Adams**  
**Company: ECORP**  
**Date of Log: December 7, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	49 °F	0-3 MPH	2 %
End of Day	14:00	59 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew used hand tools to remove nonnative weeds in DG-4 and DG-4A. Crew consisted of one foreman (Genero) and seven laborers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, AMCR, RSHA, BEWR, YRWA, CASJ, ANHU, RCKI, ACWO, NOMO, RTHA

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Conducted sweep of work area.

0650: Monitored weed removal in DG-4 and DG-4A. Targeted weeds included CONMAC (*Conium maculatum*), LEPLAT (*Lepidium latifolium*), AILALT (*Ailanthus altissima*), and BRANIG (*Brassica nigra*).

1400: Biologist left site for the day.

**Additional Comments**

N/A

Signature





**Weed\_removal\_before\_facingS.jpg**  
-118.17613638888889 34.19030978888888



**Weed\_removal\_during\_facingS.jpg**  
-118.17609216666668 34.19027118333333



**Weed\_removal\_during\_facingN.jpg**  
-118.17600469444444 34.19023928888888



**Weed\_removal\_after\_facingS.jpg**  
-118.17609994444445 34.19034411111111

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Verity Richardson**  
**Company: ECORP**  
**Date of Log: December 8, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	45 °F	0-3 MPH	0 %
<b>End of Day</b>	14:42	62 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnative plants primarily poison hemlock and perennial pepperweed in DG-4, DG-4A and DG-4 sheetflow, DG-4 drainage.
2. Pulling by hand (mostly) 2 crew members had hoes in the afternoon (from 1).
3. Raul, Genaro with crew of ten.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, CALT, CASJ, YRWA, CORA, Red-crowned parrot, RCKI, SAPH, WCSP, ANHU, SPTO, Western fence lizard, western toad, California ground squirrel,

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

Monitoring on the west side

0630: Met with Genaro who showed me the area that the crew are planning to work in. Swept area prior to crew arriving.

0650: Crew began pulling poison hemlock and perennial pepperweed in DG-4 and DG-4 sheetflow.

0710: Gave WEAP presentation to two new crew members (Cesar Figueroa and Matthew).

0730: Two new crew joined the crew removing poison hemlock and perennial pepperweed in DG-4, DG-4A and DG-4 sheetflow.

1000: Crew periodically removed tarps full of plant material from the site to the truck.

1230: Crew continued in DG-4, DG-4A and DG-4 sheetflow. Three crew members moved into DG-4 drainage.

**Additional Comments**

N/A

**Signature**





**Crew Pulling Poison Hemlock DG4Sheetflow\_facingS.jpg**  
-118.17617625000001 34.18952905555555



**Removing\_And\_Bagging\_Poison\_Hemlock\_DG-4A\_facingN.jpg**  
-118.17641680555556 34.18942761111111



**Crew\_Removing\_Material\_from\_site\_DG-4\_facingS.jpg**  
-118.1761521388889 34.1895289083333



**Natures\_Image\_Crew\_hand\_pulling\_Poison\_Hemlock\_DG-4drainage-facingSE.jpg**  
-118.1762474444444 34.1893081472222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 8, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	40 °F	0-3 MPH	0 %
<b>End of Day</b>	14:45	60 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of ten, Gothic Landscape.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, RCPA, CALT, WCSP, CASJ, YRWA, OATI, RTHA, ACWO, BLPH, California ground squirrel.

**Did You Observe any Non-Compliance Issues?**  Yes  No

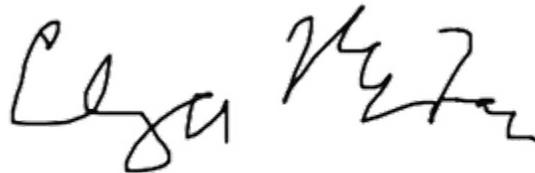
**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew started working in Johnson Field.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Phacelia\_groundcover\_facingW.jpg**  
-118.1720077722223 34.189854491666665



**Curly\_dock\_to\_be\_removed\_facingN.jpg**  
-118.17220248611112 34.18949450833333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: December 9, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	41 °F	0-3 MPH	0 %
<b>End of Day</b>	13:30	56 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic Crew, east side restoration.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, WCSP, BGGN, BUSH, HOFI, ACWO, CALT, RCKI

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site.

0645: Tailboard.

0700: Begin work in DG-2. Some pepperweed popping up.

0900: Crew takes a break.

0930: Return to weed removal in DG-2.

1130: Lunch.

1215: Resume work. Small detail work, not much to be pulled.

1330: Crew no longer pulling weeds, going to clean up.

1335: Depart site.

**Additional Comments**

N/A

**Signature**





photo\_1-pepperweed\_removal\_facingE.jpg



photo\_2-DG-2\_area\_post\_weed\_removal\_facingN.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: December 9, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	40 °F	0-3 MPH	0 %
<b>End of Day</b>	13:45	60 °F	7-9 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement, irrigation maintenance.
2. Hand tools (shovels, rakes, etc.).
3. Nature's Image, Raul Fernandez and crew of ten landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Side-blotch lizard, RCPA (Red-crowned parrot), MODO, NOMO, BHGR, LEGO, CALT, CATH, ACWO, CORA, AMCR, BLPH, CAQU, CAKI, SOSP, WCSP, CASJ, HOFI, YRWA, ANHU, BUSH, RCKI, BEWR, WREN, California ground squirrel, desert cottontail tail, coyote, pocket gopher, wood rat (midden)

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

06:30: Arrive on site.

07:00: Crew begins weed abatement (e.g. horehound, perennial pepperweed, poison hemlock, black mustard, brome grasses) in DG-4, south of the staging area, along trail's edge.

07:45: New dumpster arrived onsite; two workers load yesterday's weeds into dumpster.

10:00: Crew continues weed abatement and irrigation maintenance effort, moving southward, and working near trail's edge.

13:45: Crew finishes pulling weeds for the day and begins clean up.

13:50: Depart site.

**Additional Comments**

N/A

**Signature**





**Weed\_Abatment\_DG-4.jpg**  
-118.1764602222223 34.19149833333333



**DG-4\_Weeds\_before.jpg**  
-118.176252875 34.19139598333333



**DG-4\_Weeds\_after.jpg**  
-118.17625204444445 34.191361875



**Irrigation\_Maintenance\_DG-4.jpg**  
-118.17679150000001 34.19071319444444

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Verity Richardson**  
**Company: ECORP**  
**Date of Log: December 12, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:40	44 °F	0-3 MPH	100 %
<b>End of Day</b>	14:50	51 °F	0-3 MPH	50 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnative vegetation from DG-4 including perennial pepperweed, poison hemlock, shortpod mustard.
2. Hand pulling, hand tools - e.g. hoes.
3. Nature's Image - Genero plus 15 crew members.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, CALT, CORA, RCKI, CASJ, WCSP

Cottontail, western fence lizard, western toad, pocket gopher

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0640: Met crew on site, waited for rain to stop.

0825: Two crew began hoeing nonnatives (perennial pepperweed, poison hemlock, shortpod mustard) from northern end of DG-4.

0900: 15 crew hoeing / hand pulling from northern end of DG-4 and reinstating basins around planted plants.

1440: End of monitoring, removed tarps from the site.

**Additional Comments**

N/A

**Signature**





**Removing\_Nonnative\_Plants\_With\_Hoes\_facingW\_121222.jpg**  
-118.17199316666667 34.19517444444444



**Redefining\_irrigation\_basins\_removing\_nonnatives\_facingNW\_121222.jpg**  
-118.17278348333333 34.19510124999999



**Removing\_nonnatives\_DG4\_facingNE\_121222.jpg**  
-118.1723470277779 34.1952537222222



**Removing\_nonnatives\_facingNE\_121222.jpg**  
-118.17240780555557 34.19501855555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 13, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	37 °F	4-6 MPH	0 %
<b>End of Day</b>	14:45	54 °F	0-3 MPH	5 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of ten, Gothic Landscape.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CORA, CASJ, CALT, SOSP, BEWR, YRWA, WCSP, HOFI, coyote, cottontail, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew started working in DG-2.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Conium\_to\_be\_removed\_facingNE.jpg**  
-118.17226966666666 34.189843805555554



**Phacelia\_and\_nonnatives\_facingE.jpg**  
-118.17227791666667 34.18983845555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carla Marriner**  
**Company: ECORP**  
**Date of Log: December 13, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:40	38 °F	0-3 MPH	0 %
<b>End of Day</b>	14:00	53 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

- 1) Restoration activities (nonnative/invasive species removal).
- 2) Hand tools.
- 3) Nature's Image; Seven people; Genaro onsite coordinating work with the crew.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

LEGO, MODO, ANHU, HOSP, CORA, HOFI, AMCR, WCSP, EUST, CALT, BLPH, Squirrel, NOMO, RTHA, CASJ, BEWR, CAQU, NOFL, RCKI, COHA, SOSP, CATH,

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0650: Maintenance activities started on the western side - monitored weed removal

0800-1100: Crew continued removing nonnative species such as mustard and poison hemlock within the middle portion of the western side.

1100: Lunch break.

1200-1345: Monitored weed and trash removal - crew piling up weeds and hauling them off.

1400: End of the day.

**Additional Comments**

N/A

**Signature**





**photo\_weed\_removal\_facingW.jpg**  
-118.17460050000001 34.19176127777777



**photo\_2\_weeding\_middle\_portion\_of\_western\_side\_facingS.jpg**  
-118.17422672222223 34.19166102777776



photo\_3\_piles\_of\_mustard\_facingW.jpg  
-118.17457441666667 34.19159630555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 14, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	39 °F	0-3 MPH	0 %
<b>End of Day</b>	14:15	58 °F	0-3 MPH	5 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives.
2. Hand tools.
3. Crew of seven, Nature's Image.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, RCPA, CASJ, CALT, YRWA, HOFI, RCKI, BEWR, WCSP, SPTO, ANHU, SOSP, NOFL, ACWO, RTHA, desert cottontail, California ground squirrel, coyote, western fence lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630: Tailboard meeting.  
0645: Crew started working in DG-4B, moving south toward DG-4.  
0645-1400: Monitored restoration.  
1415: Left site.

**Additional Comments**

N/A

**Signature**





**Nonnatives\_dug\_up\_facingNW.jpg**  
-118.17509616666668 34.19201008333333



**Nonnatives\_dug\_up\_facingW.jpg**  
-118.17527619444445 34.19185887777776

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carley Adams**  
**Company: ECORP**  
**Date of Log: December 14, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	31 °F	0-3 MPH	2 %
End of Day	14:30	56 °F	0-3 MPH	10 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew used hand tools to remove nonnative weeds on the side slopes and in DG-1. Crew consisted of one foreman (Caesar) and nine laborers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

MODO, BLPH, WCSP, ANHU, CASJ, RSHA, CALT, ACWO, RCKI, AMCR, YRWA, desert cottontail, western fence lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived onsite and conducted sweep of work area.

0650: Crew began removing weeds in DG-1 and on the side slopes. Targeted weed species included *Erodium cicutarium* (EROCIC), *Brassica nigra* (BRANIG), and nonnative grasses.

1430: Biologist left the site for the day.

**Additional Comments**

N/A

Signature





**Weed\_removal\_during\_on\_side\_slope.jpg**  
-118.17171108333334 34.19259291666666



**Weed\_removal\_during\_facingNW.jpg**  
-118.17050565000001 34.19400938888889



**Weed removal\_after\_facingNW.jpg**  
-118.17076307500001 34.19401897222222

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: December 15, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	40 °F	0-3 MPH	0 %
<b>End of Day</b>	13:35	58 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement, irrigation maintenance.
2. Hand tools (shovels, rakes, etc.).
3. Nature's Image, crew of seven landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RTHA, RSHA, AMRO, LEGO, CALT, CATH, ACWO, CORA, AMCR, SOSP, WCSP, CASJ, HOFI, YRWA, ANHU, BUSH, RCKI, BEWR, California ground squirrel, desert cottontail, coyote, pocket gopher, wood rat (midden)

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

06:30: Arrive on site.

07:00: Crew begins weed abatement (e.g. horehound, perennial pepperweed, poison hemlock, black mustard, brome grasses) in DG-4 and DG-4A, east of DG-4 drainage.

10:00: Crew continues weed abatement and irrigation maintenance effort, working in the same area and moving south.

13:30: Crew finishes pulling weeds for the day and goes on break. Genaro indicates to me the crew is finished weeding for the day and will begin cleaning up after the break.

13:35: Depart site.

**Additional Comments**

N/A

**Signature**





**Before\_DG-4.jpg**

-118.17580665 34.19002280555555



**During\_Weed\_abatement\_DG-4.jpg**

-118.17583209722223 34.18999736111111



After\_DG-4.jpg

-118.17581419444446 34.19001712777777

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 15, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	42 °F	0-3 MPH	0 %
<b>End of Day</b>	14:45	58 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of ten, Gothic Landscape.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, RCPA, EUCD, YRWA, ACWO, HOFI, RCKI, PUF1, NOMO, WCSP, BGGN, BLPH, CASJ, CALT

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.  
0630; Tailboard meeting.  
0645: Crew started working in DG-1.  
0645-1430: Monitored restoration.  
1430: Crew finished work for the day.  
1445: Left site.

**Additional Comments**

N/A

**Signature**





**Dug\_up\_nonnatives\_facingNW.jpg**  
-118.16947869444445 34.19515381944444



**Dug\_up\_nonnatives\_facingSW.jpg**  
-118.16914531388889 34.19532941666667

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: December 16, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	0-3 MPH	30 %
<b>End of Day</b>	14:25	62 °F	4-6 MPH	40 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Irrigation maintenance, basin maintenance, weed abatement.
2. Hand tools (shovels, rakes, etc.).
3. Gothic landscape, Cesar Olmos and crew of nine landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Red-crowned parrot, RTHA, CALT, CATH, ACWO, CAQU, AMCR, SOSP, WCSP, CASJ, HOFI, ALHU, ANHU, BUSH, RCKI, BEWR, WREN, California ground squirrel, desert cottontail, coyote

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

06:30: Arrive on site.

07:00: Crew begins weed abatement (mostly poison hemlock) in DG-2. The crew bags pulled weeds as they move through the area.

10:30: Crew begins basin maintenance in DG-2.

14:20: Crew finishes work for the day, begins throwing away weeds.

14:30: Depart site.

**Additional Comments**

N/A

**Signature**





**Weed\_Abatment\_Poison\_Hemlock\_DG-2.jpg**  
-118.17219565277779 34.19005357499999



**Basin\_Maintenance\_DG-2.jpg**  
-118.17226827777779 34.18997948888889



**After\_Basin\_Maintenance\_And\_Weeding.jpg**  
-118.1721620333334 34.19027588055554

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 16, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	48 °F	4-6 MPH	95 %
<b>End of Day</b>	14:15	62 °F	0-3 MPH	90 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, fixing irrigation.
2. Hand tools.
3. Crew of eight, Nature's Image.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, RCPA, RTHA, CASJ, HOFI, WCSP, CATH, ACWO, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Tailboard meeting.

0645: Crew started working in DG-4A, removing *Brassica nigra* (BRANIG), *Conium maculatum* (CONMAC).

0645-1400: Monitored restoration.

1415: Left site.

**Additional Comments**

N/A

**Signature**





**Nonnatives\_removed\_facingW.jpg**  
-118.1757570555556 34.18966021111111



**Nonnatives\_removed\_facingSE.jpg**  
-118.17589908333333 34.189625574999994



**Nonnatives\_removed\_facingS.jpg**  
-118.17609629166667 34.189682738888884

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: December 19, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	37 °F	0-3 MPH	0 %
<b>End of Day</b>	14:30	63 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Irrigation maintenance, basin maintenance, weed abatement.
2. Hand tools (shovels, rakes, etc.).
3. Gothic Landscape, Cesar Olmos and crew of ten landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Western fence lizard, Red-crowned parrot, RTHA, CALT, CATH, ACWO, CAQU, AMCR, SOSP, WCSP, BGGN, CASJ, HOFI, ANHU, BUSH, RCKI, BEWR, WREN, California ground squirrel, pocket gopher

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrive on site.

0700: Crew begins basin maintenance on southern end of DG-2.

1000: Two workers remove some lamb's quarter (Chenopodium) from the side slopes on the southern end. The crew bags pulled weeds as they move through the area.

1100-1415: Crew removes small weed sprouts (mostly poison hemlock) from southern end of DG-2.

1420: Crew finishes work for the day, begins throwing away weeds.

1430: Depart site.

**Additional Comments**

N/A

**Signature**





**Basin\_Maintenance\_DG-2.jpg**  
-118.17276698333333 34.18869047222222



**Irrigation\_Maintenance\_DG-2.jpg**  
-118.17259104444445 34.18975525833333



**Lambs\_Quarter\_Removal-DG2.jpg**  
-118.17291532777779 34.188654166666666



**Poison\_Hemlock\_Removal\_DG-2.jpg**  
-118.1726834888889 34.18858188888888

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alden Lovaas**  
**Company: ECORP**  
**Date of Log: December 19, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:30	34 °F	0-3 MPH	0 %
End of Day	14:05	64 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement.
2. Hand tools including rakes, hoes, and loop hoes.
3. Genaro Gomez (Natures Image foreman). Total of six Natures Image workers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, LEGO, BEWR, NOFL, CASJ, CAQU, side blotch lizard, ACWO, ANHU, CALT, Coyote, OATI, YRWA, CAKI, RSHA, SOSP, WCSP, BLPH, Western fence lizard, RTHA, HOFI, BUSH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived on site and talked with Genaro Gomez about the plan for the day. The crew will plan to work in similar area as last week (DG-4 and DG-4A).

0645: Crew heading to DG-4 and DG-4A to begin work. Crew using hand tools including, rakes, hoes, and loop hoes and primarily removing *Lepidium latifolium* (LEPLAT) and *Conium maculatum* (CONMAC).

0835: Crew taking break. 0900: Crew resuming work in DG-4 and DG-4A.

1100: Crew taking lunch.

1200: Crew resuming work in DG-4 and DG-4A.

1330: Crew taking break. Done removing vegetation for the day. Crew will clean up and haul out all removed vegetation after break.

1345: Crew beginning to clean up and haul out all vegetation that was removed today.

1405: Left site.

**Additional Comments**

N/A

**Signature**





12\_19\_2022\_Natures\_Image\_crew\_performing\_weed\_abatement.jpg



12-19-2022\_Weed\_Abatement\_in\_DG-4.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 20, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	46 °F	0-3 MPH	95 %
<b>End of Day</b>	14:15	66 °F	4-6 MPH	5 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of seven, Nature's Image.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RTHA, RCPA, CALT, ANHU, CATH, CASJ, YRWA, OATI, LEGO, CAKI, SOSP, WCSP, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Tailboard meeting.

0645: Crew started working in DG-4A, removing *Lepidium latifolium* (LEPLAT), *Brassica nigra* (BRANIG), *Conium maculatum* (CONMAC).

0645-1400: Monitored restoration.

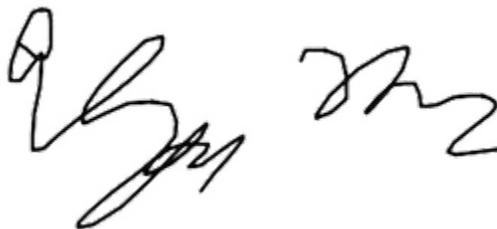
1400: Crew started hauling out nonnative vegetation.

1415: Left site.

**Additional Comments**

N/A

**Signature**





**Nonnatives\_dug\_up\_facingSW.jpg**  
-118.17734044444445 34.18896236111111



**Nonnatives\_removed\_facingNW.jpg**  
-118.17734629166667 34.18894559166666

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alexandra Dorough**  
**Company: ECORP**  
**Date of Log: December 20, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:20	44 °F	0-3 MPH	30 %
<b>End of Day</b>	14:15	65 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew removing new nonnative growth and checking irrigation.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, CALT, BUSH, CAQU, CASJ, ANHU, RUHU, RCKI, WCSP, NOMO, YRWA, California ground squirrel, parrot sp.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0620: Arrive on site, crew is arriving.

0630: Crew arrives, safety tailboard.

0645: Crew begins removing new growth of nonnatives in DG-2 moving north. crew is using hand tools (hoes and rakes).

0900: Crew breaks.

0915: Crew resumes removal of nonnatives.

1200: Lunch.

1245: Crew resumes.

1400: Crew done for the day.

1415: Depart site.

**Additional Comments**

N/A

**Signature**





**Nonnative\_removal\_with\_handtools\_facingSE.jpg**  
-118.17261111111111 34.189055555555555



**Nonnative\_removal\_with\_handtools\_facingN.jpg**  
-118.17228611111112 34.189383333333333

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Maddy Panzino**  
**Company: ECORP**  
**Date of Log: December 21, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	48 °F	0-3 MPH	0 %
<b>End of Day</b>	14:05	70 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement.
2. Hand tools (shovels, hoes, etc.).
3. Nature's Image, Raul Fernandez and crew of nine landscapers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

Western fence lizard, Red-crowned parrot, BLPH, YRWA, LEGO, RSHA, CALT, ACWO, NUWO, CORA, AMCR, SOSP, WCSP, BGGN, CASJ, ANHU, BUSH, RCKI, BEWR, WREN, California ground squirrel, wood rat (midden)

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrive on site.

0700: Crew begins work on southern end of DG-4 nearest to Oak Grove Dr. Doing weed abatement. Targeting mainly poison hemlock, black mustard, and perennial pepperweed.

0900-0945: Crew watches a pesticide training video.

1000: Crew continues weed abatement effort working their way northwest.

1400: Crew begins loading weeds into dumpsters.

1405: Depart site.

**Additional Comments**

N/A

**Signature**





**Poison\_Hemlock\_DG-4\_Before.jpg**  
-118.1769702777778 34.18656161111111



**Poison\_Hemlock\_DG-4\_After.jpg**  
-118.17696175 34.18653836111111



**Removing\_Dried\_Mustard\_DG-4.jpg**  
-118.17718747222223 34.18645072777775

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 21, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	49 °F	4-6 MPH	0 %
<b>End of Day</b>	14:45	71 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of ten, Gothic Landscape.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, CALT, RCPA, WCSP, CASJ, YRWA, MODO, RTHA, coyote, desert cottontail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Tailboard meeting.

0645: Crew started working in DG-2, removing *Conium maculatum* (CONMAC).

0645-1430: Monitored restoration.

1430: Crew finished work for the day.

1445: Left site.

**Additional Comments**

N/A

**Signature**





**CONMAC\_dug\_up\_facingNE.jpg**  
-118.1718362777779 34.190432611111106



**CONMAC\_dug\_up\_facingW.jpg**  
-118.17171676944444 34.19052744444444

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: December 22, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:10	46 °F	0-3 MPH	0 %
<b>End of Day</b>	14:06	66 °F	0-3 MPH	45 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement within DG-4 near dam access road.
2. Hand tools.
3. Natures Image; Genaro Gomez (foreman); Crew of eight.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, RSHA, CALT, RCPA, BLPH, LEGO, RCKI, ALHU, TUVU, CASJ, YRWA, HOFI, BEWR, WREN, NOMO, CATH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0610: Arrived on site. No workers here yet.

0620: Spoke to Genaro Gomez (Natures Image foreman) who said crew would be working in DG-4 pulling nonnative weeds. Nonnative weeds consisted of *Lepidum latifolium*, *Herschfeldia incana* and *Erodium cicutarium*.

0644: Additional crew members arrive to help load truck with tools. Linda and an additional worker will be working on irrigation checks throughout the site.

0710: Genaro said either this Friday or next week they will be taking out *Rubus armeniacus* in DG-4.

0737: Crew moves from lower DG-4 to upper slope near the dam access road.

0803: Spoke to Genaro about possible nonnative within Myrtaceae family. Michael (Stillwater Biologist) is aware of it and is keeping an eye on it.

1018: Crew continuing to work in DG-4 near access road.

1100: Crew taking a break.

1047: Crew back from break.

1200: Return from lunch.

1400: Crew cleaning up and getting ready to leave.

**Additional Comments**

N/A

**Signature**

*[Handwritten signature]*



Before\_weed\_removal\_in\_DG-4\_facing\_Northwest.jpg



**During\_weed\_removal\_facing\_west.jpg**



**After\_weed\_removal\_facing\_west.jpg**

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carla Marriner**  
**Company: ECORP**  
**Date of Log: December 22, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:40	54 °F	0-3 MPH	10 %
<b>End of Day</b>	14:30	67 °F	0-3 MPH	40 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

- 1) Nonnative species removal; maintenance; work on slopes.
- 2) Hand tools.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, CASJ, HOFI, ANHU, BUSH, BGGN, CATH, NOMO, LEGO, CAQU, ALHU, RTHA, SPTO, BLPH, WCSP, NOFL, ACWO, AMKE, AMCR, Coyote, Cottontail

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: Arrived onsite.

0645: Met with Gothic landscape.

0700-0900: Two teams working on separate portions of the site. SE and middle portions. The crews will be near the access ramp/dirt road and the other will be at Johnson's Field removing nonnative herbaceous species.

0900-1145: Monitored crew working on the slopes. Lunch break.

1230-1420: Continued monitoring weed removal on slopes. Crew picking up trash and the other team is working on the access road.

1230: End of monitoring/left site.

**Additional Comments**

N/A

**Signature**





**photo\_1\_nonnative\_species\_removal\_on\_slopes\_facingE.jpg**  
-118.17323014722223 34.18868681944444



**photo\_2\_maintenace\_activities\_facingE.jpg**  
-118.1725612888889 34.19058552777778



**photo\_3\_crew\_working\_on\_slopes\_facingS.jpg**  
-118.17231080555555 34.19193925



**photo\_4\_view\_of\_restoration\_areas\_facingNE.jpg**  
-118.17214357222223 34.19159965277775

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: December 23, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:10	46 °F	0-3 MPH	0 %
<b>End of Day</b>	14:00	73 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement in EMA west in reservoir; crew focused on pulling *Erodium cicutarium*, *Lepidium latifolium*, *Marrubium vulgare*, *Hirschfeldia incana*, Bermuda grass.
2. Hand tools.
3. Gothic; crew of nine plus Cesar Olmos (foreman).

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

BEWR, WCSP, RCKI, CASJ, AMCR, BGGN, ACWO, CALT, ANHU, HOFI, LEGO, SPTO, ACWO, GBHE, RCPA

**Did You Observe any Non-Compliance Issues?**  Yes  No

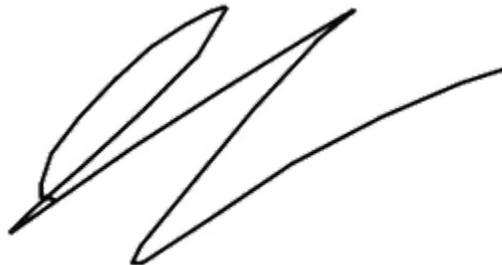
**Log Entry**

0610: Arrived on site. One crew member already here, waiting in their car.  
0630: Additional crew members begin arriving.  
0645: Tailboard. Crew would be working in EMA west. The focus would be to work west and pull all non-natives.  
0700: Arrived at side slopes. Crew began working.  
0830: Crew continuing with weed abatement in EMA west.  
0845: Break.  
0900: Back to work.  
0920: Cesar said he would be leaving soon. He said the crew would continue with weed abatement moving west to Altedena drainage. Possibility it may be too wet to work in this area.  
1145: Lunch.  
1245: Crew returns from lunch.

**Additional Comments**

N/A

**Signature**





EMA\_west\_before\_weed\_abatement.jpg



After\_weed\_abatement\_in\_EMA\_west.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 23, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	46 °F	4-6 MPH	0 %
<b>End of Day</b>	12:15	66 °F	0-3 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of seven, Nature's Image.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, CALT, LEGO, AMCR, RCPA, BUSH, CASJ, RWBL, ANHU, YRWA, SOSPO, WCSP, desert cottontail, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Tailboard meeting.

0645: Crew started working in DG-4 and DG-4A, removing *Conium maculatum* (CONMAC), *Brassica nigra* (BRANIG), *Lepidium latifolium* (LEPLAT), *Lobularia maritima* (LOBMAR).

0645-1200: Monitored restoration.

1200: Crew started hauling out removed vegetation.

1215: Left site.

**Additional Comments**

N/A

**Signature**





**Nonnatives\_dug\_up\_facingNE.jpg**  
-118.17594819444444 34.19160136111111



**Nonnatives\_removed\_facingSW.jpg**  
-118.17595916666667 34.19169805555555

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 27, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
Start of Day	06:15	54 °F	0-3 MPH	100 %
End of Day	14:00	61 °F	4-6 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, irrigation.
2. Hand tools.
3. Crew of seven, Nature's Image.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, CALT, CASJ, YRWA, WCSP, CATH, HOFI, VESP, RTHA, ANHU, desert cottontail, California ground squirrel, western toad

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Tailboard meeting.

0645: Crew started working in area around their trailer, removing *Conium maculatum* (CONMAC), *Brassica nigra* (BRANIG), *Lepidium latifolium* (LEPLAT).

0900: Crew started working in northern portion of DG-4, removing CONMAC, *Hirschfeldia incana* (HIRINC), nonnative grasses (NNG), *Erodium cicutarium* (EROCIC).

1345: Crew stopped work due to rain.

1400: Left site.

**Additional Comments**

N/A

**Signature**





**Removed\_nonnatives\_facingNW.jpg**  
-118.17537970833334 34.19245258333333



**Removed\_nonnatives\_facingW.jpg**  
-118.17522917777778 34.19255680555554



Removed\_nonnatives\_facingE.jpg  
-118.17243353611111 34.19363441666666

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: December 27, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	49 °F	0-3 MPH	100 %
<b>End of Day</b>	07:15	50 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Gothic crew, east side restoration.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, AMCR, HOFI

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site.

0710: Contacted Cesar, informed me that crew was not working due to possible weather. Stated that his office notified him the prior evening that work was cancelled.

0715: Depart site.

**Additional Comments**

N/A

**Signature**



**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 28, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	46 °F	0-3 MPH	0 %
<b>End of Day</b>	14:45	60 °F	4-6 MPH	50 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives.
2. Hand tools.
3. Crew of ten, Gothic Landscape.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, RTHA, CASJ, RCPA, CALT, YRWA, WCSP, RWBL, LEGO, RCKI, desert cottontail, CA ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Tailboard meeting.

0645: Crew started working in Johnson Field, removing *Brassica nigra* (BRANIG), *Lepidium latifolium* (LEPLAT), nonnative grasses (NNG).

0645-1430: Monitored restoration.

1430: Crew finished work for the day.

1445: Left site.

**Additional Comments**

N/A

**Signature**





**Remove\_nonnatives\_facingW.jpg**  
-118.17072236111112 34.191666575



**Removed\_nonnatives\_facingS.jpg**  
-118.17084331111111 34.19152338888888

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alden Lovaas**  
**Company: ECORP**  
**Date of Log: December 28, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	47 °F	0-3 MPH	100 %
<b>End of Day</b>	14:00	60 °F	0-3 MPH	75 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement.
2. Hand tools including rakes, hoes/loop hoes, and shovels.
3. Genaro Gomez (Natures Image foreman) and Raul (Natures Image Foreman) is also on Site today. Total of 12 Natures Image workers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, COHA (coordinates: 34.192866, -118.173126), LEGO, CASJ, ACWO, ANHU, CALT, NOFL, parrot sp., CATH, HOFI, RSHW, SOSP, WCSP, desert cottontail, RTHA, western toad.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Talked with Genaro Gomez about the plan for the day. The crew will plan to work in similar area as yesterday on the north side of the west side in DG-4 and DG-4A.

0645: Crew heading to DG-4 and DG-4A to begin work. Crew using hand tools including, rakes, hoes, and loop hoes and primarily removing *Erodium cicutarium* (EROCIC), *Conium maculatum* (CONMAC), non-native grasses, and mustards.

0830: Crew taking break.

0905: Crew resuming work in the northern portions of DG-4 and DG-4A. 1055: Crew taking lunch.

1210: Crew resuming work in the northern portions of DG-4 and DG-4A.

1330: Crew taking break.

1345: Crew done removing veg for the day, beginning to clean up.

1400: Left site.

**Additional Comments**

N/A

**Signature**

Adam Lown



12-28-2022\_Natures\_Image\_Crew\_weed\_abatement\_in\_DG4\_DG4A.jpg



12-28-2022\_weed\_abatement\_in\_northern\_portion\_of\_DG-4\_DG-4A.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: December 29, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:25	50 °F	0-3 MPH	100 %
<b>End of Day</b>	14:17	58 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement in DG-W-1 Johnson Field, DG-2 and DG-2 New channels. Focus was on *Erodium cicutarium*, *Lepidium latifolium*, *Marrubium vulgare*, *Hirschfeldia incana*, Bermuda grass.
2. Hand tools.
3. Gothic; crew of nine plus Cesar Olmos (foreman).

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

WCSP, RCKI, CASJ, AMCR, BGGN, ACWO, CALT, ANHU, HOFI, RCPA, RSHA, CATH, WREN, BGGN, NOFL, CAQU, BUSH

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0625: Arrived on site. One crew member already here, waiting in their car.  
0635: Tailboard. Crew would be working in DG-W-1 Johnson Field, DG-2 and DG-2 New Channels. The focus would be to work south and pull all non-natives.  
0650: Arrived at DG-W-1 Johnson Field. Crew began working.  
0752: Crew goes to cars to wait out rain even passing through.  
0845: Crew returning to work.  
0918: Crew conducting weed abatement/fixing basins in DG-W-1 Johnson Field on slope before DG-2.  
1037: Crew is working in Johnson Field moving north.  
1145: Lunch.  
1239: Crew back from lunch.

**Additional Comments**

N/A

**Signature**





Weed\_abatment\_in\_DG-W-1\_Johnson\_Field\_facingSE.jpg



Prior\_to\_weed\_removal.jpg



After\_weed\_removal.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Alden Lovaas**  
**Company: ECORP**  
**Date of Log: December 29, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:20	51 °F	0-3 MPH	100 %
<b>End of Day</b>	13:45	55 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Weed abatement
2. Hand tools including rakes, hoes/loop hoes, and shovels.
3. Genaro Gomez (Natures Image foreman). Total of 11 Natures Image workers.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

RSHA, NOFL, SOSF, AMCR, CATH, CASJ, BEWR, HOFI, parrot sp., BEWR, CALT, ANHU, RCKI, ALHU, CAQU, KILL, WCSP, ACWO.

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0620: Arrived on site.

0630: Talked with Genaro Gomez about the plan for the day. The crew will plan to work in similar area as yesterday on the north side of the west side in DG-4 and DG-4A.

0650: Crew heading to DG-4 and DG-4A to begin work. Crew using hand tools including, rakes, hoes, and loop hoes and primarily removing *Erodium cicutarium* (EROCIC), *Conium maculatum* (CONMAC), non-native grasses, and mustards.

0720: Beginning to rain, crew taking rain break in vehicles.

0900: Crew resuming work in the northern portions of DG-4 and DG-4A.

1055: Crew taking lunch.

1200: Crew resuming work in the northern portions of DG-4 and DG-4A.

1330: Crew done removing veg for the day, beginning to clean up.

1345: Left site.

**Additional Comments**

N/A

Signature





12-29-2022\_weed\_abatement\_Natures\_Image\_Crew.jpg  
-118.172398175 34.19313758333333



12-29-2022\_weed\_abatement\_on\_west\_side.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: December 30, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:15	49 °F	0-3 MPH	100 %
<b>End of Day</b>	14:45	58 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Removing nonnatives, planting cuttings.
2. Hand tools.
3. Crew of ten, Gothic Landscape.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

AMCR, HOFI, CAQU, ACWO, CASJ, CALT, WCSP, NOMO, ANHU, KILL, SOSP, CATH, BEWR, LEGO, OATI, RTHA, desert cottontail, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0615: Arrived on site.

0630: Tailboard meeting.

0645: Crew started working in DG-2, prepping for and planting mulefat, elderberry, and willow cuttings.

0800: Crew started removing *Conium maculatum* (CONMAC), *Lepidium latifolium* (LEPLAT), *Brassica nigra* (BRANIG) from DG-2.

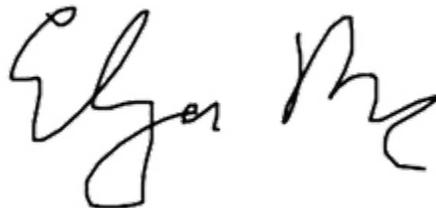
1430: Crew finished work for the day.

1445: Left site.

**Additional Comments**

N/A

**Signature**





**Cuttings\_planted\_facingE.jpg**  
-118.17211597222223 34.18981147222222



**Cuttings\_planted\_facingS.jpg**  
-118.17209361944445 34.18980562222222



**Cuttings\_planted\_facingW.jpg**  
-118.17210111111112 34.19007416666666

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carter Warwick**  
**Company: ECORP**  
**Date of Log: December 30, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:30	52 °F	0-3 MPH	100 %
<b>End of Day</b>	12:15	56 °F	0-3 MPH	100 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Natures Image crew, West side restoration

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, AMCR, CASJ, BEWR, LEGO, CATH, BUSH, HOFI, NOFL, RSHA

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0630: On site. Genaro said they were waiting for a few crew members to arrive.

0700: Tailboard.

0715: Begin work on North side removing hemlock, mustard, and pepperweed.

0735: Stop work due to rain.

0830: Crew break.

0900: Resume work in same area.

1045: Crew takes lunch.

1200: End of lunch.

1205: Genaro said crew would not be pulling anymore weeds today. They would be cleaning up the work area.

1215: Depart site.

**Additional Comments**

N/A

**Signature**





photo\_1-weed\_removal\_facingN.jpg



photo\_2-work\_area\_after\_weeding\_facingN.jpg



# Adaptive Management Report for the Invasive Shot Hole Borer Tree Removal

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## Devil's Gate Reservoir Restoration Project

City of Pasadena  
Los Angeles County, California

### **Prepared for:**

Los Angeles County Department of Public Works  
900 South Fremont Avenue  
Alhambra, CA 91803  
Contact: Mr. Keith Hala

### **Prepared by:**

ECORP Consulting, Inc.  
2861 Pullman Street  
Santa Ana, California 92705  
Contact: Ms. Carley (Lancaster) Adams

January 10, 2023



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- Appendix A – Final ISHB Report for Devil’s Gate Reservoir Restoration Project
- Appendix B – Preconstruction Bat Survey Report
- Appendix C – ISHB Monitoring Logs

**LIST OF ACRONYMS AND ABBREVIATIONS**

CDFW	California Department of Fish and Wildlife
HRP	Habitat Restoration Plan
ACWM	Los Angeles County Agricultural Commissioner/Weights and Measures
LACFCD	Los Angeles County Flood Control District
LACPW	Los Angeles County Department of Public Works
LSAA	Lake and Streambed Alteration Agreement
N/A	Not Applicable
PMA	Permanent Maintenance Area
Project	Devil's Gate Reservoir Restoration Project

## 1.0 INTRODUCTION

The Los Angeles County Public Works (LACPW) has completed the removal of the trees located within the mitigation areas for the Devil's Gate Reservoir Restoration Project (Project) that were identified as being infested with the invasive short hole borer (ISHB). The purpose of this report is to document the results of the ISHB tree removal and to discuss the adaptive management techniques that will be implemented moving forward.

### 1.1 ISHB Project Purpose

The purpose of the removal of the trees infested with ISHB was to eliminate the beetle-infested material from the mitigation areas and to minimize the spread of this invasive beetle species. Only larger existing trees in the mitigation areas that were dead or in a condition unlikely to recover were removed and none of the container plants or stakes that were installed as part of the habitat restoration implementation effort were included in the removal effort as they did not show any signs of infestation.

### 1.2 Project Description

The Project, which includes an initial removal of 1.7 million cubic yards (cy) of sediment to establish a Permanent Maintenance Area (PMA), will restore flood capacity and establish a reservoir management system to maintain the flood control capacity of the reservoir. Subsequently, annual maintenance and episodic maintenance will be conducted in the established PMA to remove accumulated sediment and to ensure continued flood control capacity. Initial sediment removal in the reservoir was completed in 2021 and the annual maintenance within the reservoir was initiated in September 2022. Annual maintenance within the reservoir for 2022 was completed on October 30, 2022.

Habitat restoration for the Project is being implemented in the mitigation areas to comply with the compensatory mitigation requirements in Conditions 3.1, 3.2, and 3.5 of the Lake or Streambed Alteration Agreement (LSAA) (Notification No. 1600-2015-0263-R5 dated March 21, 2017 and Amendment dated July 17, 2018) executed between the California Department of Fish and Wildlife (CDFW) and the Los Angeles County Flood Control District (LACFCD). Implementation of habitat mitigation was conducted according to the Final Habitat Restoration Plan (HRP) for the Project (dated November 2018) which addresses the impact areas associated with the Project and the on-site compensatory mitigation areas at the Project site (ECORP 2018). According to the HRP, onsite compensatory mitigation will include the creation, restoration, and enhancement of native habitats with the purpose of providing quality habitat for an abundance of wildlife including the least Bell's vireo (*Vireo bellii pusillus*), which is listed as endangered under the Federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) (CDFW 2018).

### 1.3 Background Information

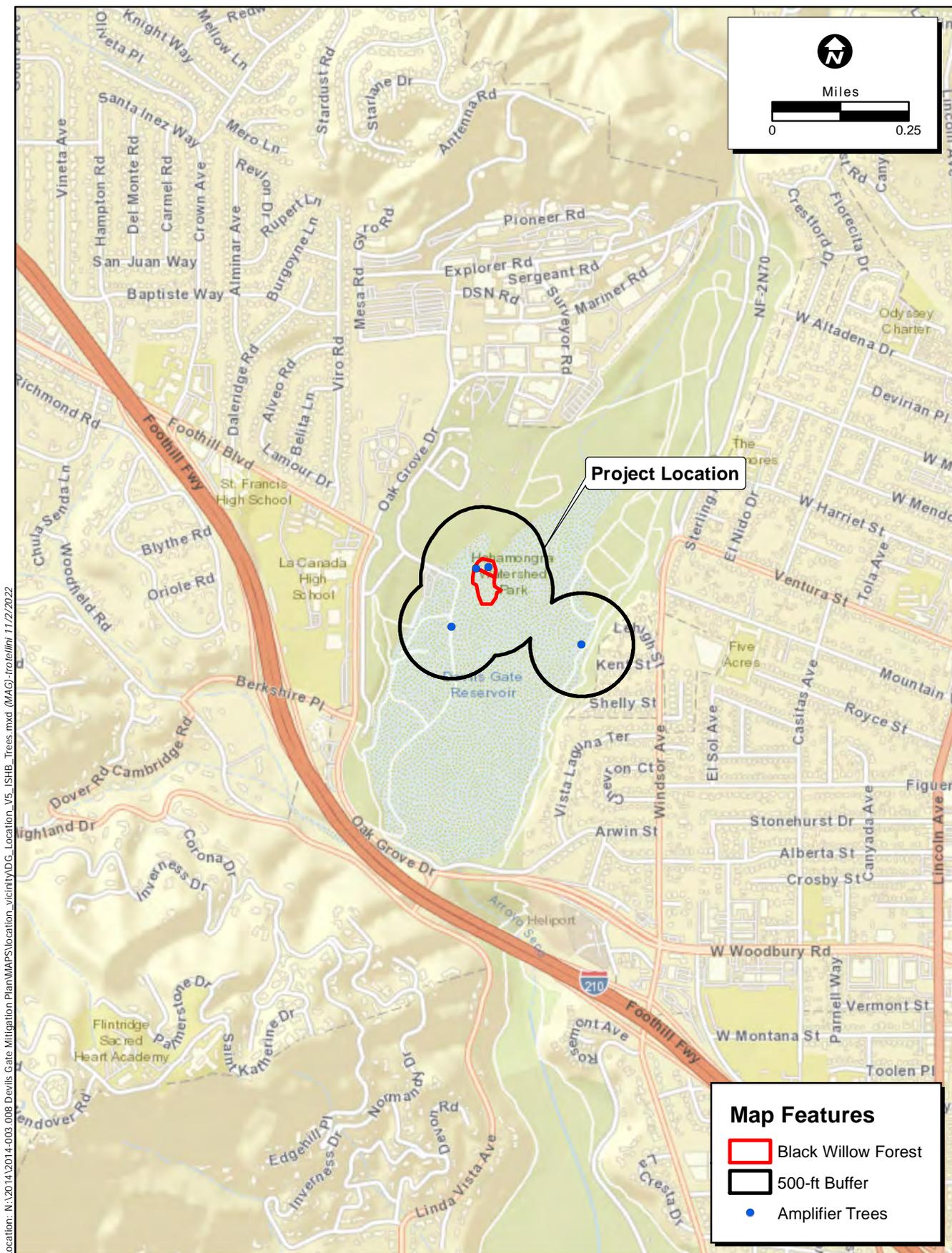
In the summer of 2021, the mitigation areas for the Project were surveyed by the Los Angeles County Agricultural Commissioner/Weights and Measures (ACWM) to identify trees infested with ISHB following public concern for the health of the trees in the DG-W-2 (Mining Pit) mitigation area. During the survey,

the ACWM identified six trees that were heavily or severely infested with ISHB (amplifier trees) including three Fremont’s cottonwoods (*Populus fremontii*) and two black willows (*Salix gooddingii*) that were identified as needing to be removed and one Fremont’s cottonwood that was identified as needing to be trimmed to remove infested branches. In addition, 1,092 black willows with low to moderate infestation were identified as needing to be removed or trimmed. The infested trees were found in the DG-4, DG-4 WOUS Connections, DG-W-2 (Mining Pit), and DG-W-1 (Johnson Field) mitigation areas. The methods and results of the survey conducted by ACWM can be found in the Final ISHB Report for Devil’s Gate Reservoir Restoration Project prepared by the ACWM and dated December 1, 2021 (ACWM 2021). This report is included as Appendix A to this report. It should be noted that the areas defined as Black Willow Forest North and Black Willow Forest South (collectively Black Willow Forest) in the ACWM report encompass the DG-W-2 (Mining Pit) and DG-4 WOUS mitigation areas.

## 1.4 Project Location

The Project is located in the City of Pasadena (City) in Los Angeles County on the Pasadena United States Geological Survey (USGS) California 7.5' topographic quadrangle (Figure 1). More specifically, the Project is located within the upper portion of the Arroyo Seco Watershed within the City’s Hahamongna Watershed Park (Figure 2). The Project site is located along an approximately 4,754-foot linear section of the Arroyo Seco drainage and alluvial fan, which is an area subject to change and disturbance due to erosion, runoff, and sediment movement. The elevation of the Project site ranges from approximately 985-feet above mean sea level (msl) behind the dam, to approximately 1,100-feet above msl at the northern end of the project.





Location: N:\2014\2014-003\_008 Devils Gate Mitigation Plan\MAPS\location\_vicinity\DG\_Location\_V5\_ISHB\_Trees.mxd (MAG) (role/lin) 11/2/2022

Map Date: 11/2/2022  
Source: ESRI

Figure 2. Project Location

## 2.0 PRE-CONSTRUCTION BAT SURVEY

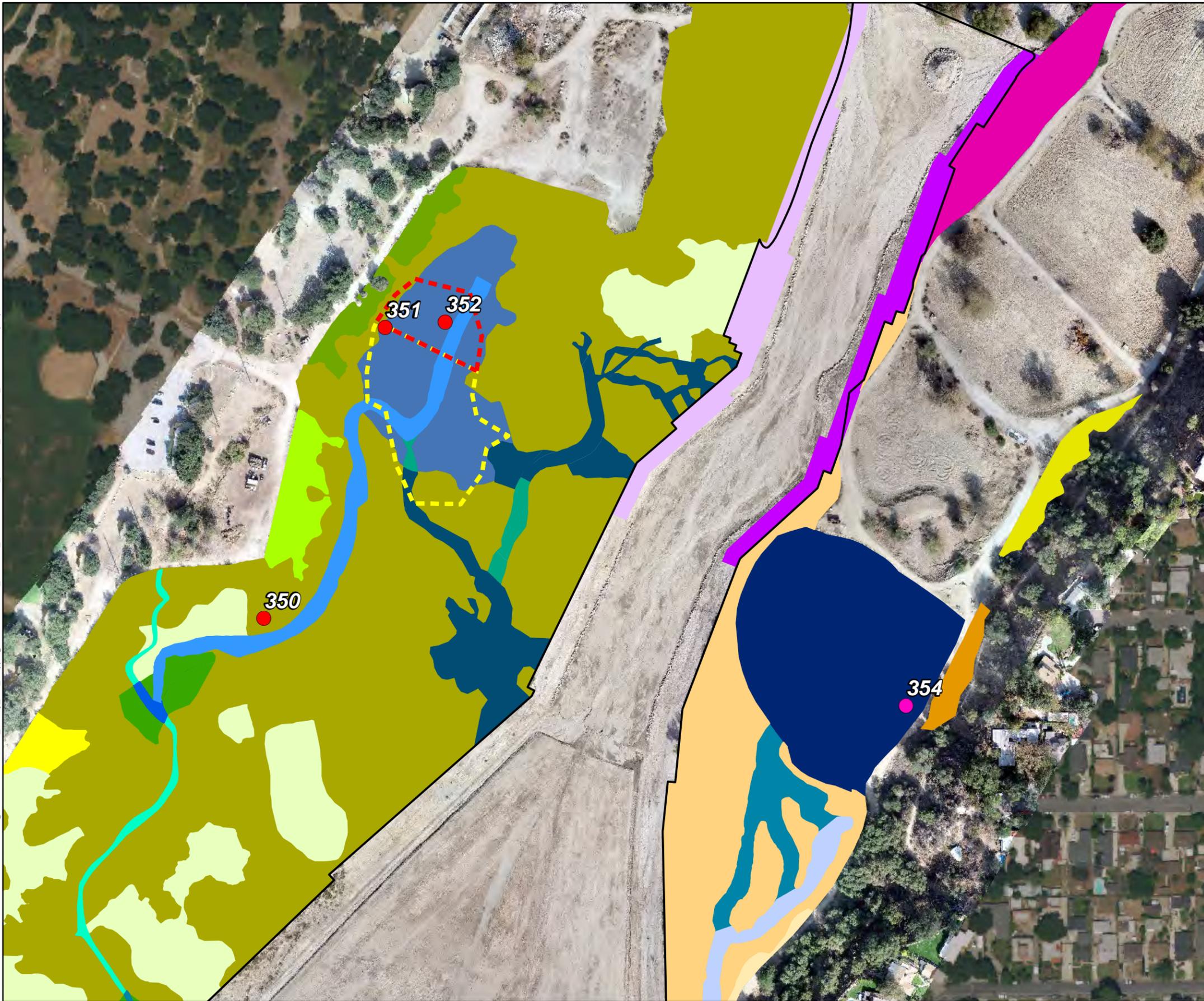
Prior to commencing tree removal activities, a preconstruction bat survey was conducted for the trees identified by ACWM for removal and trimming. The preconstruction bat survey included one daytime survey (habitat assessment) to identify any infested trees with potentially suitable bat roosting habitat and one nighttime survey for the six amplifier trees to determine presence/absence of bat species. The daytime survey was conducted by ECORP Consulting, Inc. (ECORP) biologists Lauren Simpson and Corrina Tapia on October 5, 2022. During the daytime survey, a total of 21 trees, including one amplifier tree and 20 trees with low to moderate infestation, were determined to provide suitable bat roosting habitat due to presence of exfoliating bark, crevices, and/or woodpecker cavities. During the survey, the location of each of these trees was marked using a Global Positioning System (GPS). Following the daytime survey, one nighttime emergence and acoustic survey was conducted by ECORP biologists Lauren Simpson, Corrina Tapia, and Alden Lovaas on October 10, 2022, for the one amplifier tree determined to provide suitable roosting habitat. During the nighttime survey, no bats were observed emerging from the amplifier tree. The remaining 20 trees with suitable roosting habitat and a low to moderate ISHB infestation were flagged with Environmentally Sensitive Area (ESA) flagging and were avoided during removal activities. The methods and results of the bat survey can be found in the Preconstruction Bat Survey Report for the Devil's Gate Reservoir Restoration Project dated December 2022 (ECORP 2022). This report is included as Appendix B to this report.

## 3.0 SUMMARY OF BIOLOGICAL MONITORING

ISHB tree removal was conducted by Panamerican on October 19, 20, and 24, 2022. Biological monitoring during this time was conducted by ECORP biologists Joshua Harris, Carley Adams, and Eliza McLean. At the end of each day, a monitoring log was completed documenting work activities that took place (Appendix C). Prior to commencement of tree removal, ACWM walked the Project mitigation areas and flagged all of the amplifier trees identified during the survey as needing to be removed or trimmed, including three Fremont's cottonwoods within DG-4, two black willows within DG-W-2 (Mining Pit), and one Fremont's cottonwood within DG-W-1 (Johnson Field). In addition, trees with low to moderate infestation within the Black Willow Forest that were dead or in a condition unlikely to survey survive were marked for removal with white spray paint by ACWM to aid Panamerican and ECORP in the tree removal effort. Figure 3 shows the location of all the amplifier trees and whether they were removed or trimmed. Figure 3 also shows the location of the Black Willow Forest in relation to the Project mitigation areas where additional black willows with low to moderate levels of infestation were removed.

Tree removal was accomplished by one worker felling trees using a chainsaw and the remaining crew members hauling the felled trees out by hand. Prior to felling each tree, ECORP biologists and the Panamerican crew collaborated on which direction of felling would minimize impacts to plantings. Crew members hauling trees out by hand used predetermined access paths or previously disturbed paths that were approved by ECORP biologists. Trees removed from the mitigation area were brought to and put through a woodchipper staged near the Hahamongna Watershed Park parking lot. Removed trees were chipped down to 1 inch and spread along a clear plastic tarp and covered with an additional clear plastic tarp to commence the solarization process.

ECORP: N:\2014\2014-003\_008 Devils Gate Mitigation Plan\MapSeries\_survey\_and\_mapping\Preconstruction\_2022\DG\_Preconstruction\_Removal\_ISHB\_Trees\_20230103.mxd (TR):rolelmi 1/5/2023



**Map Features**

- Final Design Boundary
- Black Willow Forest North
- Black Willow Forest South

**Amplifier Trees**

- Removed
- Trimmed

**Mitigation Areas**

- DG-1
- DG-2
- DG-2 New Channels
- DG-2 WOUS
- DG-2A
- DG-4
- DG-4 Drainage
- DG-4 Sheetflow
- DG-4 WOUS
- DG-4 WOUS Connections
- DG-4A
- DG-4B
- DG-4C
- DG-5
- DG-7 (Temp Impacts)
- DG-8 (Temp Impacts)
- DG-East Trail 3
- DG-East Trail 4
- DG-SF-1
- DG-SF-2
- DG-W-1 (Johnson Field)
- DG-W-2 (Mining Pit)
- DG-W-2 (Mining Pit Outlet)

Sources: NAIP (2020), ECORP Remote Sensing Imagery (2022)  
Other Related Info if Needed



Logs were placed on top of the tarp to avoid spread of chipped trees and vandalism. The tarps will remain in place for a period of at least six months in an effort to kill any remaining ISHB beetles and larvae and will be removed only after confirmation is received from ACWM.

A total of 163 ISHB infested trees were removed from the mitigation areas in DG-4, DG-4 WOUS, and DG-W-2 (Mining Pit) including five amplifier trees and 158 trees with low to moderate infestation that were dead or in a condition unlikely to recover. One amplifier tree located within DG-W-1 (Johnson Field) was trimmed of infested branches. The number of removed trees differed significantly from the number identified during the survey conducted by ACWM in the summer of 2021 due to the fact that many of the black willows in the Black Willow Forest had fallen over on their own between the time of the survey conducted by ACWM and when removal took place. Trees and limbs that had fallen over on their own prior to the removal effort were generally left in place for wildlife habitat at the direction of ACWM due to the fact that these trees and limbs were determined to have a low potential of still being infested. In addition, safety concerns prevented trimming unstable trees in the Black Willow Forest. Lastly, 20 trees that were determined to provide suitable bat habitat during the pre-construction bat survey were avoided during removal activities.

#### 4.0 ADAPTIVE MANAGEMENT

ECORP will continue to monitor the remaining trees in the mitigation areas for any signs of additional infestation or dieback. In addition, ECORP will monitor the tarped woodchips on a regular basis during the six-month solarization period to address any damages to the tarp that may need to be repaired. ECORP will continue to work with the ACWM to collaborate on adaptive management techniques and any additional removal that may be required in the future. If necessary, ECORP will work with the ACWM to coordinate deploying ISHB traps within the restoration areas to confirm presence or absence. If issues with ISHB infestation continue, host trees may need to be excluded from the planting palette for future phases of restoration.

#### 5.0 CONCLUSION

A total of 163 trees were felled (including five amplifier trees) and one tree was trimmed of infested branches. Removal of ISHB trees was successful and to the extent possible avoided impacts to existing plantings within the mitigation areas. Infested trees that were removed were chipped down to one inch for solarization and will continued to be monitored for the six-month period to address any damages to the tarp. The mitigation areas for the Project will continue to be monitored for additional signs of infestation and additional tree removal in the future may be warranted. ECORP will continue to work with the ACWM to collaborate on adaptive management techniques that may need to be implemented.

## 6.0 REFERENCES

- California Department of Fish and Wildlife [CDFW]. 2018. Amendment of Lake or Streambed Alteration Agreement for the Devil's Gate Sediment Removal and Management Project (Notification No. 1600-2015-0263-R5). Permittee: Los Angeles County Department of Public Works. July 17, 2018.
- CDFW. 2017. Lake or Streambed Alteration Agreement for the Devil's Gate Sediment Removal and Management Project (Notification No. 1600-2015-0263-R5). Permittee: Los Angeles County Department of Public Works. March 21, 2017.
- ECORP Consulting, Inc [ECORP]. 2018. *Devil's Gate Sediment Removal and Management Project Final Habitat Restoration Plan*.
- ECORP. 2022. *Preconstruction Bat Survey Report for the Devil's Gate Reservoir Restoration Project*.
- Los Angeles County Agricultural Commissioner/Weights and Measures. 2021. *Final ISHB Report for Devil's Gate Reservoir Restoration Project*.

## **LIST OF APPENDICES**

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Appendix A – Final ISHB Report for Devil’s Gate Reservoir Restoration Project

Appendix B – Preconstruction Bat Survey Report

Appendix C – ISHB Monitoring Logs

Final ISHB Report for Devil's Gate Reservoir Restoration Project

December 1, 2021

Prepared for the Los Angeles County Public Works

Prepared by Rachel Burnap and Fayek Girgis, Los Angeles County Agricultural Commissioner/Weights and Measures (ACWM)

## Final ISHB Report for Devil's Gate Reservoir Restoration Project

### Background

In the summer of 2021, large areas of black willow dieback were noticed by the general public and by ECORP Consulting during monitoring visits. ECORP Consulting inspected the trees and noticed signs of Invasive Shothole Borer infestation. ECORP then notified the Los Angeles County ACWM.

### Methods

During the months of September, October, and November 2021, Inspectors Burnap and Girgis assessed thousands of trees for infestation and damage caused by the Polyphagous and/or Kuroshio bark beetles (collectively known as Invasive Shothole Borers or ISHB). The entire area shown in the Devil's Gate Mitigation Areas 20210723 shapefile was gridded, including both the east and west area of the reservoir. Every known tree host species for ISHB and any tree that exhibited severe dieback or found dead was examined. The primary tree species examined included black willows (*Salix nigra*), Fremont cottonwoods (*Populus fremontii*), a few sycamore hybrids (*Platanus* spp.), and a box elder (*Acer negundo*).

Each tree was examined for active ISHB entry holes. Trees that had heavy to severe infestations (150 active entry holes and/or over 30% canopy dieback) were tagged and labeled to remove. These trees were found in the central area on the western side of the reservoir (See Maps 1 and 2). Trees where the active infestation or dieback was compartmentalized in a few branches were marked to be trimmed. Trees with moderate infestations were marked with GPS to monitor.

Dead trees located roughly in the area named DG-W-2 (named Black Willow Forest 1 for the purpose of this report) were also inspected. The number of trees to remove or be trimmed in this area was determined by marking the parameter of forest area by GPS, then determining the dead or trim tree density in a 5,000 sq. ft. area within it. The forest dead/trim tree density was observed to be spatially different, so this was delineated, and the forest area was divided into two sections, North and South (See Map 3). The southern section consisted of 60,399 sq. ft. with a density of 45 dead/trim trees per 5,000 sq. ft. area. The northern section consisted of 23,145 sq. ft. with a density of 120 dead/trim trees per 5,000 sq. ft. area.

All trees to remove or be trimmed were identified with a metal tree tag. Baseline data was collected for all tagged trees. This included a GPS point, tree height, tree Diameter at Breast Height (DBH), level of infestation, and level of dieback. Pictures were also taken. Ten wood samples were taken from the area to test for fusarium fungus. The fusarium samples were submitted through the Los Angeles County ACWM Plant Pathology Laboratory to the California Department of Food and Agriculture. One live beetle was found in an infested tree and sent to the Los Angeles County entomologist, Dr. Arakelian. He identified it as a Polyphagous Shothole Borer.

Active entry holes were determined by visual assessment and showed recent staining, and/or frass, with a clearly defined borders and a dark fusarium ring that continued through the bark and cambium layer into the sapwood. Inactive entry holes, as indicated by compartmentalization, had entry holes and fusarium that disappeared after scraping off the bark. These inactive entry holes were not counted but indicated that

the tree may be recovering. Black willows and cottonwoods were difficult to examine due to the thick bark and required careful and thorough examination.

The estimated number of active beetle entry holes determined the tree's level of infestation<sup>1</sup> (Low: 1-50, Moderate: 50-150, Heavy: over 150, and Severe/Amplifier: over 150 plus crown dieback). Levels of crown dieback included Low (1-20%), Moderate (21-30%), Heavy (over 30%), and Dead.

## **Discussion**

Much of the Mitigation Area had little to no active infestation. However, infestations were not confined to any one area. A low to moderate active ISHB infestation was discovered throughout the Mitigation Area with 5 trees heavily or severely infested, 1 cottonwood to be trimmed, 11 trees to monitor, and 1,092 trees to be removed or trimmed in the Black Willow Forest 1 (See Photograph 1 and Table 1 in Recommendations).

Black Willow Forest 1 consisted of small diameter (approximately 4" to 10" DBH) black willows with varying degrees of dieback. Many, but not all, dead black willows in Forest 1 exhibited a low to moderate infestation, showing that the tree died from something other than fusarium dieback. Larger diameter (approximately 12" DBH and above) willows were also found infested, often with a higher infestation level than the small diameter trees. In this area, two severely infested (amplifier) willows were identified and tagged to be removed. Bot rot (a bacterial disease caused by *Botryosphaeria*) was also observed in this area in dead trees. Spread through rain and wind, bot rot infects stressed trees and can quickly cause tree mortality. Non-infested dead trees in this area will also be removed due to concern of fire in the urban wildland interface (See Photographs 2-3).

The fusarium seemed dry in many cases throughout the mitigation area, leading to the question if drought had slowed and/or prevented beetle reproduction since the fusarium fungus requires moisture to grow and is the beetle's sole source of food. This leads to the hypothesis that perhaps beetle infestation will increase once moisture is restored to the trees. Research on the Kuroshio ISHB infestation in the Tijuana River suggests that irrigated trees are more susceptible to infestation; however, there are other cases where non-irrigated trees are also severely infested, so this hypothesis continues to be debated<sup>2</sup>.

An infested amplifier sycamore tree was discovered in the City of Pasadena Hahamonga Watershed Park parking lot, west of the mitigation area. Kenny Graham, the City of Pasadena Forester, was contacted. The city is already actively removing ISHB infested amplifier trees and taking the correct actions to prevent ISHB spread.

## **Recommendations**

Removal of the 5 heavy and severely infested trees will prevent these trees from spreading the infestation. Trimming the infested cottonwood will help this tree continue to recover from a past heavy infestation and help protect park visitors from large falling limbs (See Photograph 4). Non-infested dead trees in the Black Willow Forest will also be removed due to concern of fire in the urban wildland interface. Trees in this area will also be trimmed as needed.

All tree material should be treated as infested on site to ensure that all beetles are killed. Wood should be chipped down to 1", covered with thick clear plastic, and left in place to solarize in the sun. Current

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<sup>1</sup> As recommended by the University of California Agriculture and Natural Resources Cooperative Extension.

<sup>2</sup> Dr. Bea Nibua-Behrmann, personal correspondence, August 12, 2021.

recommendations can be found at [www.ishb.org](http://www.ishb.org). Pile location/s should be chosen carefully to avoid damaging the native plants.

Monitoring of the infestation will be key to preserving tree diversity in this area. While only 9 trees were marked specifically, the entire mitigation area should be examined every 6 months to at least every year. The few sycamores, cottonwoods, and lone box elder should be particularly monitored. A list of reproductive host species, and pictures of ISHB infestation can be found at [www.ishb.org](http://www.ishb.org).

ISHB traps deployed in the restoration area during the appropriate months will make monitoring easier. Traps should be placed between trees and not out in the open, for example, between a healthy and an infested tree. Traps should not be placed in a completely non-infested area since this could draw ISHB to healthy trees. An example of riparian trap deployment can be found in the Early Detection Rapid Response Plan LA County SMMNRA 2019 Exhibit A: Trapping Protocols<sup>3</sup>.

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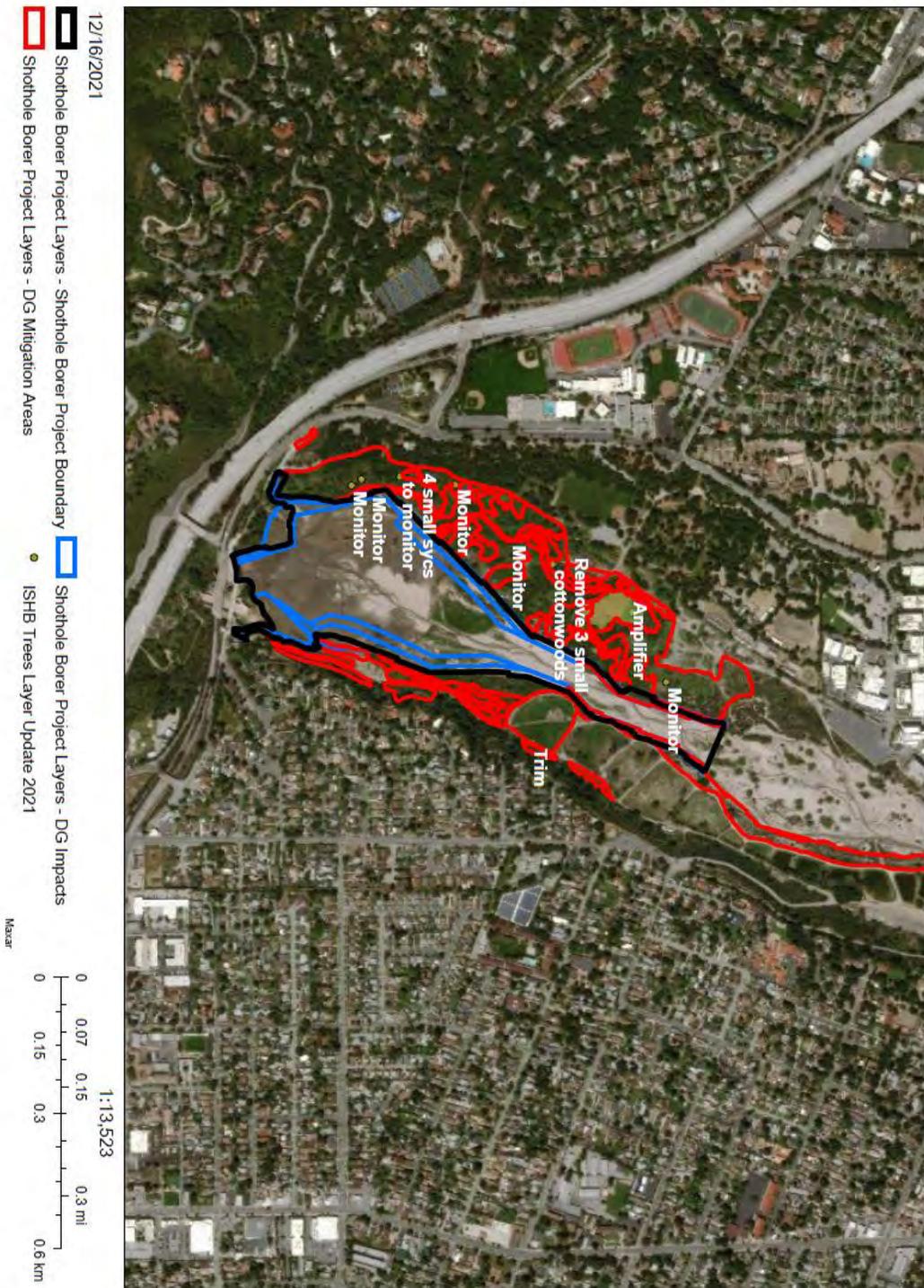
<sup>3</sup> Found at <https://www.rcdscmm.org/wp-content/uploads/2019/12/EARLY-DETECTION-RAPID-RESPONSE-PLAN-LA-County-SMMNRA-2019.pdf>

Table 1. Tree Information with associated Pest and Damage Records

Note GPS location of each tree.

Tree Tag Number	Action to Take	Pest and Damage Record Number	Infestation Level	Latitude/Longitude	Notes
350	Remove 3 infested Fremont cottonwoods	19TP50001069 19TP50001239	Heavy	-118.1752299 34.1916586	Tree #1-10" DBH 40 ft tall >30% dieback Tree #2- 5" DBH 15 ft tall 20-30% dieback Tree #3- 11" DBH 30ft tall 20% dieback
351	Remove 1 black willow	19TP50001366	Amplifier	-118.1744484 34.19321886	6" DBH, 40 ft. tall, >30% dieback
352	Remove 1 black willow	19TP50001362	Amplifier	-118.1740602 34.19324788	9" DBH, 40 ft. tall, >30% dieback
Black Willow Forest 1-North	Remove and/or trim dead tops off approximately 552 trees	19TP50001364 19TP50001363 Taken from this area	Variable	Near -118.1740565 34.1930594	Black willows DBH roughly ranging from 4" to 10". Height ranges roughly from 20' to 35'.
Black Willow Forest 1-South	Remove and/or trim dead tops off approximately 540 trees	19TP50001238 19TP50001236 19TP50001237 Taken from this area	Variable	Near -118.1740565 34.1930594	Black willows DBH roughly ranging from 4" to 10". Height ranges roughly from 20' to 35'.
354	Trim large dead branches off cottonwood		Past heavy infestation	-118.170929 34.19125	24" DBH, 40 ft. tall, 20-30% dieback
No tag	Monitor black willow		Moderate	-118.1723905 34.19392	13" DBH, 30 ft. tall
No tag	Monitor black willow		Moderate	-118.1758144 34.19083	22" DBH, 45 ft. tall
No tag	Monitor black willow		Moderate	-118.1771497 34.18973	9" DBH, 25 ft. tall
No tag	Monitor black willow		Moderate	-118.1769705 34.18804	
No tag	Monitor 2 black willows		Moderate	-118.1772683 34.18786	
No tag	Monitor 4 small sycamores		Moderate	-118.1773353 34.18863	
No tag	Monitor large sycamore		Moderate	-118.1771122 34.18767	27" DBH, 55 ft. tall
<b>TOTALS</b>	Remove 5 infested trees		Trim 1 large cottonwood		
	Remove/trim 992 small DBH willows in Black Willow Forest 1		Specifically monitor 11 trees		

# Devil's Gate-Overview



Map 1. Devil's Gate Restoration Project Overview Map with Project Boundaries. Note the green area marked with an Amplifier tree is the Black Willow Forest 1.

## Devil's Gate-Overview



12/16/2021

Map 2. Devil's Gate Restoration Project Overview Map without Project Boundaries. Note that there is an unseen Amplifier near the marked one in the light/dark green area.



Map 3. Overview of Black Willow Forest 1. North and South sections delineated according to dead/trim tree density. Note location of two amplifier trees within area.



Photograph 1. This larger DBH black willow had a low ISHB infestation. It was found in the Black Willow Forest 1. A wood sample was taken and sent to the CDFA for analysis. The dark fusarium fungus can be seen in the tree's sapwood.



Photograph 2. View of the Black Willow Forest 1 looking north. Note numerous small, dead willows.



Photograph 3. View looking up into the canopy of the Black Willow Forest 1. Note numerous dead trees but also trees that experienced canopy dieback in the upper portions.



Photograph 4. This Fremont cottonwood experienced canopy dieback and limb loss due to a heavy ISHB infestation. Note large branches on the ground. The tree is now in recovery. Trimming off dead branches will help its recovery and help protect park users visiting this trail.

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**APPENDIX B**

Preconstruction Bat Survey Report

# **Preconstruction Bat Survey Report for the Devil's Gate Reservoir Restoration Project**

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**City of Pasadena, California**

**Prepared For:**

Los Angeles County Public Works  
Stormwater Engineering Division  
900 S. Fremont Avenue  
Alhambra, CA 91803-1331

**Prepared By:**



2861 Pullman Street  
Santa Ana, California 92705

**December 2022**

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## **1.0 INTRODUCTION**

On behalf of Los Angeles County Public Works (LACPW), ECORP Consulting, Inc. (ECORP) conducted a preconstruction bat survey for the Devil's Gate Reservoir Restoration Project (Project) located in the City of Pasadena, Los Angeles County, California. The survey was conducted at trees that had previously been identified by the Los Angeles Agricultural Commissioner as being infested with Invasive Shothole Borers (ISHB). These trees are scheduled for trimming or removal to reduce the spread of ISHB throughout the site. The surveys were conducted to comply with Condition 2.14a of the Streambed Alteration Agreement (SAA; Notification No. 1600-2015-0263-R5) (CDFW 2017) for the Project, which states:

"No less than 30 days before scheduled Initial Vegetation Removal and structure removal Permittee shall have the Designated Biologist approved by CDFW, specifically for bats, conduct a preconstruction reconnaissance survey to identify those trees and/or structures proposed for disturbance that could provide hibernacula, roosting, or nursery colony habitat for bats."

Three bat species were also included as protected species under the SAA: pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), and western yellow bat (*Lasiurus xanthinus*). The surveys were also conducted to comply with Condition 2.10 of the SAA which states:

"The Permittee shall have a Designated Biologist survey the proposed work area to verify the presence or absence of protected species. The results of these surveys shall be provided to CDFW, along with copies of all field notes, prior to Project Initiation."

In addition, the surveys were conducted to comply with Mitigation Measure BIO-5 (MM-BIO-5) of the Final Environmental Impact Report (ECORP 2017) for the Project which states:

"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."

Finally, the surveys were conducted to comply with Best Management Practice G2 of the Clean Water Act Section 401 Water Quality Certification (4WQC40115053) (LARWQCB 2018) which states:

"Within 30 days prior to commencement of vegetation or sediment removal activities, a preconstruction bat survey shall be conducted by a qualified biologist for the presence of any roosting bats. If either a maternity roost or hibernacula (structures used by bats for hibernation) is 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 nonbreeding bat, establishment of avoidance buffers, or replacement of roosts at a suitable location."

The purpose of the preconstruction bat surveys was to identify and assess potential roosting habitat in the trees identified as infested by ISHB and scheduled for trimming or removal (hereafter “study area”). This report documents the results of the preconstruction bat surveys.

## 1.1 Site Description

The Project is located within the City of Pasadena in the upper portion of the Arroyo Seco Watershed and within the City’s Hahamongna Watershed Park. Downtown Los Angeles is approximately 14 miles to the south of the Project, the San Gabriel Mountains are located just north of the Project, and the City of La Cañada Flintridge and the unincorporated community of Altadena are located to the west and east, respectively (Figure 1. Project Vicinity, Figure 2. Project Location). The Project is located within the “Pasadena, California” 7.5-minute quadrangle (U.S. Geological Survey [USGS] 2015).

The topography in the vicinity of the Project consists of rolling terrain with a decline into the Arroyo Seco basin. The San Gabriel Mountains are located to the north of the Project and are characterized by both the foothills and steep slopes associated with mountainous terrain. Vegetation within the study area is primarily composed of black willow thickets (*Salix gooddingii* Woodland Alliance) and mulefat thickets (*Baccharis salicifolia* Shrubland Alliance).

## 1.2 Bat Natural History

There are 25 bat species known to occur in California, 23 of which are known to occur in the south coast ecoregion of the state that includes the Project site. Factors such as habitat loss, roost disturbance, light and noise pollution, and human disturbance are among the factors causing declines in bat populations throughout California (Johnston et al. 2019).

The term *roost* refers to locations or structures (natural or artificial) that house bats. Roosts provide protection from predators and the external environment, as well as provide sites where social groups can congregate. Roosts can provide shelter for individuals or large colonies of bats. Day roosts are locations that provide routine protection and shelter for bats during their inactive daylight hours. Day roosts that are used seasonally by a colony of female bats to give birth to, nurse, and rear young are known as maternity roosts. Day roosts may also be used by hibernating bats in the winter where bats enter torpor (a condition of dramatically lowered metabolism) for extended periods of time; these roosts are known as hibernacula. Day roosts may also provide temporary refuge for groups of migratory bat species, which often includes large groups of bats stopping over in the spring or fall. Night roosts are structural features that provide shelter for bats to rest and digest food that has been captured throughout the night in between foraging sessions; and are therefore often located in or adjacent to a foraging area. A given roost location may serve as any combination of roost types (i.e., day and night roost, maternity roost, and hibernacula).

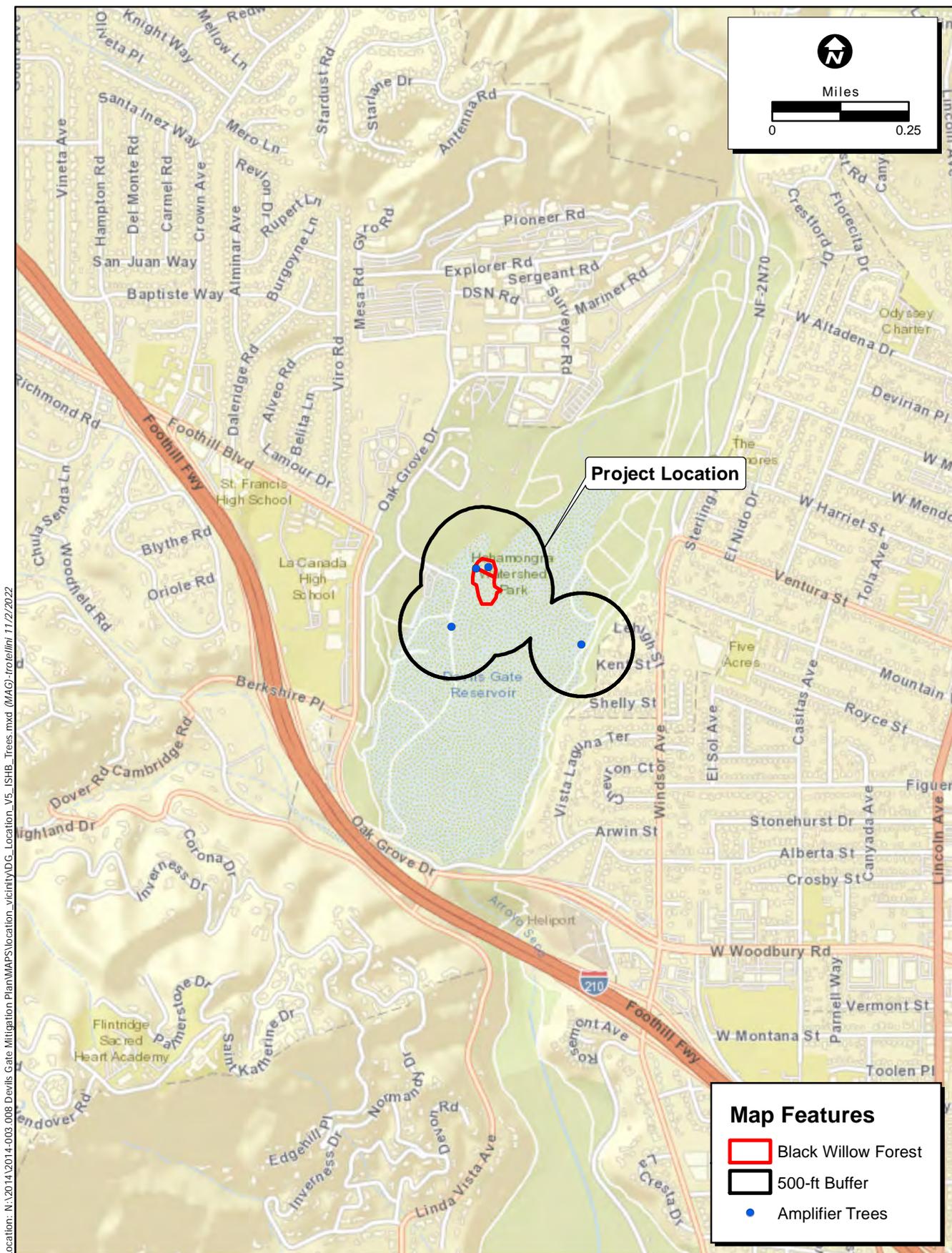
The term *colony* refers to a group of bats inhabiting a given roost. Maternity colonies in California can range from tens to thousands of individual bats from one or more species, and typically are formed in the spring and disbanded in the fall. Maternity season is defined in the SAA as approximately March 1 to September 30. Migration may overlap portions of maternity season and winter. Some species in California have both resident and migratory populations.



Location: N:\2011\14-003\_008 Devils Gate Mitigation Plan\MAPS\location\_vicinity\_v5.mxd (MAG/TR)-fretellini\_8/2/2022

Map Date: 8/2/2022  
 Service Layer Credits: Sources: Esri, USGS, NOAA

**Figure 1. Project Vicinity**



Location: N:\2014\2014-003\_008 Devils Gate Mitigation Plan\MAPS\location\_vicinity\DG\_Location\_V5\_USHB\_Trees.mxd (MAG) (rtrcl) 11/2/2022

Map Date: 11/2/2022  
Source: ESRI

Figure 2. Project Location

### 1.2.1 Tree Roosts

North American bat species are known to use a variety of roosts, including trees (Zeiner et al. 2001). Tree-roosting bats include those species that roost within foliage and species that roost under exfoliating bark or in the cavities of snags and trees (Vonhof and Barclay 1996; Brigham et al. 1997; Ormsbee and McComb 1998; Rabe et al. 1998). Several studies on tree-roosting bat species have demonstrated the importance of large diameter, tall trees or snags as roosting sites, especially those in more open areas of upland habitat near water sources (e.g., Kurta et al. 1993; Vonhof and Barclay 1996; Brigham et al. 1997; Ormsbee and McComb 1998; Rabe et al. 1998; Jachowski et al. 2016). Tree species and state of decay determine the type of roost features available (e.g., number of natural cavities, amount of peeling bark, presence of woodpecker holes, heart rot).

Colony size at a given tree roost location may be limited by cavity size, affecting both the nature of social interactions and the potential for thermoregulation by clustering (Kurta 1986; Willis et al. 2006). Tree cavities can be occupied by a single bat (typically males and nonreproductive females) or many bats (maternity colonies). Maternity colonies in tree roosts consist of reproductive females in the tens or hundreds. Tree-roosting bats frequently switch roosts for a variety of reasons, including decreasing commuting costs to foraging areas, seeking out alternate microclimates, avoiding predation, and reducing parasite exposure (Lewis 1995).

In southern California, 15 bat species have been documented roosting in trees (Johnston et al. 2019). Tree roosting bat species that are considered Species of Special Concern (SSC) by CDFW and are known to occur in the region include Townsend's big eared bat (*Corynorhinus townsendii*), western red bat (*Lasiurus blossevilli*), and pallid bat.

## 2.0 METHODOLOGY

### 2.1 Bat Habitat Assessment

ECORP biologists conducted a bat habitat assessment of the study area to determine the potential for the presence of roosting bats. The biologists investigated all potential habitat areas within the study area that may be suitable for or are currently occupied by roosting bats. The biologists examined any trees with cavities, exfoliating bark, bark with deep furrows, or woodpecker holes, and any other potential bat habitat for the presence of bats (visually or audible chatter) or bat sign (guano, culled insect parts, urine staining, etc.). A Global Positioning System (GPS) point was recorded at all trees determined to provide suitable roosting habitat. Binoculars and flashlights were used to assist with the visual assessment. Photographs were taken of each tree identified as potential roosting habitat.

### 2.2 Nighttime Emergence and Acoustic Surveys

#### 2.2.1 Nighttime Surveys

Following the habitat assessment, an evening survey including emergence counts and acoustic monitoring was conducted at one tree identified as suitable roosting habitat. The emergence survey began approximately 15 minutes before sunset and continued until approximately one hour after sunset.

Observers equipped with tally meters, hand-held acoustic bat detectors (Echometer Touch 2 Pro, Pettersson U384), and night-vision goggles (AN/PVS-7) were deployed to observation points identified during the daytime assessment. Visual surveys were performed by three biologists. Each surveyor was positioned so that they could observe and count bats as the bats exited and entered the potential roost locations. The total number of bats observed emerging from the roost was tallied immediately following the survey.

Due to the inhibiting effect of large moon phase on bat activity (Lang et al. 2006), nighttime bat surveys are conducted, whenever possible, on nights when less than 50 percent of the moon is visible. Due to scheduling constraints of tree removal activities this was not possible during this survey effort. Weather conditions (temperature, cloud cover, wind speed) were recorded at the start and end of the survey.

### **2.2.2 Acoustic Analysis**

Active collection of echolocation calls during surveys allows for the best quality of diagnostic calls and, in combination with passive monitoring, provides context for the investigator. For analyses, only the best representative calls were used for identification to species level. Qualitative call characteristics (inflection, shape), known call-frequency parameters, and a reference library of "voucher" calls from known hand-released bats were used to identify calls to the species level or "phonic group" (a species pair or group of species with similar characteristic call frequency that could not be distinguished to species level due to call similarity or quality of the call sequence, respectively) (O'Farrell et al. 1999; U.S. Geological Survey 2005). Three groups of bat species in California are commonly consolidated into phonic groups for the purposes of acoustic analysis due to the high degree of similarity of their echolocation calls. These groups are the 50-kilohertz (kHz) Myotis group that includes California myotis (*Myotis californicus*) and Yuma myotis (*M. yumanensis*); the 40-kHz Myotis group, which includes little brown bat (*M. lucifugus*), long-legged myotis (*M. volans*), and small-footed myotis (*M. ciliolabrum*); and the Q25 phonic group, which includes silver-haired bat (*Lasiurus noctivagans*), big brown bat (*Eptesicus fuscus*), pallid bat, hoary bat (*Lasiurus cinereus*), and Mexican free-tailed bat (*Tadarida brasiliensis*). Recordings were analyzed using Sonobat (Version 4.4.5 North America) software.

The analysis of acoustic data for bat species identification has inherent limitations. These limitations include the quality of acoustic data recorded and the fact that bat species are not equally detectable. Not all call sequences recorded in a given acoustic survey are identifiable to species or phonic group. Some bat species emit loud relatively low-frequency echolocation calls that can be recorded from great distances and will be overrepresented in the data, other species emit faint calls that may not be detected by acoustic monitoring equipment, and some species may even forage without echolocating. Further, social calls and calls produced in high-clutter conditions (such as when exiting a roost) are often not diagnostic for species identification. A single night of survey is insufficient to draw conclusions about the overall roosting patterns at a site. Colony size, species composition, activity levels, and habitat use may change seasonally or even nightly. Despite these limitations, data gathered from acoustic call identifications and concurrent evening surveys and roosting habitat inspection provide important information in estimating the number of bats roosting at a given site and establishing the presence of maternity colonies.

### 3.0 RESULTS

#### 3.1 Bat Habitat Assessment

The habitat assessment was conducted on October 5, 2022, by ECORP bat biologist Lauren Simpson assisted by ECORP biologist Corrina Tapia. During the assessment, a total of 21 individual trees scheduled for trimming or removal due to ISHB infestation were identified as suitable roosting habitat due to the presence of exfoliating bark, crevices, and/or woodpecker cavities (Figure 3). Of those trees, only one was considered an amplifier tree. This tree was scheduled for trimming but not removal. Representative photographs of the suitable roosting trees are included in Appendix A.

#### 3.2 Nighttime Emergence and Acoustic Surveys

On October 10, 2022, ECORP biologists conducted a nighttime emergence survey at the amplifier tree scheduled for trimming during the ISHB tree removal process to determine if bats were day-roosting in the tree and what species were present. The remaining 20 trees identified as having bat roosting habitat were able to be avoided during the ISHB infested tree removal activities so surveys at those trees were not conducted. Table 1 lists the survey date, surveyors, and weather conditions during the survey.

<b>Date</b>	<b>Surveyors</b>	<b>Time</b>	<b>Temperature (Start-End) (°F)</b>	<b>Cloud Cover (%)</b>	<b>Wind (mph)</b>	<b>Time of Sunset</b>	<b>Moon Phase (%)</b>
10/10/2022	Lauren Simpson, Alden Lovaas, Corrina Tapia	1810-1925	75-69	20	0	1825	100

No bats were observed emerging from the tree during the emergence survey. However, bats were detected acoustically foraging throughout the study area. Acoustic recordings collected during the survey confirmed the presence of long-legged myotis, western red bat, Yuma myotis and California myotis during the survey. Western red bat is a CDFW SSC.

Additionally, acoustic recordings lacking diagnostic call characteristics were collected during the survey that fell into the 50kHz Myotis and 40kHz Myotis phonic groups. Of the 50kHz Myotis group, both California myotis and Yuma myotis were confirmed to be present. Of the 40kHz Myotis group, long-legged myotis was confirmed to be present but it is also possible that small-footed myotis was present.

The emergence survey was conducted in October outside of the bat maternity season. No bats were observed emerging from the tree scheduled for trimming during the survey.

Location: N:\2014\2014-003\_008 Devils Gate Mitigation Plan\Map\SS\ss\_survey\_and\_mapping\Bat\_Survey\2\DG\_BatHabitAssess\_JSHB\_Trees\_20221201.mxd (MAG) mguidry 12/5/2022



**Figure 3.**  
**Bat Habitat Assessment Results**

**Map Features**

-  Project Impact Footprint
-  Black Willow Forest
-  Amplifier Trees
-  Bat Habitat Tree

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



## 4.0 DISCUSSION

No sign or evidence of use of trees by roosting bats were observed during the survey. However, a total of 21 suitable bat-roosting trees were identified. The majority of the trees identified as potential habitat provided only limited suitable habitat for roosting in the form of sections of exfoliating bark and/or woodpecker cavities. These types of tree features can provide suitable roosting habitat for solitary or small groups of roosting bats but are not of sufficient size to support colonial roosting. Of these 21 trees, 20 were able to be avoided during ISHB infested tree trimming and removal activities. One tree, a Fremont cottonwood (*Populus fremontii*) tree that was classified as an amplifier tree on the east side of the Project site could not be avoided. An emergence survey was conducted at this tree and no bats were observed emerging during the survey.

Four species and two phonic groups were detected foraging in the vicinity during the emergence survey. Of these species, western red bat is a CDFW SSC. Western red bat is a foliage roosting species and this individual likely roosted in the foliage of a nearby tree. The tree scheduled for trimming does contain suitable foliage habitat for this species, but the foliage habitat would remain intact as trimming activities would only occur on dead branch portions of the tree. Further, all tree trimming activities will be conducted under the direct supervision of a biological monitor. As such, this species, if present, would be adequately protected during the ISHB tree trimming and removal activities and no impacts to roosting bats are anticipated as a result of these activities.

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Representative Photographs



Photo 1. View of amplifier tree scheduled for trimming where emergence survey was conducted.



Photo 2. Representative photograph of bat habitat tree in black willow forest.

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## **APPENDIX C**

ISHB Monitoring Logs

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Josh Harris**  
**Company: ECORP**  
**Date of Log: October 19, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	07:58	65 °F	0-3 MPH	0 %
<b>End of Day</b>	13:51	90 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. Tree removal crew for invasive shot hole bore beetle.
2. One chainsaw and one woodchipper.
3. Panamerican; crew of eight and David (foreman).

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

ACWO, California ground squirrel, wood rat, side blotched lizard

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0758-0927: Arrived on site and met Carley/crew. Spoke with crew and gave the WEAP training to all eight workers. Walked the site with Department of Agriculture (Rachel Burnap) and crew identifying trees needing to be removed.  
0928: Carley leaves.  
0933-0948: Crew begins work. Removes three amplifier trees (ID 350) using a chainsaw.  
1014: Crew moved to black willow forest north and began with removing amplifier trees. Then continued to remove trees marked by the Department of Agriculture.  
1023: Last amplifier tree was removed from the west side. Amplifier trees removed included ID 350 (count of 3), 351 and 352. In the process of falling ID 351 a Baccharis pilularis was slightly damaged but not uprooted.  
1036: Crew continues to haul out trees that were fell in the black willow forest north.  
1102: Tree hits a few Baccharis salicifolia while being fallen. No serious damage done to the plants.  
1115: Lunch.  
1215: Return.  
1246: Tree fell and slightly damages Baccharis pilularis and Ambrosia acanthicarpa.  
1330: Crew is cleaning up while I finish Survey123 log.

**Additional Comments**

Crew finished day with falling 60 trees in total.

**Signature**





Crew\_memeber\_removing\_amplifer\_tree\_facing\_northeast.jpg



Fallen\_trees\_being\_chipped\_for\_solarization\_facing\_west.jpg



Crew\_members\_hauling\_out\_fallen\_trees\_facing\_east.jpg



End\_of\_day\_solarization\_progress\_facing\_west.jpg

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Carley Adams**  
**Company: ECORP**  
**Date of Log: October 20, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	07:00	63 °F	0-3 MPH	25 %
<b>End of Day</b>	12:30	78 °F	0-3 MPH	15 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

Crew removing ISHB invested trees in willow forest north and south. Equipment used included one chainsaw and one wood chipper. Material was hauled out by hand. Crew consisted of one foreman (Carlos) one tree feller, and five laborers. 103 dead snags were removed.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

MOD0, ANHU, YRWA, BEWR, CORA, RTHA, RSHA, ACWO, BUSH, NOMO

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0700: Arrived onsite and conducted sweep of work area.

0730: Crew arrived and discussed plant for the day.

0745: Crew began infested tree removal in willow forest south.

**Additional Comments**

N/A

Signature





**ISHB\_Tree Removal\_During\_facingSW.jpg**  
-118.1742240555556 34.19239988888886



**ISHB\_Tee Removal\_during\_facingSW.jpg**  
-118.1743095277778 34.19259059444444



**ISHB\_Tree Removal\_Before\_facingS.jpg**  
-118.17435245833333 34.19260347222222



**ISHB\_Tree Removal\_After\_facingS.jpg**  
-118.17438785277778 34.19262638888888

**Devil's Gate Biological Monitoring Log**  
**Biologist/Monitor: Eliza McLean**  
**Company: ECORP**  
**Date of Log: October 24, 2022**

	Time	Temperature (°F)	Wind Range (MPH)	Cloud Cover (%)
<b>Start of Day</b>	06:45	51 °F	0-3 MPH	0 %
<b>End of Day</b>	11:00	67 °F	4-6 MPH	0 %

**What Type of Monitoring is Being Conducted?**

Restoration Monitoring

**Construction Activity:**

1. ISHB tree removal.
2. Pole cutter, chainsaw, chipper.
3. Rachel (Department of Agriculture), Carlos (Lead), crew of six.

**Did you observe any special-status species?**  Yes  No

**Were any least Bell's Vireo detected?**  Yes  No

**List of species observed while monitoring:**

CALT, AMCR, HOFI, YRWA, BLPH, ACWO, CASJ, ANHU, RCKI, WCSP, MODO, BEWR, EUST, DEJU, BUSH, CAQU, LEGO, GRFL, SPTO, NUWO, BRBL, COYE, SOSP, VESP, desert cottontail, California ground squirrel

**Did You Observe any Non-Compliance Issues?**  Yes  No

**Log Entry**

0645: Arrived on site. Inspected wood chip tarp. Talked to Rachel about plan for the day.  
0750: Crew arrived on site. Discussed plan with crew.  
0810: Headed to east side. Crew trimmed tree 354.  
0935: Finished trimming tree, headed back to west side to chip.  
0945: Started chipping branches.  
1045: Finished chipping and securing tarp.  
1100: Left site.

**Additional Comments**

N/A

**Signature**





**Tree\_trimming\_facingW.jpg**  
-118.1709769388889 34.191111666666664



**Tree\_after\_trimming\_facingW.jpg**  
-118.17099353611111 34.191116888888885



**Chipping\_facingE.jpg**  
-118.1754030555556 34.19264654444444



**Secured\_tarp\_facingW.jpg**  
-118.17517944444445 34.19256932222222

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**APPENDIX D**

City Protected Tree Survey - Addendum

March 6, 2023  
2022-226.01

Mr. Keith Hala  
Los Angeles County Public Works  
900 South Fremont Avenue, 9th Floor  
Alhambra, California 91803

**Re: Devil's Gate Reservoir Restoration Project – City Protected Tree Survey – Addendum**

## 1.0 INTRODUCTION

The purpose of this letter report is to provide an addendum to the City Protected Tree Survey Report prepared by ECORP Consulting, Inc. (ECORP) for the Devil's Gate Reservoir Restoration Project (Project) dated October 2018. In addition, this letter report documents the additional City of Pasadena (City) protected trees that were removed in October of 2022 at the recommendation of the Los Angeles County Agricultural Commissioner/Weights and Measures (ACWM) following the confirmed presence of the invasive shot hole borer (ISHB). This letter report is being prepared in accordance with Mitigation Measure (MM) BIO-7 for the Project and Pasadena's City Trees and Tree Protection Ordinance (Ordinance).

## 2.0 ADDITIONAL IMPACTS TO PROTECTED TREES

### 2.1 Brief Summary of ACWM Findings

In the summer of 2021, the mitigation areas for the Project were surveyed by the ACWM to identify trees infested with ISHB following public concern for the health of the trees in the DG-W-2 (Mining Pit) mitigation area. During the survey, the ACWM identified four City protected native trees that were heavily or severely infested with ISHB (amplifier trees) including three Fremont's cottonwoods (*Populus fremontii*) that were identified as needing to be removed and one Fremont's cottonwood that was identified as needing to be trimmed to remove infested branches. Data for the four Fremont's cottonwoods, including diameter at breast height (DBH), height, level of infestation, and action taken, can be found in the Final ISHB Report for Devil's Gate Reservoir Restoration Project prepared by ACWM and dated December 2021 (Attachment A).

### 2.2 Discussion of Impacts

A total of three Fremont's cottonwoods were removed and one Fremont's cottonwood was trimmed per the recommendations from the ACWM due to the high level of ISHB infestation. The tree canopy cover for City protected native trees that was impacted as a result of the ISHB tree removal activities included

approximately 0.02 acre of Fremont's cottonwood. Tree's identified by ACWM as being infested with ISHB were removed in an effort to prevent the spread of this invasive beetle and further loss of City protected native trees. Mitigation for the Project has exceeded level of mitigation required for the amount of impacted canopy and to date, a total of 1,678 1-gallon Fremont's cottonwoods have been planted as part of the mitigation for the Project.

If you have any questions about the information presented in this letter, please contact me at [Cadams@ecorpconsulting.com](mailto:Cadams@ecorpconsulting.com) or (714) 648-0630.

Sincerely,



Carley Adams  
Senior Biologist

# **ATTACHMENT A**

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ACWM Report

December 1, 2021

Prepared for the Los Angeles County Public Works

Prepared by Rachel Burnap and Fayek Girgis, Los Angeles County Agricultural Commissioner/Weights and Measures (ACWM)

## Final ISHB Report for Devil's Gate Reservoir Restoration Project

### Background

In the summer of 2021, large areas of black willow dieback were noticed by the general public and by ECORP Consulting during monitoring visits. ECORP Consulting inspected the trees and noticed signs of Invasive Shothole Borer infestation. ECORP then notified the Los Angeles County ACWM.

### Methods

During the months of September, October, and November 2021, Inspectors Burnap and Girgis assessed thousands of trees for infestation and damage caused by the Polyphagous and/or Kuroshio bark beetles (collectively known as Invasive Shothole Borers or ISHB). The entire area shown in the Devil's Gate Mitigation Areas 20210723 shapefile was gridded, including both the east and west area of the reservoir. Every known tree host species for ISHB and any tree that exhibited severe dieback or found dead was examined. The primary tree species examined included black willows (*Salix nigra*), Fremont cottonwoods (*Populus fremontii*), a few sycamore hybrids (*Platanus* spp.), and a box elder (*Acer negundo*).

Each tree was examined for active ISHB entry holes. Trees that had heavy to severe infestations (150 active entry holes and/or over 30% canopy dieback) were tagged and labeled to remove. These trees were found in the central area on the western side of the reservoir (See Maps 1 and 2). Trees where the active infestation or dieback was compartmentalized in a few branches were marked to be trimmed. Trees with moderate infestations were marked with GPS to monitor.

Dead trees located roughly in the area named DG-W-2 (named Black Willow Forest 1 for the purpose of this report) were also inspected. The number of trees to remove or be trimmed in this area was determined by marking the parameter of forest area by GPS, then determining the dead or trim tree density in a 5,000 sq. ft. area within it. The forest dead/trim tree density was observed to be spatially different, so this was delineated, and the forest area was divided into two sections, North and South (See Map 3). The southern section consisted of 60,399 sq. ft. with a density of 45 dead/trim trees per 5,000 sq. ft. area. The northern section consisted of 23,145 sq. ft. with a density of 120 dead/trim trees per 5,000 sq. ft. area.

All trees to remove or be trimmed were identified with a metal tree tag. Baseline data was collected for all tagged trees. This included a GPS point, tree height, tree Diameter at Breast Height (DBH), level of infestation, and level of dieback. Pictures were also taken. Ten wood samples were taken from the area to test for fusarium fungus. The fusarium samples were submitted through the Los Angeles County ACWM Plant Pathology Laboratory to the California Department of Food and Agriculture. One live beetle was found in an infested tree and sent to the Los Angeles County entomologist, Dr. Arakelian. He identified it as a Polyphagous Shothole Borer.

Active entry holes were determined by visual assessment and showed recent staining, and/or frass, with a clearly defined borders and a dark fusarium ring that continued through the bark and cambium layer into the sapwood. Inactive entry holes, as indicated by compartmentalization, had entry holes and fusarium that disappeared after scraping off the bark. These inactive entry holes were not counted but indicated that

the tree may be recovering. Black willows and cottonwoods were difficult to examine due to the thick bark and required careful and thorough examination.

The estimated number of active beetle entry holes determined the tree's level of infestation<sup>1</sup> (Low: 1-50, Moderate: 50-150, Heavy: over 150, and Severe/Amplifier: over 150 plus crown dieback). Levels of crown dieback included Low (1-20%), Moderate (21-30%), Heavy (over 30%), and Dead.

## **Discussion**

Much of the Mitigation Area had little to no active infestation. However, infestations were not confined to any one area. A low to moderate active ISHB infestation was discovered throughout the Mitigation Area with 5 trees heavily or severely infested, 1 cottonwood to be trimmed, 11 trees to monitor, and 1,092 trees to be removed or trimmed in the Black Willow Forest 1 (See Photograph 1 and Table 1 in Recommendations).

Black Willow Forest 1 consisted of small diameter (approximately 4" to 10" DBH) black willows with varying degrees of dieback. Many, but not all, dead black willows in Forest 1 exhibited a low to moderate infestation, showing that the tree died from something other than fusarium dieback. Larger diameter (approximately 12" DBH and above) willows were also found infested, often with a higher infestation level than the small diameter trees. In this area, two severely infested (amplifier) willows were identified and tagged to be removed. Bot rot (a bacterial disease caused by *Botryosphaeria*) was also observed in this area in dead trees. Spread through rain and wind, bot rot infects stressed trees and can quickly cause tree mortality. Non-infested dead trees in this area will also be removed due to concern of fire in the urban wildland interface (See Photographs 2-3).

The fusarium seemed dry in many cases throughout the mitigation area, leading to the question if drought had slowed and/or prevented beetle reproduction since the fusarium fungus requires moisture to grow and is the beetle's sole source of food. This leads to the hypothesis that perhaps beetle infestation will increase once moisture is restored to the trees. Research on the Kuroshio ISHB infestation in the Tijuana River suggests that irrigated trees are more susceptible to infestation; however, there are other cases where non-irrigated trees are also severely infested, so this hypothesis continues to be debated<sup>2</sup>.

An infested amplifier sycamore tree was discovered in the City of Pasadena Hahamonga Watershed Park parking lot, west of the mitigation area. Kenny Graham, the City of Pasadena Forester, was contacted. The city is already actively removing ISHB infested amplifier trees and taking the correct actions to prevent ISHB spread.

## **Recommendations**

Removal of the 5 heavy and severely infested trees will prevent these trees from spreading the infestation. Trimming the infested cottonwood will help this tree continue to recover from a past heavy infestation and help protect park visitors from large falling limbs (See Photograph 4). Non-infested dead trees in the Black Willow Forest will also be removed due to concern of fire in the urban wildland interface. Trees in this area will also be trimmed as needed.

All tree material should be treated as infested on site to ensure that all beetles are killed. Wood should be chipped down to 1", covered with thick clear plastic, and left in place to solarize in the sun. Current

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<sup>1</sup> As recommended by the University of California Agriculture and Natural Resources Cooperative Extension.

<sup>2</sup> Dr. Bea Nibua-Behrmann, personal correspondence, August 12, 2021.

recommendations can be found at [www.ishb.org](http://www.ishb.org). Pile location/s should be chosen carefully to avoid damaging the native plants.

Monitoring of the infestation will be key to preserving tree diversity in this area. While only 9 trees were marked specifically, the entire mitigation area should be examined every 6 months to at least every year. The few sycamores, cottonwoods, and lone box elder should be particularly monitored. A list of reproductive host species, and pictures of ISHB infestation can be found at [www.ishb.org](http://www.ishb.org).

ISHB traps deployed in the restoration area during the appropriate months will make monitoring easier. Traps should be placed between trees and not out in the open, for example, between a healthy and an infested tree. Traps should not be placed in a completely non-infested area since this could draw ISHB to healthy trees. An example of riparian trap deployment can be found in the Early Detection Rapid Response Plan LA County SMMNRA 2019 Exhibit A: Trapping Protocols<sup>3</sup>.

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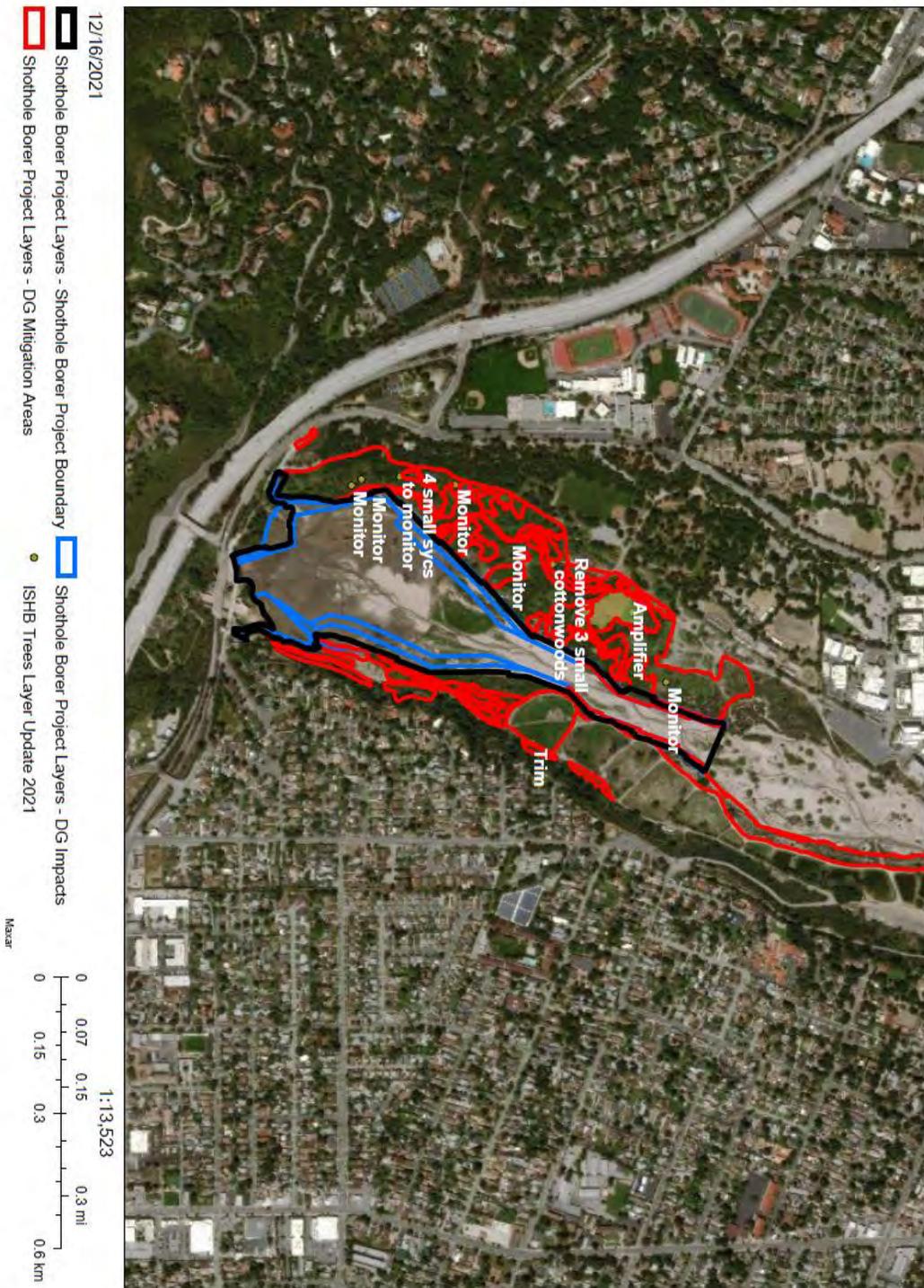
<sup>3</sup> Found at <https://www.rcdsmm.org/wp-content/uploads/2019/12/EARLY-DETECTION-RAPID-RESPONSE-PLAN-LA-County-SMMNRA-2019.pdf>

Table 1. Tree Information with associated Pest and Damage Records

Note GPS location of each tree.

Tree Tag Number	Action to Take	Pest and Damage Record Number	Infestation Level	Latitude/Longitude	Notes
350	Remove 3 infested Fremont cottonwoods	19TP50001069 19TP50001239	Heavy	-118.1752299 34.1916586	Tree #1-10" DBH 40 ft tall >30% dieback Tree #2- 5" DBH 15 ft tall 20-30% dieback Tree #3- 11" DBH 30ft tall 20% dieback
351	Remove 1 black willow	19TP50001366	Amplifier	-118.1744484 34.19321886	6" DBH, 40 ft. tall, >30% dieback
352	Remove 1 black willow	19TP50001362	Amplifier	-118.1740602 34.19324788	9" DBH, 40 ft. tall, >30% dieback
Black Willow Forest 1-North	Remove and/or trim dead tops off approximately 552 trees	19TP50001364 19TP50001363 Taken from this area	Variable	Near -118.1740565 34.1930594	Black willows DBH roughly ranging from 4" to 10". Height ranges roughly from 20' to 35'.
Black Willow Forest 1-South	Remove and/or trim dead tops off approximately 540 trees	19TP50001238 19TP50001236 19TP50001237 Taken from this area	Variable	Near -118.1740565 34.1930594	Black willows DBH roughly ranging from 4" to 10". Height ranges roughly from 20' to 35'.
354	Trim large dead branches off cottonwood		Past heavy infestation	-118.170929 34.19125	24" DBH, 40 ft. tall, 20-30% dieback
No tag	Monitor black willow		Moderate	-118.1723905 34.19392	13" DBH, 30 ft. tall
No tag	Monitor black willow		Moderate	-118.1758144 34.19083	22" DBH, 45 ft. tall
No tag	Monitor black willow		Moderate	-118.1771497 34.18973	9" DBH, 25 ft. tall
No tag	Monitor black willow		Moderate	-118.1769705 34.18804	
No tag	Monitor 2 black willows		Moderate	-118.1772683 34.18786	
No tag	Monitor 4 small sycamores		Moderate	-118.1773353 34.18863	
No tag	Monitor large sycamore		Moderate	-118.1771122 34.18767	27" DBH, 55 ft. tall
<b>TOTALS</b>	Remove 5 infested trees		Trim 1 large cottonwood		
	Remove/trim 992 small DBH willows in Black Willow Forest 1		Specifically monitor 11 trees		

# Devil's Gate-Overview



Map 1. Devil's Gate Restoration Project Overview Map with Project Boundaries. Note the green area marked with an Amplifier tree is the Black Willow Forest 1.

## Devil's Gate-Overview



12/16/2021

Map 2. Devil's Gate Restoration Project Overview Map without Project Boundaries. Note that there is an unseen Amplifier near the marked one in the light/dark green area.



Map 3. Overview of Black Willow Forest 1. North and South sections delineated according to dead/trim tree density. Note location of two amplifier trees within area.



Photograph 1. This larger DBH black willow had a low ISHB infestation. It was found in the Black Willow Forest 1. A wood sample was taken and sent to the CDFA for analysis. The dark fusarium fungus can be seen in the tree's sapwood.



Photograph 2. View of the Black Willow Forest 1 looking north. Note numerous small, dead willows.



Photograph 3. View looking up into the canopy of the Black Willow Forest 1. Note numerous dead trees but also trees that experienced canopy dieback in the upper portions.



Photograph 4. This Fremont cottonwood experienced canopy dieback and limb loss due to a heavy ISHB infestation. Note large branches on the ground. The tree is now in recovery. Trimming off dead branches will help its recovery and help protect park users visiting this trail.