



June 18, 2025  
2023-005.07

Ms. Mitzi Kim Rios  
Los Angeles County Public Works  
900 South Fremont Avenue, 2nd Floor  
Alhambra, California 91803

**Re: *Devil's Gate Reservoir Restoration Project – Phase 1 Restoration Qualitative Monitoring  
Conducted on February 10, 2025***

## **1.0 INTRODUCTION**

The purpose of this report is to document the results of qualitative (horticultural) monitoring conducted for the Devil's Gate Reservoir Restoration Project (Project), located in the City of Pasadena, Los Angeles County, California. The qualitative monitoring was conducted in the planted and or seeded portions of the Phase 1 mitigation areas including DG-1, DG-1 WOUS, DG-2A, DG-2B, DG-3A, DG-4, DG-4B, DG-4C, and DG-5. The monitoring is being conducted in accordance with the Final Habitat Restoration Plan for the Project (HRP). The initial sediment removal in the reservoir was completed in 2021 and the first round of the annual maintenance removal phase was completed in October of 2022. Currently, habitat restoration is occurring around the perimeter of the sediment removal areas and annual sediment maintenance will resume in summer of 2025.

ECORP is responsible for conducting qualitative monitoring and compliance review of restoration efforts in each of the mitigation areas. ECORP is also responsible for preparing monitoring reports, which typically include the following information:

- Overall health of container plants
- Observations and recommendations related to container plant establishment
- Germination of native plant species from seed application and natural recruitment
- Level of germination of nonnative plant species
- Soil condition
- Other observations and recommendations as appropriate

Qualitative monitoring was conducted by Carley Adams on February 10, 2025. Field data collected during the monitoring event is provided as Attachment A. This report documents the third biannual qualitative monitoring visit for the Phase 1 mitigation areas.

## 2.0 QUALITATIVE MONITORING IN PHASE 1 MITIGATION AREAS

### 2.1 Brief Summary of Plant Installation

During the Phase I Installation effort, which was completed on February 13, 2020, a total of 10,276 one-gallon container plants, 52 five-gallon container plants, 18 fifteen-gallon container plants, 300 acorns, and 3,000 cuttings were installed in the DG-2A, DG-2B, DG-3A, DG-4, DG-4B, DG-4C, and DG-5 mitigation areas. Container plants were not installed in the DG-1 or DG-1 WOUS mitigation areas, but these areas were seeded with native plant species. Table 1 lists container plant species and the numbers installed in each of the Phase 1 mitigation areas.

Species Name	2A	2B	3A (Oak Wood- land)	3A (Mule-fat Thickets)	4 (CSS*)	4 (Mulefat- Willow**)	4B	4C	5	TOTAL
Mulefat ( <i>Baccharis salicifolia</i> )	25	95	—	—	—	1113	135	114	64	1546
Mulefat [cuttings] ( <i>Baccharis salicifolia</i> )	—	—	—	84	—	916	—	—	—	1000
Fremont's cottonwood ( <i>Populus fremontii</i> )	10	38	—	33	—	479	54	45	27	686
California blackberry ( <i>Rubus ursinus</i> )	10	38	—	33	—	619	54	45	26	825
California rose ( <i>Rosa californica</i> )	10	38	44	33	—	725	54	45	26	975
Black willow ( <i>Salix gooddingii</i> )	20	76	—	—	—	876	108	90	52	1222
Black willow [cuttings] ( <i>Salix gooddingii</i> )	—	—	—	67	—	933	—	—	—	1000
Red willow ( <i>Salix laevigata</i> )	10	38	—	33	—	439	54	45	26	645
Arroyo willow ( <i>Salix lasiolepis</i> )	10	38	—	—	—	438	54	45	26	611
Arroyo willow [cuttings] ( <i>Salix lasiolepis</i> )	—	—	—	33	—	967	—	—	—	1000
Black elderberry ( <i>Sambucus nigra</i> ssp. <i>caerulea</i> )	5	19	—	17	—	594	27	23	13	698
California melic ( <i>Melica imperfecta</i> )	—	—	20	—	—	—	—	—	—	20
Coast live oak ( <i>Quercus agrifolia</i> )	—	—	174	—	—	—	—	—	—	174

Table 1. Phase 1 Container Plant Species and Numbers (DG-)										
Species Name	2A	2B	3A (Oak Wood- land)	3A (Mule-fat Thickets)	4 (CSS*)	4 (Mulefat- Willow**)	4B	4C	5	TOTAL
Coast live oak [acorns] ( <i>Quercus agrifolia</i> )	25	—	275	—	—	—	—	—	—	300
California gooseberry ( <i>Ribes californicum</i> )	—	—	50	—	—	—	—	—	—	50
Mugwort ( <i>Artemisia douglasiana</i> )	—	—	—	33	—	617	54	45	26	775
Wrinkled rush ( <i>Juncus rugulosus</i> )	—	—	—	—	—	200	—	—	—	200
Basket rush ( <i>Juncus textilis</i> )	—	—	—	—	—	100	—	—	—	100
California Sagebrush ( <i>Artemisia californica</i> )	10	38	—	—	306	—	—	—	—	354
Coyote brush ( <i>Baccharis pilularis</i> )	10	38	—	33	—	504	54	45	26	710
California brittlebush ( <i>Encelia californica</i> )	—	—	—	—	102	—	—	—	—	102
California buckwheat ( <i>Eriogonum fasciculatum</i> )	—	—	—	—	306	—	—	—	—	306
Menzies goldenbush ( <i>Isocoma menziesii</i> )	—	—	—	—	41	—	—	—	—	41
Deerweed ( <i>Acmispon glaber</i> )	—	—	—	—	102	—	—	—	—	102
Laurel sumac ( <i>Malosma laurina</i> )	—	—	—	—	61	—	—	—	—	61
Coastal prickly pear ( <i>Opuntia littoralis</i> )	—	—	—	—	41	—	—	—	—	41
Black sage ( <i>Salvia mellifera</i> )	—	—	—	—	102	—	—	—	—	102
<b>TOTAL</b>	<b>145</b>	<b>456</b>	<b>563</b>	<b>399</b>	<b>1061</b>	<b>9520</b>	<b>648</b>	<b>542</b>	<b>312</b>	<b>13646</b>

\*CSS = California Sagebrush – California Buckwheat Scrub

\*\*Mulefat-Willow = Mulefat Thickets and Black Willow Thickets

All plants were installed according to the methods described in Section 4.11 of the HRP. Planting holes for all container plants, except oak trees, were dug to a width twice the size of the root ball and to a depth slightly deeper than the depth of the root ball so that the root crown was one inch below grade following installation. Oak trees were planted with the root crown 0.5 to one inch above grade following installation. Prior to installation, all plants were thoroughly watered in their containers and the soil in planting holes was wetted with at least one gallon of water. Planting holes approximately two feet in width were

backfilled with native soil and irrigation basins were formed around the base of each plant. Rocks greater than two inches in diameter were removed to the extent possible from the backfill soil. All container plants were irrigated with at least one gallon of water immediately following installation and basin creation.

## **2.2 Qualitative Monitoring Methods**

Qualitative monitoring occurs monthly following the 120-day Plant Establishment Period for the remainder of Year 1 (8 months). Following Year 1, qualitative monitoring occurs quarterly during Years 2 and 3 and twice per year during Years 4 through 10. The purpose of the qualitative monitoring is to assess container plant health and vigor and monitor the success of the mitigation areas.

During the February 10, 2025 visit, all Phase 1 mitigation areas were walked, the health and vigor of container plants were documented, germination from seeding and natural recruitment was noted, and the irrigation lines were inspected for functionality. In addition, the level of nonnative and invasive weed cover was estimated for each of the Phase 1 mitigation areas.

## **2.3 Qualitative Monitoring Results**

Overall, the Phase 1 mitigation areas appear to be performing well. Evidence of dieback from *Phytophthora cactorum*, including wilting, stunted growth, leaf spotting, and/or browning along leaf margins and tips, was not observed in any of the mitigation areas during the monitoring visit. Formal mortality counts were taken for the Phase 1 mitigation areas during the 2020, 2021, 2022, 2023, and 2024 quantitative monitoring events. Some of the container plants within the Phase 1 mitigation areas were noted as lacking well defined basins and should have their basins properly constructed and/or repaired. Many of the willows (*Salix* spp.) and Fremont's cottonwoods (*Populus fremontii*) were still showing signs of seasonal dieback and many of the annual species were observed to be dead for the season. The installation of plants in the Phase 1 mitigation area appears to have been completed successfully and the current issues identified during the monitoring visit are not expected to influence the continued growth of the plants in the mitigation areas.

### **2.3.1 DG-1 & DG-1 WOUS**

Container plants were not installed in the DG-1 or DG-1 WOUS mitigation areas, but these areas were seeded with native plant species. Native plant growth, including perennials and annuals, was noted throughout the DG-1 and DG-1 WOUS mitigation areas, likely both from natural recruitment and from seeding. The majority of DG-1 WOUS was noted as being scoured during the 2020, 2021, 2022, 2023, 2024, and 2025 wet seasons and had minimal plant growth. Native plants such as California sagebrush (*Artemisia californica*), mulefat (*Baccharis salicifolia*), Canada horseweed (*Erigeron canadensis*), California buckwheat (*Eriogonum fasciculatum*), telegraph weed (*Heterotheca grandiflora*), scale broom (*Lepidospartum squamatum*), and chia sage (*Salvia columbariae*) were observed sprouting in the DG-1 and DG-1 WOUS mitigation areas. Native cover for the DG-1 and DG-1 WOUS mitigation areas was estimated to be approximately 60 to 65 percent with some areas having relatively dense cover and other areas being



scoured and/or having minimal cover. Photos 1 through 4 in Attachment B document the status of the mitigation areas during the monitoring visit.

Nonnative weed cover in DG-1 and DG-1 WOUS was estimated to be approximately 2 percent, which is approximately 1 percent higher than the level of weed cover that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-1 and DG-1 WOUS during the monitoring visit included black mustard (*Brassica nigra*) and nonnative grasses. Most nonnative weeds were just starting to germinate and had not gone to flower or seed.

### **2.3.2 DG-2A**

The overall health of the container plants in DG-2A was noted as being good. Approximately less than 5 percent of the container plants in DG-2A were noted as showing varied levels of stress, which is approximately the same as the percentage of container plants that were showing stress during the previous qualitative monitoring event. Stress may be occurring as a result of 1) competition from nonnative and invasive weeds or 2) recreational traffic through the mitigation areas. Additional missing or dead container plants were not observed. Photos 5 through 7 in Attachment B document the status of the mitigation area during the monitoring visit.

Native plant growth was noted throughout the DG-2A mitigation area, likely both from natural recruitment and from seeding. Native plants such as California sagebrush, mugwort (*Artemisia douglasiana*), mulefat, tall flatsedge (*Cyperus eragrostis*), Canada horseweed, and Douglas' nightshade (*Solanum douglassi*) were observed sprouting in the DG-2A mitigation area. Native cover for the DG-2A mitigation area was estimated to be 75 to 80 percent.

Nonnative grasses were starting to germinate at less than 1 percent cover within the DG-2A mitigation area during the monitoring visit and evidence of recent weed abatement was observed.

### **2.3.3 DG-2B**

The overall health of the container plants in DG-2B was noted as being good. Approximately less than 5 percent of the container plants in DG-2B were noted as showing varied levels of stress, which is approximately the same percentage of container plants that were showing stress during the previous qualitative monitoring event. Stress was likely due to the same reasons as those described for DG-2A. Photos 8 through 11 in Attachment B document the status of the mitigation area during the monitoring visit.

Native plant growth was noted throughout the DG-2B mitigation area, likely both from natural recruitment and from seeding. Native plants such as mugwort, California sagebrush, mulefat, Douglas' nightshade, and stinging nettle (*Urtica dioica*) were observed sprouting in the DG-2B mitigation area. Native cover for the DG-2B mitigation area was estimated to be 80 to 85 percent.

Nonnative weed cover in DG-2B was estimated at approximately 1 percent, which is approximately the same level of nonnative cover that was observed during the previous qualitative monitoring event. Poison hemlock (*Conium maculatum*) was the only nonnative species observed in DG-2B during the monitoring visit. Most nonnative weeds were just starting to germinate and had not gone to flower or seed.

### **2.3.4 DG-3A**

The overall health of the container plants in DG-3A was noted as being good. Approximately 5 percent of the container plants in the coast live oak woodland portions of DG-3A were noted as showing varied levels of stress, which is approximately the same percentage of container plants that were showing stress during the previous qualitative monitoring event. During the monitoring visit, the planted coast live oak (*Quercus agrifolia*) acorns were inspected for survivorship and health. Approximately 20 germinated coast live oak acorns appear to still be present in DG-3A and are approximately five to seven feet tall. Most of the germinated acorns appear to be in good health. During the monitoring, previously documented branch failure on an existing coast live oak tree (Tree Tag #39) was still present; however, no new branch failure or damage was observed. The cause of the previously documented branch failure was unclear.

During the monitoring visit, approximately 5 percent of the container plants in the mulefat thickets portions of DG-3A were noted as showing varied levels of stress. Some of the stress was likely due to the same reasons as those described for DG-2A; however, this area was noted as being inundated during previous qualitative monitoring visits and some of the plants still appear to be recovering. In addition, erosion is also a problem in some areas of DG-3A. The willow and mulefat stakes were observed to be thriving in this mitigation area during the monitoring visit. Photos 12 through 18 in Attachment B document the status of the mitigation area during the monitoring visit.

Native plant growth was noted throughout the DG-3A mitigation area, likely both from natural recruitment and from seeding. Native plants such as annual bursage (*Ambrosia acanthicarpa*), California sagebrush, mugwort, Canada horseweed, telegraph weed, and chilicothe (*Marah macrocarpa*) were observed sprouting in the DG-3A mitigation area. Native cover for the DG-3A mitigation area was estimated to be approximately 65 percent in the coast live oak woodland portion of the mitigation area and 75 percent in the mulefat thickets portion of the mitigation area.

Nonnative weed cover in DG-3A was estimated at approximately 1 percent, which is approximately the same level of nonnative cover that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-3A included brome grasses (*Bromus* spp.). Most nonnative weeds were just starting to germinate and had not gone to flower or seed.

### **2.3.5 DG-4**

The overall health of the container plants in mitigation area DG-4 was noted as being good. Approximately 5 percent of container plants in the coastal sage scrub portions of DG-4 and approximately 5 percent of container plants in the riparian portions of DG-4 showed varied levels of stress which is approximately the same percentage of plants showing stress during the previous qualitative monitoring event. The causes of stress appear to be mostly due to the same reasons described in DG-2A. In addition, the southern portions of DG-4 continue to experience periods of inundation during the wet season. Photos 19 through 22 in Attachment B document the status of the mitigation area during the monitoring visit.

Native plant growth was noted throughout the DG-4 mitigation area, likely both from natural recruitment and from seeding. Native plants such as annual bursage, California sagebrush, mugwort, mulefat, tall

flatsedge, California buckwheat, common phacelia (*Phacelia distans*), and stinging nettle were observed sprouting in the DG-4 mitigation area. Native cover for the DG-4 mitigation area was estimated to be approximately 75 percent in the riparian portion of the mitigation area and 65 to 70 percent in the coastal sage scrub portion.

Nonnative weed cover in DG-4 was estimated at approximately 5 percent, which is approximately 5 to 10 percent lower than the percentage of nonnative cover that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-4 included black mustard, poison hemlock, perennial pepperweed (*Lepidium latifolium*), and white horehound (*Marrubium vulgare*). Nonnative weed cover, especially perennial pepperweed, is a significant problem in portions of the DG-4 mitigation area. Because perennial pepperweed can produce dense colonies through seed germination and underground rhizomes (rhizomatous roots), removal of this species without the use of systemic herbicide is very difficult. Most nonnative weeds were just starting to germinate and had not gone to flower or seed.

### **2.3.6 DG-4B**

The overall health of the container plants in mitigation area DG-4B was noted as being good and this mitigation area is becoming well established. Approximately less than 5 percent of container plants were showing varied levels stress which is approximately the same percentage of plants that were stressed during the previous qualitative monitoring event. The types of stress the plants were exhibiting are the same as those described for the plants in DG-2A. A negligible number of container plants were noted as being missing or dead. Photos 23 and 24 in Attachment B document the current status of the mitigation area during the monitoring visit.

Native plant growth was noted throughout the DG-4B mitigation area, likely both from natural recruitment and from seeding. Native plants such as mugwort, mulefat, tall flatsedge, common phacelia, and stinging nettle were observed sprouting in the DG-4B mitigation area. Native cover for the DG-4B mitigation area was estimated to be approximately 75 percent.

Nonnative weed cover in DG-4B was estimated to be approximately 1 percent, which is the same level of nonnative cover that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-4B included black mustard and perennial pepperweed. Most nonnative weeds were just starting to germinate and had not gone to flower or seed.

### **2.3.7 DG-4C**

The overall health of the container plants in mitigation area DG-4C was noted as being good. Approximately less than 5 percent of all container plants were noted as showing minor levels of stress, which is approximately the same percentage of plants that were showing stress during the previous qualitative monitoring event. The types of stress the plants were exhibiting are the same as those described for the plants in DG-2A. A negligible number of container plants were noted as being missing or dead. Photos 25 and 26 in Attachment B document the status of the mitigation area during the monitoring visit.

Native plant growth was noted throughout the DG-4C mitigation area, likely both from natural recruitment and from seeding. Native plants such as mugwort, mulefat, tall flatsedge, and common phacelia were observed sprouting in the DG-4C mitigation area. Native cover for the DG-4C mitigation area was estimated to be approximately 70 percent.

Nonnative weed cover in DG-4C was estimated at approximately 2 percent, which is approximately 1 percent higher than the percentage of nonnative cover that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-4C included black mustard and poison hemlock. Most nonnative weeds were just starting to germinate and had not gone to flower or seed.

### **2.3.8 DG-5**

The overall health of the container plants in the DG-5 mitigation area was noted as being good. Approximately less than 5 percent of all container plants were noted as showing varied levels of stress, which is approximately the same as the percentage of plants that were showing stress during the previous qualitative monitoring event. Photos 27 and 28 in Attachment B document the status of the mitigation area during the monitoring visit.

Native plant growth was noted throughout the DG-5 mitigation area, likely both from natural recruitment and from seeding. Native plants such as mugwort, mulefat, Hooker's evening primrose (*Oenothera elata*), and stinging nettle were observed sprouting in the DG-5 mitigation area. Native cover for the DG-5 mitigation area was estimated to be approximately 80 to 85 percent and the site is thriving.

Nonnative weed cover in DG-5 was estimated at approximately 2 percent, which is approximately 3 percent lower than the percentage of nonnative weed cover that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-5 included black mustard, poison hemlock, and perennial pepperweed. Most nonnative weeds were just starting to germinate and had not gone to flower or seed.

## **3.0 RECOMMENDATIONS**

### **3.1 Container Plant Replacement**

Container Plants that were noted as being dead during both the qualitative and quantitative monitoring events were replaced during the Phase 3 implementation during the winter of 2023/2024. Replacement of dead container plants will help to increase native cover and help the restoration sites move toward achieving their success criteria.

Container plant loss was most problematic in areas prone to erosion, areas prone to prolonged inundation, areas with higher levels of herbivory, and areas within the least Bell's vireo nest buffer where nonnative weed proliferation occurred during the active nesting period in the spring of 2020. It should be noted that natural recruitment and installation of replacement container plants has offset container plant loss due to the reasons listed above. Container plant mortality should continue to be assessed during the annual quantitative monitoring and supplemental planting should occur if the level of mortality exceeds the performance standards requirements.

In addition to container plant loss, loss of mature native trees such as black willow (*Salix gooddingii*), Fremont's cottonwood, and box elder (*Acer negundo*) that occurred as the result of infestation from invasive shothole borer (ISHB) has decreased the level of native cover in some of the Phase 1 mitigation areas. If these areas do not show signs of improvement through natural recruitment or if additional infestation from ISHB occurs, supplemental container planting may be warranted in these areas.

### **3.2 Nonnative Plant Control**

Nonnative weed cover was found to be approximately 1 percent to 5 percent in the various Phase 1 mitigation areas. In addition, evidence of recent weed abatement activities was present in some of the Phase 1 mitigation areas. It should be noted that many of the nonnative weeds observed during the monitoring were just starting to germinate and had not gone to flower or seed and some of the annual nonnative weeds were observed to be dying out for the season. Regular maintenance and removal of nonnative weeds is of the highest priority for all of the mitigation areas to reduce competition between native and nonnative plants. In addition, eucalyptus stumps that are starting to re-sprout should be trimmed back frequently. A focus should be placed on removing the weeds and nonnatives from the basins of each of the container plants and cuttings; however, nonnative weeds just outside of the planting areas can migrate into the planting areas via seed dispersal. Outside of the nesting bird season, a focus should also be made to remove nonnative weeds in areas where least Bell's vireos are likely to nest during the breeding season (i.e., in the vicinity of the least Bell's vireo nest that was active in 2020). Nonnative plants and weeds that have gone to seed should be bagged and removed from the mitigation area. Without the use of herbicides, control of the nonnatives will be extremely difficult so the frequency and level of effort will need to be increased to provide control until the native plants and seedlings have a chance to grow and outcompete the nonnatives. In particular, it is important to maintain long-term perennial pepperweed management to reduce competition and allow native plants to germinate. In addition, dodder should be removed from container plants in the mitigation areas. Although many species of dodder are native, this parasitic plant can be harmful to younger shrubs and trees that are not yet established and can even cause mortality.

### **3.3 Herbivory**

Herbivory was generally not observed in the Phase 1 mitigation areas. Minor herbivory generally will not kill the plants, but continued monitoring should be conducted during future visits. As the plants are becoming more established, they have become less susceptible to the effects of herbivory. If browsing by rabbits or other animals begins to worsen, caging around affected and/or favored container plants may be warranted.

### **3.4 Erosion**

Minor erosion to planting basins was observed throughout the Phase 1 mitigation areas. The severe erosion noted in DG-3A near Altadena Drain during previous monitoring visits did not show any signs of worsening. Due to the steepness of the slope in the coast live oak woodland portion of the DG-3A mitigation area, erosion will likely continue to be somewhat of an issue in this area; however, jute nettings

are currently in place on the slope and will help to lessen the severity of erosion issues. As native cover increases in this area, erosion issues should lessen. The severity of the erosion should continue to be monitored in all planted areas and if warranted, erosion Best Management Practices (BMPs) should be installed in appropriate areas. This may only require the installation of straw wattles at select sites to prevent existing rills from becoming larger. However, until more native perennial plants become established in these areas, there is the potential that intense rainfall may create additional erosion problems.

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,

A handwritten signature in blue ink, appearing to read 'Carley Adams', with a stylized flourish at the end.

Carley Adams  
Senior Biologist



# Devil's Gate Phase I

Qualitative monitoring

2/10/25

C. Adams

## DG-1/wous

- Site w/ little change from last visit
- Native germ: ERIFAS, ARTCAL, SALCOL, HETGRA, ERICAN, BAESAL, LEPSQU  
~60-65% native cover
- Nonnative germ: BRANIG, Bromo grasses ~2% cover
- Some scoured portions of DG-1 wous from recent storms

## DG-2A

- Cont. plants healthy & well est. <5% w/ minor signs of stress
- Native germ: SOLDON, ARTDON, BAESAL, ERICAN, CYPERA  
~75-80% native cover → willows still showing some seasonal dieback

Scale: 1 square = \_\_\_\_\_

*Rite in the Rain*



DG-2A Cont.

- POPFRE also showing seasonal dieback
- Nonnative germ: grasses < 1% cover

DG-2B

- Cont. plants healthy & well est. < 5% stressed
- Native germ: SODON, ARTDON, BAESAL, BAEPIL, URTDIO, ARTCAL ~ 80-85% native cover
- Some seasonal ~~dieback~~ dieback still obs on willows? POPFRE
- Nonnative germ: CONMAC ~ 1% cover

DG-3A

willows  
w/ seasonal dieback

- Cont. plants healthy ~ 5% stressed in both oak woodland & riparian.
- Native germ: ERICAN, ARTDON, HETGRA, ARTCAL, MARMAC, AMBAEA ~ 65% cover in oak woodland ~ 75% cover in riparian
- Nonnative germ: Bromes & grasses ~ 1% cover

DG-4

- Cont. plants healthy & well est. < 5%. Stressed in both CSS & riparian
- Native germ: URTDIO, ERITAS, ARTDIOU, PHADIS, CYPERA, BACSAI, ARTCAL ~ 75%.
- Native cover in riparian ~ 65-70%. native cover in CSS areas
- willows & POPFRE showing seasonal dieback
- Nonnative germ: LEPLAT, BRANIG, CONMAC, MARVUL ~ 5% cover

DG-4B

- Cont. plants healthy & well est. < 5%. Stressed
- Native germ: BACSAI, URTDIO, CYPERA, ARTDIOU, PHADIS ~ ~~60~~ 75% cover
- willows & POPFRE showing seasonal dieback
- Nonnative germ: LEPLAT, BRANIG ~ 1% cover



DG-4C

- Cont. plants healthy & well est. < 5% Stressed
- Native germ: BACSAI, CYPERA, ARTDOU, PHADIS ~ 70% Native cover
- willows & POPPFR showing seasonal dieback
- Nonnative germ: BRANIG, CONMAC ~ 2%
- Some worsening erosion from recent rains

DG-5

- cont. plants healthy & well est. < 5% Stressed
- Native germ: ARTDOU, GENELA, URTDIO, BACSAI ~ 80-85% cover
- Nonnative germ: BRANIG, CONMAC, LEPLAT ~ 2%

\* weeds obs throughout mitigation areas just starting to germinate

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**ATTACHMENT B**

Photo Documentation



Photo 1: Overview Mitigation Area DG-1



Photo 2: Overview Mitigation Area DG-1





Photo 3: Overview Mitigation Area DG-1



Photo 4: Overview Mitigation Area DG-1





Photo 5: Overview Mitigation Area DG-2A



Photo 6: Overview Mitigation Area DG-2A





Photo 7: Overview Mitigation Area DG-2A



Photo 8: Overview Mitigation Area DG-2B





Photo 9: Overview Mitigation Area DG-2B



Photo 10: Overview Mitigation Area DG-2B





Photo 11: Overview Mitigation Area DG-2B



Photo 12: Overview Mitigation Area DG-3A Altadena Drain





Photo 13: Overview Mitigation Area DG-3A Oak Woodland



Photo 14: Overview Mitigation Area DG-3A Oak Woodland





Photo 15: Overview Mitigation Area DG-3A Oak Woodland



Photo 16: Overview Mitigation Area DG-3A Oak Woodland





Photo 17: Overview Mitigation Area DG-3A Oak Woodland



Photo 18: Overview Mitigation Area DG-3A Oak Woodland





Photo 19: Overview Mitigation Area DG-4 CSS



Photo 20: Overview Mitigation Area DG-4 Riparian





Photo 21: Overview Mitigation Area DG-4 Riparian



Photo 22: Overview Mitigation Area DG-4 Riparian





Photo 23: Overview Mitigation Area DG-4B



Photo 24: Overview Mitigation Area DG-4B





Photo 25: Overview Mitigation Area DG-4C



Photo 26: Overview Mitigation Area DG-4C





Photo 27: Overview Mitigation Area DG-5



Photo 28: Overview Mitigation Area DG-5