April 12, 2022
2018-047.030

Mr. Wayne Lee
Los Angeles County Public Works
900 South Fremont Avenue, 9th Floor
Alhambra, California 91803

Re: Devil's Gate Reservoir Restoration Project – Phase 1 Restoration Qualitative Monitoring Conducted on February 23, 2022

1.0 INTRODUCTION

The purpose of this letter report is to document the results of qualitative 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-3B, 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). Active sediment removal is still occurring within the sediment removal areas for the Project and habitat restoration is being conducted onsite around the perimeter of the sediment removal areas.

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 Lancaster on February 23, 2022. Field data collected during the monitoring event is provided as Attachment A. This report documents the fourth quarterly qualitative monitoring visit for the Phase 1 mitigation areas.

1801 Park Court Place ● Santa Ana, CA 92701 ● Tel: (714) 648-0630 ● Fax: (714) 648-0935 ● Web: www.ecorpconsulting.com

2.0 QUALITATIVE MONITORING IN THE 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-3B, 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.

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
Mulefat (Baccharis salicifolia)	25	95	—	—	—	1113	135	114	64	1546
Mulefat [cuttings] (Baccharis salicifolia)	—	—	—	84	—	916	—	—	—	1000
Fremont's cottonwood (Populus fremontii)	10	38	—	33	—	479	54	45	27	686
California blackberry (Rubus ursinus)	10	38	—	33	—	619	54	45	26	825
California rose (Rosa californica)	10	38	44	33	—	725	54	45	26	975
Black willow (Salix gooddingii)	20	76	—	—	—	876	108	90	52	1222
Black willow [cuttings] (Salix gooddingii)	—	—	—	67	—	933	—	—	—	1000
Red willow (Salix laevigata)	10	38	—	33	—	439	54	45	26	645
Arroyo willow (Salix lasiolepis)	10	38	—	—	—	438	54	45	26	611
Arroyo willow [cuttings] (Salix lasiolepis)	—	—	—	33	—	967	—	—	—	1000
Black elderberry (Sambucus nigra ssp. caerulea)	5	19	—	17	—	594	27	23	13	698
California melic (Melica imperfecta)	—	—	20	—	—	—	—	—	—	20
Coast live oak (Quercus agrifolia)	—	—	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] (*Quercus agrifolia*)	25	—	275	—	—	—	—	—	—	300
California gooseberry (*Ribes californicum*)	—	—	50	—	—	—	—	—	—	50
Mugwort (*Artemisia douglasiana*)	—	—	—	33	—	617	54	45	26	775
Wrinkled rush (*Juncus rugulosus*)	—	—	—	—	—	200	—	—	—	200
Basket rush (*Juncus textilis*)	—	—	—	—	—	100	—	—	—	100
California Sagebrush (*Artemisia californica*)	10	38	—	—	306	—	—	—	—	354
Coyote brush (*Baccharis pilularis*)	10	38	—	33		504	54	45	26	710
California brittlebush (*Encelia californica*)	—	—	—	—	102	—	—	—	—	102
California buckwheat (*Eriogonum fasciculatum*)	—	—	—	—	306	—	—	—	—	306
Menzies goldenbush (*Isocoma menziesii*)	—	—	—	—	41	—	—	—	—	41
Deerweed (*Acmispon glaber*)	—	—	—	—	102	—	—	—	—	102
Laurel sumac (*Malosma laurina*)	—	—	—	—	61	—	—	—	—	61
Coastal prickly pear (*Opuntia littoralis*)	—	—	—	—	41	—	—	—	—	41
Black sage (*Salvia mellifera*)	—	—	—	—	102	—	—	—	—	102
TOTAL	**145**	**456**	**563**	**399**	**1061**	**9520**	**648**	**542**	**312**	**13646**

*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 were backfilled with native soil and irrigation

basins, approximately two feet in width, 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 (PEP) for the remainder of Year 1 (8 months). Following Year 1, qualitative monitoring will occur 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 23, 2022 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

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 was noted throughout the DG-1 and DG-1 WOUS mitigation areas, likely both from natural recruitment and from seeding; however, germination was observed to be very minimal in the majority of these mitigation areas. Portions of DG-1 WOUS were noted as being scoured during the 2020 wet season and had minimal plant growth. Native plants such as California sagebrush (*Artemisia californica*), miniature suncup (*Camissoniopsis micrantha*), common sandaster (*Corethrogyne filaginifolia*), California buckwheat (*Eriogonum fasciculatum*), and caterpillar phacelia (*Phacelia cicutaria*) were observed sprouting in the DG-1 and DG-1 WOUS mitigation areas. Dodder (*Cuscuta sp.*) that was noted growing on shrubs in this mitigation area during previous monitoring visits appeared to have been removed or was dead. Native cover for the DG-1 and DG-1 WOUS mitigation areas was estimated to be 55 to 60 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 mitigation area during the monitoring visit.

Nonnative weed cover in DG-1 and DG-1 WOUS was estimated at approximately two percent, which is approximately three percent lower 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 included black mustard (*Brassica nigra*), ripgut brome (*Bromus diandrus*), red-stemmed filaree (*Erodium cicutarium*), and Mediterranean grass (*Schismus barbatus*). All 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 five 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) herbivory by rabbits or other wildlife, 2) competition from nonnative and invasive weeds, 3) misplaced emitters, or 4) recreational traffic through the mitigation areas. There were no additional container plants noted as being missing or dead. Formal mortality counts were taken for DG-2A during the 2020 quantitative monitoring and were included in the 2020 annual reporting. Seasonal dieback was noted for the willows (*Salix* sp.) and the Fremont's cottonwoods (*Populus fremontii*). Some of the planting basins were observed to have minor erosion and should be repaired. The installation of plants in the DG-2A mitigation area appears to have been completed successfully. The current issues identified during the monitoring visit are not expected to have an effect on the continued growth of the plants in the mitigation area. Photos 5 through 6 in Attachment B document 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 mugwort (*Artemisia douglasiana*), telegraph weed (*Heterotheca grandiflora*), wild cucumber (*Marah macrocarpa*), caterpillar phacelia, and stinging nettle (*Urtica dioca*) were observed sprouting in the DG-2A mitigation area. Native cover for the DG-2A mitigation area was estimated to be 50 to 55 percent.

Nonnative weed cover in DG-2A was estimated at approximately less than one percent, which is approximately four percent lower than the level of weed cover that was observed during the previous qualitative monitoring event. This site appeared to have been recently weeded during the monitoring visit. Nonnative species observed in DG-2A included black mustard, foxtail barley (*Hordeum murinum*), and perennial pepperweed (*Lepidium latifolium*). All nonnative weeds were just starting to germinate and had not gone to flower or seed.

2.3.3 DG-2B

The overall health of the container plants in DG-2B was noted as being good. Approximately less than five 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. In addition, insect galls were observed on several of the willow species. Formal mortality counts were taken for DG-2B during the 2020 quantitative monitoring and were included in the 2020 annual reporting. Similar to DG-2A, some of the willows and Fremont's cottonwoods were showing signs of seasonal dieback. Some of the planting basins were observed to have minor erosion and should be repaired. The installation of the plants in the DG-2B mitigation area appears to have been successfully completed. The current issues identified during the monitoring visit are not expected to have an effect on the continued growth of plants in the mitigation area. Photos 7 through 10 in Attachment B document 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 annual bursage (*Ambrosia acanthicarpa*), miniature suncup, caterpillar phacelia, Douglas' nightshade (*Solanum douglasii*), and stinging nettle were observed

sprouting in the DG-2B mitigation area. Native cover for the DG-2B mitigation area was estimated to be 65 percent.

Nonnative weed cover in DG-2B was estimated at approximately less than one percent, which is approximately the same percent that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-2B included black mustard and milk thistle (*Silybum marianum*). All nonnative weeds were just starting to germinate and had not gone to flower or seed. In addition, evidence of recent weeding was observed in the DG-2B mitigation area.

2.3.4 DG-3A

The overall health of the container plants in DG-3A was noted as being good. Approximately five 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 as the percentage of container plants that were showing stress during the previous qualitative monitoring event. In addition, six coast live oaks were observed to have been lost due to erosion since the previous monitoring visit. Approximately five to ten percent of the container plants in the Mulefat Thickets portions of DG-3A were noted as showing varied levels of stress, which is approximately five percent higher than the of container plants that were showing stress during the previous qualitative monitoring event. Formal mortality counts were taken for DG-3A during the 2020 quantitative monitoring and were included in the 2020 annual reporting. The types of stress the plants were exhibiting are the same as those described for the plants in DG-2A. However, erosion is also a problem in some areas of DG-3A. In addition, the Mulefat Thickets portions of DG-3A experienced approximately 18-days of inundation following heavy storm events in December of 2021. Most of the container plants appear to be recovering from the inundation. Some of the planting basins were observed to have varied levels of erosion and should be repaired. In addition, portions of the irrigation line appear to have been misplaced during recent storm events and should be fixed. The willow and mulefat stakes were observed to be thriving in this mitigation area. During the monitoring visit, the planted coast live oak acorns were inspected for survivorship and health. Approximately 20 germinated coast live oak acorns appear to still be present in DG-3A. The majority of the germinated acorns appear to be in good health. During the monitoring, it was noted that an existing coast live oak tree (Tree Tag #39) was experiencing severe branch failure for multiple branches. The cause of the branch failure was unclear and further investigation is being conducted. The installation of the plants in the DG-3A mitigation area appears to have been completed successfully. The current issues noted during the monitoring are not expected to have a negative effect on the continued growth of the plants in the mitigation area. Photos 11 through 15 in Attachment B document 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 mugwort, mulefat, miniature suncup, telegraph weed, caterpillar phacelia, and stinging nettle were observed sprouting in the DG-3A mitigation area. Native cover for the DG-3A mitigation area was estimated to be approximately 55 percent in the mulefat thickets portion of the mitigation area and 45 percent in the coast live oak woodland portion (50 percent overall).

Nonnative weed cover in DG-3A was estimated at approximately 10 percent, which is approximately the same percentage of nonnative cover that was observed during the previous qualitative monitoring event.

Nonnative species observed in DG-3A included black mustard, red-stemmed filaree, foxtail barley, and perennial pepperweed. All 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 five percent of container plants in the coastal sage scrub portions of DG-4 were showing varied levels of stress which is approximately the same percentage of plants showing stress during the previous qualitative monitoring event. Approximately five percent of container plants in the majority of the riparian portions of DG-4 were showing varied levels of stress, which is approximately the same as the percentage of plants showing stress during the previous qualitative monitoring event. It should be noted that approximately 15 percent of the container plants in the southern sections of DG-4, where extended inundation occurred following heavy storm events in December 2021, were showing signs of moderate stress; however, many were starting to show signs of recovery and new growth. Other causes of stress appear to be mostly due to the same reasons described in DG-2A. For most portions of DG-4, only a negligible number of container plants were noted as being missing or dead. Formal mortality counts were taken for DG-4 during the 2020 quantitative monitoring and were included in the 2020 annual reporting. Similar to DG-2A, some of the willows and Fremont's cottonwoods were showing signs of seasonal dieback. Some of the planting basins were observed to have minor erosion and should be repaired. The installation of plants in the DG-4 mitigation area appears to have been completed successfully and the issues noted during the monitoring are not expected to have an impact on the continued growth of the plants. Photos 16 through 19 in Attachment B document 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 deerweed (*Acmispon glaber*), California sagebrush, mugwort, tarragon (*Artemisia dracunculus*), mulefat, miniature suncup, California poppy (*eschscholzia californica*), caterpillar phacelia, California rose (*Rosa californica*), 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 45 to 70 percent in the riparian portion of the mitigation area and 45 percent in the coastal sage scrub portion.

Nonnative weed cover in DG-4 was estimated at approximately 10 to 40 percent, which is approximately 30 percent higher than the percentage of nonnative cover that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-4 included black mustard, cheatgrass (*Bromus tectorum*), poison hemlock (*Conium maculatum*), red-stemmed filaree, foxtail barley, perennial pepperweed, 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 five percent of container pants were showing stress which is approximately the same percent 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. Formal mortality counts were taken for DG-4B during the 2020 quantitative monitoring and were included in the 2020 annual reporting. Some of the planting basins were observed to have minor erosion and should be repaired. The installation of plants in the DG-4B mitigation area appears to have been completed successfully and the issues noted during the monitoring are not expected to have an impact on the continued growth of the plants. Photos 20 and 21 in Attachment B document 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, tarragon, mulefat, cobweb thistle (*Cirsium occidentale*), and caterpillar phacelia 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 10 percent, which is approximately five percent more than the percentage of nonnative cover that was observed during the previous qualitative monitoring event. Nonnative species observed in DG-4B included black mustard, poison hemlock, and perennial pepperweed. All 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 five percent of all container plants were noted as showing minor levels of stress, which is approximately five percent less than 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. Formal mortality counts were taken for DG-4C during the 2020 quantitative monitoring and were included in the 2020 annual reporting. Some of the planting basins were observed to have minor erosion and should be repaired. The installation of plants in the DG-4C mitigation area appears to have been completed successfully and the issues noted during the monitoring are not expected to have an impact on the continued growth of the plants. Photos 22 to 24 in Attachment B document 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, tarragon, telegraph weed, caterpillar phacelia, and Parry's phacelia (*Phacelia parryi*) were observed sprouting in the DG-4C mitigation area. Native cover for the DG-4C mitigation area was estimated to be approximately 50 percent.

Nonnative weed cover in DG-4C was estimated at approximately 10 percent, which is approximately five 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, poison hemlock, foxtail barley, and dwarf nettle (*Urtica urens*). All 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 five 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. Formal mortality counts were taken for DG-5 during the 2020 quantitative monitoring and were included in the 2020 annual reporting. Some of the planting basins were observed to have minor erosion and should be repaired. Similar to DG-2A, some of the willows and Fremont's cottonwoods were showing signs of seasonal dieback. The installation of plants in the DG-5 mitigation area appears to have been completed successfully and the issues noted during the monitoring are not expected to have a negative impact on the continued growth of the plants. Photos 25 and 26 in Attachment B document 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, caterpillar phacelia, 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 percent and the site is thriving.

Nonnative weed cover in DG-5 was estimated at approximately 25 percent, which is approximately 20 percent higher 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, foxtail barley, and milk thistle. 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 should be replaced during the fall/winter of 2021/2022. 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 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. Special attention should be taken to replace the container plants that were lost in the lest Bell's vireo nest buffer to enhance the habitat in this area.

3.2 Nonnative Plant Control

Nonnative weed cover ranged from approximately 2 percent to 40 percent in the various mitigation areas and it was noted that weed cover was highest in the middle and southern sections of DG-4. It should be noted that many of the annual nonnative weeds in these areas were dead for the season. In addition, nearly all nonnative weeds observed during the monitoring were just starting to germinate and had not gone to flower or seed 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 for 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 Irrigation

The irrigation system was inspected for functionality and appeared to be properly installed. Irrigation was not actively occurring during the monitoring visit, but the soil for most container plants was found to be moist at and below the surface. Some of the emitters were observed to be outside of the container plant basins, likely due to erosion, water flow, and/or public interference. In addition, the main irrigation line in the Coast Live Oak Woodland sections of DG-3A was observed to be misplaced from recent rain events and erosion. Twice weekly watering events should be conducted for the container plants unless adequate rainfall occurs. After watering, the container plant basins should have at least 0.5 inch of saturation depth. Continual maintenance of the irrigation system should be conducted to ensure all plants are evenly watered and the tube emitters are placed at the base of the container plants. Watering of the seeded only areas is not recommended.

3.4 Herbivory

Rabbit herbivory of container plants was observed in the Phase 1 mitigation areas. California rose, California buckwheat, and basket rush (*Juncus textilis*) appeared to be the most affected by herbivory. Minor herbivory generally will not kill the plants, but continued monitoring should be conducted during future visits to determine the level of the herbivory isn't such that plants are dying. As the plants become more established, they will be 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.

3.5 Erosion

Minor erosion to planting basins was observed throughout the Phase 1 mitigation areas, likely from recent storm events. In addition, the severe erosion noted in DG-3A near Altadena Drain during the previous monitoring visit continues to worsen. Recent rainfall has continued to carve a channel that flows to the south of Altadena Drain before connecting to the reservoir where severe berm erosion continues to occur. Erosion to the upper slope in DG-3A was also observed. 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 CLancaster@ecorpconsulting.com or (714) 648-0630.

Sincerely,

Carley Lancaster
Staff Biologist

ATTACHMENT A

Field Notes

ATTACHMENT B

Photo Documentation