CALIFORNIA COASTAL COMMISSION
South Coast Area Office
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Long Beach, CA 90802-4302
(562) 590-5071

W14a

A-5-LGB-14-0034-A1

(LAGUNA BEACH GOLF AND BUNGALOW VILLAGE, LLC)

AUGUST 9, 2017

EXHIBITS

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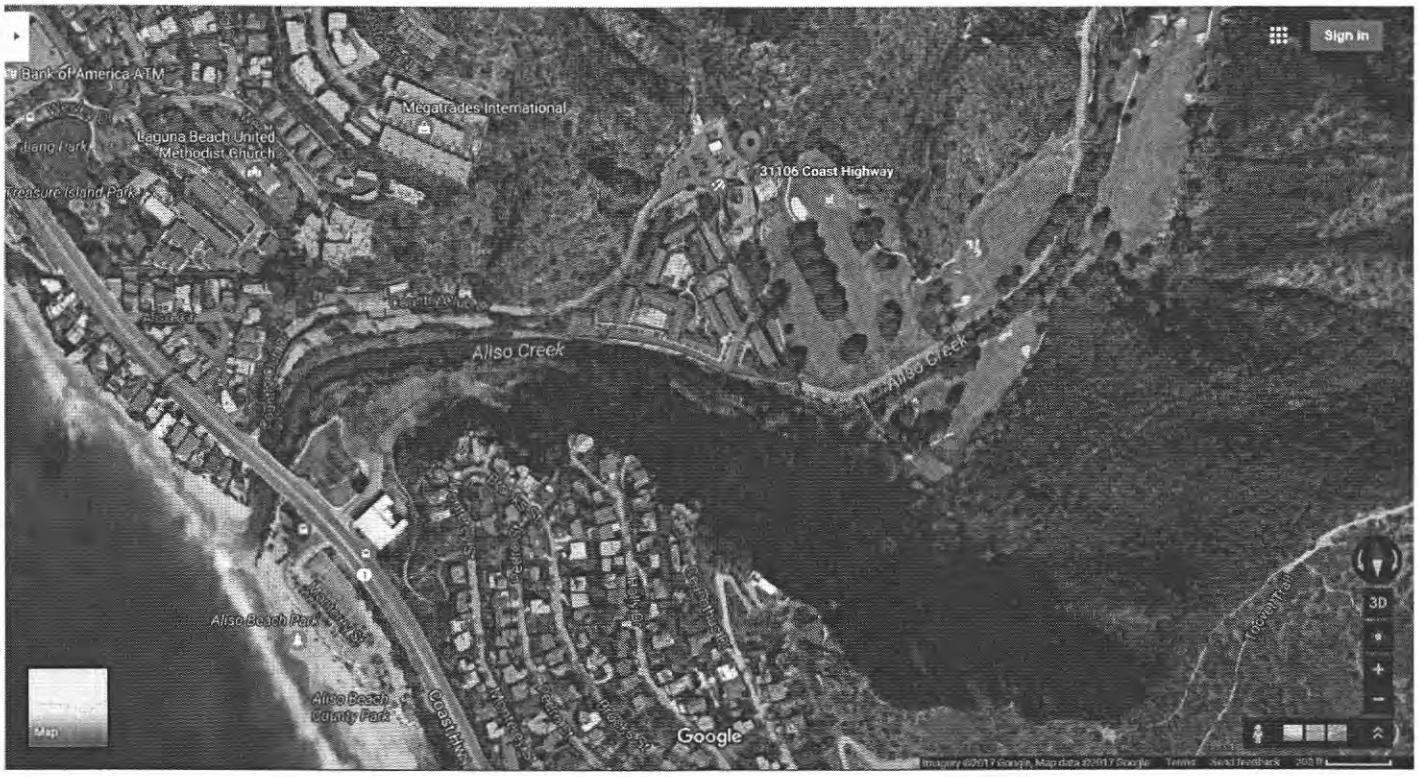

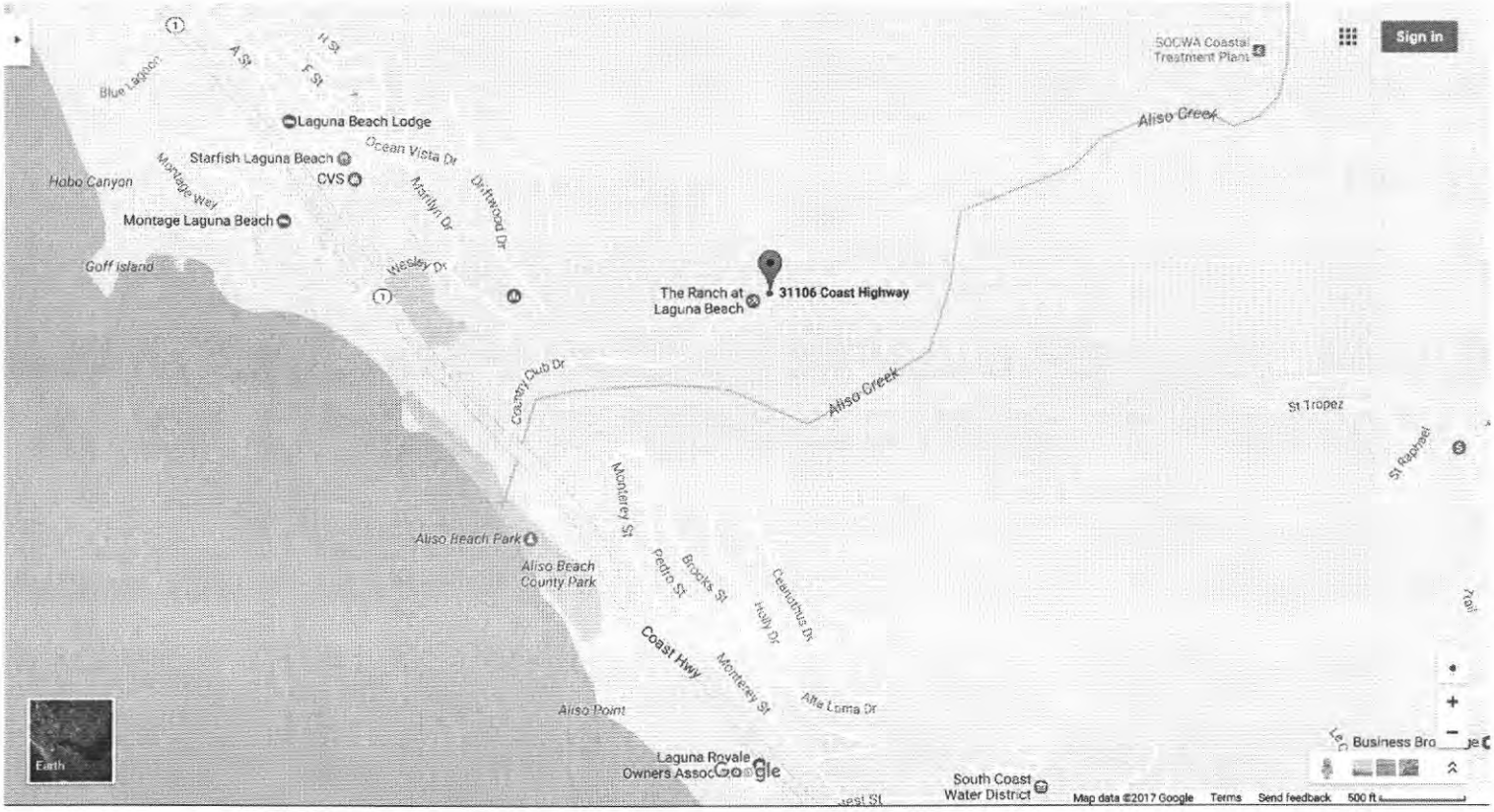

Exhibit 1
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Legend

- Line of Sight
- Potential Habitat Restoration Areas (0.35 ac.)
- Avoided Maintenance Area (0.79 ac.)
- Permanently Maintained Area (2.05 ac.)
- Native Vegetation to be Avoided (0.48 ac.)
- Permanently Removed Native Vegetation (0.85 ac.)
- Invasives Removal Areas (1.52 ac.)

N

0 100 200 400
Feet

1 inch = 200 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: May 9, 2016

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THE RANCH AT LAGUNA BEACH

Vegetation Maintenance/Mitigation Map

GLENN LUKOS ASSOCIATES

Exhibit 3

FINAL RESTORATION PLAN

FOR

TREE TRIMMING/REMOVAL ACTIVITIES IN ALISO CREEK
THE RANCH AT LAGUNA BEACH

IN RESOLUTION TO CCC VIOLATION NO. V-5-15-0125

PREPARED FOR:

THE RANCH AT LAGUNA BEACH
31106 S.COAST HIGHWAY; LAGUNA BEACH, CALIFORNIA 92651
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PREPARED BY:

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October 1, 2016
[Revised January 23, 2017]

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TABLES

EXHIBITS

I. PROJECT DESCRIPTION AND BACKGROUND

The Restoration Plan (Plan) described herein addresses: (a) restoration/mitigation for a 2015 trimming event in the ¾-mile stretch of Aliso Creek on The Ranch at Laguna Beach (The Ranch) property and (b) permanent removal of woody vegetation in designated areas throughout Aliso Creek to maintain continued and safe line of sight along The Ranch's 9-hole golf course. The Plan is related to Coastal Commission (Commission) Violation File No. V-5-15-0125 (NOV) and Coastal Development Permit (CDP) No. A-5-LGB-14-0034.

From November 16-19, 2015, maintenance trimming within Aliso Creek occurred within four designated Maintenance Trimming Polygons as a result of numerous ball strikes that occurred because of view obstructions caused by woody vegetation growth in areas along the creek. Trimming within the designated polygons comprised approximately 2.84 acres, and native vegetation trimmed within the polygons comprised approximately 1.33 acres. The extent of maintenance trimming was carried out pursuant to Streambed Alteration Agreement No. 1600-2015-0167-R5 and prior written notification to the Commission. Upon receipt of the NOV dated December 22, 2015, a report of work was prepared by Glenn Lukos Associates, Inc. (GLA) on behalf of The Ranch and submitted to the Commission on January 19, 2016.

After reviewing the map submitted with the January 19, 2016 memorandum, the Commission addressed in a March 2, 2016 letter that upon study of the golf course configuration on aerial photography, there were distinct areas within the Maintenance Trimming Polygons where no vegetation removal should occur since the polygons occur outside of the golf play area and sightlines of golfers teeing off. The Commission labeled such areas as "Avoidance Areas" on a map attached to the March 2, 2016 letter. On March 29, 2016, representatives of the Commission, The Ranch, and GLA conducted a site visit in response the Commission's March 2, 2016 letter to field review the Avoidance Areas and discuss ongoing vegetation trimming needs and mitigation. Each Avoidance Area was driven to by golf cart to assess whether the extent of the Avoidance Areas provided sufficient line of sight setback. The vantage point of each tee box and fairway was better understood while standing at each location rather than viewed on aerial photograph. Although the full extent of the Avoidance Areas was not feasible due to line of sight constraints, it was agreed that reduction of the Maintenance Trimming Polygons was prudent. To that end, The Ranch would refine the Maintenance Trimming Polygons to avoid areas that were not directly in conflict with line of sight requirements and set out permanent markers on the ground to define the Maintenance Trimming Polygons, and those markers would be mapped using a global positioning system (GPS) Trimble unit.

On June 22, 2016 GLA submitted a memo to the Commission addressing proposals to finalize the Maintenance Trimming Polygons, reduce future ongoing effort of trimming woody riparian vegetation within the Maintenance Trimming Polygons, and restore the reach of Aliso Creek within the property in a manner that provides for continued safe play on the golf course. The original and refined acreages for Maintenance Trimming Polygons and native woody riparian areas within the polygons are outlined in Table 1 below. To resolve the NOV and reduce the

ongoing effort of trimming woody riparian vegetation within the creek, The Ranch submitted an application to the Commission for CDP Amendment in October 2016. This Plan has been revised to incorporate the Revised Special Conditions of the proposed amended CDP.

The Ranch will carry out the following: (a) conduct initial removal of 0.85 acre of native and non-native woody vegetation within the refined Maintenance Trimming Polygons, (b) perform ongoing removal by hand of woody vegetation that naturally recruits within the refined Maintenance Trimming Polygons outside of the avian nesting season while the plants are still saplings (per Special Condition 23 of the CDP amendment), (c) restore and revegetate 3.31 acres of native vegetation within and along the banks of Aliso Creek, and (d) enhance the entire reach of the creek within The Ranch property through ongoing removal of invasive species currently present.

Table 1
Refined Maintenance Trimming Polygons

Maintenance Trimming Polygons	Total Area (ac.)	Native Woody Riparian (ac.)
Original Polygons	2.84	1.33
Refined Polygons	2.05	0.85
Difference in Area	(0.79)	(0.48)

A. Project Location

The Ranch is located in Laguna Beach, Orange County, California [Exhibits 1 and 2]. Woody riparian vegetation removal will occur within four Maintenance Trimming Polygons totaling 2.05 acres along the ¾-mile long stretch of Aliso Creek within the property. Restoration and revegetation will occur within a total of 3.31 acres along the same stretch of Aliso Creek within the property, including the 2.05-acre Maintenance Trimming Polygons [Exhibit 3 – pink polygons], 0.79-acre Avoidance Areas [Exhibit 3 – green polygons], 0.12-acre Upstream Reach of Aliso Creek Area, and 0.35-acre Top of Bank to Edge of Cart Path Areas [Exhibit 3 – blue hatching]. Perpetual removal of 1.52 acres of invasive species will occur within and along the creek [Exhibit 3 – yellow polygons].

B. Restoration and Invasive Species Removal

The Ranch proposes the following measures to restore and mitigate the reach of Aliso Creek within the property.

1. Restoration and Revegetation of 2.96 Acres Within Maintenance Trimming Polygons, Avoidance Areas, and Upstream Reach of Aliso Creek

- Within the 2.05 acres of refined Maintenance Trimming Polygons, The Ranch will plant a variety of native and locally-found grasses, sedges, and forbs from the edge of the actively flowing channel up to the top of bank and edge of cart path. The low-growing species will provide a permanent cover of native vegetation within the Maintenance Trimming Polygons that will not require routine trimming, thereby reducing the frequency of maintenance events in Aliso Creek. These polygons will be monitored and reported on annually to the Commission for five years.

- Within the 0.79-acre of Avoidance Areas supporting 0.48 acre of native vegetation that will be avoided during maintenance trimming activities [Exhibit 3 – green hatching], The Ranch will supplement the woody species with mulefat (*Baccharis salicifolia*) and willow (*Salix* sp.) cuttings, remove and treat all other invasive species, and provide an understory of native and locally-found grasses, sedges, and forbs. These polygons will be monitored and reported on annually to the Commission for five years.

- The Ranch will restore a 0.12-acre Upstream Reach of Aliso Creek Area within the property. This area was previously invaded with solid thatches of giant reed (*Arundo donax*) and pampas grass (*Cortaderia selloana*) and cut/treated once during 2013. The Ranch will implement another round of treatment in this location and install mulefat and willow cuttings to help facilitate native growth. This area will be monitored and reported on annually to the Commission for five years.

2. Restoration of Additional 0.35 Acre from Top of Bank to Edge of Cart Path

As observed during the site visit on March 29, 2016, many areas between the golf cart path and Aliso Creek are either barren, covered in asphalt, or invaded with non-native species including brome grasses (*Bromus* sp.) and ice plant (*Carpobrotus* sp.). These areas are located outside of the refined Maintenance Trimming Polygons, total 0.35 acre, and were mapped by GLA using a GPS Trimble unit. The Ranch will restore this edge condition by removing asphalt, removing and treating the non-native vegetation, and planting the area with native and locally-found grasses. This effort will enhance Aliso Creek by preventing the non-native species from further invading the creek banks. These areas will be monitored and reported on annually to the Commission for five years.

3. Perpetual Removal of Invasive Species Within Aliso Creek

As described in the *Aliso Creek Invasive Species Removal* report that was submitted within the January 19, 2016 memorandum, the reach of Aliso Creek occurring within The Ranch property was subject to enhancement during November and December 2013. The

invasive species removal, which occurred as part of the watershed-scale Aliso Creek Invasives Species Removal Project, was voluntarily funded by The Ranch and carried out by Derek Ostensen and Associates. In 2013, a total of 1.52 acres of non-native thistles, giant reed, pampas grass, acacia (*Acacia* sp.), mustard (*Brassica* sp.), crimson bottlebrush (*Callistemon citrinus*), poison hemlock (*Conium maculatum*), eucalyptus (*Eucalyptus* sp.), lollypop tree (*Myoporum laetum*), Canary Island date palm (*Phoenix canariensis*), Italian stone pine (*Pinus pinea*), wild radish (*Raphanus sativus*), Brazilian pepper tree (*Schinus terebinthifolius*), tamarisk (*Tamarix ramosissima*), and Mexican fan palm (*Washingtonia robusta*) were cut and treated once. As observed during the March 29, 2016 site visit, many of the treated invasive species have resprouted and established in new areas.

The Ranch proposes to remove all prescribed non-native invasive vegetation within the reach of Aliso Creek (including the Maintenance Trimming Polygons) by cutting, treating, and removing the vegetation. Over time, the removals will comprise a larger area than 1.52 acres since the site is at the downstream end of the watershed and non-native vegetation will continue to establish in new areas that were previously untreated. Removal of non-native invasive vegetation will occur initially over a five-year period that will be monitored and reported on annually to the Commission. Following the five-year monitoring period, removal of the non-native invasive species will occur once per year in perpetuity.

C. Permanent Removal of Woody Riparian Vegetation

Permanently removing woody riparian vegetation within the 2.05 acres of refined Maintenance Trimming Polygons supports The Ranch and the Commission's shared objective of reducing the frequency of maintenance events in Aliso Creek. Of the 2.05 acres of Maintenance Trimming Polygons, 0.85 acre comprise native woody species [Exhibit 3 – red hatching] including various willow species, mulefat, coyote brush (*Baccharis pilularis*), and western sycamore (*Platanus racemosa*). The remaining 1.20 acres within Maintenance Trimming Polygons support non-native species including acacia, eucalyptus, giant reed, pampas grass, pepper trees (*Schinus* sp.), European olive (*Olea europa*), and Russian thistle (*Salsola tragus*).

Maintenance efforts will consist of cutting woody species to within 4-6 inches of the soil and treating stumps with an herbicide acceptable for use in aquatic environments. Ongoing maintenance will be required in order to keep the canopy from extending higher than the top of bank. For woody species that naturally recruit into the Maintenance Trimming Polygons, ongoing maintenance outside of nesting season will be required. Woody natural recruits will be targeted for hand-removal during the sapling phase of growth. Maintenance trimming activities will be monitored and reported on annually to the Commission for five years.

All maintenance trimming and invasive removal activities will occur in accordance with nesting bird protocols addressed below.

D. Applicant

The Ranch at Laguna Beach
31106 S. Coast Highway
Laguna Beach, California 92651
Contact: Mark Christy
Phone: (949) 235-2538

II. GENERAL PLAN PROVISIONS

A. Project Biologist Qualifications

Glenn Lukos Associates, Inc. (GLA) and Derek Ostensen and Associates collaborated in the preparation of this Plan. Mr. Tony Bomkamp of GLA is the point of contact and project manager. Mr. Bomkamp is a botanist with an extensive background in habitat restoration including riparian and upland scrub habitats in Southern California. As a botanist, Mr. Bomkamp has diverse field experience including restoration work extending over 30 years in all of the major vegetation communities in Southern California. Mr. Bomkamp earned a B.A. in Biology in 1976 and an M.S. in Environmental Studies in 1993, both from California State University, Fullerton.

Mr. Ostensen has 12 years of experience in ecosystem restoration, conservation land use planning, and habitat acquisition. To date, Mr. Ostensen has helped to plan, acquire, restore or enhance for public benefit more than 15,000 acres of open space lands throughout Southern California, comprising a broad diversity of sensitive habitat and State- and Federally-listed species. Mr. Ostensen has focused his restoration efforts on Southern California habitat and species, spanning a range of riparian and upland vegetation. This experience has provided a thorough understanding of the dynamics of these sensitive habitats, the techniques involved in preserving and restoring them, and the numerous species and natural functions that form Southern California ecosystems. Since 2012, he has acted as Habitat Restoration Specialist on the adjacent Aliso Creek Habitat Restoration project for OC Parks, which manages the contiguous 4,000-acre Aliso and Wood Canyon Wilderness Park.

Mr. Bomkamp and Mr. Ostensen are both qualified to implement the proposed habitat restoration and will lead a staff of restoration ecologists in the implementation of this Plan. The individuals responsible for preparing and implementing this plan have extensive experience designing and installing revegetation and restoration projects in Southern California. This experience provides a strong basis for confidence in the success of the restoration proposed herein. A qualified Habitat Restoration Specialist or other individual knowledgeable in native plant revegetation, hereinafter referred to as the "Project Biologist," will supervise implementation, maintenance, and monitoring of the Plan. The Project Biologist will be onsite during all phases of restoration.

B. Landscape Contractor Qualifications

A qualified landscape contractor hereinafter referred to as "Landscape Contractor" with experience in native habitat restoration will perform restoration and maintenance activities within the restoration areas. The Landscape Contractor will possess a C-27 contractor's license and a California license Pest Control Advisor (PCA) for the application of herbicides and pesticides. The Landscape Contractor will be supervised by the Project Biologist.

C. Timeline and Schedule of Activities

Restoration activities will commence within 60 days of Commission issuance of the CDP amendment or within such additional time necessary to ensure compliance with the requirements of Special Condition 13, which prohibits tree/vegetation trimming or removal during the bird breeding and nesting season (February 1 through August 31). Revegetation will be implemented during the optimal planting period (generally October 15 to March 1). The Monitoring Plan will commence immediately following revegetation activities. The Executive Director of the Commission may extend these deadlines or modify the approved schedule if additional time would provide an ecological or biological benefit to the success of this Plan overall.

D. Party Responsible for Implementing the Restoration Plan

The Ranch at Laguna Beach
31106 S. Coast Highway
Laguna Beach, California 92651
Contact: Mark Christy
Phone: (949) 235-2538

E. Parties Executing the Restoration Plan

Project Biologists:

Glenn Lukos Associates, Inc.
29 Orchard
Lake Forest, California 92630
Contact: Tony Bomkamp
Phone (949) 837-0404

Derek Ostensen and Associates
2 Corporate Plaza, Suite 150
Newport Beach, California 92660
Contact: Derek Ostensen
Phone: (949) 683-4683

Landscape Contractor:

The Landscape Contractor will be The Ranch's Maintenance Superintendent. The Project Biologist will supervise and provide guidance to the Landscape Contractor.

The Ranch at Laguna Beach
31106 S. Coast Highway
Laguna Beach, California 92651
Contact: Kurt Bjorkman
Phone: (949) 715-1407

F. Equipment to Be Used

1. Necessity of Mechanized Tools and Avoidance of Impacts

During removal activities, hand-held equipment such as chainsaws and machetes will be used. Tree trunks and branches will be cut into segments and hauled off of the property. For revegetation area preparation activities, a mechanized auger including a hand-held power auger may be used to dig planting holes. Use of mechanized tools will not impact biological resources (e.g., geological stability, integrity of landforms, existing native vegetation) protected under the Coastal Act.

Ingress and egress to implement this Plan will occur along existing golf cart paths throughout the property to avoid impacts to biological resources.

G. Staging Areas and Storage of Materials

The staging area for equipment and materials, including receptacles and temporary stockpiles of removed vegetation, will be located on areas devoid of vegetation.

H. Soil Stabilization Methods

Vegetation removal activities are not expected to disturb any native vegetation within Aliso Creek since roots will be treated but remain in soil. Once removal activities are complete, the Project Biologist will assess the areas for inadvertent disturbance. Any disturbance will be restored as soon as feasible. If any removal activities occur during the rainy season, best management practices (BMPs) for erosion and water quality (e.g., sandbags, straw wattles, silt fences) will be implemented as needed to protect and address erosion and water quality concerns. Any BMPs used will be placed in areas where no native vegetation is growing and reviewed by the Project Biologist.

I. Identification and Demarcation of Limits

Maintenance trimming, revegetation, and invasives removals will occur in all of the areas addressed above and illustrated in Exhibit 3. Limits of the four Maintenance Trimming Polygons are currently demarcated with markers staked into the ground, and the markers will remain permanently. Within the 2.05-acre refined Maintenance Trimming Polygons and 1.52-acre Invasives Removal Areas, the Project Biologist will mark specific plants and species with colored tape as needed for the Landscape Contractor to target during maintenance and removal efforts. All non-native vegetation in the 0.35-acre Top of Bank to Edge of Cart Path Areas being revegetated will be removed. Prior to commencement of removal and revegetation activities, the Project Biologist will demarcate removal and revegetation area boundaries using stakes, roping, colored flags, and/or colored tape. All non-permanent demarcation materials will be removed when no longer needed.

J. Nesting Bird Surveys

In order to avoid disturbance to nesting birds during implementation of this Plan, there will generally be no use of mechanized equipment during the breeding season (generally February 15 through August 31) or any time when bird courtship, breeding, or nesting is observed. If use of mechanized equipment is necessary during the nesting bird season, a Biological Monitor will conduct a survey to determine presence of any nesting behaviors, nest building, egg incubation, or brood rearing activities within a minimum of 300 feet from proposed work limits. If nesting birds are detected within 300 feet of proposed work areas, nest monitoring will be initiated and use of mechanized equipment within 300 feet of active nests will be postponed until the Project Biologist determines the nest(s) inactive.

III. EROSION CONTROL PLAN

No permanent erosion control measures will be implemented, though planting and seeding described herein will serve as natural erosion control measures once plantings and seed start to establish. It is anticipated that soil stabilizing measures will not be necessary; therefore, temporary erosion control measures are not being proposed. Nonetheless, if temporary erosion control measures become necessary, soil stabilization measures described above will be implemented. Any implemented erosion control measures and a graphic illustrating the location(s) of the measures will be addressed in the first annual report.

IV. REMOVAL PLAN

The Removal Plan applies to removal of vegetation along and within Aliso Creek and is limited to the following areas depicted in Exhibit 3.

- Within 2.05 acres of refined Maintenance Trimming Polygons;
- Within 0.35 acre of the Top of Bank to Edge of Cart Path Area; and
- Within 1.52 acres of Invasives Removal Areas.

A. Removal Area Limits

Limits of the four refined Maintenance Trimming Polygons are currently demarcated with markers staked into the ground, and the markers will remain permanently. Within the 2.05-acre Maintenance Trimming Polygons and 1.52-acre Invasives Removal Areas, the Project Biologist will mark specific plants and species with colored tape as needed for the Landscape Contractor to target during maintenance and removal efforts. All non-native vegetation and asphalt in the 0.35-acre Top of Bank to Edge of Cart Path Areas being revegetated will be removed. Prior to commencement of removal activities, the Project Biologist will demarcate removal and revegetation area boundaries using stakes, roping, colored flags, and/or colored tape. All non-permanent demarcation materials will be removed when no longer needed.

B. Contractor Education Program

Prior to commencement of removal activities, the Project Biologist will conduct an onsite meeting with the Landscape Contractor to address sensitive resources, avoidance measures, removal limits and methods, and any material relevant to the Removal Plan.

C. Biological Monitoring

The Project Biologist will oversee and monitor all phases of Plan implementation.

V. RESTORATION PLAN

A. Restoration Goals and Objectives

Restoration goals and objectives pertaining to the refined Maintenance Trimming Polygons, revegetation within and along the banks of Aliso Creek, and perpetual removal of invasives within the creek are as follows.

- Restore 2.96 acres within refined Maintenance Trimming Polygons, Avoidance Areas, and the Upstream Reach of Aliso Creek Area with native riparian habitat;
- Restore 0.35 acre from the Top of Bank to Edge of Cart Path Area with native riparian habitat; and
- Remove 1.52 acres of invasive species within Aliso Creek in perpetuity.

B. Plant Palettes

For all restoration and revegetation areas, the species included in plant palettes are native and local to the vicinity, adapted to survive in the local climate, and known from prior restoration efforts to favor the physical conditions onsite. Subsequent to required maintenance and removal activities, initial planting within and along the banks of Aliso Creek will occur. Plant palettes for the 2.05-acre Maintenance Trimming Polygons, 0.79-acre Avoidance Area, 0.12-acre Upstream Reach of Aliso Creek Area, and 0.35-acre Top of Bank to Edge of Cart Path Area are outlined below in Tables 2-5, respectively. Species selected in the palettes species are found within the property and Aliso Creek Watershed. Planting will occur in conformance with the species and quantities specified. If any species are not available from plant and seed suppliers, the species will be replaced with other species native to the vicinity or quantities of species existing in the palettes will be increased at the Project Biologist's discretion.

Table 2
2.05-Acre Maintenance Trimming Polygon Plant Palette

Botanic Name	Common Name	Stock Type	Total
Carex praegracilis	clustered field sedge	liner	102
Cyperus eragrostis	tall umbrella sedge	liner	102
Distichlis spicata	Saltgrass	liner	25
Eleocharis macrostachya	creeping spike rush	liner	102
Elymus triticoides	alkali wild rye	liner	102
Encelia californica	bush sunflower	1-gallon	9
Isocoma menziesii	Goldenbush	1-gallon	9
Juncus mexicanus	Mexican rush	liner	41
Juncus patens	spreading rush	liner	51
Rubus ursinus	wild blackberry	1 gallon	76
Salvia mellifera	black sage	1 gallon	9
Stipa lepida	foothill needlegrass	1 gallon	9
Stipa pulchra	purple needlegrass	1 gallon	9
Total Containers/Liners			**647**
Ambrosia psilostachya	western ragweed	seed (lbs)	2
Heliotropium currasavicum	seaside heliotrope	seed (lbs)	4
Mimulus guttanus	seep monkeyflower	seed (lbs)	4
Plantago erecta	California plantain	seed (lbs)	2
Oenothera elata ssp. *hookeri*	common evening primrose	seed (lbs)	4
Total Seed			**16**

Table 3
0.79-Acre Avoidance Area Plant Palette

Botanic Name	Common Name	Stock Type	Total Number
Baccharis salicifolia	mulefat	cutting	28
Carex praegracilis	clustered field sedge	liner	10
Cyperus eragrostis	tall umbrella sedge	liner	15
Distichlis spicata	saltgrass	liner	10
Eleocharis macrostachya	creeping spike rush	liner	15
Elymus triticoides	alkali wild rye	liner	15
Encelia californica	bush sunflower	1-gallon	4
Isocoma menziesii	goldenbush	1-gallon	4
Juncus mexicanus	Mexican rush	liner	10
Juncus patens	spreading rush	liner	10
Rosa californica	California rose	1 gallon	20
Rubus ursinus	wild blackberry	1 gallon	20
Salix gooddingii	black willow	cutting	19
Salix laevigata	red willow	cutting	19
Salix lasiolepis	arroyo willow	cutting	19
Salvia mellifera	black sage	1 gallon	4
Stipa lepida	foothill needlegrass	1 gallon	4
Stipa pulchra	purple needlegrass	1 gallon	4
Total Containers/Liners/Cuttings			**226**
Ambrosia psilostachya	western ragweed	seed (lbs)	1
Heliotropium currasavicum	seaside heliotrope	seed (lbs)	2
Mimulus guttanus	seep monkeyflower	seed (lbs)	2
Plantago erecta	California plantain	seed (lbs)	2
Oenothera elata ssp. *hookeri*	common evening primrose	seed (lbs)	2
Total Seed			**10**

Table 4
0.12-Acre Upstream Reach of Aliso Creek Plant Palette

Botanic Name	Common Name	Stock Type	Total Number
Baccharis salicifolia	mulefat	cutting	18
Salix gooddingii	black willow	cutting	10
Salix laevigata	red willow	cutting	10
Salix lasiolepis	arroyo willow	cutting	10
Total Cuttings			**28**

Table 5
0.35-Acre Top of Bank to Edge of Cart Path Plant Palette

Botanic Name	Common Name	Stock Type	Total Number
Carex praegracilis	clustered field sedge	liner	45
Sisyrinchium bellum	blue eyed grass	liner (clustered)	45
Total Liners			**90**
Agrostis pallens	bentgrass	seed (lbs)	1
Koeleria macrantha	prairie junegrass	seed (lbs)	1
Stipa lepida	foothill needlegrass	seed (lbs)	2
Stipa pulchra	purple needlegrass	seed (lbs)	2
Total Seed			**6**

C. Site Preparation

Site preparation will commence subsequent to required maintenance and removals in revegetation areas. The Landscape Contractor will be responsible for installing irrigation components (as needed, where irrigation does not exist or is insufficient), preparing planting holes for container stock and liners, and conducting any additional work needed prior to planting. Planting will be implemented during the optimal planting period if feasible (generally October 15 to March 1). Planting may occur outside of the optimal planting period only if sufficient irrigation will be applied to establish the plantings and germinate seed.

Prior to digging of planting holes, the Project Biologist will mark plant locations with colored pinflags corresponding to species in the plant palettes. The Landscape Contractor will prepare

planting holes around the pinflagged locations and leave the pinflags in place to guide plant placement.

Where the Project Biologist deems "grow and kill" treatment necessary in revegetation areas, the Landscape Contractor will implement one or more grow and kill cycles. Grow and kill is a method of applying water, germinating non-native species, and spraying the species with appropriate herbicide. Applying one or more grow and kill cycles removes a significant portion of the non-native seed bank present in soils, thereby decreasing the element of competition that non-natives pose to native plantings and enhancing native growth rate and cover within revegetation areas. The Project Biologist will advise regarding the number of cycles to implement. Grow and kill cycles will occur after irrigation components are installed and prior to initial planting. All site preparation activities will occur in a manner avoiding existing native plants to the extent feasible.

D. Planting Plan and Methodology

The planting effort will include planting of container stock, liners, and cuttings and hand-seeding and will occur after the Project Biologist deems initial removal and site preparation activities complete. The Landscape Contractor will conduct all planting and seeding. The Project Biologist will be present for the first day of planting in each revegetation area and a minimum of every other day afterward until planting is complete.

1. Source of Plant Materials

It is preferred that the source of all propagules and seed used in revegetation areas be from within the property or adjacent riparian areas. If not available, the remainder of propagules and seed required will be from wild sources within Aliso Creek Watershed and collected as close to the property as feasible to preserve regional genetic integrity.

2. Contract Growing

Contract growing of all container plants will be by a local experienced native plant nursery specializing in native plant propagation and holding a “License to Sell Nursery Stock” in the State of California subject to inspections by their County’s Agricultural Commissioner to ensure health and vigor of the nursery stock and prevention against pests and pathogens.

The Project Biologist will perform a nursery inspection to check growing conditions, plant health, and availability of sufficient plant quantities. At the time of delivery, the Project Biologist will inspect plants for injury, weeds, pests, and disease and have authority to reject material based on the inspection.

3. Mycorrhizal Fungi

Mycorrhizae are specialized fungi found on plant roots. A symbiotic relationship exists between mycorrhizae and plant roots wherein plants benefit from an increased ability to take up nutrients and withstand drought when mycorrhizae are present. This relationship is essential to growth rate, well-being, and longevity of native plant communities. Plant use of mycorrhizal fungi markedly increases success of revegetation occurring on disturbed or degraded lands. All container-grown plants, except those known to be non-host species, will be inoculated with mycorrhizae fungi by the native plant nursery prior to delivery.

4. Plant Placement

Plant placement will occur according to where pinflags are distributed within the revegetation areas.

The 2.05-acre Maintenance Trimming Polygon Area, 0.79-acre Avoidance Area, and 0.12-acre Upstream Reach of Aliso Creek Area support existing riparian vegetation. Other than removal of native woody species that will occur in Maintenance Trimming Polygons and invasives removals in each of these areas, existing native vegetation in these areas will remain. Plant placement in these areas will occur around existing native vegetation and in bare areas to enhance existing riparian habitat within Aliso Creek. Container plants, liners, and cuttings for these areas will be placed in a manner mimicking natural plant distribution (i.e., clusters and islands) within the Aliso Creek Watershed. Seed in these areas will be hand broadcast around existing native vegetation and in bare areas.

The 0.35-acre Top of Bank to Edge of Cart Path Area along Aliso Creek supports non-native vegetation and asphalt that will be removed before planting occurs. Liners will be placed in a manner mimicking natural plant distribution within the watershed, and seed will be hand broadcast throughout.

5. Planting Method for Container Stock and Seed Application

Container plants, liners, and cuttings will be thoroughly watered by the nursery the day prior to planting. If the Landscape Contractor salvages any cuttings during maintenance activities that are appropriate for planting, the cuttings will be thoroughly watered the day prior to planting. Holes excavated for container plants/liners will measure at least twice the diameter of the containers/liners and twice the depth and be filled with water and permitted to drain completely prior to planting.

When planting occurs, one teaspoon (i.e., 0.3 oz.) of Osmocote 14-14-14 (or equal) will be placed one-inch below the root zone and backfilled with native soil to the appropriate planting depth. For each planting hole, container plants will be upended into the palm of the hand to

avoid harm to the root structures and placed in planting holes with the tops of root balls set one inch above finished grade. Planting holes will then be backfilled with native soil.

After planting, a three-inch high hand-compacted earth berm approximately 24 inches in diameter will be constructed around each container plant location to act as a watering basin, and plants will be watered immediately. Watering basins will be maintained until plants are no longer irrigated. At the Project Biologist's discretion, coarse mulch applied as a two- or three-inch thick top dressing may be placed around plantings to minimize water loss and discourage weed growth. Any mulch used may not come in contact with plant stems or be applied to watering basins surrounding planted native grasses.

At the Project Biologist's discretion, native plantings may be loosely caged with protective plastic mesh or wire screens to avoid herbivory. The Landscape Contractor will remove the protective caging when instructed to do so by the Project Biologist.

Seed will be hand broadcast throughout the revegetation areas.

6. Pruning, Staking, and Herbicide Use

Plantings will not be pruned or staked. Disease or insect damage to plants, if severe enough to require pruning, will serve as a standard for rejection of plant materials. If herbicide use is necessary, the Applicant will inform the Executive Director of the Commission in writing at least 15 days prior to use regarding the type and quantity of herbicide proposed. In the event of herbicide use, selective trimming of native species is permitted to avoid overspray of herbicide from reaching natives. Removal of individual plants to avoid overspray of herbicide is not permitted.

E. Success Criteria

Success criteria for the Plan will account for restoring a functional ecosystem within and along the banks of Aliso Creek where removal of invasives and revegetation will occur.

Within the revegetation areas, the means for determining successful restoration will occur through a series of measurements quantifying cover by native species, species diversity, and cover by non-native species. Cover by native species and species diversity should increase over time, while cover by non-native species cover should decrease over time as native plantings establish. The Project Biologist will monitor restoration success in accordance with the qualitative and quantitative monitoring methods described herein once initial planting is complete and the monitoring phase commences.

Within the invasives removal areas, the means for determining successful restoration will occur through a series of measurements quantifying invasives cover within the creek, which should

decrease over time. The Project Biologist will monitor restoration success in accordance with the qualitative and quantitative monitoring methods described herein.

1. Standard Vegetation Monitoring Performance Standards

Revegetation and Invasives Removal Areas

First-Year Monitoring

Success Standard:

- 25-percent cover by native species relative to reference areas (5-percent deviation permitted);
- At least 80-percent species diversity relative to reference areas (native recruits not in the plant palette may be counted);
- No more than 10-percent cover by non-native species.

Second-Year Monitoring

Success Standard:

- 40-percent cover by native species relative to reference areas (<5-percent deviation permitted);
- At least 80-percent species diversity relative to reference areas (native recruits not in the plant palette may be counted);
- No more than 10-percent cover by non-native species.

Third-Year Monitoring

Success Standard:

- 60-percent cover by native species relative to reference areas (<5-percent deviation permitted);
- At least 80-percent species diversity relative to reference areas (native recruits not in the plant palette may be counted);
- No more than 5-percent cover by non-native species.

Fourth-Year Monitoring

Success Standard:

- 70-percent cover by native species relative to reference areas (<5-percent deviation permitted);

- At least 80-percent species diversity relative to reference areas (native recruits not in the plant palette may be counted);
- No more than 5-percent cover by non-native species.

Fifth-Year Monitoring

Success Standard:

- 80-percent cover by native species relative to reference areas (<5-percent deviation permitted);
- At least 80-percent species diversity relative to reference areas (native recruits not in the plant palette may be counted);
- No more than 5-percent cover by non-native species.

F. Reference Areas

The Project Biologist will select specific reference areas within the Aliso Creek Watershed to measure revegetation within the 2.05-acre Maintenance Trimming Polygons, 0.79-acre Avoidance Area, 0.12-acre Upstream Reach of Aliso Creek Area, and 0.35-acre Top of Bank to Edge of Cart Path Area against. Locations of and data collected within the selected reference areas will be included in annual reports. Quantitative data from the revegetation and invasives removal areas will be compared against quantitative data from the reference areas to determine restoration success during the monitoring period.

G. Proposed Use of Artificial Inputs

1. Irrigation Plan

The Landscape Contractor will be responsible for applying sufficient irrigation to adequately establish new plant material and germinate/establish applied seed. The goal of the irrigation plan is to encourage germination and growth with the least amount of irrigation, as frequent irrigation encourages weed invasion and depletes nutrients from soil. Supplemental irrigation will be temporary and applied in a manner attempting to mimic wet rainfall years by incorporating evenly spaced, infrequent, deep watering rather than frequent, light watering. Wetting of the full root zone and drying of the soil between irrigation events is essential to the maintenance of plants and promotes deep root zones, which supports plants long-term. Irrigation may need to be administered for as long as six to eight hours at a time in order for complete water penetration to the lower soil horizons to occur. Soil should dry to approximately 50- or 60-percent of field capacity (generally within the top 6-10 inches of soil) before subsequent irrigation is applied. The Landscape Contractor may use a soil probe or shovel to examine soil moisture and root depth directly.

Irrigation will be applied for two or three years after initial planting or until plants establish, whichever comes first, and be phased out during the fall/winter of the second or third year unless unusually severe dry conditions threaten survival. The critical period for irrigation is during the first winter and early spring following planting, during which time roots are not yet well established and drought may cause high mortality. If dry periods occur after initial planting, the Project Biologist and Landscape Contractor will regularly inspect soil moisture. If needed, supplemental irrigation during dry summer months may occur as frequently as directed by the Project Biologist.

2. Fertilizer

Use of fertilizer is not proposed following initial use of Osmocote 14-14-14 in planting holes at the time of planting as described above.

VI. MAINTENANCE AND MONITORING PLAN

A. Maintenance Activities During the Monitoring Period

The objective of the Maintenance and Monitoring Plan is to ensure successful restoration of native riparian habitat within the revegetation areas and removal of invasives within the subject reach of Aliso Creek. The Landscape Contractor is responsible for conducting maintenance activities during the monitoring period. The Project Biologist will be responsible for ensuring that maintenance personnel working under the Landscape Contractor are advised of and understand maintenance requirements and the restoration objectives.

The first 120 days after planting will mark the initial establishment period for the native plantings. Maintenance in the revegetation areas will occur for five years, along with monitoring and annual reporting to the Commission. Removal of invasives in the prescribed areas will occur for five years, along with monitoring and annual reporting to the Commission. Following the five-year monitoring period, removal of the invasives will occur once per year in perpetuity. The Landscape Contractor will conduct maintenance during the 120-day establishment period through the remainder of the five-year monitoring period and afterward for invasives removals.

At the end of the 120-day establishment period, the Project Biologist will assess the health of native plantings in the revegetation areas. If deemed satisfactory, the establishment period will be considered concluded and long-term maintenance activities will commence. If plant health is deemed unsatisfactory, the establishment period will be extended for an additional 60 days in order for the Landscape Contractor to implement remedial measures, including plant replacement. Any plant replacement will occur in accordance with plant replacement measures addressed below.

Any damage to native plantings, irrigation components, erosion control measures, and materials facilitating restoration occurring as a result of weather, vandalism, or other causes will be appropriately addressed in a timely manner.

1. General Maintenance

The Landscape Contractor will conduct the following tasks as part general maintenance duties.

- General maintenance of the irrigation system
- Irrigation volume and frequency
- Pest control
- Plant inspection
- Plant replacement
- Trash and debris removal
- Weed control

2. Plant Inspection

Starting during the 120-day establishment period the Project Biologist will inspect the restoration areas on a monthly basis for the first 18 months and quarterly thereafter for the remainder of the maintenance and monitoring program. Plant inspections will, at a minimum, include review of native plantings for health and vigor, presence of non-native species requiring removal, presence of trash and debris requiring removal, presence or signs of pest damage, and effectiveness of any erosion control measures implemented.

3. Weed Control

The Landscape Contractor will be responsible for maintaining the restoration areas free of non-native species during the maintenance and monitoring period. The Project Biologist will train all relevant maintenance personnel in distinguishing non-native species from native ones to ensure that native species are avoided during weeding events. Weeding events will occur at least monthly during the first two years after initial planting and quarterly thereafter for the remainder of the maintenance and monitoring program. Removal will occur by hand before non-natives attain a height of three inches, including within the 24-inch watering basins surrounding native container plantings, and all plant parts including roots will be targeted. Any non-natives removed will be placed on a tarp or similar material to avoid non-native seeds from contacting the soil, transported out of the restoration areas the same day that weeding occurs, and disposed of in accordance with current laws. At the Project Biologist's discretion, any top-dressing of mulch applied during initial planting may be maintained within container plant watering basins for the duration of the maintenance and monitoring period.

Use of herbicide is not currently proposed; however, if it becomes necessary the Applicant will notify the Executive Director of the Commission in writing at least 15 days prior to use

regarding the type and quantity of herbicide proposed. The minimum amount of herbicide necessary to support plantings will be applied. If herbicide use is deemed necessary and approved by the Executive Director, it will be administered by a licensed PCA.

4. General Maintenance of the Irrigation System

The Landscape Contractor will be responsible for conducting regular maintenance and repair of all irrigation system components. Poorly functioning or non-functioning components will be replaced immediately to avoid endangerment to plantings.

General irrigation system checks will be conducted no less than weekly during the first month after initial planting to ensure that the system is functioning appropriately and monthly thereafter except during periods when irrigation is not being applied. Any soil erosion and/or slippage caused by inadequate maintenance and/or functioning of irrigation components will be repaired by the Landscape Contractor in a timely manner at its expense.

5. Trash and Debris Removal

The Landscape Contractor will be responsible for keeping the restoration areas free of trash and debris. Trash and debris removal will occur by hand during routine maintenance and be disposed of in accordance with current laws. Maintenance personnel conducting trash and debris removal will take care not to harm native plantings during removal activities.

6. Pest Control

The Landscape Contractor will be responsible for monitoring native plantings for signs of disease, harm from insects, herbivory, etcetera and consulting with the Project Biologist before implementing any pest control measures. Additionally, the Project Biologist will monitor plantings for pest damage during monthly and quarterly monitoring events. Severely harmed plants will be pruned to avoid pestilence from spreading or replaced in kind if removed. At the Project Biologist's discretion, native plantings may be loosely caged with protective plastic mesh or wire screens to deter herbivory.

7. Plant Replacement

The Landscape Contractor will be responsible for installing container plants and liners and replacing declining and/or dead plants during the 120-day establishment period. At the Project Biologist's discretion, the Landscape Contractor will additionally be responsible for replacing declining and/or dead plants through the remainder of the maintenance and monitoring period. The Landscape Contractor will pay for and install replacement plants.

Replacement plants will conform to the species, size requirements, and spacing specified for the plants being replaced and will be purchased from the native plant nursery where initial plantings were contract-grown if feasible.

8. Pruning

Plantings will not be pruned unless otherwise specified by the Project Biologist as described above.

9. Responsible Party for Maintenance

The Applicant will be responsible for financing maintenance activities.

10. Maintenance Schedule

Maintenance and monitoring will occur for five years. The general maintenance schedule is outlined in Table 6 below.

Table 6
Maintenance Schedule

Maintenance Task	Year				
	1	2	3	4	5
Plant Inspection	Monthly	Monthly (though 18 months) then Quarterly	Quarterly	Quarterly	Quarterly
Irrigation System Inspection	Monthly (more frequently if needed)	Monthly (more frequently if needed)	Quarterly	Quarterly	Quarterly
Trash and Debris Removal	Monthly	Quarterly	Quarterly	Quarterly	Quarterly
Weed Control	Minimum of Monthly	Minimum of Monthly	Monthly from January to April; Quarterly from May to December	Monthly from January to April; Quarterly from May to December	Monthly from January to April; Quarterly from May to December
Pest Control	Monthly	Quarterly (more frequently if needed)	Quarterly	Quarterly	Quarterly
Plant Replacement	Annually	Annually	Annually	Annually	Annually

B. Site Monitoring

Monitoring will assess attainment of success criteria and identify the need to implement contingency measures in the event restoration is not successful. Monitoring methods include field sampling techniques based upon the California Native Plant Society field sampling protocols.[1]

The Project Biologist will regularly monitor the revegetation and invasive removal areas to keep abreast of progress in the areas and detect any issues and/or setbacks early within the five-year

[1] Sawyer, John O. and Todd Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society.

monitoring period. Potential issues and/or setbacks could include or arise from unsuccessful irrigation, erosion, high competition from non-natives and/or non-native invasive species, a high degree of predation and/or disease in plants, and vandalism.

1. Qualitative Monitoring

Qualitative monitoring will occur during the first 18 months and quarterly thereafter for the remainder of the monitoring period. Surveys will include a general site walkthrough; habitat characterization; and noting of native planting health, plant mortality, presence of non-natives, soil moisture, drought stress, erosion, pest issues, and any remedial measures needed to facilitate attainment of success criteria.

2. Quantitative Monitoring

Quantitative monitoring will occur annually during the active growing season. A qualified habitat restoration specialist, biologist, or horticulturist with appropriate credentials and background in native habitat restoration will conduct annual monitoring. To the extent feasible, the Project Biologist will maintain continuity of personnel conducting monitoring and monitoring methods used to ensure comparable assessments from year to year. Surveys will include quantitative measurement of plant data and noting of plant mortality, presence of non-natives and naturally recruited native species, soil moisture, drought stress, erosion, pest issues, and any remedial measures needed to facilitate attainment of success criteria. Any remedial measures implemented during any one monitoring year will be addressed in the annual report.

a. Standard Vegetation Sampling Techniques

Quantitative sampling within each revegetation area will be conducted using one-meter quadrats placed randomly within the areas to ensure complete and representative sampling. Quadrat placement will be determined using random number tables to provide one coordinate indicating the distance along a longitudinal centerline bisecting the site and an additional coordinate determining the distance from the line. Quadrats will be placed on alternating sides of the centerline and perpendicular to the centerline. Within quadrats, vegetative cover will be visually estimated and recorded on data sheets. Any species observed during sampling that do not fall within quadrats will be recorded and included on a list of species present within the restoration areas.

In the event portions of restoration areas cannot be accessed because of water within Aliso Creek, steepness of slopes above the creek, or other factors, quantitative sampling may be conducted using the relevé method. Using the relevé method, vegetative cover will be visually estimated and recorded on data sheets.

Sampling will additionally include quantitative data from reference areas to serve as baseline comparisons for data in the restoration areas. The Project Biologist will determine whether to sample reference areas using the quadrat and/or relevé method.

3. Remedial Measures

If through monitoring the Project Biologist determines that plantings are unsuccessful or restoration is not progressing in a manner to attain success standards, the Landscape Contractor will implement one or both of the following remedial measures to ensure attainment of success standards: (a) conduct maintenance procedures to ensure that site conditions are appropriate (e.g., remove non-native species) and/or (b) replace unsuccessful plantings with appropriately sized stock or seed to meet specified percent cover. Any remedial measures implemented will occur under the Project Biologist's direction. If determined necessary when considering remedial actions to implement, the Project Biologist may recommend detailed investigations (e.g., soils test, excavation of failed plantings to examine root development) to determine causes of failure. In the event restoration in any one area subject to monitoring does not progress in a manner to attain success standards, the Applicant will consult the Commission to determine whether corrective measures and/or an extension of the monitoring period will be necessary.

4. Photo-Documentation

The Project Biologist will establish permanent photo points in the restoration and reference areas prior to or during the first annual monitoring event. Photos will be taken at these locations and in the same compass directions during all annual monitoring events through the end of the maintenance and monitoring period to document restoration progress from year to year and serve as references for yearly comparisons. Any recommended changes to the established photo points will require approval by the Executive Director of the Commission.

5. Annual Reports

For every growing season following initial planting, the Project Biologist will prepare an annual report and submit the report to the Executive Director of the Commission by December 31 for review and approval. Each annual report will, at a minimum, include following.

- An analysis of qualitative and quantitative monitoring data;
- A map identifying restoration/monitoring areas;
- A photo exhibit documenting conditions within restoration areas;
- A description of remedial measures taken, if any; and
- A list of names, titles, and companies of all persons who conducted monitoring activities and prepared the annual report.

6. Final Success Criteria Resolution and Supplemental Restoration Plan

Success criteria monitoring will occur for five years, unless extended for remedial measures. If the final annual report indicates that restoration was not successful, in part or in whole, based on approved success standards, the Applicant will submit within 90 days of the date of the final annual report a revised or supplemental restoration plan to compensate for those portions of the initial Plan that did not meet the approved standards. The revised or supplemental restoration plan will be processed as an amendment to the CDP, unless the Executive Director of the Commission determines an amendment unnecessary.

Unless success criteria was not met because of an "Act of God" (e.g., fire, flood) that would likely have devastated vegetation present within and along the banks of Aliso Creek before restoration activities occurred, the Applicant understands that the Commission may require that unsuccessful restoration be replaced.

C. Notification of Completion

At the end of the five-year maintenance and monitoring period (or other duration if extended for remedial measures or any one of the restoration areas not meeting success criteria), the Applicant will submit a final detailed report for review and approval by the Executive Director of the Commission. If all success criteria are met, the Plan will be considered successful and no additional maintenance or monitoring, except for annual removal of invasives within the prescribed reach of Aliso Creek, will be required of the Responsible Party.

D. Agency Confirmation

At the Commission's request following receipt of the final annual report, the Responsible Party will provide access and guidance through the restoration areas to verify restoration success in terms of the criteria outlined in this Plan.

E. Submission of Documents

Unless otherwise noted in the CDP, all plans, reports, photographs, and other materials will be sent to:

California Coastal Commission
Attn: District Manager
200 Oceangate, Suite 1000
Long Beach, California 90802

California Department of Fish and Wildlife
Attn: Lake and Streambed Alteration
3883 Ruffin Road
San Diego, California 92123

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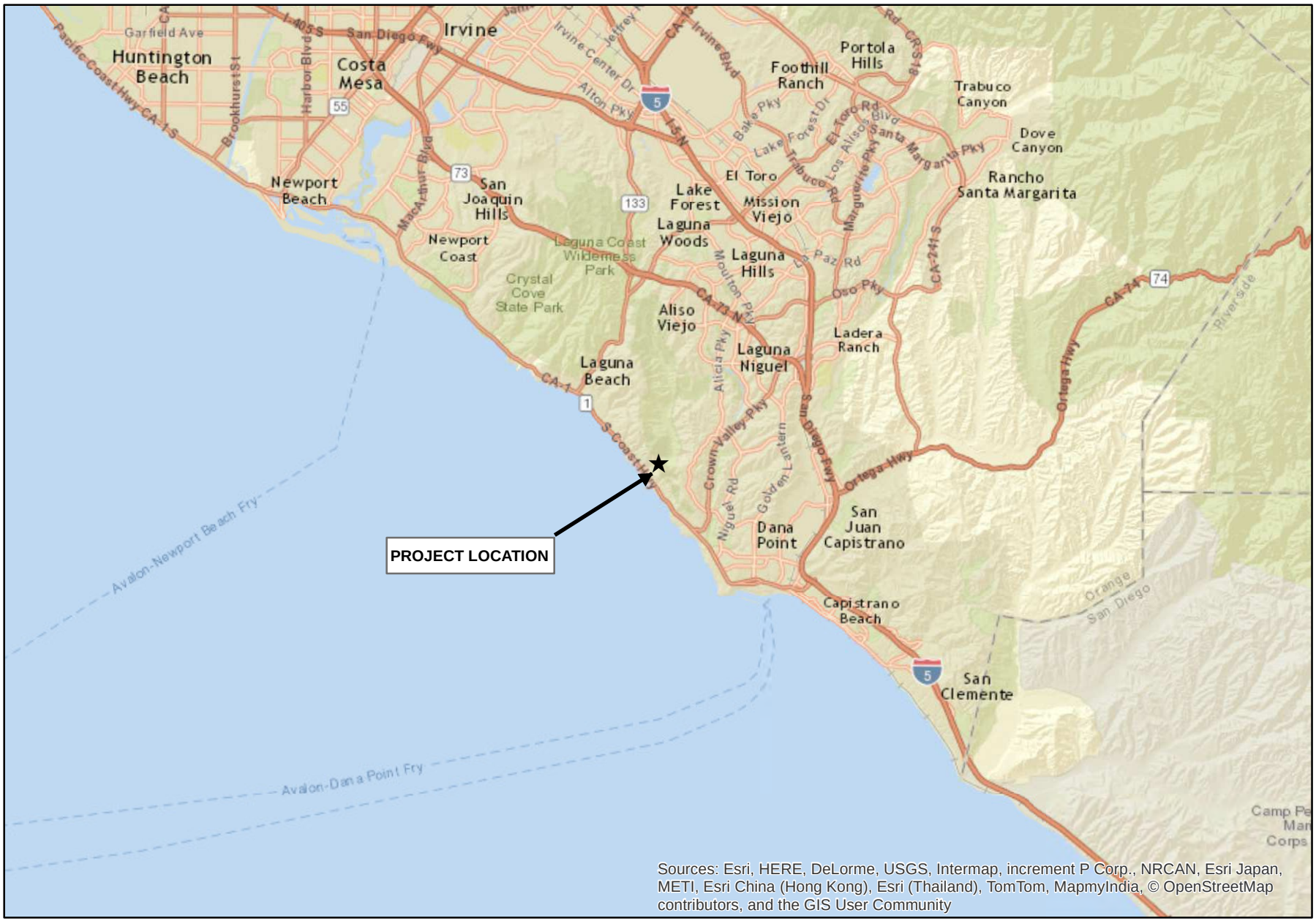

Source: ESRI World Street Map

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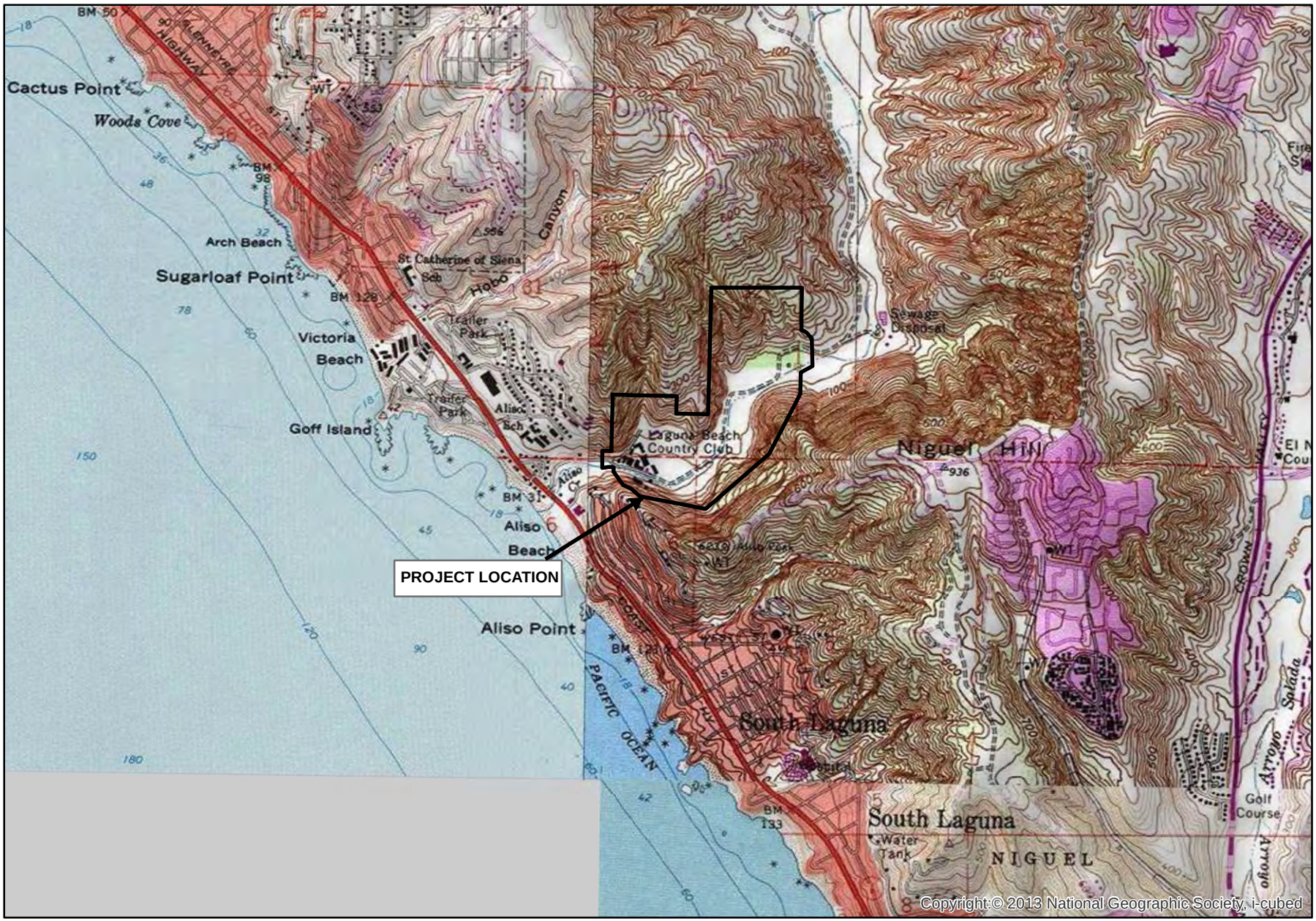
THE RANCH AT LAGUNA BEACH

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Laguna Beach, Laguna Niguel, CA quadrangles

N

0 1,000 2,000 4,000 Feet

THE RANCH AT LAGUNA BEACH

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Legend

- Line of Sight
- Potential Habitat Restoration Areas (0.35 ac.)
- Avoided Maintenance Area (0.79 ac.)
- Permanently Maintained Area (2.05 ac.)
- Native Vegetation to be Avoided (0.48 ac.)
- Permanently Removed Native Vegetation (0.85 ac.)
- Invasives Removal Areas (1.52 ac.)

N

0 100 200 400

Feet

1 inch = 200 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: May 9, 2016

THE RANCH AT LAGUNA BEACH

Vegetation Maintenance/Mitigation Map

GLENN LUKOS ASSOCIATES

Exhibit 3

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MEMORANDUM

GLENN LUKOS ASSOCIATES

Regulatory Services

PROJECT NUMBER: 1155-01REMO

TO: Andrew Willis, Coastal Commission

COPY: Mark Christy, The Ranch at Laguna Beach
Kurt Bjorkman, The Ranch at Laguna Beach
Sheri Asgari, GLA

FROM: Thienen Pfeiffer, GLA

DATE: May 26, 2017

SUBJECT: Addendum No. 1 to the *Final Restoration Plan for Tree Trimming/Removal Activities in Aliso Creek within The Ranch at Laguna Beach in Resolution to CCC Violation No. V-5-15-0125*

This memo serves as Addendum No. 1 (Addendum) to the *Final Restoration Plan for Tree Trimming/Removal Activities in Aliso Creek within The Ranch at Laguna Beach in Resolution to CCC Violation No. V-5-15-0125* dated October 1, 2016 [Revised January 23, 2017]. The Restoration Plan (Plan) addresses: (a) restoration/mitigation for a 2015 trimming event in the ¾-mile stretch of Aliso Creek on The Ranch at Laguna Beach (The Ranch) property and (b) permanent removal of woody vegetation in designated areas throughout Aliso Creek to maintain continued and safe line of sight along The Ranch's 9-hole golf course. Revised Special Conditions of proposed amended Coastal Development Permit (CDP) No. A-5-LGB-14-0034-A1 were incorporated into the Plan in January 2017.

With extensive rainfall that occurred in California during winter 2016/2017 and resulting erosion to areas along the north bank of Aliso Creek within the property, this Addendum proposes revisions to the Plan necessary to provide for effective erosion control within and along the banks of Aliso Creek and long-term success of the restoration areas.

PLAN OBJECTIVES

The Addendum maintains the four key objectives outlined in the Plan. The Ranch will carry out the following: (a) conduct initial removal of 0.85 acre of native and non-native woody vegetation within the refined Maintenance Trimming Polygons, (b) perform ongoing removal by hand of woody vegetation that naturally recruits within the refined Maintenance Trimming Polygons outside of the avian nesting season while the plants are still saplings (per Special Condition 23 of the CDP amendment), (c) restore and revegetate 3.31 acres of native vegetation within and along

29 Orchard ▪ Lake Forest ▪ California 92630-8300
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the banks of Aliso Creek, and (d) enhance the entire reach of the creek within The Ranch property through ongoing removal of invasive species currently present.

PROPOSED REVISIONS TO THE PLAN

The Addendum proposes the following changes to the Plan:

- Rather than hand-seed in areas where seed is proposed, apply a hydroseed mix with a binder to stabilize soils.
- In areas of exposed riprap, add a small amount of soil to promote hydroseed binding.
- Within the 0.79-Acre Avoidance Area and 0.12-Acre Upstream Reach of Aliso Creek Area, place mulefat and willow cuttings along the bottom of the north bank slope to stabilize the slope.
- Rather than removing iceplant (*Carpobrotus* sp.) patches with all other non-native invasives in the 0.35-Acre Top of Bank to Edge of Cart Path Area, leave existing iceplant patches in place to maintain erosion control. Sprayed/Decomposing patches will provide a dense, moisture-retaining mulch for planting one-gallon container plants.

The above revisions pertain to *Section I.B – Restoration and Invasive Species Removal* of the Plan are specifically outlined by area in Table 1 below. Revisions are additionally relevant to *Section II.I: General Provisions – Identification and Demarcation of Limits*, *Section IV.A: Removal Plan – Removal Area Limits*, and *Section V.D: Restoration Plan – Planting Plan and Methodology*.

TABLE 1
Proposed Revisions to Restoration Plan

— Plan Section I.B.1 — ***Restoration and Revegetation of 2.96 Acres of Maintenance Trimming Polygons, Avoidance Areas, and Upstream Reach of Aliso Creek***	**Proposed in Plan**	**Addendum Revisions**
2.05-Acre Refined Maintenance Trimming Polygon Area	Plant a variety of native and locally-found grasses, sedges, and forbs from the edge of the actively flowing channel up to the top of bank and edge of cart path. Conduct annual monitoring and reporting for five years.	No revisions except the seed mix will be hydroseeded with a binder to promote soil stabilization rather than hand-seeded as previously proposed, and a small amount of soil will be added in areas with exposed riprap to promote hydroseed binding.

0.79-Acre Avoidance Area	Supplement 0.48 acre of native woody species within the avoidance areas with mulefat and willow cuttings, remove and treat all other invasive species, and provide an understory of native and locally-found grasses, sedges, and forbs. Conduct annual monitoring and reporting for five years.	No revisions except the seed mix will be hydroseeded with a binder to promote soil stabilization rather than hand-seeded as previously proposed, and a small amount of soil will be added in areas with exposed riprap to promote hydroseed binding. Mulefat and willow cuttings will be placed along the bottom of the north bank slope to provide stabilization.
0.12-Acre Upstream Reach of Aliso Creek Area	Restore the area by implementing treatment of giant reed (*Arundo donax*) and pampas grass (*Cortaderia selloana*) and installing mulefat and willow cuttings to help facilitate native growth. Conduct annual monitoring and reporting for five years.	No revisions. Mulefat and willow cuttings will be placed along the bottom of the north bank slope to provide stabilization.
— Plan Section I.B.2 — *Restoration of Additional 0.35 Acre from Top of Bank to Edge of Cart Path*	**Proposed in Plan**	**Addendum Revision**
0.35-Acre Top of Bank to Edge of Cart Path Area	Restore the edge condition in the area by removing asphalt, removing and treating non-native vegetation including brome grasses (*Bromus* sp.) and iceplant, and planting native and locally-found grasses. Conduct annual monitoring and reporting for five years.	All non-native vegetation except for iceplant will be removed. Patches of iceplant will be left in place to maintain erosion control. No revisions except the seed mix will be hydroseeded with a binder to promote soil stabilization rather than hand-seeded as previously proposed, and a small amount of soil will be added in areas with exposed riprap to promote hydroseed binding.
— Plan Section I.B.3 — *Perpetual Removal of Invasive Species within Aliso Creek*	**Proposed in Plan**	**Addendum Revision**
1.52-Acre Invasive Removal Area	Remove all prescribed non-native invasive vegetation within the reach of Aliso Creek (including the Maintenance Trimming Polygons) by cutting, treating, and removing the vegetation. Over time, the removals will comprise a larger area than 1.52 acres since the site is at the downstream end of the watershed and non-native vegetation will continue to establish in new areas that were previously untreated. Removals, monitoring, and reporting will initially occur for five years. After five years, removals will occur once per year in perpetuity.	No revisions.

The attached exhibit provides a conceptual plan for restoration activities proposed in the Addendum.

RESTORATION AREA PLANT PALETTES

The Addendum proposes no changes to plant palettes outlined in the Plan except for applying a hydroseed mix with a binder rather than hand-seeding in areas where seed is proposed.

CONCLUSION

The revisions proposed in this Addendum serve to enhance the integrity of the creek and bank in a non-invasive manner while maintaining the Plan's original objectives focused on specified removals along with restoration and revegetation of 3.31 acres of native vegetation. The measures integrated into this Addendum are feasible means to implement restoration while protecting the creek and its banks from erosive scour during high velocity flows during extensive rains.

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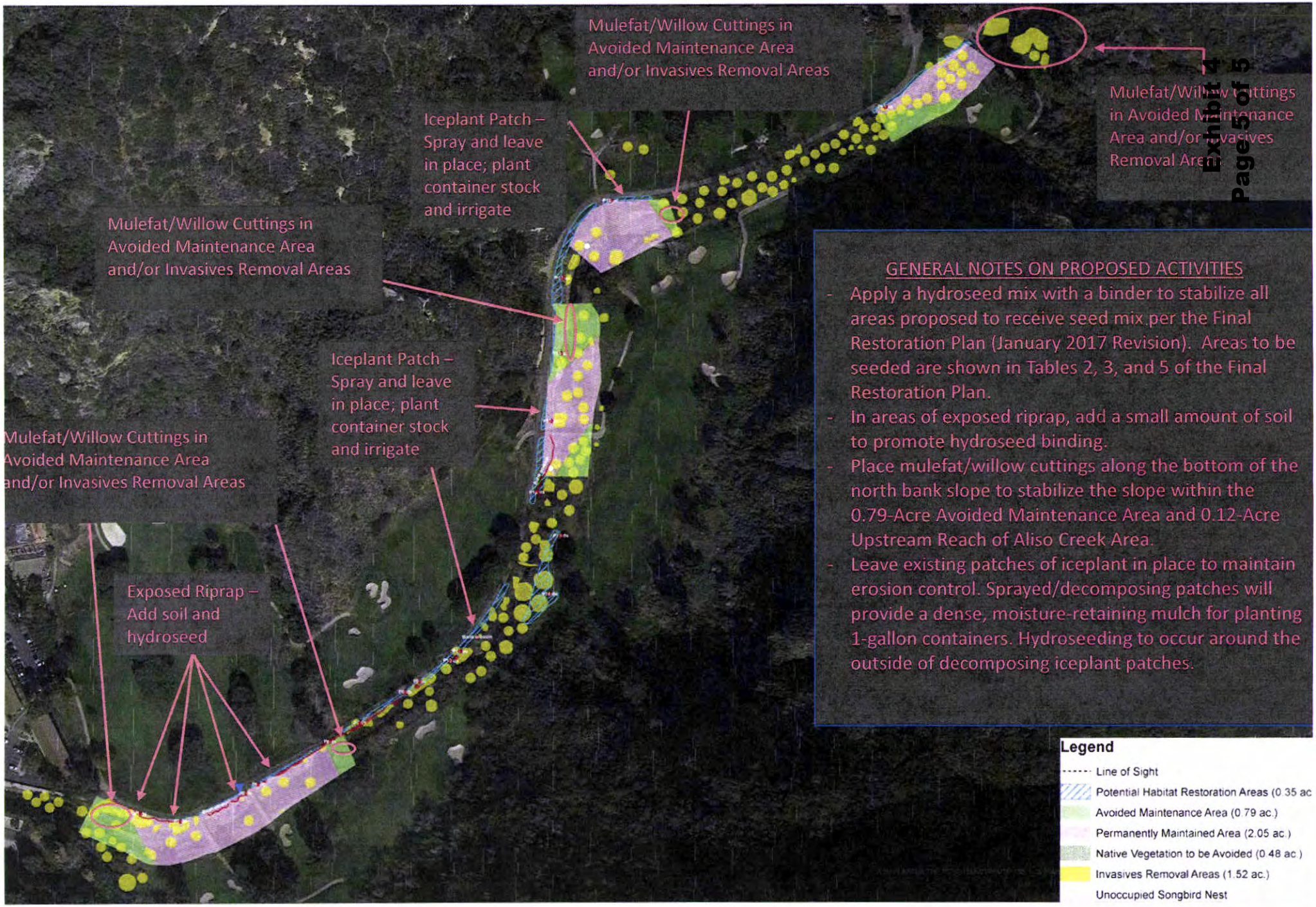

GENERAL NOTES ON PROPOSED ACTIVITIES

- Apply a hydroseed mix with a binder to stabilize all areas proposed to receive seed mix per the Final Restoration Plan (January 2017 Revision). Areas to be seeded are shown in Tables 2, 3, and 5 of the Final Restoration Plan.
- In areas of exposed riprap, add a small amount of soil to promote hydroseed binding.
- Place mulefat/willow cuttings along the bottom of the north bank slope to stabilize the slope within the 0.79-Acre Avoided Maintenance Area and 0.12-Acre Upstream Reach of Aliso Creek Area.
- Leave existing patches of iceplant in place to maintain erosion control. Sprayed/decomposing patches will provide a dense, moisture-retaining mulch for planting 1-gallon containers. Hydroseeding to occur around the outside of decomposing iceplant patches.

Legend

- Line of Sight
- Potential Habitat Restoration Areas (0.35 ac
- Avoided Maintenance Area (0.79 ac.)
- Permanently Maintained Area (2.05 ac.)
- Native Vegetation to be Avoided (0.48 ac.)
- Invasives Removal Areas (1.52 ac.)
- Unoccupied Songbird Nest

July 18, 2017

Revised Plant Palettes for Tables 2 and 3 of the ***CONCEPTUAL RESTORATION PLAN FOR TREE TRIMMING/REMOVAL ACTIVITIES IN ALISO CREEK THE RANCH AT LAGUNA BEACH***

Table 2
2.05-Acre Maintenance Trimming Polygon Plant Palette

Botanic Name	Common Name	Stock Type	Total
Anemopsis californica	yerba mansa	liner	40
Artemisia douglasiana	California mugwort	liner	50
Carex praegracilis	clustered field sedge	liner	102
Distichlis spicata	Saltgrass	liner	25
Eleocharis macrostachya	creeping spike rush	liner	102
Elymus triticoides	alkali wild rye	liner	102
Encelia californica	bush sunflower	1-gallon	9
Isocoma menziesii	Goldenbush	1-gallon	9
Juncus mexicanus	Mexican rush	liner	41
Juncus patens	spreading rush	liner	51
Rosa californica	California wild rose	1 gallon	12
Rubus ursinus	wild blackberry	1 gallon	76
Salvia mellifera	black sage	1 gallon	9
Stipa lepida	foothill needlegrass	1 gallon	9
Stipa pulchra	purple needlegrass	1 gallon	9
Total Containers/Liners			**646**
Ambrosia psilostachya	western ragweed	seed (lbs)	2
Heliotropium currasavicum	seaside heliotrope	seed (lbs)	4
Mimulus guttanus	seep monkeyflower	seed (lbs)	4
Plantago erecta	California plantain	seed (lbs)	2
Oenothera elata ssp. *hookeri*	common evening primrose	seed (lbs)	4
Total Seed			**16**

Table 3
0.79-Acre Avoidance Area Plant Palette

Botanic Name	Common Name	Stock Type	Total Number
Anemopsis californica	yerba mansa	liner	5
Artemisia douglasiana	California mugwort	liner	10
Baccharis salicifolia	mulefat	cutting	28
Carex praegracilis	clustered field sedge	liner	10
Distichlis spicata	saltgrass	liner	10
Eleocharis macrostachya	creeping spike rush	liner	15
Elymus triticoides	alkali wild rye	liner	15
Encelia californica	bush sunflower	1-gallon	4
Isocoma menziesii	goldenbush	1-gallon	4
Juncus mexicanus	Mexican rush	liner	10
Juncus patens	spreading rush	liner	10
Rosa californica	California rose	1 gallon	20
Rubus ursinus	wild blackberry	1 gallon	20
Salix gooddingii	black willow	cutting	19
Salix laevigata	red willow	cutting	19
Salix lasiolepis	arroyo willow	cutting	19
Salvia mellifera	black sage	1 gallon	4
Stipa lepida	foothill needlegrass	1 gallon	4
Stipa pulchra	purple needlegrass	1 gallon	4
Total Containers/Liners/Cuttings			**230**
Ambrosia psilostachya	western ragweed	seed (lbs)	1
Heliotropium currasavicum	seaside heliotrope	seed (lbs)	2
Mimulus guttanus	seep monkeyflower	seed (lbs)	2
Plantago erecta	California plantain	seed (lbs)	2
Oenothera elata ssp. *hookeri*	common evening primrose	seed (lbs)	2
Total Seed			**9**