ENCROACHMENT REMOVAL AND RESTORATION PLAN

PENINSULA POINT
CITY OF NEWPORT BEACH
ORANGE COUNTY, CALIFORNIA

October 10, 2019

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CITY OF NEWPORT BEACH, ORANGE COUNTY, CALIFORNIA

I. EXECUTIVE SUMMARY

This proposed Encroachment Removal and Restoration Plan (Plan/Project) addresses private improvements on an area of beach located along the southern (oceanfront) side of Balboa Peninsula from the end of the existing Ocean Front boardwalk continuing east to Channel Road, also known as Peninsula Point, in the City of Newport Beach (City), Orange County, California. Encroachments consist of private landscaping elements including irrigated lawns, shrubs, trees, and groundcovers that have expanded beyond private property lines and onto City-owned public beach. The encroachments are varied in terms of type and extent, and in some cases have occurred over several decades, and have been passed on through previous owners to current owners. In some cases, encroachments may predate the City's current Local Coastal Program (LCP) and ordinances governing permissible improvements oceanward. A few properties have no encroachments, while other properties have landscaping that extends up to 50-60 feet oceanward from the property lines. There is also variety in level of maintenance currently being performed on the landscaping, ranging from minimal or no maintenance leading to a "natural" appearance, to irrigated and mowed lawns, resembling well-maintained yards. In several cases, native coastal strand vegetation is interspersed with the ornamental vegetation or beginning to establish in areas of less profuse ornamental vegetation.

In addition to lawns and other ornamental landscape features, a significant component of the vegetation interspersed with encroachments consists of hottentot fig "iceplant" (*Carpobrotus edulis*), an invasive exotic species that has historically been planted in coastal areas for erosion control purposes and currently occurs throughout areas of coastal strand on the Balboa Peninsula, including areas outside of the encroachment zones above the high tide mark. Local residents are concerned that removal of the iceplant would jeopardize their property since unvegetated sand is highly vulnerable to movement and erosion from natural processes such as wind and flooding during high tides and storm events.

To date, multiple property owners have received Notices of Violation (NOV) from the California Coastal Commission (CCC) alleging unpermitted development under the Coastal Act. The NOV letters highlight that in addition to violation of the Coastal Act, the private encroachments are inconsistent with the City of Newport Beach LCP and thus the encroachments must be removed and the beach restored for public use.

To resolve the issue raised by private encroachments in a comprehensive manner, the City is proposing to take on the responsibility of encroachment removals and restoration of the area to sandy beach with dune vegetation appropriate for the coastal strand and facilitate public use of the beach.

The encroachment removal and restoration actions described herein provide a work plan and strategy to perform the removals and implement restoration of the coastal strand using a phased approach. In order to avoid leaving large areas of sand completely devoid of vegetation and unstable at any time during the process, removal of existing iceplant will be performed in stages over a two-year period, while introducing appropriate native vegetation in removal areas. This Plan also proposes five years of maintenance and monitoring following the encroachment removals. The five-year maintenance and monitoring period is inclusive of the two-year phased iceplant removal.

II. PROJECT DESCRIPTION

A. Responsible Parties

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B. Project Location

This Encroachment Removal and Replacement Plan (Plan) addresses unpermitted improvements at Peninsula Point, located along the southern (oceanfront) side of Balboa Peninsula extending between the end of the existing bike trail west of F Street and terminating at Channel Road, in the City of Newport Beach, Orange County, California [Exhibit 1]. The areas addressed within this Plan consist of 74 properties located between the end of the existing bike trail west of F Street (latitude 33.555759N, longitude 117.533381W) and Channel Road (latitude 33.595346, longitude -117.882098) [Exhibit 2].

C. Encroachment Mapping Methodology

Current georeferenced aerial photographs dated April 16, 2019 were produced by the City using a drone to document the status of encroachments. Property parcel maps were overlaid onto the aerial photographs to identify the limits of encroachments associated with each parcel. The City produced preliminary measurement of cover by hardscape, lawn, groundcover, shrub, and tree vegetation types based on the aerial photography using Geographic Information System (GIS). This preliminary GIS data was provided to Glenn Lukos Associates (GLA) by the City as a basis for further analysis and inclusion in this Encroachment Removal and Restoration Plan.

GLA conducted a site walk to "ground truth" the aerial photography, confirming the accuracy of cover types provided by the City and refined the categories, as necessary, providing more detailed classifications of the City's mapping[1]. In some cases, the mapped polygons were refined using GPS to differentiate iceplant from ornamental ground covers at a finer scale. As much as possible, bare areas, dead iceplant, and native dune vegetation intermingled with the groundcovers were cut out of the mapped encroachments. Notes were taken on vegetation types and encroachment materials during the site walk. New and previously taken photographs were used to further inform the mapping details.

The encroachment cover types were categorized as hardscaping/steppingstones, ornamental trees[2], ornamental shrub and groundcovers, and lawn associated with each property. Other cover types also mapped included iceplant and wildland weeds/escaped ornamentals. Encroachments and vegetation types at street ends outside the parcel line alignment for adjacent properties were attributed to the City.

[1] The use of aerial photography, GIS mapping, and ground truthing is the industry standard for mapping that is acceptable by regulatory agencies for measurement of land cover types.

[2] Many of the mapped ornamental trees are Mexican Fan Palms, consistent with planted trees along the boardwalk and otherwise present throughout Peninsula Point.

Iceplant in the vicinity of the encroachments associated with each property and at street ends was also mapped for inclusion in the beach restoration program described herein, but the square footage of the iceplant is not counted toward encroachments because this invasive species is ubiquitously present throughout the coastal strand, is not limited to the encroachment areas, and it cannot be conclusively determined to have been planted in the encroachment areas by the homeowners. It is not the intent of this Plan to remove all the existing iceplant throughout the coastal strand, rather only mapped iceplant in close vicinity to the encroachment areas.

In a few cases, ornamentals from one property expanded beyond the property line to the neighboring property that did not appear to have encroachments otherwise. Wildlands weeds were also sometimes present intermixed with ornamental groundcovers and iceplant. These were categorized as wildland weeds/escaped ornamentals and were not counted as encroachments, though they will be removed as a part of this Plan. In cases of intermixed cover types that could not be separated by finer mapping, the mapping was attributed to the dominant layer.

Appendix A provides a measurement of encroachments by type at each property, and at City property at street ends. Appendix A includes detailed notes regarding type and material of hardscaping, presence of irrigation systems, invasive plants, and any other notable information for each property. Appendix B provides a measurement of iceplant and wildland weeds/escaped ornamentals associated with each property and at City property at street ends. Exhibit 3 provides a map of encroachments by type for each property.

D. Summary of Encroachments

Existing encroachments include landscaping elements placed by private property owners on sandy beach areas owned by the City and within the jurisdiction of the California CCC. Landscape features include hardscaping such as patios, walking paths, steppingstones, planter boxes; vegetation including ornamental, trees, shrubs and groundcovers, lawns; and irrigation valves and components. ranging from a few feet from the property line to 50-60 feet oceanward. Some encroachments have developed over several decades, in some cases by previous property owners, and some may predate the City's current LCP and policies and ordinances governing permissible improvements oceanward. A few properties have no or very minor encroachments, while several have extensive encroachments. There is a variety in the level of maintenance currently being performed on the landscaping, ranging from minimal or no maintenance leading to a "natural" appearance, to irrigated and mowed lawns, resembling well-maintained yards. In some cases, native coastal strand vegetation is interspersed with the ornamental vegetation or beginning to establish in areas of less profuse ornamental vegetation.

A total of 54,154 square feet (1.24 acres) of encroachments were mapped based on the April 2019 aerial photography and using the encroachment mapping methodology described above. Of the total square footage, 52,170 square feet (1.19 acres) were associated with private residences and 1,984 square feet (0.05 acre) were associated with the City (primarily areas at street ends). Appendix A provides a measurement of encroachments by type associated with each property and City, as appropriate. Exhibit 3 provides a map of encroachments by type for each property and City.

In many instances, a significant component of the ground cover within the encroachment areas consists of iceplant, an invasive species that currently occurs throughout areas of coastal strand, including areas outside of the encroachment zones above the high tide mark. A concern of the residents is that removal of the

iceplant would jeopardize their property since unvegetated sand is highly vulnerable to movement and erosion from natural processes such as wind and flooding during high tides and storm events. Several property owners have voiced strong apprehensions about removing the existing iceplant groundcover to the City due to concerns regarding erosion and sand movement. As a result, phased removal of iceplant and replacement with native coastal strand vegetation is being proposed as a part of this Plan.

A total of 42,456 square feet (0.97 acres) of iceplant and wildland weeds/escaped ornamentals were mapped based on the April 2019 aerial photography. Escaped ornamentals and wildland weeds, while not being considered encroachments, were mapped and will be removed as a part of the restoration plan. Appendix B provides measurement of mapped iceplant and wildland weeds/escaped ornamentals associated with each property and City, as appropriate.

E. Proposed Encroachment Removal and Restoration

The City proposes to resolve the encroachment issue through a program consisting of:

1. The removal of encroachments from all City-owned areas extending oceanward from resident property lines to reinstate the area to public sandy beach;

2. Implementation of a phased iceplant removal program over two years and replacement with appropriate native coastal strand vegetation; and

3. Five years of maintenance and monitoring following encroachment removals.

The City will coordinate closely with property owners prior to the removal of the encroachments and throughout the removal and restoration process

F. Existing Native Plant Communities

Coastal Strand/Coastal Beach[3]

The existing native plant community on the Balboa Peninsula in the vicinity of the encroachment areas consists of Coastal Strand, a plant community that is found along the Pacific Coast in loose sand just above the high tide line and before soil-based scrub plant communities occur. In southern California, this plant community is the most adjacent to public beach use and provides important functions in terms of protection from sand erosion and providing scenic and visual qualities. Due to its position in areas of high recreational use, this plant community is often disturbed.

The coastal strand is characterized by low plant density (often less than 20-percent cover by vegetation) and low species diversity, as few species can withstand the harsh conditions characteristic of this environment including wind, sand and salt spray, low soil nutrients, lack of soil moisture retention, high summer temperatures, and human disturbance. Typical coastal strand plants are perennial, have gray or succulent leaves (or both), have prostrate or creeping growth patterns, and often produce roots along their length, reproducing both vegetatively and through seed dispersal. Plants typically have a long flowering season.

[3] Munz, Philip A. (2003). Introduction to Shore Wildflowers of California, Oregon, and Washington (p.13-14).

These characteristics enable plants in the coastal strand plant community to withstand the unstable sandy substrate, strong winds, poor water retention, and high summer surface temperatures. Common species include pink sand verbena (*Abronia umbellata*), beach primrose (*Cammisoniopsis cheiranthifolia*), beach morning glory (*Calystegia soldanella*), sand bur (*Ambrosia chamissonis*), saltgrass (*Distichlis spicata*), and beach saltbush (*Atriplex leucophylla)*.

G. Special-Status Wildlife Species

Western Snowy Plover (*Charadrius alexandrinus nivosus*)

The western snowy plover is a small shorebird listed as federally threatened (FT) and a State of California species of special concern (SSP). This species uses sandy or gravelly beaches in peninsulas, offshore islands, bays, and estuaries of the Pacific Coast for nesting/wintering habitat. The breeding season for this species is March 1 through September 30, predominantly in May. Nesting occurs on coastal sandpits, dune-backed beaches, beaches at creek mouths, and lagoons, and saltpans and lagoons and estuaries. Plover nests are simple depressions in the sand and may be next to kelp, shells, driftwood and rocks.[4] The non-breeding season, or "wintering" period, occurs from September through February. This species in known to return to the same beaches every year after nesting elsewhere and has been observed to use the Balboa Peninsula primarily as wintering habitat rather than nesting.[5]

A 25-acre unit of critical habitat for the western snowy plover was designated by the United States Fish and Wildlife Service (USFWS) in June 2012 [referenced in the Federal Register[6] as CA 48] is immediately adjacent to the encroachment areas, generally bounded by A Street and G Street [Exhibit 4]. This unit was occupied at the time of listing and supported two breeding adult western snowy plovers in 2009 (P. Knapp, pers. comm. 2010) and three breeding adults in 2010 (T. Ryan, in litt. 2010). It also supported an average wintering flock of 35 western snowy plovers from 2003 through 2010 (Service unpublished data). Since 2009, additional year-round surveys have been conducted, including surveys by Josh Weinik during 2013, 2014, and 2015. Counts are variable but the majority of the snowy plovers were observed during the wintering season. Plover numbers were low or absent between mid-March to mid-July.[7]

This unit of critical habitat is currently being managed by the City's Recreation and Senior Services Department. A comprehensive management plan for this unit has been prepared by the City and is currently under review by the California Coastal Commission.

[4] http://www.fws.gov/refuge/willapa/wildlife_and_habitat/western_snowy_plover.html
[5] Glenn Lukos Associates. July 2019. Western Snowy Plover Management Plan for East Balboa Peninsula Beaches.
[6] Federal Register/ Vol. 77, No. 118 / Tuesday, June 19, 2012 / Rules and Regulations (p. 36771).
[7] Josh Weinik. PowerPoint Presentation provided to Tony Bomkamp June, 2019.

III. PROJECT IMPLEMENTATION

A. Project Goals

This Plan outlines the following goals:

1. To remove the unauthorized encroachments oceanward beyond resident property lines between the terminus of the existing bike trail west of F Street extending east to Channel Road;

2. Provide for a two-year iceplant removal program which gradually replaces the invasive groundcovers with appropriate native coastal strand vegetation and sandy public beach; and

3. Conduct five years of maintenance and monitoring (including the two-year phased iceplant removal) to ensure successful restoration of coastal strand plant community in the encroachment areas.

B. Schedule of Work

Work is expected to occur in two phases:

- Phase 1: Encroachment Removal (Spring 2020)

- Phase 2: Iceplant Removal and Coastal Strand Restoration, Maintenance, and Monitoring (Summer 2020-Winter 2024)

Phase 1 – Encroachment Removals

The Initial Removal Phase is expected to begin following approval of this Plan by the CCC, in spring 2020. Encroachment removals are recommended to occur between the months of March and May 2020, a time period of minimum snowy plover presence/activity. Work will consist mainly of removal of ornamental landscaping components (lawns, trees, shrubs, groundcovers, and hardscape) as detailed in Appendix C. Initial removals may be performed through a variety of physical removal methods including use of heavy equipment such as front loader/excavator, manual/mechanical removal, and limited use of chemicals for species that cannot be otherwise controlled. Installation of a stabilizing fabric or binder application may be necessary in some or all encroachment removal areas, to stabilize sand.

Phase 2 – Iceplant Removal and Coastal Strand Restoration

Invasive iceplant occurs throughout the coastal strand on the Balboa Peninsula and has established within many of the encroachment areas. In some areas, the occurrence is sparse and limited due to existing natural constraints associated with hot, dry sand. In other areas, the iceplant has formed thick mats benefitting from ornamental landscape irrigation. The presence of iceplant functions as a natural sand stabilizer, which is important to the residents on beachfront properties. Native dune plants would serve the same purpose once established within the encroachment zones. Therefore, this Plan proposes phased removal of iceplant within encroachment areas and replacement with native species over a five-year period.

The initial step in iceplant removal is herbicide treatment in place to allow dieback facilitating future phased removal. This initial step is recommended to occur in summer 2020 after completion of the encroachment landscape elements. Effective treatment may require up to two follow-up treatments.

Physical removal of iceplant biomass will be performed in two stages or "rounds", with each round being followed by installation of native container plants and seed. Round 1 will entail removal of approximately fifty-percent of the iceplant biomass in fall 2020, followed by installation of native coastal strand plants and seed. Round 2 will occur in fall 2021 and will entail removal of the remaining iceplant, followed by a second installation of native coastal plants and seed. Each fall during the subsequent maintenance period, a supplemental native seed mix may be applied to the encroachment removal areas to continually expand coverage by native coastal strand species, as coverage by iceplant is diminished.

Maintenance and monitoring is proposed to continue through the end of the 2024, with an annual monitoring report to be submitted to the CCC at the end of each calendar year for a period of five year starting in 2020.

Table 1 below provides the recommended timeline of encroachment removals, native plant replacement, maintenance, monitoring, and reporting for the proposed activities.

TABLE 1
IMPLEMENTATION SCHEDULE

Work Phase/Seasonal Timeline	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)	Winter (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)	Winter (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)	Winter (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)	Winter (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)	Winter (Dec-Feb)
PHASE 1 - Removals	**2020**				**2021**				**2022**				**2023**				**2024**			
Encroachment Removals																				
Stabilizer Fabric Application																				
PHASE 2 - Restoration	**2020**				**2021**				**2022**				**2023**				**2024**			
Spray Iceplant (leave in place)																				
Round 1 Iceplant Removal (50%)																				
Round 1 Install Native Plants/Seed																				
Round 2 Iceplant Removal (100%)																				
Round 2 Native Plants/Seed																				
Supplemental Seed (if necessary)																				
Qualitative Monitoring (Bi-Monthly Yrs 1-2 and Quarterly Yrs 3-5)																				
Maintenance (Bi-Monthly Yrs 1-2 and Quarterly Yrs 3-5)																				
Quantitative Monitoring (Annually)																				
Annual Report																				

C. Snowy Plover Breeding and Wintering

The breeding season for snowy plover is March 1 through September 30, predominantly in May. The non-breeding season, or "wintering" period, occurs from September through February. Observation of the plover population on the Balboa Peninsula has indicated that the plovers primarily use the area as wintering habitat rather than for nesting. The Project implementation schedule provides for encroachment removals during the

months of March and May, when plovers have been documented as either absent, or present in low numbers. Presence of a biological monitor during the encroachment removal is required to minimize any incidental impacts to the snowy plover as a result of project activities.

D. Responsible Parties

The City will be responsible for the implementation of this Plan.

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Project Biologist: Glenn Lukos Associates, Inc.
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E. Biological Monitoring

Glenn Lukos Associates has extensive experience designing habitat restoration projects in southern California, including projects within the coastal zone. This experience provides a strong basis for confidence in the success of the program proposed herein, as well as a valuable resource in the field for ensuring that any necessary changes are implemented should unanticipated site conditions warrant in-field changes to the Plan. A qualified resource specialist, referred to herein as Project Biologist, will supervise the implementation and maintenance of the Project and perform the proposed five-year monitoring of the restored encroachment areas.

The Project Biologist will be on-site to monitor the removal of the encroachments and monitor the phased removal of invasive groundcovers and replacement with native coastal strand vegetation. The Project Biologist will also perform ongoing training with landscape personnel during the course of the removals as the vegetative components vary among the encroachment areas and provide direction and monitoring during the native plant establishment and maintenance period.

F. Contractor Education

Contracting for the Project comprises two categories. The first category consists of removal of encroachments, which is some cases may require heavy equipment and can be performed by a commercial landscape contractor. For the purpose of this Plan, this contractor will be referenced as the “Removal Contractor”. It is recommended that the same Removal Contractor conduct all the encroachment removals for continuity. Prior to the commencement of Project related activities, the Project Biologist will review all aspects of the Encroachment Removal and Replacement Plan with the Removal Contractor. A contractor education handbook will be prepared by the Project Biologist to familiarize Contractor personnel with the native coastal strand plant community within and adjacent to the encroachment areas and provide them with field

copies of a plant identification guide depicting native plant species to be protected during the removal of unauthorized landscape/improvements.

The second category, consisting of invasive plant treatment/removal and replacement with native coastal strand vegetation will require specialized knowledge in native plant communities. This work shall be performed by a qualified landscape contractor with a minimum of five years of experience in habitat restoration projects. For the purpose of this Plan, this contractor will be referenced as the "Restoration Contractor". The Restoration Contractor will be required to demonstrate experience in this field to the Project Biologist prior to contracting with the Applicant. The Restoration Contractor shall possess C27 and Pest Control Advisor (PCA) licenses for herbicide treatment of the invasive non-native species in the encroachment removal areas.

All contractors must strictly adhere to the Best Management Practices and Impact Minimization Measures outlined in Section IV.C. of this Plan.

G. Cost Estimate

The approximate cost for implementation of the Plan is provided in Table 2 below.

TABLE 2
COST ESTIMATE

Task	Cost
Phase 1-Initial Removals	$ 200,000
Biological Monitoring During Removals	$ 15,000
Phase 2-Iceplant Thinning and Removal	$ 50,000
Container Stock Installation (Including plant costs)	$ 30,000
Seeding (Including seed cost)	$ 20,000
Irrigation	$ 48,000
Erosion Control	$ 15,000
Five-Year Maintenance	$ 92,500
Five-Year Monitoring	$ 75,000

IV. WORK PLAN FOR ENCROACHMENT REMOVAL [PHASE 1]

A. Survey/Staking

The City will survey/stake the limits of the encroachment removal areas prior to start of work by the Removal Contractor to clearly delineate private residence property boundaries, limits of encroachment removals and access path for equipment to minimize driving on the beach and existing dunes. Survey stakes will be spaced within a line of sight and no more than 50 feet apart.

The Project Biologist will flag limits of existing native plants to be avoided during the encroachment removal activities.

B. Removal of Encroachments

Encroachment removals are recommended to occur between the months of March and May, a time period of minimal snowy plover presence/activity. The City is committed to removal of ornamental landscaping components (lawns, trees, shrubs, groundcovers, and hardscape) as detailed in Appendix C. Initial removals may be performed through a variety of physical removal methods including use of heavy equipment such as front loader/excavator, manual/mechanical removal, and limited use of chemicals for species that cannot be otherwise controlled. Installation of a stabilizing fabric or binder application may be necessary in some areas to stabilize sand. The type and quantity of fabric installed will require coordination with the CCC, City, and Project Biologist.

Hardscape and Irrigation

In cases of structural encroachments such as patios or decks that are attached to a residence, individual homeowners will be responsible to obtain appropriate demolition permits and perform the demolition and removal to the property line using their own contractors. Private contractors shall coordinate the work schedule with the City for scheduling and adherence to Best Management Practices and Impact Minimization Measures outlined in this Plan. The City will be responsible for removal of hardscape elements such as pavers, bricks, planter boxes, and stepping stones that are not attached. All hardscape encroachments will be removed and disposed of offsite, in an appropriate landfill. Irrigation lines will be capped at the private property limit and visible components will be removed. Buried irrigation lines not immediately visible or made visible during the landscape removal activity will be capped but remain buried.

Ornamental Vegetation

The initial removal of ornamental vegetation will be performed using a combination of removal methods including use of heavy equipment such as a front loader or excavator, manual or mechanical removal, and limited use of herbicides for species that cannot be otherwise controlled. It is important that all soil amendments, lining and borders associated with the lawns be removed, leaving native sand.

Lawns

Irrigated grass lawns are one of the main components of the encroachments. Lawns may be treated with herbicide prior to removal to achieve initial “kill” prior to hauling away. All sod and soil amendments shall be completely removed and the condition returned to sandy beach.

Trees

Trees may be removed using the cut/stump treatment, a method that involves the cutting of the trunk at ground level and painting the stump with herbicide. Follow-up monitoring and as needed treatment in the next years would consist of herbicide treatment of any new growth. This method would be repeated as necessary each year during the maintenance and monitoring period.

Ornamental Shrubs and Groundcover

Removal of ornamental shrubs and groundcover will be performed using a combination of removal methods including use of heavy equipment such as a front loader/excavator, manual/mechanical removal, and limited use of herbicide for species such as Bermuda grass and English Ivy that cannot be otherwise controlled.

In areas where ornamental shrubs/groundcovers or invasive species are intermixed with native coastal strand vegetation, the ornamental and invasive species will be removed manually around the native plants in order to allow for the expansion of the native species without competition. Native plants must be protected in place

during the removal activities and trampling minimized to the extent feasible. In some cases, the invasive species (i.e. iceplant) may be spot sprayed with herbicide and left in place to function as interim groundcover while the native species expand coverage.

Hottentot Fig (Iceplant)
This species constitutes a large segment of the mapped vegetation within the encroachment zones. Since its proliferation has largely occurred naturally and not through planting by homeowners, it is not being counted toward the encroachments, but will be removed as a part of this restoration program. This Plan proposes removal of iceplant in phases, and replacement with native coastal strand vegetation. In instances where the iceplant is very thick, it may be partially removed with equipment and treated using herbicide to reduce biomass before phased removal as a part of Phase 2, described below in Section V.

Wildland Weeds/Escaped Ornamentals
In cases where lawns, ornamental shrubs or groundcovers from one property appeared to have expanded beyond the property line to the neighboring property, and in areas where patches of wildland weeds were present, these were mapped, but not counted as encroachments, but will be removed as a part of this restoration program.

C. Best Management Practices and Impact Minimization Measures

All work will be performed in conformance with BMPs outlined in this Plan and under the direction of the Project Biologist experienced in habitat restoration and resource management in Southern California. BMPs set forth herein limit the introduction, transport, and proliferation of invasive species on the beach and to ensure that all work is performed with the least incidental impact to native plant communities and protected wildlife.

- Flagging, stakes, and/or rope shall be used to demarcate the boundary of the work areas and the beach, particularly previously mapped snowy plover locations.
- All contractors working on site shall be instructed on the sensitivity of the area by the Project Biologist prior to start of work and receive information regarding impact avoidance and minimization to the snowy plover and coastal strand habitat.
- Equipment access and staging areas shall be identified by the City prior to start of work.
- Flagging or roping off native species locations to be avoided within encroachment areas shall be conducted by the Project Biologist prior to start of work.
- Contractors shall clean all equipment, tools, gear, and clothing prior to start of work to avoid introduction of invasive species to work areas.
- Clear demarcation of access routes prior to start of work shall be conducted by the City and the Project Biologist.

D. Waste Disposal

Waste Disposal locations to be identified at one or multiple locations prior to start of work. All materials removed from encroachment areas shall be disposed of offsite at a landfill. The ornamental plant material will be removed off-site to a “green” waste recycling facility or otherwise legally disposed of, as necessary. Nonnative plant material will be covered during transport.

E. Erosion Control

In areas where large sections of lawn or ornamental vegetation are to be removed, temporary erosion control may be installed to prevent excessive sand movement following the removals. Erosion control may be achieved through the installation of jute netting or similar natural material. Any future erosion control will be addressed on a case by case basis. Any proposed erosion control action will be subject to approval by the CCC prior to implementation.

V. WORK PLAN DURING ICEPLANT REMOVAL AND RESTORATION [PHASE 2]

A. Iceplant Removal

As previously described, invasive iceplant occurs throughout the coastal strand on the Balboa Peninsula and has established within many of the encroachment areas. In some areas, the occurrence is sparse and limited due to existing natural constraints associated with hot, dry sand. In other areas, the iceplant has formed thick mats benefitting from ornamental landscape irrigation. The presence of iceplant functions as a natural sand stabilizer, which is important to the residents on beachfront properties. Native dune plants would serve the same purpose once established within the encroachment area. Therefore, this Plan proposes phased removal of iceplant and replacement with native species over a two-year period.

The initial step in iceplant removal is herbicide treatment in place to allow dieback facilitating future phased removal. This initial step is recommended to occur in summer 2020 after completion of the encroachment landscape elements. Effective treatment may require up to two follow-up spray treatments.

Physical removal of iceplant biomass will be performed in two stages or “rounds”, with each round being followed by installation of native container plants and seed. Round 1 will entail removal of approximately fifty-percent of the iceplant biomass in fall 2020, followed by installation of native coastal strand plants and seed. Round 2 will occur in fall 2021 and will entail removal of the remaining iceplant, followed by a second installation of native coastal plants and seed. Each fall during the subsequent maintenance period, a supplemental native seed mix may be applied to the encroachment removal areas to continually expand coverage by native coastal strand species, as coverage by iceplant is diminished.

B. Native Plants and Seed

It is expected that in time the encroachment areas will begin to reestablish with coastal strand native vegetation through natural recruitment following the removal of the ornamental landscaping and continued weed abatement within the encroachment removal areas. A slow transition from the invasive iceplant groundcover is proposed through gradual thinning of the iceplant over a two-year period, leaving the decomposing biomass as groundcover[8] while promoting the growth of native species such as pink sand verbena, beach primrose, beach morning glory, sand bur, saltgrass, and beach saltbush. It is important to note that ultimately the decomposing iceplant will be removed to avoid soil formation on the sand as the native coastal strand species establish over the five-year project maintenance period.

[8] This method has been successful in restoration efforts in the adjacent western snowy plover critical habitat, in eradicating iceplant while increasing native coastal strand vegetation. Personal conversation with Michelle Clemente (City of Newport Beach) on July 18, 2013.

To aid the revegetation by native coastal strand species, a combination of native container stock and seed mix will be installed in removal areas to initiate the growth of native groundcovers.

Table 3 below provides a list of container stock to be planted in the fall months following encroachment removals.

TABLE 3
COASTAL STRAND PLANT LIST

Species	Common Name	Stock Type	Number/Acre
Abronia umbellata	Pink sand verbena	1-gallon	100
Ambrosia chamissonis	Sand bur	1-gallon	50
Atriplex leucophylla	Beach saltbush	1-gallon	50
Calystegia soldanella	Beach morning glory	1-gallon	100
Cammisoniopsis cheiranthifolia	Beach evening primrose	1-gallon	100
Distichlis spicata	Saltgrass	1-gallon	100

Source of Plant Materials
It is preferred that the source of all propagules and seed used at the mitigation site be from coastal Orange County. If not available, the remainder of propagules and seed required may be considered from coastal San Diego and Los Angeles Counties, and collected as close to the restoration site as possible to preserve regional genetic integrity.

Contract Growing
Contract growing of all container plants shall be by a local experienced native plant nursery. Substitution of plant material at the time of planting depends upon the discretion of the Project Biologist. Any substitutions that are approved will be documented in the annual monitoring reports to the City and CCC.

Container Stock
One-gallon container stock, rosepots, and liners may be utilized for the restoration project, as available, with one-gallon size being the preferred container size. Plant materials will be inspected by the Project Biologist and approved as healthy, disease free, and of proper size prior to planting. Overgrown, root-bound container stock will be rejected. Container stock will be laid out in such a manner that mimics natural plant distribution (i.e., in clusters and islands) to emulate existing the coastal strand plant community on Balboa Peninsula. Prior to container stock installation, the Project Biologist will flag plant locations in the field with pin-flags that will be color coded as to plant species. A list of species with their appropriate color code will be provided to the Contractor prior to plant installation.

Table 4 below provides a list of species and application rate to be applied to encroachment removal areas.

TABLE 4
COASTAL STRAND SEED MIX

Species	Common Name	Stock Type	Lbs/Acre
Abronia umbellata	Pink sand verbena	Seed	5
Ambrosia chamissonis	Sand bur	Seed	5
Atriplex leucophylla	Beach saltbush	Seed	5
Cammisoniopsis cheiranthifolia	Beach evening primrose	Seed	5
Lupinus bicolor	Dove lupine	Seed	8

Method and Timing of Seed Application
The seed mix will be broadcast by hand and will be scattered mainly in the larger encroachment removal areas. To maximize the germination of seed, broadcast will occur following a rain event of at least 1-inch in the winter months between November and February.

Irrigation
Planting and seeding will be conducted during the late fall and winter months (between November and February) to take advantage of cooler temperatures and natural rain cycles to establish planted container stock and seed. However, in case of unseasonable warm winters or drought conditions, the Project Biologist may recommend supplemental irrigation to establish the native plant material. This will be conducted using a water buffalo or similar vehicle to apply water by hose/hand to the planted container stock once per week for a four-month period to establish the native container plant material, and as-needed thereafter.

No permanent irrigation systems will be installed as a part of this plan.

VI. MAINTENANCE

A. Responsible Parties

The City will be responsible for carrying out the five-year maintenance program.

B. Weed Abatement

Following initial encroachment removals during Phase 1, regrowth of some of the ornamental species, as well as a variety of opportunistic annual and perennial non-native species such as red brome (*Bromus madritensis* ssp. *rubens*), sea rocket (*Cakile maritima*), and Bermuda grass (*Cynodon dactylon*), among others, may proliferate within encroachment removal areas. The follow-up maintenance will focus on the suppression of these and other non-native species in the encroachment removal areas, while promoting the recruitment of native coastal strand species.

To the extent practicable, follow-up non-native species control will largely consist of hand-pulling or spot spray to avoid impacts to newly establishing native species. Herbicide use shall occur only in areas where native species will not be affected and only after consulting the Project Biologist. Large, conspicuous piles of dead biomass shall not be left on the beach.

The type and quantity of herbicide application will be determined by a California licensed Pest Control Advisor (PCA) who will recommend types of herbicide to be used, rates of application, and areas to which herbicides are to be applied. A licensed Pest Control Operator (PCO) may work under the supervision of the PCA who will employ best management practices regarding the timing, quantity, and type of herbicide for each species. The PCA will determine both immediate and follow-up herbicide application for each species. All recommendations will be submitted to the Project Biologist for approval prior to treatment.

Hottentot Fig (Iceplant)
While this species comprises a significant groundcover within the encroachment zones, it will not be removed during the initial Phase 1 removals. In instances where the iceplant is very thick due to irrigation, spot treatment using herbicide may be recommended by the Project Biologist to reduce the biomass.
Mixed Ornamental Shrubs and Groundcovers and Native Species
In areas where ornamental shrubs/groundcovers or invasive species are intermixed with native coastal strand vegetation, the ornamental and invasive species will be removed manually around the native plants in order to allow for the expansion of the native species without competition.

C. Irrigation

This will be conducted using a water buffalo or similar vehicle to apply water by hose/hand to the planted container stock on an as-needed basis during the maintenance period, under the direction of the Project Biologist.

D. Trash Removal

The Project areas shall be well-maintained in order to deter vandalism and dumping of trash. Contractor shall, during routine quarterly maintenance, manually remove weeds, liter, and trash from the Project areas and dispose of off-site as permitted by law. Driftwood, wrack and other natural vegetative debris shall be left in place.

E. Supplemental Seeding

Each year, the Project Biologist will assess the infill of native coastal strand species and recommend supplemental seeding of the seed mix outlined in Table 4, if necessary, to provide additional vegetative cover for sand stabilization.

F. Maintenance Schedule

The maintenance program will begin immediately following initial removals in spring 2020 and will occur on a monthly basis during the first year following removals and quarterly thereafter for the remainder of the five-year restoration project.

Table 5 below provides a recommended maintenance schedule.

TABLE 5
MAINTENANCE SCHEDULE

Season/ Schedule	Maintenance Activity
Year 1 - 2020	
Spring	Initial removals
Summer	Spray iceplant in place; remove weeds and regrowth of ornamentals
Fall	Remove weeds and regrowth of ornamental/perform thinning of iceplant (50%)/remove trash
Winter	Install native coastal strand plants and seed/remove weeds and regrowth of ornamentals/remove trash
Year 2 - 2021	
Spring	Remove weeds and regrowth of ornamentals/remove trash
Summer	Remove weeds and regrowth of ornamentals/remove trash
Fall	Remove weeds and regrowth of ornamental/perform thinning of iceplant (100%)/remove trash
Winter	Install native coastal strand plants and seed/remove weeds and regrowth of ornamentals/remove trash
Year 3 - 2022	
Spring	Remove weeds and regrowth of ornamentals/remove trash
Summer	Remove weeds and regrowth of ornamentals/remove trash
Fall	Remove weeds and regrowth of ornamentals/remove trash
Winter	Remove weeds and regrowth of ornamentals/remove trash; apply native seed (if necessary)
Year 4 - 2023	
Spring	Remove weeds and regrowth of ornamentals/remove trash
Summer	Remove weeds and regrowth of ornamentals/remove trash
Fall	Remove weeds and regrowth of ornamentals/remove trash
Winter	Remove weeds and regrowth of ornamentals/remove trash; apply native seed (if necessary)
Year 5 - 2024	
Spring	Remove weeds and regrowth of ornamentals/remove trash
Summer	Remove weeds and regrowth of ornamentals/remove trash
Fall	Remove weeds and regrowth of ornamentals/remove trash
Winter	Remove weeds and regrowth of ornamentals/remove trash; apply native seed (if necessary)

VII. MONITORING PLAN

A. Baseline Data

Aerial photography using drone imagery will be used to measure vegetative coverage by native coastal strand vegetation, non-native vegetation, and sandy beach on the areas outside the encroachment on the Balboa Peninsula between F Street and Channel Street. Representative sampling from the snowy plover critical habitat area will also be included to establish baseline conditions as a reference point for the restoration program. These aerial photographs will be produced at high resolution to map the existing vegetation within reference areas. Field truthing of the aerial photography will be conducted by the Project Biologist and a plant list will be compiled of the vegetated portion of the baseline reference areas to measure species composition and coverage.

Coverage data of baseline conditions will be used as the reference for comparison to measure the effectiveness of the proposed restoration strategy and to ensure ultimate consistency of the encroachment removal areas with existing conditions outside the encroachment areas. Baseline data will be collected concurrently with the initiation of Project activities.

B. Performance Standards

The coastal strand is characterized by low plant density (often less than 20-percent cover by vegetation) and low species diversity, as few species can withstand the harsh conditions characteristic of this environment.

To assess performance, baseline data on coverage by native species, non-native species, and sandy beach will be collected as outlined above. This data will be used as the final (fifth-year) success standard for comparison. Due to the slow growing nature of the native coastal strand species and phased removal of the iceplant, performance standards are proposed for years 3 and 5.

The performance standard for native plant coverage for year 3 will be 50-percent of the baseline coverage, while performance standard for year 5 will be 90-percent of baseline coverage. For example, if baseline coverage by native species is 20-percent, the performance standard for year 3 will be set at 10-percent and for year 5 at 18-percent. The maximum cover by native species shall not exceed 20-percent of the encroachment removal areas in order to preserve sandy beach.

Additional performance standards include eradication of ornamental plant species, and control of invasive non-native species such as iceplant to less than 5-percent cover within the encroachment removal areas.

Table 6 below provides the proposed performance standards for years 3 and 5.

TABLE 6
Performance Standards

Cover Attribute	Performance Standard
Year 3	
Native Cover	50-Percent of Baseline
Ornamental Cover	Less than 5-Percent
Non-Native Invasive Cover	Less than 10-Percent
Year 5	
Native Cover	90-Percent of Baseline
Ornamental Cover	Less than 1-Percent
Non-Native Invasive Cover	Less than 5-Percent

C. Monitoring Methods

For the duration of the five-year monitoring period, elimination of the ornamental and invasive ground cover and establishment of the plantings will be measured through a series of qualitative and quantitative measurements assessing native species cover, non-native species cover, and unvegetated sandy beach. Monitoring will be performed by a qualified Biologist/Ecologist, and continuity within the personnel and methodology of monitoring shall be maintained insofar as possible to ensure comparable assessments.

Qualitative Monitoring

The Project Biologist will conduct qualitative monitoring surveys on a bimonthly basis during the first two years and quarterly during the last three years of the five-year monitoring period. Qualitative surveys will consist

of walking the length of the encroachment area and documenting general observations, such as regrowth of ornamental vegetation, natural recruitment of native coastal strand species, establishment of planted container stock and seed, trash/debris, signs of disturbance, and weed invasions. Records will be kept of signs of erosion, predator bird species such as crows, and weed infestation. The Project Biologist will determine adaptive management measures to be undertaken to ensure successful implementation of the Plan. All adaptive management measures undertaken will be referenced in annual monitoring reports submitted to the CCC.

Quantitative Monitoring

Consistent with the methodology used for baseline data collection, aerial photography using drone imagery will be flown annually to measure vegetative coverage by native coastal strand vegetation, non-native vegetation, and sandy beach within the encroachment removal and restoration areas. Georeferenced aerial photographs will be produced at high resolution to map the vegetation within encroachment removal and restoration areas. Field truthing of the aerial photography will be conducted by the Project Biologist and a plant list will be compiled of the vegetated portion of the assessment areas to measure species composition and coverage.

Photo-Documentation

Permanent stations for photo-documentation will be established before the initiation of the Project as a part of baseline data collection and recorded using GPS. Photos shall be taken during each quantitative monitoring event from the same vantage point and in the same direction each year and shall reflect material discussed in the annual monitoring reports.

D. Monitoring Schedule

The monitoring program will begin immediately following initial removals. Qualitative monitoring will occur on a bimonthly basis during the first two years and quarterly for years three through five of the five-year monitoring period. Quantitative monitoring will be conducted annually in spring months, with annual monitoring reports to be submitted to the CCC by the end of each year (December 31).

E. Annual Monitoring Reports

At the end of each of the five years of maintenance and monitoring, an annual report shall be prepared by the City for submittal to the CCC. These reports will document the revegetation progress of the work areas and summarize maintenance activities that occurred during each respective year. At the end of the fifth monitoring year, the CCC will be notified in writing that the monitoring period is complete. All annual monitoring reports shall include the following:

- a list of names, titles, and companies of all persons who prepared the content of the annual report and participated in monitoring activities for that year;
- a vicinity map indicating location of the encroachment removal and restoration sites;
- an aerial photograph/drone imagery flown each year at the same time of year;
- a site plan identifying GPS points or polygons for significant natural recruitment of native coastal strand species, invasive non-native species removal areas, photo station locations, etc.;
- a description of the status native plant communities, and percent cover by non-native species in the Project areas;

- an analysis of monitoring results; and
- copies of all monitoring photographs.

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Distribution Page of all Persons Receiving a Copy of the Encroachment Removal and Replacement Plan and Annual Monitoring Reports

Mr. Andrew Willis
California Coastal Commission
200 Oceangate
Suite 1000
Long Beach, California 90802-4302

Mr. Jim Campbell
City of Newport Beach
100 Civic Center Drive
Newport Beach, California 92660

Mr. Seimone Jurjis
City of Newport Beach
100 Civic Center Drive
Newport Beach, California 92660

APPENDIX A
PENINSULA POINT ENCROACHMENT DETAILS

Property Address	Encroachment Type	Area (Sqft)	Notes
West of F Street			
1319 Balboa Blvd E	Hardscape/Stepping Stones	54	Non-native sea lavender and other annual weeds mixed with ornamental shrubs. One Canary Island palm
	Ornamental Shrub/Groundcover	474	
	Ormental Tree	59	
Total Encroachment (sqft)		587	
1320 Oceanfront E	Hardscape/Stepping Stones	296	Concrete block wall and patio extending beyond property line. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Ornamental Shrub/Groundcover	472	
Total Encroachment (sqft)		768	
1322 Oceanfront E	Hardscape/Stepping Stones	282	Concrete patio extending beyond property line. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Ornamental Tree	28	
Total Encroachment (sqft)		310	
1324 Oceanfront E	Hardscape/Stepping Stones	296	Concrete block wall and patio extending beyond property line. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Ornamental Shrub/Groundcover	466	
Total Encroachment (sqft)		762	
City F Street	Ornamental Shrub/Groundcover	153	Oleander and agave east side of the F-Street walkway.
Total Encroachment (sqft)		153	
F Street to G Street			
1350 Oceanfront E	Ornamental Shrub/Groundcover	1016	Mapped juniper and Brazilian pepper were removed in 2019. Regrowth of pepper noted outside the fencing and next door.
	Ornamental Tree	30	
`		1045	
1354 Oceanfront E	No Encroachment	0	Escaped ornamental landscaping from 1350 next door. Seedlings of non-native Brazilian pepper and annual weeds interspersed with native plants.
Total Encroachment (sqft)		0	
1358 Oceanfront E	No Encroachment	0	Escaped ornamental landscaping appears to have been from 1350. Seedlings of non-native Brazilian pepper and annual weeds.
Total Encroachment (sqft)		0	
City Tree	Ornamental Tree	85	Mexican fan palm tree.
Total Encroachment (sqft)		85	
107 G St.	Hardscape/Stepping Stones	83	Lawn, wooden footpath, and ornamental shrubs.
	Lawn	290	
Total Encroachment (sqft)		373	
1400 Oceanfront E	Hardscape/Stepping Stones	106	Juniper tree and ornamental groundcovers. Potential patio block wall encroachment. May be the patio cover overhang. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Ornamental Shrub/Groundcover	216	
	Ornamental Tree	91	
Total Encroachment (sqft)		413	

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PENINSULA POINT ENCROACHMENT DETAILS

Property Address	Encroachment Type	Area (Sqft)	Notes
1412 Oceanfront E	Hardscape/Stepping Stones	254	Potential wood deck and fencing encroachment. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Ornamental Shrub/Groundcover	319	
	Ornamental Tree	76	
Total Encroachment (sqft)		649	
City G Street	Ornamental Tree	18	Two Mexican fan palm trees.
Total Encroachment (sqft)		18	
G Street to I Street			
1500 Oceanfront E	Ornamental Shrub/Groundcover	202	Ornamental shrubs lining the patio.
Total Encroachment (sqft)		202	
1504 Oceanfront E	Hardscape/Stepping Stones	200	Irrigated lawn, heaeder board, and gazania groundcover. Potenial wall and patio encroachment. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Lawn	614	
	Ornamental Shrub/Groundcover	329	
Total Encroachment (sqft)		1143	
1510 Oceanfront E	Hardscape/Stepping Stones	201	Irrigated lawn, heaeder board, and gazania groundcover. Potenial wall and patio encroachment. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Lawn	768	
	Ornamental Shrub/Groundcover	388	
Total Encroachment (sqft)		1358	
1514 Oceanfront E	Hardscape/Stepping Stones	245	Ornamental shrubs and aloe. Irrigation system. Potential brick wall and patio encroachment. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Ornamental Shrub/Groundcover	896	
Total Encroachment (sqft)		1142	
1516 Oceanfront E	Hardscape/Stepping Stones	227	Ornamental shrubs and aloe. Irrigation system. Potential brick wall and patio encroachment. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Ornamental Shrub/Groundcover	952	
Total Encroachment (sqft)		1179	
1520 Oceanfront E	Hardscape/Stepping Stones	186	Ornamental shrubs and aloe. Irrigation system. Potential brick wall and patio encroachment. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Lawn	174	
	Ornamental Shrub/Groundcover	526	
Total Encroachment (sqft)		885	
1526 Oceanfront E	Lawn	804	Irrigated lawn with hedge of ornamental shrubs.
	Ornamental Shrub/Groundcover	97	
Total Encroachment (sqft)		901	
1528 Oceanfront E	Hardscape/Stepping Stones	4	Ornamental shrubs on the west may belong to adjacent property (1526).
	Ornamental Shrub/Groundcover	77	
Total Encroachment (sqft)		81	
1540 Oceanfront E	Hardscape/Stepping Stones	18	Small concrete pad.
Total Encroachment (sqft)		18	

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PENINSULA POINT ENCROACHMENT DETAILS

Property Address	Encroachment Type	Area (Sqft)	Notes
1550 Oceanfront E	Hardscape/Stepping Stones	48	Narrow hardscape footpath.
Total Encroachment (sqft)		48	
1554 Oceanfront E	Ornamental Shrub/Groundcover	48	A small section of lawn from adjacent property at 1556. Small patch of aloe.
Total Encroachment (sqft)		48	
1556 Oceanfront E	Hardscape/Stepping Stones	20	Lawn and small wooden pad/deck.
	Lawn	494	
Total Encroachment (sqft)		514	
1560 Oceanfront E	Ornamental Shrub/Groundcover	220	Mixed low growing ornamentals and iceplant. May be escaped ornamentals.
Total Encroachment (sqft)		220	
1564 Oceanfront E	Hardscape/Stepping Stones	26	Approximately 30 ornamental agave intermixed with native dune species. Stepping stones.
	Ornamental Shrub/Groundcover	687	
Total Encroachment (sqft)		713	
1570 Oceanfront E	No Encroachment	0	Native dune species.
Total Encroachment (sqft)		0	
1572 Oceanfront E	Hardscape/Stepping Stones	32	Lawn, irrigation, and ornamental groundcover. Small wall.
	Lawn	811	
	Ornamental Shrub/Groundcover	299	
Total Encroachment (sqft)		1141	
1576 Oceanfront E	Hardscape/Stepping Stones	6	Lawn. Ornamental shrubs and groundcovers Water hose. Few stepping stones.
	Lawn	465	
	Ornamental Shrub/Groundcover	602	
Total Encroachment (sqft)		1073	
1580 Oceanfront E	Hardscape/Stepping Stones	21	Lawn, irrigation system, concrete patio. Extensive ornamental landscaping and irrigated iceplant extends to include west side of I-Street boardwalk.
	Lawn	450	
	Ornamental Shrub/Groundcover	435	
Total Encroachment (sqft)		906	
City - I Street	Lawn	6	
	Ornamental Shrub/Groundcover	735	
Total Encroachment (sqft)		741	
I Street to L Street			

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PENINSULA POINT ENCROACHMENT DETAILS

Property Address	Encroachment Type	Area (Sqft)	Notes
1700 Oceanfront E	Hardscape/Stepping Stones	47	Irrigation system, concrete patio. Extensive ornamental landscaping and irrigated iceplant extends to include west side of I-Street boardwalk.
	Ornamental Shrub/Groundcover	1412	
Total Encroachment (sqft)		1459	
1706 Oceanfront E	Hardscape/Stepping Stones	58	Lawn, irrigation system, headerboard, hardscape, all removed in 2019. Ornamental shrubs and groundcover remain.
	Lawn	590	
	Ornamental Shrub/Groundcover	565	
Total Encroachment (sqft)		1213	
1712 Oceanfront E	Hardscape/Stepping Stones	16	Lawn had died back, but sod and soil amendments to be removed.
	Lawn	833	
Total Encroachment (sqft)		849	
1714 Oceanfront E	Hardscape/Stepping Stones	63	Ornamental shrubs and drip irrigation. Small walkway hardscape.
	Ornamental Shrub/Groundcover	165	
Total Encroachment (sqft)		228	
1718 Oceanfront E	Hardscape/Stepping Stones	11	Lawn, irrigation, headerboard.
	Lawn	838	
	Ornamental Shrub/Groundcover	51	
Total Encroachment (sqft)		900	
1722 Oceanfront E	Hardscape/Stepping Stones	17	Lawn, irrigation. Small concrete pad.
	Lawn	1200	
	Ornamental Shrub/Groundcover	21	
Total Encroachment (sqft)		1238	
1724 Oceanfront E	Hardscape/Stepping Stones	9	Lawn, irrigation. Small concrete pad.
	Lawn	1207	
	Ornamental Shrub/Groundcover	121	
Total Encroachment (sqft)		1337	
1730 Oceanfront E	Ornamental Shrub/Groundcover	31	Small quantity of ornamental groundcover including fountaingrass.
Total Encroachment (sqft)		31	
1740 Oceanfront E	Hardscape/Stepping Stones	86	Lawn, irrigation, stepping stones, header board, hosebib, and ornamental hedge.
	Lawn	997	
	Ornamental Shrub/Groundcover	710	
Total Encroachment (sqft)		1792	
	Hardscape/Stepping Stones	80	

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Property Address	Encroachment Type	Area (Sqft)	Notes
1744 Oceanfront E	Lawn	886	Lawn, irrigation, stepping stones, header board, hosebib, and ornamental hedge.
	Ornamental Shrub/Groundcover	475	
Total Encroachment (sqft)		1441	
1750 Oceanfront E	Hardscape/Stepping Stones	19	Ornamental shrubs and groundcover. Small concrete pad.
	Ornamental Shrub/Groundcover	519	
Total Encroachment (sqft)		539	
1752 Oceanfront E	No Encroachment	0	No encroachment.
Total Encroachment (sqft)		0	
City - L Street	Ornamental Shrub/Groundcover	427	
Total Encroachment		427	
2000 Oceanfront E	Hardscape/Stepping Stones	60	Ornamental shrubs. Concrete pad.
	Ornamental Shrub/Groundcover	188	
Total Encroachment (sqft)		248	
2004 Oceanfront E	Ornamental Shrub/Groundcover	183	Ornamental shrubs and aloe.
Total Encroachment (sqft)		183	
2008 Oceanfront E	No Encroachment	0	No encroachment.
Total Encroachment (sqft)		0	
2016 Oceanfront E	No Encroachment	0	Few escaped ornamental shrubs and succulents.
Total Encroachment (sqft)		0	
2020 Oceanfront E	Hardscape/Stepping Stones	20	Ornamental shrubs, succulents, lawn including invasive English ivy. Irrigation system.
	Lawn	285	
	Ornamental Shrub/Groundcover	872	
Total Encroachment (sqft)		1177	
2026 Oceanfront E	Lawn	76	Ornamental shrubs, succulents, lawn including invasive English ivy. Irrigation system.
	Ornamental Shrub/Groundcover	1850	
Total Encroachment (sqft)		1926	
2030 Oceanfront E	Hardscape/Stepping Stones	68	English ivy, ornamental groundcovers and shrubs. Irrigation system. Steppingstones.
	Ornamental Shrub/Groundcover	1105	
Total Encroachment (sqft)		1173	
2034 Oceanfront E	Hardscape/Stepping Stones	51	Lawn, ornamental shrubs and groundcover. Steppingstones.
	Lawn	358	
	Ornamental Shrub/Groundcover	222	
Total Encroachment (sqft)		631	

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PENINSULA POINT ENCROACHMENT DETAILS

Property Address	Encroachment Type	Area (Sqft)	Notes
2038 Oceanfront E	No Encroachment	0	No encroachment.
Total Encroachment (sqft)		0	
2042 Oceanfront E	Hardscape/Stepping Stones	135	Brick patio. Oramental groundcover. LOCATION TO BE CONFIRMED WITH FUTURE SURVEY. REMOVAL TO BE COORDINATED WITH PROPERTY OWNER.
	Ornamental Shrub/Groundcover	301	
Total Encroachment (sqft)		436	
2046 Oceanfront E	Hardscape/Stepping Stones	17	Extensive lawn and irrigation system. Ornamental groundcovers. Small hardscape pad.
	Lawn	1454	
	Ornamental Shrub/Groundcover	509	
Total Encroachment (sqft)		1980	
2050 Oceanfront E	Lawn	2273	Extensive lawn and irrigation system. Ornamental groundcovers.
	Ornamental Shrub/Groundcover	102	
Total Encroachment (sqft)		2374	
2054 Oceanfront E	Lawn	599	Lawn or grasslike ornamental groundcover. Ornamental palms.
	Ornamental Shrub/Groundcover	32	
	Ornamental Tree	2	
Total Encroachment (sqft)		633	
2060 Oceanfront E	Lawn	287	Lawn or grasslike ornamental groundcover. Ornamental palm.
	Ornamental Shrub/Groundcover	145	
	Ornamental Tree	10	
Total Encroachment (sqft)		443	
City - M Street	Ornamental Shrub/Groundcover	361	
Total Encroachment (sqft)		361	
M Street to Channel Road			
2100 Oceanfront E	Ornamental Shrub/Groundcover	446	Ornamental shrubs and aloes. Palm tree.
Total Encroachment (sqft)		446	
2104 Oceanfront E	Hardscape/Stepping Stones	42	Steppingstones. Lawn, and ornamental goundcover. Two palm trees.
	Lawn	608	
	Ornamental Shrub/Groundcover	134	
	Ornamental Tree	34	
Total Encroachment (sqft)		818	
2108 Oceanfront E	Lawn	1167	Lawn. Irrigation system. Ornamental shrubs.
	Ornamental Shrub/Groundcover	256	
Total Encroachment (sqft)		1423	
2112 Oceanfront E	Ornamental Shrub/Groundcover	130	Mixed ornamental shrubs and aloes

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PENINSULA POINT ENCROACHMENT DETAILS

Property Address	Encroachment Type	Area (Sqft)	Notes
Total Encroachment (sqft)		130	Mixed ornamental shrubs and aloes.
2116 Oceanfront E	Ornamental Shrub/Groundcover	47	Ornamental shrubs and aloes. May be escaped ornamentals.
Total Encroachment (sqft)		47	
2120 Oceanfront E	Hardscape/Stepping Stones	9	Small wood plank.
Total Encroachment (sqft)		9	
2124 Oceanfront E	No enroachment	0	No encroachment.
Total Encroachment (sqft)		0	
2128 Oceanfront E	Ornamental Shrub/Groundcover	25	Ornamental shrub.
Total Encroachment (sqft)		25	
2132 Oceanfront E	No Encroachment	0	No encroachment.
Total Encroachment (sqft)		0	
2140 Oceanfront E	Lawn	1877	Lawn, irrigation system, header board. Oranmental hedge.
	Ornamental Shrub/Groundcover	226	
Total Encroachment (sqft)		2103	
2144 Oceanfront E	Lawn	1009	Lawn, irrigation system.
Total Encroachment (sqft)		1009	
2148 Oceanfront E	Lawn	994	Irrigation system. Lawn. Two palm trees.
	Ornamental Tree	29	
Total Encroachment (sqft)		1024	
2152 Oceanfront E	Lawn	882	Palm tree, ornamental shrubs and lawn. Irrigation system.
	Ornamental Tree	14	
Total Encroachment (sqft)		896	
2156 Oceanfront E	Lawn	853	Irrigation system. Lawn. Ornamental groundcovers.
	Ornamental Shrub/Groundcover	306	
Total Encroachment (sqft)		1159	
2160 Oceanfront E	No Encroachment	0	Ornamental groundcover. Palm tree.
Total Encroachment (sqft)		0	
2166 Oceanfront E	Hardscape/Stepping Stones	205	Extensive ornamental shrubs, succulents, and groundcovers. Stepping stones, irrgation, and lighting.
	Ornamental Shrub/Groundcover	3016	
Total Encroachment (sqft)		3221	
2168 Oceanfront E	Ornamental Shrub/Groundcover	317	Ornamental shrubs. Steppingstones

APPENDIX A
PENINSULA POINT ENCROACHMENT DETAILS

Property Address	Encroachment Type	Area (Sqft)	Notes
Total Encroachment (sqft)		317	Ornamental shrubs. Steppingstones.
2172 Oceanfront E	Hardscape/Stepping Stones	118	Ornamental shrubs and grasses. Steppingstones.
	Ornamental Shrub/Groundcover	715	
Total Encroachment (sqft)		833	
City - Channel Road	Ornamental Shrub/Groundcover	198	
Total Encroachment (sqft)		198	
Total Encroachment (sqft)		**54154**	
Total Encroachment (acres)		**1.24**	
Resident Encroachments (sqft)		**52170**	
Resident Encroachments (acres)		**1.19**	
City Encrochaments (sqft)		**1984**	
City Encrochaments (Acres)		**0.05**	

APPENDIX B
PENINSULA POINT - ICEPLANT AND ESCAPED ORNAMENTALS/WILDLAND WEEDS

Property Address	Iceplant and Wildland Weeds/Escaped Ornamental	Type	Area (Sqft)
West of F Street			
1319 Balboa Blvd E	Iceplant		2107
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	156
1320 Oceanfront E	Iceplant		389
1322 Oceanfront E	No Iceplant		0
1324 Oceanfront E	Iceplant		307
City F Street	No Iceplant		0
F Street to G Street			
1350 Oceanfront E	No Iceplant		0
1354 Oceanfront E	No Iceplant		0
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	749
1358 Oceanfront E	No Iceplant		0
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	187
107 G St.	Iceplant		39
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	135
1400 Oceanfront E	Iceplant		652
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	230
1412 Oceanfront E	No Iceplant		0
City G Street	Iceplant		758
G Street to I Street			
1500 Oceanfront E	Iceplant		1940
1504 Oceanfront E	Iceplant		175
1510 Oceanfront E	No Iceplant		0
1514 Oceanfront E	Iceplant		71
1516 Oceanfront E	Iceplant		30
1520 Oceanfront E	Iceplant		1367
1526 Oceanfront E	Iceplant		568
1528 Oceanfront E	Iceplant		4
1540 Oceanfront E	Iceplant		3226
1550 Oceanfront E	No Iceplant		0
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	36
1554 Oceanfront E	Iceplant		616
	Wildland Weeds/Escaped Ornamental	Lawn	42
1556 Oceanfront E	No Iceplant		0
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	8
1560 Oceanfront E	Iceplant		43
1564 Oceanfront E	No Iceplant		0
1570 Oceanfront E	Iceplant		434
1572 Oceanfront E	Iceplant		532
1576 Oceanfront E	Iceplant		295
1580 Oceanfront E	Iceplant		978
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	35
City - I Street	Iceplant		1188
I Street to L Street			

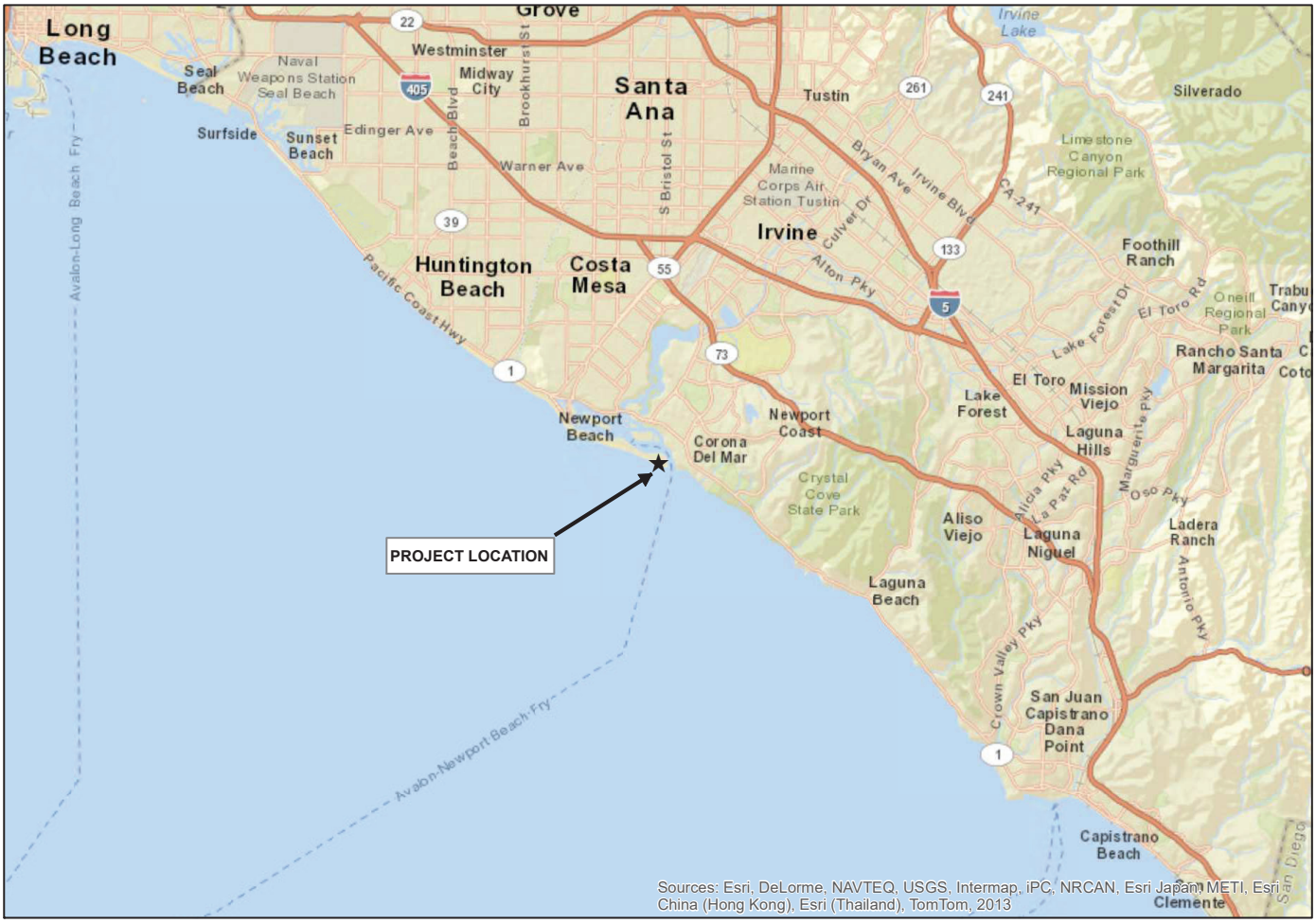
APPENDIX B
PENINSULA POINT - ICEPLANT AND ESCAPED ORNAMENTALS/WILDLAND WEEDS

Property Address	Iceplant and Wildland Weeds/Escaped Ornamental	Type	Area (Sqft)
1700 Oceanfront E	No Iceplant		0
1706 Oceanfront E	No Iceplant		0
1712 Oceanfront E	No Iceplant		0
1714 Oceanfront E	No Iceplant		0
1718 Oceanfront E	No Iceplant		0
1722 Oceanfront E	No Iceplant		0
1724 Oceanfront E	No Iceplant		0
1730 Oceanfront E	Iceplant		664
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	15
1740 Oceanfront E	Iceplant		132
1744 Oceanfront E	Iceplant		188
1750 Oceanfront E	Iceplant		303
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	11
1752 Oceanfront E	Iceplant		819
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	39
2000 Oceanfront E	Iceplant		91
2004 Oceanfront E	Iceplant		1279
2008 Oceanfront E	Iceplant		820
2016 Oceanfront E	Iceplant		3257
2020 Oceanfront E	Iceplant		1413
2026 Oceanfront E	No Iceplant		0
2030 Oceanfront E	Iceplant		227
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	148
2034 Oceanfront E	Iceplant		363
2038 Oceanfront E	Iceplant		247
2042 Oceanfront E	Iceplant		1091
2046 Oceanfront E	Iceplant		621
2050 Oceanfront E	Iceplant		416
2054 Oceanfront E	Iceplant		917
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	4
	Wildland Weeds/Escaped Ornamental	Ornamental Tree	31
2060 Oceanfront E	Iceplant		684
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	63
City M Street	Iceplant		1950
M Street to Channel Road			
2100 Oceanfront E	Iceplant		1696
	Wildland Weeds/Escaped Ornamental	Ornamental Tree	21
2104 Oceanfront E	Iceplant		439
2108 Oceanfront E	Iceplant		22
2112 Oceanfront E	Iceplant		939
2116 Oceanfront E	Iceplant		707
2120 Oceanfront E	Iceplant		435
	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	17
2124 Oceanfront E	No Iceplant		0

APPENDIX B
PENINSULA POINT - ICEPLANT AND ESCAPED ORNAMENTALS/WILDLAND WEEDS

Property Address	Iceplant and Wildland Weeds/Escaped Ornamental	Type	Area (Sqft)
2128 Oceanfront E	No Iceplant		0
2132 Oceanfront E	Iceplant		507
2140 Oceanfront E	Iceplant		62
2144 Oceanfront E	Iceplant		620
2148 Oceanfront E	Iceplant		273
2152 Oceanfront E	No Iceplant		0
2156 Oceanfront E	No Iceplant		0
2160 Oceanfront E	Wildland Weeds/Escaped Ornamental	Ornamental Shrub/Groundcover	486
	Wildland Weeds/Escaped Ornamental	Ornamental Tree	15
2166 Oceanfront E	No Iceplant		0
2168 Oceanfront E	Iceplant		1670
2172 Oceanfront E	Iceplant		1397
	Wildland Weeds/Escaped Ornamental	Ornamental Tree	27
City - Channel Road	Iceplant		35
Total Iceplant/Wildland Weeds/Escaped Ornamental (sqft)			**42456**
Total Iceplant/Wildland Weeds/Escaped Ornamentals (acres)			**0.97**

Source: ESRI World Street Map



N

0 2 4 8 Miles

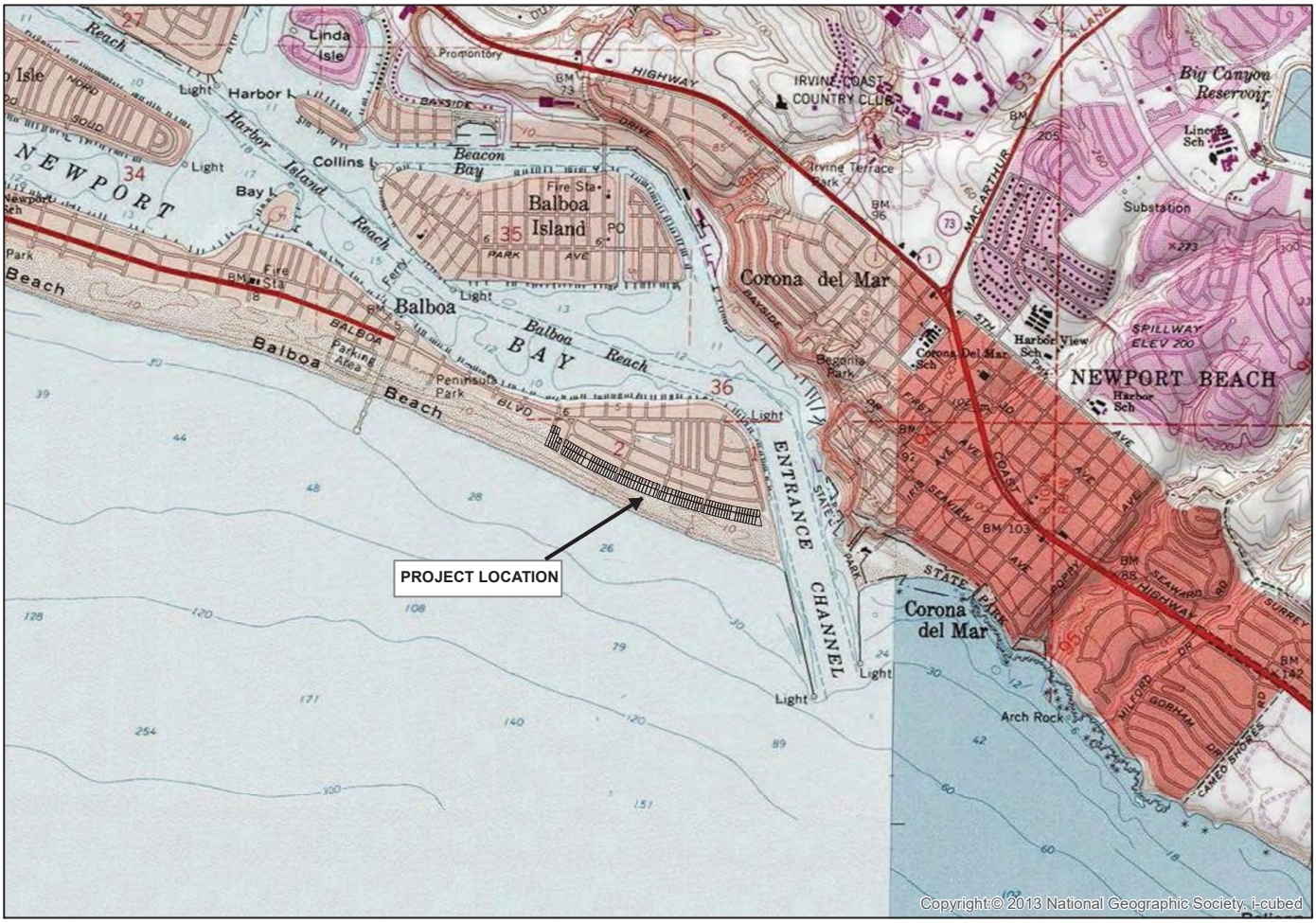
PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

Adapted from USGS Newport Beach OE S, CA quadrangle



N

0 1,000 2,000 4,000 Feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50
Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

West of F Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50
Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

G Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

Hardscape/Stepping Stones

Lawn

Ornamental Shrub/Groundcover

Ornamental Tree

Wildland Weeds/Escaped Ornamental

City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

Iceplant

N

0 12.5 25 50

Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

East o G Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

Hardscape/Stepping Stones

Lawn

Ornamental Shrub/Groundcover

Ornamental Tree

Wildland Weeds/Escaped Ornamental

City Restoration Area*

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Phase 2 - Iceplant Removal

Iceplant

N

0 12.5 25 50

Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

Between G Street and I Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50
Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

West o I Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50
Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

West o I Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

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Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50
Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

Between I Street and L Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50
Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

L Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50
Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

East o L Street

GLENN LUKOS ASSOCIATES

Exhibit 3 - Page

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50

Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

West o Street

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Parcel Boundary

Phase 1 - Encroachment Removal

Hardscape/Stepping Stones

Lawn

Ornamental Shrub/Groundcover

Ornamental Tree

Wildland Weeds/Escaped Ornamental

City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

Iceplant

N

0 12.5 25 50

Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

East o Street

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50

Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

Between Stree and Channel Road

GLENN LUKOS ASSOCIATES

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Parcel Boundary

Phase 1 - Encroachment Removal

- Hardscape/Stepping Stones
- Lawn
- Ornamental Shrub/Groundcover
- Ornamental Tree
- Wildland Weeds/Escaped Ornamental
- City Restoration Area*

*Areas labelled "City Restoration Area" are not associated with any private residence address, but will be subject to removal and restoration activity by the City

Phase 2 - Iceplant Removal

- Iceplant

N

0 12.5 25 50

Feet

1 inch = 25 feet

PENINSULA POINT ENCROACHMENT REMOVAL AND REPLACEMENT PLAN

\West o Channel Road

GLENN LUKOS ASSOCIATES

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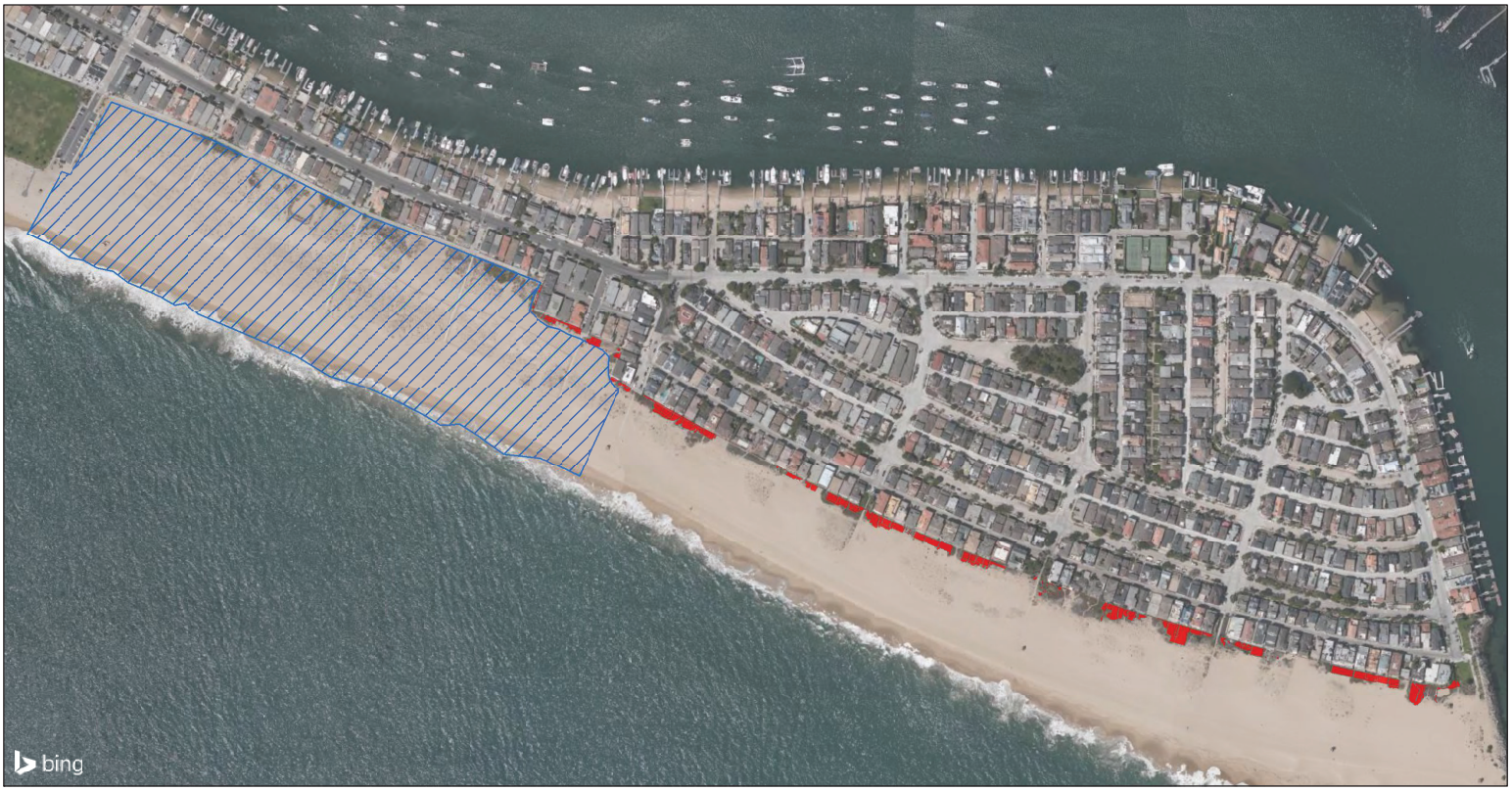

Western Snowy Plover Critical Habitat

Encroachments

N

0 162.5 325 650

Feet

1 inch = 325 feet

PENINSULA POINT ENROACHMENT REMOVAL AND REPLACEMENT PLAN

Western Snowy Plover Critical Habitat Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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