Significant Ecological Areas Biological Constraints Analysis and Biota Report for the Buffalo Beach Project Within White Cove on Santa Catalina Island County of Los Angeles, California

[Assessor's Parcel Number 7480-041-003]

Prepared for:

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Revised 13 April 2015
4 June 2014
Cummings and Associates Job Number 1710.CAT

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I. Introduction

A. Project Description

The Buffalo Beach Project is located at the Buffalo Beach Outstation in White Cove on the east side of Santa Catalina Island, north along the coastline from Avalon. This property is leased by the San Diego Yacht Club (Yacht Club), 1011 Anchorage Lane, San Diego, CA 92106. Specifically, the leased property is a portion of Assessor's Parcel Number 7480-041-003, Lot 64 situated between the Catalina Experience property to the north, and the lower slopes of Bible Peak managed by the Catalina Conservancy to the south (see Figure 1). The physical address for the site is 0 White's Landing, Avalon, CA 90704. This Biological Constraints Analysis and Biota Report is being prepared by Gretchen Cummings of Cummings and Associates due to the property's location within the White Cove Significant Ecological Area (SEA) A37 – see Figures 1 and 2. A SEA Conditional Use Permit (CUP) will be required for the proposed project.

The leased property encompasses approximately 0.65-acre. The majority of this small property is already developed with five tents and tent platforms, an equipment storage shed, food shed, bathrooms, showers, picnic tables, outdoor kitchen and BBQ, a Beachmaster Trailer, and a paved brick walkway from the beach. The boundaries of the leased property have been reduced since the last submittal of this report based upon negotiations with the Catalina Conservancy (see revised Figures 1, 2, 3a, 3b, and 4). Per the request of Mr. Joe Decruyenaere, Biologist for Los Angeles County, a map showing the limits of a 200-foot fuel medication zone where it overlaps adjacent native vegetation is attached as Figure 3a. The Yacht Club is proposing to upgrade the facilities on the existing leased property by constructing three cabins, a larger shower and bathroom area with associated septic and gray water storage and leach field, a trash/recycle storage structure, as well as, Beachmaster housing. Existing and proposed structures are also shown on Figure 3a.

B. Summary of Project Impacts and Impact Avoidance Measures

As proposed, the only direct project impacts are to native vegetation within the footprints of three cabins (see Figure 3b). Specifically, two Lemonade Berry (*Rhus integrifolia*), one Laurel Sumac (*Malosma laurina*), and one Coastal Prickly-pear (*Opuntia littoralis*) will be lost as a result of construction of the cabins.

Due to the location of the Island Green Dudleya (*Dudleya virens* ssp. *insularis*) population on the rocky bluff along the southern/southeastern portion of the leased area adjacent to one of the proposed cabins, there is a potential for impacts

to this species over the long-term simply due to the proximity of living quarters (see Figure 3b). In order to avoid impacts during construction of the cabin, as well as, into the future, it is recommended that informational signage be placed along the edge of the Island Green Dudleya population prior to construction of the cabin.

There are a number of bird species protected under the Migratory Bird Treaty Act that could nest within the property leased by the San Diego Yacht Club. It is anticipated that a Bobcat will be utilized to dig the leach field and the post holes for the cabins, Beachmaster housing, and bathroom/shower facilities. The noise generated by the Bobcat could pose an indirect effect on nesting birds. As such, it is recommended that any mechanical equipment work be conducted outside of the breeding bird season. The breeding bird season generally occurs between 15 February and 31 August.

Lastly, although it is unlikely that the Santa Catalina Island Fox occupies the leased property, certain avoidance measures and precautions are recommended. First, it is recommended that the use of mechanical equipment be limited to outside of the mating and denning season (this season occurs from late January when mating begins through the end of July when the pups leave the den). Second, it is recommended that any pipes, trenches or holes should be covered when not being actively worked on, OR are equipped with escape ramps for any animals that could fall into them. Third, biological monitoring may be recommended during the use of mechanical equipment (i.e. the Bobcat) if deemed necessary by the Significant Ecological Area Technical Advisory Committee (SEATAC).

II. Methodology of Biological Survey

The Buffalo Beach Outstation was surveyed by the author on 8 May 2014 and 9 May 2014. The 8 May survey focused on vegetation and sensitive plants, while the 9 May survey focused on wildlife species. Transects were walked during the vegetation surveys. A comprehensive plant species list was recorded and habitats were mapped on an aerial photo. Sensitive plant species locations were recorded with a GPS unit. During the wildlife survey on 9 May, all sign (including track, scat, and others), direct observation, and auditory inputs (such as songs and calls) were utilized to identify the species present.

Survey	Date	Beginning of Observation Period				End of Observation Period			
		Time	Cloud Cover	Wind	Air Temp	Time	Cloud Cover	Wind	Air Temp
Vegetation	8 May	1240	0%	< 4.1 mph	68.6°F	1310	0%	< 3.4 mph	70.8°F
Vegetation	8 May	1350	0%	< 4.0 mph	69.6°F	1615	0%	6.7 – 10.0 mph	68.8°F

Survey	Date	Beginning of Observation Period				End of Observation Period			
		Time	Cloud Cover	Wind	Air Temp	Time	Cloud Cover	Wind	Air Temp
Wildlife	9 May	0545	40%	1.8 – 3.5 mph	55.9°F	0720	50%	< 1.5 mph	61.9°F

III. Site Characteristics

A. SEA Description

The Buffalo Beach Outstation is located within the White Cove Significant Ecological Area (SEA) as defined by and identified in the Santa Catalina Island Specific Plan (Los Angeles County Department of Regional Planning, 1989). Map 6 found in Appendix D of Specific Plan shows the White Cove SEA as a half-circle extending from White's Landing into the uplands west of the cove and back down to the shore at Moonstone Beach (see Appendix A).

The flatter, central portion of the White Cove SEA is mostly developed. The Catalina Experience, a school and camp for young people, occupies most of this area. The San Diego Yacht Club occupies the small (less than 1-acre) area south of the Catalina Experience, and there is another, separate yacht club facility to the north of the Catalina Experience. As shown on the USGS map (Figure 1), there is a blueline stream that flows from the uplands down to the shoreline on the north side of the access road to White Cove. Once the topography gets steep in the northern and southern ends of the SEA, development ceases, and native habitats on rocky bluffs dominate.

According to the Santa Catalina Island Local Coastal Plan (1983), the White Cove SEA contains the following rare plants outside of Catalina Conservancy areas that are currently considered sensitive:

Gambelia [Galvesia] speciosa	Showy Island Snapdragon
Gilia nevinii	Island Gilia

Neither of these plants were found within the leased Yacht Club property, but the Showy Island Snapdragon was observed off-site to the south within Catalina Conservancy lands.

Santa Catalina Island endemic plants that were observed either on the Yacht Club leased property or off-site on Catalina Conservancy lands to the south during the field surveys included:

Ceanothus arboreus	Feltleaf Ceanothus
Deinandra clementina	Island Tarweed

Dudleya virens ssp. *insularis*	Island Green Dudleya
Eriogonum grande var. *grande*	Island Buckwheat
Quercus pacifica	Island Scrub Oak

For more information about these sensitive plant observations, please refer to Table 3, and in the following section D.

B. Description of Natural Geographic Features

The southern portion of White Cove is underlain by Andesite, which is a volcanic lava from the late Miocene (Rowland, 1984). These lava rocks are not evident in the flatter portions of the property that are now developed. However, the Andesite is exposed on the bluffs along the southern edge of the property.

As mentioned above, there is a blue-line stream within the White Cove SEA, but this stream is located off-site to the north of the subject property.

C. Vegetative Community Descriptions

There are three vegetation classifications within the Yacht Club's leased property: Developed Area; *Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance; and *Quercus pacifica* Shrubland Alliance. Please see Figure 3b for a vegetation map of the Sawyer, Keeler-Wolf, Evans (2009) alliances, and Table 1 for a list of vascular plant species observed during the field survey.

1. Developed Area

Approximately 0.6-acre of the 0.65-acre leased property is currently developed (see Figures 3a and 3b). The Yacht Club has camping facilities at the site that include five canvas tents on tent platforms, bathroom and shower areas, an outdoor BBQ area with picnic tables, a food storage shed, an outdoor kitchen area, a Beachmaster trailer, and an equipment storage shed. These areas are either paved with bricks, or contain bare ground with little vegetation other than the large Eucalyptus trees, and the Pepper tree (see photo locations on Figure 4 and photos in Figure 5).

2. *Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance

Approximately 0.04-acre of southern/southeastern edge of the leased property contains what is best described as *Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance (see Figure 3b). According to Sawyer, Keeler-Wolf, Evans (2009), stands of this alliance that occur on Santa Catalina Island include *Deinandra clementina*, *Dudleya virens*, and other coastal shrubs, subshrubs and various annual species on rocky slopes and bluffs. As mentioned above, the leased

property is located between the flatter, developed area occupied by the Catalina Experience to the north, and the lower slopes of Bible Peak to the south which contain exposed Andesite (see photo location on Figure 4 and top photo of Figure 6). The rocky bluffs on the lower slopes of Bible Peak that are located within the lease property are occupied by this alliance and contain the following species:

Deinandra clementina	Island Tarweed
Dudleya virens ssp. *insularis*	Island Green Dudleya
Eriogonum grande var. *grande*	Island Buckwheat
Gambelia [Galvesia] speciosa	Showy Island Snapdragon
Rhus integrifolia	Lemonade Berry

3. *Quercus pacifica* Shrubland Alliance

Approximately 0.01-acre of the southern/southwestern portion of the leased property is occupied by the *Quercus pacifica* Shrubland Alliance (see Figure 3b). There is a small canyon (see Figure 1) that ends at the edge of the leased property. This Chaparral vegetation extends from the canyon and onto parts of the leased property (see photo location on Figure 4 and bottom photo Figure 6). The area occupied by this alliance contains the following species:

Ceanothus arboreus	Feltleaf Ceanothus
Heteromeles arbutifolia	Toyon
Quercus pacifica	Island Scrub Oak
Prunus ilicifolia ssp. *lyonii*	Catalina Cherry (planted)
Rhus integrifolia	Lemonade Berry

D. Flora and Fauna

For complete lists of the flora and fauna observed during the field surveys for the project, please refer to Tables 1 and 2. Sensitive plant and animal species that were observed within the leased property are as follows:

1. Island Green Dudleya

The Island Green Dudleya is found over the exposed rocky bluffs both on-site and off-site to the south/southwest (see photo location on Figure 4 and bottom photo in Figure 7).

2. Feltleaf Ceanothus

One Feltleaf Ceanothus was observed on-site within the *Quercus pacifica* Shrubland Alliance in the canyon that opens onto the property (see Figure 3b for location).

E. Wildlife Movement/Habitat Linkage

The project is located within White Cove, which is a highly developed area. Any terrestrial wildlife movement would be from the uplands down towards the cove. This was evidenced by American Bison (*Bison bison*) and Mule Deer (*Odocoileus hemionus*) droppings. In addition, avian species may take refuge in the cove during periods of high winds.

IV. Characteristics of the Surrounding Area

As mentioned previously, the White Cove SEA is a very developed area. Adjacent to the north/northwest of the Yacht Club's leased property is the Catalina Experience school/camp. This facility has numerous tents, bathroom/shower facilities, several office structures, and storage sheds. Adjacent to the south of the Yacht Club's leased property is open space managed by the Catalina Conservancy. Native habitats, such as the *Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance, and the *Quercus pacifica* Shrubland Alliance dominate the steep slopes, canyons, and rocky bluffs.

Sensitive plant and animal species that were observed off-site, but adjacent to the leased property are discussed in more detail below:

1. Island Scrub Oak

   One Island Scrub Oak was found off-site to the southwest within the *Quercus pacifica* Shrubland Alliance in a canyon that opens onto the property.

2. Island Tarweed

   Island Tarweed is found on the rocky bluffs off-site to the south within the *Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance.

3. Island Buckwheat

   A couple of individuals were noted on the rocky bluff to the southeast of the site (see photo location on Figure 4 and bottom photo in Figure 7).

V. Project Impact Analysis

A. Project Impacts

A small Bobcat will be used for septic testing and installation. While it is at the Yacht Club property for this purpose, the Bobcat will also be used to dig the post holes for the tents and Beachmaster housing. The holes will be backfilled loosely such that when the Yacht Club is ready to install the tents, the holes will be easy to hand dig out. It is anticipated that one structure will be built per year for five years. No open holes or trenches will be left uncovered or without escape ramps overnight in order to avoid potential impacts to the Santa Catalina Island Fox or other animal species.

With the current design, the only direct project impacts are to native vegetation within the footprints of three cabins (see Figure 3b). Specifically, two Lemonade Berry (*Rhus integrifolia*), one Laurel Sumac (*Malosma laurina*), and one Coastal Prickly-pear (*Opuntia littoralis*) will be lost as a result of construction of the cabins.

Indirect impacts to the Island Green Dudleya are possible due to the proximity of one of the proposed cabins (again see Figure 3b), and indirect noise impacts to the potentially nesting avian species are possible during the initial use of the Bobcat. It is not anticipated that hand-digging the holes at a later date or hammering the platforms for the structures will generate a noise level higher than already occurs at the site due to the surrounding land uses. Also, no holes or trenches will be left uncovered or without escape ramps. This will prevent any wildlife, such as the Santa Catalina Island Fox, from falling in and getting trapped or injured.

B. Project Consistency with SEA CUP Compatibility Criteria

1. The requested development is designed to be highly compatible with the biotic resources present, including the setting aside of appropriate and sufficient undisturbed areas.

The proposed development avoids the rocky bluffs that contain the Island Green Dudleya and only impacts four individual native shrubs and cacti.

2. The requested development is designed to maintain water bodies, watercourses, and their tributaries in a natural state.

There are no water bodies, watercourses or tributaries on the subject property.

3. The requested development is designed so that wildlife movement corridors (migratory paths) are left in an undisturbed and natural state.

The property is located at White Cove which is a highly developed area. Any terrestrial wildlife movement would be from the uplands down towards the cove with no flow through movement. The construction of three cabins, a larger shower and bathroom area with associated septic and gray water storage and leach field, as well as, Beachmaster housing is not anticipated to disturb the limited use of the site by terrestrial wildlife.

Avian species may take refuge in the cove during periods of high winds. The proposed project is not located on the beach, but in the flat, already disturbed lands within the leased property. As such, there is no anticipated impact on birds taking refuge in the cove.

4. The requested development retains sufficient natural vegetative cover and/or open space to buffer critical resources, habitat areas, or migratory paths.

The proposed project will only be impacting four individual native shrubs and cacti. The majority of the site (0.6-acre of the 0.65-acre site) is already developed.

5. The roads and utilities serving the proposed development area located and designed so as not to conflict with critical resources, habitat areas or migratory paths.

The proposed project does not include any new roads, and the proposed new bathroom/shower area is located in an already developed area.

VI. Impact Avoidance Measures

A. Island Green Dudleya

In order to avoid impacts to the Island Green Dudleya during construction of the cabin, as well as, into the future, it is recommended that informational signage be placed along the edge of the Island Green Dudleya population prior to construction of the cabin.

B. Breeding Birds

There are a number of bird species protected under the Migratory Bird Treaty Act that could nest within the property leased by the San Diego Yacht Club. It is anticipated that a Bobcat will be utilized to dig the leach field and the post holes for the cabins, Beachmaster housing, and bathroom/shower facilities. The noise generated by the Bobcat could pose an indirect effect on nesting birds. As such, it is recommended that any mechanical equipment work be conducted outside of the

breeding bird season. The breeding bird season generally occurs between 15 February and 31 August.

C. Santa Catalina Island Fox

The mating season of the Santa Catalina Island Fox occurs from late January through March with young being born from mid-April through May. The young will spend the first two months in and around the den. By July, the pups have left the den. Although the property leased by the San Diego Yacht Club is not anticipated to be occupied by the Santa Catalina Island Fox, certain avoidance measures are recommended to ensure that no impacts occur to this species. First, it is recommended that the use of mechanical equipment be limited to outside of the mating and denning season (this season occurs from late January when mating begins through the end of July when the pups leave the den). Second, it is recommended that any pipes, trenches or holes should be covered when not being actively worked on, OR are equipped with escape ramps for any animals that could fall into them. Third, biological monitoring may be recommended during the use of mechanical equipment (i.e. the Bobcat) if deemed necessary by the Significant Ecological Area Technical Advisory Committee (SEATAC).

VII. Conclusions

The proposed project is located on 0.65-acre leased piece of property on Santa Catalina Island. The area is currently in use as a camping facility for the San Diego Yacht Club. There are five existing canvas tents on platforms and other facilities over 0.6-acre of the property. The project proposes to erect three additional tent platforms, a larger shower and bathroom area with associated septic and gray water storage and leach field, as well as, Beachmaster housing. These proposed additions to the existing camping facility will impact four individual native plant shrubs and cacti, none of which are considered sensitive. As such, these direct impacts are not considered significant.

Two indirect impacts are possible as a result of the proposed project. The first is the possible indirect impact to a sensitive endemic plant species. This plant species, the Island Green Dudleya, is in proximity to one of the proposed cabins. Due to this proximity, it is recommended that informational signage be installed along the edge of the Dudleya population to protect this resource during construction of the cabin, and into the future.

The second indirect impact is to possible nesting avian species due to noise generated by the initial digging of the postholes and septic by a Bobcat. Therefore, it is recommended that any mechanical equipment use occur outside of the avian breeding season which occurs between 15 February and 31 August.

Although the Santa Catalina Island Fox is not anticipated to occur on the property leased by the San Diego Yacht Club, three impact avoidance measures are recommended to ensure that no impacts occur to this species if it were to be found on-site. First, it is

recommended that the use of mechanical equipment be limited to outside of the mating and denning season (this season occurs from late January when mating begins through the end of July when the pups leave the den). Second, it is recommended that any pipes, trenches or holes should be covered when not being actively worked on, OR are equipped with escape ramps for any animals that could fall into them. Third, biological monitoring may be recommended during the use of mechanical equipment (i.e. the Bobcat) if deemed necessary by the Significant Ecological Area Technical Advisory Committee (SEATAC).

Given the insignificant direct impacts and the impact avoidance measures mentioned above, the proposed Buffalo Beach project will not have a significant environmental impact on the White Cove SEA.

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Cummings and Associates Job Number 1710.CAT 7 April 2015 Scale: 1-inch = 2,000-feet [:\1710-Fig-1-rev.wpg]

Cummings and Associates

Buffalo Beach Outstation Shown Within the White Cove SEA on the U.S.G.S. 7½-min Santa Catalina East Quad Map [Base Map Created with TOPO!® ©2006 National Geographic; ©2005 TeleAtlas]

Figure 1

Cummings and Associates Job Number 1710.CAT 7 April 2015 Scale: 1-inch = 500-feet [:\1710-Fig-2-rev.wpg]

Cummings and Associates	**Buffalo Beach Outstation Within the White Cove Significant Ecological Area (SEA) Shown on an Aerial Photo [Image © 2014 DigitalGlobe; Imagery Date 5/28/2010]**	**Figure 2**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

(2) 500' RADIUS (GOOGLE IMAGE)

KEY

- Lease Line Boundaries
- Proposed Structures/Grey Water Storage
- Existing Structures/Platforms/Staircases etc.
- 200-foot Fuel Modification Zone Over the Adjacent Native Vegetation

Scale: 1-inch = 100-feet

Cummings and Associates Job Number 1710.CAT 13 April 2015 [:\1710-Fig-3a.wpg]

Cummings and Associates	**Buffalo Beach Outstation With a 200-foot Fuel Modification Zone Shown Over the Adjacent Native Vegetation**	**Figure 3a**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

KEY

- Lease Lines
- Developed Area Lacking Native Vegetation
- *Quercus pacifica* Shrubland Alliance
- *Deinandra clementina -Eriogonum giganteum* Provisional Shrubland Alliance
- * *Dudleya virens* ssp. *insularis* population
- * *Ceanothus arboreus* individual

Scale: 1-inch = 30-feet

Cummings and Associates Job Number 1710.CAT 13 April 2015 [:\1710-Fig-3b.wpg]

Cummings and Associates	Buffalo Beach Outstation Site Plan with Vegetation Map and Sensitive Plant Species Locations Superimposed	Figure 3b

Cummings and Associates Job Number 1710.CAT 13 April 2015

Scale: 1-inch = 50-feet

[:\1710-Fig-4-rev.wpg]

Cummings and Associates	**Photo Point Locations For the Following Photos in Figures 5, 6, and 7 Shown on an Aerial Photo [Image © 2014 DigitalGlobe; Imagery Date 5/28/2010]**	**Figure 4**

The original of this graphic was produced in color. Additional color copies may be obtained from the author.

Cummings and Associates Job Number 1710.CAT 4 June 2014 [:\1710-Fig-5.ppp]

Cummings and Associates	Site Photos: Top Photo (5a) of Subject Property Taken from the Shoreline Facing Southwest; Bottom Photo (5b) of Subject Property Taken from Off-site to the Southwest Facing Northeast	Figure 5

Cummings and Associates Job Number 1710.CAT 4 June 2014 [:\1710-Fig-6.ppp]

Cummings and Associates	Site Photos: Top Photo (6a) of Exposed Rocky Bluff at Southern Edge of Property; Bottom Photo (6b) of Canyon with Chaparral Habitat Extending Onto Site	Figure 6

Cummings and Associates Job Number 1710.CAT 4 June 2014 [:\1710-Fig-7.ppp]

Cummings and Associates	Site Photos: Top Photo (7a) of Island Green Dudleya; Bottom Photo (7b) of Island Buckwheat	Figure 7

Table 1

Vascular Plants Observed During the Biological Survey at the Buffalo Beach Project Site within the White Cove Significant Ecological Area on Santa Catalina Island County of Los Angeles, California

Plant Family	*Scientific Name* Common Name	Native (N) or Introduced (I)	Occurrence at the Project Site and/or in the Vicinity
Adoxaceae Muskroot Family	*Sambucus nigra* ssp. *caerulea* Blue Elderberry	N	Uncommon off-site to the southwest in a canyon.
Aizoaceae Iceplant Family	*Carpobrotus edulis* Freeway Iceplant	I	Uncommon, but concentrated in one patch along the beachfront.
Anacardiaceae Sumac Family	*Malosma laurina* Laurel Sumac	N	Uncommon, individuals scattered on the property.
	Rhus integrifolia Lemonade Berry	N	Frequent, scattered along the southern/southeastern edge of the property, and off-site to the south/southeast.
	Schinus molle Pepper Tree	I	One individual in the middle of the property.
	Toxicodendron diversilobum Western Poison Oak	N	Uncommon off-site to the southwest in a canyon.
Apiaceae Carrot Family	*Foeniculum vulgare* Fennel	I	Uncommon, individuals scattered on the property and off-site to the south.
Arecaceae Palm Family	*Archontophoenix alexandrae* King Palm	I	Uncommon, but localized near the beachfront portion of the property.

Plant Family	*Scientific Name* Common Name	Native (N) or Introduced (I)	Occurrence at the Project Site and/or in the Vicinity
Asteraceae Sunflower Family	*Achillea millefolium* Yarrow	N	Uncommon, scattered along the southern/southeastern edge of the property, and off-site to the south.
	Artemisia californica California Sagebrush	N	Uncommon off-site to the south.
	Brickellia californica California Brickellbush	N	Uncommon off-site to the south.
	Centaurea melitensis Tocalote	I	Frequent, scattered individuals on the property.
	Deinandra clementina Island Tarplant	N	Common, off-site to the south.
	Hedypnois cretica Crete Weed	I	Frequent, scattered individuals on the property.
Brassicaceae Mustard Family	*Raphanus sativus* Radish	I	Uncommon, a few individuals were noted along the beachfront.
Cactaceae Cactus Family	*Opuntia littoralis* Coastal Prickly-pear	N	Frequent, along the southern/southeastern edge of the property, and off-site to the south.
Chenopodiaceae Goosefoot Family	*Chenopodium murale* Nettle-leaved Goosefoot	I	Uncommon, scattered individuals throughout the property.
Crassulaceae Stonecrop Family	*Dudleya virens* ssp. *insularis* Island Green Dudleya	N	Common, on the exposed rocky bluffs along the southern/southeastern edge of the property, and off-site to the south/southeast.
Cucurbitaceae Gourd Family	*Marah macrocarpa* Wild Cucumber	N	Uncommon, off-site to the southwest in a canyon.
Fagaceae Oak Family	*Quercus pacifica* Island Scrub Oak	N	Uncommon, one individual was noted just off-site to the southwest in a canyon.

Plant Family	*Scientific Name* Common Name	Native (N) or Introduced (I)	Occurrence at the Project Site and/or in the Vicinity
Geraniaceae Geranium Family	*Pelargonium* x*hortorum* Fish Geranium	I	Uncommon, scattered individuals were noted off-site to the south and southeast.
Lamiaceae Mint Family	*Marrubium vulgare* Horehound	I	Uncommon, scattered individuals were noted on the property.
Malvaceae Mallow Family	*Malva parviflora* Cheeseweed	I	Uncommon, scattered individuals were noted on the property.
Myrtaceae Myrtle Family	*Eucalyptus globulus* Blue Gum	I	Only a handful of individuals are found on the property, but their canopies take up almost half the site.
Plantaginaceae Plantain Family	*Gambelia speciosa* Showy Island Snapdragon	N	Uncommon, a few individuals were noted off-site to the southeast.
Poaceae Grass Family	*Avena barbata* Slender Wild Oat	I	Uncommon, along the southern/southeastern edge of the property and off-site to the south.
	Bromus diandrus Ripgut Grass	I	Common, along the southern/southeastern edge of the property and off-site to the south.
	Bromus madritensis ssp. *rubens* Red Brome	I	Common, along the southern/sjoutheasetern edge of the property and off-site to the south.
Polygonaceae Buckwheat Family	*Eriogonum grande* var. *grande* Island Buckwheat	N	Uncommon, a few individuals were noted off-site to the south on the exposed, rocky bluff.
Rhamnaceae Buckthorn Family	*Ceanothus arboreus* Feltleaf Ceanothus	N	One individual was noted in the central portion of the property.

Plant Family	*Scientific Name* Common Name	Native (N) or Introduced (I)	Occurrence at the Project Site and/or in the Vicinity
Rosaceae Rose Family	*Heteromeles arbutifolia* Toyon	N	Uncommon, scattered individuals were noted along the southern/southeastern edge of the property, and off-site to the south.
	Prunus ilicifolia ssp. *lyonii* Catalina Cherry	N	Uncommon, three individuals were noted off-site to the southwest in a canyon. Also, there is a planted grove of Catalina Cherry in the southwest corner of the property.
Rubiaceae Madder Family	*Galium aparine* Goose Grass	N	Uncommon, scattered individuals were noted along the southern/southeastern edge of the property.
Selaginellaceae Spike-Moss Family	*Selaginella bigelovii* Bigelow's Spike-Moss	N	Common, on the exposed rocky bluff along the southern/southeastern edge of the property, and off-site to the south.
Themidaceae Brodiaea Family	*Bloomeria crocea* var. *crocea* Common Goldenstar	N	Frequent, in the southwest corner of the property, and off-site to the southwest.
	Dichelostemma capitatum ssp. *capitatum* Blue Dicks	N	Uncommon, a few individuals were noted off-site to the south.

36 Species

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Table 2

Wildlife Species Observed During the Biological Survey at the Buffalo Beach Project Site within the White Cove Significant Ecological Area on Santa Catalina Island County of Los Angeles, California

Common Name *(Scientific Name)*	Vegetative Community in which the Species was Observed	Occurrence at the Project Site and/or in the Vicinity
Mammals		
American Bison (*Bison bison*)	Developed Area	Bison droppings were noted under the Eucalyptus tree near the Beachmaster trailer.
Domestic Dog (*Canis familiaris*)	Developed Area	A dog was seen on the Catalina Experience property to the north.
Feral Cat (*Felis domesticus*)	Developed Area	A feral cat was seen near the equipment storage shed during the 8 May survey.
Mule Deer (*Odocoileus hemionus*)	*Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance	Pellets assignable to this specie were noted just off-site to the south and west.
Birds		
Bald Eagle (*Haliaeetus leucocephalus*)	N/A	One adult was seen as an overflight on 8 May. It was seen flying from the north to the south along the coastline. It disappeared from site while flying to the south over Bible Peak.
Red-tailed Hawk (*Buteo jamaicensis*)	N/A	Seen circling to the south of the property on 9 May.
California Quail (*Callipepla californica*)	*Quercus pacifica* Shrubland Alliance	This species was heard off-site to the west in a canyon.
Killdeer (*Charadrius vociferus*)	N/A	Seen on the beach near the pier on 9 May.

Common Name *(Scientific Name)*	Vegetative Community in which the Species was Observed	Occurrence at the Project Site and/or in the Vicinity
Caspian Tern (*Sterna caspia*)	N/A	Seen fishing in the cove on 9 May.
Mourning Dove (*Zenaida macroura*)	Developed Area	Heard and seen on both the 8 May and 9 May surveys in the non-native trees.
White-throated Swift (*Aeronautes saxatalis*)	N/A	Heard as an overflight on 9 May.
Acorn Woodpecker (*Melanerpes formicivorus*)	Developed Area	Heard off-site to the north in the Eucalyptus and Pine trees on the Catalina Experience property.
Northern Flicker (*Colaptes auratus*)	*Quercus pacifica* Shrubland Alliance	This species was heard off-site to the west in a canyon.
Pacific-slope Flycatcher (*Empidonax difficilis*)	*Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance and Developed Area	On 8 May, an individual was seen collecting nesting material from the rocky bluffs to the south. It then flew to the north through the Yacht Club property and over the Catalina Experience property. This species was seen again on 9 May when two males had a territorial dispute along the northern lease boundary in a Eucalyptus tree.
American Crow (*Corvus brachyrhynchos*)	N/A	Seen as overflights on 9 May.
Common Raven (*Corvus corax*)	Developed Area	Several individuals of this species were seen in the King Palms near the beachfront on both 8 May and 9 May.
Cliff Swallow (*Petrochelidon pyrrhonota*)	N/A	Seen as overflights on 8 May.
Barn Swallow (*Hirundo rustica*)	N/A	Seen overflying the cove. One landed briefly on the pier.

Common Name *(Scientific Name)*	Vegetative Community in which the Species was Observed	Occurrence at the Project Site and/or in the Vicinity
Northern Mockingbird (*Mimus polyglottos*)	*Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance	An individual was seen on 8 May on the rocky bluffs to the south.
European Starling (*Sturnus vulgaris*)	Developed Area	Seen in the Eucalyptus trees on the property during both surveys.
Western Tanager (*Piranga ludoviciana*)	Developed Area	An adult male was seen during both surveys drinking from the open shower area near the beachfront.
Spotted Towhee (*Pipilo maculatus*)	*Quercus pacifica* Shrubland Alliance	Heard and seen in a canyon to the west.
House Finch (*Carpodacus mexicanus*)	Developed Area	Heard and seen throughout the property.

23 Species

[:\1710 Wildlife List.doc]

Table 3

Sensitive Plant Species Known to Occur on Santa Catalina Island

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Abronia maritima Red Sand-Verbena	List 4.2/S3?/-/-	Found on Coastal Dunes at elevations under 329 feet.	N	U	There are no Coastal Dunes at the project location.
Acmispon dendroideus var. *dendroideus* Island Broom	List 4.2/S3.2/-/-	Grows on dry ridges, in woodlands, and on coastal bluffs within Closed-cone Coniferous Forest, Coastal Scrub, Coastal Bluff Scrub, and Cismontane Woodland habitats at elevations of 32 – 1,151 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Aphanisma blitoides Aphanisma	List 1B.2/S3/-/-	Found in dune/bluff habitats at elevations of 0- 1,000 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Arctostaphylos catalinae Santa Catalina Island Manzanita	List 1B.2/S2?/-/-	Found on volcanic soil within Chaparral habitat. Elevations range from 246 – 1,974 feet.	N	U	Given the small area of Chaparral on the property (0.1-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Arctostaphylos crustacea ssp. *subcordata* Santa Cruz Island Manzanita	List 4.2/S3.2/-/-	Found in Chaparral and Closed-cone Coniferous Forest habitats at elevations of 329 – 1,974 feet.	N	U	The lowest known elevation for this species is approximately 279-feet higher than the highest elevation on the property (50-feet).
Atriplex coulteri Coulter's Saltbush	List 1B.2/S2/-/-	Found in Coastal Bluff Scrub, Coastal Dunes, Coastal Scrub, and Valley and Foothill Grassland at elevations of 32 – 1,447 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Atriplex pacifica South Coast Saltscale	List 1B.2/S2/-/-	Although most populations occur immediately along the coast or on saltpans, one or two populations do occur within inland Sage Scrub habitats. Grows at elevations of 0 – 461 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Atriplex serenana var. *davidsonii* Davidson's Saltscale	List 1B.2/S2?/-/-	Known from Coastal Scrub and Coastal Bluff Scrub at elevations ranging from 32 – 658 feet	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Bergerocactus emoryi Golden-Spined Cereus	List 2B.2/S2.1/-/-	Found locally along the immediate coast on sandy soils derived from marine sandstones at elevations of 9 – 1,300 feet. A component of Maritime Succulent Scrub.	N	U	The soils on the property are not derived from marine sandstone, but rather volcanic lava (Rowland, 1984).
California macrophylla Round-Leaved Filaree	List 1B.1/S2/-/-	Found on clay soils in Valley and Foothill Grasslands at elevations of 49 – 3,948 feet.	N	U	There are no clay soils on the property (Rowland, 1984). NOTE: *Erodium macrophyllum* is a synonym.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Calochortus catalinae Catalina Mariposa Lily	List 4.2/S3.2/-/-	Found in Valley and Foothill Grassland, Chaparral, Coastal Scrub, and Cismontane Woodland habitats at elevations of 98 – 2,303 feet.	N	U	The lowest known elevation for this species is approximately 48-feet higher than the highest elevation on the property (50-feet). Also, given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Calystegia macrostegia var. *amplissima* Island Morning-Glory	List 4.3/S3.3/-/-	Found at rocky sites within Coastal Bluff Scrub, Coastal Dune, and Valley and Foothill Grassland habitats at elevations of 32 – 904 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Ceanothus arboreus Feltleaf Ceanothus	-/-/- Santa Catalina Island Endemic	Found in Chaparral habitats on Santa Catalina Island.	Y	Observed	A single individual shrub was observed on-site within the *Quercus pacifica* Shrubland Alliance.
Ceanothus megacarpus var. *insularis* Island Ceanothus	List 4.3/S3.3/-/-	Found in Chaparral on slopes and canyons near the coast at elevations of 246 – 1,974 feet.	N	U	The lowest known elevation for this species is approximately 196-feet higher than the highest elevation on the property (50-feet).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Centromadia parryi ssp. *australis* Southern Tarplant	List 1B.1/S2/-/-	Found in mesic areas, such as adjacent to marshes, in vernal pools, and in vernally mesic grasslands. Known elevations range from 0 – 1,400 feet.	N	U	There are no mesic areas on the property.
Cercocarpus betuloides var. *blancheae* Island Mountain-Mahogany	List 4.3/S3.3/-/-	Found in Chaparral at elevations of 131 – 1,974 feet.	N	U	The lowest known elevation for this species is approximately 81-feet higher than the highest elevation on the property (50-feet).
Cercocarpus traskiae Catalina Island Mountain-Mahogany	List 1B.1/S1/CE/FE	Found in Chaparral and Coastal Scrub habitats on saussurite gabbro rock at elevations of 329 – 822 feet. It is known to occur naturally only in Wild Boar Gully on the southwestern coast of Santa Catalina Island.	N	U	The lowest known elevation for this species is approximately 279-feet higher than the highest elevation on the property (50-feet).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Cistanthe maritima Seaside Cistanthe	List 4.2/S3.2/-/-	Found on sandy sites on sea bluffs within Coastal Bluff Scrub, Coastal Scrub, and Valley and Foothill Grassland habitats at elevations of 16 – 987 feet.	N	U	The Coastal Bluff Scrub on-site is underlain by lava rock, not sand.
Constancea nevinii Nevin's Woolly Sunflower	List 1B.3/S4/-/-	Found in Coastal Bluff Scrub, and Coastal Scrub habitats on slopes and cliffs at elevations of 16 – 1,348 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property. NOTE: *Eriophyllum nevinii* is a synonym.
Crossosoma californicum Catalina Crossosoma	List 1B.2/S2/-/-	Found in Chaparral and Coastal Scrub habitats, Specifically, it is found on rocky sea bluffs, wooded canyons, and dry, open sunny spots on rocky clay at elevations of 0 – 1,645 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Cryptantha wigginsii Wiggins' Cryptantha	List 1B.2/S1/-/-	An annual herb that blooms from February –June. Often found in Coastal Scrub in clay soil at elevations of 65 – 904 feet.	N	U	There are no clay soils on the property (Rowland, 1984).
Deinandra clementina Island Tarweed	-/-/- Santa Catalina Island Endemic	Found in Bluff Scrub habitat on Santa Catalina Island.	Y	Observed	This species was seen off-site to the south on the rocky bluffs.
Dendromecon harfordii *var. rhamnoides* South Island Bush-Poppy	List 3.1/S1/-/-	Found in Chaparral, Cismontane Woodland, and Coastal Sage Scrub at elevations of 493 – 1,710 feet.	N	U	Perennial evergreen shrub
Dichondra occidentalis Western Dichondra	List 4.2/S3.2/-/-	Found on sandy loam, clay and rocky soils within Chaparral, Cismontane Woodland, Coastal Scrub, and Valley and Foothill Grassland habitats at elevations of 164 – 1,645 feet.	N	U	The lowest known elevation for this species is approximately 114-feet higher than the highest elevation on the property (50-feet).

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Dissanthelium californicum California Dissanthelium	List 1B.2/S1/-/-	Found in Coastal Scrub habitat at elevations of 16 – 1,645 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Dithyrea maritima Beach Spectaclepod	List 1B.1/S2.1/CT/-	Found in Coastal Dunes and Coastal Scrub habitats at elevations of 9 – 164 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Dudleya virens ssp. *hassei* Catalina Island Dudleya	List 1B.2/S2?/-/-	Found on rocky substrates within Coastal Bluff Scrub habitat at elevations of 0 – 1,316 feet.	N	H	Hybridizes with *Dudleya virens* ssp. *insularis*.
Dudleya virens ssp. *insularis* Island Green Dudleya	List 1B.2/S2.2/-/- CA-Endemic	Found on rocky substrates within Coastal Bluff Scrub and Coastal Scrub habitats at elevations of 16 – 987 feet.	Y	Observed	This subspecies was seen on the rocky bluffs on-site and off-site to the south.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Eriogonum giganteum var. *giganteum* Santa Catalina Island Buckwheat	List 4.3/S2.2/-/-	Found at rocky sites within Chaparral and Coastal Scrub habitats at elevations of 32 – 1.760 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Eriogonum grande var. *grande* Island Buckwheat	List 4.2/S3.2/-/-	Found on dry rocky cliffs and bluffs within Coastal Bluff Scrub habitat at elevations of 16 – 608 feet.	Y	Observed	A few individuals of this species were observed off-site to the southeast.
Eschscholzia ramosa Island Poppy	List 4.3/S3.2/-/-	Found on steep canyon banks near the sea within Coastal Bluff Scrub and Chaparral habitats at elevations of 0 – 987 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Euphorbia misera Cliff Spurge	List 2B.2/S2/-/-	Found at rocky sites in Coastal Bluff Scrub and Coastal Scrub habitats. Grows at elevations of 32 – 1,645 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Galium catalinense ssp. *catalinense* Santa Catalina Island Bedstraw	List 1B.2/S2S3/-/-	Found in Chaparral and Coastal Scrub habitats at elevations of 16 – 987 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Galium nuttallii ssp. *insulare* Nuttall's Island Bedstraw	List 4.3/S3.3/-/-	Found in Cismontane Woodland, Chaparral, and Lower Montane Coniferous Forest habitats. Specifically, it is most common on north-facing slopes under woody vegetation and is rarely in the open. Known elevations are 9 – 1,316 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Gambelia speciosa Showy Island Snapdragon	List 1B.2/S2.2/-/-	Found on rocky cliffs and canyons in Coastal Scrub habitat at elevations of 0 – 1,200 feet.	Y	Observed	This perennial shrub was observed off-site to the southwest on the rocky bluffs.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Graphis saxorum Baja Rock Lichen	-/S1S3/-/-	Found on rocky substrates in moderately shaded, usually north-facing areas at elevations of 65 – 329 feet	N	U	The only two records of this lichen on Santa Catalina are at near Little Harbor and Isthmus Cove (CDFW, 2014).
Helianthemum greenei Island Rush-Rose	List 1B.2/S2/-/FT	Found on rocky sites within Chaparral, Coastal Scrub, Cismontane Woodland, and Closed-cone Coniferous Forest at elevations of 49 – 1,612 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property. NOTE: *Crocanthemum greenei* is a synonym.
Isocoma menziesii var. *decumbens* Decumbent Goldenbush	List 1B.2/S2.2/-/-	Associated with Coastal Scrub habitat on sandy soils at elevations ranging from 32 – 2,993 feet.	N	U	The soils on-site are rocky, not sandy.
Jepsonia malvifolia Island Jepsonia	List 4.2/S3.3/-/-	On ridgetops and among rocks on north-facing slopes within Coastal Scrub habitat at elevations of 98 – 3,290 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Lavatera assurgentiflora ssp. *glabra* Southern Island Mallow	List 1B.1/S1/-/-	Found in Coastal Bluff Scrub habitat at elevations of 16 – 723 feet.	N	U	Given the small area of Coastal Bluff Scrub on the property (0.15-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Lepechinia fragrans Fragrant Pitcher Sage	List 4.2/S3.2/-/-	Found in Chaparral at elevations of 65 – 4,309 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Lonicera subspicata var. *subspicata* Santa Barbara Honeysuckle	List 1B.2/S2/-/-	Found in Chaparral, Cismontane Woodland, and Coastal Scrub habitats at elevations of 115 – 3,290 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Lycium brevipes var. *hassei* Santa Catalina Island Desert-Thorn	List 1B.1/S1/-/-	Grows on coastal bluffs and slopes in Coastal Bluff Scrub and Coastal Scrub habitats at elevations of 32 – 987 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Lycium californicum California Box-Thorn	List 4.2/S3.2/-/-	Found in Coastal Bluff Scrub, and Coastal Scrub habitats at elevations of 16 – 493 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Lyonothamnus floribundus ssp. *floribundus* Santa Catalina Island Ironwood	List 1B.2/S2/-/-	Grows on north exposures on rocky slopes and canyons in Broadleaf Upland Forest, Chaparral, and Cismontane Woodland habitats at elevations of 246 – 1,645 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Mimulus traskiae Santa Catalina Island Monkeyflower	List 1A/SX/-/-	Grows in Coastal Scrub habitat at an elevation of 493 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Nemacaulis denudata var. *denudata* Coast Woolly-Heads	List 1B.2/S2.2/-/-	A species found in Coastal Dunes at elevation ranging from 0 – 329 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Orobanche parishii ssp. *brachyloba* Short-lobed Broomrape	List 4.2/S3.2/-/-	Grows in Coastal Bluff Scrub, Coastal Scrub, and Coastal Dune habitats at elevations of 9 – 559 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Pentachaeta lyonii Lyon's Pentachaeta	List 1B.1/S2/CE/FE	Found in Cismontane Woodland, Coastal Scrub, Lower Montane Coniferous Forest, and Valley and Foothill Grassland habitats at elevations of 263 – 6,087 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Piperia cooperi Chaparral Rein Orchid	List 4.2/S3.2/-/-	Found in Chaparral, Cismontane Woodland, and Valley and Foothill Grassland habitats at elevations of 49 – 5,214 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Quercus pacifica Island Scrub Oak	List 4.2/S3.2/-/- Santa Catalina Island Endemic	Found in Chaparral, Closed-cone Coniferous Forest, and Cismontane Woodland habitats at elevations of 0 – 987 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Quercus tomentella Island Oak	List 4.2/S3.2/-/-	Found on north-facing slopes in Chaparral, Closed-cone Coniferous Forest, and Cismontane Woodland habitats at elevations of 49 – 1,974 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Rhamnus pirifolia Island Redberry	List 4.2/S3.2/-/-	Found in Closed-cone Coniferous Forest, Chaparral, Cismontane Woodland, and Coastal Scrub habitats at elevations of 65 – 1,414 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Ribes viburnifolium Santa Catalina Island Currant	List 1B.2/S2?/-/-	Found in canyons within Chaparral and Cismontane Woodland habitats at elevations of 98 – 1,003 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

Scientific Name Common Name[2]	Sensitivity Code and Status[3]	Habitat Preference	Found On-site (Y or N)	Potential On-site[4]	Factual Basis for Potential
Scrophularia villosa Santa Catalina Figwort	List 1B.2/S3/-/-	Grows in rocky canyons in Chaparral and Coastal Scrub habitats at elevations of 148 – 1,677 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Senecio aphanactis Chaparral Ragwort	List 2B.2/S2/-/-	Found on alkaline soils in Chaparral, Coastal Scrub and Cismontane Woodland habitats. Grows at elevations of 49 - 2,632 feet.	N	U	The only CNDDB record of this species on Catalina is at Avalon from a 1901 collection (CDFW, 2014).
Sibara filifolia Santa Cruz Island Winged-Rockcress	List 1B.1/S1/-/FE	Grows on rocky, volcanic soil on shady slopes within Coastal Scrub habitat at elevations of 197 – 1,003 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.
Solanum wallacei Wallace's Nightshade	List 1B.1/S2.1/-/-	Grows on rocky sites in canyons within Chaparral and Cismontane Woodland habitats at elevations of 9 – 1,348 feet.	N	U	Given the small area of native habitats on the property (0.25-acre), combined with the negative survey for this species on the property during the May site visits, it is unlikely to be found within the leased property.

58 Species

[1] This plant list was generated by the nine quad search function of the on-line California Native Plant Society (CNPS) inventory. This list was augmented with plants from the nine quad search of the California Natural Diversity Data Base (CNDDB).
[2] The Common Names were taken from Baldwin, B.G., Goldman, D.H., Keil, D.J., Patterson, R., Rosatti, T.J., and Wilken, D.H. eds. 2012. The Jepson Manual Vascular Plants of California, 2nd Edition. University of California Press, Berkeley, xxii + 1568 pp.
[3] The first line in the "Sensitivity Code and Status" column shows the the California Rare Plant Rank with threat code extensions/the state ranking of the California Natural Diversity Database (CNDDB) with the threat rank extension/the California state threatened and endangered status code/the federal threatened and endangered status code. The second line in the "Sensitivity Code and Status" column identifies whether the species is a California Endemic as identified by the CNPS or not (blank second line). Following is a key to the codes in the table.

Key to the California Rare Plant Ranking System

List 1A — Presumed extinct in California
List 1B — Plants rare, threatened or endangered in California and elsewhere
List 2 — Plants rare, threatened or endangered in California but more common elsewhere
List 3 — Plants about which more information is needed; a review list
List 4 — Limited distribution (a watch list)

Key to the California Rare Plant Rank Threat Code Extensions

.1 — Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
.2 — Fairly threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
.3 — Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

Key to the State Ranking of the CNDDB

S1 — Critically Imperiled
S2 — Imperiled
S3 — Vulnerable
S4 — Apparently Secure
S5 — Secure
S? OR S2? OR S2S3 — Uncertainty about the rank of an element
SX — All sites in California are extirpated

Key to the Threat Rank Extensions of S1, S2 or S3 (if assigned)

.1 — very threatened
.2 — threatened
.3 — that no current threats are known

State and Federal Threatened and Endangered Species Status Codes

CR — State of California listed as rare

CE — State of California listed as endangered
CT — State of California listed as threatened
PT — Proposed for Listing as Threatened under the Federal Endangered Species Act
PE — Proposed for Listing as Endangered under the Federal Endangered Species Act
FC — Candidate for Listing under the Federal Endangered Species Act
FE — Designated Endangered under Federal Endangered Species Act
FT — Designated as Threatened under the Federal Endangered Species Act

[4] The "Potential On-site" column assesses the potential for the particular species to occur on the subject property given the known habitat preferences and distribution of that species. The codes used in this column are defined as follows:

Observed — Individuals of this species were found within the bounds of the site
H — The potential for occurrence is "high". Habitats on-site are considered suitable for the species, and the species is known from the immediate vicinity.
M — The potential for occurrence is "medium". Habitats and conditions on-site are considered possible for the species.
L — The potential for occurrence is "low". The habitats present on-site are marginal for the species and/or extremely limited in extent. In other words, the species is not anticipated, but it's occurrence can not be precluded.
U — The potential for occurrence is "unlikely". The habitat requirements of the species are not present on the subject property.

[:\1710-Sensitive Plant List.doc]

Table 4

Sensitive Wildlife Species Known to Occur on Santa Catalina Island[1]

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Mollusks					
Haplotrema catalinense Santa Catalina Lancetooth	-/-/-	A terrestrial snail found under rocks and, to a lesser extent, leaf litter.	N	U	The only CNDDB record has no observation date or location (CDFW, 2014). However, according to Magney (2010), there are no observation records in the vicinity of the property.
Pristiloma shepardae Shepard's Snail	-/-/-	Usually found in moist leaf litter of Coastal Scrub habitat.	N	U	There is a *Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance along the southern portion of the property, but this habitat is quite xeric on exposed, rocky bluffs.
Radiocentrum avalonense Catalina Mountainsnail	-/-/-	Found in Coastal Scrub habitat dominated by *Salvia* and *Opuntia*. Known only from the southeast end of Catalina.	N	U	The *Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance along the southern portion of the property is not dominated by *Salvia* and *Opuntia*.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Sterkia clementina San Clemente Island Blunt-top Snail	-/-/-	Found in Coastal Scrub habitat on the undersides of rocks or the soil beneath *Mesembryanthemum* sp.	N	U	The *Deinandra clementina – Eriogonum giganteum* Provisional Shrubland Alliance along the southern portion of the property is found on exposed bluffs, rocky bluffs. No *Mesembryanthemum* sp. was identified on the property.
Insects					
Cicindela hirticollis gravida Sandy Beach Tiger Beetle	-/-/-	Found in Coastal Dunes in light-colored sand in the upper zone.	N	U	The only CNDDB record is a historical record. This species is considered to be extirpated on Catalina (CDFW, 2014).
Coelus globosus Globose Dune Beetle	-/-/-	Found in Coastal Dunes in foredunes and sand hummocks where it is most common beneath dune vegetation.	N	U	The only CNDDB record is from a 1976 publication (CDFW, 2014).
Reptiles					
Thamnophis hammondii Santa Catalina Garter Snake	-/-/-	Associated with Marsh, Swamp, Riparian Scrub, Riparian Woodland, and Wetland habitats.	N	U	There are no wetland habitats, other than the ocean on the property.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Mammals					
Corynorhinus townsendii Townsend's Big-eared Bat	-/CC/-	Found in a wide variety of habitats, but it is most common at mesic sites. Roosts in the open, hanging from walls and ceilings.	N	U	There was a CNDDB record from White's Landing from 1941 (CDFW, 2014). However, the White's Landing area has become more developed in the last 70+ years. This species is highly sensitive to human disturbance due to its roosting habits. As such, this species is not anticipated.
Sorex ornatus willetti Santa Catalina Shrew	-/-/-	Found in moist areas within Riparian Scrub habitat. It uses stumps, logs, and leaf litter for cover.	N	U	There are no wetland habitats, other than the ocean on the property.
Urocyon littoralis catalinae Santa Catalina Island Fox	FE/CT/-	Found in Chaparral, Cismontane Woodland, and Coastal Scrub habitats with a preference for layered vegetation with a high density of perennial fruiting shrubs and rocky places for cover.	N	U	The property is quite open, lacking layered vegetation. There are Chaparral habitats just off-site to the south in a canyon though that could provide potential habitat. The presence of dogs and cats at the Catalina Experience property and the Yacht Club property most likely discourage use of these areas by the fox.

Scientific Name Common Name	Sensitivity Code and Status[2]	Habitat Preference	Found On-site (Y or N)	Potential On-site[3]	Factual Basis for Potential
Birds					
Haliaeetus leucocephalus Bald Eagle	D/CE/-	Nests in large, old-growth, or dominant trees with open branches.	Y	Observed	A single Bald Eagle was seen as an overflight from the north to the south over Bible Peak. There are no nests within the project area.
Synthliboramphus hypoleucus Xantus' Murrelet	FC/CT/-	Nests in rock crevices, under bushes, in old burrows, and among man-made debris.	N	U	Breeding Xantus' Murrelets were only observed on the northwestern portion of the island (CDFW, 2014). NOTE: Scripps's Murrelet, Guadalupe Murrelet, and *Synthliboramphus scrippsi* are synonyms.

12 Species

[1] This sensitive wildlife list is based on a search of the California Natural Diversity Data Base (CNDDB), and Fish and Wildlife, California Department of. 2014. California Natural Diversity Data Base: State & Federally Listed Endangered & Threatened Animals of California. The Author, Sacramento, California, 14 pp. [available at http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf], edition of March 2014.

[2] The status codes are given in the sequence "federal/state/other". A "-" indicates no status at that level. The codes used are defined as follows:

FE — Federal Endangered
pFE — A petition for Federal Endangerment status has been submitted
FT — Federal Threatened
FC — Federal Candidate
D — Delisted from the Endangered Species Act
BCC — Birds of Conservation Concern on the BCC 2008 list within BCR 32
CE — State Endangered
CT — State Threatened
CC — State Candidate
CSC — California Special Concern species
WL — California Department of Fish and Game Watch List

[3] The "Potential On-site" column assesses the potential for the particular species to occur on the subject property given the known habitat preferences and distribution of that species. The codes used in this column are defined as follows:

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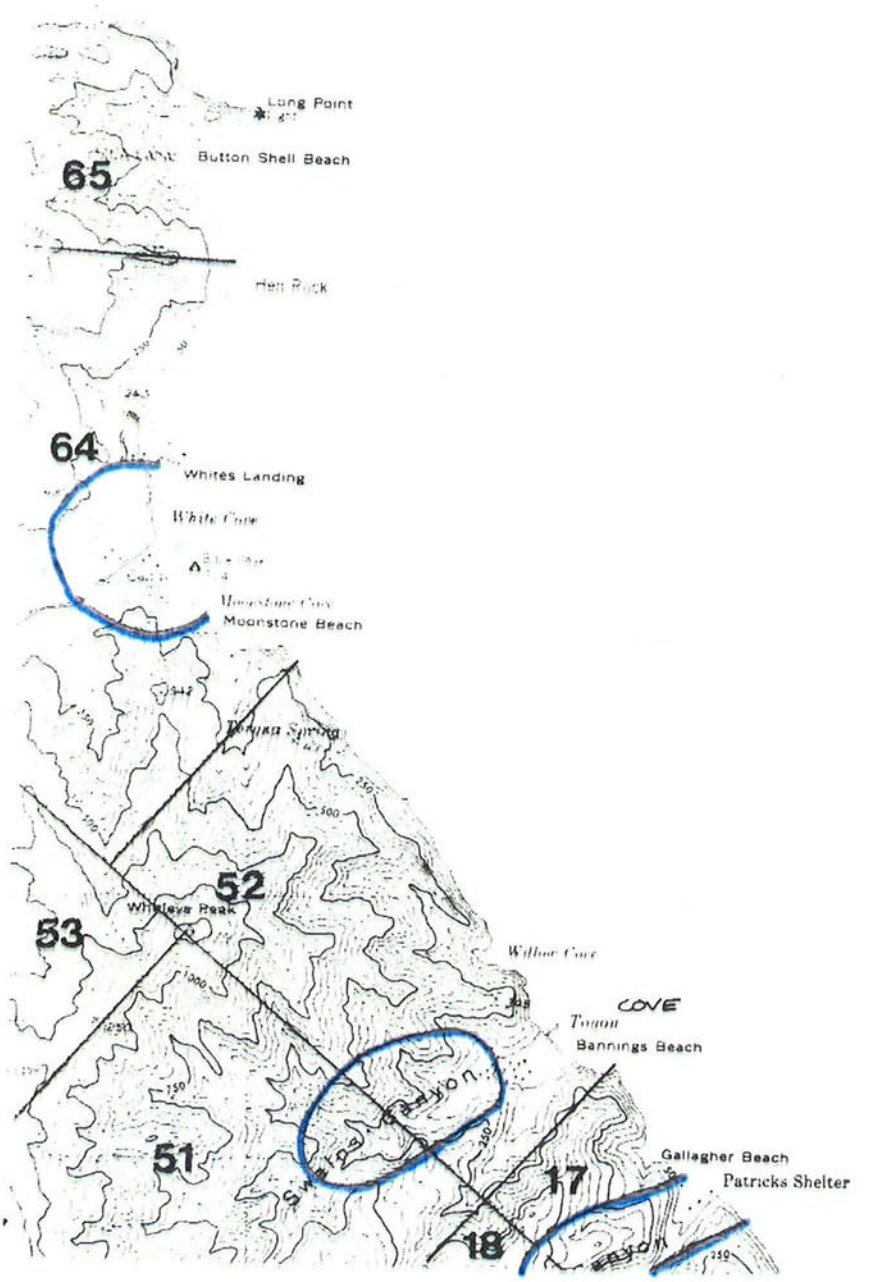
[:\1710-Sensitive Wildlife List.doc]

Appendix A

Map 6 from Appendix D of the
Santa Catalina Island Specific Plan



Numbers Signify Los Angeles County Assessor's Lot Numbers

Significant Ecological Area -

MAP 6