

DISCUSSION AGENDA ITEM
December 10, 2014

Item: Appeal of Planning Commission Approval of CDPR 2014-01

The project involves a proposal by CA Dept. of Parks and Recreation, Trinidad State Beach to remove select vegetation in an area from the main parking lot off Stagecoach Rd. to the Marine Lab. This project was considered by the Planning Commission at a duly noticed public hearing on July 16, 2014. The Planning Commission approved the project by a 3-0 vote, with one Commissioner absent and one Commissioner recusing himself due to owning property adjacent to the project. Several people attended the meeting to speak in favor of the project, while two letters were written in opposition. The State Park representative, Michelle Forys, verbally addressed most of the concerns brought up at the hearing. On July 29, 2014, within the appeal period, Kim Tays appealed the Planning Commission's decision to the City Council. Because the appellant has since moved out of state, EPIC has been designated as her representative.

Coastal Commission staff wrote a letter dated August 27, 2014 that indicated that they concurred with some of the points in the appeal and suggested that more detail be added to the project description. On August 28, State Park project manager, Michelle Forys met at the project site along with myself, Coastal Commission staff Kasey Sirkin and EPIC representatives Natalynne DeLapp and Kimberly Baker. We toured the entire project area with Michelle as she described the proposed activities in more detail. It became apparent that some of the concerns of the appellant were a result of misunderstandings and a lack of detail in the written project description. In addition, some of the controversial project components were removed from the proposal, including the removal of native vegetation to restore both grassland habitat and coastal viewsheds.

Based on the site visit and the Coastal Commission's August 27 letter, the project description and attachments were revised. The project manager, Michelle, sent out a revised project description on October 15, 2014. On October 30, the appellant, Kim Tays, sent an email still objecting to and questioning a few aspects of the project. Coastal Commission staff, Kasey Sirkin, also wrote a letter dated October 29, 2014 with some additional suggestions for improving the project description. In addition, Michelle met with Coastal Commission staff on November 21 to ensure that their concerns were adequately addressed.

I believe that the State Park's December 4 letter and revised project description and reports have done a thorough job of addressing the appellant's concerns. EPIC representatives and Coastal Commission staff have indicated that they do not have significant concerns with the current project description. However, based on the support given for the project by the public at the Planning Commission hearing, much of which was focused on view restoration, and public safety, I would like to address some of the changes that have been made to the project since that hearing.

Important public views of the coast are protected by both the City's LCP and the Coastal Act. The original project, as approved by the Planning Commission, included more substantial vegetation removal than the current proposal. That proposal included removal of native vegetation in addition to the exotics. The purpose was to increase native grassland habitat (as opposed to the existing coastal scrub, which is also native) as well as to improve public views of the shoreline and ocean from the parking lot and trail. Several people submitted photos from previous decades showing the

entire project area to have been grasslands. Grasslands are considered an important habitat, but it likely existed in this location due to human management activities such as grazing and fires.

Based on the concerns brought up in the appeal, State Park staff decided to take a step back and reconsider the project a little more holistically. One important consideration was that the CEQA Notice of Exemption (NOE) that was filed only described removal of non-native vegetation. (Note though that a NOE is not required to be filed, and the project still fell under the same exemption even with the additional removal of select native vegetation as well.) In addition, a few of the seedling trees proposed to be removed as part of the original project description had been misidentified as non-native. State Parks staff have decided that they need to address the removal of native plants more comprehensively. Michelle stated that they still have plans to do additional vegetation management to improve public views and restore grassland habitat in the future under a separate Coastal Development Permit application. However, because there is so much non-native vegetation, some of it quite large, there will be a noticeable reduction in the amount of vegetation in areas, which will still improve viewsheds and open up some grassland habitat.

Also, I would like to make one additional note regarding CEQA. Procedurally, the City is not the CEQA 'Lead Agency' for this project, and therefore does not have primary CEQA authority in this case. Section 15051 contains the criteria for determining the CEQA Lead Agency: *"Where two or more public agencies will be involved with a project, the determination of which agency will be the Lead Agency shall be governed by the following criteria: (a) if the project will be carried out by a public agency, that agency shall be the Lead Agency, even if the project would be located within the jurisdiction of another public agency..."* Because the City of Trinidad does have discretionary authority over the project in the form of approval of the CDP, Trinidad is a 'Responsible Agency' under CEQA. However, it is the Lead Agency's responsibility to determine whether an exemption applies to a project. Because the project is exempt, no further review by the City under CEQA is required.

The permit mechanism for this project is a Use Permit. The City's LCP does not have a separate process for just a CDP, so that is included with whatever other permit may be required. In this case, as described in the July staff report, vegetation removal within the Open Space zone requires a Use Permit (§17.16.030). The findings required for granting a use permit can be found in the July staff report. Because the revision of the project description only reduces the scope of the project, the policy analysis and findings included in the July staff report are still valid.

The following documents related to this project are available and relevant to the appeal. However, in order to save paper (and sanity) the project description appendices (84 pages) were not provided in the packet. However, they are available in the file at City Hall and on the City's website for review. In addition, the on-line version is in color.

- Letter from State Parks Redwood Coast Sector Manager dated December 4, 2014 addressing Kim Tays' comments of October 30, 2014
- Revised Project Description dated December 2014 with Appendices A-E (Appendix E withheld from the publically available file)
 - Appendix A: Best Management Practices
 - Appendix B: 2010 Sensitive Plant Survey and Habitat Assessment for the Exotics Removal Project

- Appendix C: 2014 Supplemental Sensitive Plan Survey and Habitat Assessment for the Coastal Scrub and Grassland Restoration Project
- Appendix D: Notice of (CEQA) Exemption
- Appendix E: Cultural Review (confidential)
- Email from Kim Tays dated October 30, 2014
- Letter from Coastal Commission, Coastal Program Analyst, Kasey Sirkin dated October 29
- Letter from Coastal Commission, Coastal Program Analyst, Kasey Sirkin dated August 27
- Appeal of Planning Commission action by Kim Tays dated July 29, 2014
- Final Planning Commission staff report prepared by City Planner, Trever Parker, dated July 8, 2014.

In terms of procedure and action, the City Council can uphold or deny the appeal, or modify the Planning Commission's decision through additional conditions of approval or other means. Because the project description has changed, the original decision will necessarily be modified if the current proposal is approved. This is somewhat unusual, and could be considered to be partially upholding both the Planning Commission's decision and partially upholding the appeal. However, I do not think that the Planning Commission's action was wrong or inappropriate in approving the original project. But because the project has changed, there is no need to analyze that decision beyond the current proposal. It is staff's opinion that the required findings can be made and **staff recommends approval of the revised project.**

If the Council wishes to approve the project, it is suggested that the motion be worded to deny the appeal and uphold the Planning Commission action with the condition that the project conform to the revised project description. On the other hand, a denial of the project, upholding the appeal, should be based on not being able to make one or more of the required use permit findings or a finding that the project is not consistent with one or more City LCP or Coastal Act policies.

Recommended Action:

Consider the application materials, appeal and response; open the public hearing; take action on the appeal.



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December 4, 2014

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**Regarding: Appeal to Application CDP 2014-01 California State Parks
Vegetation Removal and Maintenance Activities**

Trever,

This letter and attached document is California State Parks' (CSP) official response to an email sent by Ms. Kimberly Tays on October 30, 2014 concerning CDP 2014-01 *California State Parks Vegetation Removal and Maintenance Activities* (California Coastal Commission # 1-TRN-14-0640). Ms. Tays has already appealed this project in July 2014 and in response CSP revised the project description (September 2014) and addressed her comments that were in her original appeal. This letter will address the comments and suggestions made by Ms. Tays in her October 30, 2014 email.

The appellant stated *"I have reviewed the revised plans (dated September 2014) that will be presented at the upcoming November 12 Trinidad City Council meeting. While I am, overall, pleased with the revisions of the restoration project, I object to the plans to remove the more sizeable, mature Monterey cypress trees growing within the project area. While, admittedly, Monterey cypress are not native to Humboldt County, they are native to coastal Monterey, California, and are growing in local State Parks, such as Patrick's Point. Monterey cypress is not an invasive tree species and is not a threat to the Trinidad State Beach coastal bluff environment. Any money and time spent on restoring this Park should be directed towards removal and/or control of highly invasive plants such as English ivy, Cotoneaster, Scotch broom, Pampas grass, Mattress vine, etc., which are a serious threat to the Park's biological diversity. I feel confident in stating that of all of the plant species that the California State Parks North Coast Redwoods District should be worried about, Monterey cypress is not one of them"*.

Ms. Tays is correct that Monterey cypress (*Hesperocyparis macrocarpa*) is native to the Monterey peninsula, but it is not native to Humboldt County. The Monterey cypress found along the north coast of California did not naturally colonize this area on its own, but was brought to this area and planted by humans. Although not considered invasive

by the California Invasive Plant Council, at this particular site they have become invasive. Park staff that began working on natural resource issues at Trinidad State Beach remembers that in 2001 there was only one very large Monterey cypress and one smaller one near the Humboldt State University (HSU) marine lab (Pers. com Michelle Forsys 2014). Neither of these trees is slated for removal. Now there are at least 38 Monterey cypress trees in this area and all but a few large ones are less than 15 years old. The Monterey cypresses have encroached into habitat that would normally support shore pine (*Pinus contorta*) and Bishop pine (*Pinus muricata*). The shore pine and Bishop pine habitat communities are considered sensitive and by allowing the Monterey cypress trees to continue to reproduce in this area, suitable habitat will no longer be available for the shore and Bishop pines to colonize. Another reason CSP is removing the Monterey cypress is because they are non-native and part of the California State Parks' mission is to enhance, protect, and maintain native plant communities. By leaving the Monterey cypress to continue to reproduce and colonize this area, CSP is not upholding its mission.

Furthermore, the CSP Department Operations Manual (DOM) which is considered official policy, states under the Natural Resource section 0310.7 *"Controlling damaging exotic plant species is one of the Department's greatest challenges in fulfilling its mission to help preserve the natural resource values of the State Park System. Invasive exotic (non-native) plants pose a serious threat to native ecosystems. These species can spread rapidly and out-compete California's native species, simultaneously changing the landscape, destroying habitat for other native species, and upsetting natural ecosystem processes. Goals of management of invasive exotic plants in the State Park System are to: 1) Protect and restore the biological diversity of California State Park ecosystems; 2) Reduce the costs of resource maintenance; and 3) Reduce fire hazard and fire control costs"*. In addition, section 0310.7.2 of the DOM further states *"Exotic plant species will be managed— up to and including eradication— if (1) control is prudent and feasible, and (2) the exotic species has a deleterious impact on: 1) Abiotic processes; or 2) Biotic community composition and interactions; or 3) Vegetation structure; or 4) Genetic integrity; or 5) Aesthetic resources; or 6) Cultural resources; or 7) Public health and safety. Consideration will be given to managing exotic species that have, or potentially could have, a substantial impact on park resources, and that can reasonably be expected to be successfully controllable."* This project is consistent with CSP policy and meets all three of the invasive non-native plant management goals. As stated in section 0310.7.2 of the DOM the removal of the Monterey cypress is deemed necessary as they have a deleterious impact on Biotic community composition and interactions, vegetation structure, aesthetic resources, and public health and safety.

Ms. Tays further states *"As mentioned in my appeal letter, not only am I concerned with the protection of the Park's native vegetation, I am also concerned with protection of the Park's visual resources and wildlife habitat. The larger Monterey cypress are important trees because they help conceal houses, rooftops, utility poles and lines, roads, cars, etc. from nearby trails, beaches, the ocean and Trinidad Head. They also add windswept beauty and diversity to the vegetative landscape and offer vital habitat for birds and other animals. In the July 2014 project plans, the documents stated 20 Monterey cypress would be removed from the project area. Their dimensions and*

locations were not provided. However, in the revised documents, the plans state 36 Monterey cypress would be removed from the project area. In addition, the plans state: "During implementation should any Monterey cypress that has not been mapped within the project area is found and it is 12" DBH or less, it will be removed." [Emphasis added.] Also, I noticed in Photograph 10 (on page 12) that the trees in the photo appear to be misidentified; they look to be Sitka spruce and Douglas fir, not Monterey cypress ".

All of the Monterey cypress trees that will be removed are not adjacent to the park property line, houses, power poles, or roads. Most of the trees to be removed are less than 20 feet tall and are surrounded by other native trees that will not be removed and taller in size. In the revised project description the area alongside the trail and adjacent to the eastern property line will be revegetated using native coastal scrub plant species such as wax myrtle (*Morella californica*), coast siltassel (*Garrya elliptica*), and coyote brush (*Baccharis pilularis*) and native trees. The revegetation will help to ensure that the visual aesthetics of the park are not significantly impacted. Ms. Tays is correct that the numbers of Monterey cypress has changed from 20 to 36. In revising the project description (September 2014) the size of Area C was expanded to the north to ensure that all of the Monterey cypress trees 12" DBH or smaller in this portion of the Park were included under this project. By increasing the size of Area C an additional 16 Monterey cypress were included in the revised project description. Ms. Tays is correct that in Photograph 10 there are native trees but they are in the background of the picture. The only tree in this picture that will be removed is the Monterey cypress at the forefront of the picture, which is identified correctly by an Environmental Scientist that is knowledgeable about how to identify Monterey cypress and mapped and measured the trees that will be removed. A variety of large, native trees will remain in this area and provide suitable habitat for the native wildlife.

Feel free to contact me if you have any questions or need further clarification.

Sincerely,



Jeff Bomke

Redwood Coast Sector Manager

Ec: Michelle Forys, Environmental Scientist
Roger Goddard, Acting District Superintendent
Bob Merrill, California Coastal Commission
Kimberly Tays; Appellant
Natalynne DeLapp, EPIC
Kimberly Baker, EPIC

Trinidad State Beach Coastal Scrub and Grassland Restoration Project

Prepared by Michelle Forsys, Environmental Scientist, North Coast Redwoods District
Revised December 2014

PROJECT LOCATION

This project is located at Trinidad State Beach (TSB) in the North Coast Redwoods District of California State Parks (Figure 1). The 4.7-acre project area consists of coastal scrub and grassland habitats in the most southern portion of the Park. The project area extends from the large paved parking lot off of Stagecoach Road, adjacent to Trinidad School to the southern boundary of the Park near the Humboldt State University (HSU) Marine Lab (Figure 2).

PROJECT PURPOSE

The purpose of this project is to restore the native coastal scrub and grassland communities by removing invasive, non-native plants that have invaded this portion of the Park. The trail that runs along the east side of the project area is heavily overgrown with invasive, non-native plants that have begun out competing the native scrub/grassland plant species to the west of the trail. Finally, there is no firebreak between TSB and the residential houses immediately east of the Park along the trail, creating a fire hazard and/or unsafe conditions.

EXISTING CONDITIONS

The project area is primarily composed of coast scrub habitat (Figure 3). However, remnants of grassland can be found in small pockets of the project area (Figure 3). In addition, there is a small portion of forest within the project area (Figure 3). Throughout the project area there are many invasive, non-native plants which have invaded a majority of the coastal scrub and grassland areas. Some of the species include English ivy (*Hedera helix*), 5 species of *Cotoneaster*, English holly (*Ilex aquifolium*), Spanish heath (*Erica lusitanica*), jubata grass (*Cortaderia jubata*) and Scotch broom (*Cytisus scoparius*). There are 31 invasive, non-native plants within the project area that will be removed during implementation of this project (Table 1). Many of these species are rated by the California Invasive Plant Council (Cal-IPC) as High or Moderate, and one is rated by both the California Department of Food and Agriculture (CDFA) and California Exotic Pest Plant Council (CalEEPC) (Table 1). In addition, 4 species are also considered noxious weeds in Oregon, and can be found in similar habitats as those found at TSB (Table 1).

The project area has been broken into four sites; Area A - View Shed, Area B - Trail, Area C – Scrub/Grassland, and Area D - Developed (Figure 3). California State Parks (CSP) had been maintaining a view shed (Area A, 0.17 acres) at the west end of the TSB parking lot until recently. This area is primarily composed of small *Cotoneaster* sp. and small native (< 3 feet tall) trees such as shore pine (*Pinus contorta* subsp. *contorta*) and grand fir (*Abies grandis*). This view shed overlooks the north end of TSB, Pewetole Island, and the south end of College Cove (Figure 3, Photo 1 and 2). If this area is not maintained on an annual basis, the public will no longer be able to see the ocean from this viewing area.

Table 1. Invasive, non-native plants in the Trinidad State Beach Coastal Scrub and Grassland Restoration project area.

Scientific Name	Common Name	Cal-IPC Rating¹	CalEPPC Rating²	CDFA Rating³	Oregon Rating⁴
<i>Cirsium vulgare</i>	bull thistle	Moderate	B		B
<i>Cortaderia jubata</i>	jubata grass	High			B
<i>Cotoneaster franshetii</i>	orange cotoneaster	Moderate			
<i>Cotoneaster horizontalis</i>	horizontal cotoneaster				
<i>Cotoneaster lacteus</i>	milk-flower cotoneaster				
<i>Cotoneaster pannosus</i>	silverleaf cotoneaster	Moderate			
<i>Cotoneaster simonsii</i>	Himalayan cotoneaster	Moderate			
<i>Crocsmia X crocosmiiflora</i>	montbretia	Limited			
<i>Cytisus scoparius</i>	Scotch broom	High	A-1	C	B
<i>Daucus carota</i>	Queen Anne's lace				
<i>Erica lusitanica</i>	Spanish heath	Limited			B
<i>Escallonia rubra</i>	red claws				
<i>Euphorbia peplus</i>	petty spurge				
<i>Geranium dissectum</i>	cutleaf geranium	Limited			
<i>Geranium molle</i>	dove's-foot geranium				
<i>Hedera helix</i>	English ivy	High			B
<i>Hesperocyparis macrocarpa</i>	Monterey cypress				
<i>Hypericum calycinum</i>	Aaron's beard				
<i>Ilex aquifolium</i>	English holly	Moderate and Alert			
<i>Lathyrus latifolius</i>	perennial sweetpea				B
<i>Leucanthemum vulgare</i>	ox-eye daisy				
<i>Lotus corniculatus</i>	bird's-foot trefoil				
<i>Muehlenbeckia complexa</i>	mattress vine				
<i>Oxalis corniculata</i>	creeping wood-sorrel				
<i>Pittisporum</i> sp.	Pittisporum				
<i>Raphanus sativus</i>	wild radish	Limited			
<i>Rubus armeniacus</i>	Himalayan blackberry				
<i>Ranunculus</i> sp.	buttercup				
<i>Senecio minimus</i>	coastal burnweed				
<i>Viburnum tinus</i>	laurustinus				
<i>Vinca major</i>	periwinkle	Moderate			

¹ Cal-IPC - California Invasive Plant Council; ² CalEPPC - California Exotic Pest Plant Council; ³ California Department of Food and Agriculture; ⁴ Although this listing has no standing in California, it show that these plants are considered invasive in an adjacent state that is part of larger bioregion.

The majority of the vegetation between the trail and the residential houses (Area B, 0.71 acres) is densely populated by invasive, non-native plants, primarily English ivy, *Cotoneaster* sp., *Pittisporum* sp., Spanish heath and Aaron's beard (Figure 3, Photos 3 - 5). A few native species still exist in this area, including coyote brush (*Baccharis pilularis*), California blackberry (*Rubus ursinus*), red alder (*Alnus rubra*), coast silk tassel (*Garrya elliptica*), and Sitka spruce (*Picea sitchensis*). By removing non-native plants in this area, fuels will be reduced, lessening the chance of a wildfire moving out of the Park and onto private property. This will also help to restore the native coastal scrub in this area.

The area to the west of the southern half of the trail (Area C, 2.9 acres) was once primarily coastal grassland (Figure 3). Over the last 10 years, little management has occurred in this area allowing many invasive, non-native plant species (English ivy, mattress vine (*Muehlenbeckia compacta*), Spanish heath, *Cotoneaster* sp., and *Pittisporum* sp.) to become established (Photos 6 - 10). In addition, native coastal scrub plants, including coyote brush, twinberry (*Lonicera involucrata*), and California huckleberry (*Vaccinium ovatum*), are also present in this area (Photo 6).

In addition, many, non-native Monterey cypress (*Hesperocyparis macrocarpa*) trees have begun to invade the scrub/grassland area and mattress vine has begun to strangle multiple native plant species at the southeast corner of the park across from the HSU Marine Lab (Figure 4, Photos 11 - 14). There is very little coastal grassland left within TSB and it is a sensitive habitat that is important for native wildlife. Two sensitive plant species, Oregon coast paintbrush (*Castilleja affinis* ssp. *litoralis*) and mountain crowberry (*Empetrum nigrum* ssp. *hermaphroditum*) occur along the vertical bluff edges at TSB near Elk's Head (Appendix A). By restoring the scrub/grassland and removing the non-native plants, more suitable habitat will become available for these sensitive plant species to colonize. In addition, by restoring this coastal grassland/scrub habitat through annual management, fuels will be reduced making it safer for Trinidad residents if a wildfire occurs.

Area D (0.57 acres) extends from the corner of Stagecoach Road along the southern side of the parking lot, between the fence and the park road (Figure 3). This area is comprised of both native and invasive, non-native plants (Photos 15 - 18). Within this area there are many *Cotoneaster* sp. and *Pittisporum* sp. plants, English ivy and Himalayan blackberry. In addition, there are four mature Monterey cypress trees. These Monterey cypress trees have begun to reproduce and there are several samplings that have begun to grow.

PROJECT DESCRIPTION

This project proposes to maintain a view shed and restore coastal scrub and grassland habitats by removing invasive, non-native plants within the project area. Non-native plants will be flagged prior to project implementation and removed with hand tools (e.g. shovels, weed wrenches, chainsaws). Excavation should not exceed 24 inches. Chainsaws will be used to remove *Cotoneaster* sp., *Pittisporum* sp., and the Monterey cypress. Roots of any invasive, non-native species that can resprout when cut to the ground will be completely removed from the ground. All removed vegetation will be transported to an appropriate dumping area or compost facility, outside of the Coastal Zone in a timely fashion and then composted or chipped, depending on the species. Specific actions for each treatment area are discussed below.

Area A (View Shed Area): The project proposes to remove the invasive, non-native plants, mainly *Cotoneaster* sp. and Queen Anne's lace (*Daucus carota*) from within this area. No native trees will be removed in this area. The initial treatment of this area will be completed in 1 week. Once initial treatment has been conducted retreatment will occur annually or as needed. The area is relatively flat and there are multiple native plants intermixed with the non-native plants. Therefore no revegetation will be needed.

Area B (Trail Area): Non-native plants (mainly Queen Anne's lace, Scotch broom, English ivy, Aaron's beard, *Pittisporum* sp., Spanish heath, Himalayan blackberry, and multiple species of *Cotoneaster* sp.) in this area will be removed. When plants are dug out of the ground, soil will be contoured using hand tools so that no large holes are left where the plants were removed. No native trees will be removed. Mulching and revegetation will occur when the native plant recolonization is in need of assistance or where large areas of ground are exposed after invasive, non-native plants removal. Coastal scrub plant species will be used to revegetate Area B. Species such as coyote brush, Pacific reed-grass (*Calamagrostis nutkaensis*), wax myrtle (*Morella californica*), coast silktassel (*Garrya elliptica*) and native trees such as Sitka spruce once mature plants will help to create a vegetated barrier between the trail and the private property fences. Seeds from these species will be collected from within TSB and either sown into the ground and/or existing native plants will be transplanted. The initial treatment of this area will be completed over a 2 year period. Revegetation efforts will occur for 2 years after the second retreatment. Once initial treatment has been conducted on a portion of this area, retreatment will occur annually or as needed, and prior to any new initial treatment in Area B.

Area C (Scrub/Grassland Area): Area C has the highest diversity of invasive, non-native plant species (Monterey cypress, mattress vine, radish, 3 species of *Cotoneaster* sp., Queen Anne's lace, Scotch broom, English ivy, Aaron's beard, *Pittisporum* sp., Spanish heath, perennial peavine (*Lathyrus latifolius*), jubata grass, periwinkle (*Vinca major*), bull thistle (*Cirsium vulgare*), burn weed (*Senecio minimus*), montbretia (*Crocasmia X crocosmiiflora*) and Himalayan blackberry) of the four areas. When plants are dug out of the ground, soil will be contoured using hand tools so that no large holes are left where the plants were removed. No native trees will be removed. Mulching will occur when large areas of ground are exposed after invasive, non-native plants removal.

Mattress vine is growing in the southeastern portion of Area C (Figure 4). This plant is strangling multiple species of coastal scrub and the population size has tripled in size since it was first discovered a few years ago (Photos 11-14). In order to remove the mattress vine some native shrubs, such as coyote brush and twinberry, may have to be cut back, but not removed. There is no physical way to reach the mattress vine roots without cutting back some of the brush. Coyote brush and other native shrubs in this area will resprout after being cut back. No native trees will be removed in this area. In addition, 36 Monterey cypress trees ranging from < 1" Diameter at Breast Height (DBH) to 12" DBH will be removed (Table 2, Figure 4). During implementation should any Monterey cypress that has not been mapped within the project area is found and it is 12" DBH or less, it will be removed. There are two Monterey cypress trees that are larger than 12" DBH in Area C. These trees are large, most likely the larger of the two trees is a historic planting. These trees will not be removed under this project. These trees are not being removed for various reasons; 1) the removal of these large trees will require a significant amount of equipment which would likely impact the native species in Area C; 2) to minimize soil disturbance and erosion that could occur with the removal of the trees; and 3) the Notice of Exemption

(NOE) does not permit taking of any trees larger than 12” DBH. The initial treatment of this area will be completed over a 2-year period. Once initial treatment has been conducted on a portion of this area, retreatment will occur annually or as needed, and prior to any new initial treatment in Area C.

Table 2. Number and size of Monterey cypress to be removed in Area C of the Trinidad State Beach Coastal Scrub and Grassland Restoration project area.

DBH (Inches)	Total Trees
0.5	7
1	8
2	10
3	5
4	2
6	1
8	2
12	1
Grand Total	36

Area D (Developed Area): Within this area a variety of invasive, non-native plants occur. They include English ivy, English holly, buttercup (*Ranunculus* sp.), Monterey cypress, bull thistle, Scotch broom, Himalayan blackberry, red claws (*Escallonia rubra*), *Geranium* and multiple species of *Contoneaster* sp. In addition, there are 4 large Monterey cypress trees, which will not be removed. These trees are not being removed for various reasons; 1) the removal of these large trees will require a significant amount of equipment and temporary road closure on Stagecoach Road; 2) to minimize soil disturbance and erosion that could occur with the removal of the trees; and 3) the NOE does not permit taking of any trees larger than 12” DBH. However, if any Monterey cypress under 12” DBH are found during treatment efforts in this area, they will be removed. The initial treatment of this area will be completed over a 2-week period. Once initial treatment has been conducted, retreatment will occur annually or as needed. Revegetation will occur along the property line where removal efforts caused the fence to be exposed. Native coastal scrub species will be used to revegetate this area. Species that will be used include wax myrtle, coyote brush, coast siltkassel, and Sitka spruce. Revegetation will occur after the second retreatment effort.

PROJECT TIMELINE

This project is a multi-year project and initial treatment of each area will occur during different years to ensure that not more than 0.3 acres of non-native plant are removed per year (Table 3). Initial treatment of Areas B and C will be conducted over a 2-year period. Retreatment of each area will occur annually or until no longer required. It is anticipated that removal efforts will occur over a 2 week period each year. Revegetation will occur at different times based on the area and if there is a need for greater native plant cover. Although it is anticipated that the project will be completed over a 5-year period, a permit extension may be requested if the restoration objectives are not met.

Table 3. Timeline for Trinidad State Beach Coastal Scrub and Grassland Restoration project.

Area	Year 1	Year 2	Year 3	Year 4	Year 5
A		Initial Treatment	Retreatment	Retreatment/ Revegetation	Retreatment
B	Initial Treatment	Initial Treatment/ Retreatment	Retreatment/ Revegetation	Retreatment/ Revegetation	Retreatment
C		Initial Treatment	Initial Treatment	Retreatment/ Revegetation	Retreatment/ Revegetation
D	Initial Treatment	Retreatment	Retreatment/ Revegetation	Retreatment/ Revegetation	Retreatment

PROJECT MONITORING

Multiple types of monitoring will be used to determine the success of the project. First, multiple photo points will be established using a Global Positioning System (GPS) unit within all 4 areas. Photos will be taken before, during, and after initial treatment of each area and annually before and after each retreatment effort. Photo monitoring will also occur before and after any revegetation efforts, and annually for the first 3 years after revegetation efforts occur. Second, all non-native plants within the project area will be mapped using a GPS unit prior to initial treatment of each area. At the end of the 5 year project all remaining non-native plants will be mapped. The project will be considered a success when the non-native plant cover (area mapped) is less than 10% of the original areas mapped. Finally, the percent cover of all plant species in each of the 4 areas will be determined using a point intercept method. The length of the transect and the amount of points to be sampled will be different for each and will be based on the shape and size of each area. Point intercept (transect) monitoring will be conducted prior to initial treatment of each area and at the end of the 5-year project timeline. The project will be considered a success when the non-native plant cover is less than 10% of the area sampled. If these goals are not met at the end of the 5-year project restoration activities will continue until these goals has been met. At the end of the 5-year permit period a report will be produced for the City of Trinidad documenting the work and monitoring that occurred throughout the project.

PROJECT COMPLIANCE

The Trinidad Area of Special Biological Significance (ASBS), also known as a State Water Quality Protection Area, is located west of the Park. Mill Creek and an unnamed tributary that flows into College Cove do not fall within the project area. There are no wetlands, water features, drainages, or unstable areas within the project area. However, Trinidad State Beach is considered a FCWA 303 (d) impacted water body. Water quality Best Management Practices will be used throughout the life of the project (Appendix A).

A sensitive plant survey was conducted in 2010, which covered almost the entire Park (Appendix B – Figure 1). Two special status plant species were encountered near Elk Head; Oregon coast paintbrush and mountain crowberry (Appendix B). These plants are located at the north end of the Park, a few miles from the project area. Area C will have the potential habitat for these species once restoration occurs. A second sensitive plant survey was conducted in 2014 (Appendix C). This survey concentrated on surveying and mapping sensitive habitats within the 4.7 acre project area. Sensitive habitats were not mapped or

discussed in the 2010 report. It is highly unlikely that any sensitive plants have colonized the project area (since the 2010 survey), due to the dense cover of invasive, non-native plants. There are no known sensitive animal species using the habitat within the project area. Work will occur between August 1 and April 30 to ensure no breeding birds are disturbed.

This project has gone through both the California Environmental Quality Act (CEQA) and cultural review processes. A NOE was filed and a 5024 completed for the cultural review (Appendix D and E respectively). All culturally sensitive areas found during the cultural review process are outside of this project area (Appendix E – not to be released to the public).

REFERENCES

California Invasive Plant Council; <http://www.cal-ipc.org>

California Exotic Pest Plant Council; <http://www.cal-ipc.org>

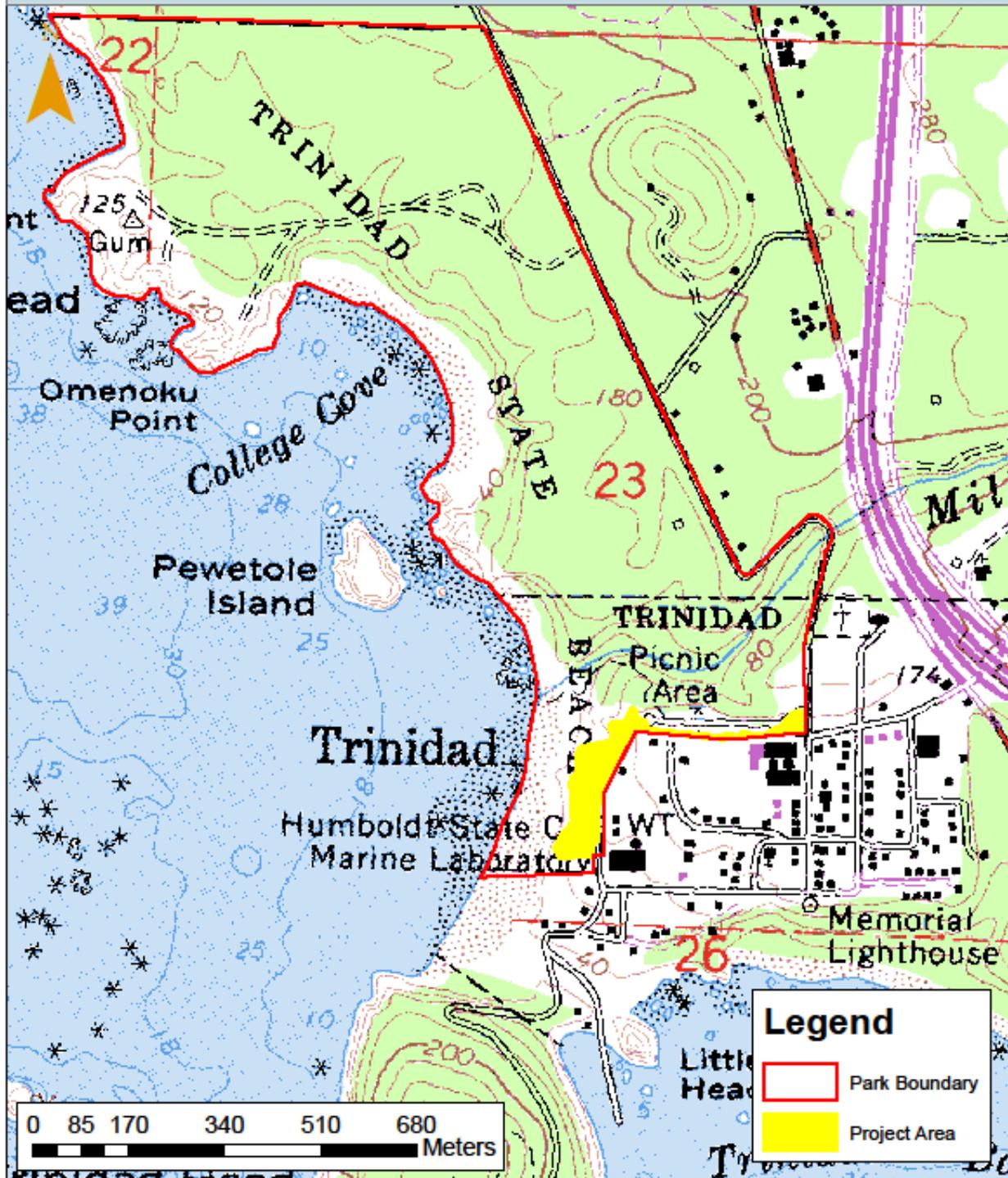
California Department of Food and Agriculture; <http://www.cdfa.ca.gov/>

Oregon Dept. of Agriculture;

<http://www.oregon.gov/ODA/programs/Weeds/Pages/AboutWeeds.aspx>

Trinidad State Beach

California State Parks
North Coast Redwood District



Coastal Scrub and
Grassland Restoration Project

Figure 1 - Project Location

Trinidad State Beach

California State Parks
North Coast Redwood District

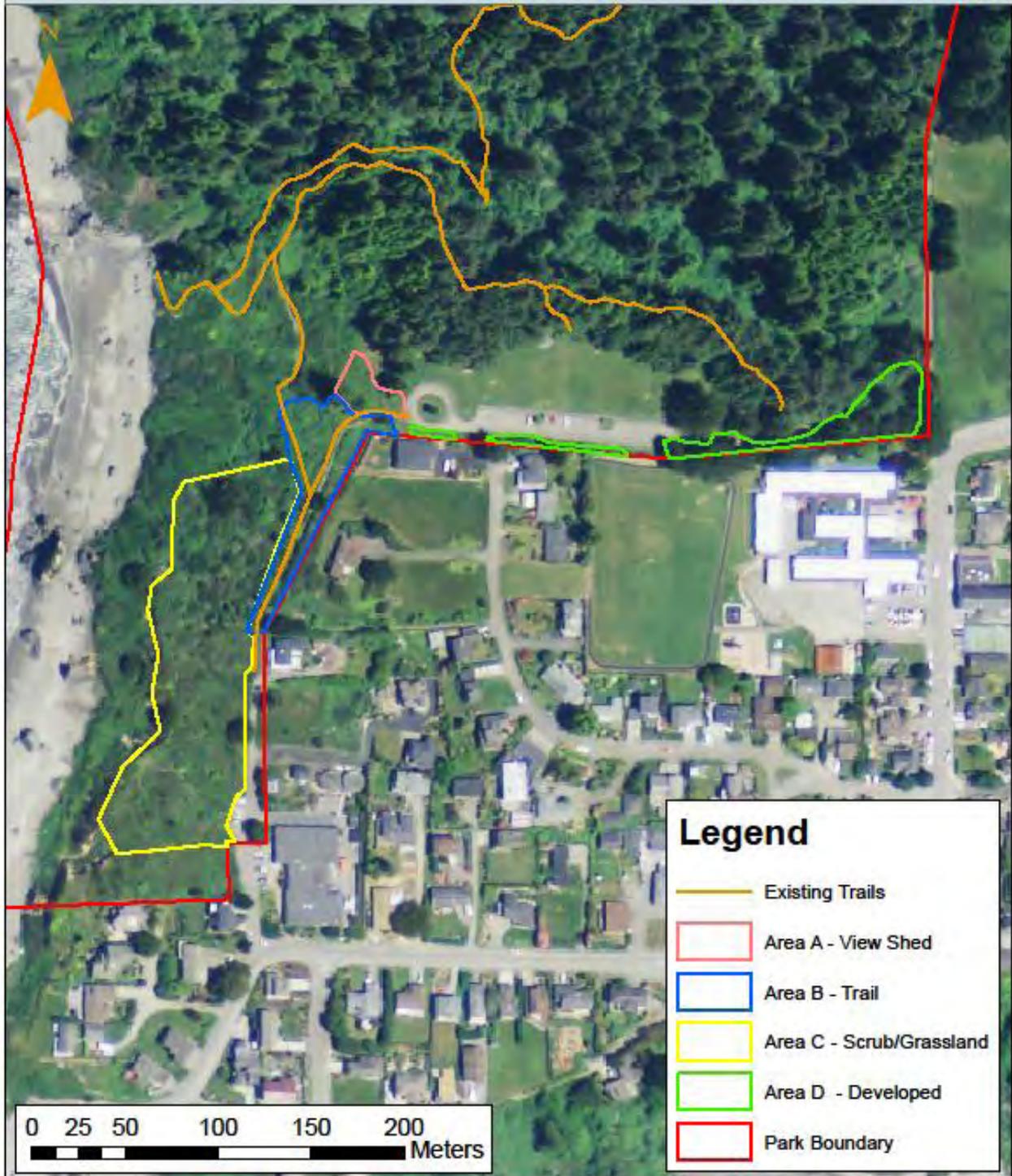


Coastal Scrub and
Grassland Restoration Project

Figure 2 - Project Area

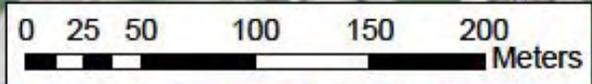
Trinidad State Beach

California State Parks
North Coast Redwood District



Legend

- Existing Trails
- Area A - View Shed
- Area B - Trail
- Area C - Scrub/Grassland
- Area D - Developed
- Park Boundary



Coastal Scrub and
Grassland Restoration Project

Figure 3 - Treatment Areas

Trinidad State Beach

California State Parks
North Coast Redwood District



Coastal Scrub and
Grassland Restoration Project

Figure 4 - Mattress Vine and
Monterey Cypress Removal



Photo 1. Area A - View shed area



Photo 2. Cotoneaster crowding out native scrub species.



Photo 3. Trail area covered in *Cotoneaster* sp.



Photo 4. Cotoneaster crowding out native scrub species.



Photo 5. Trail area covered in English ivy.



Photo 6. Native coastal scrub with some Cotoneaster.



Photo 7. English ivy taking over coastal scrub and grassland.



Photo 8. English ivy growing over Cotoneaster.



Photo 9. Cotoneaster out competing native scrub plants.



Photo 10. Cotoneaster and Monterey cypress (fore front) taking over shore pine area (background).



Photo 11. Mattress vine.



Photo 12. Mattress vine covering coyote brush.



Photo 13. Native scrub plants covered in mattress vine.



Photo 14. Cotoneaster and Himalayan blackberry covered by mattress vine.

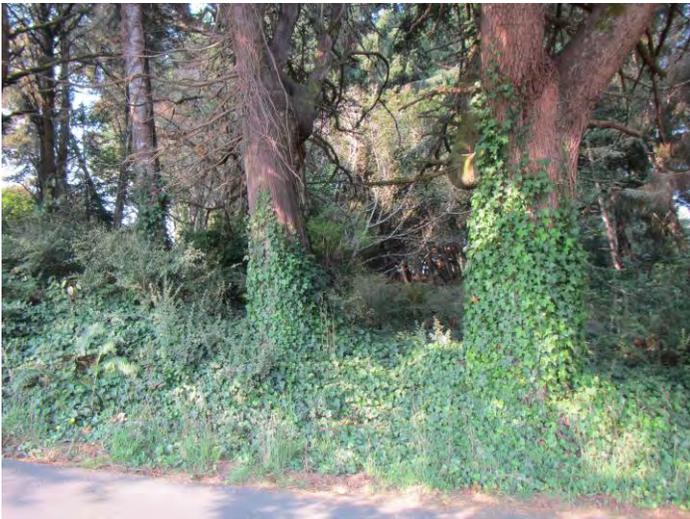


Photo 15. SW corner of Area D.



Photo 16. English ivy and Cotoneaster in Area D.



Photo 17. Middle section of Area D (red claws. to be removed).



Photo 18. Middle section of Area D (Cotoneaster to be removed).

Appendix A. Best Management Practices

Best Management Practices for Non-native Plant Removal at Trinidad State Beach

The purpose of this document is to establish a set of Best Management Practices (BMPs) to minimize the impacts of the restoration activities proposed in this project description at Trinidad State Beach.

Description

The project entails the removal of multiple invasive, non-native plants species within a 4.7 acre area. Plants will be removed using hand tools such as shovels, pulaskis, and chainsaws. Minor excavation of some species will be required and will not exceed 24 inches in depth. Removed vegetation will be hauled off site to be composted or chipped on site. Revegetation of certain areas will be conducted with two years of the removal efforts.

Concerns

- Disposal of brush
- Erosion
- Water quality
- Noise

Best Management Practices:

- Removed vegetation will be either used as mulch (no reproductive structures present), chipped on site, or taken off site to an official compost facility. Chips may also be used as mulch.
- Removal of non-native plant operations shall be staged to preserve existing vegetation.
- No more than a total of 0.3 acres of non-native plants will be removed each year.
- Areas where more than 50 sq. feet of bare ground is exposed during the work will be cover with mulch to the maximum extent practicable (50% to 75% surface coverage) to reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff.
- Straw mulch may be used as a temporary surface cover on disturbed areas until the area can be prepared for revegetation and permanent vegetation is established. Straw mulch may also be used during revegetation efforts to enhance plant establishment.
- Fiber rolls will be used down-slope of exposed soil areas to intercept runoff, reduce its flow velocity, and provide removal of sediment from the runoff.
- Noise levels from chainsaws and weed eaters will temporarily increase at the work site, although the noise generally diminishes rapidly with distance. Work shall be limited to daytime hours between 08:00 to 16:00 Monday through Friday.
- Workers in close proximity to the equipment are exposed to high noise levels. Workers shall be advised to wear ear protection when in close proximity to the heavy equipment. Earplugs shall be provided to all workers and extra earplugs shall be stored in all vehicles and equipment.
- All work conducted shall be in compliance with OSHA regulations.

**Appendix B. 2010 Sensitive Plant Survey and
Habitat Assessment for the Exotics Removal
Project
Trinidad State Beach**

Sensitive Plant Survey and Habitat Assessment Report for the Trinidad State Beach Exotics Removal Project

July 21, 2010



Report prepared by:
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Introduction

Project Description

The purpose of this project is “to restore the native forest understory and coastal scrub community by removing non-native invasive plants and encroaching non-native and native shrubs and trees” (Dupree and Forsy 2010) within the proposed project area of Trinidad State Beach (Fig. 1). Exotic plant control activities will be performed by Park staff, volunteers, and contracted crews as funding allows.

Sensitive plant surveys were conducted throughout the project area in order to determine whether the proposed exotics removal project will negatively impact any special status plant species or habitats potentially occurring within the project area. Special status plants are rare, threatened or endangered species as defined by the Federal and California Endangered Species Acts (CESA and ESA), as well as non-listed species that require consideration under section 15380 of the (California Environmental Quality Act (CEQA)). Special status habitats are considered a high priority for inventory due to their rarity status as defined by the California Department of Fish and Game (CDFG).

Environmental Setting and Project Location

The project area is located in Trinidad State Beach, near Trinidad, CA (Fig. 1). The project area includes most of Trinidad State Beach with the exception of the dune and beach areas, the northern most portion of the park, and offshore rocks. The location of the proposed project is within the Trinidad, CA USGS 7.5' quadrangle, with the legal description T8N, R1W, S15 and geographical coordinates 41° 3' 40.25" N, 124° 8' 47.19" W.

Habitat types within the project area are characterized as coastal bluff scrub, coastal scrub, riparian forest, and north coast coniferous forest (CNPS 2009). Within forested habitats second-growth Sitka spruce (*Picea sitchensis*) dominates the overstory while Douglas-fir (*Pseudotsuga menziesii*), grand fir (*Abies grandis*), and western hemlock (*Tsuga mertensiana*) can be found scattered throughout the forest. Cascara sagrada (*Rhamnus purshiana*) and red alder (*Alnus rubra*) are common components of the sub-canopy of the more mesic forested areas. The forest understory shrub layer is dominated by California huckleberry (*Vaccinium ovatum*), twinberry (*Lonicera involucrata* ssp. *ledebourii*), and red elderberry (*Sambucus racemosa*).

Within forest openings, exotic shrubs such as *Cotoneaster* spp. and *Pittosporum* spp. are vigorously competing with native shrubs. Several native and exotic blackberry species (i.e. *Rubus armeniacus*, *Rubus parviflorus*, *Rubus ursinus*, *Rubus leucodermis*, and *Rubus spectabilis*) dominate the forest understory sub-shrub layer, along with exotic English ivy (*Hedera helix*) and English holly (*Ilex aquifolium*), and native salal (*Gaultheria shallon*). Within densely shaded, forested habitats, a sparse herbaceous layer prevails. However, where sufficient light is available a relatively high diversity of plant life is present. This includes several species of native and non-native graminoids (i.e. *Bromus carinatus*, *Bromus vulgaris*, *Poa* spp., *Carex deweyana* ssp. *leptopoda*, *Dactylis*

glomerata, and *Juncus* spp.), several species of fern (*Polystichum munitum*, *Blechnum spicant*, and *Pteridium aquilinum* var. *pubescens*), and a variety of herbs (*Maianthemum dilitatum*, *Oxalis oregana*, *Asarum caudatum*, *Claytonia sibirica*, *Disporum* spp., *Fragaria vesca*, *Marah oreganus*, *Osmorhiza* spp., *Geum macrophyllum* var. *macrophyllum*, and *Viola glabella*).

Coastal scrub habitat within the project site is dominated by a scattered and reduced overstory of California wax myrtle (*Myrica californica*), *Cotoneaster* spp., *Pittosporum* spp., and encroaching Douglas-fir (*Pseudotsuga menziesii*). The shrub and sub-shrub layers within the coastal scrub habitat are primarily composed of bee plant (*Scrophularia californica*), *Lupinus latifolius*, coyote brush (*Baccharis pilularis*), *Cotoneaster* spp., Scotch broom (*Cytisus scoparius*), California blackberry (*Rubus ursinus*), *Pittosporum* spp., *Erica lusitanica*, and *Garrya elliptica*. A variety of both native and non-native graminoids such as Nootka reedgrass (*Calamagrostis nutkaensis*), velvet grass (*Holcus lanatus*), *Bromus carinatus*, *Bromus hordeaceus*, *Anthoxanthum odoratum*, *Aira caryophyllea*, and *Vulpia* spp. dominate the dense herbaceous layer. Common herbs found within the herbaceous layer of the coastal scrub include coast angelica (*Angelica hendersonii*), yarrow (*Achillea millefolium*), pearly everlasting (*Anaphalis margaritacea*), Douglas iris (*Iris douglasiana*), *Stachys ajugoides*, common plantain (*Plantago lanceolata*), *Lotus corniculatus*, *Trifolium* spp., *Lathyrus* sp., and *Vicia* sp.

Coastal bluff scrub habitat harbors some of the same plant species found within the shrub and herbaceous layers of the coastal scrub, however a handful of taxa occur more or less exclusively within this habitat. Many of the taxa found within this habitat, especially near Elk Head, are native species, thus making native plant diversity especially rich at this location. Some of the native taxa present at Elk Head include *Solidago spathulata*, *Erigeron glaucus*, *Poa macrantha*, *Armeria maritima*, *Eriogonum latifolium*, *Arctostaphylos uva-ursi*, *Gentiana affinis* var. *ovata*, *Eriophyllum lanatum*, *Calochortus tolmei*, *Tanacetum camphoratum*, *Sedum spathulifolium*, *Dudleya* sp., *Plantago subnuda*, and *Mimulus aurantiacus*. Also present within the coastal bluff scrub at Elk Head are two special status plant species, Oregon coast paintbrush (*Castilleja affinis* ssp. *litoralis*) and mountain crowberry (*Empetrum nigrum* ssp. *hermaphroditum*), which are discussed in detail below.

Riparian forest habitats are predominately comprised of big-leaf maple (*Acer macrophyllum*) and red alder in the overstory layer and stinkcurrant (*Ribes bracteosum*), blackberry (*Rubus* spp.), and red elderberry (*Sambucus racemosa*) within the shrub and sub-shrub layers. Several species of fern and horsetails (*Polystichum munitum*, *Blechnum spicant*, *Athyrium filix-femina*, *Dryopteris expansa*, and *Equisetum telmateia* ssp. *braunii*) dominate the herbaceous layer along with *Carex* and *Juncus*, and herbs such as cow parsnip (*Heracleum lanatum*), *Tellima grandiflora*, *Veronica americana*, *Ranunculus uncinatus*, *Polygonum* spp., and *Oenanthe sarmentosa*. Riparian associated flora tends to increase in species richness as elevation decreases.

Of note are the following species of exotic plants that were not listed in the project description and that were found in the project area during the botanical surveys: *Escallonia* sp., *Tropaeolum majus*, *Fuschia* sp., *Pinus radiata*, *Cotoneaster microphyllus*, *Allium triquetrum*, *Lathyrus latifolius*, and *Crococsmia x crocosmiiflora*. *Cotoneaster*

microphyllus is an uncommon, small-leaved, prostrate member of the genus and is found within open, exposed, or windy sites within the project area and on Trinidad Head. This is a new record for this species as its occurrence within natural areas of Humboldt County has not been previously documented (Jepson Interchange online).

Methods

Prior to field surveys, a list of the sensitive plant species with recorded occurrences in the assessment area was compiled (Table 1). The assessment area was defined as the USGS 7.5' quadrangle in which the project is located (Trinidad), as well as eight adjacent quadrangles (Rodger's Peak, Crannell, Orick, Tyee City, Arcata North, Arcata South, Eureka, and Fern Canyon). Species with the potential to occur in the assessment area were identified by querying CDFG's California Natural Diversity Database RareFind 3 (CDFG 2003) and the CNPS Online Inventory of Rare and Endangered Plants of California (CNPS 2010). Queries were further refined through searching by the following select habitats that occur within Trinidad State Beach: coastal scrub, coastal dunes, coastal bluff scrub, coastal prairie, north coast coniferous forest, and riparian forest.

The CNPS and CDFG databases are the primary sources of information regarding sensitive plant species and habitats. The CNPS Inventory of Rare and Endangered Plants of California categorizes species based upon their presumed rarity. There are five different categories or lists of sensitive plants:

- 1A Plants presumed extinct in California
- 1B Plants rare, threatened, or endangered in California and elsewhere
- 2 Plants rare, threatened, or endangered in California but more common elsewhere
- 3 Plants about which we need more information – a review list
- 4 Plants of limited distribution – a watch list

The CNPS Threat Rank is an extension added onto the CNPS List and designates the level of endangerment by a 1 to 3 ranking:

- 0.1-Seriously threatened in California (high degree/immediacy of threat)
- 0.2-Fairly threatened in California (moderate degree/immediacy of threat)
- 0.3-Not very threatened in California (low degree/immediacy of threats or no current threats known)

The CDFG Natural Diversity Database (CNDDDB) also publishes a list of sensitive plants which includes the CNPS Inventory, as well as sensitive habitat types and plant species considered sensitive by other governmental agencies. The CDFG ranking system gives species a global (G) and a state (S) rank, each of which is divided into five categories. The five categories range from 1-5, where 1 is very rare and 5 is relatively common. The state rank is further divided into three subcategories that indicate the level of threat to the known occurrences: 1 = very threatened, 2=threatened, 3=not threatened.

The CDFG ranking system is as follows:

- 1. Less than 6 viable occurrences or less than 1,000 individuals or less than 2,000 acres
- 2. 6-20 occurrences or 1,000-3,000 individuals or 2,000-10,000 acres
- 3. 21-100 occurrences or 3,000-10,000 individuals or 10,000-50,000 acres

4. Apparently secure, but there is some threat, or somewhat narrow habitat
5. Demonstrably secure to ineradicable

All categories of sensitive plants were included in the list of potential occurrences.

Floristic surveys were conducted by North Coast Redwoods District Resource Management employee Jeffery Barrett (Environmental Services Intern). Mr. Barrett's experience as a botanist includes a Bachelor of Science degree in Botany from Humboldt State University and 5 years of seasonal field experience conducting rare plant surveys in northern California. He is proficient in identifying the flora of northwestern California.

Twenty (20) person hours were spent surveying the project site on May 29 and 31, June 7, and July 20, 2010. Surveys were conducted at seasonally appropriate times to allow for proper identification of sensitive/special status plant species. Survey methods followed the CDFG survey protocol (CDFG 2000). These methods included a survey of all roads (i.e. Stagecoach Road and State Park Road) and trails within or bordering the project site, the beach zone below the bluffs, all parking lots, and all accessible habitats within the project area. Moreover, several visits to existing special status plant occurrence sites at Trinidad Head and Moonstone County Park, outside of Trinidad State Beach, were made prior to surveying the project site in order for the surveyor to become familiar with special status plant species that had the potential to occur within the project site. A list of the vascular plant species encountered during the surveys of the project area and adjoining areas of Trinidad State Beach is included in this report (Table 2).

Results and Discussion

Botanical surveys conducted within the project area revealed a total of 230 plant taxa in 74 plant families, which included 14 tree species in 8 families, 38 shrub species in 17 families, 129 herbaceous species in 42 families, 39 graminoid species in 3 families, and 10 species of fern and fern allies in 5 families. Two species of special status plants were encountered near the project area at Elk Head; Oregon coast paintbrush (*Castilleja affinis* ssp. *litoralis*) and mountain crowberry (*Empetrum nigrum* ssp. *hermaphroditum*).

Oregon coast paintbrush (*Castilleja affinis* ssp. *litoralis*) (CNPS List 2.2) is a perennial herb that is found within coastal bluff scrub, coastal dune, and coastal scrub habitat within Mendocino, Humboldt, and Del Norte counties of California. Oregon coast paintbrush is threatened by development and recreational activities (CNPS 2009). This occurrence at Elk Head has been previously documented (CNDDB Element Code PDSCR0D012, Occurrence #23) and was last updated on January 16, 2001 and last surveyed on April 20, 1974 (CDFG 2010). Counts of individual plants was not attempted, however population abundance was estimated to lie within a range of between 100 and 500 individuals. A majority of individuals were found within approximately 5-10 meters of the open, coastal bluff edge, both on top and below the edge. No plants were found within the dense shrubbery of the coastal scrub habitat above and adjacent to the bluff edge within the project site. Population location and extent was obtained by taking 15 GPS point coordinates at approximately 10 meter intervals along the occurrence boundary below the edge of the bluffs using a Thales GPS receiver. These GPS points were later connected and two separate polygon shapefiles were digitized using ArcGIS 9.3. A buffer

of approximately 5 meters was added to both sides of the line connecting the individual points (Fig. 2).

Mountain crowberry (*Empetrum nigrum* ssp. *hermaphroditum*) (CNPS List 2.2) is an evergreen shrub that is found within coastal bluff scrub and coastal prairie habitat within Humboldt and Del Norte counties of California. Mountain crowberry is threatened by trampling and cattle grazing (CNPS 2009). This occurrence at Elk Head (Megwil Point) has been previously documented (CNDDDB Element Code PDEMP03021, Occurrence #1) and was last updated on September 11, 1997 and last surveyed on May 29, 1979 (CDFG 2010). Counts of individual plants was not attempted, however population abundance was estimated to lie within a range of between 10-50 individuals. The population was found growing along the open, coastal bluff edge/sea cliff on the north side of Megwil Point. The area encompassed by the population is currently protected by a wooden fence and no trespassing signs that indicate a plant rehabilitation area are posted. No plants were found within the dense shrubbery of the coastal scrub habitat above and adjacent to the bluff edge. Population location was obtained by taking 1 GPS point at the occurrence's uppermost elevational boundary on the edge of the bluffs using a Thales GPS receiver. A polygon was later digitized using ArcGIS 9.3 in order to capture the actual area encompassed by the population (Fig. 2).

A discussion of the availability of suitable habitat for other special status species with potential to occur in the assessment area follows.

Western lily (*Lilium occidentale*) (CNPS List 1B.1) is a Federal and State listed endangered species that is known from less than 6 occurrences within Humboldt and Del Norte counties of California and is found within coastal wetlands such as bogs, fens, marshes, and swamps and in openings in coastal prairie, coastal bluff scrub, coastal scrub, and north coast coniferous forests (CNPS 2009). Western lily is threatened by development, herbivory, inappropriate grazing, vegetation succession, and horticultural collecting (CNPS 2009). The nearest known occurrence for this species is near Humboldt Bay in Fields Landing, south of Eureka, California (CDFG 2010). This surveyor made visits to two known sites, one near Eureka, and another in Crescent City, California, in order to become familiar with the plant and its specific microhabitat requirements prior to surveying the project site. Unfortunately, the plants were never observed at these two sites. Nevertheless, it was assumed that this species had the potential to occur within gaps of the coastal scrub/bluff scrub and coniferous forests in the project site due to the relatively close proximity to known occurrences in Eureka. Early season surveys of these habitats at Trinidad State Beach in May and June revealed the presence of non-flowering, unidentified species of lily. Upon a revisit of these habitats in mid-July, these species of lily, which were now in full bloom, were identified as Columbia lilies (*Lilium columbianum*).

Wolf's evening-primrose (*Oenothera wolffii*) (CNPS List 1B.1) is a densely hairy, rosetted, biennial herb that is found within coastal bluff scrub, coastal dunes, coastal prairie, lower montane coniferous forest and sandy, usually mesic, habitats (CNPS 2009). According to the Center for Plant Conservation, Wolf's evening-primrose occurs "mostly on discontinuous patches of Cenozoic-era marine deposits, which are isolated from each other by other sedimentary and metamorphic rock. This may explain the disjunct distribution of the species. Within these sites, it requires well-drained soils with adequate

moisture, minimal competition, and protection from northwesterly exposure” (Center for Plant Conservation online). Wolf’s evening-primrose is threatened by road maintenance, foot traffic, and hybridization with non-native *Oenothera* species such as *Oenothera glazioviana*, a common weed in the region. The nearest known occurrence of this species is at Moonstone County Park, several miles south of Trinidad State Beach (CDFG 2010). This surveyor visited this site in early June in order to become familiar with the plant; however, the plant was still in a vegetative state and could not be positively identified. Nonetheless, a survey of similar habitat along the interface of the bluffs and beach at Trinidad State Beach was conducted, with no plants being found. Due to widespread seeding of this plant in the region in the 1990’s, it is possible for this plant to eventually occur or spread to suitable habitat at Trinidad State Beach and future botanical surveys should include a careful search for this species in its preferred habitats (Center for Plant Conservation online).

Bristle-stalked sedge (*Carex leptalea*) (CNPS List 2.2) is an obligate wetland sedge that is found in bogs and fens, meadows, marshes and swamps (CNPS 2009). While no such habitat was found within the project site, the nearest known occurrence is in the vicinity of Trinidad (CNDDDB Element Code PMCYP037E0, Occurrence #6), which was last surveyed in June of 1931 (CDFG 2010).

Tracy’s romanzoffia (*Romanzoffia tracyi*) (CNPS List 2.3) is a tufted, scapose perennial herb that is found in coastal bluff scrub and on rocky, moist cliffs above the ocean (CNPS 2009). This surveyor made a visit to a known occurrence on Trinidad Head prior to conducting botanical surveys of the project area; however, plants that were found were still in a vegetative state, which did not allow for positive differentiation from *Romanzoffia californica*. Tracy’s romanzoffia has a shorter inflorescence than *R. californica*, with the inflorescence “slightly, if at all, greater than the leaves” (Hickman 1993). There is a high probability for either of these plants occurring within suitable habitat at Trinidad State Beach and future surveys should take into account the close similarity between these two species. In fact, the type locality for this species was made at Trinidad Head by J. Tracy in 1933 (CDFG Element Code PDHYD0E030, Occurrence 3) and current CDFG records indicate that fieldwork is required to clarify the extent of the occurrence of this plant in the Trinidad area (CDFG 2010).

Running ground pine (*Lycopodium clavatum*) (CNPS List 4.1) is a spreading, evergreen, rhizomatous herb/clubmoss that resembles a large moss or pine/fir seedling and is found growing on the ground in mesic sites in marshes, swamps, and openings in north coast coniferous forests (CNPS 2009). The nearest known occurrence is in the vicinity of Trinidad, precise location not given, and was last surveyed in 1959 (CNDB Element Code PPLYC01080, Occurrence 16) (CDFG 2010). Other, more recently surveyed (i.e. 2001), known occurrences in the general vicinity of Patrick’s Point State Park indicate the plant will form dense mats on sandy soil within openings created by logging of *Sequoia sempervirens* and *Pinus muricata* (Bishop pine) forests. Given that most of the north coast coniferous forest habitat at Trinidad State Beach is densely shaded with few, if any, openings in the forest, there is a low probability of this plant occurring within the project site.

Beach starwort (*Stellaria littoralis*) (CNSP List 4.2) is a sprawling, long wavy-haired, perennial herb that occurs within mesic coastal sites such as bogs, fens, marshes, swamps, coastal bluff scrub, coastal dunes, and coastal scrub (CNPS 2009). Beach starwort is threatened by grazing, trampling, and non-native plants (CNPS 2009). The nearest known occurrence of this plant was last surveyed in 1909 by J. Tracy in the vicinity of Trinidad (Jepson Interchange online). A similar, non-native species, *Stellaria media*, was found along the trail from the Elk Head parking lot to Elk Head; however, this species has long, wavy hairs in a single line along the stem rather than along all sides of the stem as in *S. littoralis*.

None of the natural communities considered rare by the California Department of Fish and Game were found to occur in the surveyed areas.

Summary of Recommendations

While the proposed project will result in better habitat conditions for sensitive and native plant species, the removal of individual exotic plants can impact adjacent sensitive plants. Therefore, the following recommendations are provided;

1. No exotic plant control activities be conducted within 25 ft of identified sensitive plant locations or the coastal bluff edges and/or the special status plant locations between College Cove and Elk Head due to the presence or potential presence of two special status plant species, Oregon coast paintbrush (*Castilleja affinis* ssp. *littoralis*) and mountain crowberry (*Empetrum nigrum* ssp. *hermaphroditum*) unless the area is first surveyed (in conformance with DFG protocol) by a qualified CSP botanist who will then flag individual sensitive plants. All restoration in this area should be done under the direction of State Park Natural Resource personnel.
2. If the surveys referenced in recommendation 1 are not done then prior to conducting restoration activities in the vicinity of the areas discussed above a CSP Natural Resource person utilizing a GPS unit should establish a plant protection area by flagging a 25 ft boundary around these sites and no restoration will be allowed in the protection area.
3. Individuals, including CSP staff, volunteers, and contract crews, conducting exotic plant control activities in the Elk Head area should be informed of the presence of these two special status plant species in these areas.

It is further recommended that treatment of the Scotch broom infestation located above and below the bluff edge between the two Oregon coast paintbrush occurrences be considered a high priority for restoration due to (1) the close proximity of this infestation to the special status plant occurrences and (2) Scotch broom's capacity to rapidly expand into disturbed sites such as those that occur along the eroding coastal bluff edges of the project site.

REFERENCES

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Table 1. Sensitive plants known to or with the potential to occur in the project area; listed by CNPS rank.

Species Name	Common Name	Family	CNPS List	CDFG State Rank	CDFG Global Rank	Ecological Information
<i>Abronia umbellata</i> ssp. <i>breviflora</i>	pink sand-verbena	Nyctaginaceae	1B.1	S2.1	G4G5T2	Coastal dunes
<i>Erysimum menziesii</i> ssp. <i>eurekaense</i>	Humboldt Bay wallflower	Brassicaceae	1B.1	S1.1	G3?T1	Coastal dunes
<i>Layia carnosa</i>	beach layia	Asteraceae	1B.1	S2.1	G2	Coastal dunes, Coastal scrub(sandy)
<i>Lilium occidentale</i>	western lily	Liliaceae	1B.1	S1.2	G1	Bogs and fens, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, North coast coniferous forest (openings)
<i>Oenothera wolfii</i>	Wolf's evening-primrose	Onagraceae	1B.1	S1.1	G1	Coastal bluff scrub, Coastal dunes, Coastal prairie, Lower montane coniferous forest/sandy, usually mesic
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	Fabaceae	1B.2	S2.2	G2T2	Coastal dunes Marsh and swamp Wetland
<i>Carex saliniformis</i>	deceiving sedge	Cyperaceae	1B.2	S2.2	G2	Coastal prairie, Coastal scrub, Meadows and seeps, Marshes and swamps(coastal salt)/mesic
<i>Castilleja mendocinensis</i>	Mendocino Coast paintbrush	Scrophulariaceae	1B.2	S2.2	G2	Coastal bluff scrub, Closed-cone coniferous forest, Coastal dunes, Coastal prairie, Coastal scrub
<i>Fissidens pauperculus</i>	minute pocket moss	Fissidentaceae	1B.2	S1.2	G3?	North Coast coniferous forest(damp coastal soil)
<i>Gilia capitata</i> ssp. <i>pacifica</i>	Pacific gilia	Polemoniaceae	1B.2	S2.2?	G5T3T4	Coastal bluff scrub, Chaparral(openings), Coastal prairie, Valley and foothill grassland
<i>Gilia millefoliata</i>	dark-eyed gilia	Polemoniaceae	1B.2	S2.2	G2	Coastal dunes
<i>Hesperivax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	Asteraceae	1B.2	S2S3	G4T2T3	Coastal bluff scrub Coastal dunes
<i>Iliamna latibracteata</i>	California globe mallow	Malvaceae	1B.2	S2.2	G3	Chaparral(montane), Lower montane coniferous forest, North Coast coniferous forest(mesic), Riparian scrub (stream banks)

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<i>Piperia candida</i>	white-flowered rein orchid	Orchidaceae	1B.2	S3.2	G3	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest/sometimes serpentine
<i>Sidalcea malviflora</i> ssp. <i>patula</i>	Siskiyou checkerbloom	Malvaceae	1B.2	S2	G5T2	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest/often roadcuts
<i>Sidalcea oregana</i> ssp. <i>eximia</i>	coast checkerbloom	Malvaceae	1B.2	S1.2	G5T1	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest
<i>Lathyrus japonicus</i>	seaside pea	Fabaceae	2.1	S1.1	G5	Coastal dunes
<i>Carex arcta</i>	northern clustered sedge		2.2	S1S2	G5	Bog and fen North coast coniferous forest Wetland
<i>Carex lenticularis</i> var. <i>limnophila</i>	lagoon sedge	Cyperaceae	2.2	S1S2.2	G5T5	Bogs and fens, Marshes and swamps, North Coast coniferous forest/shores, beaches; often gravelly
<i>Carex leptalea</i>	bristle-stalked sedge	Cyperaceae	2.2	S2?	G5	Bogs and wet meadows
<i>Castilleja affinis</i> ssp. <i>litoralis</i>	Oregon coast paintbrush	Scrophulariaceae	2.2	S2.2	G4G5T4	Coastal bluff scrub, Coastal dunes, Coastal scrub/sandy
<i>Coptis laciniata</i>	Oregon goldthread	Ranunculaceae	2.2	S2.2	G4G5	Meadows and seeps, North Coast coniferous forest streambanks/mesic
<i>Discelium nudum</i>	naked flag moss	Disceliaceae	2.2	S1.2	G3G4	Coastal bluff scrub(soil, on clay banks)
<i>Empetrum nigrum</i> ssp. <i>hermaphroditum</i>	mountain crowberry	Empetraceae	2.2	S2?	G5T5	Coastal bluff scrub, Coastal prairie
<i>Erythronium revolutum</i>	coast fawn lily	Liliaceae	2.2	S3	G4	Bogs and fens, Broadleafed upland forest, North Coast coniferous forest/mesic, streambanks
<i>Lathyrus palustris</i>	marsh pea	Fabaceae	2.2	S2S3	G5	Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, North Coast coniferous forest/mesic
<i>Monotropa uniflora</i>	ghost-pipe	Ericaceae	2.2	S2S3	G5	Broadleafed upland forest, North Coast coniferous forest
<i>Montia howellii</i>	Howell's montia	Portulacaceae	2.2	S3	G3G4	Meadows and seeps, North Coast coniferous forest, Vernal pools/vernally mesic, sometimes roadsides

<i>Packera bolanderi</i> var. <i>bolanderi</i>	seacoast ragwort	Asteraceae	2.2	S1.2	G4T4	Coastal scrub, North Coast coniferous forest/sometimes roadsides
<i>Polemonium carneum</i>	Oregon polemonium	Polemoniaceae	2.2	S1	G4	Coastal prairie, Coastal scrub, Lower montane coniferous forest
<i>Viola palustris</i>	alpine marsh violet	Violaceae	2.2	S1S2	G5	Bogs and fens(coastal), Coastal scrub(mesic)
<i>Boschniakia hookeri</i>	small groundcone	Orobanchaceae	2.3	S1S2	G5	North Coast coniferous forest
<i>Carex viridula</i> var. <i>viridula</i>	green yellow sedge	Cyperaceae	2.3	S1.3	G5T5	Bogs and fens, Marshes and swamps (freshwater), North Coast coniferous forest (mesic)
<i>Romanzoffia tracyi</i>	Tracy's romanzoffia	Hydrophyllaceae	2.3	S1.3	G4	Coastal bluff scrub, Coastal scrub/rocky
<i>Lycopodium clavatum</i>	running-pine	Lycopodiaceae	4.1	S4.1	G5	Marsh and swamp North coast coniferous forest Wetland
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	Malvaceae	4.2	S3S4.2	G3G4	Broadleaved upland forest Coastal prairie Coastal scrub North coast coniferous forest
<i>Stellaria littoralis</i>	beach starwort	Caryophyllaceae	4.2	S3S4.2	G3G4	Bogs and fens, Coastal bluff scrub, coastal dunes, coastal scrub, marshes and swamps

List compiled from a 9 quad search of the CNPS Rare Plant Inventory and the CNDDDB RareFind 3 database for special status plants occurring within select habitats. USGS quadrangles searched included: Trinidad, Rodger's Peak, Crannell, Orick, Tyee City, Arcata North, Arcata South, Eureka, and Fern Canyon.

CDFG/Heritage Ranking Codes

G: Global ranks 1-5; 1=most threatened (less than 6 viable occ.) or less than 1,000 individuals or less than 2,000 acres.
5=demonstrably secure or common.

S: State ranks, 1-5; 1=most threatened (as with G1), 5=no threat

Threat ranks: 0.1=very threatened, 0.2=threatened, 0.3=no threats known

CNPS Rarity Codes

1B Plants rare, threatened, or endangered in CA and elsewhere

2 Plants rare, threatened, or endangered in CA but more common elsewhere

3 Plants about which more information is needed – a review list

4 Plants of limited distribution – a watch list

CNPS Threat rank

.1-Seriously threatened in CA (high degree/immediacy of threat)

.2-Fairly threatened in CA (moderate degree/immediacy of threat)

.3-Not very threatened in CA (low degree/immediacy of threat)

TABLE 2. Vascular plants encountered during field surveys for the proposed Trinidad State Beach Exotics Removal Project.

(Nomenclature follows Hickman 1993 and Jepson Interchange 2010.)

Habit	Scientific Name	Common Name	Family	Native?
Trees				
	<i>Abies grandis</i>	grand fir	Pinaceae	Y
	<i>Acer macrophyllum</i>	big-leafed maple	Aceraceae	Y
	<i>Alnus rubra</i>	red alder	Betulaceae	Y
	<i>Cupressus macrocarpa</i>	Monterrey cypress	Cupressaceae	N
	<i>Eucalyptus globulus</i>	blue gum	Myrtaceae	N
	<i>Malus</i> sp.	apple	Rosaceae	N
	<i>Myrica californica</i>	wax myrtle	Myricaceae	Y
	<i>Picea sitchensis</i>	Sitka spruce	Pinaceae	Y
	<i>Pinus contorta</i> var. <i>contorta</i>	beach pine	Pinaceae	Y
	<i>Pinus radiata</i>	Monterrey pine	Pinaceae	N
	<i>Pseudotsuga menziesii</i>	Douglas-fir	Pinaceae	Y
	<i>Sequoia sempervirens</i>	coast redwood	Taxaceae	Y
	<i>Sequoiadendron giganteum</i>	giant sequoia	Taxaceae	N
	<i>Tsuga heterophylla</i>	western hemlock	Pinaceae	Y
Shrubs				
	<i>Arctostaphylos uva-ursi</i>	bearberry	Ericaceae	Y
	<i>Baccharis pilularis</i>	coyote brush	Asteraceae	Y
	<i>Carpobrotus chilensis</i>	sea fig	Aizoaceae	N
	<i>Carpobrotus edulis</i>	common hottentot fig	Aizoaceae	N
	<i>Ceanothus thrysiflorus</i>	blue blossom	Rhamnaceae	Y
	<i>Cotoneaster franchetii</i>	cotoneaster	Rosaceae	N
	<i>Cotoneaster microphyllus</i>	small leaved cotoneaster	Rosaceae	N
	<i>Cotoneaster pannosa</i>	cotoneaster	Rosaceae	N
	<i>Cytisus scoparius</i>	Scotch broom	Fabaceae	N
	<i>Empetrum nigrum</i> ssp. <i>hermaphroditum</i>	mountain crowberry	Empetraceae	Y
	<i>Erica lusitanica</i>	Spanish heath	Ericaceae	N

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<i>Escallonia rubra</i>	red claws	Grossulariaceae	N
<i>Gaultheria shallon</i>	salal	Ericaceae	Y
<i>Garrya elliptica</i>	garrya	Garryaceae	Y
<i>Hedera helix</i>	English ivy	Araliaceae	N
<i>Hypericum calycinum</i>	Aaron's beard	Hypericaceae	N
<i>Ilex aquifolium</i>	English holly	Aquifoliaceae	N
<i>Lonicera involucrata</i> var. <i>ledebourii</i>	twinberry	Caprifoliaceae	Y
<i>Lupinus arboreus</i>	yellow bush lupine	Fabaceae	N
<i>Lupinus latifolius</i>	broad leafed lupine	Fabaceae	Y
<i>Phormium</i> sp.	New Zealand flax	Phormiaceae	N
<i>Physocarpus capitatus</i>	Pacific ninebark	Rosaceae	Y
<i>Pittosporum</i> sp.	pittosporum	Pittosporaceae	N
<i>Rhamnus purshiana</i>	cascara sagrada	Rhamnaceae	Y
<i>Rhododendron occidentale</i>	Western azalea	Ericaceae	Y
<i>Ribes bracteosum</i>	stink currant	Grossulariaceae	Y
<i>Ribes sanguineum</i> var. <i>glutinosum</i>	red flowering currant	Grossulariaceae	Y
<i>Rosa nutkana</i> var. <i>nutkana</i>	Nootka rose	Rosaceae	Y
<i>Rosa canina</i>	dog rose	Rosaceae	N
<i>Rubus armeniacus</i> (<i>discolor</i>)	Himalayan blackberry	Rosaceae	N
<i>Rubus leucodermis</i>	white-stemmed blackberry	Rosaceae	Y
<i>Rubus parviflorus</i>	thimbleberry	Rosaceae	Y
<i>Rubus spectabilis</i>	salmonberry	Rosaceae	Y
<i>Rubus ursinus</i>	California blackberry	Rosaceae	Y
<i>Salix hookeriana/lasiolepis</i>	coastal willow	Salicaceae	Y
<i>Sambucus racemosa</i>	red elderberry	Adoxaceae (Caprifoliaceae)	Y
<i>Spiraea douglasii</i>	Douglas's spiraea	Rosaceae	N
<i>Vaccinium ovatum</i>	evergreen huckleberry	Ericaceae	Y
Herbs			
<i>Abronia latifolia</i>	yellow sand verbena	Nyctaginaceae	Y
<i>Achillea millefolium</i>	yarrow	Asteraceae	Y
<i>Allium triquetrum</i>	white-flowered onion	Alliaceae	N
<i>Anagallis arvensis</i>	scarlet pimpernel	Primulaceae	N
<i>Anaphalis margaritacea</i>	pearly everlasting	Asteraceae	Y

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<i>Angelica hendersonii</i>	coast angelica	Apiaceae	Y
<i>Anthriscus caucalis</i>	bur-chervil	Apiaceae	N
<i>Aquilegia formosa</i>	red columbine	Ranunculaceae	Y
<i>Armeria maritima</i>	sea thrift	Plumbaginaceae	Y
<i>Asarum caudatum</i>	wild ginger	Aristolochiaceae	Y
<i>Aster chilensis</i>	California aster	Asteraceae	Y
<i>Bellis perennis</i>	English daisy	Asteraceae	N
<i>Brassica</i> sp.	mustard	Brassicaceae	N
<i>Cakile maritima</i>	sea rocket	Brassicaceae	N
<i>Calochortus tolmiei</i>	pussy ears	Liliaceae	Y
<i>Cardamine californica</i>	milk maids	Brassicaceae	Y
<i>Cardamine oligosperma</i>	milk maids	Brassicaceae	Y
<i>Castilleja affinis</i> ssp. <i>litoralis</i>	Oregon coast paintbrush	Scrophulariaceae	Y
<i>Cerastium glomeratum</i>	mouse-eared chickweed	Caryophyllaceae	N
<i>Chamomilla suaveolens</i>	pineapple weed	Asteraceae	N
<i>Cirsium arvense</i>	Canada thistle	Asteraceae	N
<i>Cirsium vulgare</i>	bull thistle	Asteraceae	N
<i>Claytonia perfoliata</i>	miner's lettuce	Montiaceae (Portulacaceae)	Y
<i>Claytonia sibirica</i>	candy flower	Montiaceae (Portulacaceae)	Y
<i>Crepis capillaris</i>	smooth hawksbeard	Asteraceae	N
<i>Crocsmia x crocosmiiflora</i>	garden montbretia	Iridaceae	N
<i>Daucus carota</i>	Queen Anne's lace	Apiaceae	N
<i>Daucus pusillus</i>	wild carrot	Apiaceae	Y
<i>Digitalis purpurea</i>	foxglove	Plantaginaceae (Scrophulariaceae)	N
<i>Disporum hookeri</i>	hairy fairy bells	Liliaceae	Y
<i>Disporum smithii</i>	coast fairy bells	Liliaceae	Y
<i>Dudleya farinosa</i>	bluff lettuce	Crassulaceae	Y
<i>Epilobium angustifolium</i>	fireweed	Onagraceae	Y
<i>Epilobium ciliatum</i> ssp. <i>watsonii</i>	Watson's willowherb	Onagraceae	Y
<i>Erechtites glomeratus</i>	burnweed	Asteraceae	N
<i>Erechtites minimus</i>	coastal burnweed	Asteraceae	N
<i>Erigeron glaucus</i>	seaside daisy	Asteraceae	Y
<i>Eriogonum latifolium</i>	wild buckwheat	Polygonaceae	Y

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<i>Eriophyllum lanatum</i>	woolly sunflower	Asteraceae	Y
<i>Eschscholzia californica</i>	California poppy	Papaveraceae	Y
<i>Euphorbia peplus</i>	petty spurge	Euphorbiaceae	N
<i>Fragaria chiloensis</i>	beach strawberry	Rosaceae	Y
<i>Fragaria vesca</i>	woodland strawberry	Rosaceae	Y
<i>Fuschia</i> sp.	fuschia	Onagraceae	N
<i>Galium aparine</i>	goose grass	Rubiaceae	N
<i>Galium</i> sp.	bedstraw	Rubiaceae	?
<i>Geranium dissectum</i>	cutleaf geranium	Geraniaceae	N
<i>Geranium molle</i>	dove's-foot geranium	Geraniaceae	N
<i>Gentiana affinis</i> var. <i>ovata</i>	pleated gentian	Gentianaceae	Y
<i>Geum macropphyllum</i> var. <i>macrophyllum</i>	bigleaf avens	Rosaceae	Y
<i>Gnaphalium purpureum</i>	purple cudweed	Asteraceae	Y
<i>Gnaphalium stramineum</i>	cotton-batting cudweed	Asteraceae	Y
<i>Heracleum maximum</i> (<i>lanatum</i>)	cow parsnip	Apiaceae	Y
<i>Hieracium albiflorum</i>	white-flowered hawkweed	Asteraceae	Y
<i>Hypochaeris</i> sp.	cat's ear	Asteraceae	N
<i>Iris douglasiana</i>	Douglas iris	Iridaceae	Y
<i>Lathyrus latifolius</i>	perennial sweetpea	Fabaceae	N
<i>Lathyrus</i> sp.	pea	Fabaceae	?
<i>Leontodon taraxacoides</i>	hawkbit	Asteraceae	N
<i>Leucanthemum vulgare</i>	oxe-eye daisy	Asteraceae	N
<i>Lilium columbianum</i>	Columbia lily	Liliaceae	Y
<i>Linum bienne</i>	pale flax	Linaceae	N
<i>Lotus corniculatus</i>	bird's-foot trefoil	Fabaceae	N
<i>Lotus</i> sp.	lotus	Fabaceae	?
<i>Lupinus</i> sp.	lupine	Fabaceae	Y
<i>Lysichiton americanus</i>	yellow skunk cabbage	Araceae	Y
<i>Maianthemum dilatatum</i>	false lily of the valley	Ruscaceae (Liliaceae)	Y
<i>Marah oreganus</i>	coast manroot	Cucurbitaceae	Y
<i>Medicago arabica</i>	spotted bur clover	Fabaceae	N
<i>Medicago polymorpha</i>	bur clover	Fabaceae	N

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<i>Melilotus officinalis</i>	yellow sweetclover	Fabaceae	N
<i>Mimulus aurantiacus</i>	bush/sticky monkeyflower	Phrymaceae (Scrophulariaceae)	Y
<i>Myosotis</i> sp.	forget-me-not	Boraginaceae	N
<i>Oenanthe sarmentosa</i>	pacific oenanthe	Apiaceae	Y
<i>Osmorhiza chilensis</i>	sweet cicely	Apiaceae	Y
<i>Osmorhiza purpurea</i>	purple cicely	Apiaceae	Y
<i>Oxalis oregana</i>	redwood sorrel	Oxalidaceae	Y
<i>Petasites frigidus</i> var. <i>palmatus</i>	coltsfoot	Asteraceae	Y
<i>Plantago lanceolata</i>	english plantain	Plantaginaceae	N
<i>Plantago major</i>	broad-leaved plantain	Plantaginaceae	N
<i>Plantago maritima</i> var. <i>californica</i>	Pacific seaside plantain	Plantaginaceae	Y
<i>Plantago subnuda</i>	naked plantain	Plantaginaceae	Y
<i>Polygonum polystachyum</i>	Himalayan knotweed	Polygonaceae	N
<i>Polygonum</i> sp.	knotweed	Polygonaceae	?
<i>Prunella vulgaris</i>	common selfheal	Lamiaceae	Y
<i>Ranunculus</i> sp.	buttercup	Ranunculaceae	?
<i>Ranunculus uncinatus</i>	woodland buttercup	Ranunculaceae	Y
<i>Raphanus</i> sp.	wild radish	Brassicaceae	N
<i>Rorippa nasturtium-aquaticum</i>	water cress	Brassicaceae	Y
<i>Rumex acetosella</i>	sheep sorrel	Polygonaceae	N
<i>Rumex obtusifolius</i>	bitter dock	Polygonaceae	N
<i>Rumex salicifolius</i> var. <i>crassus</i>	willow dock	Polygonaceae	Y
<i>Rumex</i> sp.	dock	Polygonaceae	N
<i>Sagina procumbens</i>	arctic pearlwort	Caryophyllaceae	N
<i>Sanicula arctopoides</i>	footsteps of spring	Apiaceae	Y
<i>Sanicula crassicaulis</i>	coast sanicle	Apiaceae	Y
<i>Scoliopus bigelovii</i>	slink pod	Liliaceae	Y
<i>Scrophularia californica</i>	California figwort	Scrophulariaceae	Y
<i>Sedum spathulifolium</i>	pacific stonecrop	Crassulaceae	Y
<i>Silene gallica</i>	windmill pink	Caryophyllaceae	N
<i>Sisyrinchium bellum</i>	western blue-eyed grass	Iridaceae	Y
<i>Solanum furcatum</i>	forked nightshade	Solanaceae	N
<i>Solidago spathulata</i> ssp.	coast goldenrod	Asteraceae	Y

<i>spathulata</i>			
<i>Sonchus</i> sp.	sonchus	Asteraceae	N
<i>Spergularia rubra</i>	red sandspurry	Cayophyllaceae	N
<i>Stachys ajugoides</i> var. <i>rigida</i>	rigid hedgenettle	Lamiaceae	Y
<i>Stellaria media</i>	common chickweed	Caryophyllaceae	N
<i>Tanacetum camphoratum</i>	dune tansy	Asteraceae	Y
<i>Taraxacum officinale</i>	dandelion	Asteraceae	N
<i>Tellima grandiflora</i>	fringe cups	Saxifragaceae	Y
<i>Tolmiea menziesii</i>	pig-a-back plant	Saxifragaceae	Y
<i>Toxicodendron diversilobum</i>	poison-oak	Anacardiaceae	Y
<i>Trifolium dubium</i>	suckling clover	Fabaceae	N
<i>Trifolium hirtum</i>	rose clover	Fabaceae	N
<i>Trifolium repens</i>	white clover	Fabaceae	N
<i>Trifolium willdenovii</i>	springbank clover	Fabaceae	Y
<i>Trillium ovatum</i> ssp. <i>ovatum</i>	western wakerobin	Melanthiaceae (Liliaceae)	Y
<i>Triphysaria pusilla</i>	little owl's clover	Scrophulariaceae	Y
<i>Tropaeolum majus</i>	garden nasturtium	Tropaeolaceae	N
<i>Urtica dioica</i>	stinging nettle	Urticaceae	Y
<i>Veronica americana</i>	American speedwell	Plantaginaceae (Scrophulariaceae)	Y
<i>Vicia gigantea</i>	giant vetch	Fabaceae	Y
<i>Vicia hirsuta</i>	hairy vetch	Fabaceae	N
<i>Vicia sativa</i> ssp. <i>sativa</i>	spring Vetch	Fabaceae	N
<i>Vinca major</i>	periwinkle	Apocynaceae	N
<i>Viola adunca</i>	western dog violet	Violaceae	Y
<i>Viola glabella</i>	stream violet	Violaceae	Y
<i>Viola sempervirens</i>	redwood violet	Violaceae	Y
<i>Zantedeschia aethiopica</i>	calla lily	Araceae	N
Graminoids			
<i>Agrostis capillaris</i>	colonial bentgrass	Poaceae	N
<i>Agrostis</i> sp.	bentgrass	Poaceae	?
<i>Aira caryophyllea</i>	hair grass	Poaceae	N
<i>Anthoxanthum odoratum</i>	sweet vernal grass	Poaceae	N
<i>Avena barbata</i>	slender wild oat	Poaceae	N

Trinidad State Beach Sensitive Plant Survey Result

July 21, 2010

<i>Briza maxima</i>	rattlesnake grass	Poaceae	N
<i>Briza minor</i>	little quaking grass	Poaceae	N
<i>Bromus carinatus</i> var. <i>maritimus</i>	California brome	Poaceae	Y
<i>Bromus diandrus</i>	ripgut brome	Poaceae	N
<i>Bromus hordeaceus</i>	soft chess brome	Poaceae	N
<i>Bromus</i> sp.	brome	Poaceae	N
<i>Bromus vulgaris</i>	common brome	Poaceae	Y
<i>Calamagrostis nutkaensis</i>	nootka reedgrass	Poaceae	Y
<i>Carex deweyana</i> ssp. <i>leptopoda</i>	Dewey's taper-fruit sedge	Cyperaceae	Y
<i>Carex</i> sp.	sedge	Cyperaceae	Y
<i>Cortaderia jubata</i>	jubata grass	Poaceae	N
<i>Cynosurus echinatus</i>	hedgehog dogtail	Cyperaceae	N
<i>Cyperus eragrostis</i>	tall umbrella sedge	Cyperaceae	Y
<i>Dactylis glomerata</i>	orchard grass	Poaceae	N
<i>Festuca arundinacea</i>	tall fescue	Poaceae	N
<i>Festuca subuliflora</i>	coast range fescue	Poaceae	Y
<i>Holcus lanatus</i>	velvet grass	Poaceae	N
<i>Hordeum murinum</i>	barley	Poaceae	N
<i>Juncus bolanderi</i>	Bolander's rush	Juncaceae	Y
<i>Juncus effusus</i>	common rush	Juncaceae	Y
<i>Juncus</i> sp.	rush	Juncaceae	Y
<i>Leymus mollis</i> ssp. <i>mollis</i>	American dunegrass	Poaceae	Y
<i>Lolium perenne</i>	perennial ryegrass	Poaceae	N
<i>Luzula comosa</i>	wood rush	Juncaceae	Y
<i>Poa annua</i>	annual bluegrass	Poaceae	N
<i>Poa macrantha</i>	large-flowered sand-dune bluegrass	Poaceae	Y
<i>Poa trivialis</i>	rough bluegrass	Poaceae	N
<i>Polypogon interruptus</i>	ditch beardgrass	Poaceae	N
<i>Polypogon monspelliensis</i>	rabbit's-foot grass	Poaceae	N
<i>Scirpus cernuus</i>	low bulrush	Cyperaceae	Y
<i>Scirpus microcarpus</i>	small-flowered bulrush	Cyperaceae	Y
<i>Scirpus pungens</i>	common threesquare	Cyperaceae	Y

Trinidad State Beach Sensitive Plant Survey Result

July 21, 2010

<i>Trisetum canescens</i>	tall trisetum	Poaceae	Y
<i>Vulpia</i> sp.	rat-tail fescue	Poaceae	N
Ferns and Fern Allies			
<i>Athyrium filix-femina</i>	lady fern	Dryopteridaceae	Y
<i>Blechnum spicant</i>	deer fern	Blechnaceae	Y
<i>Dryopteris expansa</i>	shield fern	Dryopteridaceae	Y
<i>Equisetum arvense</i>	common horsetail	Equisetaceae	Y
<i>Equisetum telmateia</i> ssp. <i>braunii</i>	giant horsetail	Equisetaceae	Y
<i>Polypodium calirhiza</i>	nest polypody	Polypodiaceae	Y
<i>Polypodium scolieri</i>	leatherleaf fern	Polypodiaceae	Y
<i>Polypodium</i> sp.	polypody	Polypodiaceae	Y
<i>Polystichum munitum</i>	western sword fern	Dryopteridaceae	Y
<i>Pteridium aquilinum</i> var. <i>pubescens</i>	bracken fern	Dennstaedtiaceae	Y



FIGURE 1. Area surveyed for the Trinidad State Beach Exotics Removal Project.

Locations of Special Status Plants found at Trinidad State Beach for the TSB Exotics Removal Project July 2010

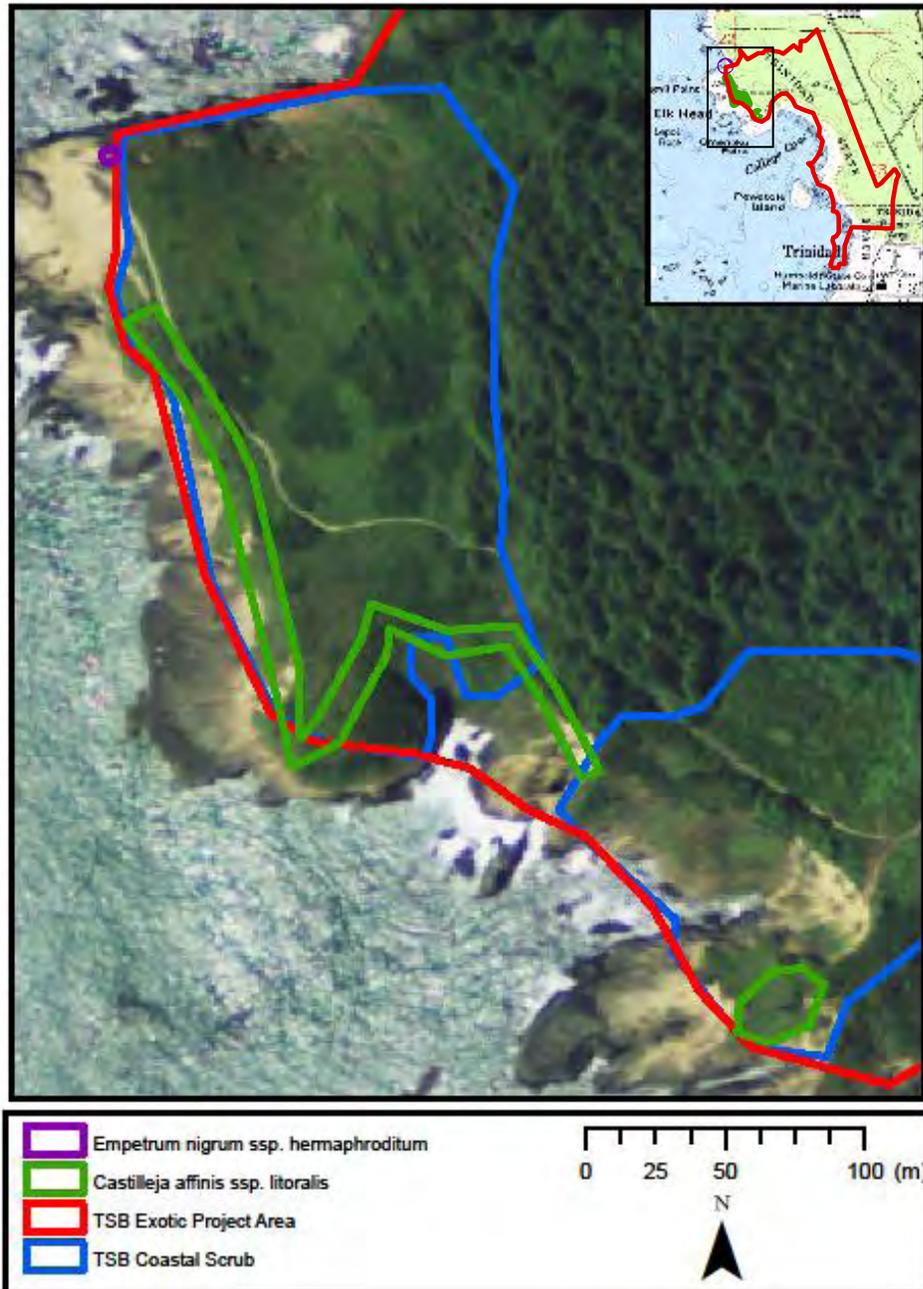


FIGURE 2. Locations of special status plant species found at Trinidad State Beach for the TSB Exotics Removal Project.

**Appendix C. 2014 Supplemental Sensitive Plant
Survey and Habitat Assessment for the Coastal
Scrub and Grassland Restoration Project
Trinidad State Beach**

Supplemental Sensitive Plant Survey and Habitat
Assessment for the Coastal Scrub and Grassland
Restoration Project
Trinidad State Beach



September 24, 2014
California State Parks
North Coast Redwoods District

REPORT INFORMATION

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Barrett, Jeffery A. 2014. Supplemental Sensitive Plant Survey and Habitat Assessment for the Trinidad State Beach Coastal Scrub and Grassland Restoration Project. California State Parks, North Coast Redwoods District, Eureka CA. 39 pgs.

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INTRODUCTION

Project Description

California State Parks (CSP) is proposing to remove exotic plants within coastal bluff scrub and forest habitat at the southern end of Trinidad State Beach (Fig. 1). The overall aim of the Trinidad State Beach Coastal Scrub and Grassland Restoration Project is to restore the coastal forest, coastal scrub, and coastal prairie communities through removal of non-native invasive plants (Forys 2014). Exotic vegetation will primarily be removed with hand tools (e.g. shovels, weed wrenches) by CSP staff, volunteers, and contracted crews. Project activities are scheduled to occur in phases on an annual basis between August 1 and April 30 and over a five-year period. Soil excavation will not exceed 24 inches in depth. Chainsaws will be used to remove some of the larger exotic species in the project area. All removed vegetation will be either chipped on site or transported to an appropriate dumping area to be composted or burned later (Forys 2014). While no native trees, shrubs or herbs will be completely removed, the branches of some native shrubs such as coyote brush (*Baccharis pilularis*) and twinberry (*Lonicera involucrata*) may be cut back in order to access and/or remove exotic plants growing in close association with these plants (Forys 2014).

Supplemental sensitive plant and habitat surveys were conducted in a 4.7-acre section of the original project area described in the 2010 botanical survey report (Barrett 2010). Surveys conducted in 2010 included all of the trails and accessible habitat within this 5-acre section as well the remainder of the original project area described in the 2010 report (Barrett 2010). Plant surveys in 2010 (May 29, 31, June 7, and July 20) were conducted during the blooming period for a majority of sensitive CNPS-ranked plant species on the updated scoping list (Table 2). The results from the 2010 survey found no CNPS-ranked sensitive plant species within this 4.7-acre section and the potential for these species to occur in this area is low given the high level of disturbance (i.e. encroachment of exotic plants, high level of use by the public, and multiple unofficial or informal trails) within this area of the Park. However, additional surveys of this 4.7-acre section that included mapping of sensitive or potentially sensitive natural communities, was deemed necessary in order to provide a basis for making more specific recommendations on reducing any potential impacts from proposed project activities. Therefore, this report primarily serves to provide more precise vegetation maps and descriptions of sensitive and non-sensitive natural communities within the project area.

Floristic surveys for sensitive plants and habitats (natural communities) were conducted in order to determine whether the proposed project would negatively impact potential occurrences of sensitive plants or habitats in the project area. Sensitive plants are rare, threatened, or endangered species, as defined by the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA), as well as non-listed species that require consideration under section 15380 of the California Environmental Quality Act (CEQA). Sensitive natural communities are considered a high priority for inventory due to their rarity status, as defined by the California Department of Fish and

Trinidad State Beach Coastal Scrub and Grassland Restoration Project

Wildlife (CDFG 2009). In addition, surveys for exotic and invasive plant species were conducted as the proposed activities may contribute to the spread of these species within the project area through soil disturbance, vegetation removal, and foot traffic. Invasive plants have been identified as a major contributor to the decline of sensitive plant species through habitat degradation and other processes (Cal-IPC 2014).

Environmental Setting

The 4.7-acre project area surveyed for this report is located within the coastal bluff, North Coast coniferous forest, and developed habitats along State Park Road and between the State Park Road parking lot and the Humboldt State University Marine Laboratory at the southern end of Trinidad State Beach (Fig. 2). The project area is within the Trinidad USGS 7.5' quadrangle and has the legal description T8N, R1W, S15. The initial Sensitive Plant Survey and Habitat Assessment Report for the Trinidad State Beach Exotics Project includes a detailed description of the vegetation and floristic composition for the entire project area and the following habitat description focuses on the area surveyed for this supplemental report (Barrett 2010).

Natural communities within the project area can be broadly classified according to Holland (1986) as North Coast coniferous forest, coastal bluff scrub, coastal scrub, coastal prairie, and riparian forest (CNPS 200). While most of these habitats frequently occur together, often forming a matrix of different vegetation types, coastal scrub and North Coast coniferous forests are the most dominant habitats within the project area. Coastal scrub primarily occurs along the western edge of the project area while North Coast coniferous forests are prominent along State Park Road. While formerly more widespread along the gentle slopes adjacent to the bluffs, coastal prairie occurs as scattered small to moderately sized patches within the encroaching coastal scrub.

According to the classification system of Sawyer *et al.* 2009, the vegetation within the project area can be more precisely characterized in terms of the following vegetation alliances: (1) *Sequoia sempervirens* (Redwood forest) Alliance, (2) *Alnus rubra* (Red alder forest) Alliance, (3) *Picea sitchensis* (Sitka spruce forest) Alliance, (4) *Pseudotsuga menziesii* (Douglas fir forest) Alliance, (5) *Abies grandis* (Grand fir forest) Alliance, (6) *Cortaderia (jubata, selloana)* (Pampas grass patches) Semi-natural Stands, (7) *Baccharis pilularis* (Coyote brush scrub) Alliance, (8) the *Rubus (parviflorus, spectabilis, ursinus)* (Coastal brambles) Alliance, (9) *Garrya elliptica* (Coastal silk tassel scrub) Provisional Alliance, (10) *Morella californica* (Wax myrtle scrub) Alliance, (11) *Rubus armeniacus* (Himalayan black berry brambles) Semi-natural Stands, and (12) the *Calamagrostis nutkaensis* (Pacific reed grass meadows) Alliance (Table 1).

At a finer scale, some alliances within the project area contain the following associations comprised of two or more characteristic species: (1) *Sequoia sempervirens* - *Pseudotsuga menziesii* / *Vaccinium ovatum*, (2) *Picea sitchensis* / *Polystichum munitum*, (3) *Baccharis pilularis* / Annual Grass – Herb, (4) *Baccharis pilularis* / *Polystichum munitum* (Table 1).

The dominant coastal scrub habitat consists of a matrix of dense shrubs and open grassland and brambles with scattered individuals or stands of trees. The most common native tree species within this habitat include beach pine (*Pinus contorta* var. *contorta*), Sitka spruce (*Picea sitchensis*), and red alder (*Alnus rubra*), with scattered

individuals of redwood (*Sequoia sempervirens*), grand fir (*Abies grandis*), and Douglas-fir (*Pseudotsuga menziesii*) also present. Common native species within the shrub layer include coyote brush (*Baccharis pilularis* ssp. *consanguinea*, *B. pilularis* ssp. *pilularis*), California huckleberry (*Vaccinium ovatum*), cascara (*Frangula purshiana*), coast silk tassel (*Garrya elliptica*), and California waxmyrtle (*Myrica californica*), while California blackberry (*Rubus ursinus*) and salal (*Gaultheria shallon*) are common within the sub-shrub layer. Native species within the herbaceous layer include abundant sword fern (*Polystichum munitum*), patches of Douglas iris (*Iris douglasiana*), and Pacific aster (*Symphotrichum chilense*), which is often associated with native California blackberry brambles, along with scattered individuals of cow-parsnip (*Heracleum lanatum*) and yarrow (*Achillea millefolium*). Native graminoids within the coastal scrub matrix include several scattered clumps of Pacific reed-grass (*Calamagrostis nutkaensis*) and the more common California brome (*Bromus carinatus*). Given the late-season timing of the survey, only a portion of the native herbs and grasses likely present in the project area were observed.

Exotic plant species are a significant component of the coastal scrub habitat within the project area and include dominant species such as cotoneaster (*Cotoneaster franchetii*, *C. horizontalis*, *C. lacteus*, *C. pannosus*, *C. simonsii*), Spanish heath (*Erica lusitanica*), Himalayan blackberry (*Rubus armeniacus*), Monterey cypress (*Hesperocyparis macrocarpa*), and English ivy (*Hedera helix*). Less dominant exotic species that occur in low to moderate abundance include maidenhair vine (*Muehlenbeckia complexa*), viburnum (*Viburnum tinus*), pittosporum (*Pittosporum* sp.) big periwinkle (*Vinca major*), Aaron's-beard St. Johnswort (*Hypericum calycinum*), sweet vernal grass (*Anthoxanthum odoratum*), red claws (*Escallonia macrantha*), and Scotch broom (*Cytisus scoparius*). Exotic species occurring in low abundance within the project area include hardy fuchsia (*Fuchsia magellanica*), perennial sweetpea (*Lathyrus latifolia*), petty spurge (*Euphorbia peplus*), ox-eye daisy (*Leucanthemum vulgare*), montbretia (*Crocasmia x crocosmiifolia*), and bergenia (*Bergenia* sp.). Other species of garden escapes and exotic grasses such as honeysuckle (*Lonicera* sp.), soft acanthus (*Acanthus mollis*), and Kikuyu grass (*Pennisetum clandestinum*) are present in low abundance along the boundary of the project area adjacent to the neighborhood fence line. Jubata grass (*Cortaderia jubata*) is present in high abundance on the steep bluff edge along the western boundary of the project area.

METHODS

Prior to field surveys, a list of the sensitive plant species with potential to occur in the assessment area was compiled (Table 2). The assessment area was defined as the USGS 7.5' quadrangle in which the project is located (Trinidad), as well as eight adjacent quadrangles (Rodger's Peak, Crannell, Orick, Tyee City, Arcata North, Arcata South, Eureka, and Fern Canyon). Species with the potential to occur in the assessment area were identified by querying the California Natural Diversity Database (CNDDDB) using RareFind 5 (CDFW 2014), the California Native Plant Society (CNPS) 8th Online Edition of the Inventory of Rare and Endangered Plants of California (CNPS 2014), and the North Coast Redwoods District (NCRD) Rare Plant Database (CSP 2014).

The CNPS and CDFW databases are the primary sources of information regarding sensitive plant species and habitats. The CNPS Inventory of Rare and Endangered Plants of California categorize species based upon their presumed rarity. The most current California Rare Plant Ranking System includes the following six categories or ranks of sensitive plants:

- 1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
- 1B Plants Rare, Threatened, or Endangered in California and Elsewhere
- 2A Plants Presumed Extirpated in California, But More Common Elsewhere
- 2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- 3 Plants about which we need more information – a review list
- 4 Plants of limited distribution – a watch list

The CNPS Threat Rank is an extension added onto the California Rare Plant Rank and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened:

- 0.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

The CDFW Natural Diversity Database (CNDDDB) also publishes a list of sensitive plants that includes the CNPS Inventory as well as plant species considered sensitive by other governmental agencies (CDFW 2010, 2013). The current version of the list is accessible through the RareFind 5 internet application.

In addition, the Department of Fish and Wildlife's Vegetation Classification and Mapping Program (VegCAMP) maintains a List of Vegetation Alliances and Associations (or

Natural Communities List) which is based on A Manual of California Vegetation (Second Edition) and represents the California expression of the National Vegetation Classification (CDFW 2014). Vegetation classification is an essential element in determining the level of rarity and imperilment of vegetation types.

Natural communities are classified in various ways depending upon the scale or hierarchy of the classification. Alliances are broad or coarse scale classifications of vegetation which can be more precisely defined at smaller scales using floristically-based lower units such as series or associations. Alliances, series, and associations are ranked according to their degree of imperilment (as measured by rarity, trends, and threats) and the Natural Communities List follows NatureServe's Heritage Methodology in which all alliances are listed with a G (global) and S (state) rank. Alliances and all associations within them with State ranks of S1-S3 are considered to be highly imperiled. Associations currently designated as being of S3 or rarer are indicated with an asterisk (*) located to the left of their CaCode. A question mark (?) denotes an inexact numeric rank due to insufficient samples over the full expected range of the type, but existing information points to this rank.

Based on the NatureServe methodology, the CDFW ranking system for both sensitive plants and natural communities is divided on both global and state levels into five categories. For sensitive plants, the state rank is further divided into three subcategories that indicate the level of threat to the known occurrences: 1 = very threatened, 2=threatened, 3=not threatened.

The CDFW ranking system is as follows:

Global Ranking

G1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 = Demonstrably Secure—Common; widespread and abundant.

State Ranking

S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.

S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.

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S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

S4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.

S5 = Secure—Common, widespread, and abundant in the state.

All categories of sensitive plants were included in the Coastal Scrub and Grassland Restoration Project scoping list.

Floristic surveys were conducted by North Coast Redwoods District (NCRD) Natural Resource Management employee Jeffery Barrett (Environmental Services Intern). Mr. Barrett's experience as a botanist includes a Bachelor of Science degree in Botany from Humboldt State University (HSU), four years of graduate school in Botany at HSU, and 9 years of seasonal field experience conducting rare plant surveys in northern California. He is proficient in identifying the flora of northwestern California.

Approximately 6 person hours were spent surveying the project area on September 20 (3 hrs.) and September 21 (3 hrs.), 2014. As stated above, surveys were not conducted at seasonally appropriate times to allow for proper identification of most sensitive plant species listed in Table 2; however, surveys were conducted during the blooming period for most of these species in 2010. Survey methods followed the CDFW survey protocol (CDFG 2009) and included a detailed survey of all trails (official and unofficial) and habitats within the project area.

A list of the vascular and non-vascular plant species encountered during the survey is included in this report (Table 3).

RESULTS AND DISCUSSION

Summary

Supplemental botanical surveys conducted within the project area revealed 77 plant taxa within 35 plant families, which included 12 tree species, 27 shrub species, 25 herbaceous species, 8 graminoid species, three species of fern and fern allies, one bryophyte, and one species of lichen.

While there were no species of sensitive or special status plants observed within the project area, sensitive natural communities found within the project area include the following alliances: (1) *Abies grandis* (Grand fir forest) Alliance (G4S2), (2) *Pinus contorta* var. *contorta* (Beach pine forest) Alliance (G5S2), (3) *Garrya elliptica* (Coastal silk tassel scrub) Provisional Alliance (G3?S3?), (4) *Morella californica* (Wax myrtle scrub) Alliance (G3S3), (5) *Picea sitchensis* (Sitka spruce forest) Alliance (G5S2), (6) *Rubus* (*parviflorus*, *spectabilis*, *ursinus*) (Coastal brambles) Alliance (G4S3), (7) *Calamagrostis nutkaensis* (Pacific reed grass meadows) Alliance (G4S2) and (8) *Sequoia sempervirens* (Redwood forest) Alliance (G3S3). Sensitive associations within some of these alliances that were observed within the project area include the following: (1) *Baccharis pilularis* / *Polystichum munitum*, (2) *Calamagrostis nutkaensis* - *Baccharis pilularis*, (3) *Picea sitchensis* / *Polystichum munitum*, and (4) *Sequoia sempervirens* – *Pseudotsuga menziesii* / *Vaccinium ovatum*. A summary of the sensitive natural communities found within the project area is included in Table 1.

The location, distribution, and floristic composition of these sensitive natural communities found within the project area are discussed below.

Sensitive Natural Community Occurrences within the Project Area

North Coast coniferous forests

North Coast coniferous forests predominately occur within the northern section of the project area and along State Park Road near the eastern end of the project area (Figs. 3 and 4). These forests are comprised of a diverse assemblage of conifer species which include grand fir, coast redwood, Sitka spruce, beach pine, and Douglas-fir. Scattered individuals of western red cedar (*Thuja plicata*) can also be found within the project area while western hemlock (*Tsuga heterophylla*) is present elsewhere in the Park. North Coast coniferous forests are the most common habitat type within Trinidad State Beach (Barrett 2010).

The *Abies grandis* (Grand fir forest) Alliance is represented by scattered individuals within North Coast coniferous forest habitat primarily in the northern half of the project area (Figs. 3, 4, and 5). While not very common, grand fir is nevertheless present throughout Trinidad State Beach (Barrett 2010). Frequently co-occurring with this coastal tree species in the project area are beach pine, Sitka spruce, coast redwood, and Douglas-fir. Within the northern section of the project area to the west of the State

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Park Road parking lot is a patch of successional forest containing numerous saplings of all these species (Figs. 3 and 4). This diverse assemblage of conifers within the project area is both uncommon and unique within the North Coast region.

Like the Grand fir forest Alliance, the *Sequoia sempervirens* (Redwood forest) Alliance is restricted to a handful of scattered small individuals within the northern section of the project area (Figs. 3, 4, and 6). Coast redwood is relatively uncommon within Trinidad State Beach with only scattered individuals found within the Park during the 2010 botanical surveys (Barrett 2010).

The *Picea sitchensis* (Sitka spruce forest) Alliance is one of the most common forest alliances found within the project area as scattered individuals (saplings to mature trees) can be found throughout a majority of the project area (Figs. 3, 4, and 7). While both larger individuals and patches of trees were mapped, scattered small saplings that were not mapped may be present elsewhere in the project area (Figs. 3 and 4). Overall, Sitka spruce forests are the most common alliance within Trinidad State Beach (Barrett 2010).

Another relatively common alliance within the project area is the *Pinus contorta* var. *contorta* (Beach pine forest) Alliance which occurs in several stands and as isolated saplings and trees throughout the project area (Figs. 3, 4, and 8). While not extensively mapped elsewhere within the Park, Beach pine is primarily found along the immediate coast of Trinidad State Beach (Barrett 2010).

Riparian Forests

While not considered sensitive, the *Alnus rubra* (Red alder forest) Alliance does occur within riparian forest habitat within the project area and given its status as a facultative wetland plant (FAC) could potentially be considered sensitive wetland habitat when hydric soils or standing water are present (Figs. 3 and 4) (Lichvar et al. 2014). According to California Coastal Commission regulations (California Code of Regulations Title 14 (14 CCR)), determination of wetlands are based on the “one parameter definition” (i.e. presence of any one of hydrophytic plants, standing water for periods of time, or hydric soils). However, within the project area there were no typically hydric soils (i.e. soils exhibiting anaerobic conditions due to long-periods of submersion in standing water) or hydrophytic obligate wetland vegetation such as sedges and rushes present.

Coastal Scrub/Coastal Bluff Scrub

Within the dense shrub layers of the coastal scrub, sensitive alliances and associations such as the *Garrya elliptica* (Coastal silk tassel scrub) Provisional Alliance, *Baccharis pilularis* / *Polystichum munitum* Association, and the *Morella californica* (Wax myrtle scrub) Alliance intergrade to form a mosaic of often impenetrable vegetation (Figs. 3 and 4). Exotic plant species such as cotoneaster frequently grow in close proximity or

intertwine with the branches of native shrubs in these sensitive alliances and associations.

Baccharis pilularis/Polystichum munitum is the most common sensitive association within the southwestern part of the project area and is characterized by relatively well-developed stands that occur within open coastal scrub (Figs. 3, 4, and 9). Both the upright and prostrate subspecies of *Baccharis pilularis* were found within the project area with the latter subspecies primarily occurring in several patches near the windswept bluffs. While this association has not been mapped in other parts of Trinidad State Beach, this association was observed along the coastal bluffs near Elk Head during botanical surveys conducted in 2010 (Barrett 2010).

The *Garrya elliptica* and *Morella californica* Alliances are patchily distributed throughout the project area and primarily occur as individuals or small groups of plants within a matrix of coastal scrub habitat (Figs. 3, 4, and 10). Both species are relatively common along the coastal bluffs of the Park; however, these alliances have not been extensively mapped elsewhere in the Park (Barrett 2010).

Openings within the dense shrub-dominated patches of coastal scrub allow for the growth of a low-growing herbaceous and sub-shrub layer that is comprised of species commonly associated with the *Rubus (parviflorus, spectabilis, ursinus)* (Coastal brambles) Alliance (Figs. 3, 4, and 11). Within Trinidad State Beach, coastal brambles are relatively common within coastal scrub habitat and in openings within semi-mesic to mesic riparian or coniferous forests (Barrett 2010).

Within the coastal scrub habitat, two occurrences of the *Calamagrostis nutkaensis* (Pacific reed grass meadows) Alliance were observed (Figs. 3, 4, and 12). The southern-most occurrence (CANU_01) consisted of approximately 5 plants (clumps) distributed in two patches within an approximately 250 sq. ft. area. The other occurrence (CANU_02) consisted of 1 individual (clump) distributed within a 5 sq. ft. area along an unofficial trail. Pacific reed grass meadows are most abundant within the Park near Elk Head; however, this alliance has not been mapped at this location and is being overgrown by shrubs of the coastal scrub habitat (Barrett 2010).

Coastal Prairie

Coastal prairie occurs in scattered patches predominately near the windswept coastal bluffs in the southern part of the project area (Figs. 3, 4, and 13). At one time this habitat type was more widespread within the Park and remnant coastal prairie can still be found near Elk Head; however, much of this habitat has been overgrown by both native and exotic shrubs of the coastal scrub habitat. A majority of the plants within this habitat are exotic European grasses such as bentgrass (*Agrostis* sp.), sweet vernal grass (*Anthoxanthum odoratum*), orchard grass (*Dactylis glomerata*), and velvet grass (*Holcus lanatus*). However, native herbs characteristic of coastal prairie such as Douglas iris (*Iris douglasiana*) form a minor but important remnant component of this habitat type (Figs. 3, 4, and 13).

SUMMARY OF RECOMMENDATIONS

The initial botanical survey conducted in 2010 did not include fine-scale mapping of sensitive natural communities as the primary focus of botanical surveys at the time were CNPS-ranked sensitive plant species. However, fine-scale mapping of sensitive natural communities is an important component of any project that has the potential to significantly impact the environment. As a result of recent surveys for sensitive natural communities conducted within this 4.7-acre project area, the proposed project activities have the potential to significantly impact the environment given the presence of the following sensitive natural communities: (1) *Abies grandis* (Grand fir forest) Alliance (G4S2), (2) *Pinus contorta* var. *contorta* (Beach pine forest) Alliance (G5S2), (3) *Garrya elliptica* (Coastal silk tassel scrub) Provisional Alliance (G3?S3?), (4) *Morella californica* (Wax myrtle scrub) Alliance (G3S3), (5) *Picea sitchensis* (Sitka spruce forest) Alliance (G5S2), (6) *Rubus* (*parviflorus*, *spectabilis*, *ursinus*) (Coastal brambles) Alliance (G4S3), (7) *Calamagrostis nutkaensis* (Pacific reed grass meadows) Alliance (G4S2), (8) *Sequoia sempervirens* (Redwood forest) Alliance (G3S3), (9) *Baccharis pilularis* / *Polystichum munitum* Association, (10) *Calamagrostis nutkaensis* - *Baccharis pilularis* Association (11) *Picea sitchensis* / *Polystichum munitum* Association, and (12) *Sequoia sempervirens* – *Pseudotsuga menziesii* / *Vaccinium ovatum* Association (Table 1).

Since avoidance is the primary means of mitigation for plants and natural communities listed as Rare, Threatened, and Endangered, including CNPS Rank 1A, 1B, 2A, and 2B species, as well as State Rank 1, 2, and 3 Natural Communities, individual plants within each of the aforementioned sensitive alliances and associations shall be avoided during project activities.

The following recommendations are provided to reduce any potential adverse impacts to these sensitive natural communities to a less than significant level:

1. Prior to conducting exotic plant removal, individual native trees, shrubs and certain species of herbs such as Douglas iris within sensitive alliances and associations that are directly in contact with exotic plants targeted for removal or that could be damaged by project activities should be flagged with black and yellow striped flagging by qualified CSP personnel. In addition, all individuals of exotic species targeted for removal shall be flagged with differently colored flagging prior to project activities in order to prevent accidental removal of native species. Excavation and removal of exotics through the use of hand tools (e.g. shovels and weed wrenches) and chainsaws near native trees and shrubs shall be allowed as long as no damage occurs to the native plants. However, no impacts to the roots of native trees greater than 2" in diameter shall be allowed. Qualified CSP personnel shall be on-site at all times during removal of exotics in order to supervise other staff, work crews, and volunteers and to ensure that no damage occurs to the sensitive natural communities.

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2. To reduce any potential impacts to natural communities during the flowering season, project activities with potential to impact plants within sensitive natural communities should not occur from May 1 through July 31 unless qualified CSP personnel visit the site to verify the phenology of the plants within these natural communities.
3. Ground disturbance in and around the occurrences of sensitive natural communities shall be reduced to the maximum extent practicable during both initial and subsequent retreatment of exotic plants within the project area. This should entail the utilization of existing official and unofficial trails to access treatment areas and use of temporary pathways created through removal of exotic plants.
4. During all project activities, there shall be no piling of vegetation, soil, and project materials or staging of equipment in areas with known sensitive natural communities.
5. Adaptive management should be employed during all phases of project implementation which should include contingency plans to protect any sensitive CNPS-ranked plant species that may colonize the project area or which are discovered during implementation. In addition, contingency plans should be developed that would enable identification and removal of any new species of exotic plants that may colonize the project area as a result of habitat and soil disturbance from project activities.

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Table 1: Natural communities (alliances, associations) occurring within the Coastal Scrub and Grassland Restoration Project area.

Alliance	CDFW Global and State Ranks	Associations	Common plant species observed within alliance
<i>Abies grandis</i> (Grand fir forest) Alliance	G4S2	none	<i>Abies grandis</i> , <i>Pinus contorta</i> , <i>Sequoia sempervirens</i> , <i>Pseudotsuga menziesii</i> , <i>Cotoneaster</i> spp., <i>Vaccinium ovatum</i> , <i>Gaultheria shallon</i>
<i>Alnus rubra</i> (Red alder forest) Alliance	G5S4	none	<i>Alnus rubra</i> , <i>Rubus ursinus</i> , <i>Frangula purshiana</i> , <i>Pteridium aquilinum</i> var. <i>pubescens</i>
<i>Baccharis pilularis</i> (Coyote brush scrub) Alliance	G5S5	<i>Baccharis pilularis</i> / Annual Grass – Herb, * <i>Baccharis pilularis</i> / <i>Polystichum munitum</i>	<i>Baccharis pilularis</i> ssp. <i>consanguinea</i> , <i>B. pilularis</i> ssp. <i>pilularis</i> , <i>Agrostis</i> sp., <i>Hypochaeris radicata</i> , <i>Rubus ursinus</i> , <i>Polystichum munitum</i> , <i>Cotoneaster</i> spp.
<i>Calamagrostis nutkaensis</i> (Pacific reed grass meadows) Alliance	G4S2	* <i>Calamagrostis nutkaensis</i> - <i>Baccharis pilularis</i>	<i>Calamagrostis nutkaensis</i> , <i>Cotoneaster</i> spp., <i>Baccharis pilularis</i> , <i>Pinus contorta</i> var. <i>contorta</i> , <i>Rubus ursinus</i>
<i>Garrya elliptica</i> (Coastal silk tassel scrub) Provisional Alliance	G3?S3?	none	<i>Garrya elliptica</i> , <i>Frangula purshiana</i> , <i>Baccharis pilularis</i> , <i>Morella californica</i> , <i>Cotoneaster</i> spp.
<i>Cortaderia (jubata, selloana)</i> (Pampas grass patches) Semi-natural Stands	NA	none	<i>Cortaderia jubata</i>
<i>Morella californica</i> (Wax myrtle scrub) Alliance	G3S3	none	<i>Morella californica</i> , <i>Garrya elliptica</i> , <i>Frangula purshiana</i> , <i>Baccharis pilularis</i> , <i>Cotoneaster</i> spp.
<i>Picea sitchensis</i> (Sitka spruce forest) Alliance	G5S2	* <i>Picea sitchensis</i> / <i>Polystichum munitum</i>	<i>Picea sitchensis</i> , <i>Polystichum munitum</i> , <i>Rubus ursinus</i> , <i>Pinus</i>

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			<i>contorta</i> var. <i>contorta</i> , <i>Abies grandis</i> , <i>Cotonoeaster</i> spp., <i>Vaccinium ovatum</i> , <i>Gaultheria shallon</i>
<i>Pseudotsuga menziesii</i> (Douglas fir forest) Alliance	G5S4	none	<i>Pseudotsuga menziesii</i> , <i>Picea sitchensis</i> , <i>Pinus contorta</i> var. <i>contorta</i> , <i>Sequoia sempervirens</i> , <i>Abies grandis</i> , <i>Vaccinium ovatum</i> , <i>Gaultheria shallon</i> , <i>Polystichum munitum</i> , <i>Cotonoeaster</i> spp.
<i>Rubus armeniacus</i> (Himalayan black berry brambles) Semi-natural Stands	NA	none	<i>Rubus armeniacus</i> , <i>Rubus leucodermis</i> , <i>Rubus ursinus</i> , <i>Vaccinium ovatum</i> , <i>Gaultheria shallon</i>
<i>Rubus (parviflorus, spectabilis, ursinus)</i> (Coastal brambles) Alliance	G4S3	* <i>Gaultheria shallon</i> – <i>Rubus spectabiis</i> – <i>Rubus parviflorus</i>	<i>Rubus ursinus</i> , <i>Picea sitchensis</i> , <i>Alnus rubra</i> , <i>Vaccinium ovatum</i> , <i>Gaultheria shallon</i> , <i>Polystichum munitum</i> , <i>Baccharis pilularis</i> , <i>Iris douglasiana</i> , <i>Cotoneaster</i> spp.
<i>Sequoia sempervirens</i> (Redwood forest) Alliance	G3S3	* <i>Sequoia sempervirens</i> – <i>Pseudotsuga menziesii</i> / <i>Vaccinium ovatum</i>	<i>Sequoia sempervirens</i> , <i>Pseudotsuga menziesii</i> , <i>Abies grandis</i> , <i>Picea sitchensis</i> , <i>Pinus contorta</i> var. <i>contorta</i> , <i>Vaccinium ovatum</i> , <i>Polystichum munitum</i> , <i>Cotoneaster</i> spp.
*currently designated as S3 or rarer			

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Table 2: Sensitive plants known or with the potential to occur in the Coastal Scrub and Grassland Restoration Project area.

Species Name	Common Name	Family	CNPS Rank	State Rank	Global Rank	CESA	FESA	Ecological Information	Habitat present ?
<i>Angelica lucida</i>	sea-watch	Apiaceae	4.2	S2S3	G5	None	None	Coastal bluff scrub, coastal dunes, coastal scrub, marshes and swamps (coastal salt); elev. 30-650m; wet cliffs, open forest, 0-150m; blooms May-Sept.	Yes
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	Fabaceae	1B.2	S2	G2T2	None	None	Coastal dunes (mesic), Coastal scrub, Marshes and swamps (coastal salt, streamsides); elev. 0-30m; blooms Apr.-Oct.	Yes
<i>Bryoria pseudocapillaris</i>	false gray horsehair lichen	Parmeliaceae	3.2	S2	G3	None	None	Coastal dunes (SLO Co.), North Coast coniferous forest (immediate coast), usually on conifers; elev. 0-90m.	Yes
<i>Bryoria spiralifera</i>	twisted horsehair lichen	Parmeliaceae	1B.1	S1S2	G3	None	None	North Coast coniferous forest (immediate coast), usually on conifers; elev. 0-30m.	Yes
<i>Calamagrostis bolanderi</i>	Bolander's reed grass	Poaceae	4.2	S3.2	G3	None	None	Bogs and fens, broadleaved upland forest, closed-cone coniferous forest, coastal scrub, meadows and seeps (mesic), marshes and swamps (freshwater), North Coast coniferous forest; elev. 0-455m; blooms May-	Yes

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								Aug.	
<i>Calamagrostis crassiglumis</i>	Thurber's reed grass	Poaceae	2B.1	S2?	G3Q	None	None	Coastal scrub (mesic), Marshes and swamps (freshwater); elev. 10-60m; blooms May-Aug.	No
<i>Cardamine angulata</i>	seaside bittercress	Brassicaceae	2B.1	S1	G5	None	None	North Coast coniferous forest, lower montane coniferous forests; wet areas, streambanks; elev. 65-915m; blooms Mar-Jul.	No
<i>Carex arcta</i>	northern clustered sedge	Cyperaceae	2B.2	S2	G5	None	None	Bogs and fens, mesic North Coast coniferous forest; elev. 60-1,400m; blooms Jun-Sep.	Yes
<i>Castilleja litoralis</i>	Oregon coast paintbrush	Orobanchaceae	2B.2	S3	G4G5T4	None	None	Sandy, coastal dunes, coastal scrub, coastal bluff scrub; elev. 15-100m; blooms June	Yes
<i>Castilleja mendocinensis</i>	Mendocino Coast paintbrush	Orobanchaceae	1B.2	S2	G2	None	None	Coastal bluff scrub, closed-cone coniferous forest, coastal dunes, coastal prairie, coastal scrub; elev. 0-160m; blooms Apr-Aug.	Yes
<i>Discelium nudum</i>	naked flag moss	Disceliaceae	2B.2	S1	G3G4	None	None	Coastal bluff scrub (soil, on clay banks); elev. 10-50m.	Yes
<i>Empetrum nigrum</i>	black crowberry	Empetraceae	2B.2	S2?	G5	None	None	Coastal bluff scrub, coastal prairie; elev. 10-200m; blooms Apr-Jun.	Yes
<i>Erythronium revolutum</i>	coast fawn lily	Liliaceae	2B.2	S2S3	G4	None	None	Bogs and fens, Broadleaved upland forest, North Coast coniferous forest/mesic, streambanks; elev. 0-1,600m; blooms Mar-Jul (Aug).	No
<i>Fissidens pauperculus</i>	minute pocket moss	Fissidentaceae	1B.2	S1	G3?	None	None	North Coast coniferous forest (damp coastal soil);	Yes

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								elev. 10-1,024m.	
<i>Gilia capitata</i> <i>ssp. pacifica</i>	Pacific gilia	Polemoniaceae	1B.2	S2	G5T3T 4	None	None	Coastal bluff scrub, Chaparral (openings), Coastal prairie, Valley and foothill grassland; elev. 5-1,330m; blooms Apr.-Aug.	Yes
<i>Hesperevax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	Asteraceae	1B.2	S2S3	G4T2T 3	None	None	Coastal bluff scrub (sandy), coastal dunes; elev. 0-215m; blooms Mar-Jun.	No
<i>Iliamna latibracteata</i>	California globe mallow	Malvaceae	1B.2	S2	G2G3	None	None	Chaparral(montane), lower montane coniferous forest, North Coast coniferous forest(mesic), riparian scrub and streambanks, often in burned areas; elev. 60-2,000m; blooms Jun-Aug.	No
<i>Lathyrus palustris</i>	marsh pea	Fabaceae	2B.2	S2S3	G5	None	None	Bogs and fens, Coastal prairie, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, North Coast coniferous forest/mesic; elev. 1-100m; blooms Mar-Aug.	Yes
<i>Lilium occidentale</i>	western lily	Liliaceae	1B.1	S1	G1	Endangered	Endangered	Bogs and fens, Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps (freshwater), North Coast coniferous forest (openings); elev. 2-185m; blooms Jun-Jul.	Yes
<i>Listera cordata</i>	heart-leaved twayblade	Orchidaceae	4.2	S3.2	G5	None	None	Bogs and fens, lower montane coniferous forest, North Coast coniferous forest; elev. 5-1,370m; blooms Feb-Jul.	Yes
<i>Lycopodium</i>	running-pine	Lycopodiaceae	4.1	S4.1	G5	None	None	Marshes and swamps, mesic	Yes

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<i>clavatum</i>									North Coast coniferous forest, lower montane coniferous forests, shady and semi-exposed forest floors, swamps, rarely on trees, forming dense mats; elev. 45-1,225m; produces spores Jun-Aug(Sep).	
<i>Mitellastra caulescens</i>	leafy-stemmed mitrewort	Saxifragaceae	4.2	S4.2	G5	None	None	Broadleaved upland forest, lower montane coniferous forest, meadows and seeps, North Coast coniferous forest, mesic habitats, sometimes roadsides; elev. 5-1,700m; blooms Apr-Oct.	No	
<i>Moneses uniflora</i>	woodnymph	Ericaceae	2B.2	S3	G5	None	None	Broadleaved upland forest, North Coast coniferous forest, undisturbed Sitka spruce forest; elev. 100-1,065m; blooms May-Jul.	Yes	
<i>Monotropa uniflora</i>	ghost-pipe	Ericaceae	2B.2	S2	G5	None	None	Broadleaved upland forest and north coast coniferous forest, shaded damp woods in mixed evergreen forest and redwood forest, in rich humus; elev. 10-550m; blooms Jun-Aug. (Sept).	No	
<i>Montia howellii</i>	Howell's montia	Montiaceae	2B.2	S3	G3G4	None	None	Compacted soil in vernal wet shaded places near the coast, redwood and Douglas-fir forest, North Coast coniferous forest, freshwater emergent wetland, including meadows, annual grasslands; elev. 0-400m; blooms March-May.	Yes	

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<i>Oenothera wolfii</i>	Wolf's evening-primrose	Onagraceae	1B.1	S1	G1	None	None	Coastal bluff scrub, Coastal scrub, Coastal prairie, Lower montane coniferous forest/sandy, usually mesic sites; 3-800m, also inland below 100m; blooms May-Oct.	Yes
<i>Packera bolanderi</i> var. <i>bolanderi</i>	seacoast ragwort	Asteraceae	2B.2	S2S3	G4T4	None	None	Coastal scrub, North Coast coniferous forest/Sometimes roadsides; elev. 30-650m; wet cliffs, open forest, >200m; blooms Jan.-Aug.	No
<i>Piperia candida</i>	white-flowered rein orchid	Orchidaceae	1B.2	S2	G3?	None	None	Broadleaved upland forest, Lower montane coniferous forest, North Coast coniferous forest/sometimes serpentinite; elev. 30-1,310m; blooms May-Sept.	No
<i>Pityopus californica</i>	California pinefoot	Ericaceae	4.2	S3.2	G4G5	None	None	Broadleaved upland forest, lower montane coniferous forests, North Coast coniferous forest, upper montane coniferous forest/mesic; elev. 15-2,225m; blooms (Apr)May-Aug.	Yes
<i>Pleuropogon refractus</i>	nodding semaphore grass	Poaceae	4.2	S3.2?	G4	None	None	Lower montane coniferous forest, North Coast coniferous forest, meadows and seeps, riparian forest, mesic habitats; elev. 0-1,600m; blooms Apr-Aug.	No
<i>Polemonium carneum</i>	Oregon polemonium	Polemoniaceae	2B.2	S1	G4	None	None	Coastal prairie, coastal scrub, lower montane coniferous forest; elev. 0-1,830m; blooms Apr-Sep.	Yes

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<i>Ribes laxiflorum</i>	trailing black currant	Grossulariaceae	4.3	S3.3	G5	None	None	North Coast coniferous forest; sometimes roadsides; elev. 5-1,395m; blooms Mar-Aug.	Yes
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	Malvaceae	4.2	S3S4.2	G3G4	None	None	Broadleaved upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, riparian woodland, often in disturbed areas; elev. 2-730m; blooms (Mar)Apr-Aug.	Yes
<i>Sidalcea malviflora ssp. patula</i>	Siskiyou checkerbloom	Malvaceae	1B.2	S2	G5T2	None	None	Coastal bluff scrub, Coastal prairie, North Coast coniferous forest/ often roadcuts; elev. 15-878m; blooms May-Aug.	Yes
<i>Sidalcea oregana ssp. eximia</i>	coast sidalcea	Malvaceae	1B.2	S1	G5T1	None	None	Meadows and seeps (esp. wet), North Coast coniferous forest, and lower montane coniferous forest, redwood and mixed evergreen forest communities; elev. 5-1,340m; blooms Jun-Aug.	Yes
<i>Usnea longissima</i>	Methuselah's beard lichen	Parmeliaceae	4.2	S4	G4	None	None	Broadleaved upland forest, North coast coniferous forest, Oldgrowth, Redwood; frequently on riparian coniferous/hardwood trees, low elevations.	Yes
<i>Viola palustris</i>	alpine marsh violet	Violaceae	2B.2	S1S2	G5	None	None	Bogs and fens (coastal), coastal scrub (mesic); elev. 0-150m; blooms Mar-Aug.	No

List compiled from a 9-quad search of the CNPS Rare Plant Inventory and the CNDDDB RareFind 5 databases for special status plants occurring within the following habitats and elevation range: elevation 0-500 ft.; North Coast conifer forest, Riparian forest, Coastal scrub, Coastal bluff scrub, and Coastal prairie. USGS quadrangles searched include: Trinidad (4112412), Rodgers Peak (4112421), Crannell (4112411), Orick (4112431), Tyee City (4012482), Arcata North (4012481), Arcata South (4012471), Fern Canyon (4112441), and Eureka

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(4012472).	
<p>CDFG/Heritage Ranking Codes G: Global ranks 1-5; 1=most threatened (less than 6 viable occ.) or less than 1,000 individuals or less than 2,000 acres. 5=demonstrably secure or uncommon. S: State ranks, 1-5; 1= most threatened (as with G1), 5=no threat. Threat ranks: 0.1=very threatened, 0.2=threatened, 0.3=no threats known.</p>	<p>CNPS Rarity Codes 1A. Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere 1B. Plants Rare, Threatened, or Endangered in California and Elsewhere. 2A. Plants Presumed Extirpated in California, But More Common Elsewhere 2B. Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere 3. Plants About Which More Information is Needed – A Review List 4. Plants of limited distribution – a watch list. CNPS Threat rank 1 – Seriously threatened in CA (high degree/immediacy of threat). 2 – Moderately threatened in CA (moderate degree/immediacy of threat). 3 – Not very threatened in CA (low degree/immediacy of threat).</p>

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Table 3: Vascular plants encountered during a supplemental field survey for the Coastal Scrub and Grassland Restoration Project.

(Nomenclature follows Baldwin *et al.* 2012 for vascular plants and Malcolm *et al.* 2009 for bryophytes.)

Habit	Scientific Name	Common Name	Family	Native
Trees (12)				
	<i>Abies grandis</i>	grand fir	Pinaceae	yes
	<i>Alnus rubra</i>	red alder	Betulaceae	yes
	<i>Frangula purshiana</i>	California cascara	Rhamnaceae	yes
	<i>Hesperocyparis macrocarpa</i>	Monterey cypress	Cupressaceae	no
	<i>Malus sp.</i>	apple	Rosaceae	no
	<i>Morella californica</i>	wax myrtle	Myricaceae	yes
	<i>Picea sitchensis</i>	Sitka spruce	Pinaceae	yes
	<i>Pinus contorta ssp. contorta</i>	beach pine	Pinaceae	yes
	<i>Prunus sp.</i>	cherry/plum	Rosaceae	no
	<i>Pseudotsuga menziesii</i>	Douglas-fir	Pinaceae	yes
	<i>Sequoia sempervirens</i>	coast redwood	Cupressaceae	yes
	<i>Thuja plicata</i>	western red cedar	Cupressaceae	yes
Shrubs (27)				
	<i>Baccharis pilularis ssp. consanguinea</i>	upright coyote-brush	Asteraceae	yes

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	<i>Baccharis pilularis ssp. pilularis</i>	dwarf coyote-brush	Asteraceae	yes
	<i>Cotoneaster franchetii</i>	Franchet's cotoneaster	Rosaceae	no
	<i>Cotoneaster horizontalis</i>	horizontal cotoneaster	Rosaceae	no
	<i>Cotoneaster lacteus</i>	milk-flower cotoneaster	Rosaceae	no
	<i>Cotoneaster pannosus</i>	silver-leaved cotoneaster	Rosaceae	no
	<i>Cotoneaster simonsii</i>	Himalayan cotoneaster	Rosaceae	no
	<i>Cytisus scoparius</i>	Scotch broom	Fabaceae	no
	<i>Erica lusitanica</i>	Spanish heath	Ericaceae	no
	<i>Escallonia macrantha</i>	red claws	Grossulariaceae	no
	<i>Fuchsia magellanica</i>	hardy fuchsia	Onagraceae	no
	<i>Garrya elliptica</i>	coast silktassel	Garryaceae	yes
	<i>Gaultheria shallon</i>	salal	Ericaceae	yes
	<i>Hedera helix</i>	English ivy	Araliaceae	no
	<i>Hypericum calycinum</i>	Aaron's-beard St Johnswort	Hypericaceae	no
	<i>Lonicera involucrata</i>	twinberry	Caprifoliaceae	yes
	<i>Muehlenbeckia complexa</i>	maidenhair vine	Polygonaceae	no
	<i>Pittosporum sp.</i>	pittosporum	Pittosporaceae	no
	<i>Pittosporum undulatum</i>	vitorian box	Pittosporaceae	no
	<i>Ribes sanguineum var.</i>	pink-flowering currant	Grossulariaceae	yes

Trinidad State Beach Coastal Scrub and Grassland Restoration Project

	<i>glutinosum</i>			
	<i>Rosa sp.</i>	rose	Rosaceae	no
	<i>Rubus armeniacus</i>	Himalayan blackberry	Rosaceae	no
	<i>Rubus leucodermis</i>	white-stemmed blackberry	Rosaceae	yes
	<i>Rubus parviflorus</i>	thimbleberry	Rosaceae	yes
	<i>Rubus ursinus</i>	California blackberry	Rosaceae	yes
	<i>Vaccinium ovatum</i>	evergreen huckleberry	Ericaceae	yes
	<i>Viburnum tinus</i>	laurustinus	Caprifoliaceae	no
Herbs (25)				
	<i>Acanthus mollis</i>	soft acanthus	Acanthaceae	no
	<i>Achillea millefolium</i>	yarrow	Asteraceae	yes
	<i>Bergenia sp.</i>	bergenia	Saxifragaceae	no
	<i>Chamerion angustifolium</i>	narrow-leaved fireweed	Onagraceae	yes
	<i>Crocsmia x crocosmiifolia</i>	montbretia	Iridaceae	no
	<i>Daucus carota</i>	Queen Anne's lace	Apiaceae	no
	<i>Euphorbia peplus</i>	petty spurge	Euphorbiaceae	no
	<i>Geranium sp.</i>	geranium	Geraniaceae	unk
	<i>Heracleum maximum</i>	cow parsnip	Apiaceae	yes
	<i>Hypericum calycinum</i>	Aaron's-beard St Johnswort	Hypericaceae	no

Trinidad State Beach Coastal Scrub and Grassland Restoration Project

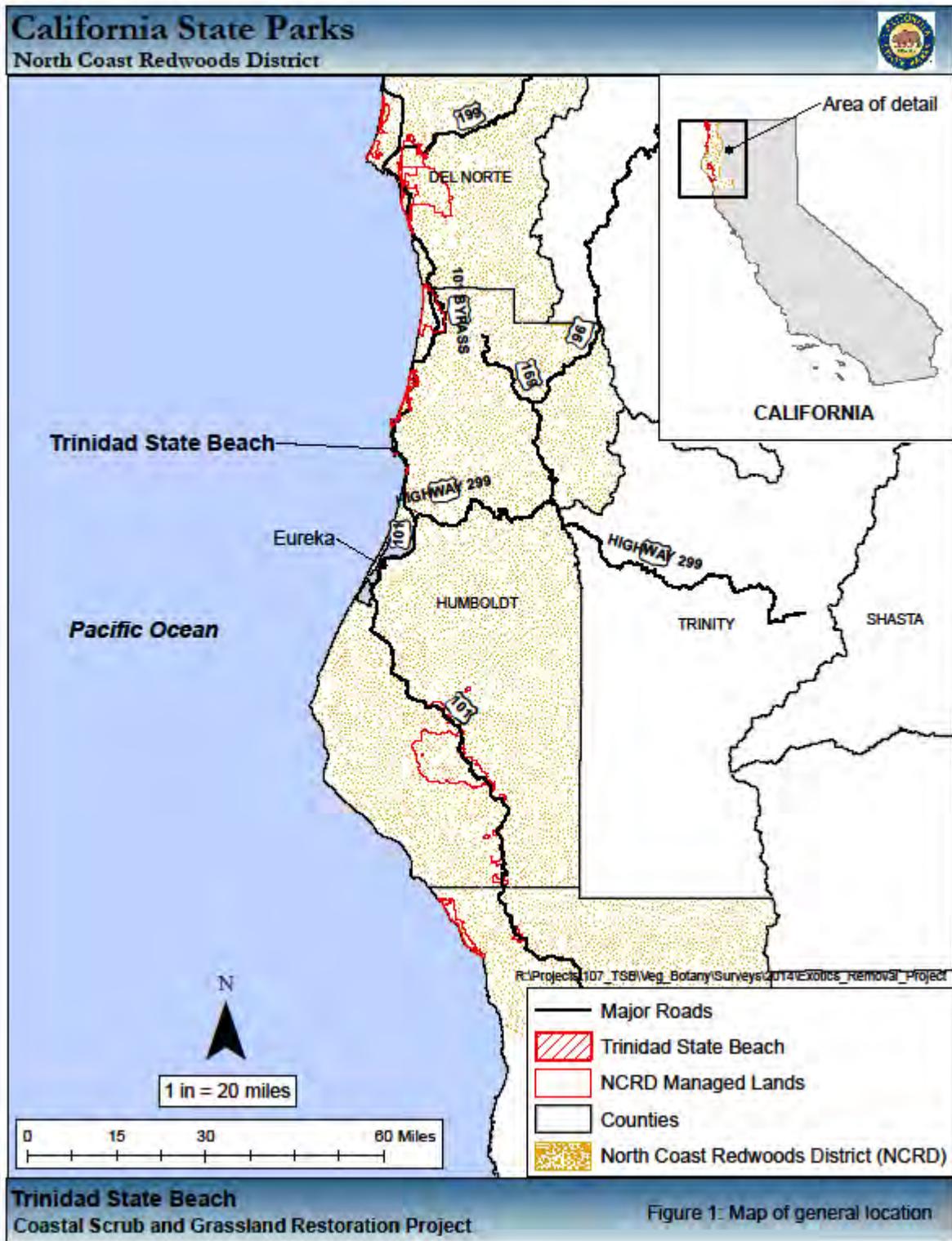
	<i>Hypochaeris radicata</i>	rough cat's-ear	Asteraceae	no
	<i>Iris douglasiana</i>	Douglas iris	Iridaceae	yes
	<i>Lathyrus latifolius</i>	perennial sweetpea	Fabaceae	no
	<i>Leucanthemum vulgare</i>	ox-eye daisy	Asteraceae	no
	<i>Lonicera sp.</i>	honeysuckle	Caprifoliaceae	no
	<i>Lupinus rivularis</i>	streambank lupine	Fabaceae	yes
	<i>Oxalis corniculata</i>	creeping wood-sorrel	Oxalidaceae	no
	<i>Plantago lanceolata</i>	English plantain	Plantaginaceae	no
	<i>Prunella vulgaris</i>	selfheal	Lamiaceae	unk
	<i>Raphanus raphanistrum</i>	jointed wild radish	Brassicaceae	no
	<i>Scrophularia californica</i>	California bee plant	Scrophulariaceae	yes
	<i>Sonchus sp.</i>	sow-thistle	Asteraceae	no
	<i>Symphotrichum chilense</i>	common Pacific aster	Asteraceae	yes
	<i>Trifolium pratense</i>	common red clover	Fabaceae	no
	<i>Vinca major</i>	big periwinkle	Apocynaceae	no
Graminoids (8)				
	<i>Agrostis sp.</i>	bentgrass	Poaceae	no
	<i>Anthoxanthum odoratum</i>	sweet vernal grass	Poaceae	no
	<i>Bromus carinatus</i>	California brome	Poaceae	yes

Trinidad State Beach Coastal Scrub and Grassland Restoration Project

	<i>Calamagrostis nutkaensis</i>	Pacific reed-grass	Poaceae	yes
	<i>Dactylis glomerata</i>	orchard grass	Poaceae	no
	<i>Holcus lanatus</i>	velvet grass	Poaceae	no
	<i>Pennisetum clandestinum</i>	Kikuyu grass	Poaceae	no
	<i>Rytidosperma penicillatum</i>	purple-awned wallaby-grass	Poaceae	no
Ferns and fern allies (3)				
	<i>Pentagramma triangularis</i>	gold back fern	Pteridaceae	yes
	<i>Polystichum munitum</i>	sword fern	Dryopteridaceae	yes
	<i>Pteridium aquilinum var. pubescens</i>	bracken fern	Dennstaedtiaceae	yes
Lichen (1)				
	<i>Ramalina menziesii</i>	lace lichen	Ramalinaceae	yes
Bryophyte (1)				
	<i>Kindbergia sp.</i>	kindbergia	Brachytheciaceae	yes

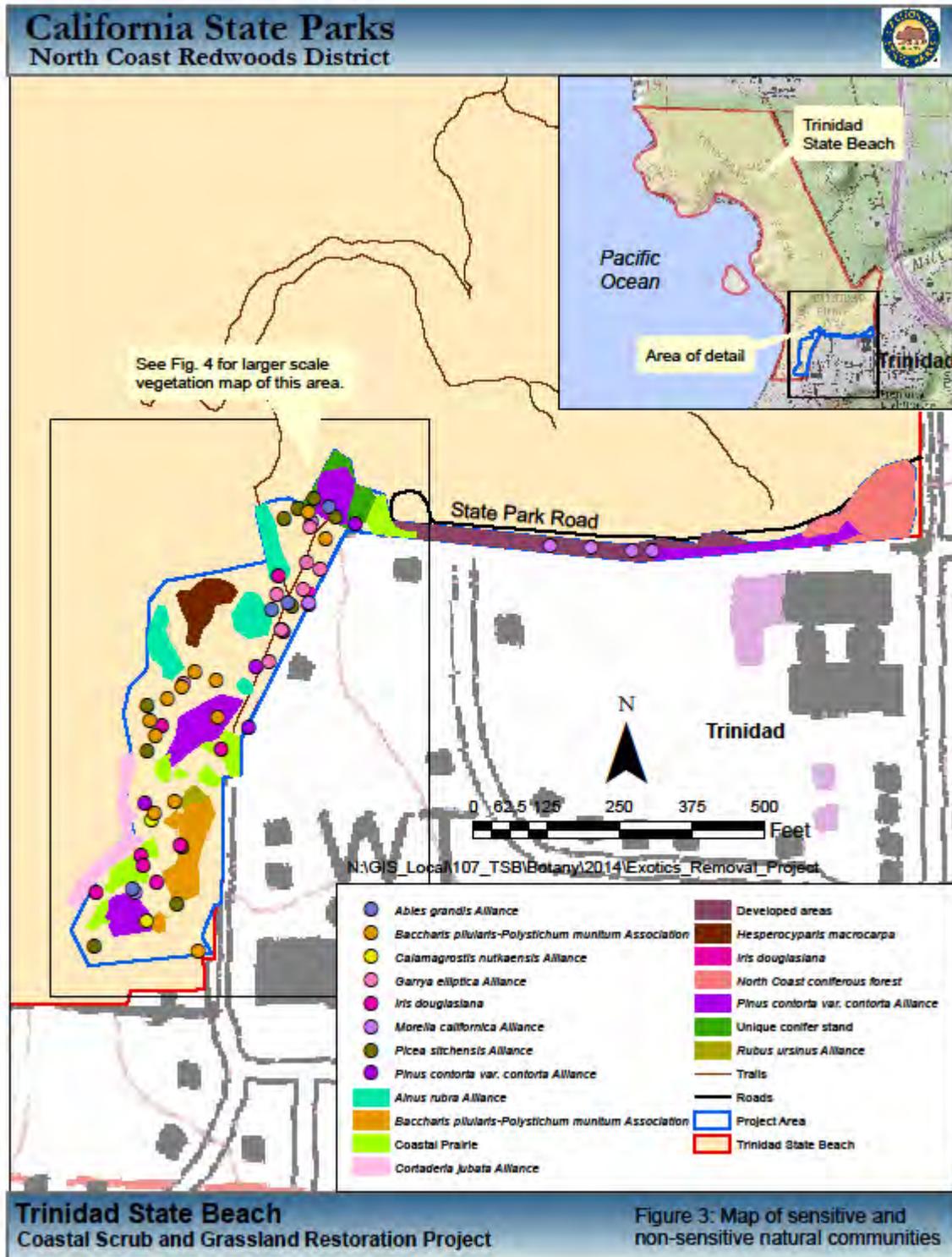
Trinidad State Beach Coastal Scrub and Grassland Restoration Project

Figure 1: Map of general location.



Trinidad State Beach Coastal Scrub and Grassland Restoration Project

Figure 3: Map of sensitive and non-sensitive natural communities found within the project area.



Trinidad State Beach Coastal Scrub and Grassland Restoration Project

Figure 4: Large-scale map of sensitive and non-sensitive natural communities within the western section of the project area.

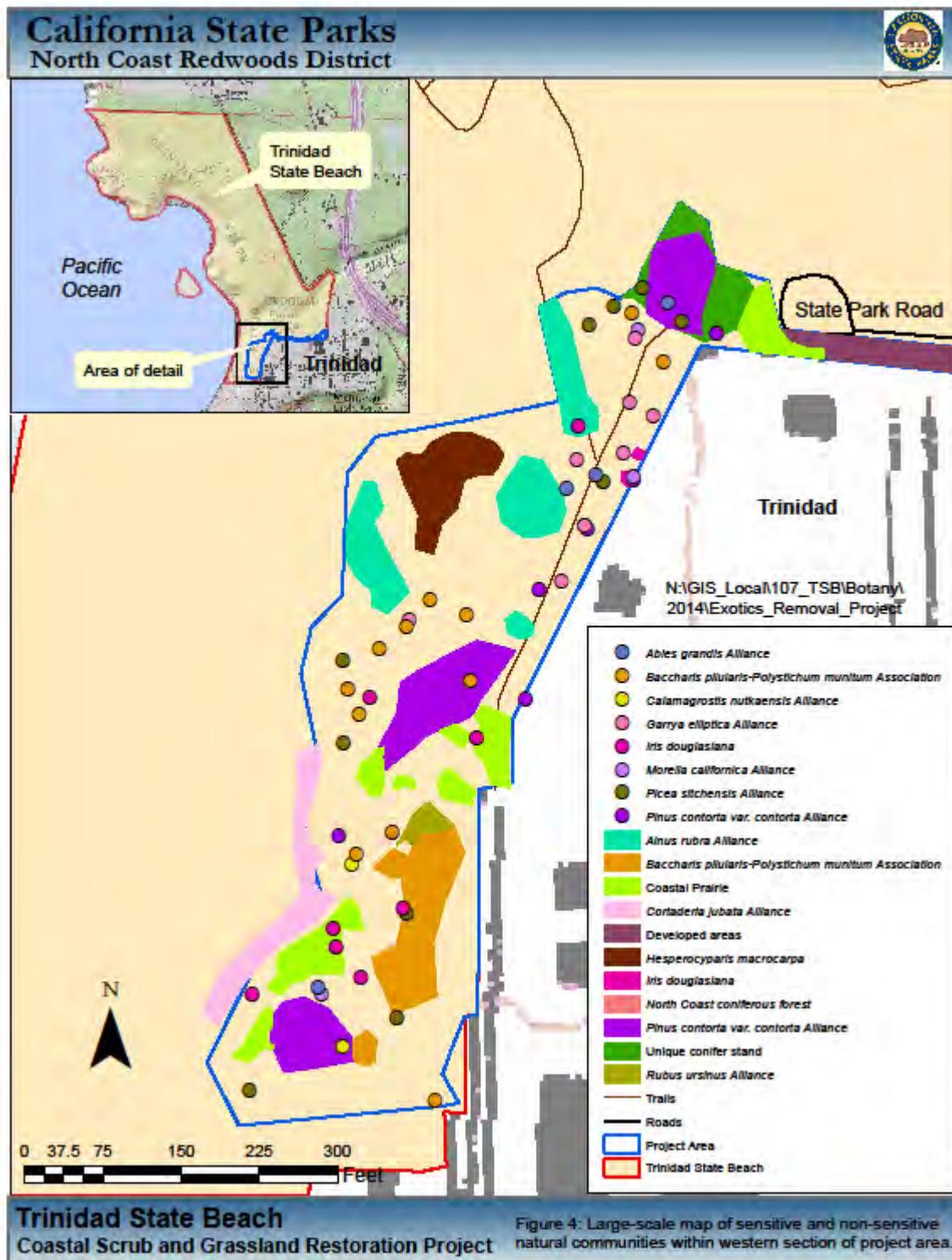


Figure 5: *Abies grandis* (Grand fir forest) Alliance.



Figure 6: *Sequoia sempervirens* (Redwood forest) Alliance



Figure 7: *Picea sitchensis* (Sitka spruce forest) Alliance



Figure 8: *Pinus contorta* var. *contorta* (Beach pine forest) Alliance



Figure 9: *Baccharis pilularis* / *Polystichum munitum* Association



Figure 10: *Morella californica* (Wax myrtle scrub) Alliance



Trinidad State Beach Coastal Scrub and Grassland Restoration Project

Figure 11: *Rubus* (*parviflorus*, *spectabilis*, *ursinus*) (Coastal brambles) Alliance



Figure 12: *Calamagrostis nutkaensis* (Pacific reed grass meadows) Alliance



Figure 13: Douglas iris (*Iris douglasiana*) within coastal prairie



Appendix D. Notice of Exemption



FAXED
1/14/13

NOTICE OF EXEMPTION

TO: Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

FROM: Department of Parks and Recreation
1416 Ninth Street
P.O. Box 942896
Sacramento, CA 94296-0001

PROJECT TITLE: Exotic Plant Removal

LOCATION: Trinidad State Beach

COUNTY: Humboldt

DESCRIPTION OF THE NATURE AND PURPOSE OF PROJECT: Remove exotic English ivy, *Cotoneaster* sp., *Pittisporum* sp., English holly, Spanish heath/heather, and Scotchbroom on approximately 29 acres in Trinidad State Beach to restore the native forest understory and coastal scrub community.

Work will:

- Excavate up to 24 inches to remove exotic plants with loppers and rakes.
- Use chainsaws to fell some of the larger English holly, *Cotoneaster*, and *Pittisporum* in the project area.
- Pile and transport vegetation to an appropriate dumping area to be composted or burned. Removed vegetation could be placed in inconspicuous areas to decompose naturally.
- Exotic shrubs and trees will only be removed between August 1 and April 30.

DPR-approved standard project requirements have been incorporated into the Exotic Plant Removal. A list of project-specific project requirements can be viewed by contacting the environmental coordinator listed below.

PUBLIC AGENCY APPROVING THE PROJECT: California Department of Parks and Recreation

NAME OF DIVISION OR DISTRICT CARRYING OUT THE PROJECT: North Coast Redwoods District

EXEMPT STATUS:

- Declared Emergency (Section 15269(a))
- Emergency Project (Section 15269(b) and (c))
- Statutory Exemption (Section)
- Categorical Exemption

Class: 4 Section: 15304

REASONS WHY PROJECT IS EXEMPT: Project consists of minor alterations in the condition of land and vegetation that do not involve removal of healthy, mature, scenic trees; included as "resource management projects" in the Department of Parks and Recreation's list of exempt activities, in accordance with CCR § 15300.4.

CONTACT: Allison Riemer
North Coast Redwoods

PHONE NO.: (707) 445-6547x18
EMAIL: ariemer@parks.ca.gov



 Dana Jones
 District Superintendent
 North Coast Redwoods

1/14/13

 DATE

**Appendix E. Cultural Review (Not for Public
Release – Confidential Report)**

Zimbra

trever@streamlineplanning.net

Trinidad State Beach Restoration Project (CDP 2014-01)

From : Kimberly Tays <kimkat067@gmail.com>

Thu, Oct 30, 2014 02:44 PM

Subject : Trinidad State Beach Restoration Project (CDP 2014-01)**To** : Natalynne DeLapp <Natalynne@wildcalifornia.org>, trever@streamlineplanning.net, bob merrill <bob.merrill@coastal.ca.gov>, kimberly@wildcalifornia.org, jeff bomke <jeff.bomke@parks.ca.gov>, roger goddard <roger.goddard@parks.ca.gov>, kasey sirkin <kasey.sirkin@coastal.ca.gov>, michelle forys <michelle.forys@parks.ca.gov>

This email is written in response to California State Parks' response (via Mr. Jeff Bomke) to my appeal regarding the proposed Trinidad State Beach Grassland and Scrub Restoration Project (CDP 2014-01).

I have reviewed the revised plans (dated September 2014) that will be presented at the upcoming November 12 Trinidad City Council meeting. While I am, overall, pleased with the revisions of the restoration project, I **object** to the plans to remove the more sizeable, mature Monterey cypress trees growing within the project area. While, admittedly, Monterey cypress are not native to Humboldt County, they are native to coastal Monterey, California, and are growing in local State Parks, such as Patrick's Point. Monterey cypress is not an invasive tree species and is not a threat to the Trinidad State Beach coastal bluff environment. Any money and time spent on restoring this Park should be directed towards removal and/or control of highly invasive plants such as English ivy, Cotoneaster, Scotch broom, Pampas grass, Mattress vine, etc., which are a serious threat to the Park's biological diversity. I feel confident in stating that of all of the plant species that the California State Parks North Coast Redwoods District should be worried about, Monterey cypress is not one of them.

As mentioned in my appeal letter, not only am I concerned with the protection of the Park's native vegetation, I am also concerned with protection of the Park's visual resources and wildlife habitat. The larger Monterey cypress are important trees because they help conceal houses, rooftops, utility poles and lines, roads, cars, etc. from nearby trails, beaches, the ocean and Trinidad Head. They also add windswept beauty and diversity to the vegetative landscape and offer vital habitat for birds and other animals. In the July 2014 project plans, the documents stated 20 Monterey cypress would be removed from the project area. Their dimensions and locations were not provided. However, in the revised documents, the plans state 36 Monterey cypress would be removed from the project area. In addition, the plans state: "During implementation should any Monterey cypress that has not been mapped within the project area is found and it is 12" DBH or less, it will be removed." [Emphasis added.] **Also, I noticed in Photograph 10 (on page 12) that the trees in the photo**

appear to be misidentified; they look to be Sitka spruce and Douglas fir, not Monterey cypress.

For the above reasons, I respectfully propose the following:

(1) The larger Monterey cypress (those trees 6" DBH and larger) be protected and NOT REMOVED.

(2) The large trees identified in Photograph 10 should be surveyed again to insure they are NOT native Sitka spruce and Douglas fir trees and, therefore, mistakenly cut down. If they are identified as Monterey cypress, the trees appear to be sizeable trees (6" DBH and larger) and should be protected.

(3) Any Monterey cypress trees that have not been mapped within the project area should not be removed without going through the permit and public review process because of the possible impacts to the natural resources of the Park Parks re-evaluating this project and submitting its revised project proposal. I would respectfully request that my suggestions, above, be incorporated into the revised plans for this important restoration project.

Sincerely,
Kimberly Tays (Appellant)

Zimbra

trever@streamlineplanning.net

Trinidad State Beach Restoration Project (CDP 2014-01)

From : Kimberly Tays <kimkat067@gmail.com>

Thu, Oct 30, 2014 03:04 PM

Subject : Trinidad State Beach Restoration Project (CDP 2014-01)**To** : Natalynne DeLapp <Natalynne@wildcalifornia.org>, trever@streamlineplanning.net, bob merrill <bob.merrill@coastal.ca.gov>, jeff bomke <jeff.bomke@parks.ca.gov>, roger goddard <roger.goddard@parks.ca.gov>, kasey sirkin <kasey.sirkin@coastal.ca.gov>, michelle forys <michelle.forys@parks.ca.gov>

I apologize for the mistake in the last paragraph of my previous (Oct. 30) email. I am using a public library computer and for some reason the computer sent my email before my email was edited and finalized.

Please replace paragraph (3) in my previous email with the following:

(3) Any Monterey cypress trees that have not been mapped within the project area should not be removed without going through the permit and public review process because of the possible impacts to the natural resources of the Park.

I appreciate California State Parks re-evaluating this project and submitting its revised project proposal. I would respectfully request that my suggestions, above, be incorporated into the revised plans for this important restoration project.

Sincerely,
Kimberly Tays (Appellant)

CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT OFFICE

1385 EIGHTH STREET • SUITE 130

ARCATA, CA 95521

VOICE (707) 826-8950

FACSIMILE (707) 826-8960



October 29, 2014

Hon. Julie Fulkerson, Mayor
City of Trinidad
409 Trinity Street
Trinidad, CA 95570

RE: Coastal Development Permit Application No. 2014-01 *California State Parks Vegetation Removal and Maintenance Activities*, southern portion of Trinidad State Beach (APNs 042-021-01 and 042-031-01), California Department of Parks and Recreation, Applicant

Dear Mayor Fulkerson:

Thank you for the opportunity to review the California State Parks response to the appeal filed by Ms. Kimberly Tays concerning the Trinidad State Beach Grassland and Scrub Restoration Project (CDP 2014-01). The revised project proposes to conduct vegetation removal and ongoing maintenance activities within the southern portion of Trinidad State Beach, in the North Coast Redwoods District, to restore coastal scrub and grassland habitat, improve viewsheds and reduce fire hazards. The four-acre project area consists of coastal scrub and grassland habitats in the most southern portion of the Park. Overall, approximately 1.2 acres of vegetation will be removed over four years, with no more than 0.3 acres of vegetation removed annually. The project area extends from the large paved parking lot off of Stagecoach Road to the southern boundary of the Park near the Humboldt State University (HSU) Marine Lab. Invasive non-native and native vegetation will be removed with hand-tools (e.g., shovels, weed wrenches, chainsaws) and excavation should not exceed 24 inches. Chainsaws will be used to remove approximately 36 Monterey Cypress trees. All removed vegetation will be piled and transported to an appropriate dumping area to be composted, chipped or burned later.

After reviewing the revised project description and updated vegetation information, the Commission believes that many of our concerns have been addressed and that the revised proposed project, as described, will be in substantial conformance with the Trinidad LCP. To assist in preventing a future appeal to the Commission, we are providing the following list of the information provided in the revised project description that has allowed us to make this determination.

1. Restoration Impetus for Project

Information provided in the revised CDP application and appeal response indicates that the objective of the project is to “restore” the area to native vegetation, and is therefore, no longer intended to reestablish a particular type of habitat type or characteristic, namely “coastal scrub and grassland habitat” (page 3 of appeal response). The proposed project will achieve this objective through selective removal of existing non-native vegetation, which will allow existing native vegetation to grow larger and fill in to open areas. Given the selective nature of the

proposed project, and the low likelihood of adverse impacts to native vegetation, Commission staff feels that the project has a high likelihood of achieving the stated objective, and restoring areas of native vegetation. Therefore, our concern as to whether the former restoration objective of reestablishing a vegetative assembly of undocumented historical presence given its dissimilar composition compared to surrounding plant communities may not be met has been alleviated.

2. Clarification of Project Description

As requested, the revised project description and CDP application provides detailed information on the quantity of vegetation proposed to be removed (page 4 of revised project description), as well as providing additional maps (Figure 4) indicating the location of all trees that will be removed. The revised CDP application also provides information relating to how the project will maintain open spaces and will improve the existing character and habitat value of the overall project area (page 4 of revised project description). Additionally, the applicant has provided an updated vegetation survey and additional details on the existing character and habitat values of the project area. Upon review, the Commission finds that the information supplied in the revised CDP application provides sufficient details to determine that the project is consistent with the City's LCP and other relevant Coastal Act issues.

3. Alternatives Analysis

After reviewing the revised CDP application, it appears that the proposed project would be to conduct a more selective removal of vegetation over a longer period to retain trees that add character, dimension, and interest to the landscape of the Open Space zoning district in which it is located, provide important wildlife habitat, and act as a buffer to the adjacent urban development. It does not appear that the revised project has the potential to create significant adverse environmental impacts and includes avoidance and minimization measures that will protect sensitive resources, water quality and surrounding habitat areas. Therefore, Commission staff believes that there is no other feasible alternative to the revised project that would have less environmentally damaging effects, be consistent with the LCP, and meet the project's native vegetative cover restoration objectives.

4. Success Criteria

Under the revised CDP application, photo monitoring will be used to assess the success of the project (page 5 of appeal response). Multiple photo points will be established using Global Positioning System (GPS) and photos will be taken before, during and after initial treatment of each area and annually before and after re-treatment. Although the proposed monitoring is an improvement from the original CDP application where no monitoring was suggested, Commission staff still feels that more stringent success criteria should be established. Some quantifiable and verifiable standards of restoration success need to be established for the project. These end-points could be structured in terms of minimum basal area, stem-count per sampled area, diversity indices, or other metrics, which would clearly substantiate that the goals of this five-year undertaking have been achieved. In addition if, at the conclusion of the five-year permit term, it is determined that the quantified success criteria have not been met, the project

description and permit conditions should provide for an administrative extension of the project restoration work until such success thresholds have been met.

5. Consistency with Open Space Zoning

As described in the previous comment letter, according to Section 4.02 of the Zoning Ordinance of the City Trinidad, the purpose of the Open Space (OS) district is to “maximize preservation of the natural and scenic character of these areas including protection of important wildlife habitat and cultural resources.” Although the revised project description footprint is reduced from the original project, there remains the need for preserving the natural and scenic character of the areas adjacent to the TSP parking lot and residential areas. To achieve this objective non-native vegetation that currently softens and screens from view the adjoining residential development should be replaced with new landscaping, consisting of native species to maintain the objectives of the project, between the trail and the back sides of the residential lots, to ensure LCP consistency. Depending upon the actual amount of the vegetation along the south side of the Trinidad State Beach parking lot that is actually proposed to be removed and the resulting opening of views to adjacent developed school grounds and residential improvements, such vegetation removal through this area may trigger the need for replacement landscape screening to assure consistency with LCP provisions for protecting the Open Space scenic character.

Thank you for the opportunity to comment on the above referenced CDP application. As always, Commission staff is available to discuss our comments in greater detail as well as any questions you may have regarding our concerns. If any questions arise please contact me at 707-826-8950 ext. 205.

Sincerely,

L. Kasey Sirkin
Coastal Program Analyst II

Cc: California Department of Parks and Recreation
Trinidad State Beach
4150 Patricks Point Drive
Trinidad, CA 95570

CALIFORNIA COASTAL COMMISSION

NORTH COAST DISTRICT OFFICE
1385 8TH STREET • SUITE 130
ARCATA, CA 95521
VOICE (707) 826-8950
FACSIMILE (707) 826-8960



August 27, 2014

Trinidad City Council
409 Trinity Street
Trinidad, CA 95570

RE:Coastal Development Permit Application No. 2014-01 *California State Parks Vegetation Removal and Maintenance Activities*, southern portion of Trinidad State Beach (APNs 042-021-01 and 042-031-01), California Department of Parks and Recreation, Applicant

Dear Mayor Fulkerson:

It has been brought to the Commissions attention that the approval of the above-mentioned CDP application has been appealed to the local jurisdiction and will be reviewed by the Trinidad City Council, likely at the Council's September 10, 2014 meeting. The proposed project is located in the City of Trinidad's local jurisdiction as well as being in area that is appealable to the Commission. Therefore, in the interest of ensuring that the approved project is consistent with the local LCP and that pertinent LCP issues are addressed at the local level, Commission staff has reviewed the proposed project and CDP application and is providing comments for consideration when evaluating the proposed project appeal.

The project proposes to conduct vegetation removal and ongoing maintenance activities within the southern portion of Trinidad State Beach, in the North Coast Redwoods District, to restore coastal scrub and grassland habitat, improve viewsheds and reduce fire hazards. The 4-acre project area consists of coastal scrub and grassland habitats in the most southern portion of the Park. The project area extends from the large paved parking lot off of Stagecoach Road to the southern boundary of the Park near the Humboldt State University (HSU) Marine Lab. Invasive non-native and native vegetation will be removed with hand-tools (e.g. shovels, weed wrenches, chainsaws) and excavation should not exceed 24 inches. Chainsaws will be used to remove approximately 160 trees in the project area, of which 97 are non-native trees. All removed vegetation will be piled and transported to an appropriate dumping area to be composted, chipped or burned later.

Commission staff has prepared the following comments for the City's consideration as to the proposed project's conformance with the policies of the certified LCP and the pertinent policies of the Coastal Act. Many of our comments point out the level of information provided with the application may not be sufficient to fully determine whether the proposed project is consistent

with the LCP. We encourage the City to address these information needs prior to acting on the local appeal.

1. Restoration Impetus for Project

The information provided in the permit application is less than clear as to whether the pre-existing vegetative cover was indeed ‘coastal scrub and grassland habitat’. Based on a quick review of aerial and historic photographs and a cursory examination of the profiles of soil borings taken in proximity of the project area, it is not clear what the natural characteristics of the site are and whether the area was cleared of previously existing spruce-hemlock forest upon settlement in the 1850s or if the area is naturally treeless as purported and seen in the Elk Head area. To better understand the historic condition of the proposed project site, the City should request information from the applicant to further substantiate that the area in question was historically coastal scrub/grassland and restoration of the site to this type of habitat is appropriate.

2. Clarification of Project Description

Site Mapping

The project description of the CDP application needs to be further detailed to enable one to ascertain if the project is consistent with LCP policies and coastal act issues. Additional information that would be helpful to have includes: (1) a site map that shows the location of all areas where vegetation/tree removal will take place, and their locations in relation to any ESHA habitat on or in proximity to the project properties; (2) a table depicting the quantity of vegetation/trees that will be removed, including a breakdown of the quantity and species of vegetation removed at each site; (3) the total quantity of native versus non-native vegetation to be removed; (4) size/DBH of all trees that are proposed to be removed; (5) removal method for each place where vegetation removal is proposed; (6) site map depicting all ESHA habitat; (7) list of all BMPs that will be implemented at each removal location; erosion control and stormwater management plans; and project implementation scheduling.

Consistency with Open Space Zoning

According to Section 4.02 of the Zoning Ordinance of the City of Trinidad, the purpose of the Open Space (OS) district is to “maximize preservation of the natural and scenic character of these areas including protection of important wildlife habitat and cultural resources.” Vegetation that currently softens and screens from view the adjoining residential development should be replaced with new landscaping, consisting of native species to maintain the objectives of the project, between the trail and the back sides of the residential lots, to ensure LCP consistency. Depending upon the actual amount of the vegetation along the south side of the Trinidad State Beach parking lot that is actually proposed to be removed and the resulting opening of views to adjacent developed school

grounds and residential improvements, such vegetation removal through this area may trigger the need for replacement landscape screening to assure consistency with LCP provisions for protecting the Open Space scenic character. While the Staff Report (pp. 4-5) suggests this project complies with Chapter 3 of the Coastal Act in that it is being done to “restore environmentally sensitive habitat areas and preserve public access and coastal viewsheds” there is no information provided as to how this will be achieved.

Alternatives Analysis¹

Public Resources Code Section 21080.5(d)(2)(A) of CEQA “prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would significantly lessen any significant effect that the activity may have on the environment.” A feasible alternative for this project that should be considered would be to conduct a more selective removal of vegetation over a longer period to retain trees that add character, dimension, and interest to the landscape, provide important wildlife habitat and act as a buffer to the adjacent urban development.

Explanation of Need for Removal of Native Vegetation

The composition of the vegetation prior to the spread and establishment of the invasive-exotics likely included a multi-strata successional mixture of grass & forbs understory, shrub layer and tree canopy. In addition to the mapped and tabulated detail requested above, the restoration plan should discuss why removal of native tree species is needed to achieve project goals and objectives. Alternatives, such as limbing and pruning to minimize their spread and shading effects, should also be investigated and discussed in the project description.

Updated Surveys

The data used is based on a Plant Survey prepared over 4 years ago and appears to apply to work done at College Cove and Elk Head, which are at the far northern end of the Park, several miles from the project site. The Archeological Review submitted for this project also appears to apply to restoration work done at the College Cove and Elk Head

¹ Commission staff notes the City’s intent to find the project exempt from CEQA pursuant to a Class 4 “minor alterations to land” categorical exemption (14 CCR 15304). Notwithstanding the debatable point as to whether significant shrub and tree removal over much of a four-acre area, including native “healthy, mature, scenic trees” would reasonably be within the qualified bounds of the *minor alteration* exemption, in order for the subject exemption to be invoked, the project must be shown to not otherwise be excepted from exemption, as detailed in CEQA Guidelines section 15300.2. To wit, factual evidence must be provided that demonstrates that there is not a “...reasonable possibility that the activity will have a significant effect on the environment due to ‘unusual circumstances.’” Such unusual circumstances may be the comprehensive and single-phase aspects of the project scope, for which alternatives exist, such as phased and/or down-scaled vegetation removal, that could serve to reduce the project effects to less than significant levels.

locations and is approximately 2 years old. This means no plant or archeological reviews were conducted, specifically, for the 4-acre site (see Trinidad State Beach Sensitive Plant Survey Result, dated July 21, 2010 and the Archeological Review dated November 15, 2012). To be adequately informed about the true impacts of this project, a current plant survey needs to be prepared, specifically, for the 4-acre site, so the public knows what plants would be impacted and where. An updated plant survey and habitat assessment should be completed and a map depicting all vegetation areas, including areas to be removed and areas that will remain, should be included in the project description.

Success Criteria

Some quantifiable and verifiable standards of restoration success need to be established for the project. These end-points could be structured in terms of minimum basal area, stem-count per sampled area, diversity indices, or other metrics, which would clearly substantiate that the goals of this five-year undertaking have been achieved. In addition if, at the conclusion of the five-year permit term, it is determined that the quantified success criteria have not been met, the project description and permit conditions should provide for an administrative extension of the project restoration work until such success thresholds have been met.

Retention of existing character and habitat value

As discussed above the proposed project will be implemented in an area that has been zoned as Open Space and therefore is required under the LCP to:

...maximize preservation of the natural and scenic character of these areas including protection of important wildlife habitat and cultural resources, and to ensure that the health and safety of the public is ensured through careful regulations of development in areas affected by geologic instability, steep slopes, tsunami and flood hazards.

Given the large quantity of both native and non-native vegetation that will be removed from the area, it is important to understand how the vegetation removal will change the characteristics of the park for both humans and wildlife that use the existing vegetation for habitat. Important wildlife and bird habitat may be impacted from the project. Therefore, the project proposal should discuss how the removal of the vegetation will be conducted in a manner as to retain the character of the existing park features, as well as to continue to provide habitat for wildlife species in a similar manner as currently exists.

3. Restoration Methodology

Re-sprouting of Large Chain-sawed Brush

There is the possibility that some of the larger vegetation indicated for chainsaw removal only to avoid significant soil disruption, may re-sprout. The restoration plan should

address this likelihood and identify what measures would be taken to address such tenacious regrowth. Additionally, information should be included in the project description on methods that will be used to ensure that non-native vegetation does not regrow. A long term monitoring and maintenance plan should also be provided to document proposed monitoring of restoration efforts.

Assurance that Brush Removal Will Occur

According to the CDP, once vegetation is cut, it will either be piled up on site or removed to an undisclosed site for disposal. After discussions with our staff ecologist, Commission staff advises that the cut materials be removed off of the site for disposal and not otherwise chipped, lopped, and spread onto the site. If left onsite, remaining vegetation could increase the spread of invasive species through promoting adventitious vegetative regrowth from any viable root and stem tissue within the cut materials. Therefore, the restoration plan should address how often and when vegetation will be removed from the site and where removed vegetation will be disposed of.

Thank you for the opportunity to comment on the above referenced CDP application. As always, Commission staff is available to discuss our comments in greater detail as well as any questions you may have regarding our concerns. If any questions arise please contact me at 707-826-8950 ext. 215.

Sincerely,

L. Kasey Sirkin
Coastal Planner

Cc: California Department of Parks and Recreation
Trinidad State Beach
4150 Patricks Point Drive
Trinidad, CA 95570

July 29, 2014

Sent Via Email

Trinidad City Council
Mayor Fulkerson and Councilmembers Baker, Davies, Miller, West
City of Trinidad
409 Trinity Street
Trinidad, CA 95570

Dear Mayor Fulkerson and Councilmembers:

This letter serves as an official appeal to the Trinidad City Council to overturn the decision by the Trinidad Planning Commission at their July 16, 2014 meeting to approve the California State Parks, North Coast Redwoods District's (CSP) Coastal Development Permit (CDP 2014-01) to "*conduct vegetation removal activities (mostly exotic species) within the southern portion of Trinidad State Beach to restore coastal scrub and grassland habitat [...].*" While I did not attend the Trinidad Planning Commission, I did submit my concerns in writing on July 14 via email which gives me standing to file this appeal to the Trinidad City Council. Due to the fact that I will be out of town during the upcoming City Council appeal hearing, Natalynne DeLapp, Executive Director of the Environmental Information Protection Center (EPIC), will be acting on my behalf at that meeting.

The following is a list of reasons supporting my appeal of this project:

First and foremost, I am filing this appeal because of the finding that this project is Categorical Exempt from the California Environmental Quality Act (CEQA). Section 15304 of CEQA exempts "*minor alterations to the condition of land and vegetation.*" Page 1 of the Staff Report for this permit states "*The definition of development contained in the Coastal Act and the City's LCP includes 'major vegetation removal,' [...]. [G]enerally more than 500 sq. ft. of vegetation removal or removal of trees over 12" in diameter is considered 'major.'*" [Emphasis added.] As vegetation removal would take place over a 4-acre site, or 174,240 sq.ft. in area, it cannot be considered minor and, therefore, is not CEQA exempt. By designating this project CEQA exempt, CSP is granting itself the privilege of bypassing environmental reviews that should be triggered a large-scale project, such as this, that has the potential to significantly impact visual resources, wildlife habitat (such as burrowing animals and birds that currently live in the vegetation) and the wild, natural and scenic character of this coastal bluff and Environmentally Sensitive Habitat Area (ESHA).

The photographs provided for this project show, from certain angles, how some areas of the 4-acre site look now and how they looked 40-50 years ago. These "before and after" photos speak volumes as to how drastically the environment would be altered if this densely vegetated landscape was cleared and returned to a grassland and coastal scrub environment. In fact, there is so much mature, woody vegetation growing here, it is unlikely CSP can achieve its restoration goals in such a short period of time unless it has extensive funds and resources to deal with the challenges of invasive plant problems on a long-term basis. This area will not miraculously turn into a coastal scrub and grassland environment with the plan proposed, here. There is just too much area and too much vegetation involved.

After walking the site the other day, I noticed large stands of Alder trees that are growing in a unique tunnel form along the hiking trail leading to the beach, and in other areas, that would be subject for removal because they are less than 12" DBH (the threshold for removal). If these mature Alder stands

are cut down, this would significantly alter the character of the area, the hiking experience and impact wildlife habitat. In addition, a very knowledgeable California Native Plant Society (CNPS) guide expressed concerns that a small thicket of seedling pines that are slated for removal at the west end of the parking (by the Pewetole Island Overlook) have been misidentified as Monterey pine (*Pinus radiata*) when, in fact, they are Shore pines (*Pinus contorta*). She inspected the seedling pines, in question, and said the needles were not consistent with a Monterey pine. They had shorter needles in bundles of 2, which would be consistent with a Shore pine. To be specific, Monterey pines have needles 3 to 6 inches in length attached to the stem in bundles of 3; Shore pines have needles 1-1/2 to 3 inches in length attached to the stem in bundles of 2. This finding indicates that Shore pines used to be on this site and that their seeds were still present in the soil and viable. It is likely the light from earlier view clearings stimulated the seeds to germinate. Because Shore pines are an unusual siting in the Trinidad area, it would be a shame for CSP to remove the entire thicket of these Shore pine seedlings on the belief that they are Monterey pines. This is another example why CSP must conduct current and proper biological and wildlife studies to insure proper steps are taken to protect this sensitive and diverse environment.

The purpose of the Open Space (OS) Zone is to “*maximize preservation of the natural and scenic character of these areas including protection of important wildlife habitat and cultural resources.*” While the Staff Report (pp. 4-5) claims this project complies with Chapter 3 of the Coastal Act in that it is being done to “*restore environmentally sensitive habitat areas and preserve public access and coastal viewsheds*” the reality is this project will likely have the opposite effect because of (1) the extensive and intrusive nature of the project, (2) the fact it is being carried out in such a short period of time, and (3) CSP has not conducted current and site-specific environmental studies to insure protection of this ESHA environment.

Because much of the vegetation on this site is the size of small trees and covers such a large area, it is inevitable CSP will use chainsaws instead of weed wrenches or shovels for much of the vegetation removal. The problem, here, is that unless the invasive plants are dug out of the ground, they will just resprout, thus, undermining any restoration efforts and wasting taxpayer money and resources. And because so many native shrubs and trees are intertwined with the non-native plants, it is likely a lot of native vegetation will be damaged or destroyed in the process of any removal activities, despite being flagged

While language was inserted into the permit at the July 16 Planning Commission meeting that “*the removed vegetation will be taken off-site to an appropriate area for composting, chipping or burning,*” this proposal is not realistic due to the sheer volume of vegetation that would need to be removed and the amount of money and labor involved to do this. Once this project is underway, it is inevitable the vegetation will be left on site. If debris piles are left behind, this will create a fire hazard, visual blight and will interfere with the regeneration of native vegetation.

Currently, when you walk down the hiking trail towards the HSU Marine Lab or beach, there is a sense of being in a rugged and wild place. The rooftops and houses are barely noticeable along much of the trail and from the beach. Should CSP carry out the vegetation clearing, as proposed, that feeling of wildness and remoteness will be obliterated. Suddenly, the urban development that is now camouflaged by the vegetation will become very noticeable. And, as mentioned earlier, important wildlife and bird habitat would be seriously impacted from such an intrusive and destructive clearing. If CSP had consistently been maintaining this area as a grassland, that would be one thing, but it

has neglected this area for decades and now, in a matter of months, it plans to clear 4-acres of dense, mature vegetation without the proper environment studies and without proposing alternatives to this highly destructive and intrusive project.

Public Resources Code Section 21080.5(d)(2)(A) of CEQA “*prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would significantly lessen any significant effect that the activity may have on the environment.*” A feasible alternative for this project would be to conduct a more selective removal of vegetation over a longer period of time so that the site can be properly managed and maintained. Also, to lessen the impacts on the environment, large and unique stands of Alders and the seedlings of Shore pines that have recently been identified should not be removed, altogether, just because they are smaller than 12” DBH and encroach into viewsheds. A plan for selective removal of these trees should be included in the permit, as trees such as these add character, dimension and interest to the landscape, provide important wildlife habitat and act as a buffer to the adjacent urban development. CSP can achieve its goal of restoring viewsheds and certain grasslands, such as at the Pewetole Island Overlook, maintaining trail access and creating fire breaks without this scorched earth approach to restoration. And, as required under CEQA, CSP must consider alternatives that would lessen the significant impacts to this ESHA environment.

The data used by CSP for this “Grassland Restoration Project” is based on a Plant Survey prepared over 4 years ago and appears to apply to restoration work done at College Cove and Elk Head, which are at the far northern end of the Park, several miles from the project site. The Archeological Review submitted for this project also appears to apply to restoration work done at the College Cove and Elk Head locations. This means no plant or archeological reviews were conducted, specifically, for the 4-acre site (see Trinidad State Beach Sensitive Plant Survey Result, dated July 21, 2010 and the Archeological Review dated November 15, 2012). To be adequately informed about the true impacts of this project, a plant survey needs to be prepared, specifically, for the 4-acre site so the public knows what plants would be impacted and where. The situation regarding the seedling Shore pines that appear to have been misidentified as Monterey pines is a perfect example of why a recent Plant Survey should be done, as a lot of new vegetation or seedling trees may have begun growing on this site during the past 4 years. The tables that are attached to the Plant Survey list the plants species found within Trinidad State Beach but, again, the public cannot determine if any of these plants are found within the 4-acre project site because the Plant Survey is not current or site specific. An Archeological Review should be done for the same site for the same reasons.

In addition, the Notice of Exemption is dated January 14, 2013, and pertains to removal of **exotic plants only**. Not only is this Notice 1-1/2 years old, it is misleading because this project would impact more than exotic species. Dozens of native trees would be removed and, as mentioned earlier, native shrubs would certainly be destroyed or damaged because they are growing amidst the non-native plants and trees. In addition, on p3 of the Staff Report, it states “*Most of the trees being removed are less than 6 ft. tall, and nothing over 12” DBH will be removed.*” **This means some very large trees could be removed, as a healthy tree that is close to 12” DBH could be up to 20 feet in height or more.** Additionally, on p3 of the Staff Report, it states “*Annual maintenance will occur over the term of the permit (proposed 5 years) to keep more non-natives and trees from encroaching into the restored areas.*” [Emphasis added.] This statement implies CSP has no intention of allowing any trees (even if native or unique) to regenerate on the project site. To satisfy CEQA, CSP’s permit

should be modified to protect larger, native trees and the unique thickets of Alders and seedling Shore pines in order to lessen the impacts of this proposed project on the environment.

The permit application submitted by CSP contains language that is very subjective, as well, saying “*California State Parks will restore and maintain the grassland, continue maintaining the view shed by removing **any encroaching trees and shrubs**, and remove the invasive, non-native plants along the trail [...]. Vegetation removal will occur whenever invasive, non-native plants are found within the project area and when **vegetation becomes a problem** along the trail and view shed areas.*” The permit application does not define the vegetation that is subject for future removal, it just says **any** vegetation that is deemed to be a **problem** or is **encroaching** into trails or viewsheds can be removed. Considering the fact that this Park is adjacent to at least 7 homeowners with personal and financial interests in maintaining unobstructed views of the ocean, this view-centric permit could put protection of the Park’s natural resources in jeopardy. Although the proposed permit says that no mature, healthy trees will be removed from the project site, it fails to address the fact that by removing 160 trees, many of which are native, CSP will essentially be removing the next generation of native trees that will replace the now-standing trees that will eventually die or blow down.

The Pewetole Island Overlook at Trinidad State Beach is an important scenic view that needs to be protected, but the majestic Sitka spruce trees that are growing at the overlook provide a prime example of how mature, scenic trees enhance the beauty and interest of the landscape and viewscape. If CSP is permitted to continually remove all of the seedling trees just because they may block someone’s view, this means the agency will be eliminating the next generation of scenic trees from the Park. Coastal views are important features, but they are not the only reason people visit our Parks. Many public members enjoy a diverse landscape that allows native plants and trees to grow amongst the coastal views. You do not have to choose one over the other. However, the language in this permit is so subjective and permissive, CSP could indiscriminately cut down any or all trees and shrubs without any sort of reviews or public input simply by deeming the vegetation to be a **problem** or claiming it is **encroaching** into a view.

State Parks claims this is a “*Grassland Restoration Project*,” but the only data on grasses is found in the 2010 Plant Survey where it lists, together, all of the native and non-native grasses. There is no site specific data on what grasses are growing on the site and whether those grasses are native or non-native. If they are non-native grasses, the permit should identify what native grasses will be planted in place of the non-native grasses. If native grasses are not planted, once the area is cleared, it will return to non-native grasses.

The other serious threat to these Park resources comes from the bluff, itself. On p5 of the Staff Report, it says “*Bluff faces will not receive treatment.*” The problem, here, is that the bluff faces harbor large infestations of highly invasive Pampas grass. This threat is not addressed in the permit application and is one of the unique problems in trying to restore an area to the way it was 40 or 50 years before these invasive plants were a problem. Once this area is cleared and opened up to sunlight, highly invasive plant species will certainly move into this area. Dormant seed banks from invasive species like Cotoneaster and Scotch broom will also be stimulated to sprout as a result of the ground disturbance. The irony is that this restoration project will likely exacerbate invasive plant infestations. I did not see in the permit documents that CSP has identified any solid funding streams to help it regularly monitor and control further invasive plant infestations. After the initial 8-month project, it appears, except for annual maintenance, no other follow-up work is planned over the proposed 5-year term of the permit.

Again, given the size and scope of this project and the fact that highly invasive plant species are such a problem in this Park and the surrounding area, it is highly unlikely that new infestations of invasive species can be controlled without frequent monitoring and removal efforts.

This permit also fails to discuss how turning a largely and densely vegetated area into a grassland environment will impact the visual appearance of the coastal bluff from afar. CSP must analyze the impacts that such an intensive and intrusive clearing would have on visual resources and demonstrate to the public how the coastal bluff would look, once cleared, when looking back towards the bluff from the beach, below, from Trinidad Head and from sea. Again, the restoration project that is proposed, while improving views for many private property owners, may actually ruin the natural look and feel of the Park and hiking trail for others. Views are 360 degrees, and so the impacts from all directions must be considered when claiming that this project is “preserving coastal viewsheds” as the proposed project could actually destroy viewsheds when such a large area is cleared of vegetation. In addition, CSP must analyze how the removal of so much vegetation in such a short time may impact sensitive habitat areas and wildlife. The statement on pages 4 and 5 of the Staff Report claim that this project is consistent with Articles 4 (Marine Environment) and 5 (Land Resources) of Chapter 3 of the Coastal Act in that it provides for “*removal of invasive species and other vegetation to restore environmentally sensitive habitat areas and preserve public access and coastal viewsheds.*” However, CSP has failed to analyze how such a large-scale clearing of both native and non-native vegetation may actually harm and damage those same resources it claims to be restoring.

I would like CSP to explain why so many native trees in the fourth area (described as the “Developed Area” in the permit) are being removed from the Park. I know that this area is heavily infested with non-native Cotoneaster, English ivy and other invasives, but I do not understand why CSP is not focusing its efforts on removing these highly invasive plant species instead of native trees.

In addition to the numerous concerns listed above, this permit application also fails to sufficiently analyze the impacts that such a clearing/restoration project could have on animals and birds. The permit merely states “*There are no known sensitive animal species using the habitat within the project area.*” However, just making this statement does not mean it is true. No wildlife studies have been performed for this proposed project. Under CEQA, proper wildlife studies need to be conducted to demonstrate how this proposed project may impact animals and birds that are currently using this densely vegetated area, which includes many varieties of native trees and shrubs.

Again, I am not opposed to the removal of exotic species or restoration of key public viewsheds, but what is being proposed, here, is a scorched earth approach to restoration that I feel is wholly inappropriate for a California State Park to undertake.

Trinidad City Council

July 29, 2014

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I am asking the Trinidad City Council to please consider the numerous concerns I have brought forward regarding this project and overturn the Trinidad Planning Commission's approval of this permit application. I would respectfully request the North Coast Redwoods District of California State Parks to please revise its permit application and address the legitimate concerns I have raised so that a more appropriate and reasonable restoration project can take place that does not threaten to do such extensive damage to the natural environment, to the wildlife habitat and to the visual resources of the Park.

Sincerely,

Kimberly A. Tays

P.O. Box 75

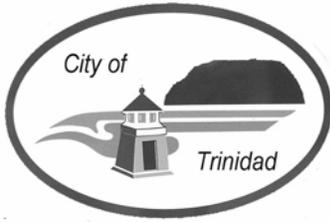
Trinidad, CA 95570

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New email after 7/31/14: kimkat067@gmail.com

Cell: 707-832-9109

Cc: Trever Parker, Trinidad City Planner (Via Email)
Gabe Adams, Trinidad City Clerk (Via Email)
Jim Baskin, California Coastal Commission (Via Email)
Michelle Forsys, California State Parks (Via Email)
Pete Monahan, California State Parks (Via Email)
Dana Jones, California State Parks (Via Email)



Filed: June 24, 2014
Staff: Trever Parker
Staff Report: July 8, 2014
Commission Hearing Date: July 16, 2014
Commission Action: Approved

STAFF REPORT: CITY OF TRINIDAD

APPLICATION NO: 20140-1

APPLICANT (S): CA Dept. of Parks and Recreation (Trinidad State Beach)

AGENT: N/A

PROJECT LOCATION: Trinidad State Beach, extending from the paved driveway and parking lot off Stagecoach Road and adjacent to Trinidad Elementary School, to the southern boundary of the Park, near the HSU Marine Lab.

PROJECT DESCRIPTION: Coastal Development Permit and Conditional Use Permit to conduct vegetation removal activities (mostly exotic species) and ongoing maintenance within the southern portion of Trinidad State Beach to restore coastal scrub and grassland habitat, improve viewsheds and reduce fire hazards.

ASSESSOR'S PARCEL NUMBER: 042-021-01 & 042-031-01

ZONING: OS – Open Space

GENERAL PLAN DESIGNATION: OS – Open Space

ENVIRONMENTAL REVIEW: Categorically Exempt from CEQA per § 15304 exempting minor alterations to the condition of land and vegetation that do not involve removal of healthy, mature, scenic trees.

APPEAL STATUS:

Planning Commission action on a coastal development permit, a variance or, conditional use permit, or design review application will become final 10 working days after the date that the Coastal Commission receives a “Notice of Action Taken” from the City unless an appeal to the City Council is filed in the office of the City Clerk at that time. Furthermore, this project **X** **is** ~~is not~~ appealable to the Coastal Commission per the requirements of Section 30603 of the Coastal Act and the City’s certified LCP.

SITE CHARACTERISTICS:

The project is located within the southern portion of Trinidad State Beach, a division of the North Coast Redwoods District of the State Parks system. The 4-acre project area consists of coastal scrub and grassland habitats, which has been broken down into four separate treatment areas. Much of the project area is located along existing trails near the top of the coastal bluff and the driveway and parking lot off Stagecoach Road. An archeological investigation and rare plant survey were completed that provide a more detailed description of the project area. The entire project area is designated in the City's Land Use Plan as "Open Space" (OS), implemented through an "Open Space" (OS) zoning designation.

STAFF COMMENTS:

The purpose of the project is to restore the native coastal scrub and grassland communities by removing invasive, non-native plants that have encroached on the project area. In addition, the trail that runs along the east side of the project area is heavily overgrown with invasive, non-native plants. Public coastal views from the Trinidad State Beach parking lot off Stagecoach Road and adjacent trails are being impacted by the growth of vegetation. Additionally, there is no fire break that exists between Trinidad State Beach and the residential development immediately east of the trail and south of the parking lot.

Outside the Coastal Zone, state property is not generally subject to local jurisdiction. However, because the City's land use regulations, in the form of a Local Coastal Plan (LCP), have been certified by the Coastal Commission as adequate to carry out the Coastal Act, they have the effect of State law. The southern portion of Trinidad State Beach is located within the City's certified LCP jurisdiction. Therefore, the CA Dept. of Parks and Recreation has applied to the City for approval of a Coastal Development Permit for the proposed activities. Similar activities are also proposed in the northern portion of the Park, outside the City's jurisdiction.

The definition of development contained in the Coastal Act and the City's LCP includes 'major vegetation removal,' which itself is not well defined. But generally more than 500 sq. ft. of vegetation removal or removal of trees over 12" in diameter is considered 'major.' Also, the project area is zoned OS, and the bluffs and the associated coastal grassland and scrub vegetation would qualify as an 'environmentally sensitive habitat area' (ESHA), which further restrict allowable activities. Generally, vegetation trimming and maintenance that has historically and regularly occurred could be exempt from permit requirements. But even though the project area has been periodically maintained, it has not been done consistently or recently.

Though the usual referrals were not applicable to this project (building, engineering and health), I did send special notices, in addition to the standard neighborhood notice, to stakeholders thought to have a particular interest in this project. Those parties included: Coastal Commission staff, Trinidad Rancheria, Yurok Tribe, Tsurai Ancestral Society and Friends of Trinidad Head.

PROJECT DESCRIPTION

The majority of the project description can be found in the project write-up included with the application, but additional details can be found in both the Sensitive Plant Survey and Cultural Review. The 4-acre project area has been broken down into four separate treatment areas, each with a somewhat different focus.

1. The first area is defined as the main viewshed area directly west of the parking lot. This area needs annual maintenance to protect this important public viewshed, but that has not occurred in some time. Therefore, some larger trees and shrubs (mostly non-native) have begun to encroach on the area and need to be removed.
2. Area 2 is defined as the trail area. The majority of vegetation in this area is also non-native and invasive. Removal of the vegetation in this area is intended to preserve trail access, restore habitat, and provide a fire break between the Park and the residences to the east.
3. Area 3 is the largest area, and it was historically grassland habitat. This is the primary restoration area, and both non-native vegetation and some small native trees will be removed in order to restore the environmentally sensitive and important grassland and scrub habitat.
4. The fourth and final area is the “developed area” along the north side of the parking lot and driveway. The intent of the activities in this area is to remove non-natives and to provide a fire break between the Park and the development to the south, which includes residences and Trinidad Elementary School.

Vegetation removal activities will be conducted with hand tools. For smaller plants, the roots will be removed to a maximum of approximately 24 inches. For larger shrubs and trees, they will be removed at the base with chainsaws. Most of the trees being removed are less than 6 ft. tall, and nothing over 12” DBH will be removed. Most All of the removed vegetation will be taken off-site to an appropriate area for composting, chipping or burning. ~~Some vegetation may be left within the project area as appropriate to protect habitat and viewsheds.~~ Native plants will be flagged so they are not accidentally removed, and a resource supervisor will be onsite at all times during work. Annual maintenance will occur over the term of the permit (proposed 5 years) to keep more non-natives and trees from encroaching into the restored areas.

Measures have been included to minimize erosion and instability such as avoiding bluff faces, riparian areas, and installing erosion control as appropriate. Work is proposed to take place between August 1 and April 30 in order to avoid most nesting and breeding seasons. A rare plant survey was conducted, and no rare plants were found within the southern project area (Trinidad's jurisdiction). An archeological survey was also conducted for cultural and historic resources with appropriate consultations (though the Tsurai Ancestral Society was not included because they are not federally recognized). No resources were found. Measures have been included to halt work if previously unknown cultural resources are found. Please see Appendix A and C for additional information.

ZONING ORDINANCE/GENERAL PLAN CONSISTANCY:

The purpose of the Open Space (OS) Zone is to *“maximize preservation of the natural and scenic character of these areas including protection of important wildlife habitat and cultural resources...”* Principally permitted uses within the OS zoning district are limited primarily to habitat related and low-intensity recreational activities, such as wildlife habitat, public and private open space, beachcombing, hiking, fishing, and picnicking, with limited provisions for conditionally authorizing physical developments. Conditionally permitted uses include new and expanded pedestrian trails, vista points, shoreline revetments to protect and maintain existing scenic and cultural resources, and temporary structures related to wildlife habitat management and scientific research. In addition, “structures accessory to uses and buildings existing within the open space zone at the time this ordinance is adopted” are also allowed with the issuance of a conditional use permit.

Removal of vegetation in the OS zone posing a hazard to structures or people is a principally permitted use. Other removal of vegetation in the OS zone requires a use permit. Therefore, the required Use Permit findings will need to be made in approving this Coastal Development Permit. No new trails or other improvements are proposed as part of this project. Because the project does not involve any structural changes or grading, design review does not apply. In addition, because no new structures, access roads, trails or lots are proposed, the standards of the OS zone, and the resources protection standards of the SE zone that apply to structures in the OS zone, do not apply. Therefore, this staff report focuses on the consistency of the proposed vegetation removal and maintenance activities with the Coastal Act and its regulations, because they tend to be more restrictive and better defined than the City's LCP in this case.

COASTAL ACT / REGULATIONS CONSISTANCY:

Chapter 3 of the Coastal Act contains the ‘Coastal Resources Planning and Management Policies’ against which development projects (and LCPs) are judged. This Chapter is divided into 7 Articles.

Section 30210, the lead-in to Article 2, regulating public access, states: *“In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.”* Most of the policies of this article relate to new development, but maintenance of vegetation along trails and restoration of habitat are consistent with providing maximum public access and natural resources. The project also improves fire safety by providing a buffer between development and wildland. Public access will not be impeded by the project

The proposed project is consistent with Article 3 (Recreation) by protecting coastal, ocean front land for recreational purposes (§30221). The proposed vegetation

maintenance activities are also consistent with Articles 4 (Marine Environment) and 5 (Land Resources) by providing for removal of invasive species and other vegetation to restore environmentally sensitive habitat areas and preserve public access and coastal viewsheds. Erosion control measures have been included in the project description consistent with §30243. An archeological survey and consultation with local tribes were completed consistent with §30244. The project is consistent with Chapter 6 (Development), by providing public access and coastal viewing opportunities. There are established viewsheds along the trails and roadways where vegetation must be trimmed or removed to maintain existing coastal views of the offshore rocks, horizon and open water. Article 7 (Industrial Development) does not apply to this project.

SLOPE STABILITY:

Portions of the grassland treatment area (3) are within areas designated as unstable or questionable stability based on Plate 3 of the Trinidad General Plan. The project proposes to use hand tools to remove non-native species, including roots, to a depth not to exceed 24 inches. Larger plants and trees will be removed at the base using a chainsaw with no ground disturbance. Bluff faces will not receive treatment, and measures have been included to avoid sedimentation in Mill Creek or the ASBS (see Cultural Review project description for more details.)

SEWAGE DISPOSAL:

There is no sewage disposal associated with this project.

USE PERMIT FINDINGS:

Section 17.72.040 requires written findings to be adopted in approval of a use permit. The findings and responses have been written in a manner to allow approval. However, if the public submits conflicting information, or if the Planning Commission feels that one or more findings can not be made, they should be reworded accordingly. The following findings can be made based on the responses provided:

- A. The proposed use at the site and intensity contemplated and the proposed location will provide a development that is necessary or desirable for and compatible with the neighborhood or the community. *Response: The project proposes to remove mostly non-native vegetation to restore grassland and coastal scrub habitat, maintain public coastal viewsheds and maintain an appropriate fire break between the State Park and adjacent development.*

- B. Such use as proposed will not be detrimental to the health, safety, convenience, or general welfare of persons residing or working in the vicinity or injurious to property improvements or potential development in the vicinity with respect to aspects including but not limited to the following:
 - 1. The nature of the proposed site, including its size and shape, and the proposed size, shape and arrangement of structures; *Response: The*

proposed vegetation removal and maintenance will restore habitat and preserve views from public roads and trails and reduce fire risk.

2. The accessibility of the traffic pattern for persons and vehicles, and the type and volume of such traffic, and the adequacy of proposed off-street parking and loading; *Response: The proposed vegetation removal will not affect vehicular traffic or roadways and will not affect pedestrian access to trails. There may be some temporary and partial blockage of trails during work, but the project will result in improved access, habitat and viewsheds.*
 3. The safeguards afforded to prevent noxious or offensive emissions such as noise, glare, dust and odor; *Response: The proposed vegetation removal will not result in any offensive emissions, including noise, glare, dust and odor.*
 4. Treatment given, as appropriate, to such aspects as landscaping, screening, open space, parking and loading areas, service areas, lighting and signs; *Response: The proposed vegetation removal does not require landscaping or include, open space, parking, loading, service areas, lighting or signs. The vegetation removal and maintenance activities will restore historic habitat and are compatible with the open space nature of Trinidad State Beach.*
- C. That such use or feature as proposed will comply with the applicable provisions of this title, will be consistent with the policies and programs of the general plan and will assist in carrying out and be in conformity with the Trinidad coastal program. *Response: As described above in "Zoning Ordinance/General Plan Consistency," the proposed project is consistent with both the Zoning Ordinance and General Plan and will carry out policies, consistent with the Trinidad Coastal Program by maintaining environmentally sensitive habitat areas, public viewsheds and coastal recreational opportunities.*
- D. That the proposed use or feature will have no significant adverse environmental impact or there are no feasible alternatives, or feasible mitigation measures, as provided in the California Environmental Quality Act, available which would substantially lessen any significant adverse impact that the actions allowed by the conditional use permit may have on the environment. *Response: The proposed project does not have the potential for adverse environmental impacts; rare plant and archeological surveys were conducted for the project. The project is exempt from CEQA per CEQA Guidelines § 15304 allowing minor alterations to land vegetation. A Notice of Exemption was filed with the Governor's Office of Planning and Research on January 14, 2013 (SCH# 2013018085).*
- E. When the subject property is located between the sea and the first public road paralleling the sea or within three hundred feet of the inland extent of any beach or of the mean high tide line where there is no beach, whichever is the greater, that:

1. The development provides adequate physical access or public or private commercial use and does not interfere with such uses; *Response: The project will not impact existing access and will improve trails and public, coastal viewsheds.*
2. The development adequately protects public views from any public road or from a recreational area to, and along, the coast; *Response: The purpose of the proposed project is to preserve and restore habitat and public views from encroachment by growth of vegetation, with particular emphasis on invasive species.*
3. The development is compatible with the established physical scale of the area; *Response: Vegetation removal and maintenance is consistent with and necessary to preserve the conditions of the existing habitat and trail system.*
4. The development does not significantly alter existing natural landform; *Response: Vegetation removal activities will utilize handtools to remove invasive species to a maximum of 24" in depth; larger plants will be removed at the base with chainsaws. Measures have been included to protect bluff and soil stability.*
5. The development complies with shoreline erosion and geologic setback requirements. *Response: The project does not include any structural development or new trails. Vegetation removal activities will avoid bluff faces and minimize soil disturbance and erosion.*

PLANNING COMMISSION ACTION:

The project was found to be consistent with the City's Zoning Ordinance and General Plan as well as the Coastal Act, and the necessary findings for granting approval of the project were made. The Planning Commission agreed with staff's analysis and recommendation and found that the project is constant with all of the above provisions as described in this staff report. The Planning Commission approved the project with the following motion:

Based on application materials, information and findings included in this Staff Report, and based on public testimony, I find that the proposed project is consistent with the City's certified LCP and the provisions and regulations of the Coastal Act and I move to make the required Use Permit findings and approve the project as submitted and described herein, with the clarification that the project description will be changed to reflect that all vegetation removed will be taken offsite for appropriate disposal, for a term of 5 years, after which the permit can be renewed from time-to-time by the Planning Commission.