

# The Legal Status of Monarch Butterflies in California



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The International Environmental Law Project (IELP) is a legal clinic at Lewis & Clark Law School that works to develop, implement, and enforce international environmental law. It works on a range of issues, including wildlife conservation, climate change, and issues relating to trade and the environment.

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Photo of overwintering monarchs (*Danaus plexippus*) clustering on a coast redwood (*Sequoia sempervirens*) on front cover by Carly Voight, The Xerces Society.

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## **Abbreviations**

Coastal Act	California Coastal Act
Commission	California Coastal Commission
CZMA	Coastal Zone Management Act
ESHA	Environmentally Sensitive Habitat Area
GP	General Plan
LCP	Local Coastal Program
LUP	Land Use Plan
Parks Department	California State Department of Parks and Recreation

## Executive Summary

Each fall, monarchs from west of the continental divide—the western population of monarchs—cluster in hundreds of groves along the California coast for the winter. In the spring, most of these monarchs leave the coast and head north and east, in search of milkweed to start the cycle again. Alarming, observations from annual counts of overwintering butterflies in California reveal monarch population declines of approximately 90 percent across most sites with some sites faring significantly worse. Monarchs no longer overwinter at dozens of sites where they previously roosted. A variety of causes may be at play, including loss of milkweed, agricultural and urban development, disease, overcollection, senescence of roost trees, inappropriate pruning of trees in monarch groves, pesticides, fire, drought, climate change, and other factors.

Because monarchs require specific microclimatic conditions to survive the winter, they are particularly sensitive to habitat modification at their overwintering sites. As a consequence, the legal regime affecting development, tree trimming, and other activities can have a profound influence on the continuing viability of a grove of trees to support monarchs through the winter months. The collection of monarchs while they are overwintering could also pose a threat. For these reasons, this report assesses the federal, state, and local (city and county) laws and policies that are likely to have the greatest effect on monarchs and their overwintering habitat. These laws and policies include federal law and management plans relating to national parks, national forests, and federal military bases. It also includes laws and management plans for California state parks, as well as city and county ordinances applicable to public and private land. Because many monarch overwintering sites dot the California coast within the “coastal zone”—an area generally 1,000 yards inland from the high water mark as defined by the Coastal Zone Management Act—this report also reviews a large number of Local Coastal Programs developed by cities and counties to protect the coastal zone.

This report specifically analyzes whether laws and policies protect monarchs and their habitat from development activities (e.g., new construction), regulate tree removal and trimming, require restoration of monarch habitats, and prohibit collection of monarchs. It makes the following conclusions:

**Development.** Monarchs on non-military federal and state land are protected in almost all cases from development, because laws and regulations prohibit habitat alteration by visitors in national parks and state parks. The sites on federal military bases such as Vandenberg Air Force Base have restrictions that apply to monarch overwintering sites but those restrictions are either non-binding or must be implemented as practical and consistent with the mission of the base. For example, the management plan for Vandenberg Air Force Base provides that “roost sites should be protected from disturbances when practical and consistent with the Vandenberg [Air Force Base] mission.” As a whole, overwintering sites are adequately protected from development activities on non-military federal and state lands.

On lands governed by city and county ordinances, the protection from development is much more mixed. In some places, monarch groves are specifically designated as

environmentally sensitive habitat areas (ESHAs). Under the California Coastal Act, which implements the federal Coastal Zone Management Act, ESHAs “shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.” In many places, however, monarch groves are not protected as ESHAs or through other means. Overall, a large number of overwintering sites on lands governed by city and county ordinances are inadequately protected from development.

**Tree removal and trimming.** With only a few exceptions, federal, state, county, and city laws fail to protect monarchs from inappropriate tree removal and trimming. Most jurisdictions, in fact, do not have laws, policies, or guidelines concerning removal or trimming of trees within a monarch grove. The most prominent exceptions to this rule are the cities of Capitola and Goleta. In these cities, removal and trimming of trees in a monarch grove requires a permit. These cities also require consultation with a qualified monarch butterfly expert whose recommendations for removal or trimming must be followed. Because of the sensitivity of monarchs to changes in microclimatic conditions in a roost, an understanding of how removal and trimming will change those conditions is critical to maintain the integrity of the grove.

**Restoration.** Most jurisdictions have not committed to improving monarch habitat. For example, many Local Coastal Programs and local ordinances encourage the removal of non-native species. In most circumstances, the removal of non-native species would be considered a highly laudable goal. However, because monarchs often overwinter in groves of non-native eucalyptus trees, these Programs and ordinances, if enforced, could adversely affect monarch overwintering habitat. Moreover, very few cities and counties require restoration of degraded habitat. The County of Santa Cruz, which requires the restoration of ESHAs including monarch overwintering sites, is the exception.

**Collection.** Monarchs on federal and state land are protected in almost all cases by legal prohibitions against collection, except for scientific purposes or if necessary for public health, safety, or welfare. The exception to this rule is on federal military bases, where rules do not prohibit the collection of monarchs. At the city and county level, however, prohibitions against collection are more the exception than the rule, even within city and county parks. Moreover, it is not clear to what extent the authority of the California Department of Fish and Game extends to the collection of monarchs for private use or for uses not involving propagation. The threat posed by collection may not be as grave as that posed by habitat modification. However, with populations of monarchs overwintering in California plummeting, prohibitions against collection may become a more important factor in the survival of the western population of monarchs.

To improve the protection of monarchs and their habitat, this report provides two options. Due to the large number of overwintering sites spanning a large number of jurisdictions and the large number of overwintering sites outside the coastal zone, this report recommends free-standing California state legislation to protect monarchs and their habitats. This option benefits from focusing on a single state while also comprehensively addressing a variety of threats to monarchs and their habitat. Draft Model Legislation is included in Appendix 1. At the state level, this

report provides an option for amending the California Endangered Species Act to allow listings of insects, which are currently excluded from the definitions of endangered and threatened species. The California Coastal Act could be amended to require local jurisdictions to designate monarch groves as ESHAs, providing that those groves are within the “coastal zone.” Furthermore, individual Local Coastal Programs and ordinances could also be amended. To the extent that the California Department of Fish and Game does not believe it has authority to regulate the collection of monarchs or the destruction of overwintering trees, the California Fish and Game Code could be amended to clarify that authority.

## I. Introduction

Each fall, millions of monarchs from the United States and Canada migrate south. The eastern population, comprising monarchs east of the Rocky Mountains, migrate up to 3,000 miles as they journey from Canada to Mexico. These monarchs return each winter to roosts in the hills of Michoacán, Mexico, where they gather by the millions. Lesser known is the western migration that has historically been comprised of more than a million monarchs. These monarchs, typically found west of the continental divide, generally overwinter along the coast of California and breed on milkweed as far north as British Columbia.<sup>1</sup> While much smaller than their Mexican counterparts, the western winter roosts are no less magical and may contain tens of thousands of butterflies.<sup>2</sup>

Monarchs overwintering in California generally do not migrate as far as those migrating to Mexico, with most migrating no more than a few hundred miles.<sup>3</sup> In the fall, monarchs from western states including California, Oregon, Washington, and Nevada cluster in hundreds of groves along the California coast for the winter.<sup>4</sup> In the spring, most of these butterflies leave the coast and head north and east in search of milkweed to start the cycle again.<sup>5</sup>

Catastrophic storms have decimated some Mexican overwintering sites which highlights the fragility of monarch populations.<sup>6</sup> Reports from California are equally alarming. Observations from annual counts of overwintering butterflies reveal monarch population declines of approximately 90 percent across most sites with some sites faring significantly worse.<sup>7</sup>

Against the backdrop of these declines, this report reviews the federal, state, and local laws and regulations that apply to monarchs and their overwintering habitat in California. In particular, this report assesses relevant federal, state and local legislation to determine whether it 1) protects autumnal and overwintering habitat (collectively referred to as “overwintering

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<sup>1</sup> Xerces Society, Milkweed Butterflies: California Monarchs (*Danaus plexippus*), available at: <http://www.xerces.org/monarchs/>.

<sup>2</sup> Databases record monarchs roosting at more than 400 sites since the late 1980s, although many of these sites have been lost to development, storms, tree trimming, and other causes. See Jen Zarnoch, Sarina Jepsen & Scott Hoffman Black, Xerces Society Database of Western Monarch Overwintering Locations (The Xerces Society for Invertebrate Conservation: 2011) [hereinafter Xerces Society Database of Western Monarch Overwintering Locations]. The Xerces Society Database of Western Monarch Overwintering Locations was created from data from numerous sources, including the Western Monarch Thanksgiving Count Data, the California Natural Diversity Database, and a variety of published and unpublished reports; CALIFORNIA DEPARTMENT OF FISH & GAME, CALIFORNIA NATURAL DIVERSITY DATABASE: MONARCH SITES [hereinafter CNDDDB: MONARCH SITES]; Dennis Frey, Shawna Stevens & Mia Moore, WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009) [hereinafter WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009)].

<sup>3</sup> Xerces Society, Milkweed Butterflies: California Monarchs (*Danaus plexippus*), available at: <http://www.xerces.org/monarchs/>.

<sup>4</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2: WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; CNDDDB: MONARCH SITES, *supra* note 2.

<sup>5</sup> Sarina Jepsen, et al., *Western Monarchs at Risk: The Plight of Monarch Butterflies along the West Coast*, 1 (2010), available at: <http://www.xerces.org/fact-sheets/>.

<sup>6</sup> See, e.g., Patrick Rucker, *Storms Threaten Butterflies' Winter Rest in Mexico*, REUTERS, (Mar. 18, 2010), available at: <http://www.reuters.com/article/2010/03/18/us-mexico-butterflies-idUSTRE62H3K720100318>.

<sup>7</sup> Sarina Jepsen, et al., *Western Monarchs at Risk*, *supra* note 5, at 1–2; WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2.

habitat”) from development, 2) regulates tree removal and cutting, 3) requires enhancement or restoration of monarch habitat, and 4) prohibits possession, collection, and “molesting”<sup>8</sup> of monarchs.

With more than 450 overwintering sites in California recorded since the late 1980s, this report does not attempt to be a comprehensive guide to all laws and policies that may affect monarch butterflies at each recorded overwintering site. In addition, the precise location of many overwintering sites was difficult to identify with respect to their locations inside or outside the “coastal zone”—a designation that affects the applicable legal regime; even if precise coordinates for a monarch site were known, the precise boundary of the coastal zone was not. Moreover, the location of some sites made it difficult to ascertain whether the site was on private or public land or some combination of the two. In addition, not all monarch sites are currently documented. Lastly, changes in laws, regulations, the population status of monarchs at particular sites, and land ownership routinely occur, and may make parts of this document inaccurate.

This report focuses on those aspects of the applicable legal regime most relevant to monarch conservation in California. In that regard, this report focuses on provisions of Local Coastal Programs (required for jurisdictions within the coastal zone), ordinances, and other planning documents relating to monarchs specifically and to habitat on which monarchs are dependent. By limiting the scope of analysis in this way, this report does not cover other laws that may be useful for protecting monarch habitat by restricting development. For example, if a county does not have rules for the conservation of monarchs, the siting of a residential complex that might have adverse impacts on monarch overwintering habitat may still be impermissible because of rules relating to new housing, density, or public services. In addition, the provisions of the California Environmental Quality Act (CEQA), briefly discussed in Appendix 2 of this report, may require preparation of an Environmental Impact Report. This report makes no attempt to speculate on the nature of proposed projects and the applicability of CEQA and other laws and policies within a jurisdiction that may affect monarchs and their habitat. However, it is clear that preparation of an Environmental Impact Report and legislation not assessed in this report may be useful for protecting monarch overwintering sites.

This document also reviews laws regarding tree trimming and removal at monarch overwintering sites. Overwintering monarchs in California typically cluster in groves of trees, such as blue gum eucalyptus (*Eucalyptus globulus*), red river gum eucalyptus (*Eucalyptus camaldulensis*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Cupressus macrocarpa*). Despite its significance to monarchs, eucalyptus is an invasive exotic species that has been shown to reduce biodiversity.<sup>9</sup> The Xerces Society recommends that eucalyptus trees be maintained if monarchs overwinter within any portion of a eucalyptus grove. Before eradication, control, or trimming of a eucalyptus grove, the potential habitat should be surveyed for monarchs during the overwintering season for several years. If the eucalyptus grove is found to support monarchs as an autumnal or overwintering site, maintaining the core and periphery of a

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<sup>8</sup> “Molesting” is a phrase found in some city ordinances in California. *See, e.g.*, Pacific Grove Municipal Code § 12.16.24.

<sup>9</sup> Carla C. Bossard et al., *INVASIVE PLANTS OF CALIFORNIA’S WILDLANDS* (2000); Roger del Moral et al., *The Allelopathic Effects of Eucalyptus camaldulensis*, 83 *AMERICAN MIDLAND NATURALIST* 254 (1970).

eucalyptus grove is recommended. Since eucalyptus must be trimmed for safety reasons, it is highly recommended that overwintering monarch sites should only be trimmed after consultation with a qualified monarch expert. As eucalyptus trees age and become decadent, a long-term plan should be developed to restore a monarch grove to provide habitat with native trees. However, this needs to be conducted carefully and in consultation with a qualified monarch expert to ensure that sufficient monarch habitat exists throughout the restoration process. (The Xerces Society Policy on Eucalyptus Management at Monarch Overwintering Sites can be found in Appendix 3).

This report evaluates more than 200 overwintering sites. Many of these sites are located inside the coastal zone; many others are outside the coastal zone. Many are on private land while many others are on public lands (land owned and managed by city, county, state, or federal entities). As a consequence, sufficient sites were analyzed to reach general conclusions about the protection afforded monarchs under various legal regimes within California. These conclusions, found in Sections II-VI of this report, include the following:

- In **California state parks**, as discussed in Section III, monarchs and their overwintering habitat are protected from development and visitor use, because all collecting and killing of all animals, including monarchs, and destruction of all native vegetation is prohibited. However, most state parks do not have guidelines for trimming and pruning trees. Because of the sensitivity of monarchs to changes in the microclimate of their overwintering sites, guidelines should be developed to ensure that trimming and pruning trees does not inadvertently harm monarch sites. As a general rule, state parks do not include mandates to restore monarch overwintering sites.
- On **federal land**, including land managed by the Forest Service, National Parks Service, and the Department of Defense, monarchs and their overwintering habitat are relatively well protected from visitors and commercial activities. As discussed in Section IV, collecting plants and animals and disruption of habitat are prohibited within these areas without a permit. As with California state parks, however, guidelines should be developed to ensure that trimming and pruning trees does not inadvertently harm monarch sites. As a general rule, federal law does not require restoration of monarch overwintering sites.
- On **public and private land within cities and counties**, generalizations are more difficult to make because of the wide variety of legal restrictions that may apply. One important variable, described in Section II, is the uncertain authority of the California Department of Fish and Game to regulate the collection and habitat destruction of invertebrates like the monarch. Another important variable for monarch conservation within cities and counties is the California Coastal Act, which requires cities and counties to prepare Local Coastal Programs for areas within the “coastal zone”—an area that may be as narrow as 100 feet or as wide as five miles. Because a large number of monarchs overwinter in the coastal zone, Section V describes the requirements of the California Coastal Act before Section VI analyzes how local jurisdictions—cities and counties—have implemented the California Coastal Act for

monarch conservation. Not all overwintering sites fall within the areas covered by Local Coastal Programs, however. For these sites, Section VI assesses local ordinances to determine whether overwintering sites are adequately protected. Some cities, such as Goleta and Capitola, have enacted ordinances expressly designed to take monarch conservation into account in any development activity. Other cities have adopted monarch-specific guidelines for pruning and trimming trees. In some jurisdictions, however, these restrictions apply only during the time when monarchs are present. When monarchs begin their migration, their overwintering sites are completely unprotected. A large number of cities and counties have few, if any, restrictions that directly or incidentally protect monarchs and their overwintering habitat. Moreover, very few jurisdictions require restoration of monarch overwintering habitat.

Based on these conclusions, Section VIII provides options for improving monarch conservation throughout California. These options include California state legislation to protect monarchs and amendments to the California Endangered Species Act or the California Coastal Act. In addition, it includes the option of seeking amendments to local ordinances and Local Coastal programs on a city-by-city, county-by-county basis. Each of these options has its advantages and disadvantages, which Section VIII discusses.

## II. Regulatory Authority of the California Department of Fish and Game

The California Department of Fish and Game maintains and protects native fish, wildlife, and plant species, and the habitats on which they depend, for their intrinsic and ecological value and their benefits to people. The Department has the dual responsibility to promote the diversified use of fish and wildlife for recreational, commercial, scientific and educational uses.<sup>10</sup>

The regulatory authority of the California Department of Fish and Game over insects including monarchs is a matter of some uncertainty. The California Fish and Game Code expressly grants the Department the authority to issue permits for the collection of “any . . . form of plant or animal” for scientific, educational, or propagation purposes.<sup>11</sup> Because this provision of the Code does not distinguish between commercial and non-commercial collection, this provision could be used to require commercial collectors to receive a permit prior to collection, provided that they intend to propagate monarchs, although the Department is not issuing such permits. The Department does not appear to have explicit authority to require collection permits for purposes other than scientific, educational, or propagation purposes.

The practical application of other sections of the Fish and Game Code is more uncertain. The Fish and Game Code defines “fish” as “wild fish, mollusks, crustaceans, *invertebrates*, or amphibians, including any part, spawn, or ova thereof.”<sup>12</sup> As such, the Code clearly gives the Department the authority to conserve monarchs and other invertebrates consistent with the Code. The Department may, for example, recover damages from any person or local agency that “unlawfully or negligently takes or destroys any bird, mammal, fish, reptile or amphibian protected by the laws of the state.”<sup>13</sup> This authority could be interpreted as granting the Department the authority to issue permits for any collection of monarchs as well as destruction of any monarch overwintering trees. In addition, the Department must propose “reasonable modifications” to construction projects that may affect “fish and wildlife” if those projects alter water resources, including the banks of any river, stream, or lake.<sup>14</sup> To the extent that monarch habitat is within such an area, the Department has a duty to propose modifications that “will allow for the protection and continuance of the fish and wildlife resource.”<sup>15</sup>

Two questions of interpretation arise from this authority, however, that may limit the applicability of this provision to monarchs. The most important question is whether monarchs are “protected by the laws of the state.” While the Department has the authority to issue collection permits for scientific, educational, or propagation purposes, that authority is discretionary. In addition, the state has a policy to conserve natural resources, including fish,<sup>16</sup> but that does not necessarily mean that fish are a “protected” taxon. The duty to protect fish and wildlife from construction projects is a general duty and not directed at monarchs specifically.

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<sup>10</sup> Cal. Dept. Fish & Game, About the California Department of Fish and Game, at: <http://www.dfg.ca.gov/about/>.

<sup>11</sup> Cal. Fish & Game Code, § 1002 (emphasis added). Cal. Fish & Game Code, § 2014 (stating that “[i]t is the policy of this state to conserve its natural resources and to prevent the willful or negligent destruction of birds, mammals, fish, reptiles, or amphibian.”).

<sup>12</sup> Cal. Fish & Game Code, § 45.

<sup>13</sup> Cal. Fish & Game Code, § 2014.

<sup>14</sup> Cal. Fish & Game Code, § 1601.

<sup>15</sup> Cal. Fish & Game Code, § 1601(a).

<sup>16</sup> Cal. Fish & Game Code, § 2014.

The second question is whether “fish” has the same meaning under this provision as it does in the definitions section of the Fish and Game Code. The definition of fish in Section 45 of the Code includes both invertebrates and amphibians. Section 2014 of the Code, which describes the Department’s authority to recover damages for willful or negligent destruction, relates to fish and amphibians. The redundancy concerning amphibians could suggest that Section 2014 adopts a special meaning for protected wildlife taxa in which “fish” carries its ordinary meaning, not the defined meaning of Section 45 of the Code. However, each reference to wildlife in the Code specifically refers to amphibians, suggesting poor drafting of the Code rather than an effort to establish distinct definitions of wildlife throughout the Code.<sup>17</sup>

### **III. Protection for Monarchs in California State Parks and on Other State Lands**

A number of overwintering sites occur in state parks, state beaches, and other public lands managed by the California State Department of Parks and Recreation (the “Parks Department”). A few sites are located on other state lands, such as state universities. Generally monarch groves are provided some protection from development at sites within state parks and other state lands. In addition, monarch groves are protected from disturbance by visitors to state parks and monarchs themselves are protected from collection. However, few, if any sites provide guidance for tree removal or tree trimming within overwintering sites or provisions to restore overwintering sites.

#### **A. Management of California State Parks**

The California state parks system is designed to “provide for the health, inspiration and education” of Californians by “helping to preserve the state’s extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.”<sup>18</sup> The state parks system, managed by the Parks Department, now includes more than 270 sites, including state parks, state beaches, state seashores, and state historical sites, among others (collectively referred to as “state parks”). At least 20 of these include or have included monarch overwintering sites.<sup>19</sup>

#### **1. Legal Protection from Park Visitor Impacts**

Activities of visitors to state parks are strictly regulated. For example, commercial exploitation of resources is prohibited.<sup>20</sup> Moreover, “[n]o person shall molest, hunt, disturb,

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<sup>17</sup> In *Watershed Enforcers v. Department of Water Resources*, 185 Cal. App. 4th 969; 110 Cal. Rptr. 3d 876 (2010), a California Court of Appeals determined that the term “person” for purposes of the California Endangered Species Act (CESA) could have a meaning different from the explicit definition included in Section 67 of the Fish and Game Code, of which CESA is a part. While the facts and law of that case differ in significant ways from the issues presented in the definition of “fish,” it does illustrate the ambiguity inherent in the Fish and Game Code.

<sup>18</sup> California State Department of Parks and Recreation, About Us: California State Parks, at [http://www.parks.ca.gov/?page\\_id=91](http://www.parks.ca.gov/?page_id=91).

<sup>19</sup> See Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>20</sup> Cal. Pub. Res. Code § 5001.65. Unrelated to monarch conservation, the collection of rocks for recreational purposes is prohibited without first obtaining a permit, although commercial fishing is permitted in marine conservation, preservation, and recreational management areas. *Id.* The use of motor vehicles is prohibited in wilderness areas, natural preserves and cultural areas and is limited to paved areas in most other units of the park system. *Id.* at § 5001.8.

harm, feed, touch, tease, or spotlight any kind of animal . . . or so attempt” or “injure, trap, take, net, poison, or kill, any kind of animal . . . , or so attempt.”<sup>21</sup> Similar restrictions apply to the collection of vegetation, including trees.<sup>22</sup> Thus, monarchs are protected from collection and habitat degradation resulting from the actions of visitors to state parks.

## 2. Habitat Protection under Park-specific General Plans

The Parks Department must manage each state park to “restore, protect, and maintain its native environmental complexes” in a manner compatible with the primary purpose for which the park was established.<sup>23</sup> Thus, in addition to the prohibitions described above that apply to all state parks, the Parks Department must prepare a park-specific general plan that evaluates and defines the proposed land uses and concessions for each park, describes any potential environmental impacts, and plans for the management of natural and cultural resources.<sup>24</sup> The general plan must evaluate the state park as a “constituent of an ecological region and as a distinct ecological entity” and set forth long-range management objectives.<sup>25</sup> Within the general plan, the Parks Department may adopt conservation measures to implement its obligations; these conservation measures could include species-specific measures, such as protection of monarch overwintering habitat.<sup>26</sup>

The Parks Department is not required to prepare a new general plan at a specific interval, but it is required to prepare a general plan or amend an existing general plan following the classification or reclassification of a state park and prior to any development in any previously classified state park.<sup>27</sup> As seen in Section B, below, the Parks Department developed many general plans during the 1970s and has not revisited those general plans.

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<sup>21</sup> 14 Cal. Code of Reg., § 4305. A monarch is clearly an “animal,” which is defined as “any animate being which is endowed with the power of voluntary motion; animate being, not human.” 14 Cal. Code of Reg., § 4301(p).

<sup>22</sup> California regulations provide:

No person shall willfully or negligently pick, dig up, cut, mutilate, destroy, injure, disturb, move, molest, burn, or carry away any tree or plant or portion thereof, including but not limited to leaf mold, flowers, foliage, berries, fruit, grass, turf, humus, shrubs, cones, and dead wood, except in specific units when authorization by the Department to take berries, or gather mushrooms, or gather pine cones, or collect driftwood is posted at the headquarters of the unit to which the authorization applies. Any collecting allowed by authority of this section may be done for personal use only and not for commercial purposes.

14 Cal. Code of Reg., § 4306(a).

<sup>23</sup> Cal. Pub. Res. Code § 5019.53.

<sup>24</sup> Cal. Pub. Res. Code § 5002.2.

<sup>25</sup> Cal. Pub. Res. Code § 5002.2. The department need not prepare a plan if the only development contemplated consists of repair work to existing facilities, or in a few other specified cases of low-impact to the unit. *Id.*

<sup>26</sup> A separate entity, the California State Park and Recreation Commission, approves general plans for each state park. The Park Commission also classifies units of the System, establishes general policies for the guidance of the Director of State Parks in the administration, protection and development of the System, and recommends to the Director a comprehensive recreation policy for the state. Cal. Pub. Res. Code §§ 5019.56, 5019.59.

<sup>27</sup> Cal. Pub. Res. Code § 5002.2.

### **3. Applicability of the California Coastal Act**

The California Coastal Act requires state agencies to “carry out their duties and responsibilities in conformity” with the California Coastal Act.<sup>28</sup> As described in more detail in Section IV, this includes ensuring that proposed developments within the coastal zone meet the standards established by the California Coastal Act. In addition, state agencies must consider the effect of agency activities outside the coastal zone on resources within the coastal zone.<sup>29</sup> As a result, the Parks Department must comply with the California Coastal Act to the extent that the state park falls within the coastal zone. However, because the prohibitions that apply to all state parks, described in subsection 1 above, are stricter than those required by the California Coastal Act, it has little relevance for monarch conservation within state parks.

### **4. Historic Sites Protected Against Alteration**

For historic sites—a specific type of state park, some of which include overwintering monarchs—no state agency may alter the original or significant historical features of historical resources included in the historical register without prior notice to the State Historic Preservation Officer.<sup>30</sup> If a proposed action will have an adverse effect on a listed historical resource, the State Historic Preservation Officer must adopt “prudent and feasible measures that will eliminate or mitigate the adverse effects.”<sup>31</sup>

#### **B. Overwintering Sites in State Parks and on Other State Lands**

With most overwintering sites located a short distance from the coast and one-third of the California coastline within the California state parks system,<sup>32</sup> a large number of monarch overwintering sites are found within state parks. As described above, these sites are protected against development and by prohibitions against collection and disruption to habitat by visitors. As a general rule, however, the general plans do not include guidelines for removing or trimming trees used by monarchs for overwintering. In addition, they do not include provisions to restore or enhance monarch habitat. As described below, they sometimes do include other provisions that may help protect monarch overwintering habitat. The General Plans of several state parks and other state lands are discussed below. However, this is not intended to be a comprehensive assessment.

#### **1. Leo Carrillo State Park**

The monarch overwintering site at Leo Carrillo State Park in Los Angeles County has supported hundreds to thousands of monarchs historically. However it has typically only hosted 50 or fewer individuals in recent years.<sup>33</sup> The Leo Carrillo State Beach General Plan recognizes the importance of the monarch overwintering site and expressly protects it, elevating its

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<sup>28</sup> Cal. Pub. Res. Code § 30402.

<sup>29</sup> Cal. Pub. Res. Code § 30200(a).

<sup>30</sup> Cal. Pub. Res. Code § 5024.5(a).

<sup>31</sup> Cal. Pub. Res. Code § 5024.5(b).

<sup>32</sup> California State Parks, About Us, [http://www.parks.ca.gov/?page\\_id=91](http://www.parks.ca.gov/?page_id=91).

<sup>33</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

protection over other priorities at the park. The General Plan notes that within the park, “the Arroyo Sequit grove [of eucalyptus], along with the native mulefat scrub nearby, provides significant overwintering habitat for a small population of 1,500 to 5,000 monarch butterflies.”<sup>34</sup> The General Plan notes that the monarch “is considered an animal of special concern in California” and that the California state park system bears a special responsibility to protect monarchs because a large proportion of monarch sites occur in state parks.<sup>35</sup> Finding that “[a]ppropriate management of these roosts is important for the perpetuation of [the monarch] in the western United States,” the General Plan details the conditions that must be maintained within the monarch site.<sup>36</sup> It also notes the direct conflict between the goal of restoring native landscapes and the need for protecting monarchs. The General Plan subordinates native ecosystem restoration to monarch protection, stating that eucalyptus will be contained to its historic area and allowed to regenerate but not expand.<sup>37</sup> Native riparian trees and shrubs will replace eucalyptus within the grove only if, “in the future, the majority of the monarch butterflies are found using native riparian trees as the substrate for overwinter roosting” and if removal of eucalyptus will not “detract from the required microclimate at the preferred roost site.”<sup>38</sup> Native mulefat “shall be maintained and enhanced adjacent to and in the vicinity of the roost site” to provide a nectar source.<sup>39</sup> Of all the general plans for state parks containing monarch overwintering sites, Carrillo State Beach General Plan includes the most explicit recognition of, and attempt to resolve, the inherent conflict between restoring native plants and maintaining monarch overwintering sites that rely so heavily on non-native eucalyptus.

## 2. Andrew Molera State Park

Andrew Molera State Park has consistently hosted hundreds to thousands of monarchs, including a recent reported number of 4,201 monarchs in 2011. Monarchs roost in eucalyptus trees at Cooper Grove along the Big Sur River in the Park, located 20 miles south of Carmel on highway 1.<sup>40</sup> The unapproved general plan for Andrew Molera State Park does not provide any additional protection for monarchs.<sup>41</sup>

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<sup>34</sup> California Department of Parks and Recreation, Leo Carrillo State Beach: General Plan, at 46 (Oct. 1996).

<sup>35</sup> *Id.* at 82.

<sup>36</sup> *Id.*

<sup>37</sup> *Id.* at 82-83.

<sup>38</sup> *Id.* at 83.

<sup>39</sup> *Id.* at 82-83.

<sup>40</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2 For a description of the site, see Stuart B. Weiss & David C. Luth, *Assessment of Overwintering Monarch Butterfly Habitat at Cooper Grove (Andrew Molera State Park, Monterey County, CA) Using Hemispherical Photography* (Jan. 30, 2002), available at: [www.creeksidescience.com/files/weiss\\_et\\_al\\_2002\\_molera\\_monarch.pdf](http://www.creeksidescience.com/files/weiss_et_al_2002_molera_monarch.pdf). One report shows two separate sites within Andrew Molera State Park. Nellie Thorngate, et al., *Microclimate Parameters Associated with Overwintering Monarch Butterfly Habitats in Two State Parks on the Central Coast of California* 5 (2007), available at: [www.ventanaws.org/pdf/about.../Microclimate%20Report%202007.pdf](http://www.ventanaws.org/pdf/about.../Microclimate%20Report%202007.pdf).

<sup>41</sup> California Dept. of Parks and Recreation, Andrew Molera State Park: Resource Management Plan and General Development Plan (July 1976) (unapproved), available at: [http://www.parks.ca.gov/default.asp?page\\_id=24353](http://www.parks.ca.gov/default.asp?page_id=24353). The Department of Parks and Recreation did not approve the plan due to opposition from the California Coastal Commission and Monterey County. Email from Stuart Hong, General Plan Program Manager, California Dept. of Parks and Recreation, to Toby McCartt, International Environmental Law Project (April 25, 2011) (on file with author).

### 3. Julia Pfeiffer Burns State Park

Thousands of monarchs once roosted in eucalyptus trees in the McWay Canyon of Julia Pfeiffer Burns State Park,<sup>42</sup> 17 miles south of Andrew Molera State Park. However, data indicate that this site has likely been extirpated since the eucalyptus grove was cut down in the late 1980s. The monarchs have not been observed since that time, despite three monitoring attempts.<sup>43</sup> There is no general plan for Julia Pfeiffer Burns State Park, and the Parks Department does not plan on promulgating one in the foreseeable future.<sup>44</sup>

### 4. San Clemente State Park

San Clemente State Park in Orange County is home to at least one small monarch overwintering site, with the most recent observations finding just 15 monarchs.<sup>45</sup> The San Clemente State Park General Plan does not add any specific management measures for monarchs. The General Plan was adopted in 1970 and lacks many of the provisions included in newer plans.<sup>46</sup> Its primary concerns are the Park's facilities and there is no discussion of the Park's natural environment. The General Plan was amended in 1983, but the amendment concerned only the establishment of a hostel within the park, and no further conservation measures were included.<sup>47</sup>

### 5. Doheny State Beach

Doheny State Beach, also in Orange County, has one small overwintering site. This site once supported hundreds to thousands of monarchs but current records indicate a decline to 15 or less individuals per year since 1999.<sup>48</sup> The Doheny State Beach General Plan reflects greater concern for the monarch and other rare species than many of the General Plans adopted in the 1970s and 80s, such as the General Plan for San Clemente State Park. The General Plan recognizes that, while the park generally lacks native, undeveloped areas, “[t]he park’s developed areas also provide habitat for a variety of species, including the monarch butterfly.”<sup>49</sup> For this reason, the General Plan generally forbids any expansion of existing park facilities and protects the existing plant communities in their current state. The park has a “3,500 square foot native plant butterfly garden” that includes a non-native milkweed (*Asclepias curassavica*).<sup>50</sup> The General Plan expressly provides that “[o]pportunities to enhance nesting, roosting, and foraging opportunities for sensitive wildlife species shall be considered as a part of park management and maintenance activities and improvement projects.”<sup>51</sup>

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<sup>42</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>43</sup> *Id.*

<sup>44</sup> Emails from Stuart Hong, General Plan Program Manager, California Dept. of Parks and Recreation, to Toby McCartt, International Environmental Law Project (Mar. 16, 2011 and April 25, 2011) (on file with author).

<sup>45</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>46</sup> California Department of Parks and Recreation, San Clemente State Beach: General Plan (Jan. 1970).

<sup>47</sup> California Department of Parks and Recreation, San Clemente State Beach: General Plan Amendment (Feb. 1983).

<sup>48</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>49</sup> California Department of Parks and Recreation, Doheny State Beach Final General Plan and Environmental Impact Report, at 2-4, available at <http://www.parks.ca.gov/pages/21299/files/dohenysbfinalgeneralplan&eir.pdf>.

<sup>50</sup> See Calflora, *Asclepias curassavica*, at [http://www.calflora.org/cgi-bin/species\\_query.cgi?where-calrecnum=744](http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=744).

<sup>51</sup> *Id.* at 3-4.

## 6. Torrey Pines State Beach and State Natural Reserve

Torrey Pines State Beach and State Natural Reserve harbors perhaps the only monarch overwintering site in San Diego located on California state park land, although the precise location of this site is unclear.<sup>52</sup> The General Plan for Torrey Pines does not recognize the monarch as present within the park<sup>53</sup> and it does not extend any further protection to monarchs or their habitat.<sup>54</sup> It does, however, establish a goal of supporting native species that were present sixty years prior to adoption of the General Plan (1924), a time when human interaction with the land began to displace native species.<sup>55</sup> Since monarchs were present at that time, this goal could support greater efforts to restore their habitat in Torrey Pines. The provisions for plant life within both the reserve and the beach are similar in their general orientation toward reestablishing native plant species and removing non-native species, though neither provision specifically mentions whether eucalyptus will be preserved for its role as monarch overwintering habitat or removed because it is a non-native species.<sup>56</sup> The General Plan also calls for greater interpretive programs at Torrey Pines and more research to inform those interpretive programs.<sup>57</sup>

## 7. San Simeon State Park

An overwintering site was found in San Simeon State Park among eucalyptus at Whitaker Flat, although the site has been lost due to a natural fire.<sup>58</sup> The General Plan for San Simeon notes that information on monarch butterflies should be developed for visitors,<sup>59</sup> but it does not include any additional management or conservation measures for monarchs.

## 8. Montaña de Oro State Park

Three sites once existed within Montaña de Oro State Park: Spooner Cove, Hazard Cove, and Camp Keep. Spooner Cove historically supported thousands of monarchs, although it has been extirpated by an arson fire. Hazard Cove once hosted thousands of monarchs. No monarchs have been recorded from Hazard Cove since 1990, although the site has only been monitored twice since that year. Camp Keep typically hosts hundreds to thousands of monarchs, however occasionally only a few to no monarchs are recorded at the site.<sup>60</sup> The General Plan for Montaña de Oro State Park provides for the identification of significant monarch groves within the unit and support for research into the ecology of the monarch butterfly.<sup>61</sup> The General Plan also provides that “a resource management plan shall be developed and implemented to promote the perpetuation of the monarch butterfly resource” at the park “and to effectively interpret the

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<sup>52</sup> WESTERN MONARCH THANKSGIVING COUNT DATA 1997-2009, *supra* note 2.

<sup>53</sup> *Id.* at 14-16.

<sup>54</sup> It is unclear whether the monarch site is located within the State Beach or the State Reserve. However, there is only one General Plan applicable to both, and the General Plan’s treatment of both the Beach and Reserve are the same as they pertain to monarchs. California Department of Parks and Recreation, San Diego Coastal State Park System General Plan, Volume 8: Torrey Pines State Beach and State Reserve (July 1984).

<sup>55</sup> *Id.* at 46.

<sup>56</sup> *Id.* at 40, 45.

<sup>57</sup> *Id.* at 75.

<sup>58</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>59</sup> California Department of Parks and Recreation, San Simeon State Park: General Plan, 32 (Sept. 1979).

<sup>60</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>61</sup> California Department of Parks and Recreation, Montana de Oro State Park: General Plan, 59 (June 1988).

unique behavior of this interesting insect.”<sup>62</sup> Portions of the monarch butterfly policy in the Montaña de Oro State Park General Plan are identical to the Morro Bay State Park General Plan’s policy for monarchs.

## 9. Pismo State Beach

Tens of thousands of monarchs have consistently clustered at Pismo State Beach, including a high of 150,000 in 1996 and a low of 12,000 in 1995. Recent records indicate a relatively healthy overwintering population of about 17,200 monarchs in 2009. The first General Plan for Pismo State Beach was approved in 1975 and encompasses both the state beach and the adjoining Pismo Dunes State Vehicular Recreation Area.<sup>63</sup> The General Plan’s natural resources analysis in the 1975 General Plan is skewed heavily toward the dunes and beaches at the vehicular recreation area. The General Plan does not include management measures relating to monarchs. The 1975 General Plan was amended in 1994 to provide for expansion of the parking facilities at the vehicular recreation area, and the amendment does not contain measures relevant to monarchs, although it does recognize the presence of monarchs within the site of one of the project alternatives that was not chosen for the access project.<sup>64</sup>

## 10. Morro Bay State Park

Morro Bay State Park contains at least five monarch sites. Two main sites at the campground and the golf course consistently support hundreds to thousands of monarchs almost every year. In 2009, observers reported 571 at the campground and 3,720 at the golf course. Sites located at South Bay Blvd (north), South Bay Blvd (south), and the East Shore may be autumnal sites that occasionally host overwintering monarchs as well. Few to no monarchs have been observed at these sites since 1991; yet as these surveys were typically conducted in January, it is possible that they were monitored in the wrong specific time of year. These three sites have not been monitored since the late 1990s.<sup>65</sup> While the General Plan for Morro Bay State Park identifies the blue gum eucalyptus as an invasive species, the General Plan nonetheless recognizes the blue gum’s contribution as habitat to various species, including the monarch.<sup>66</sup> The General Plan notes that “large groups of butterflies tend to congregate in the dense stands of eucalyptus which provide a site near water, a ready supply of nectar, and protection from winter storms.”<sup>67</sup> The General Plan sets as a goal the gradual removal of eucalyptus and replacement with native trees, with the assumption being that the monarchs will use those native trees and allow the removal of the eucalyptus previously used by monarchs.<sup>68</sup> The General Plan contains a policy stating that the “eucalyptus groves shall be surveyed during the winter roosting season of the monarch butterfly, and heavily-used groves shall be identified and protected until the butterflies have relocated to established native vegetation.”<sup>69</sup>

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<sup>62</sup> *Id.*

<sup>63</sup> California Department of Parks and Recreation, Oceano Dunes State Vehicular Recreation Area: General Plan Amendment, II-1 (Feb. 1994).

<sup>64</sup> *Id.* at VI-16.

<sup>65</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>66</sup> California Department of Parks and Recreation, Morro Bay State Park: General Plan, 28 (June 1988).

<sup>67</sup> *Id.*

<sup>68</sup> *Id.* at 49.

<sup>69</sup> *Id.*

## 11. Refugio State Beach

Monarchs have been observed at Refugio State Beach during fall months but few to no monarchs have been recorded during surveys conducted during winter months. Therefore, Refugio State Beach may be an autumnal monarch site. Monarchs have historically roosted in eucalyptus and palm trees at Refugio State Beach west of the park entrance.<sup>70</sup> The General Plan, prepared 30 years ago, for this state beach does not have provisions relating to monarchs or any other invertebrates.<sup>71</sup> The General Plan's analysis of the animal communities at the state beach is limited to the birds and some mammals that inhabit the area.<sup>72</sup> The lack of analysis relating to wildlife stems from the General Plan's conclusion that "[w]ildlife at Refugio State Beach is limited due to modifications in most of the area, the number of natural habitat types present, and the small acreage involved."<sup>73</sup>

## 12. Gaviota State Park

Gaviota State Park has hosted hundreds to thousands of roosting monarchs in eucalyptus trees behind the rangers' residences, although the site has not been monitored for ten years.<sup>74</sup> The Gaviota State Park General Plan does not include management or conservation measures for monarchs.<sup>75</sup>

## 13. Carpinteria State Beach

Hundreds to thousands of monarchs have overwintered in eucalyptus trees adjacent to the east boundary of Carpinteria State Beach. The current population status at the site is unknown as there are no data available since 1998.<sup>76</sup> The 1979 General Plan for Carpinteria State Beach does not include any management or conservation measures for monarchs.<sup>77</sup>

## 14. Lighthouse Field State Beach

Approximately 4,000 monarchs have been reported at Lighthouse Field State Beach in both eucalyptus and Monterey cypress as recently as 2009; this site hosted as many as 70,000 monarchs in the late 1990s.<sup>78</sup> The Lighthouse Field State Beach General Plan notes the presence of monarch butterflies. However, it does not provide specific protections for monarchs or their habitat. In addition, the General Plan affirmatively directs the removal of non-native trees such as eucalyptus that provide overwintering habitat for the monarch.<sup>79</sup>

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<sup>70</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>71</sup> California Department of Parks and Recreation, Refugio State Beach: General Plan (June 1979).

<sup>72</sup> *Id.* at 12.

<sup>73</sup> *Id.*

<sup>74</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>75</sup> California Department of Parks and Recreation, Gaviota State Beach: General Plan (July 1979).

<sup>76</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>77</sup> California Department of Parks and Recreation, Carpinteria State Beach: General Plan (July 1979).

<sup>78</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>79</sup> California Department of Parks and Recreation, Unit 474 Lighthouse Field State Beach: General Plan, 77 (May 1984).

## 15. Natural Bridges State Beach

Natural Bridges State Beach has one of the largest monarch overwintering sites in California. In the 1990s, overwintering estimates reached a high of 120,000 individuals. Although numbers have decreased recently, the site still consistently hosts several thousand monarchs. Monarch overwintering habitat at Natural Bridges State Beach is predominately composed of eucalyptus and Monterey pine.<sup>80</sup> The Monarch Grove within Natural Bridges State Beach is a Natural Preserve—an area of “outstanding natural or scientific significance established within the boundaries of other state park system units.”<sup>81</sup> It is the only State Monarch Preserve in California.<sup>82</sup> As a “natural preserve,” habitat manipulation should only occur when science demonstrates that such manipulation is necessary to preserve the species for which the natural preserve was established.<sup>83</sup>

The Natural Bridges State Beach General Plan requires the creation of a resource management plan “to promote the perpetuation of the monarch butterfly resource” through revegetation with flowers that provide a nectar source or habitat for monarchs.<sup>84</sup>

## 16. New Brighton State Beach

Although the number of monarchs observed at New Brighton State Beach fluctuates from thousands to hundreds to only a few; this site has consistently hosted monarchs since the 1970s. The New Brighton State Beach General Plan recognizes that monarch overwintering habitat exists adjacent to the New Brighton State Beach property and provides that the “department should encourage continued public and private efforts to effectively manage and protect these butterfly habitats.”<sup>85</sup> More specifically, the General Plan provides that “[t]he department shall perpetuate native wildlife populations and develop a plan to manage monarch butterfly colonies”; the General Plan further forbids removal of trees that are monarch roost sites and promotes scientific study of the habitat at New Brighton State Beach.<sup>86</sup>

## 17. Kruse Rhododendron State Reserve

Old Kruse Ranch within Kruse Rhododendron State Reserve may serve as a small monarch autumnal site. Low numbers of monarchs have been observed in September and October in the 1980s and 1990s. No monarchs have been recorded at this site since 1990, yet surveys after this year may have been conducted in the wrong specific time of year. This site has not been monitored since 1996. The Parks Department has not developed a general plan for Kruse Rhododendron State Reserve, and it does not plan on doing so in the foreseeable future.<sup>87</sup>

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<sup>80</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>81</sup> Cal. Pub. Res. Code § 5019.71.

<sup>82</sup> California Department of Parks and Recreation, Natural Bridges State Beach, at [http://www.parks.ca.gov/default.asp?page\\_id=541](http://www.parks.ca.gov/default.asp?page_id=541).

<sup>83</sup> Cal. Pub. Res. Code § 5019.71.

<sup>84</sup> California Department of Parks and Recreation, Natural Bridges State Beach: General Plan, 30, 43 (Oct. 1988).

<sup>85</sup> California Department of Parks and Recreation, New Brighton State Beach: General Plan, 45 (May 1990).

<sup>86</sup> *Id.* at 1, 30.

<sup>87</sup> Emails from Stuart Hong, General Plan Program Manager, California Dept. of Parks and Recreation, to Toby McCartt, International Environmental Law Project (Mar. 16, 2011 and April 25, 2011) (on file with author).

## 18. Sonoma Coast State Park

Monarchs have been found at the Wrights Beach and Bodega Dunes campgrounds within the Sonoma Coast State Park, although none since 2004 at Bodega Dunes, and for many more years at Wrights Beach. The site of Bodega Dunes is presumably extirpated due to a storm and the removal of cypress trees to construct a campfire.<sup>88</sup> The General Plan for Sonoma Coast State Park notes the significance of monarchs and establishes a guideline to “[p]rotect special habitat elements such as snags and monarch roost trees,”<sup>89</sup> but it does not contain other requirements or guidelines to implement this policy.

## 19. Fort Ross State Historic Park

Fort Ross State Historic Park may be a monarch autumnal site, overwintering site, or occasionally both. Hundreds of monarchs roosted at the park in the 1980s and early 1990s, occasionally during the winter and occasionally during the fall. None have been reported since 1990, yet subsequent surveys may have occurred during the wrong specific time of year. This site has not been monitored for 14 years. Monarchs have roosted at Fort Ross State Historic Park in cypress and eucalyptus trees.<sup>90</sup> The General Plan for Fort Ross State Historical Park does not provide any additional management measures for monarchs.<sup>91</sup>

## 20. Point Mugu State Park

Big Sycamore Canyon within Point Mugu State Park has supported hundreds to thousands of monarchs almost every year that it has been monitored. Another site at Point Mugu State Park, La Jolla Canyon, was lost due to a fire. Monarch overwintering habitat at the active site consists of native sycamores in a sycamore riparian woodland.<sup>92</sup> The General Plan for Point Mugu State Park is a portion of a General Plan that covers two other state parks in the area.<sup>93</sup> The GP does not include any provisions that relate specifically to the protection of monarch overwintering sites. The General Plan recognizes “the sycamore savanna of Big Sycamore Canyon [as] the finest example of this ecosystem found anywhere within the State Park System” that demands “special attention,”<sup>94</sup> although it is unknown whether management for sycamores adequately protects monarchs. Aside from these natural values, Big Sycamore Canyon is also home to significant prehistoric cultural resources that demand enhanced protection for the Canyon.<sup>95</sup>

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<sup>88</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2; California Dept. of Parks and Recreation, Sonoma Coast State Park: Final General Plan & Environmental Impact Report, Sonoma Coast State Park, 2-63 (May 2007), *available at* [http://www.parks.ca.gov/default.asp?page\\_id=24664](http://www.parks.ca.gov/default.asp?page_id=24664).

<sup>89</sup> Sonoma Coast State Park: Final General Plan & Environmental Impact Report, *supra* note 85, at Guideline NAT-2A, at 3-13.

<sup>90</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>91</sup> California Dept. of Parks and Recreation, Fort Ross Historic Park: Resource Management Plan and General Development Plan, *available at* [http://www.parks.ca.gov/?page\\_id=24357](http://www.parks.ca.gov/?page_id=24357).

<sup>92</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>93</sup> California Dept. of Parks and Recreation, Santa Monica Mountains State Parks: Topanga, Malibu Creek and Point Mugu Resource Management Plans, General Development Plans and Environmental Impact Reports (Aug. 1977).

<sup>94</sup> *Id.* at 163.

<sup>95</sup> *Id.* at 157.

However, two aspects of the General Plan may adversely affect monarchs in Point Mugu State Park. First, it identifies milkweed, a primary food source for monarch larvae, as a “troublesome weed” requiring control measures.<sup>96</sup> This provision, however, is a “typo,” according to Jamie King of the Parks Department. The provision is intended to target “some other milky-sapped plant, like spurge or milk thistle, frequently occurring non-natives, but the Parks Department used an incorrect common name.”<sup>97</sup> The narrow leaf milkweed present at Point Mugu is considered “a valuable native plant” and there are no measures in place to control it.<sup>98</sup> Second, the General Plan calls for the reintroduction of wildfire into Big Sycamore Canyon to reduce the understory.<sup>99</sup> While the General Plan contemplates that such burns will be controlled, it is possible that wildfire could destroy the sycamores and the understory composing the monarch overwintering site.

## 21. Pajaro Coast Sector Lifeguard Headquarters

Low numbers of monarchs have consistently roosted at the monarch overwintering site at the Pajaro Coast Sector Lifeguard Headquarters in Santa Cruz. This California State property is managed by the Department of Parks and Recreation. However, the requirement to develop a general plan does not apply to this site<sup>100</sup> and one has not been developed.

## 22. Bodega Marine Reserve

Monarchs have been observed at the Bodega Marine Reserve on Bodega Head, which is owned by the University of California, Davis. None have been observed at this site since 1983 and the site has not been monitored since 1988.<sup>101</sup> This land is not managed by the Parks Department, but rather is part of the University of California Natural Reserve System.<sup>102</sup> The purpose of the Reserve is to provide protected lands for research and education.<sup>103</sup> Access to the Reserve is strictly controlled and limited to researchers, instructors, and students with permission from the Reserve management, and collection of animals is not allowed without a permit.<sup>104</sup>

## 23. University of California, San Diego

There are a few sites located on the campus of the University of California, San Diego (UCSD), including the Mandeville Site and the Coast Site. Thousands to hundreds of monarchs roosted at the Mandeville Site in the 1980s and 1990s; however few to none have been reported since 1998, even though the site has been monitored on eight occasions since that year. In

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<sup>96</sup> *Id.* at 162.

<sup>97</sup> Email from Jamie King, California Department of Parks and Recreation, to author (Dec. 9, 2010) (on file with author).

<sup>98</sup> Topanga, Malibu Creek and Point Mugu Resource Management Plans, *supra* note 89, at 162.

<sup>99</sup> *Id.* at 165.

<sup>100</sup> The Lifeguard Headquarters is not within the classifications of State Park “units” to which Division 5 of the California Public Resources Code applies. Cal. Pub. Res. Code §§ 5019.50–5019.80.

<sup>101</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2

<sup>102</sup> University of California, Davis, About the Bodega Marine Reserve, available at: <http://www.bml.ucdavis.edu/bmr/about.html>.

<sup>103</sup> *Id.*

<sup>104</sup> University of California, Davis, Policies and Procedures, available at: <http://www.bml.ucdavis.edu/geninfo/BMLPoliciesProcedures.pdf>.

contrast, while the Coast Site historically supported large numbers of monarchs in 1997 and 1998, it remains a small site with consistent low numbers of monarchs.<sup>105</sup> California state universities may submit to the California Coastal Commission a Long-Range Development Plan (LRDP).<sup>106</sup> Because UCSD has not submitted an LRDP to the Commission for certification, the Commission retains permitting jurisdiction over projects within the coastal zone at UCSD.<sup>107</sup> UCSD is not subject to the jurisdiction of the City of San Diego.<sup>108</sup> Given the paucity of monarchs at these sites and the ambiguous regulatory framework available to protect monarchs at these sites, this memorandum does not address them further.

#### IV. Monarch Overwintering Sites on Federal Land

A few overwintering sites occur or have occurred on federal land where U.S. federal law applies. These sites are located in national forests, national parks, and lands managed by the Department of Defense.

##### A. National Forest Lands

Monarchs have been known to overwinter in the Los Padres National Forest at Plaskett Creek Campground, Prewitt Creek, and Sycamore Canyon. The overwintering population has declined from tens of thousands to about a thousand monarchs at Plaskett Creek. Recent numbers at Sycamore Canyon and Prewitt Creek are highly variable and low, indicating that it is most likely a transitional site.<sup>109</sup> Monarchs are protected on National Forests from commercial use. The collection of plants and animals is prohibited without a permit on all Forest Service lands.<sup>110</sup>

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<sup>105</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>106</sup> Cal. Pub. Res. Code § 30605 (2010).

<sup>107</sup> California Coastal Commission, Staff Report: Consent Calendar (Nov. 19, 2010) (while UCSD has “informally submitted” an LRDP to Commission staff, UCSD “has not indicated any intention of submitting the LRDP for formal [Commission] review in the future”).

<sup>108</sup> City of San Diego, La Jolla Community Profile, available at <http://www.sandiego.gov/planning/community/profiles/lajolla/>.

<sup>109</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>110</sup> Forest Service regulations require a special use permit unless a particular activity is exempted. 36 C.F.R. § 251.50. While activities such as grazing, hunting, and fishing are exempted, the collection of plants or animals is not, regardless of whether the purpose is commercial or non-commercial. The regulations provide, in relevant part:

(a) All uses of National Forest System lands, improvements, and resources, except those authorized by the regulations governing sharing use of roads (§212.9); grazing and livestock use (part 222); the sale and disposal of timber and special forest products, such as greens, mushrooms, and medicinal plants (part 223); and minerals (part 228) are designated “special uses.”

...

(c) A special use authorization is not required for noncommercial recreational activities, such as camping, picnicking, hiking, fishing, boating, hunting, and horseback riding ...

Notably, this provision does not exclude non-commercial “collecting” from its requirement to obtain a special use permit. Nonetheless, the Forest Service does not appear to use this authority for requiring “collection permits” for non-commercial collecting of plants and wildlife, including insects. A range of Forest Service regulations may be interpreted as requiring the issuance of a permit for the noncommercial collection of species, including monarchs. These include the following:

The forest plan for Los Padres National Forest does not specifically mention monarch butterflies.<sup>111</sup> The plan contains an invasive and non-native species control program, which places “high priority on preventing and controlling nonnative species that prey on or compete with threatened and endangered fish and wildlife.”<sup>112</sup> In Los Padres National Forest, the Forest Service to date has prioritized control of water-loving plant species such as tamarisk rather than eucalyptus.<sup>113</sup> The Xerces Society has been meeting with Forest Service staff at the regional office and on the Los Padres National Forest. They are working with the Xerces Society to identify and manage the monarch overwintering sites.<sup>114</sup>

## **B. National Park Lands**

Several monarch sites exist within the Golden Gate National Recreation Area, specifically at Fort Mason, the Marin Headlands, Tennessee Valley, Muir Beach, Stinson Beach, Fort Barry, Fort Baker, and the Presidio.<sup>115</sup> The National Park Service also manages the Point Reyes National Seashore, which contains six monarch overwintering sites. However, very few monarchs currently visit many of these sites (for example, only one monarch was observed at Fort Mason in 2009).<sup>116</sup>

The National Park Service Organic Act directs the National Park Service to conserve park resources so that they remain “unimpaired” for the enjoyment of future generations.<sup>117</sup> Despite this mandate, the Organic Act itself does not prohibit the use of park resources.<sup>118</sup> For

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- 36 CFR § 261.9(b): prohibiting the “removing any natural feature or property of the United States”;
  - 36 CFR § 261.6: prohibiting damage to “any timber tree, or other forest product, “ except as authorized by a special use authorization, timber sale contract, or Federal law or regulation”;
  - 36 CFR § 223.5–223.13: establishing the scope for issuance of “free use” permits.

Three separate Forest Service officials, each responsible for issuing collection permits, confirmed that permits are required prior to any non-commercial collection for monarchs, milkweed, or any other species. Telephone Conversation between Chris Wold, Director, International Environmental Law Project, and with Kevin Cooper, Los Padres National Forest Biologist (Oct. 3, 2011); Telephone Conversation between Chris Wold, Director, International Environmental Law Project, and with Lloyd Simpson, Forest Botanist, Los Padres National Forest (Sept. 29, 2011); Telephone Conversation between Chris Wold, Director, International Environmental Law Project, and with Dale Reinhardt, Regional Measurements Specialist, Region 6 of the Forest Service (Sept. 29, 2011). Significantly, all three said that not only is a collection permit required, but that the person seeking the permit would be required to complete the “Forest Service Free Use Permit” form. *See, e.g.*, Collection Permit, Los Padres National Forest, Permit FS-2400-8 (11/2003). As part of receiving the permit, the person would be required to provide information about the person, the reason for the collection, and the area in which the specimens will be collected. In addition, all three said that biologists would assess the biological status of the species to determine whether the permit should be issued or whether restrictions should be imposed.

<sup>111</sup> *See* Los Padres National Forest Land Management Plan, available at <http://www.fs.fed.us/r5/scfpr/projects/lmp>.

<sup>112</sup> *Id.* at 21.

<sup>113</sup> *See e.g., id.* at 113.

<sup>114</sup> Personal communication with Scott Black, Executive Director, Xerces Society (Nov. 2010).

<sup>115</sup> National Park Service, Muir Woods National Monument, Butterflies, at <http://www.nps.gov/muwo/naturescience/butterflies.htm>.

<sup>116</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>117</sup> The National Park Service Organic Act, 16 U.S.C. § 1.

<sup>118</sup> *See* The National Park Service Organic Act, 16 U.S.C. §§ 1-20. Other laws often prohibit particular activities in the national parks. For example, the Surface Mining Control and Reclamation Act prohibits surface mining in

example, timber may be cut, provided that the cutting “is required in order to control the attacks of insects or diseases or otherwise conserve” the protected area.<sup>119</sup>

However, other legislation, regulations, and National Park Service policy strictly limit activities within areas managed by the National Park Service. For example, the General Authorities Act provides that National Park Service activities “shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.”<sup>120</sup> The National Park Service created Management Policies in 2001 to clarify its mandate by prohibiting extractive, commercial use of park resources “except when specifically authorized by law or in the exercise of valid existing rights.”<sup>121</sup> Harvesting of plants and animals is generally prohibited on national park lands. The National Park Service allows harvesting by the public only when such harvesting does not unacceptably impact park resources or natural processes, including native species that use or are used by the harvested species for any purpose.<sup>122</sup>

In addition, the National Park Service, by regulation, has prohibited the collection of plants and animals within national parks and other areas managed by the National Park Service.<sup>123</sup> Thus, monarchs are generally protected from visitor uses and development activities on lands managed by the National Park Service. Further, National Park Service regulations prohibit the introduction of wildlife into a park.<sup>124</sup> Consequently, the release of commercially-raised monarchs in units of the National Park System would not be permitted. Violations of National Park Service Regulations could result in a mandatory court appearance.<sup>125</sup>

### C. Department of Defense Lands

Several overwintering sites appear on land managed by the U.S. Department of Defense. For example, more than 20 monarch overwintering sites are located on federal land at the Vandenberg Air Force Base. Three sites, which were monitored in 2011, host thousands of monarchs every year. Hundreds of monarchs roost at two different sites which were monitored in 2011. Three other sites that were monitored in 2011 are most likely not active overwintering sites. Many other sites historically hosted several thousand to several hundred monarchs, yet they have not been monitored since the late 1990s or early 2000s. Yet others are historically small sites that have not been monitored since the late 1990s.

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national parks and national wildlife refuges, unless it complies with National Park Service regulations. 30 U.S.C. § 1272(e). The person that wants to conduct the activity also must demonstrate that no reasonable alternatives are available. *Id.*

<sup>119</sup> 16 U.S.C. § 3. Grazing is also permitted, provided that it “is not detrimental to the primary purpose” for which the park was created. *Id.*

<sup>120</sup> 16 U.S.C. § 1a-1.

<sup>121</sup> U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, MANAGEMENT POLICIES 2006 § 4.2.4, at page 41 (Dec. 2000), available at [www.nps.gov/policy/mp2006.pdf](http://www.nps.gov/policy/mp2006.pdf).

<sup>122</sup> *Id.* at § 4.4.3, pages 46–47.

<sup>123</sup> 36 C.F.R. §§ 2.1 & 2.2.

<sup>124</sup> 36 CFR § 2.1(a)(2).

<sup>125</sup> U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, ENFORCEMENT REFERENCE MANUAL: MARCH 200 AND MARCH 2009 VERSION § 2.1.4, at page 121 (Jan. 24, 2011) (providing, “A commissioned employee may issue a Violation Notice that provides for a mandatory appearance before the Magistrate Judge when required by the District Court.”).

Vandenberg Air Force Base recently finalized its new Integrated Natural Resources Management Plan (INRMP) in August 2011.<sup>126</sup> The INRMP recognizes the importance of ecosystem-level management practices, but also the need for species-specific management practices. To that end, the INRMP provides that “roost sites should be protected from disturbances when practical and consistent with the Vandenberg AFB mission.”<sup>127</sup> To implement that policy, the base seeks to minimize or avoid tree removal at the sites.<sup>128</sup> However, because of the range of threatened and endangered bird species present on the base and to comply with the Migratory Bird Treaty Act, the base only cuts trees in overwintering sites when birds are not present; i.e., when monarchs are present.<sup>129</sup> In any event, the policy of protecting roost sites, some of which are composed of non-native eucalyptus, appears to have a higher priority than the policy of implementing programs to control and eradicate exotic and invasive species.<sup>130</sup> Lastly, the base has no policy against collecting monarchs, although access to the base is limited, and it is unclear whether an individual who wished to collect monarchs would be allowed to enter the base.

At least three monarch overwintering sites are found on the federal military base at Camp Pendleton.<sup>131</sup> The Marine Corps’ Integrated Natural Resources Management Plan (INRMP) for Camp Pendleton does not include monarch-specific management measures, although it does recognize the presence of monarchs.<sup>132</sup> Camp Pendleton has allowed the Monarch Program, a research and education organization, to perform research on the overwintering monarch populations at the base.<sup>133</sup> More generally, a Base Order prohibits cutting or removing tree limbs or large portions of any plant as part of training exercises.<sup>134</sup> In addition, Marine Corps personnel

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<sup>126</sup> The Sikes Act requires military departments to coordinate with Federal and State natural resources conservation agencies in the preparation and approval of INRMP, and to provide an opportunity for submission of public comments. 16 U.S.C. §§ 670a-670o.

<sup>127</sup> Integrated Natural Resources Management Plan, Fish and Wildlife Management Plan, Vandenberg Air Force Base, California, § 2.4.5.21 (Aug. 2011).

<sup>128</sup> Telephone Conversation between Chris Wold, Director, International Environmental Law Project, and Rhys M. Evans, Natural Resources Lead, 30th Space Wing Asset Management Flight, Natural Resources, Vandenberg Air Force Base (Oct. 4, 2011).

<sup>129</sup> *Id.*

<sup>130</sup> Air Force Instruction 32-7064, Integrated Natural Resource Management, §2.9.3 (Sept. 17, 2004). The new INRMP also includes a section on control of exotic and invasive species. That chapter of the INRMP has not yet been made public. In addition, Executive Order 13112, *Invasive Species*, February 3, 1999 requires all federal agencies to prevent the introduction of invasive species, provide for their control and minimize their economic, ecological, and human health impacts. Under Executive Order 13112, *Invasive Species*, (Feb. 3, 1999), military installations must, to the extent practicable and permitted by law, not authorize, fund, or carry out management actions that are likely to cause the introduction or spread of invasive species.

<sup>131</sup> WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2.

<sup>132</sup> Marine Corps Base Camp Pendleton, Integrated Natural Resources Management Plan, Appendix K, K-15 (last updated Feb. 2011), available at <http://www.marines.mil/unit/basecamp Pendleton/Pages/BaseStaffandAgencies/Environmental/NaturalResourcesManagementPlan/Home.aspx>.

<sup>133</sup> *Id.* at Chapter 4, 4-34.

<sup>134</sup> United States Marine Corps, Marine Corps Base Camp Pendleton, Range and Training Area: Standard Operating Procedures (BO 3500.1N), § 2001(2)(d), page 2-1 (Mar. 25 2008), available as Appendix N to Camp Pendleton’s Integrated Natural Resources Management Plan, *supra* note 123, available at: <http://www.marines.mil/unit/basecamp Pendleton/Pages/BaseStaffandAgencies/Environmental/NaturalResourcesManagementPlan/Home.aspx>.

are instructed to “[a]void, to the maximum extent possible, parking vehicles or heavy equipment under the canopies of trees” and prohibited from digging fighting holes under the canopies of trees.<sup>135</sup> However, Base Orders are not binding regulations; they are in the nature of a procedures manual.<sup>136</sup>

Camp Pendleton has also established a number of management rules for the protection of endangered species, including the Least Bells Vireo and the Southwestern Willow Flycatcher. To the extent that monarchs roost in habitat shared with these species, they may benefit from rules that require consultation with relevant base staff prior to cutting or removing vegetation.<sup>137</sup> However, Camp Pendleton has also established a goal to eliminate a number of invasive species, including eucalyptus species.<sup>138</sup> Although the two overwintering sites at Camp Pendleton, the Stuart Mesa and Vandegrift Boulevard sites include eucalyptus species, resource managers at Camp Pendleton report that control of eucalyptus is not a priority, especially since these trees are also known to support raptors protected by the Migratory Bird Treaty Act.<sup>139</sup> Camp Pendleton does not maintain any rules on collecting monarchs.<sup>140</sup>

## **V. The Protection of Monarchs under County and City Ordinances: The California Coastal Act and Local Coastal Programs**

The vast majority of monarch overwintering sites occur on city, county, and private property. A large number of these sites fall within an area hugging the California coast defined as the “coastal zone”—an area generally within 1,000 yards of the high tide line but which may vary depending on a number of factors. As described below, counties and cities must develop Local Coastal Programs (LCPs) for these areas that are implemented through ordinances and other documents. While some LCPs include specific protection for monarch overwintering sites, most do not. Even where they do include protection for monarch overwintering sites, many only do so during the winter months when monarchs are actually overwintering.

Some overwintering sites, particularly in the southern counties, fall outside the coastal zone. The local ordinances that apply to these overwintering sites are also analyzed in this section. As described below, the relevant local ordinances range from strong laws that protect overwintering habitat year round to inadequate ordinances that do not provide sufficient protection for overwintering habitat.

Because of the large number of overwintering sites in the “coastal zone,” this Section provides a description of the special legal regime that applies to the coastal zone. Section V then reviews implementation of this legal regime on a county-by-county basis as well as the ordinances that apply to sites outside the coastal zone.

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<sup>135</sup> *Id.* at § 2002(1)(f), page 2–2.

<sup>136</sup> Telephone conversation between Chris Wold, Director, International Environmental Law Project, and Bill Berry, Resource Management Division Head (Oct. 3, 2011).

<sup>137</sup> *Id.* at § 2007(9)(d), page 2–8.

<sup>138</sup> Camp Pendleton, Integrated Natural Resources Management Plan, *supra* note 123, at 4–66.

<sup>139</sup> Telephone conversation between Chris Wold, Director, International Environmental Law Project, and Bill Berry, Resource Management Division Head (Oct. 3, 2011).

<sup>140</sup> *Id.*

## A. Scope and Jurisdiction of the Legal Regime

The U.S. Coastal Zone Management Act (CZMA)<sup>141</sup> includes among its many goals the protection and enhancement of coastal zones and the conservation of terrestrial and marine species and their habitats.<sup>142</sup> The federal government provides grants to States that prepare a coastal zone management plan that meets the goals and requirements of the CZMA.<sup>143</sup>

California implements the federal CZMA through the California Coastal Act (the Coastal Act).<sup>144</sup> The Coastal Act directs counties and cities with land use planning authority to develop an LCP or request the California Coastal Commission (Commission) to prepare it.<sup>145</sup> LCPs must be approved by the Commission, the Coastal Act's implementing agency.<sup>146</sup> An LCP may include land use plans, zoning ordinances, zoning district maps, and other implementing actions that taken together meet the requirements and policies of the Coastal Act.<sup>147</sup> Because California's planning laws already require counties and cities to develop "comprehensive, long term" general plans<sup>148</sup> that include a "land use" element, coastal counties typically integrate their LCP into existing county regulations by amending the land use element of their general plan.

The Coastal Act defines California's coastal zone as the area that extends seaward to the state's outer jurisdictional waters (including off-shore islands) and inland 1,000 yards from mean high tide.<sup>149</sup> However, where areas contain significant estuaries, habitat, or recreational areas, California's coastal zone extends inland to the first major ridgeline parallel to the Pacific or five miles from mean high tide, whichever is less.<sup>150</sup> In developed areas, the zone may extend inland fewer than 1,000 yards.<sup>151</sup> The coastal zone does not include the "area of jurisdiction of the San Francisco Bay Conservation and Development Commission . . . or any river, stream, tributary, creek, or flood control or drainage channel flowing into such area." As a consequence, while the Coastal Commission has primary responsibility for implementing the Coastal Act, the San Francisco Bay Conservation and Development Commission has jurisdiction in the area immediately surrounding the San Francisco Bay.<sup>152</sup> In addition, the CZMA expressly excludes federal property, including land managed by the Department of Defense and the National Park Service, from the "coastal zone."<sup>153</sup>

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<sup>141</sup> Coastal Zone Management Act of 1972, 16 U.S.C §§ 1451 et seq.

<sup>142</sup> 16 U.S.C. § 1452. The coastal counties for which some California overwintering site data are available are Alameda, Los Angeles, Marin, Mendocino, Monterey, Orange, San Diego, San Luis Obispo, Santa Barbara, Santa Cruz, Sonoma, and Ventura counties.

<sup>143</sup> 16 U.S.C. § 1455.

<sup>144</sup> California Coastal Act of 1976. Cal. Pub. Res. Code §§ 30000 et seq.

<sup>145</sup> Cal. Pub. Res. Code § 30500(a).

<sup>146</sup> Cal. Pub. Res. Code § 30330.

<sup>147</sup> Cal. Pub. Res. Code § 30108.6. California's Planning Law had already required counties and cities to develop "comprehensive, long term" general plans (GP) which include "land use," "conservation," and "esthetic" elements. Government Code Section 65300. (1927, Supp. 1997) .

<sup>148</sup> Government Code § 65300.

<sup>149</sup> Cal. Pub. Res. Code § 30103(a).

<sup>150</sup> Cal. Pub. Res. Code § 30103(a).

<sup>151</sup> Cal. Pub. Res. Code § 30103(a).

<sup>152</sup> Cal. Gov. Code §§ 66600 et seq.

<sup>153</sup> The CZMA provides: "Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents." CZMA § 304(1), 16 U.S.C.

## B. The Coastal Act's Conservation Mandate

The Coastal Act contains several policy statements that recognize the immense human and ecological value of coastal resources. The Coastal Act recognizes that the “permanent protection of the state’s natural and scenic resources is a paramount concern to present and future residents of the state and nation.”<sup>154</sup> It further recognizes the necessity of protecting the “ecological balance of the coastal zone” for wildlife.<sup>155</sup> The Coastal Act establishes basic goals to “[p]rotect, maintain, and, where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.”<sup>156</sup> Significantly, the Coastal Act states that conflicts between these natural resource-oriented policies and other policies should be resolved “in a manner which on balance is the most protective of significant coastal resources.”<sup>157</sup>

To protect these special coastal resources, the Coastal Act requires a person wishing to undertake development in the coastal zone to obtain a coastal development permit.<sup>158</sup> Prior to certification of an LCP by the Commission, a “local government”—generally defined as a city or county government<sup>159</sup>—may develop a procedure for issuing coastal development permits.<sup>160</sup> If it does not, then the Commission issues coastal development permits.<sup>161</sup> Prior to certification of the LCP, the relevant agency, or the Commission on appeal, must issue a coastal development permit if it determines that the proposed development is in conformity with the Coastal Act’s Resources and Planning and Management Policies and that the permitted development will not prejudice the ability of the local government to prepare a local coastal program that is in conformity with those policies.<sup>162</sup>

After the Commission certifies an LCP, then the relevant local government issues coastal development permits.<sup>163</sup> The local government must issue a coastal development permit if it, or the Commission on appeal, concludes that the proposed development is in conformity with the certified LCP.<sup>164</sup>

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§ 1453(1). Nonetheless, federal agencies must ensure that their projects are, to the maximum extent practicable, consistent with approved state management programs. CZMA § 307, 16 U.S.C. § 1457.

<sup>154</sup> Cal. Pub. Res. Code § 30001(b).

<sup>155</sup> Cal. Pub. Res. Code § 30001(c).

<sup>156</sup> Cal. Pub. Res. Code § 30001.5(a).

<sup>157</sup> Cal. Pub. Res. Code § 30007.5. The Coastal Act also recognizes that “sound and timely scientific recommendations are necessary for many coastal planning, conservation, and development decisions” and that the Commission “should” seek input from the scientific community on important resource management issues, such as wetland restoration and cumulative impacts of coastal zone development. Cal. Pub. Res. Code § 30006.5.

<sup>158</sup> Cal. Pub. Res. Code § 30600(a).

<sup>159</sup> The Coastal Act defines “local government” to mean “any chartered or general law city, chartered or general law county, or any city and county.” Cal. Pub. Res. Code § 30109.

<sup>160</sup> Cal. Pub. Res. Code § 30600(b).

<sup>161</sup> Cal. Pub. Res. Code § 30600(c).

<sup>162</sup> Cal. Pub. Res. Code § 30604(a).

<sup>163</sup> Cal. Pub. Res. Code § 30600(d).

<sup>164</sup> Cal. Pub. Res. Code § 30604(b).

## 1. Sensitive Coastal Resource Areas

The Coastal Act also provides for two different protected area designations. First, the Commission, through consultation with local governments and after public hearings, must identify and designate “sensitive coastal resource areas” (SCRA)<sup>165</sup>—areas of “vital interest and sensitivity”—where the protection of coastal resources and public access is required.<sup>166</sup> “Sensitive coastal resource areas” include, among other areas, special land habitat areas.<sup>167</sup> If the Commission designated a “sensitive coastal resource areas” (its authority to do so expired in 1978),<sup>168</sup> the relevant local government “shall include” implementing actions in its LCP adequate to protect the area.<sup>169</sup> Such implementing actions may consist of ordinances, regulations, or programs that implement either the provisions of the certified LCP or the policies of the Coastal Act.<sup>170</sup> The Commission must refuse to approve implementing actions that “do not conform with or are inadequate to carry out the provisions of the certified [LCP].”<sup>171</sup>

Once the commission has certified an LCP, appeals of government action with respect to a development permit are limited to claims that the permitted action does not conform to the standards of the relevant LCP or with the public access policies of the Coastal Act.<sup>172</sup> The Commission retains jurisdiction to review permit appeals concerning developments within public trust lands or within 100 feet of any wetland, estuary, or stream<sup>173</sup> as well as developments within SCRA.<sup>174</sup> However, appeals may only be filed by an “aggrieved person,” defined as someone who has appeared at a public meeting relating to the proposed action or otherwise informed the permitting agency of her concerns.<sup>175</sup> Commission regulations also require that an appellant first exhaust all local remedies prior to appealing a permitting decision to the Commission.<sup>176</sup>

As described in Section V, it is not clear whether the Commission has designated any SCRA. Many LCPs refer ambiguously to areas given special status as “sensitive areas” or “sensitive resource areas” without stating clearly whether they are referring to “sensitive coastal resource areas” or “environmentally sensitive habitat areas,” as described below. The context

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<sup>165</sup> Cal. Pub. Res. Code § 30502(a).

<sup>166</sup> More specifically, “sensitive coastal resource areas” are defined as “identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity.” Cal. Pub. Res. Code § 30116. Initial SCRA designations should include a description of the sensitive resource to be protected and why it needs protecting, a determination that the resource has regional or statewide significance, discussion of any potential adverse effects of development on the resource, and a map of the resource area. Cal. Pub. Res. Code § 30502(b).

<sup>167</sup> Cal. Pub. Res. Code § 30116.

<sup>168</sup> Pub. Resources Code, §§ 30502, 30517.

<sup>169</sup> Cal. Pub. Res. Code § 30502(c).

<sup>170</sup> Cal. Pub. Res. Code § 30108.4.

<sup>171</sup> Cal. Admin. Code Title 14, § 13542(b).

<sup>172</sup> Cal. Pub. Res. Code § 30603(b). The public access policies of the Coastal Act, which include requirements that development not interfere with the public’s right of access to the sea, are set out in Cal. Pub. Res. Code §§ 30210–30214.

<sup>173</sup> Cal. Pub. Res. Code § 30603(a)(2).

<sup>174</sup> Cal. Pub. Res. Code § 30603(a)(3).

<sup>175</sup> Cal. Pub. Res. Code § 30801.

<sup>176</sup> Cal. Admin. Code Title 14, § 13573(a).

provided by the LCPs and other documents suggests that these areas are in fact environmentally sensitive habitat areas, as described below.

## 2. Environmentally Sensitive Habitat Areas

The Commission and local governments have authority to designate “environmentally sensitive habitat areas” (ESHAs)<sup>177</sup>—areas where plants, wildlife, or wildlife habitat “are either rare or especially valuable because of their special nature or role in an ecosystem” and which are “easily disturbed or degraded” by development.<sup>178</sup> ESHAs “shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.”<sup>179</sup> Development near these areas must be “sited and designed to prevent impacts which would significantly degrade” the areas.<sup>180</sup> The California courts have determined that “a literal reading of [this] statute protects the area of an ESHA from uses which threaten the habitat values which exist in the ESHA . . . by placing strict limits on the uses which may occur in an ESHA and by carefully controlling the manner [in which] uses in the area around the ESHA are developed.”<sup>181</sup>

In placing restrictions on development in ESHAs, the California courts have emphasized that both of the Coastal Act’s criteria for ESHA development must be met: 1) the development must not cause any significant disruption of habitat values, and 2) the development must be dependent on the resources for which the ESHA was designated. Thus, a court rejected claims that development that did not cause significant disruption need not be a resource-dependent use; both factors must be met.<sup>182</sup> For example, a single-family dwelling could not be built in an ESHA even if it did not cause significant disruption to an ESHA designated as a raptor nesting site, because a house is not a resource-dependent use—that is, the house’s existence is not dependent on the raptor nests. A nature trail might be, however. Moreover, the Commission or the local government must protect an ESHA’s habitat values *in situ*; it cannot develop an ESHA and claim to mitigate any lost habitat values by protecting another parcel outside the ESHA.<sup>183</sup>

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<sup>177</sup> Cal. Pub. Res. Code § 30240.

<sup>178</sup> The phrase “environmentally sensitive habitat areas” is not defined in the Coastal Act. But the phrase “[e]nvironmentally sensitive area” is defined in section 30107.5, and courts have accepted that definition as the description of environmentally sensitive habitat areas. *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1497, 19 Cal. Rptr. 3d 1. Section 30107.5 provides: “‘Environmentally sensitive area’ means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.” Cal. Pub. Res. Code § 30107.5. Significantly, courts have ruled that “[t]he term ‘sensitive coastal resource area’ is not synonymous with ‘environmentally sensitive area.’” *LT-WR, L.L.C. v. California Coastal Com.* (2007) 152 Cal.App.4th 770, 790 [60 Cal. Rptr. 3d 417. Nonetheless, the Commission has defined an ESHA as a type of SCRA. Cal. Coastal Zone Land Use Ordinance § 23.11.030.

<sup>179</sup> Cal. Pub. Res. Code § 30240.

<sup>180</sup> Cal. Pub. Res. Code § 30240.

<sup>181</sup> *Bolsa Chica Land Trust v. Superior Court*, 71 Cal.App.4th 493, 507 (Cal.App.4th 1999).

<sup>182</sup> *McAllister v. California Coastal Com.*, 169 Cal. App. 4th 912, 938; 87 Cal. Rptr. 3d 365 (2008).

<sup>183</sup> As one court said, the Coastal Act

does not authorize the separation of habitat values from an existing habitat and the relocation of those values elsewhere as a form of protective mitigation. Rather, the statute protected the designated habitat area itself, regardless of its continued viability, and mitigation measures could not be used to circumvent the statute’s strict limits on the uses permissible in habitat areas.

Prior to the certification of an LCP, the Commission has authority to designate ESHAs, not local governments. Although the Coastal Act is silent on the matter, courts have granted the Commission this authority because the Commission must issue development permits in conformity with the provisions of chapter 3 of the Coastal Act, which includes the provisions relating to ESHAs. California courts reached this decision by concluding that land meeting the definition of an ESHA could be irrevocably altered through development that violates the policies of the Coastal Act if an issuing agency was “powerless to protect any such areas prior to their designation by a local government in a certified land use plan or a certified local coastal program.”<sup>184</sup> Thus, the Commission would be prohibited from carrying out its obligation to make a decision that does not “prejudice the ability of the local government to prepare a local coastal program” that conforms to the Coastal Act.<sup>185</sup>

After certification of an LCP, the relevant county or city agency has authority to designate ESHAs. Once the designation is made, it must issue a coastal development permit as long as the proposed development is in conformity with the LCP.<sup>186</sup> In other words, neither the Commission nor the relevant county or city agency may deviate from a certified LCP and designate an ESHA not included in that LCP.

Although the Coastal Act establishes strict provisions for the protection of ESHAs, it also establishes a narrow exception when denial of a development permit may result in a constitutional taking of property.<sup>187</sup> This provision of the Coastal Act recognizes well-settled law that a land use regulation constitutes a taking requiring compensation if its application denies an owner of economically viable use of his or her land.<sup>188</sup> Thus, where a restriction would require the denial of a permit, and the denial would, in turn, deprive an owner of the economic benefit or productive use of his or her land, the Commission has two options: 1) deny the permit and pay just compensation to the property owner or 2) grant the permit with conditions that mitigate the impacts that the Coastal Act’s limitations were designed to prevent. Rather than pay compensation, the Commission has chosen to limit application of the Coastal Act’s resource protection policies in a way that allows a property owner a constitutionally reasonable economic use of his or her property.<sup>189</sup> However, the Commission must support its decision to grant or

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McAllister v. California Coastal Com., 169 Cal. App. 4th 912, at 932–33; *see also Bolsa Chica Land Trust v. Superior Court*, 71 Cal.App.4th 493, at 507–08.

<sup>184</sup> Douda v. California Coastal Com., 159 Cal. App. 4th 1181, 1193; Cal. Rptr. 3d 98 (2008).

<sup>185</sup> *Id.*, citing Cal. Pub. Res. Code § 30604(a).

<sup>186</sup> Cal. Pub. Res. Code § 30604(b).

<sup>187</sup> The Coastal Act provides: “The Legislature hereby finds and declares that this division is not intended, and shall not be construed as authorizing the commission, port governing body, or local government acting pursuant to this division to exercise their power to grant or deny a permit in a manner which will take or damage private property for public use, without the payment of just compensation therefor.” Cal. Pub. Res. Code § 30010.

<sup>188</sup> *Palazzolo v. Rhode Island* (2001) 533 U.S. 606, 617–618, 150 L. Ed. 2d 592, 121 S. Ct. 2448; *NJD, Ltd. v. City of San Dimas* (2003) 110 Cal.App.4th 1428, 1436–1438, 2 Cal. Rptr. 3d 818; e.g., *Lucas v. South Carolina Coastal Council* (1992) 505 U.S. 1003, 1016, 120 L. Ed. 2d 798, 112 S. Ct. 2886 (denial of permit caused a taking); *Nollan v. California Coastal Comm’n* (1987) 483 U.S. 825, 837, 97 L. Ed. 2d 677, 107 S. Ct. 3141 (permit condition lacking nexus to legitimate state interest caused a taking); *Dolan v. City of Tigard* (1994) 512 U.S. 374, 394–395, 129 L. Ed. 2d 304, 114 S. Ct. 2309 (permit condition lacking rough proportionality to expected impacts of project caused a taking).

<sup>189</sup> *McAllister v. California Coastal Com.*, 169 Cal. App. 4th 912, 938; 87 Cal. Rptr. 3d 365 (2008).

deny a permit with written findings.<sup>190</sup> Thus, when it believes that a taking would result, it must explain why it believes a denial of a permit would constitute a taking of private property.<sup>191</sup>

California courts have been very clear that ESHAs must be designated in the LCP; the relevant permit issuing authority cannot declare an area an ESHA after the LCP has been certified.<sup>192</sup> However, the LCP may establish ESHAs by naming a particular area (e.g., the Terwilliger Butterfly Grove) or through general criteria (e.g., any group of trees where monarchs cluster).

Because of these requirements, the designation of an ESHA for an overwintering site can provide significant protection against habitat degradation caused by development: development would be prohibited if it was not related to monarchs (i.e., resource-dependent) or if it would significantly disrupt the ESHA's habitat values. Recognizing the value of overwintering sites, a small number of cities and counties have designated overwintering sites as ESHAs. Others have designated ESHAs for certain habitats that incidentally help conserve monarch overwintering sites. The majority of cities and counties, however, have not used the Coastal Act's powerful ESHA provisions (or any other aspect of the Coastal Act) to protect monarch overwintering sites.

## **VI. The Local Coastal Programs of Counties with Overwintering Monarchs**

The Commission has approved 92 (or 72.4%) of the 128 separate LCP segments for counties, cities, and other political entities with responsibilities to prepare LCPs.<sup>193</sup> These LCPs take many different forms and vary in complexity. Most significantly, they are just one element of land use planning within a political jurisdiction. As noted above in Section IV, most LCPs themselves comprise general plans, land use plans, city ordinances, and other planning documents. This array of documents will include a large range of obligations, policies, and other decision-making tools for planners. These decision-making tools in turn cover the breadth of land use planning, including the siting of new residential and industrial development, policies concerning agriculture, goals relating to density of urban development, restrictions on lot size, priority of uses, provision of public services, transportation, and many other issues. The analysis of this report was difficult due to the scope of laws potentially applicable to monarch conservation.

In addition, the precise location of many overwintering sites is difficult to identify with respect to their locations inside or outside the coastal zone. Even if precise coordinates for a monarch site are known, the precise boundary of the coastal zone is often not known. In addition,

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<sup>190</sup> Cal. Pub. Res. Code § 30604(a)–(c).

<sup>191</sup> *McAllister v. California Coastal Com.*, 169 Cal. App. 4th 912, at 940–941.

<sup>192</sup> In addition, the relevant permitting authority cannot designate an area as an ESHA unless that ESHA designation is included in the LCP. *See Douda v. California Coastal Comm'n*, 159 Cal.App.4th 1181, 1192 (Cal. Ct. App. 2008) (“an issuing agency cannot deviate from a certified local coastal program and designate an additional environmentally sensitive habitat area”); *Security Nat. Guar., Inc. v. California Coastal Comm'n*, 159 Cal.App.4th 402, 422-424 (Cal. Ct. App. 2008) (holding that Coastal Commission cannot designate any ESHAs that are inconsistent with those designated in the county's certified LCP).

<sup>193</sup> California Coastal Commission, Summary of LCP Program Activity FY 08-09 and FY 09-10 (Oct. 19, 2010), available at: <http://www.coastal.ca.gov/lcps.html>. There are 75 coastal jurisdictions—15 counties and 60 cities divided into 128 planning segments. *Id.*

the precise location on a specific parcel of private or public land could not be ascertained for many sites. Lastly, this report did not review each overwintering site subject to county or city jurisdiction. As such, this report does not attempt to be a comprehensive guide to all laws and policies that may affect monarch butterflies and each overwintering site.

Nonetheless, the report reviews a large number of those sites, including those on public land and private land, in city parks and county parks, and inside and outside the coastal zone. The range of sites reviewed is thus representative of the larger number of total monarch overwintering sites on land subject to city and county regulation. As a consequence, this report analyzes an adequate number of sites to make general conclusions about the legal status of monarchs subject to land use regulation by cities and countries.

The report focuses on those aspects of the LCPs and local ordinances most relevant to monarch conservation in California. In that regard, this report focuses on provisions of LCPs, ordinances, and other planning documents relating to ESHAs, to monarchs themselves, and to habitat on which monarchs are dependent. In any specific land-use decision, other provisions may be relevant for determining whether the decision is consistent with applicable rules. For example, the siting of a residential complex that might have adverse impacts on monarch overwintering habitat may still be impermissible because of rules relating to the new housing, density, or public services. In addition, the provisions of the California Environmental Quality Act, which requires the preparation of an Environmental Impact Report for certain development projects, may also apply (CEQA is discussed in Appendix 1 of this report). This report makes no attempt to speculate on the nature of proposed projects and as such does not analyze every planning policy within a jurisdiction to determine its possible impact on monarchs.

## **A. Los Angeles County**

As many as 44 monarch overwintering sites have been identified in Los Angeles County, though some populations have been extirpated.<sup>194</sup> At least five of these sites are within the coastal zone and subject to the provisions of the Coastal Act and relevant LCPs. Of those sites outside the coastal zone, the majority lie within public parks owned by cities or the County of Los Angeles. Another site lies in a state park, with the remaining sites appearing to be located on private property. Sites outside the coastal zone are subject to city and county ordinances and laws other than the LCPs.

### **1. Relevant LCPs**

The only relevant LCP in Los Angeles County is the City of Malibu LCP.<sup>195</sup> The Commission adopted the City of Malibu's LCP relatively recently—2002; Malibu is not planning any comprehensive update of it, though it has been subject to numerous minor amendments.<sup>196</sup>

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<sup>194</sup> Xerces Society Draft Database of Western Monarch Overwintering Locations, *supra* note 2; WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; CNDDDB: MONARCH SITES, *supra* note 2.

<sup>195</sup> City of Malibu, Local Coastal Plan: Local Implementation Plan, § 13.2 (certified Sept. 13, 2002).

<sup>196</sup> California Coastal Commission, Local Coastal Planning Program Detailed LCP Status and History as of June 20, 2010 (Oct. 17, 2010), Part IV, at 17.

The City of Malibu is home to several overwintering sites (including the most prolific site in Los Angeles which consistently hosts hundreds of monarchs each year, located at Busch Drive and Pacific Coast Highway). Each one of the sites lies within the coastal zone and is subject to the City of Malibu's LCP.<sup>197</sup> In fact, Malibu's coastal zone reaches from the coastline inland to the ridgeline of the Santa Monica Mountains and includes the entire city.<sup>198</sup>

The City of Malibu LCP designates wide swathes of the City as ESHAs. It also contains a self-effecting ESHA mechanism whereby land with characteristics of an ESHA is automatically considered an ESHA, whether it has previously been so designated or not. The City LCP classifies "[a]ny habitat area that contributes to the viability of species for which there is other compelling evidence of rarity" as an ESHA and provides that any area "that meets the ESHA criteria is [an] ESHA and shall be accorded all the protection provided for [an] ESHA in the LCP" regardless of whether it is currently identified as an ESHA on the LCP's maps.<sup>199</sup>

Protection against "disruption of habitat values" and other siting, buffering, and development restrictions relevant to ESHAs could therefore apply to monarch overwintering sites as habitat that is "rare or especially valuable."<sup>200</sup> In determining whether the land subject to a development application is an ESHA, the City may consider the applicant's site-specific biological study "as well as available independent evidence," which would allow proponents of ESHA protection for monarch overwintering sites to bring relevant information to the attention of the City when considering any development permit application affecting those sites.<sup>201</sup> It is possible that some of the monarch overwintering sites are located in the areas of the City of Malibu that have already been designated as ESHAs, but even if they are not, the ESHA provisions of the LCP should serve to protect monarch overwintering habitat from development activities. However, in order to avoid having to police constantly the coastal development permits sought in the City of Malibu to ensure that they do not impact monarch overwintering sites, monarch conservationists may choose to seek designation of any overwintering sites that are not currently within designated ESHAs.<sup>202</sup>

The City of Malibu's LCP and zoning ordinances do present a conflict between maintenance and restoration of monarch overwintering habitat. The City requires a landscape plan to accompany any coastal development permit application but prohibits the inclusion of red gum or blue gum eucalyptus in a landscape plan.<sup>203</sup> While little is known about why monarchs choose particular trees for roosting, the city's bar on the use of trees known to support monarchs could present a conflict if a development permit applicant is required to mitigate damage to

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<sup>197</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. The entire City of Malibu lies within the coastal zone. City of Malibu, Local Coastal Plan: Local Implementation Plan, *supra* note 179, at § 13.2.

<sup>198</sup> *Id.* at § 13.2.

<sup>199</sup> City of Malibu, Local Coastal Plan: Local Implementation Plan, *supra* note 197, at § 4.3; City of Malibu, Local Coastal Plan: Land Use Plan, § 3.4.2 (certified Sept. 13, 2002).

<sup>200</sup> City of Malibu, Local Coastal Plan: Land Use Plan, *supra* note 201, at § 3.8.

<sup>201</sup> City of Malibu, Local Coastal Plan: Local Implementation Plan, *supra* note 197, at § 4.3.

<sup>202</sup> Without specific and detailed site information, it is impossible to determine whether the individual sites are located within currently-designated ESHAs.

<sup>203</sup> City of Malibu, Local Coastal Plan: Local Implementation Plan, *supra* note 197, at § 3.10.1; City of Malibu, Non-Native Invasive Plants Prohibited in Landscape Plans, available at <http://www.ci.malibu.ca.us/download/index.cfm/fuseaction/download/cid/9315/>.

buffer areas around an ESHA or replace decadent trees.<sup>204</sup> In order to avoid such situations, the LCP Local Implementation Plan could be amended to clarify that eucalyptus may be permitted within or near monarch overwintering habitat.

## 2. Local Ordinances Relevant to Monarchs

Because Los Angeles County is so highly developed, many of the coastal zones in city LCPs are relatively small, taking advantage of the Coastal Act's provision that in developed areas the coastal zone "generally extends inland less than 1,000 yards."<sup>205</sup> As a consequence, the majority of monarch sites in Los Angeles County are outside the coastal zone and not subject to LCPs. Protection of these sites must come from other city ordinances. Unfortunately, many of the sites within Los Angeles County outside the coastal zone are unprotected, while other sites are subject to provisions that may in fact hinder protection of overwintering sites.

### a. Palos Verdes Estates

Palos Verdes Estates contains two monarch overwintering sites on private property. Although one site contained over 3,000 monarchs in 1985, numbers declined to the hundreds in the late 1990s and early 2000s. Only three monarchs were observed in the last known record in 2003. The other site at Palos Verdes Estates has also declined in numbers since the first record in 1998 with 800 monarchs to only six in 2003, the last known recorded observation.<sup>206</sup> Despite being well within 1,000 yards of the coast, these sites are outside the coastal zone, because the Palos Verdes Estate's planning code defines the coastal zone narrowly as being "between the sea and the first public road inland from the sea."<sup>207</sup> As a result, the coastal zone in Palos Verdes Estates is no more than a matter of feet in some locations. Palos Verdes Estate's municipal code is sparse, and it does not contain protection for natural resources.

Also, some laws in Palos Verdes Estates may undermine monarch conservation. For example, an ordinance prohibits any pruning of eucalyptus and pine trees in public places along city streets, roads, boulevards and alleys between April 30th and October 15th.<sup>208</sup> Similarly, a permit must be obtained before a person may plant, move, remove, destroy, cut, trim, deface, injure or replace any tree in, upon or along any public street or other place of the city.<sup>209</sup> The application of these ordinances to trees on public areas, including along streets, means that the monarch trees are most likely inadequately protected. Not only may disturbances occur to eucalyptus and pine trees, which generally compose monarch overwintering sites, during the very time when monarchs may be present, but no guidelines ensure that any tree trimming is conducted consistent with the needs of monarchs. Moreover, no ordinances apply to trees wholly on private property.

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<sup>204</sup> All development on or near an ESHA or within an ESHA buffer must be avoided to the extent possible, and if impossible, mitigated. City of Malibu, Local Coastal Plan: Local Implementation Plan, *supra* note 197, at §§ 3.14-.15.

<sup>205</sup> Cal. Pub. Res. Code § 30103(a).

<sup>206</sup> WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>207</sup> City of Palos Verdes Estates (Cal.), Planning Map; Palos Verdes Estates (Cal.) City Code § 19.02.040.

<sup>208</sup> Palos Verdes Estates (Cal.) City Code § 12.16.020.

<sup>209</sup> *Id.* at § 12.16.040.

### **b. City of Santa Monica**

Observers at Woodlawn Cemetery overwintering site within the City of Santa Monica have generally reported 15 to 60 monarchs; however a few records indicate numbers in the hundreds. The site also lies outside the coastal zone but, since it is within the cemetery itself, it receives some additional protection.<sup>210</sup> Woodlawn Cemetery is owned by the City of Santa Monica, which has promulgated an ordinance relating to Woodlawn and one other municipal cemetery that makes it unlawful to damage any trees, shrubs, or plants or to feed or disturb any animal life.<sup>211</sup> Aside from this ordinance, there do not appear to be any other city ordinances pertaining to wildlife protection in general or monarchs in particular. Since the site is within the cemetery,<sup>212</sup> it is at least protected from intentional damage, although tree trimming and pruning may still occur.

### **c. Redondo Beach**

The Wilderness Park site in Redondo Beach has reports of thirty-five or fewer monarchs in all years, with the exception of 1997 and 1998 when it contained hundreds of monarchs. It lies outside the coastal zone and is owned and operated by the City of Redondo Beach as a municipal park.<sup>213</sup> The City of Redondo Beach has an ordinance that prohibits cutting or otherwise harming vegetation in city owned parks, including Wilderness Park.<sup>214</sup> An analogous ordinance pertaining to wildlife forbids the trapping, killing, wounding, or mistreating of any wild animal in any park.<sup>215</sup> While monarch collection and intentional damage to the overwintering site is prohibited, monarch-specific regulations relating to tree trimming have not been enacted.

### **d. City of Long Beach**

The City of Long Beach hosts at least four monarch overwintering sites, one at El Dorado Nature Center, two at the Recreation Park, and one in Heartwell Park; the City of Long Beach owns all three parks. All of these sites are generally small, with typically 150 or less monarchs roosting at each site per year.<sup>216</sup> Heartwell Park and El Dorado Nature Center lie outside the coastal zone; the two sites at Recreation Park most likely do as well.<sup>217</sup> Within these parks, it is unlawful to disturb or damage any vegetation, though there is no analogous provision for wildlife.<sup>218</sup> The City of Long Beach has identified the El Dorado Nature Center as an area that

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<sup>210</sup> City of Santa Monica, Planning Map. Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2

<sup>211</sup> City of Santa Monica (Cal.) Municipal Code § 7.20.140.

<sup>212</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>213</sup> City of Redondo Beach (Cal.), Planning Map. City of Redondo Beach (Cal.) Municipal Code § 4-35.03. Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>214</sup> City of Redondo Beach (Cal.) Municipal Code § 4-35.18.

<sup>215</sup> City of Redondo Beach (Cal.) Municipal Code § 4-35.08.

<sup>216</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>217</sup> If Recreation Park includes the park area bounded to the North by East 6<sup>th</sup> St., to the West by Nieto Avenue, to the East by Park Avenue and to the South by Colorado Lagoon Park, then it lies within the coastal zone. City maps do not make clear the boundaries of Recreation Park and Colorado Lagoon Park, but it appears that the segment in question is part of Colorado Lagoon Park, thus placing all of Recreation Park outside the coastal zone. City of Long Beach, Coastal Zone Map, available at: [http://www.lbds.info/planning/advance\\_planning/general\\_plan.asp](http://www.lbds.info/planning/advance_planning/general_plan.asp).

<sup>218</sup> City of Long Beach (Cal.) Municipal Code § 16.16.010.

should be rehabilitated and upgraded to improve the natural ecology.<sup>219</sup> However, the objective of this rehabilitation is to restore native ecosystems, which may exclude eucalyptus that provide habitat for monarchs<sup>220</sup>—the roost trees at El Dorado Nature Center consist of a mixed grove of alder and eucalyptus trees.<sup>221</sup> Long Beach provides that nature centers like El Dorado are “special use park[s] devoted to the appreciation and preservation of flora and fauna” where “[h]uman access is usually restricted and designed for observational and educational purposes only.”<sup>222</sup> Aside from these provisions, no other protection is afforded to monarchs or their overwintering sites within the City of Long Beach. However, all sites within the City of Long Beach are within city owned parks and are therefore protected from development generally.

#### **e. Rowland Heights**

Schabarum Regional Park contains a small monarch overwintering site within the unincorporated area known as Rowland Heights and is owned and operated by Los Angeles County.<sup>223</sup> Rowland Heights is a great distance inland and is well outside the coastal zone. The Park is subject to Los Angeles County’s Park Ordinance, which provides, *inter alia*, that vegetation and animals must not be disturbed.<sup>224</sup> While the site lacks further protection, it is protected from development by virtue of being a publically-owned regional park.

#### **f. Wilmington**

Observers at Banning Park in the Wilmington area of the City of Los Angeles have reported between six and 125 monarchs each season since 1998. It lies outside the coastal zone and is owned by the City of Los Angeles.<sup>225</sup> Though the monarch overwintering site does not enjoy any specific protection in the City of Los Angeles Municipal Code, the Municipal Code prohibits the taking of any animal or damaging of any tree within a city park.<sup>226</sup> Given that the land itself is part of a city park, it is generally protected from development.

#### **g. El Segundo**

The Chevron Refinery in El Segundo contains a monarch overwintering site with fluctuating reported observations from hundreds to only a few depending on the year. The site has not been monitored since 2003. The Chevron Refinery is outside the coastal zone<sup>227</sup> and no monarch-specific protection applies within the City of El Segundo.<sup>228</sup>

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<sup>219</sup> City of Long Beach (Cal.), General Plan: Open Space and Recreation Element, at 16–17.

<sup>220</sup> *Id.* at 18.

<sup>221</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>222</sup> *Id.* at 31.

<sup>223</sup> Reports from Schabarum Regional Park have never been more than 60 monarchs in a season. Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2

<sup>224</sup> Los Angeles County (Cal.) Code §§ 17.04.340 (vegetation) and 17.04.470 (animals).

<sup>225</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>226</sup> City of Los Angeles (Cal.) Municipal Code, Art. III, § 63.44(B).

<sup>227</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. The coastal zone in the City of El Segundo is limited to the shoreline and extends inland only a matter of feet to the first major road. City of El Segundo, General Plan Zoning Map.

<sup>228</sup> *See, e.g.*, City of El Segundo (Cal.), General Plan: Section 7, Conservation Element. The city’s General Plan does include provisions to protect the El Segundo blue butterfly habitat located within a small preserve near the Chevron

## h. Playa Del Rey

The Ballona Wetlands site has generally hosted about a hundred overwintering monarchs throughout the years, with an unusually high number of 1,000 individuals in 1997 and an unusual low of no monarchs in 2002. The last known record is from 2003 of 80 monarchs. The site is located in the Playa Del Rey area of the City of Los Angeles and is subject to that city's LCP. It relies primarily on the provisions of the Ballona Wetlands Restoration Project<sup>229</sup> for its protection. The Ballona Wetlands are owned by the State of California and administered by the California Department of Fish and Game as an ecological reserve, with assistance from the State Coastal Conservancy.<sup>230</sup> The goal of the restoration project is to restore the degraded natural ecological functions of the wetlands.<sup>231</sup>

The survey of existing biological conditions at Ballona Wetlands has identified a monarch overwintering site within a small eucalyptus grove<sup>232</sup> and narrowleaf milkweed serving as larval hosts in a separate section of the wetlands.<sup>233</sup> However, the draft early action plan does not mention protection of the monarch overwintering site. Also, while the Preferred Alternatives Analysis Memo for the project identifies two other butterfly species as being species targeted to measure the results of restoration, it does not mention the monarch.<sup>234</sup>

### 3. Conclusions and Recommendations

Considering the small number of sites within the coastal zone of Los Angeles County, monarch protection is primarily enforced through local ordinances and laws. Many of the sites are found on public parks. To ensure the protection of monarch habitat, measures could be created to prohibit tree trimming except in cases where trees pose a public safety hazard and only after consultation with a qualified monarch expert within these parks. The restoration at Ballona wetlands can simultaneously be implemented while conserving the monarch overwintering site with careful planning.

Palos Verdes Estates is not impacted by city environmental laws. The tree ordinance at the site could be amended to prohibit any tree trimming of overwintering habitat except in cases where trees pose a public safety hazard and only after consultation with a qualified monarch expert. Similar ordinances could be adopted in other jurisdictions within Los Angeles County. Chevron has already established and operates a natural preserve next to the refinery.

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Refinery, although that butterfly is listed as endangered pursuant to the U.S. Endangered Species Act, 16 U.S.C. §§ 1531 *et seq.*

<sup>229</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>230</sup> Ballona Wetlands Restoration Project, Project Overview, available at <http://www.santamonicabay.org/smbay/ProgramsProjects/HabitatRestorationProject/BallonaWetlandsRestoration/BallonaProjectOverview/tabid/184/Default.aspx>.

<sup>231</sup> *Id.*

<sup>232</sup> Ballona Wetlands Restoration Project, Draft Existing Conditions Report: Section 5, Biological Resources, at 73, available at [http://www.santamonicabay.org/smbay/Portals/0/ballona/Sec\\_05\\_ExistingConditions-Aug2006-Text%20Figs.pdf](http://www.santamonicabay.org/smbay/Portals/0/ballona/Sec_05_ExistingConditions-Aug2006-Text%20Figs.pdf).

<sup>233</sup> *Id.*, citing personal communication with B. Henderson, California Dept. Fish & Game.

<sup>234</sup> Ballona Wetlands Restoration Project, Draft Early Action Plan; Phillip Williams and Associates, LTD., Preferred Alternatives Memorandum (Jan. 15, 2010), Attachment 2, at 7, available at [http://dl.dropbox.com/u/4774745/Ballona\\_Preferred\\_Alts\\_Memo-ALL%20rfs.pdf](http://dl.dropbox.com/u/4774745/Ballona_Preferred_Alts_Memo-ALL%20rfs.pdf).

The one relevant LCP, the City of Malibu's, has rather progressive provisions concerning ESHAs. Monarch overwintering sites are already considered ESHAs, even if they have not been specifically designated as such. Given more detailed site information, a comparison of the location of monarch sites to the existing ESHAs may reveal that some or all of the monarch sites are within ESHAs that have already been designated and mapped. If the monarch sites are not within existing ESHAs, the City could add the monarch sites to the ESHA map.

## **B. Marin County**

Marin County includes some of the monarch's northernmost overwintering sites. Monarchs are known to overwinter in the southern part of the county, which includes several historically significant overwintering sites.<sup>235</sup> Consistent with other areas of California, overwintering populations have plummeted in Marin County.<sup>236</sup>

The Marin County Board of Supervisors adopted two separate LCPs for Marin County. It adopted "Unit I" for the southern part of the county in 1979 and "Unit II" for the northern part of the county in 1980. The California Coastal Commission certified these LCPs in 1980 and 1981, respectively.<sup>237</sup> Currently, Marin County is in the process of comprehensively updating its LCPs. The Marin County Board of Supervisors planned to circulate draft updated LCPs by May 2011 for public review, comment, and public hearings, with certification by the California Coastal Commission by the summer of 2012.<sup>238</sup> As the new draft LCPs are not available at the time this document was written, this document assesses the LCPs certified in 1980 and 1981.

### **1. Unit I**

Unit I covers the southern part of the county, including the communities of Muir Beach, Stinson Beach, Seadrift, and Bolinas. As with other LCPs, the Unit I LCP is a broad-ranging plan that covers protection of streams, water quality, housing development, public access to the beach, agriculture, and many other issues. Any of the LCP's policies on these issues may affect the decision on whether to grant a coastal development permit.

The Unit I LCP also includes several important policies for protecting monarch overwintering habitat. For example, the LCP identifies and maps "resource and habitat areas" in need of protection, including several monarch overwintering sites in the communities of Muir Beach, and Bolinas.<sup>239</sup> It also sets forth policies designed to protect these areas, as well as other

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<sup>235</sup> See generally WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; CNDDDB: MONARCH SITES, *supra* note 2.

<sup>236</sup> For example, the Alder Road site had more than 10,000 monarchs in 2003 but just 1,700 in 2009; five other sites reported zero monarchs in 2009. WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2.

<sup>237</sup> Marin County Community Development Agency, Marin County Local Coastal Plan (LCP), Unit I, at 1 (adopted Aug. 21, 1979) (current as of Apr. 16, 2010), *available at*: <http://www.co.marin.ca.us/depts/CD/main/comdev/ADVANCE/coastal.cfm> (hereinafter Marin County Unit I LCP). This website also includes an LCP update schedule, fact sheet, and maps of Marin County's coastal zone.

<sup>238</sup> See County of Marin, Marin County Local Coastal Program (LCP) Update, <http://www.co.marin.ca.us/depts/CD/main/comdev/advance/coastal.cfm>.

<sup>239</sup> Marin County Unit I LCP, *supra* note 239, at 30, 31. The Unit I LCP also refers to these areas as "habitat resource areas." *Id.* at 31. Natural resource maps on file with the Marin County Planning Department show the locations of these sites. *Id.*

existing habitat areas that have not been identified.<sup>240</sup> The Unit I LCP does not expressly use the term “sensitive resource conservation area” or “environmentally sensitive habitat area” to describe these areas, but other documents state that these listed “habitat areas” are in fact ESHAs.<sup>241</sup>

In Bolinas, monarchs roost in several stands of non-native tree species.<sup>242</sup> In Muir Beach, the Elizabeth Terwilliger Butterfly Grove (also known as the “butterfly trees”) is a well-known monarch overwintering site comprised of Monterey cypress and pine trees.<sup>243</sup> In the 1970s, an estimated 60,000 to 70,000 monarchs overwintered at these sites in Muir Beach.<sup>244</sup> Yet, monarch numbers have plummeted since then. In the late 1990s and early 2000s, a few hundred monarchs roosted at the site and no monarchs have been recorded at the site since 2005, despite surveys in 2007, 2008, and 2009, and 2010.<sup>245</sup> Despite these declines, any trees within these communities are ESHAs. As such, development must not significantly disrupt habitat values and must be dependent on those ESHA resources.

Several additional overwintering sites exist in the area that is on private property.<sup>246</sup> These sites and any other existing sites that qualify as ESHAs are covered by the Unit I LCP’s ESHA policies; the LCP provides that, in addition to listed sites, “other resource and habitat areas exist within the Unit I area which must be protected *in order to assure consistency with Section 30240(a) and (b) of the Coastal Act [concerning ESHAs].*”<sup>247</sup>

These sites, as well as those listed as ESHAs, will be protected by Unit I’s policies concerning habitat protection. The LCP designates as ESHAs the “[b]utterfly trees and other trees or vegetation identified on the natural resource maps on file with the Marin County Planning Department, which provide roosting and/or nesting habitat of wildlife” as “major vegetation” and prohibits the significant alteration or removal of such vegetation without a coastal project permit.<sup>248</sup> The LCP prohibits the alteration or removal of such trees “except where they pose a threat to life or property.”<sup>249</sup> These restrictions are not limited to those moments when monarchs are actually overwintering and thus apply year-round.

The LCP also conserves monarch habitat by requiring development adjacent to wildlife nesting and roosting areas, including monarch overwintering roosting habitat, to be “set back a sufficient distance to minimize impacts on the habitat area” and timed to minimize disturbances

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<sup>240</sup> *Id.* at 31, 34.

<sup>241</sup> *See, e.g.*, Marin County Planning Commission, Hearing Minutes 22 (Aug. 9, 2004) (Commission staff reported that “the entire area of Stinson Beach is an environmentally sensitive habitat area for Monarch Butterflies”).

<sup>242</sup> Marin County Unit I LCP, *supra* note 239, at 31. The LCP states that monarchs do not use these locations every year, but have used them at some point in the past. *Id.*

<sup>243</sup> *Id.* at 30. The trees are located on a steep hill behind several residences. CNDDDB: MONARCH SITES, *supra* note 2.

<sup>244</sup> Marin County Unit I LCP, *supra* note 239, at 30.

<sup>245</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2

<sup>246</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>247</sup> Marin County Unit I LCP, *supra* note 222, at 31 (emphasis added). “[A]ny area that actually meets the definition [of an ESHA] must be given all the protection provided for in the Coastal Act . . . .” California Coastal Commission, *LCP Update Guide: Sensitive Habitats and Natural Resources* (4-3-07), at 3 (last updated: April 3, 2007) [hereinafter *LCP Update Guide*].

<sup>248</sup> Marin County Unit I LCP, *supra* note 239, at 34.

<sup>249</sup> *Id.*

to wildlife.<sup>250</sup> Further, the appropriate government agency must control public access to these areas to minimize disturbances to wildlife and avoid the construction of fences, roads, and other structures that inhibit wildlife movement.<sup>251</sup>

The LCP requires new development to use native vegetation for landscaping (insofar as practical) and that development permits contain conditions requiring the removal of invasive, non-native plants.<sup>252</sup> This provision may adversely affect monarchs, which roost predominantly in non-native trees.

Moreover, the Unit I LCP prohibits construction, alteration of land forms, or vegetation removal within “riparian protection areas.” These areas are established for all streams within Unit I; they extend a minimum of 50 feet from the outer edge of the riparian vegetation, but in no case shall be less than 100 feet from the banks of the stream.<sup>253</sup> As a consequence, if a monarch overwintering site is within a riparian habitat, it is protected even if it is not designated as an ESHA.

Overall, the Unit I LCP provides effective protection for monarch overwintering habitat by expressly referring to several known overwintering sites and, most importantly, extending its protection to unknown, unmapped sites that nevertheless qualify as ESHAs. It further prohibits tree removal and trimming.

## 2. Unit II

Like the Unit I LCP, the Unit II LCP encompasses the broad range of activities that take place in the coastal zone.<sup>254</sup> It also includes policies for ensuring consistency of federal activities in either Unit I or II with these LCPs. Unlike the Unit I LCP, the Unit II LCP does not specifically reference monarch overwintering sites. Nonetheless, it includes several provisions that may potentially protect monarchs.

For example, the Unit II LCP protects “other environmentally sensitive habitats” not expressly referenced in the LCP, which “include habitats of rare or endangered species.”<sup>255</sup> The scarcity of monarchs suggests that they are a “rare” species within the meaning of the Coastal Act. The Coastal Act does not define “rare” or “especially valuable,” apparently leaving this decision to the discretion of local authorities. Significantly, there is no indication that the Coastal Act uses “rare” to mean “rare” as defined by the California Endangered Species Act, because “rare” is not a designation under the California Endangered Species Act.<sup>256</sup> This distinction is

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<sup>250</sup> *Id.*

<sup>251</sup> *Id.*

<sup>252</sup> *Id.*

<sup>253</sup> *Id.* at 19.

<sup>254</sup> Marin County Community Development Agency, Marin County Local Coastal Plan (LCP), Unit II (adopted Dec. 9, 1980) (current as of Apr. 16, 2010), *available at*:

<http://www.co.marin.ca.us/depts/CD/main/comdev/ADVANCE/coastal.cfm> (hereinafter Marin County Unit II LCP)

<sup>255</sup> Marin County Unit II LCP, at 75.

<sup>256</sup> “Rare” is a designation previously granted to species prior to the adoption of the California Endangered Species Act. Any species considered as “rare” prior to 1985 is now considered “threatened.” Cal. Fish & Game Code, § 2067.

important, because invertebrates are specifically excluded from the California Endangered Species Act.<sup>257</sup>

In fact, the Coastal Commission refers local planners to several resources for help in identifying rare, sensitive, or especially valuable species or habitats for ESHA purposes.<sup>258</sup> One such resource is the California Natural Resources Diversity Database, which ranks the conservation status of the monarch butterfly as vulnerable within the state of California.<sup>259</sup> Moreover, several other studies document the monarch's vulnerability and precipitous decline.<sup>260</sup> Thus, the monarch butterfly appears to be sufficiently rare that its overwintering habitat qualifies as an ESHA under the Coastal Act. Assuming that this is true, then development may not significantly disrupt habitat values and must be dependent on the resources of the habitat area. Moreover, the LCP requires that

[d]evelopment adjacent to such areas shall be set back a sufficient distance to minimize impacts on the habitat area. Public access to sensitive, including the timing, intensity, and location of such access, shall be controlled to minimize disturbance to wildlife. Fences, roads, and structures which significantly inhibit wildlife movement, especially access to water, shall be avoided.<sup>261</sup>

In addition, buffer zones must be established and protected for each stream in Unit II. The stream buffer must “include the area covered by riparian vegetation on both sides of the stream and the area 50 feet landward from the edge of the riparian vegetation. In no case shall the stream buffer be less than 100 feet in width, on either side of the stream, as measured from the top of the stream banks.”<sup>262</sup>

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<sup>257</sup> The California Endangered Species Act defines endangered and threatened species in relevant part as a “bird, mammal, fish, amphibian, reptile, or plant.” *Id.* at §§ 2062, 2067.

<sup>258</sup> For purposes of identifying rare species whose habitats qualify as ESHAs, the Coastal Commission refers planners to: (1) the Department of Fish and Game's List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database, (2) the species listed under the California or federal Endangered Species Acts, and (3) those species listed as “1b” or “2” by the California Native Plant Society. *See* California Coastal Commission, *LCP Update Guide: Sensitive Habitats and Natural Resources* 3 (last updated Apr. 3, 2007) [hereinafter *LCP Update Guide*]. Additional resources include the California Natural Resources Diversity Database, available at <http://www.dfg.ca.gov/bdb/html/cnddb.html> and <http://www.dfg.ca.gov/bdb/pdfs/natcomlist.pdf>, and the Inventory of the California Native Plant Society available at <http://cnps.web.aplus.net/cgi.bin>. *Id.* “Published academic studies” may also constitute “compelling evidence of rarity.” *Id.*

<sup>259</sup> *See* California Dept. Fish & Game, *California Natural Resources Diversity Database* (July 2009), at 21 available at [http://www.dfg.ca.gov/biogeodata/cnddb/plants\\_and\\_animals.asp](http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp). This database ranks the conservation status of the monarch butterfly as “G5 S3,” which indicates that the monarch is “secure” on a global level, but “vulnerable” at the state level. *See Nature Serve Conservation Status Ranks*, available at <http://www.natureserve.org/explorer/ranking.htm>.

<sup>260</sup> *See, e.g.,* Secretariat of the Commission for Environmental Cooperation, *MONARCH CONSERVATION PLAN*, (2008), available at [http://www.fs.fed.us/monarchbutterfly/news/conservation\\_plan.shtml](http://www.fs.fed.us/monarchbutterfly/news/conservation_plan.shtml); Xerces Society, “Conservation and Management Guidelines for Preserving the Monarch Butterfly Migration and Monarch Overwintering Habitat in California (1993), available at [www.xerces.org/wp.../monarch\\_management\\_guidelines\\_1993.pdf](http://www.xerces.org/wp.../monarch_management_guidelines_1993.pdf).

<sup>261</sup> Marin County Unit II LCP, *supra* note 256, at 75.

<sup>262</sup> *Id.* at 73 (emphasis in original).

In these buffer zones, development is strictly limited: “No construction, alteration of land forms or vegetation removal shall be permitted within such riparian protection area . . . Development shall not be located within this stream buffer area.”<sup>263</sup> However, if a development *outside* a riparian protection or stream buffer area would be more environmentally harmful to the riparian habitat than development within it, then “development of principal permitted uses may occur within such area, subject to design review and appropriate mitigation measures.”<sup>264</sup>

In sum, although the Unit II LCP does not specifically designate any monarch overwintering sites as ESHAs, its policies extend to any other existing ESHAs, which would appear to include monarch overwintering sites. Any known monarch sites in the northern part of the county should be documented and included in the updated LCP, and, as discussed below, Unit II’s policies could be strengthened to better protect any monarch habitat that may exist in Unit II.

### 3. Conclusions and Recommendations

As Marin County initiates the process for updating its LCPs, it could improve monarch conservation by ensuring that the county’s natural resource maps include the most recent scientific data on monarch overwintering sites.<sup>265</sup> More importantly, the updated LCPs could expressly extend ESHA protection to unmapped or undesignated areas that meet specific criteria, such as “habitat including monarch overwintering trees.”<sup>266</sup> In so doing, the county eliminates the possibility that developers will challenge an ESHA designation as failing to meet the standards set by general criteria.<sup>267</sup> The updated LCPs could also provide guidance to responsible agencies in identifying and protecting unmapped ESHAs at the time of a proposed development or LCP amendment and should require site-specific evaluations.<sup>268</sup>

With respect to adjacent development, the updated LCP could ensure that land use designations and development adjacent to ESHAs and parks are compatible with resource

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<sup>263</sup> *Id.*

<sup>264</sup> *Id.*

<sup>265</sup> *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . an updated map and description of existing, known habitats”).

<sup>266</sup> *See* *LT-WR, L.L.C. v. California Coastal Comm’n*, 152 Cal.App.4th 770, 793 (Cal. Ct. App. 2007) (concluding Commission had authority to designate ESHA not mapped in LCP because LCP ESHA provisions extended to “any undesignated areas which meet the criteria and which are identified through the biotic review process or other means . . .”); *see also LCP Update Guide*, *supra* note 260, at 3 (“LCPs must be updated to ensure that ESHA and wetland determinations are based on site specific biological surveys at the time of proposed development or plan amendment, and that any area that actually meets the definitions of either must be given all the protection provided for in the Coastal Act, regardless of its prior identification on a resource map.”).

<sup>267</sup> In addition, the relevant permitting authority cannot designate an area as an ESHA unless that ESHA designation is included in the LCP. *See Douda v. California Coastal Comm’n*, 159 Cal.App.4th 1181, 1192 (Cal. Ct. App. 2008) (“an issuing agency cannot deviate from a certified local coastal program and designate an additional environmentally sensitive habitat area”); *Security Nat. Guar., Inc. v. California Coastal Comm’n*, 159 Cal.App.4th 402, 422-424 (Cal. Ct. App. 2008) (holding that Coastal Commission cannot designate any ESHAs that are inconsistent with those designated in the county’s certified LCP).

<sup>268</sup> *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . [c]lear policies stating that the identification of ESHA . . . will be determined in part through an evaluation of existing known resources at the time of proposed development or plan amendment . . . [and] strengthened requirements for conducting site specific biological evaluations and field observations to identify ESHA . . .”).

protection, that sufficient buffers exist between ESHAs and adjacent development, and that any unavoidable impacts of adjacent development on ESHAs are adequately mitigated.<sup>269</sup> Although the current LCP requires that adjacent development be setback “to minimize the impacts on habitat areas,”<sup>270</sup> this requirement is vague. Therefore, the updated LCP could specify minimum setback requirements based on the current, available scientific information relating to monarch habitat.<sup>271</sup>

### C. Mendocino County

Mendocino County has hosted the monarch’s northernmost sites, which are located in the southern part of the county. Monarch sightings indicate that these areas may be autumnal sites in which monarchs are only present for several weeks. No recorded surveys for monarchs have been conducted in this county since the 1990s, at which time most sites only hosted a few individuals.<sup>272</sup> Yet, since these surveys were performed in late autumn or winter months, they may have been conducted in the wrong specific time of year to accurately assess the butterfly’s usage of the site. These small sites, even if they may only be used for a portion of the year, may be important way stations as butterflies migrate to overwintering sites and provide adequate protection during the fall.<sup>273</sup>

#### 1. Mendocino County Local Coastal Program

The Mendocino County LCP consists of a land use plan, which constitutes the Coastal Element of the county’s General Plan,<sup>274</sup> and an implementation program, which relies primarily on the Mendocino County Zoning Ordinance. The Coastal Element was adopted by the County Board of Supervisors and approved by the Coastal Commission in 1985<sup>275</sup> and has been revised various times over the years. However, the county expects to begin the process of updating its LCP in the near future.<sup>276</sup>

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<sup>269</sup> See Cal. Pub. Res. Code § 30240(b) (“Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.”); see also *Bolsa Chica Land Trust v. Superior Court*, 71 Cal. App.4th 493, 507 (Cal. Ct. App. 1999); *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . [r]eview of areas adjacent to environmentally sensitive habitat areas and parks and recreation areas to ensure land use designations and development standards are compatible with the protection of resources”).

<sup>270</sup> Marin County Unit I LCP, *supra* note 239, at 34; Marin County Unit II LCP, *supra* note 256, at 75.

<sup>271</sup> *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . [u]pdated setback requirements to reflect new scientific information on adequacy of buffers”).

<sup>272</sup> See generally WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2.

<sup>273</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>274</sup> County of Mendocino, General Plan (Aug. 2009), *available at*:

<http://www.co.mendocino.ca.us/planning/plans/planGeneralTOC.htm>. The LCP was adopted separately from the General Plan but was incorporated into it in Chapter 7.

<sup>275</sup> The Coastal Element of the Mendocino County General Plan is available at <http://www.co.mendocino.ca.us/planning/plans/planCoastalTOC.htm>.

<sup>276</sup> The county reports that it will update the Coastal element of its General Plan in 2011-2012. See county of Mendocino, Mendocino County General Plan, *at*: <http://www.co.mendocino.ca.us/planning/plans/planGeneralTOC.htm>. In preparation for the coastal planning process, the county completed the State Route 1 Corridor Traffic Study, which will serve as background information for the LCP update.

The Mendocino County LCP ensures consistency with the policies and requirements of the California Coastal Act. To this end, the LCP reflects a land use priority system that places the highest priority on the preservation and protection of natural resources, including environmentally sensitive habitats and prime agricultural land.

The LCP contains general policies that apply throughout the coastal zone, as well as policies specific to 13 different planning areas, including the locations of sites once known to have harbored monarchs.<sup>277</sup> Policies found in other elements of the county's General Plan may also apply in the coastal zone, but Coastal Element policies take precedence.<sup>278</sup> Any of the policies contained in the county's LCP and General Plan may affect the conservation of monarch habitat, but the LCP policies concerning natural resources and ESHAs are most relevant.

Although the LCP does not specifically reference monarch butterflies, monarch overwintering sites may be located in areas designated as ESHAs, such as riparian corridors or habitat of a rare or endangered species.<sup>279</sup> The LCP allows mitigation of any significant disruption of habitat values to an ESHA from a project.<sup>280</sup> It also establishes buffer zones of 100 feet or more, unless an applicant can demonstrate that a 100-foot buffer zone is not necessary.<sup>281</sup> The purpose of the buffer zone is not exactly clear as the LCP expressly allows developments within the buffer zone, provided that new developments are not allowed *entirely* within a buffer zone.<sup>282</sup> Development within a buffer zone must also be designed to prevent impacts that would significantly degrade such areas and be compatible with the continuance of such habitat areas by maintaining their functional capacity and their ability to be self-sustaining and to maintain natural species diversity.<sup>283</sup> Significantly, no structures may be built in a buffer area unless there is no other feasible site available on the parcel.<sup>284</sup> These restrictions apply to all ESHAs, not just those shown on the land use maps.<sup>285</sup>

The LCP further requires the permitting authority to determine whether any proposed development in the coastal zone has the potential to impact an ESHA.<sup>286</sup> If such potential exists

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<sup>277</sup> The policies for the South Coast Planning Area (from Iversen Road to the Sonoma County line) are set forth in chapter four, section 4.12 of the Coastal Element.

<sup>278</sup> See Mendocino County General Plan, *supra* note 267, at 1-10.

<sup>279</sup> The LCP designates anadromous fish streams, sand dunes, rookeries and marine mammal haulout areas, wetlands, riparian areas, pygmy vegetation containing species of rare or endangered plants, and habitats of rare and endangered plants and animals as ESHAs. See *id.*, Coastal Element, *supra* note 268, at Chapter 3.1, page 7.

<sup>280</sup> See *id.*, policy 3.1-10, at 3.

<sup>281</sup> *Id.*, policy 3.1-7, at 2-3; Mendocino County Zoning Ordinance § 20.496.020 (setting forth several criteria for buffer areas, including sensitivity of species to disturbance and the biological significance of the adjacent lands).

<sup>282</sup> Coastal Element, *supra* note 268, at Chapter 3.1, Policy 3.1-7, at 2-3 (emphasis added); Mendocino County Zoning Ordinance § 20.496.020.

<sup>283</sup> Mendocino County Zoning Ordinance § 20.496.020.

<sup>284</sup> *Id.* at § 20.496.020(4)(e).

<sup>285</sup> *Id.* at § 20.496.020(A); General Plan, Coastal Element, Chapter 3.1, policy 3.1-2.

<sup>286</sup> See Mendocino County Zoning Ordinance, § 20.496.015(A). The zoning ordinance provides:

[a] project has the potential to impact an ESHA if:

- (1) The development is proposed to be located on a parcel or proximate to a parcel identified on the land use plan map with a rare and/or endangered species symbol;
- (2) The development is proposed to be located within an ESHA, according to an on-site investigation, or documented resource information;

or if the proposed development is in an ESHA, a biological survey must be prepared to determine the extent of the ESHA, identify any potential negative impacts, and recommend appropriate mitigation measures.<sup>287</sup>

The LCP also recognizes that one area in the county where monarchs have overwintered is a “natural area” in need of protection.<sup>288</sup> A natural area, as distinct from an ESHA, does not receive the same level of protection, and development is permitted in these areas. However, “mitigating conditions” may be required to ensure “the continued protection of the resource area.”<sup>289</sup> Finally, the Gualala Town Plan, contained in the Coastal Element, designates one of their monarch sites as a sensitive resource.<sup>290</sup> However, the plan does not specify what level of protection a sensitive resource is to be afforded.

In sum, without monarch-specific conservation measures in the Mendocino LCP, the few monarch sites located in southern Mendocino County are only protected insofar as they are located in areas otherwise designated as ESHAs, such as riparian corridors. However, even monarch sites located in ESHAs are inadequately protected because the LCP’s ESHA policies fail to consider the characteristics of these areas that make them suitable for monarchs.

## 2. Conclusions and Recommendations

The conservation significance of the monarch sites in Mendocino County is unknown since most of the sites have not been monitored since the 1990s. Mendocino County could take some steps to protect monarchs and overwintering sites. For example, the LCP could proactively prohibit the trimming, alteration, or removal of trees known to provide monarch overwintering habitat except in cases where trees pose a public safety hazard and only after consultation with a qualified monarch expert. In addition, the updated LCP could expressly extend ESHA protection to monarch overwintering sites. As part of such proactive ESHA policies, the updated LCP could require site-specific evaluations at the time of any proposed development or plan amendments and provide additional guidance to responsible agencies and officials in identifying unmapped ESHAs, including monarch habitat.<sup>291</sup>

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(3) The development is proposed to be located within one hundred (100) feet of an environmentally sensitive habitat and/or has potential to negatively impact the long-term maintenance of the habitat, as determined through the project review.

*Id.*

<sup>287</sup> *Id.* § 20.496.015(A)(3) (setting forth ESHA development application procedures).

<sup>288</sup> *See* General Plan, Coastal Element, *supra* note 287, at Chapter 3.1, page 8.

<sup>289</sup> Mendocino County Zoning Ordinance § 20.496.050(B).

<sup>290</sup> *See* General Plan, Coastal Element, *supra* note 287, at Chapter 4 (Gualala Town Plan), page 282.

<sup>291</sup> *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . [c]lear policies stating that the identification of ESHA . . . will be determined in part through an evaluation of existing known resources at the time of proposed development or plan amendment . . . [and] strengthened requirements for conducting site specific biological evaluations and field observations to identify ESHA . . .”).

## **D. Monterey County**

Monterey County is home to thousands of overwintering monarchs and has several important monarch sites.<sup>292</sup> Many of these sites lie within the coastal zone. Others, such as those in Pacific Grove, are covered by ordinances applicable to parks and sanctuaries.

### **1. Monterey County LCP**

#### **a. Background/Overview**

The Monterey County LCP includes four separate land use plans governing different coastal areas: Big Sur, Carmel, Del Monte Forest, and North County.<sup>293</sup> These plans were certified by the Commission in 1986, 1983, 1984, and 1982, respectively.<sup>294</sup> The LCP also includes a coastal implementation plan that includes development regulations for each planning area, zoning ordinances, and maps. The Commission certified the complete coastal implementation plan in 1988.<sup>295</sup> The LCP has been amended several times over the years.

From 2002 to 2003, the Commission conducted a periodic review of Monterey County's implementation of its LCP to determine whether the LCP is effectively carrying out the goals and policies of the Coastal Act.<sup>296</sup> The Commission made several recommendations to bring the LCP into conformity with the Coastal Act, including revisions to the LCP's ESHA policies, particularly with respect to Monterey pine forests and monarch butterfly habitat.<sup>297</sup> It specifically concluded that sites outside Big Sur "may not receive protecting in a manner consistent with Coastal Act policies. Additionally, there is a lack of guidance in the LCP as to what protective measures are appropriate for Monarchs."<sup>298</sup> Nonetheless, Monterey County has not revised or amended its based on the Commission's criticism.<sup>299</sup>

#### **b. Purpose and Structure**

The LCP covers a broad range of activities that take place in the coastal zone, from natural resource management to land use and development. Like other LCPs, any of the policies

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<sup>292</sup> See generally WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; CNDDDB: MONARCH SITES, *supra* note 2.

<sup>293</sup> County of Monterey, 2010 MONTEREY COUNTY GENERAL PLAN iv (Oct. 26, 2010), *available at*:[http://www.co.monterey.ca.us/planning/gpu/GPU\\_2007/gpu\\_2007.htm](http://www.co.monterey.ca.us/planning/gpu/GPU_2007/gpu_2007.htm).

<sup>294</sup> *Id.*

<sup>295</sup> Apparently, Malpaso and Yankee Beaches within the Carmel area were placed in deferred certification.

<sup>296</sup> The Coastal Act Section requires that the Commission periodically review the implementation of certified LCPs to determine whether they are being effectively implemented in conformity with the policies of the Coastal Act. Cal. Pub. Res. Code § 30519.5.

<sup>297</sup> See California Coastal Commission, Staff Report on the Periodic Review of the Monterey County Local Coastal Program (Sept. 2004), at 18-19; Preliminary Analysis of Periodic Review Issues and Recommendations, Appendix A, at 73-74 (Jan. 2003) (recommendations specifically addressing monarch butterflies), *available at* <http://www.coastal.ca.gov/recap/mco-lcp-review.html>.

<sup>298</sup> Preliminary Analysis of Periodic Review Issues and Recommendations, *supra* note 299, at Appendix A, page 73.

<sup>299</sup> Monterey County could have addressed the concerns of the Commission when the County amended its General Plan in October 2010. County of Monterey, 2010 MONTEREY COUNTY GENERAL PLAN iv (Oct. 26, 2010), *available at*:[http://www.co.monterey.ca.us/planning/gpu/GPU\\_2007/gpu\\_2007.htm](http://www.co.monterey.ca.us/planning/gpu/GPU_2007/gpu_2007.htm).

pertaining to these issues may affect the conservation of monarch habitat, but the policies concerning natural resource management and ESHAs are the most relevant.

To ensure consistency with the policies and requirements of the California Coastal Act,<sup>300</sup> the LCP places the highest priority on the preservation of natural resources, including ESHAs. The LCP's "key policy" with respect to ESHAs is the protection, maintenance, restoration, and, where possible, enhancement of these areas. The protection of ESHAs generally takes precedence over all other categories of land use.<sup>301</sup> The LCP contains general policies pertaining to all ESHAs and specific policies depending on the type of resource—for example, terrestrial, riparian, or aquatic habitats.

While many of the policies contained in the four land use plans are the same, each plan designates and treats ESHAs somewhat differently. Only the Big Sur land-use plan expressly designates monarch "mass overwintering sites" as ESHAs,<sup>302</sup> although the regulations implementing the Coastal Implementation Plan for the North County and Carmel Land Use Plans (LUPs) also list monarch mass overwintering sites as ESHAs.<sup>303</sup> Whether the reference to "mass overwintering sites" indicates that a large number of butterflies must overwinter at a site before it qualifies as an ESHA is not known. Monarch habitat may nevertheless qualify as an ESHA under the other land-use plans, which define ESHAs broadly and contemplate that undesignated habitats for rare, endangered, or sensitive species may qualify as ESHAs.

In addition, the Carmel and Del Monte land use plans protect as ESHAs certain areas of Monterey pine and cypress forest, which may provide monarch habitat.<sup>304</sup> The plans contain policies to protect the forests designated as ESHAs, to minimize impacts to the habitat and scenic resource values of the forest, and to avoid, minimize, and mitigate tree cutting. However, the Big Sur land use plan encourages the removal of nonnative invasive species, including eucalyptus trees, a practice which may be detrimental to monarch conservation efforts.<sup>305</sup>

Aside from these differences, the remaining LCP ESHA policies are generally uniform among the four land use plans. As required by the Coastal Act, each development that results in significant disruption of habitat values is prohibited in an ESHA. The LCP requires field surveys in documented or expected ESHA locations at the time of proposed development to determine the existence of any ESHAs. For proposed development on land containing ESHAs, the county must require deed restrictions or dedications of permanent conservation easements. The LCP

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<sup>300</sup> *Id.* at LU-14.

<sup>301</sup> Except for the North County land use plan, the land use plans provide that "all categories of land use, both public and private . . . are subordinate to the protection of these critical areas." Monterey County, Big Sur Coast Land Use Plan (certified Apr. 10, 1986), at 23; Monterey County, Del Monte Forest Area Land Use Plan, at 18 (certified Sept. 24, 1984); Monterey County, Carmel Area Land Use Plan, at 31 (last updated Nov. 17, 1999); County of Monterey, North County Land Use Plan (certified June 1982). All of these Land Use Plans are available at <http://www.co.monterey.ca.us/planning/docs/plans/landuse.htm>.

<sup>302</sup> Big Sur Coast Land Use Plan, *supra* note 303, at 22.

<sup>303</sup> Monterey County Coastal Implementation Plan, Regulations for Development in the North County Land Use Plan Area, § 20.144.020(EE); Monterey County Coastal Implementation Plan, Regulations for Development in the Carmel Land Use Plan Area, § 20.146.020(K).

<sup>304</sup> Not all Monterey pine forest areas automatically qualify as ESHAs under the Carmel land use plan; instead, the determination is made on a case-by-case basis. *See* Carmel Area Land Use Plan, *supra* note 303, at 31.

<sup>305</sup> *See* Big Sur Land Use Plan, *supra* note 303, at 25.

also requires the county to “retain significant and, where possible, continuous areas of undisturbed land in open space use” to protect ESHAs and habitat values.<sup>306</sup> The LCP limits the removal of indigenous vegetation for development in or adjacent to ESHAs is “limited to that needed for the structural improvements themselves” and requires the use of native species in landscaping.<sup>307</sup>

With respect to land uses adjacent to ESHAs, the LCP requires such uses to “be compatible with the long-term maintenance of the resource.”<sup>308</sup> The Big Sur, Carmel and North County land use plans further provide that “[n]ew land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent significant habitat impacts, and where they do not establish a precedent for continued land development which, on a cumulative basis, could degrade the adjoining habitat.”<sup>309</sup> Further, the LCP allows new development adjacent to ESHAs “only at densities compatible with the protection and maintenance of the adjoining resources” and “only where potential impacts to [ESHAs] . . . can be avoided.”<sup>310</sup> Finally, the LCP requires setbacks from streams and generally prohibits new development within riparian corridors.<sup>311</sup>

Despite these rules, their applicability to monarchs remains uncertain. While the North County implementing regulations define monarch overwintering sites as ESHAs, the regulations on ESHAs do not expressly apply to monarch overwintering sites. Instead, the regulations list a number of other ESHAs to which the regulations apply.<sup>312</sup> While the regulations impose restrictions on ESHAs containing “rare and endangered species,” that is a separate category of ESHA as defined by the regulations.<sup>313</sup> Monarchs and their overwintering sites may qualify for ESHA status under the implementing regulations of Del Monte as a rare or especially valuable animal, but this is not clear.<sup>314</sup>

In sum, although the Monterey County LCP contains several policies that may benefit monarchs, the various land use plans that compose the LCP fail to protect monarch butterflies

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<sup>306</sup> See, e.g., *id.*

<sup>307</sup> See, e.g., *id.* at 23, 24.

<sup>308</sup> See, e.g., County of Monterey, North County Land Use Plan, *supra* note 303, at 26.

<sup>309</sup> See, e.g., *id.* The Del Monte Land Use Plan provides that “development shall be sited and designed to prevent impacts which would significantly degrade the protected habitat.” Del Monte Land Use Plan, *supra* note 303, at 18.

<sup>310</sup> See, e.g., North County Land Use Plan, *supra* note 303, at 26.

<sup>311</sup> See Carmel Area Land Use Plan, *supra* note 303, at 35; North County Land Use Plan, *supra* note 303, at 28; Big Sur Land Use Plan, *supra* note 303, at 24; Del Monte Forest Area Land Use Plan, *supra* note 303, at 22.

<sup>312</sup> Monterey County Coastal Implementation Plan, Regulations for Development in the North County Land Use Plan Area, Chapter 20.144.020(B)(1).

<sup>313</sup> *Id.* at Chapter 20.144.020(EE).

<sup>314</sup> The Del Monte Forest regulations that implement the Monterey Coastal Implementation Plan defines an ESHA as follows:

Environmentally sensitive habitat areas are those in which plant or animal life or their habitats are rare or especially valuable due to their special role in an ecosystem. These include rare, endangered, or threatened species and their habitats; other sensitive species and habitats such as species of restricted occurrence and unique or especially valuable examples of coastal habitats[.]

Monterey County Coastal Implementation Plan, Regulations for Development in the Del Monte Forest Land Use Plan Area, § 20.147.040(H).

and their habitat adequately for two reasons. First, except the Big Sur LUP, the LUPs fail to define ESHAs adequately to ensure that monarch overwintering sites are protected as ESHAs. Second, all four LUPs fail to adequately describe which policies are sufficient to protect monarch overwintering sites.

## 2. Other Monarch Sites

### a. Pacific Grove

The municipality of Pacific Grove hosts at least two overwintering sites, the Pacific Grove Monarch Butterfly Sanctuary and George Washington Park. Thousands of monarchs have consistently roosted at Pacific Grove Monarch Butterfly Sanctuary. The presence of monarchs at George Washington Park fluctuates greatly depending on the year. While thousands of monarchs have overwintered at this site in 1986, 1995, 1996, 2003, 2004, and 2006; only a few to none have been reported in other years.<sup>315</sup> The citizens of Pacific Grove are particularly passionate about monarchs. Each year, they hold a parade in honor of the monarchs—a tradition that has survived for 60 years.

Pacific Grove has also adopted ordinances that protect monarchs and monarch roosting trees while the monarchs are present.<sup>316</sup> The city prohibits any person from molesting or interfering with monarchs anywhere in Pacific Grove, unless the monarchs interfere with the occupancy of a private house or building.<sup>317</sup> A \$500 fine may be levied against those cited with molesting a monarch.<sup>318</sup> The city also designated the Monarch Grove Sanctuary and Washington Park as monarch overwintering sites and prohibits the pruning or removal of trees within the sites unless necessary for public health, safety, or welfare.<sup>319</sup> In the fall of 2009, however, trees in the Monarch Grove Sanctuary were excessively trimmed, after a branch fell and killed a person.<sup>320</sup> The tree trimming may have made the habitat less suitable for monarchs, leading to a decline in monarch overwintering numbers from more than 17,000 in 2008 to fewer than 800 in 2009.<sup>321</sup>

### b. Elkhorn Slough Ecological Preserve

Small clusters of monarchs roosted at The Elkhorn Slough Ecological Preserve in the 1980s, however numbers have not been recorded since 1986 and the current population status is unknown. The Elkhorn Slough Ecological Preserve, a 45,000-acre preserve located along the curve of Monterey Bay, hosts a number of other sensitive plant and animal species.<sup>322</sup>

The Elkhorn Slough Foundation, a local non-profit organization and land trust, and the Elkhorn Slough National Estuarine Research Reserve, a partnership between California

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<sup>315</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>316</sup> Pacific Grove Municipal Code § 12.16.24.

<sup>317</sup> *Id.* at § 11.48.010.

<sup>318</sup> *Id.*

<sup>319</sup> *Id.* at § 12.16.250

<sup>320</sup> Steve Chawkins, *Anger Flutters over “Butterfly Town, USA”*, L.A. TIMES (Aug. 29, 2010).

<sup>321</sup> WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2.

<sup>322</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

Department of Fish and Game and the National Oceanic and Atmospheric Administration, own most of the land within the Slough. Working to protect and restore the habitat and resources within the Slough, the Reserve and the Foundation have protected nearly 5,500 acres of land through acquisition.<sup>323</sup> The Reserve and the Foundation both have stewardship programs and the Foundation implements a watershed conservation plan for its property in the Slough. Land use within the Slough is also regulated by the North County Land Use Plan.

### 3. Conclusions and Recommendations

To ensure the protection of monarch habitat and consistency with Coastal Act requirements, Monterey County could include several revisions in its updated LCP. As the Commission recommended, the updated LCP and the relevant maps could expressly designate known monarch overwintering sites as ESHAs and include specific measures designed to protect ESHAs and monarch habitat in particular, based on the most recent scientific data available on monarch overwintering sites.<sup>324</sup> For example, the LCP could prohibit all trimming, alteration, or removal of all trees in known monarch overwintering habitat, except in cases where trees pose a public safety hazard and only after consultation with a qualified expert on the monarch. To be effective, this restriction should apply year-round and should be enforced by requiring detailed mapping of overwintering sites and buffer zones and limiting destructive activities in them.

Moreover, Monterey County could expressly extend ESHA protection to unmapped or undesignated overwintering habitat to ensure that any currently unknown or future overwintering sites are protected. The updated LCP should require site-specific evaluations at the time of any proposed development or plan amendments and provide additional guidance to responsible agencies and officials in identifying unmapped ESHAs.<sup>325</sup>

With respect to development in or adjacent to ESHAs, the updated LCP should uniformly prohibit all development, except resource-dependent uses. It should also ensure that sufficient buffers exist between ESHAs and adjacent development and that any unavoidable impacts of adjacent development on ESHAs are adequately mitigated.<sup>326</sup> Moreover, the Commission recommended that the county require a biological analysis of the impacts of development near monarch sites. The Commission also recommended that management plans to address habitat

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<sup>323</sup> See <http://www.elkhornslough.org/habitat-restoration/index.htm>; CNDDDB: MONARCH SITES, *supra* note 2.

<sup>324</sup> See Preliminary Analysis of Periodic Review Issues and Recommendations, *supra* note 299, at Appendix A, pages 73-74; California Coastal Commission, *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . an updated map and description of existing, known habitats”).

<sup>325</sup> *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . [c]lear policies stating that the identification of ESHA . . . will be determined in part through an evaluation of existing known resources at the time of proposed development or plan amendment . . . [and] strengthened requirements for conducting site specific biological evaluations and field observations to identify ESHA . . .”).

<sup>326</sup> See Cal. Pub. Res. Code § 30240(b) (“Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.”); see also *Bolsa Chica Land Trust v. Superior Court*, 71 Cal. App.4th 493, 507 (Cal. Ct. App. 1999); *LCP Update Guide*, *supra* note 237, at 1 (“an LCP should include . . . [r]eview of areas adjacent to environmentally sensitive habitat areas and parks and recreation areas to ensure land use designations and development standards are compatible with the protection of resources”).

preservation be prepared for any development that may affect monarch overwintering sites.<sup>327</sup> Among other things, the Commission recommended that these plans should provide criteria for landscaping and keeping water sources clean and prohibit the cutting, thinning, pruning, or removal of any tree or shrub used by monarchs, the use of pesticides, and construction during the months when monarchs are present.<sup>328</sup>

## **E. Orange County**

Monarchs have overwintered at approximately 20 sites in Orange County, most of which have only shown monarch overwintering populations in the tens since 1999 and others which have not supported monarchs for many years. Two exceptions are San Clemente State Park which hosted 240 monarchs and Norma Gibbs State Park which hosted 100 monarchs in 2010.<sup>329</sup> Like the overwintering sites in Los Angeles County directly to the north of Orange County, many of these overwintering sites fall outside the coastal zone and are not subject to the Coastal Act. This is the result of cities taking advantage of the Coastal Act's provision that in developed areas the coastal zone "generally extends inland less than 1,000 yards."<sup>330</sup> Seven sites lie outside the coastal zone, one site is the property of the U.S. Department of Defense (Seal Beach, discussed in Section III above) and two sites are located on state parks and beaches (discussed in Section II above).

### **1. City of Laguna Beach LCP**

The City of Laguna Beach is home to several monarch overwintering areas, including the sites of Alviso Resort and Festival of the Arts. Observers reported 200 monarchs in 1997 at the Alviso Resort site, but there is no data available for subsequent years. Observers reported five monarchs in 2008 for the Festival of the Arts site, but there is no other data available.<sup>331</sup> Almost the entire City of Laguna Beach, including its two monarch overwintering sites, is located within the coastal zone and is subject to the City of Laguna Beach LCP.<sup>332</sup> The City of Laguna Beach LCP and its General Plan form a single document (LCP/GP).<sup>333</sup> Since the coastal zone extends through almost the entire City, the City chose to have a single document that performs the functions of both.<sup>334</sup> The Commission certified the final aspect of the Laguna Beach LCP in 1992.<sup>335</sup> There is no indication that the City is working on a comprehensive update or review of

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<sup>327</sup> See Preliminary Analysis of Periodic Review Issues and Recommendations, *supra* note 299, at Appendix A, pages 73-74;

<sup>328</sup> *Id.* at 74.

<sup>329</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2; WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; CNDDDB: MONARCH SITES, *supra* note 2.

<sup>330</sup> Cal. Pub. Res. Code § 30103(a).

<sup>331</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>332</sup> City of Laguna Beach: Community Dev. Dept., Informational Guide for a Coastal Development Permit (rev. July 2006).

<sup>333</sup> City of Laguna Beach, General Plan Land Use Element, at 1-5 (last amended Oct. 5, 2010), *available at*: <http://www.lagunabeachcity.net/services/construction/infoguides/planamendments.asp>.

<sup>334</sup> *Id.*

<sup>335</sup> California Coastal Commission, Local Coastal Planning Program Detailed LCP Status and History as of June 20, 2010 (Oct. 17, 2010), Part V, at 31-32.

its LCP, though it has applied for thirty-nine amendments since certification, thirty-two of which have been certified by the Commission.<sup>336</sup>

While the Laguna Beach LCP/GP provides some effective protection for endangered and threatened species, as well as species of “local interest,” the LCP/GP does not include provisions relevant to monarch conservation. For example, the LCP/GP provides for rankings of habitats: low, moderate, high and extremely high value habitats.<sup>337</sup> Those areas that are designated as “moderate,” “high,” and “extremely high value habitats” become ESHAs under the LCP/GP, while the restrictions for the “low value habitat” are much less significant.<sup>338</sup> Once an area is designated as an ESHA, any development within the area is subject to typical ESHA restrictions, including siting and project design to minimize any impacts to nearby ESHA.<sup>339</sup> The City further discourages development on or near an ESHA by allowing a project applicant to transfer the allowed density at the project site to another property that is not located on or near an ESHA.<sup>340</sup> Clearly, designation of monarch overwintering habitat as “moderate” to “extremely high value habitat” would be beneficial, with the highest value possible being the most desirable.

However, the LCP/GP’s definitions of the four categories of valuable habitat are problematic for monarch conservation. The criteria for the three higher categories of valuable habitat (moderate, high and extremely high) emphasize native plants and large, contiguous areas.<sup>341</sup> Low value habitat is characterized as highly fragmented, impacted sites that are typically dominated by invasive, rather than native, plant species.<sup>342</sup> Monarch overwintering sites often include non-native eucalyptus and are frequently relatively small in size. As such, they would seem to fit the category of low value habitat according to the LCP/GP.

It is likely that adequate protection for monarch overwintering sites in Laguna Beach cannot be achieved within the existing framework of the City’s LCP/GP. An amendment to the LCP/GP is therefore necessary. A provision explicitly designating the plant communities that compose monarch overwintering habitat as “extremely high value habitat” would ensure that the areas containing that habitat would be subject to the highest level of protection available under the City’s LCP/GP. However, designation as “high” or even “moderate” value habitat would be beneficial in extending some protection to the monarch’s habitat.

## **2. Local Ordinances Relevant to Monarchs**

Many sites in Orange County are outside the coastal zone and are therefore not subject to LCPs. Considering they are outside the coastal zone, protection of these sites must come from city ordinances. As described below, these sites enjoy little to no protection.

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<sup>336</sup> *Id.*

<sup>337</sup> City of Laguna Beach, General Plan Open Space/Conservation Element, at 3-43 to 3-44 (last updated Feb. 2006).

<sup>338</sup> *Id.* at 3-48.

<sup>339</sup> *Id.* at 3-49.

<sup>340</sup> *Id.*

<sup>341</sup> *Id.* at 3-43 to 3-44.

<sup>342</sup> *Id.*

**a. City of Dana Point**

Observers at The Hospital Site within the City of Dana Point reported 650 roosting monarchs in 1997, but generally only a few thereafter. The site is the Capistrano by the Sea Hospital and is outside the coastal zone.<sup>343</sup> However, the City's General Plan, which includes its LCP, applies throughout the City. The General Plan recognizes that "several sensitive species have been observed with[in] the City including the . . . Monarch Butterfly."<sup>344</sup> It goes on to provide that "[e]nvironmentally sensitive habitat areas, including important plant communities, wildlife habitats, . . . and significant tree stands . . . shall be preserved," though it does not explicitly state that monarch habitat qualifies for this ESHA protection.<sup>345</sup> The City has a general prohibition on the taking or possessing of non-domesticated animals, but the term "animal" is expressly defined as vertebrates, thereby excluding monarchs.<sup>346</sup> No other protection for monarchs or their habitat is included in either the City's General Plan or its Municipal Code.

**b. City of Newport Beach**

Records from Sundance Drive, located in the city of Newport Beach, indicate 3,500 and 1,500 monarchs roosted at this site in 1997 and 1998, respectively, though never more than 280 individuals have been reported since. This monarch overwintering site is located outside the coastal zone.<sup>347</sup> While the City's General Plan establishes Environmental Study Areas that protect sensitive habitats and are the equivalent of the LCP's ESHAs, no such Environmental Study Area has been established for the Sundance Drive area.<sup>348</sup> The City of Newport Beach does have an ordinance forbidding the possession of "wild animals," but the definition of "wild animals" is linked to a regulation of the California Department of Fish and Game that does not include insects, making the Newport Beach provision inapplicable to monarchs.<sup>349</sup> Neither the City's Municipal Code nor its General Plan protect monarchs or their habitat, though neither contain any provisions that are unfavorable to eucalyptus.

**c. City of Seal Beach**

The Gum Grove Park overwintering site in Seal Beach typically hosts forty or less monarchs, although 2,000 were observed in 1997. The Park is also outside the coastal zone and

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<sup>343</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>344</sup> City of Dana Point, General Plan: Conservation/Open Space Element, at 11.

<sup>345</sup> *Id.*

<sup>346</sup> City of Dana Point (Cal.) Municipal Code, § 10.01.010 & 10.07.010.

<sup>347</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2; WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2. The Thanksgiving Count identifies the site as being within the City of Costa Mesa; however, the entirety of Sundance Drive is located within the City of Newport Beach in a portion of the City that juts out into the City of Costa Mesa and is outside the coastal zone. City of Newport Beach, Local Coastal Program: Coastal Land Use Plan Map 1, available at [http://www.city.newport-beach.ca.us/PLN/LCP/Internet%20PDFs/MAP1\\_clup\\_2009.pdf](http://www.city.newport-beach.ca.us/PLN/LCP/Internet%20PDFs/MAP1_clup_2009.pdf) (last accessed Dec. 5, 2010).

<sup>348</sup> City of Newport Beach, General Plan: Figure NR2 Environmental Study Areas Map, available at [http://www.city.newport-beach.ca.us/PLN/General\\_Plan/Figures/FigNR2\\_ESA\\_17x11color\\_web.pdf](http://www.city.newport-beach.ca.us/PLN/General_Plan/Figures/FigNR2_ESA_17x11color_web.pdf).

<sup>349</sup> City of Newport Beach (Cal.) Municipal Code, § 7.08.040. The DFG regulation to which the Newport statute refers relates to the importation, transportation and possession of wild animals, which does not include insects. 14 C.C.R. § 671 (2010).

is owned and operated by the City of Seal Beach.<sup>350</sup> Seal Beach does not have any laws relating to monarchs specifically, and the general prohibition on collecting or possessing wild animals does not extend to monarchs because the City defines animals as “any fish, fowl, reptile or nonhuman mammal,” with insects being an obvious omission.<sup>351</sup> There are no provisions specific to monarchs or other wildlife specific to public parks in the City.

However, Seal Beach forbids any person to “[r]emove, cut, destroy, relocate, trim, prune, deface, burn, or otherwise injure any tree, hedge, plant, shrub or flower growing upon city property.”<sup>352</sup> The City of Seal Beach also forbids any person to “remove, cut, destroy, relocate or perform any activity that may damage a eucalyptus grove,” which is defined as “a cluster of fifteen or more eucalyptus trees,” without first obtaining a permit from the City.<sup>353</sup> The provision directs the City to deny any permit that is not necessary to protect public health, safety and welfare.<sup>354</sup> Therefore, while monarch habitat is protected from development at Gum Grove Park, no regulations appear to protect monarchs from collection or tree trimming.

#### **d. City of Huntington Beach**

The City of Huntington Beach contains four known monarch overwintering sites all of which are outside the coastal zone. Three are on City-owned parks and one is located at a college. Monarch records at Huntington Beach Central Park (Amphitheater area) are typically 60 or less but thousands were seen in 1997 and 1998. The Huntington Beach Central Park, Gothard Street site typically hosts 45 or fewer monarchs; however thousands were reported in 1989, 1991, and 1997. Norma Gibbs Park generally hosts 60 or less monarchs, but 350 individuals were recorded in 1997, 175 were observed in 2009, and 100 were recorded in 2010. Monarch numbers fluctuate greatly at Golden West College but average approximately 50 individuals with a high of 800.<sup>355</sup> Huntington Beach has a General Plan (into which the LCP has been incorporated) that recognizes the threat to the monarch butterfly, yet puts off action to a later date. The monarch is designated as a species of “high level of concern” to the City.<sup>356</sup> The General Plan states that

[t]he City has many established trees, some of which form groves, such as those in Central and Gibbs Park. These trees provide nesting and roosting areas for both birds and butterflies . . . The removal of trees could adversely impact these species. The City has not defined “significant” trees or groves, nor has any policy

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<sup>350</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. City of Seal Beach, General Plan. Seal Beach Recreation and Community Services, Gum Grove Park site, available at <http://www.ci.seal-beach.ca.us/parksandrec/parks/GumGroveNaturePark/> (last accessed Dec. 5, 2010).

<sup>351</sup> City of Seal Beach (Cal.) Municipal Code, §§ 7.05.005 & 7.05.025.

<sup>352</sup> City of Seal Beach (Cal.) Municipal Code, § 9.40.010.

<sup>353</sup> City of Seal Beach (Cal.) Municipal Code, § 9.40.005 & 9.40.015.

<sup>354</sup> City of Seal Beach (Cal.) Municipal Code, § 9.40.020.

<sup>355</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. The sites are outside the coastal zone. City of Huntington Beach, Zoning Map.

<sup>356</sup> In fact, the monarch is the very first animal species listed on the General Plan’s GP’s “Sensitive Elements of Biological Diversity” Table. City of Huntington Beach, General Plan: Environmental Resources/Conservation Element, Natural Resources Chapter, at IV-ERC-11.

been adopted regarding the protection of the trees or groves as biological habitat resources.<sup>357</sup>

Despite setting a goal of defining “significant” trees through an ordinance, there is no such ordinance. The three overwintering sites that are managed by the City of Huntington Beach enjoy general protections afforded to animals and trees. Huntington Beach law provides that, within City Parks, “[n]o person shall trap, kill, injure, catch or maltreat any wild . . . animal,” and the definition of “animal” includes invertebrates.<sup>358</sup> Damaging trees within City Parks is likewise prohibited.<sup>359</sup>

### **3. Conclusions and Recommendations**

Due to the limited reach of the coastal zone in highly-developed Orange County, regulation of monarch habitat would only be obtained through local ordinances. Virtually no protection has been extended to monarchs by local ordinances within Orange County. However, the example of Huntington Beach and its restoration of Norma Gibbs Park demonstrates that there is at least one municipality willing to protect monarchs. Since three of the monarch sites within Huntington Beach are City-owned and therefore do not implicate significant private property or development concerns, Huntington Beach may provide an opportunity for monarch conservation in Orange County.

For the two sites within the coastal zone, protection for monarchs and their habitat likely may not be achieved within the existing framework of the Laguna Beach LCP/GP. An amendment to the LCP/GP may accomplish the goals of protecting the monarch overwintering sites. Such an amendment should designate the monarch as a species of local interest and its habitat as extremely high value habitat. The City must first adopt that amendment, and the Commission would have to certify it before it could go into effect.

#### **F. San Diego County**

Twenty-five monarch overwintering sites in San Diego County have been recorded in Thanksgiving Counts.<sup>360</sup> Many of these sites, including some within the City of San Diego and all within the Cities of Del Mar and Encinitas, lie within the coastal zone and are subject to City LCPs. Of those remaining sites outside the coastal zone, some are located within public parks, while others are located on what appears to be private property. Finally, at least eight sites are located at the University of California San Diego (five) and the Marine Corps Base Camp Pendleton (three), discussed previously in Sections II and III, respectively.

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<sup>357</sup> City of Huntington Beach, General Plan: Environmental Resources/Conservation Element, Natural Resources Chapter, at IV-ERC-19.

<sup>358</sup> City of Huntington Beach (Cal.) Municipal Code, § 13.48.070.

<sup>359</sup> City of Huntington Beach (Cal.) Municipal Code, § 13.50.180.

<sup>360</sup> WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2.

## 1. Relevant LCPs

### a. City of San Diego

The City of San Diego contains California's second largest human population, and it covers a wide area both within and outside the coastal zone. As part of its "City of Villages" strategy for planning, San Diego has a General Plan that provides the most general guidance for development, but much greater specificity is included in the more than 50 Community Plans for specific communities within the City. The City's LCP has twelve segments, one for each community within the coastal zone, including La Jolla, where there are two possibly inactive monarch overwintering sites.<sup>361</sup> The rest of the sites within the City of San Diego are outside the coastal zone or are within public parks for which the City has never promulgated an LCP because there is no contemplated development.<sup>362</sup> Therefore, the only relevant LCP in San Diego is the La Jolla Community Plan. The Commission first certified the La Jolla LCP segment in 1989 and the Comprehensive Update to the La Jolla segment in 2004.<sup>363</sup>

The two possibly inactive monarch overwintering sites are governed by the La Jolla Community Plan and Local Coastal Program Land Use Plan (LCP/Community Plan). Pottery Canyon has reported very few to no monarchs in the seven times it has been monitored since 1997, at which time 55 monarchs roosted at the site. Mount Soledad has not reported any monarchs in the three times it has been monitored since 1998, at which time it contained 70 individuals. The only other year that the site was surveyed was in 1997, when 500 monarchs were observed.<sup>364</sup> The City of San Diego's "City of Villages" planning strategy and its large size have led to numerous planning documents and ordinances creating a labyrinthine regulatory framework. This framework does restrict development of environmentally sensitive habitats, but limits those restrictions to habitats for species that are "rare, threatened or endangered" pursuant to California law. Since the monarch is not listed by the State as rare, threatened or endangered, the La Jolla LCP/Community Plan provides no mechanism for protecting monarchs and their habitat. Given this limitation and the location of many overwintering sites within the City of San Diego that are outside the coastal zone, the best course of action may be to seek protection through a City ordinance.

### b. City of Encinitas

The City of Encinitas has three monarch overwintering sites,<sup>365</sup> all of which are covered by the city's LCP. The monarch sites of Crest Drive and Quail Gardens Drive might be extirpated as no monarchs have been recorded since 1997; however each site has only been monitored four times. Quail Botanical Gardens typically hosts 50 or less monarchs, even though over a hundred have been observed on four occasions. Since more than two-thirds of the City of

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<sup>361</sup> California Coastal Commission, Local Coastal Planning Program Detailed LCP Status and History as of June 20, 2010 (Oct. 17, 2010), Part VI, at 17.

<sup>362</sup> This memorandum will address each of the remaining sites in the section on Local Ordinances Relevant to Monarchs.

<sup>363</sup> California Coastal Commission, Local Coastal Planning Program Detailed LCP Status and History as of June 20, 2010 (Oct. 17, 2010), Part VI, at 18-19.

<sup>364</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>365</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

Encinitas is within the coastal zone, the City chose to create a single, integrated document containing all the elements required of both a General Plan and an LCP.<sup>366</sup> The Commission certified the City of Encinitas's LCP/General Plan in 1995, and, since then, the City has issued more than 933 development permits within the coastal zone and amended the LCP 26 times.<sup>367</sup>

The effect of the LCP/General Plan for monarchs is unclear. The Encinitas LCP/General Plan does provide for ESHAs within the City, but gives no indication of what criteria are required in order to establish an ESHA. Generally, the habitat preservation provisions of the LCP/General Plan are focused on maintaining wetlands and riparian corridors, but also reflect the City's commitment to urban forestry. To this end, the LCP/General Plan provides that "[m]ature trees of community significance cannot be removed without City authorization."<sup>368</sup> To implement this provision, the City has created an Urban Forest Management Program (UFMP) that could be used to protect monarch overwintering habitat. The UFMP redefines the LCP/General Plan's "trees of community significance" as "heritage trees" and provides that heritage trees may not be removed unless certified as hazardous by a City-approved arborist.<sup>369</sup> "Any person" may nominate any tree for heritage tree status, whether on public or private property.<sup>370</sup> The City's Environmental Advisory Commission then reviews the nomination and reports its findings to the Planning Commission, which may designate a tree if the tree meets one of several criteria, the most relevant being that the tree is "a defining landmark or significant outstanding feature of a neighborhood."<sup>371</sup>

One advantage of seeking heritage tree protection for trees composing monarch overwintering habitat is that designation as a heritage tree does not require either City Council or Commission approval and may be sought by any individual.<sup>372</sup> An amendment of the LCP/General Plan to designate habitat as an ESHA would require City Council and Commission approval. For these reasons, and because of the high levels of protection extended to heritage trees, heritage tree status should be sought for the trees that make up the monarch overwintering sites in Encinitas.

### c. City of Del Mar

The City of Del Mar contains three monarch overwintering sites including Crest Road, Hidden Pines, and Nogales Road. Hundreds to thousands of monarchs reportedly roosted at Crest Road since the 1970s however no monarchs were found in 1998 or 2003, the last two years in which observations were reported for this site. Hidden Pines typically supports only fifteen or fewer monarchs, although 170 monarchs were reported in 1997. Nogales Road generally hosts about 40 individuals; however observers reported higher numbers in 1997, 1998, and 2008. The

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<sup>366</sup> City of Encinitas, General Plan: Introduction, at I-1.

<sup>367</sup> California Coastal Commission, Local Coastal Planning Program Detailed LCP Status and History as of June 20, 2010 (Oct. 17, 2010), Part VI, at 13-15.

<sup>368</sup> City of Encinitas, General Plan: Resource Management Element, at RM-7.

<sup>369</sup> City of Encinitas, Urban Forest Management Program Administrative Manual, at 30.

<sup>370</sup> *Id.* at 47.

<sup>371</sup> *Id.*

<sup>372</sup> The nomination form for heritage tree status is available at: <http://www.cityofencinitas.org/NR/rdonlyres/1C25FBCB-760D-48A1-94F2-267E235BB886/0/HeritageTreeNominationForm.pdf>.

entire City of Del Mar, including its three monarch overwintering sites,<sup>373</sup> lies within the coastal zone, and the entire City is subject to the City's LCP and its implementing policies.<sup>374</sup> The Commission certified the City LCP's Land Use Plan in 1993 and its Implementation Plan in 2001.<sup>375</sup> Since then, the City has amended its LCP only three times (the most recent in 2009) and has issued 169 development permits under its LCP.<sup>376</sup> The City is not currently working on a comprehensive update or review of its LCP.

Del Mar is a geographically small community that is highly developed, and the LCP is light on protection for natural resources. The Del Mar LCP is primarily concerned with the coastal bluffs around the City, the coastal wetlands, and the coastline.<sup>377</sup> The protection for these areas extends only to limited areas of the City. No other provisions of the LCP establish or otherwise address ESHAs or habitat protection.<sup>378</sup> In addition, there are no City ordinances that relate to the taking of wild animals or the protection of habitat for wild animals.

## **2. Local Ordinances Relevant to Monarchs**

Many of the monarch overwintering sites within San Diego County are outside the coastal zone and are therefore not subject to LCPs. San Diego County contains many cities that have promulgated their own LCPs in order to obtain control over coastal planning. Due to portions of San Diego County being highly developed, many of the coastal zones in these city LCPs are relatively small, taking advantage of the Coastal Act's provision that in developed areas coastal zone "generally extends inland less than 1,000 yards."<sup>379</sup> Since they are outside the coastal zone, protection of these sites must come from city ordinances. .

### **a. City of San Diego**

Presidio Park in Old Town San Diego is a City-owned park outside the coastal zone that has reportedly supported monarchs since the 1920s. Observers have seen fewer than 100 monarchs each year since 1997.<sup>380</sup> The Old Town portion of San Diego has its own Community Plan that provides guidance for Presidio Park, but the Plan emphasizes preservation of the Park's historical and cultural resources rather than its natural resources. The Old Town Community Plan provides no protection to habitats. Balboa Park, another San Diego-owned park, hosts three additional small monarch overwintering sites.<sup>381</sup> Unlike Old Town San Diego, no Community Plan governs use of Balboa Park.

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<sup>373</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>374</sup> City of Del Mar, Local Coastal Program: Land Use Plan, at 6.

<sup>375</sup> California Coastal Commission, Local Coastal Planning Program Detailed LCP Status and History as of June 20, 2010 (Oct. 17, 2010), Part VI, at 16.

<sup>376</sup> *Id.*

<sup>377</sup> City of Del Mar, Local Coastal Program: Land Use Plan, at 99.

<sup>378</sup> The LCP Implementing Ordinances include the Coastal Act's definition of ESHAs in the definition section, but there are no other provisions of either the LCP's Land Use component or its Implementation component that addresses ESHAs. City of Del Mar, Local Coastal Program: Implementing Ordinances, § 30.75.030.

<sup>379</sup> Cal. Pub. Res. Code § 30103(a).

<sup>380</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>381</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.  
Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

However, City ordinances protect monarchs and their habitat within City Parks like Presidio Park and Balboa Park. City law makes it unlawful to cut, remove, or otherwise damage any plant within a City Park.<sup>382</sup> They also make it unlawful “to take, kill, wound, disturb, or maltreat any bird or animal, either wild or domesticated.”<sup>383</sup> Thus, both habitat is protected and collection is prohibited—provided the monarchs stay in city parks.

### **b. City of Carlsbad**

The City of Carlsbad hosts two known monarch overwintering sites outside the coastal zone, one at Hospital Grove Park and one at El Camino Real & Chestnut Avenue.<sup>384</sup> Thousands of monarchs once clustered at Hospital Grove Park from the 1980s until the late 1990s. Few to none have been observed at the site since 1998. El Camino Real & Chestnut Avenue is currently and has historically been a small overwintering site. The ownership of the El Camino Real & Chestnut site is unclear, but the Hospital Grove Park site is owned and operated by the City of Carlsbad through its Department of Parks and Recreation.<sup>385</sup> The El Camino Real site is unprotected by ordinances, the City’s General Plan, and its Habitat Management Plan.<sup>386</sup> In addition, the City of Carlsbad does not have any laws forbidding the taking or possessing of wild animals within the City, even within its city parks like Hospital Grove. However, the monarch habitat at the Hospital Grove site is protected—a city ordinance makes it unlawful to damage or destroy trees within city parks.<sup>387</sup>

### **c. City of Chula Vista**

Eucalyptus Park, owned by the city of Chula Vista, once hosted hundreds of monarchs in the 1990s; however it is currently visited by about 50 or fewer individuals every year.<sup>388</sup> Eucalyptus Park is City property and is therefore protected from development. In addition, the City of Chula Vista prohibits the possession of “any animal which is not normally domesticated in the United States,” unless an exemption applies.<sup>389</sup> The ordinance does not define “animal” and it further establishes an exemption for bees.<sup>390</sup> As such, monarchs and most insects should be covered by the ordinance’s prohibition against possession.

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<sup>382</sup> City of San Diego (Cal.) Municipal Code, § 63.0102(b)(4).

<sup>383</sup> City of San Diego (Cal.) Municipal Code, § 63.0102(b)(10).

<sup>384</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. The sites are close to the coastal zone, but not within it. City of Carlsbad, General Plan Land Use Map (Oct. 2010).

<sup>385</sup> The City’s website describes Hospital Grove as “a favorite with nature enthusiasts because of its extensive trail system and famed eucalyptus groves.” <http://www.carlsbadca.gov/services/departments/parksandrec/parks-facilities/parks/Pages/hosp-grove.aspx>.

<sup>386</sup> The Habitat Management Plan does not cover the area of the El Camino Real site. City of Carlsbad, Habitat Management Plan for Natural Communities in the City of Carlsbad, Figure 28 (Dec. 1999, as amended; approved Nov. 2004).

<sup>387</sup> City of Carlsbad (Cal.) Municipal Code, § 11.32.030.

<sup>388</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. The coastal zone in Chula Vista ends at Broadway, while Eucalyptus Park is one block inland from Broadway. City of Chula Vista (Cal.) Municipal Code, at 19-204.

<sup>389</sup> City of Chula Vista (Cal.) Municipal Code, § 6.04.070.

<sup>390</sup> City of Chula Vista (Cal.) Municipal Code, § 6.04.100.

#### **d. San Dieguito River Park**

The last observation of monarchs at the small overwintering site of San Dieguito River Park occurred in 1998. No monarchs have been recorded since that year, despite five monitoring attempts.<sup>391</sup> The park is governed by a Joint Powers Authority (JPA) comprising the County and municipalities on which it is situated, including Solana Beach where the overwintering site is located. The monarch is listed in the Park's master plan as present in San Diego County,<sup>392</sup> although the plan does not include any provisions relevant to monarch conservation. The San Dieguito River Park is a project to bring under public ownership and restore a 55-mile corridor of the river, from the ocean to the desert.<sup>393</sup> This overwintering site is composed of eucalyptus and one goal of the restoration plan is to remove all invasive species including eucalyptus. Although monarchs have not been observed at the site for twelve years, the site has not been consistently monitored since that time. It is recommended that the park survey for monarchs and consult with a qualified monarch expert before removing all of the eucalyptus on the property.

### **3. Conclusions and Recommendations**

Due to the low number of sites within the coastal zone in San Diego County, monarch conservation may only be able to be addressed through local ordinances and laws. City ordinances could be enacted to protect monarchs within San Diego County. The Del Mar and La Jolla LCPs simply do not provide a framework to protect species like the monarch that are not listed by the state or federal governments. These LCPs do not protect small parcels of habitat like monarch overwintering sites and instead focus on protecting coastal habitat like coastal bluffs, wetlands, and the coastline itself. City ordinances could be tailored to protect monarchs and their overwintering sites specifically.

The one exception is the City of Encinitas, where the LCP/General Plan provides for protection of heritage trees. Given the relatively small size of monarch overwintering sites, designation of the individual trees within those sites may provide long-term protection for monarch overwintering habitat. This process would require the identification of individual trees within each grove and submission of a nomination form for each tree. While cumbersome, this approach may be simpler than attempting an amendment of the LCP or even of seeking a city ordinance, since it does not require Commission or City Council approval. At a minimum, the nomination of the trees within an overwintering site could spark education and broader legislation to protect the site.

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<sup>391</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. A Joint Power Authority is an agency established by two or more local governments for a common purpose. Cal. Gov. Code §§ 6500, *et seq.*

<sup>392</sup> San Dieguito River Park Joint Powers Authority, Park Master Plan for the Coastal Area of the San Dieguito River Valley Regional Open Space Park, at 116 (2000), *available at*: <http://www.sce.com/PowerandEnvironment/PowerGeneration/MarineMitigation/SanDieguitoLagoonRestoration.htm>.

<sup>393</sup> San Dieguito River Park JPA, About the San Dieguito River Park, *available at*: <http://www.sdrp.org/about.htm>.

## G. San Francisco Bay Area

Several important monarch overwintering sites have been identified in the San Francisco Bay Area, where a number of local institutions have authority for the protection of monarchs.<sup>394</sup> Three of these sites, Monarch Bay Golf Course, Alameda/Chuck Corica Golf Course, and Skywest Golf Course, are municipally-owned golf courses where thousands of overwintering monarchs have been recorded.<sup>395</sup> Three others, Point Pinole, Ardenwood Historical Farm, and Coyote Hills, are owned and operated by the East Bay Regional Park District.<sup>396</sup> Due to low monarch counts and unclear ownership, several other sites have been omitted from this report.<sup>397</sup>

### 1. Monarchs in Ardenwood Historic Farm, Point Pinole, and Coyote Hills

Hundreds of monarchs typically roost at Ardenwood Historic Farm currently, though tens of thousands to thousands of monarchs have wintered there in previous years. The site is an old farm located within the City of Fremont in Alameda County.<sup>398</sup> Ardenwood Historic Farm is one of the regional parks managed by the East Bay Regional Park District (EBRPD). The District's Board of Directors may create a system of natural and ecological areas and open preserves<sup>399</sup> and adopt regulations to protect them.<sup>400</sup> Acting under this authority, the Board adopted a regulation providing that "[n]o person shall hunt, molest, disturb, injure, trap, take, net, poison, harm, or kill any kind of wild animal whether living or dead, nor remove, destroy or in any manner disturb the natural habitat of any animal."<sup>401</sup> The East Bay Regional Park District interprets "wild animal" as including the monarch butterfly and, thus, the ordinance protects both monarchs and their habitat in the District.<sup>402</sup>

Point Pinole Regional Shoreline is another regional park operated by EBRPD that generally hosts hundreds to thousands of monarchs yet observations of overwintering numbers

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<sup>394</sup> Each of these monarch overwintering sites in the San Francisco Bay Area falls outside the jurisdictions of the Commission and the San Francisco Bay Conservation and Development Commission (BCDC). The California legislature enacted the McAteer-Petris Act in 1965, which created the BCDC. The BCDC prepared the San Francisco Bay Plan for the long term use of the Bay and regulations in and around the Bay area. The Act defines the BCDC's jurisdiction as all areas that are subject to tide action and "a shoreline band consisting of all territory between the shoreline of San Francisco Bay subject to tide action and a line 100 feet landward of and parallel with that line." Cal. Pub. Resources Code § 66610 (a)(b) (West 2001). Therefore, in order to fall within the jurisdiction of the BCDC, monarch habitat must be virtually on the beach. The Commission does not have jurisdiction within the Bay Area beyond that of the BCDC. As explained by the Coastal Act, the Commission's jurisdiction generally extends inland 1000 yards from the mean high tide line of the sea, but "does not include the area of jurisdiction of" the BCDC. *Id.* at § 30103 (a). In the absence of BCDC or Commission jurisdiction, local ordinances and park rules must provide protection for overwintering monarchs.

<sup>395</sup> WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2.

<sup>396</sup> *Id.*

<sup>397</sup> *Id.*

<sup>398</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>399</sup> Cal. Pub. Resources Code § 5541.

<sup>400</sup> *Id.* at § 5559. Violation of any ordinance adopted pursuant to this article is punishable by a fine or by imprisonment or by both. *Id.* at § 5560

<sup>401</sup> East Bay Regional Park District Ordinance (Cal) 38 Ch. VIII Section 800.

<sup>402</sup> Telephone Interview with Mr. Steven Ziene, Park District Ecological Services Coordinator confirmed that "any kind of wildlife" includes Monarch Butterflies (March 25, 2002).

were not reported from 2004 to 2010. Over a thousand clustering monarchs were observed at Point Pinole in 2011.<sup>403</sup> The eucalyptus grove at Point Pinole was planted in the early 1920s as a safety measure by the site's previous owner, Atlas Powder, and since has become a valuable monarch habitat.<sup>404</sup> EBRPD is clearly aware of the importance of this monarch habitat. EBRPD has proposed arboreal projects to restore monarch habitat pursuant to expert recommendations.<sup>405</sup> The 2009 draft EBRPD Vegetation Management Plan requires that maintenance activities within the monarch habitat at Point Pinole "should be prescribed and monitored in coordination with resource professionals to protect monarch roosting habitat."<sup>406</sup> On Earth Day in 2009, EBRPD held a "Tree Planting for Butterflies" at Point Pinole, where volunteers helped plant eucalyptus to improve monarch overwintering habitat.<sup>407</sup> The last EBRPD site, Coyote Hills Regional Park, has a "Nectar Garden" that attracts overwintering butterflies and at which naturalist programs are available.

EBRPD has worked to raise awareness of the monarch butterfly. Ardenwood Historic Farm provides special monarch educational programs, such as "Meet the Monarchs," "Monarch Butterfly Walks," and "New Year's Day Monarch Butterfly Celebration" to enhance public awareness of the wintering butterflies.<sup>408</sup> EBRPD has a naturalist on-site at Ardenwood to lead these tours. Coyote Hills offers tours of its butterfly garden, where citizens can learn how to maintain butterfly-friendly gardens.<sup>409</sup> EBRPD also published a brochure that provides information on the monarch, details the threats to its continued survival, and urges the reader to "help the monarch by safeguarding overwintering sites, as the Regional Park District has done at Ardenwood Historic Farm and Pt. Pinole Regional Shoreline."<sup>410</sup>

The EBRPD's Master Plan also provides that the EBRPD will "identify, evaluate, conserve, enhance, and restore rare, threatened, endangered, or locally important species of plants and animals and their habitats."<sup>411</sup> The Master Plan also provides that EBRPD will restore native plant communities, evaluating eucalyptus and other non-native species "on a case-by-case basis for thinning, removal, and/or conversion to a less fire-prone condition, thereby providing a means of protecting monarch sites."<sup>412</sup> EBRPD's Master Plan is currently under review.<sup>413</sup>

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<sup>403</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>404</sup> East Bay Regional Parks District, Welcome to Point Pinole, available at [http://www.ebparks.org/files/EBRPD\\_files/brochure/pt\\_pinole\\_text.pdf](http://www.ebparks.org/files/EBRPD_files/brochure/pt_pinole_text.pdf).

<sup>405</sup> East Bay Regional Parks District, Agenda for the Regular Meeting of the Board of Directors (October 6, 2009).

<sup>406</sup> East Bay Regional Parks District, 2009 Public Review Draft Plan: Chapter 5 – Vegetation Management Plan, available at [http://www.ebparks.org/files/fireplan/EBRPD\\_WHRRM\\_Plan/5-VegMan.pdf](http://www.ebparks.org/files/fireplan/EBRPD_WHRRM_Plan/5-VegMan.pdf).

<sup>407</sup> East Bay Regional Parks District, Regional in Nature Activity Guide, March-April 2009, available at [http://www.ebparks.org/files/Mar-Apr09\\_RIN.pdf](http://www.ebparks.org/files/Mar-Apr09_RIN.pdf).

<sup>408</sup> *See, e.g.*, East Bay Regional Parks, Ardenwood Naturalist Programs: November 2010, available at [http://www.ebparks.org/files/Ardenwood\\_NNB\\_November\\_2010.pdf](http://www.ebparks.org/files/Ardenwood_NNB_November_2010.pdf).

<sup>409</sup> East Bay Regional Park District, The Monarch Butterfly, available at [http://www.ebparks.org/files/EBRPD\\_files/interpretation/Monarchs.pdf](http://www.ebparks.org/files/EBRPD_files/interpretation/Monarchs.pdf).

<sup>410</sup> *Id.*

<sup>411</sup> East Bay Regional Park District, 1997 Master Plan, 20 (adopted Dec. 17, 1996), available at [http://www.ebparks.org/files/RPM\\_Plan97.pdf](http://www.ebparks.org/files/RPM_Plan97.pdf).

<sup>412</sup> *Id.* at 19.

<sup>413</sup> EBRPD is in the process of updating the 1997 Master Plan and has invited public participation in the process. Information on meetings and signing up for the list-serve is available at <http://www.ebparks.org/planning/mp>.

## 2. Monarch sites at Municipal Golf Courses

Approximately 5,000 monarch butterflies overwintered on the City of San Leandro's Marina Golf Course in 2009, a number that has held relatively steady since 2005 but which is a fraction of the tens of thousands of monarchs observed in the late 1990s.<sup>414</sup> The City of San Leandro has adopted an ordinance that prohibits any person from molesting or interfering in any way with monarchs within the San Leandro Marina, as well as the Tony Lema Golf Course and Marina Golf Course (the two courses within the Monarch Bay Golf Club), unless the monarchs interfere with the occupancy of a private house or building.<sup>415</sup> However, the provision only protects individual monarchs "during the entire time they remain" at one of the specified sites.<sup>416</sup> It thus fails to fully protect monarch habitat, because known monarch roosting trees could be removed during summer months when monarchs are not present.

The City of San Leandro once promoted public participation in monarch programs by offering Monarch Butterfly Tours to this site every Saturday during winter months, and the Marina-Mulford Branch Library next to the golf course provides a monarch butterfly display. These tours were cancelled due to budget problems,<sup>417</sup> although the Hayward Area Recreation & Park District appears to have picked up the tours.<sup>418</sup>

The Alameda/Chuck Corica Golf Course, owned by the City of Alameda, is an overwintering site with thousands of monarchs reported in previous years.<sup>419</sup> In contrast to neighboring San Leandro, the City of Alameda has a provision protecting trees and shrubs on municipal golf courses.<sup>420</sup> Further, the Alameda Municipal Code authorizes the City Manager to promulgate further rules and regulations necessary for the golf course.<sup>421</sup> The delegation of this responsibility to the City Manager provides two different routes to increase protection of

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<sup>414</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. The Marina Golf Course and the Toni Lema Golf Course compose the Monarch Bay Golf Club. This site is sometimes referred to as the "San Leandro Golf Course" site.

<sup>415</sup> The ordinance provides:

It is declared to be unlawful for any persons to molest or interfere with, in any way, the peaceful occupancy of the Monarch Butterflies during the entire time they remain within the San Leandro Marina, Tony Lema Golf Course and Marina Golf Course of the City of San Leandro, in whatever spot therein they may choose to stop, provided, however, that if said butterflies should at any time swarm in, upon, or near the private dwelling house or other buildings of a citizen of the City of San Leandro in such a way as to interfere with the occupancy and use of said dwelling or other buildings, that said butterflies may be removed, if possible, to another location upon the application of said citizen to the City Manager.

San Leandro Municipal Code (Cal) Ch. 4-1-1000

<sup>416</sup> *Id.*

<sup>417</sup> City of San Leandro, Special Events, available at <http://www.sanleandro.org/depts/rec/events.asp>.

<sup>418</sup> See Community Calendar, *at*: SAN LEANDRO TIMES (Jan. 7, 2001), *at*:

[http://news.ebpublishing.com/index.php?option=com\\_content&view=article&id=451:community-calendar--01-06-11&catid=51:san-leandro-events&Itemid=119](http://news.ebpublishing.com/index.php?option=com_content&view=article&id=451:community-calendar--01-06-11&catid=51:san-leandro-events&Itemid=119). Hayward Area Recreation and Park District an independent special district sanctioned under California Law for the performance of local government functions.

<sup>419</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>420</sup> The City of Alameda, Mun. Code (Cal) Ch. 23-2-1.

<sup>421</sup> The City of Alameda, Mun. Code (Cal) Ch. 23-2-1.

monarch overwintering sites—through the City Manager and through the elected city government.

Observers at the Skywest Golf Course reported only 54 butterflies in 2009 but reported thousands in previous years. Skywest Golf Course is owned by the City of Hayward and managed through the Hayward Area Recreation and Park District (HARD).<sup>422</sup> HARD has an ordinance governing all of its parks, including Skywest, which prohibits harassment and interference with wildlife and disturbance of habitat.<sup>423</sup>

### **3. Conclusions and Recommendations**

Despite the fact that the Bay Area's monarch overwintering sites are not within the jurisdiction of the Commission, the prospects for achieving meaningful protection of the monarchs and their habitat are very good because the most important habitat has been set aside from development in sites owned by municipalities and/or park districts. The EBRPD especially is aware of its responsibility to protect the monarch within its parks and has undertaken measures to protect and restore monarch habitat. The update of the EBRPD Master Plan also presents an opportunity for monarch conservation. The sites within the cities of San Leandro and Alameda and HARD are protected from development, and further protection of those sites would be relatively inexpensive for the local agencies.

#### **H. San Mateo County**

At least 16 overwintering sites have been reported in San Mateo County. Very few to no monarchs have been observed at these sites since the early 1990s, although the sites have only been monitored once since the late 1990s.<sup>424</sup> Ten of these sites are within the coastal zone.<sup>425</sup> All but one of the sites are within San Mateo County's LCP,<sup>426</sup> with one autumnal site within the City of Half Moon Bay's LCP.<sup>427</sup> Of the overwintering sites, most appear to be on private land with one in a County Park. Since very few to no monarchs have been found in the area for over a decade, individual sites are not detailed here.

#### **1. San Mateo County LCP**

The Commission first approved the San Mateo County LCP in 1980, and since then it has undergone at least forty-seven amendments, and the County has issued more than 1,400 coastal development permits.<sup>428</sup> San Mateo County began a comprehensive update in 2000 and

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<sup>422</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>423</sup> Hayward Area Recreation and Park District, Regulations Governing Use of Parks, Recreation Areas and Facilities, § 15, available at <http://www.haywardrec.org/RegulationsHandbook.pdf>.

<sup>424</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>425</sup> *Id.*

<sup>426</sup> County of San Mateo, Local Coastal Program (June 1998, as amended through Apr. 29, 1998), *available at*: <http://www.co.sanmateo.ca.us/portal/site/planning>.

<sup>427</sup> City of Half Moon Bay, *Local Coastal Program Land Use Plan* (amend. 1993).

<sup>428</sup> California Coastal Commission, Local Coastal Planning Program Detailed LCP Status and History as of June 20, 2010 (Oct. 17, 2010), Part II, at 5.

submitted that update in 2007.<sup>429</sup> The Commission approved it in 2009 with suggested modifications, and the County has until June 2011 to accept or reject the suggested modifications.<sup>430</sup> If the County Board of Supervisors approves the modifications, then the major amendment comes into effect; if it disapproves the amendment, the comprehensive update lacks any effect.<sup>431</sup> However, the major amendment does not affect habitat protections for the monarch or the analysis in this memorandum.<sup>432</sup>

The San Mateo County LCP applies to the vast majority of monarch overwintering sites in San Mateo County. The LCP protects “sensitive habitats,” otherwise known as ESHAs, but this designation may not apply to monarch overwintering sites. Sensitive habitats are defined as either (i) “any area in which plant or animal life or their habitats are either rare or especially valuable” or (ii) an area meeting one of eight other factors.<sup>433</sup> However, the first criterion is ambiguous in that the terms are not further defined. For example, it is not clear what exactly constitutes “especially valuable.”<sup>434</sup>

Additionally, concerning species or habitats that may meet one of eight factors, and only one appears related to monarch conservation—“habitats containing or supporting ‘rare and endangered’ species as defined by the [California] Fish and Game Commission.” The monarch, however, would appear to be ineligible for “rare and endangered” protection, because it is not on the California Department of Fish and Game lists of threatened and endangered species and the statute prohibits insects from being listed. Therefore its habitat would seemingly not be sensitive habitat under that provision.<sup>435</sup> However, within the San Mateo County LCP, “rare and endangered species” protection is explicitly extended to the San Francisco tree lupine moth, which the Department of Fish and Game has not included on its list of threatened or endangered species.<sup>436</sup> The monarch, at least, is designated as a “special animal,”<sup>437</sup> but that status does not designate its habitat in San Mateo County as an ESHA.

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<sup>429</sup> *Id.*

<sup>430</sup> *Id.*

<sup>431</sup> San Mateo County, Environmental Services Agency, Memorandum to County Board of Supervisors (Oct. 6, 2006), available at

[http://www.co.sanmateo.ca.us/bos.dir/BosAgendas/agendas2006/Agenda20061114/20061114\\_m\\_6.pdf](http://www.co.sanmateo.ca.us/bos.dir/BosAgendas/agendas2006/Agenda20061114/20061114_m_6.pdf).

<sup>432</sup> *Id.* The update does, however, affect habitat protections for one other protected invertebrate, the San Francisco tree lupine moth, for which the update embraces the goal of “[p]revent[ing] the loss of any large populations (more than 100 plants in a 1/10-acre area) of tree lupine within 1 mile of the coastline.” *Id.* at R-7.

<sup>433</sup> San Mateo County, Local Coastal Program, *supra* note 429, at Policies, § 7.1.

<sup>434</sup> *See id.*

<sup>435</sup> State of California, Dept. of Fish & Game, State and Federally Listed Endangered and Threatened Animals of California (July 2010). All animal species formerly classified as “rare” were subsequently reclassified as “threatened.” *Id.*

<sup>436</sup> State of California, Dept. of Fish & Game, State and Federally Listed Endangered and Threatened Animals of California (July 2010); State of California, Department of Fish & Game, Special Animals (883 Taxa) (July 2009).

<sup>437</sup> The monarch is listed on the Special Animals list as “G5, S3,” which means that the monarch’s status is considered “secure” across its entire range and only “vulnerable and at moderate risk” in the State of California. State of California, Department of Fish & Game, Special Animals (883 Taxa) (July 2009). The San Francisco tree lupine moth was proposed for federal listing under the Endangered Species Act in 1982, but the U.S. Dept. of Fish & Wildlife determined that listing was not warranted. Endangered and Threatened Wildlife and Plants: Findings on Pending Petitions and Descriptions of Progress on Listing Action, 51 Fed. Reg. 996, 997 (Jan. 9, 1986) (to be codified at 50 C.F.R. pt. 17).

If monarch overwintering sites were listed as “sensitive habitats,” the LCP provides that the County will “[p]rohibit any land use or development which would have significant adverse impact on sensitive habitat areas,” require that development be sited to avoid adverse impacts, and only allow resource-dependent uses.<sup>438</sup> The burden would be on the project applicant to show, through a report of a “qualified professional,” that the development or use will not adversely affect the sensitive habitat.<sup>439</sup>

The San Mateo County LCP also includes a provision to protect “unique species,” but it does not indicate how a species attains this status. There are only four species that are explicitly protected under this provision: three species of plants (the Monterey Pine, Champion Monterey Cypress and the California Wild Strawberry) and one animal (the elephant seal).<sup>440</sup> However, if the County were to grant “unique species” status to the monarch, then in addition to the requirements for sensitive habitats generally, the County would require that for every permit application “a qualified biologist prepare a report which defines the requirements of a unique organism.”<sup>441</sup> That report must discuss (1) for animals, food, water, nesting or denning sites and reproduction, predation and migration requirements, as well as (2) for plants, life histories and soils, climate and geographic requirements.<sup>442</sup>

The San Mateo County LCP includes a “weedy, undesirable plants” provision that calls for the County to “encourage landowners to remove blue gum seedlings to prevent their spread,” but does not have a provision relating to adult blue gum eucalyptus.<sup>443</sup> The policy of “encouraging” landowners to remove seedlings implies that it is not an enforceable mandate. No other provisions in the LCP relate to blue gum. In short, the provision would most likely not adversely affect monarch conservation.

## 2. City of Half Moon Bay LCP

The City of Half Moon Bay has its own LCP/Land Use Program (LCP/LUP), which the Commission approved in 1985, after the Commission had denied two previous iterations of the City’s LCP/LUP.<sup>444</sup> The Implementation Plan for the City’s LCP was approved with modifications in 1995, and the City accepted the modifications in 1996, effectively certifying the Implementation Plan.<sup>445</sup> The City has sought a total of seventeen amendments to the LCP, of which the Commission has approved fifteen.<sup>446</sup> The City has issued 415 coastal development permits pursuant to its LCP.<sup>447</sup> Despite receiving funding from the Commission in 2000 for a comprehensive update, the City of Half Moon Bay is not currently working on such an update.<sup>448</sup>

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<sup>438</sup> San Mateo County, Local Coastal Program, *supra* note 429, at Policies, §§ 7.3 and 7.4

<sup>439</sup> San Mateo County, Local Coastal Program, *supra* note 429, at Policies, § 7.5.

<sup>440</sup> San Mateo County, Local Coastal Program, *supra* note 429, at Policies, §§ 7.47-.50.

<sup>441</sup> *Id.* at Policies, § 7.45.

<sup>442</sup> *Id.*

<sup>443</sup> *Id.* at Policies, § 7.51.

<sup>444</sup> California Coastal Commission, Local Coastal Planning Program Detailed LCP Status and History as of June 20, 2010 (Oct. 17, 2010), Part II, at 10.

<sup>445</sup> *Id.*

<sup>446</sup> *Id.*

<sup>447</sup> *Id.*

<sup>448</sup> *Id.*

The City of Half Moon Bay’s LCP/LUP affords protection to sensitive habitats that the City designates.<sup>449</sup> The LCP/LUP prohibits “any land use and/or development which would have significant adverse impacts on sensitive habitat areas.”<sup>450</sup> The LCP/LUP defines “sensitive habitats as including riparian areas, sand dunes, and other habitats. Most relevant for monarch conservation are those areas that provide habitat for “unique species”—species having “(1) scientific or historic value, (2) few indigenous habitats, or (3) some characteristic(s) which draw attention or are locally uncommon.”<sup>451</sup> Currently, the LCP/LUP does not list monarchs as “unique,” but it does list all raptors (such as owls, hawks, eagles and vultures) and sea mammals, as well as the red-legged frog. The monarch clearly meets the first criterion. Monarchs probably meet the third criterion because of the attention that the overwintering clusters draw. Since this clause only necessitates one of the three requirements to be met, monarchs could be declared a “unique species” under this LCP/LUP. Thus, the monarch’s overwintering sites could be designated as sensitive habitats for “unique species.” Like the San Mateo County LCP, the City of Half Moon Bay’s LCP/LUP also designates habitats of rare and endangered species as ESHAs,<sup>452</sup> including those of the San Francisco tree lupine moth.<sup>453</sup>

The designation as a sensitive habitat does not necessarily prohibit development in these areas.<sup>454</sup> The city allows permits “for resource-dependent or other uses which will not have a significant adverse impact in Sensitive Habitats.”<sup>455</sup> The city requires an applicant to file a biological report to assess the impact of the development along with feasible mitigation measures.<sup>456</sup> The applicant and the city select a qualified biologist jointly.

Like the San Mateo County LCP, the Half Moon Bay LCP/LUP has a section on “weedy, undesirable plants.” It lists four plant species as “particularly undesirable, invasive species in the Coastal zone,” one of which is the blue gum eucalyptus.<sup>457</sup> One reason the LCP/LUP treats blue gum as undesirable is because blue gum prohibits the growth of natural vegetation below its canopy.<sup>458</sup> However, the LCP/LUP recognizes that the blue gum’s “very presence is as much a part of the California landscape after 100 years as is the valley oak or redwood” and provides that “it is neither desirable . . . nor is it practicable to eliminate the presence of the blue gum.”<sup>459</sup> The policy is concerned only with the “slow, natural spread of the species.”<sup>460</sup> Therefore, the blue gum is not in immediate danger of being destroyed as an undesirable species, but it does not enjoy any protection as monarch habitat.

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<sup>449</sup> City of Half Moon Bay, Local Coastal Program Land Use Plan (amend. 1993) (hereafter LCP/LUP).

<sup>450</sup> *Id.* at 67.

<sup>451</sup> *Id.* at 58-59.

<sup>452</sup> *Id.* at 57-89.

<sup>453</sup> *Id.* at 67.

<sup>454</sup> *Id.* at 67.

<sup>455</sup> The San Mateo County Local Coastal Program allows only resource-dependent uses without exceptions while the Half Moon Bay plan allows “other uses which will not have a significant adverse impact in Sensitive Habitats.”

<sup>456</sup> City of Half Moon Bay, Local Coastal Program Land Use Plan, *supra* note 450 at 67.

<sup>457</sup> *Id.* at 64.

<sup>458</sup> *Id.*

<sup>459</sup> *Id.*

<sup>460</sup> *Id.*

### 3. Conclusions and Recommendations

The San Mateo County LCP lacks clear mechanisms with which to protect monarchs. The fact that the San Francisco tree lupine moth (*Grapholita edwardsiana*) was afforded protection suggests that the County might be willing to extend “rare and endangered species” protection to species that are not listed on the California Department of Fish and Game’s list. The protection afforded to “unique species” is stronger, but the examples given of the “unique species” (three plants and one marine mammal) do not suggest as much likelihood of extending this protection to monarchs. Without any criteria to establish what a “unique” species is, it is impossible to tell whether the monarch qualifies. In order to change the San Mateo LCP to explicitly name the monarch as a “rare or endangered species”, the County would have to adopt and the Commission would have to certify an amendment to the LCP.

The City of Half Moon Bay’s LCP/LUP could also be amended to designate the monarch as a “unique” species and to protect its habitat accordingly. Unlike the San Mateo County LCP, the Half Moon Bay LCP/LUP actually provides criteria for establishing a “unique” species, and the monarch perhaps fits those criteria. Regardless of whether “rare” or “unique” status is sought, the process would require amendment by the City Council of Half Moon Bay and certification by the California Coastal Commission.

The presence of the San Francisco tree lupine moth in both the City of Half Moon Bay’s and San Mateo County’s LCPs may also provide opportunities. Protection for “rare” or “endangered” species was extended to the moth apparently on the basis of a petition to list the species as threatened under the federal Endangered Species Act. Although that petition came almost 30 years ago, the most recent amendments to the San Mateo County LCP have affirmed the moth’s protection even though the Fish & Wildlife Service determined that the petition was “not warranted” in 1985.<sup>461</sup> Perhaps a more effective approach would be to list the monarch as “unique” under the LCP/LUP of the City of Half Moon Bay.

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<sup>461</sup> The Fish & Wildlife Service had earlier found that a threatened species listing for the San Francisco tree lupine moth “may be warranted.” 48 Fed. Reg. 6752 (Feb. 15, 1983). Later, Fish & Wildlife Service determined that the petition to list the San Francisco tree lupine moth was “warranted but precluded” by other efforts to revise the lists, and expeditious progress was being made in listing and delisting species. 49 Fed. Reg. 2485 (Jan. 20, 1984). Fish & Wildlife Service then determined that the petition was “not warranted.” 51 Fed. Reg. 996, 997 (Jan. 9, 1986). In making its decision, the Fish & Wildlife Service declared that

A finding of “not warranted” for the 1982 petition ... to list the San Francisco tree lupine moth as a threatened species was made by the Service on October 11, 1985. Although many colonies of the moth's foodplant, *Lupinus arboreus*, have been adversely affected by development, sand dune stabilization, and introduction of exotic plants, some activities such as road construction have apparently benefitted the foodplant and presumably the moth. The category indicated by this information for the next comprehensive invertebrate notice of review is 3C, signifying a species that is no longer under active consideration by the Service for listing. This determination will be strengthened if the closely related *Grapholita lana* is shown to be synonymous with *G. edwardsiana*, as available data suggest. The range of nominate *G. lana* extends from British Columbia through Washington and Oregon to southern California.

*Id.*

## I. San Luis Obispo County

San Luis Obispo is home to many active overwintering sites.<sup>462</sup> As described in Sections II and III, some of these sites are on state and federal lands and receive some level of protection. Approximately 22 sites are within the coastal zone on both public and private land.<sup>463</sup> For example, the sites at San Joaquin Avenue, San Jacinto and Highway 1, and Methodist Church all lie within the coastal zone, although the Methodist Church site has been destroyed and the San Joaquin Avenue not been monitored since 1996 while the San Jacinto and Highway 1 site has just one report. Some monarch sites are known to be located on city land, such as the Eagle Rock site in the City of Morro Bay. Each of these sites is governed by the LCP for the city of Morro Bay. Other sites within the county, such as the Pike, Halcyon site, are on private land or may be outside the coastal zone. Because the exact locations and ownership remain unknown,<sup>464</sup> this section only reviews policies included in the LCPs for the region. It does not assume that sites are outside the LCP.

### 1. San Luis Obispo Local Coastal Program

The San Luis Obispo County LCP governs those areas of the coastal zone not covered by individual city plans, such as those for Morro Bay and Pismo Beach. As such, its policies will affect a number of monarch overwintering sites, including the two sites at Blacklake. These two sites have historically hosted thousands of monarchs with 9,713 and 7,583 reported in 2011. It will also cover the site at Avila Golf Course, which has seen as many as 3,000 monarchs in 2001, although the last report from 2007 recorded no monarchs.

San Luis Obispo County LCP is incorporated into the Land Use Element and Land Use Ordinance of the county's General Plan (GP).<sup>465</sup> The LCP consists of a Coastal Land Use Plan, a Coastal Zone Land Use Ordinance, and planning and natural resource maps.<sup>466</sup> The LCP was certified by the Commission in 1984 and has been amended various times over the years.<sup>467</sup>

In 2001, the Coastal Commission conducted a periodic review of San Luis Obispo County's implementation of its LCP to determine whether the LCP is effectively carrying out the goals and policies of the Coastal Act.<sup>468</sup> The Commission made several recommendations to bring the LCP into conformity with the Coastal Act, including revisions to the LCP's ESHA

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<sup>462</sup> See WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; CNDDDB DATABASE.

<sup>463</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>464</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>465</sup> County of San Luis Obispo, Coastal Zone Policies, 1-1-1-3 (rev. Apr. 2007) [hereinafter SLO Coastal Zone Policies], *available at*:

[http://www.slocounty.ca.gov/planning/General\\_Plan\\_\\_Ordinances\\_and\\_Elements/Elements.htm](http://www.slocounty.ca.gov/planning/General_Plan__Ordinances_and_Elements/Elements.htm); *see also* Title 23 of the San Luis Obispo County Code, Coastal Zone and Land Use Ordinance (revised Aug. 2010), *available at*:

[http://www.slocounty.ca.gov/planning/General\\_Plan\\_\\_Ordinances\\_and\\_Elements/Land\\_Use\\_Ordinances.htm](http://www.slocounty.ca.gov/planning/General_Plan__Ordinances_and_Elements/Land_Use_Ordinances.htm).

<sup>466</sup> SLO Coastal Zone Policies, *supra* note 467, at 1-1-1-3.

<sup>467</sup> *Id.* at iii, 1-2.

<sup>468</sup> The Coastal Act Section requires that the Commission periodically review the implementation of certified LCPs to determine whether they are being effectively implemented in conformity with the policies of the Coastal Act. Cal. Pub. Res. Code § 30519.5.

policies and developing comprehensive habitat plans to protect Monterey pine forests.<sup>469</sup> Since that time, the county has been in the process of updating its LCP, primarily by adopting various amendments in response to the Commission's recommendations.<sup>470</sup> The county is still in the process of comprehensively updating its LCP.

In San Luis Obispo County, the coastal zone extends inland 1,000 yards, although it reaches farther inland in several areas because of important habitat, recreational, and agricultural resources including those areas around Hearst Ranch and other north coast areas, Nipomo Dunes, and the Morro Bay watershed.<sup>471</sup> To ensure consistency with the policies and requirements of the California Coastal Act, the LCP places the highest priority on the preservation of natural resources, including ESHAs. The protection of ESHAs generally takes precedence over all other categories of land use. The LCP contains general policies pertaining to all ESHAs and specific policies depending on the type of resource—for example, terrestrial environments, wetlands, and coastal streams.

The San Luis Obispo LCP does not expressly refer to monarch overwintering sites as ESHAs. The LCP provides that ESHAs “include, but are not limited to” 1) wetlands and marshes, 2) coastal streams and adjacent riparian areas, 3) habitats containing or supporting rare and endangered or threatened species, 4) marine habitats containing breeding and/or nesting sites, and 5) coastal areas used by migratory and permanent birds for resting and feeding. Depending on the precise location of the boundaries for these types of ESHAs, the LCP's ESHA policies for wetlands and habitats supporting unique, rare, and endangered species may be relevant. For example, areas around Morro Bay are ESHAs. Some sites in the Morro Bay area, including the Sweet Springs site, appear to be within existing ESHAs while others, including the Monarch Lane and Pecho Road sites<sup>472</sup> appear to be outside these ESHAs.<sup>473</sup> If these sites are in fact within an ESHA then the specific policies concerning these types of habitats will apply.<sup>474</sup>

Generally, the LCP requires development within existing ESHAs to be resource-dependent uses, as required by the Coastal Act, and prohibits new development in or within 100 feet of the ESHA boundary from significantly disrupting the resource.<sup>475</sup> To implement this prohibition, the developer must prepare a report that “evaluates the impact the development may have on the habitat, and whether the development will be consistent with the biological continuance of the habitat.”<sup>476</sup> The report must also identify the biological constraints that need

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<sup>469</sup> See California Coastal Commission, Preliminary Report on the Periodic Review of the San Luis Obispo County Local Coastal Program (July 2001), at 131-132.

<sup>470</sup> California Coastal Commission, *LCP Status and History Report*, at 23 (October 2010), available at <http://www.coastal.ca.gov/lcps.html>.

<sup>471</sup> SLO Coastal Zone Policies, *supra* note 467, at 1-1.

<sup>472</sup> See WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; CNDDDB DATABASE.

<sup>473</sup> Compare Jen Zarnoch, Sarina Jepsen & Scott Hoffman Black, Xerces Society Spatial Database of Western Monarch Overwintering Locations (The Xerces Society for Invertebrate Conservation, Draft: 2011), with the ESHA map provided by County of San Luis Obispo, available in Letter from Jeff Pienak, Chair, Surfrider Foundation, San Luis Bay Chapter, to Bruce Gibson, Chair San Luis Obispo County Board of Supervisors, regarding Appeal of Los Osos Wastewater Project (LOWWP), Coastal Development Permit / Development Plan DRC200800103 / County of San Luis Obispo, Exhibit 5.5-3 (Aug. 27, 2009), at [slo.surfrider.org/wp-content/uploads/appeal\\_lowwp.pdf](http://slo.surfrider.org/wp-content/uploads/appeal_lowwp.pdf).

<sup>474</sup> See SLO Coastal Plan Policies, *supra* note 467, at 6-6 to 6-18.

<sup>475</sup> *Id.* at 6-5.

<sup>476</sup> San Luis Obispo, Coastal Zone Land Use Ordinance, § 23.07.170(a)(1).

to be addressed in designing development that would avoid and minimize impacts to an ESHA.<sup>477</sup> The applicants must demonstrate that the proposed development will not have any significant impacts on sensitive habitats, which may include an evaluation of feasible mitigation measures and a program for monitoring and evaluating the effectiveness of mitigation measures where appropriate.<sup>478</sup> The report must also evaluate alternatives to the proposed development, and importantly, when impacts to the ESHA cannot be avoided, the project must be modified “so that it is the least environmentally damaging feasible alternative.”<sup>479</sup> The county requires the restoration of damaged habitats as a condition of development approval whenever feasible and generally prohibits the division of parcels containing ESHAs.<sup>480</sup> Finally, the LCP also prohibits the cutting or removal of riparian vegetation.<sup>481</sup>

Recent amendments to the General Plan now protect native and biologically valuable trees.<sup>482</sup> They also protect healthy and non-hazardous, non-native trees (e.g., eucalyptus) and forests that provide roosting sites or support colonies of monarch butterflies.<sup>483</sup> These policies apply county-wide, regardless of whether the overwintering site is on public or private land, or within the coastal zone.

## 2. City LCPs

The City of Morro Bay contains three sites in the coastal zone at Eagle Rock, Main and South Streets, Main and Surf Street sites.<sup>484</sup> The presence of monarchs at Eagle Rock fluctuates greatly depending on the year—hundreds to thousands of monarchs roost at the site in some years while few to none are observed in other years. The City of Morro Bay has an LCP, but none of the LCP’s policies directly reference monarchs.<sup>485</sup> While many of the LCP’s ESHA policies are primarily concerned with wetlands and riparian habitat and generally mirror the ESHA policies and requirements set forth in the Coastal Act and the San Luis Obispo County LCP,<sup>486</sup> others are more generally applicable. For example, development in areas adjacent to ESHAs must be sited and designed to prevent impacts that would significantly degrade such areas and must maintain the ESHA’s functional capacity.<sup>487</sup> This policy is supported by a requirement to maintain a

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<sup>477</sup> San Luis Obispo, Coastal Zone Land Use Ordinance, § 23.07.170(a)(4).

<sup>478</sup> SLO Coastal Plan Policies, *supra* note 467, at 6-5.

<sup>479</sup> San Luis Obispo, Coastal Zone Land Use Ordinance, § 23.07.170(e)(1).

<sup>480</sup> San Luis Obispo, Coastal Zone Land Use Ordinance, § 23.07.170(b); SLO Coastal Plan Policies, *supra* note 466, at 6-6.

<sup>481</sup> SLO Coastal Plan Policies, *supra* note 467, at 6-15.

<sup>482</sup> County of San Luis Obispo General Plan, Conservation and Open Space Element, Policy BR 3.1 (May 2010) (Adopted by the San Luis Obispo County Board of Supervisors, May 11, 2010 by Resolution 2010-151).

<sup>483</sup> *Id.* at Policy BR 3.5.

<sup>484</sup> Compare Jen Zarnoch, Sarina Jepsen & Scott Hoffman Black, Xerces Society Spatial Database of Western Monarch Overwintering Locations (The Xerces Society for Invertebrate Conservation, Draft: 2011), with City of Morro Bay, Land Use Map (showing coastal zone boundary), *available at*: <http://www.morro-bay.ca.us/index.aspx?nid=574>.

<sup>485</sup> See City of Morro Bay, Local Coastal Program, *available at*: <http://www.morro-bay.ca.us/index.aspx?nid=574>.

<sup>486</sup> *Id.* at Chapter XII, 182-198.

<sup>487</sup> *Id.* at Policy 11.02, page 194.

minimum setback of 100 feet from the ESHA.<sup>488</sup> New subdivisions are prohibited in ESHAs, as well.<sup>489</sup>

The City of Morro Bay has designated a number of ESHAs along rivers and streams, as well as areas of Morro Bay and its estuary, Fairbanks Point, Black Hills Natural Area, and Morro Rock.<sup>490</sup> However, the LCP leaves open the possibility that sites not currently designated as ESHA may become so.<sup>491</sup> It does not appear that any of the overwintering sites fall within currently designated ESHAs included in the City of Morro Bay LCP,<sup>492</sup> but they could become so as “specialized wildlife habitats which are vital to species survival” or as “unique, rare or fragile communities which should be preserved to ensure their survival in the future.”<sup>493</sup>

The City of Pismo Beach hosts one monarch site, the Pismo & Solar site. The site, which is within the city’s coastal zone, has hosted as many as 210 monarchs but just 26 monarchs were reported in 2008, none in 2009, and 162 in 2010.<sup>494</sup> The city’s LCP<sup>495</sup> establishes a policy to preserve monarch butterfly habitat, but it only mentions the site within Pismo State Park (see Section II.B.9), not the Solar & Price site.<sup>496</sup> Regarding the site within Pismo State Park, the LCP directs the city to cooperate with the California State Department of Parks and Recreation to “preserve and enhance butterfly habitat.”<sup>497</sup> To this end, the LCP directs the city to replace any butterfly trees that are lost by disease or must be removed to protect life or property, to request the state parks department “to place appropriate signing and develop adequate visitor parking for the Monarch Butterfly Reserve,” and to require a minimum setback of 50 feet for development adjacent to the butterfly trees within Pismo Beach State Park.<sup>498</sup>

### 3. Conclusions and Recommendations

Many overwintering sites in San Luis Obispo County appear to receive some protection. The county protects sites in non-native vegetation. If an overwintering site is in an ESHA, then it will be protected by the county’s permitting process, although no overwintering sites appear to be included in an existing ESHA. No ordinance appears to prohibit the collection of monarchs.

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<sup>488</sup> *Id.* at Policy 11.06, page 195.

<sup>489</sup> *Id.* at Policy 11.18, page 197.

<sup>490</sup> City of Morro Bay, General Plan, Land Use, Open Space, and Conservation Easements, at II-22 to II-24, available at: <http://www.morro-bay.ca.us/index.aspx?nid=574>.

<sup>491</sup> City of Morro Bay, Local Coastal Program, *supra* note 487, at Policy 11.05, page 194 (providing, “[i]n areas of the City where sensitive habitats are suspected to exist but are not presently mapped or identified in the city’s Land Use Plan, projects shall undergo an initial environmental impact assessment to determine whether or not these habitats exist. Where such habitats are found to exist, they shall be included in the City’s environmentally sensitive habitat mapping included within the LUP.”).

<sup>492</sup> Compare *id.* at 185, Figure 28, with addresses included in Xerces Society, Thanksgiving Count.

<sup>493</sup> City of Morro Bay, Local Coastal Program, *supra* note 487, at 186 (listing the criteria for ESHAs).

<sup>494</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>495</sup> City of Pismo Beach, General Plan/Local Coastal Plan, at: <http://www.pismoeach.org/index.aspx?nid=109>.

<sup>496</sup> See City of Pismo Beach, General Plan/Local Coastal Program, Conservation/Open Space Element, Policy CO-7, at 9, available at: <http://www.pismoeach.org/index.aspx?nid=109>.

<sup>497</sup> *Id.*

<sup>498</sup> *Id.*; see also Pismo Beach Zoning Ordinance § 17.051.020(C), (D).

To ensure the protection of monarch habitat and consistency with Coastal Act requirements, San Luis Obispo County could include several revisions in its updated LCP. Because it is not clear whether overwintering sites are within ESHAs, the updated LCP and the relevant maps could expressly designate known monarch overwintering sites as ESHAs and include specific measures designed to protect ESHAs, and monarch habitat in particular, based on the most recent scientific data available on monarch overwintering sites.<sup>499</sup> Moreover, the updated LCP could define ESHAs as including currently unmapped or undesignated areas that meet have monarch overwintering habitat.

## **J. Santa Barbara County**

The coastal zone in Santa Barbara County spans 110 miles of coastline and includes approximately 184 square miles. The south coast is characterized by sandy beaches, bluffs, and coastal terraces. The coastline from Point Conception north to the Santa Maria River is rugged and rural, comprising rolling hills, mountains, rocky headlands, steep bluffs, and extensive sand dunes between Mussel Point and the Santa Maria River. While the coastal zone boundary line generally extends inland only 1,000 yards, the Santa Barbara coastal zone extends further inland in several areas because of important habitat and recreational and agricultural resources. These areas include the lands surrounding Guadalupe Dunes and Point Conception, as well as most of Carpinteria Valley.

Santa Barbara has a large number of monarch overwintering sites—perhaps as many as 132 sites.<sup>500</sup> Some of these are found on state or federal land, as described in Sections II and III. Several important monarch sites are found in Goleta and Carpinteria. Of the remaining sites, approximately 21 appear to be in the coastal zone<sup>501</sup> and are covered by the Santa Barbara County LCP. In addition, several monarch sites are located on both public and private property in the cities of Santa Barbara and Carpinteria, which have their own coastal plans.

### **1. Relevant LCPs**

#### **a. Santa Barbara County LCP**

Twenty-one sites are covered under the Santa Barbara County LCP, including Arroyo Quemado, Music Academy of the West, and Loon Point. Arroyo Quemado is an autumnal site that has historically supported hundreds to thousands of monarchs, yet it has not been monitored since 1999. The Music Academy of the West once hosted about 30,000 monarchs annually. However after tree trimming and removal at the site, 50 or less now generally use the area as a transitory stop throughout the overwintering period. Hundreds to thousands of monarchs typically roost at Loon Point, a privately owned site. The Santa Barbara County LCP is incorporated into the county's Comprehensive General Plan and consists of the Coastal Land

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<sup>499</sup> See *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . an updated map and description of existing, known habitats”).

<sup>500</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2. See also WESTERN MONARCH THANKSGIVING COUNT DATA (1997-2009), *supra* note 2; CNDDDB: MONARCH SITES, *supra* note 2; Marriott, David F., *Top News from 2007*, The Monarch Program, available at <http://www.monarchprogram.org/news/index.htm>.

<sup>501</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

Use Plan and resource maps.<sup>502</sup> The Commission approved the LCP in 1981.<sup>503</sup> The LCP has been amended various times over the years.

To ensure consistency with the policies and requirements of the California Coastal Act, the LCP expressly incorporates Coastal Act policies and places the highest priority on the preservation of natural resources, including ESHAs. The protection of ESHAs generally takes precedence over all other categories of land use. The LCP contains general policies pertaining to all ESHAs and specific policies that apply to different ESHA categories such as butterfly trees, dunes, and wetlands.

The LCP generally requires that, before a development permit is issued, any proposed development within 250 feet of a designated ESHA must conform to applicable LCP policies. All development plans must “show the precise location of the habitat(s) potentially affected by the proposed project,” and projects that could adversely impact an ESHA may be subject to a site inspection by a qualified biologist.<sup>504</sup>

The LCP expressly designates as ESHAs the butterfly trees located in “Arroyo Quemado, Music Academy of the West parking lot in Montecito, Price estate in Hope Ranch area, Pacific Lighting property near Goleta Slough, and the Loon Point area.”<sup>505</sup> For these butterfly trees, the LCP prohibits removal of the trees (except where they pose a serious threat to life or property), as well as pruning while the monarchs roost.<sup>506</sup> The LCP also requires that adjacent development be set back a minimum of 50 feet from the trees.<sup>507</sup>

## **b. City of Santa Barbara**

The City of Santa Barbara has perhaps one monarch site at Cabrillo Boulevard in Palm Park. Seven monarchs were reported at this site in 1990 and no roost was reported in 1991.<sup>508</sup> The city’s coastal plan contains ESHA policies, but those policies are primarily concerned with the wetlands of the Goleta Slough.<sup>509</sup> A separate land use plan exists for the municipal airport and Goleta Slough. However, there are no provisions that are relevant to monarchs in either plan. Nor are there any municipal ordinances that are specific to monarchs.

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<sup>502</sup> County of Santa Barbara, Coastal Land Use Plan (adopted 1982), [http://longrange.sbcountyplanning.org/programs/coastal\\_lup.php](http://longrange.sbcountyplanning.org/programs/coastal_lup.php).

<sup>503</sup> The only portion of the plan which has not been certified relates to clustered residential development on the Channel Islands, which is not relevant here.

<sup>504</sup> County of Santa Barbara, Coastal Land Use Plan, *supra* note 506, at Policy 9-1, at 126.

<sup>505</sup> *Id.* at 132. Santa Barbara implements this policy through its Coastal Zoning Ordinance, which requires a Coastal Development Permit for the removal of any tree which is six inches or more in diameter measured four feet above the ground and six feet or more in height and which is used as a habitat by the Monarch Butterflies, unless the tree is dead, diseased, or poses a danger to healthy trees or injury to person or property. Santa Barbara Coastal Zoning Ordinance, § 35-140.2–.3, *available at*:

[http://www.sbcountyplanning.org/permitting/ldpp/auth\\_reg/coastal\\_program.cfm](http://www.sbcountyplanning.org/permitting/ldpp/auth_reg/coastal_program.cfm).

<sup>506</sup> County of Santa Barbara, Coastal Land Use Plan, *supra* note 506, at 133.

<sup>507</sup> *Id.*

<sup>508</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>509</sup> *See* City of Santa Barbara, Local Coastal Plan, at 14 (adopted May 1991, last amended Nov. 2004), *available at*: [http://www.santabarbaraca.gov/Government/General\\_Plan/](http://www.santabarbaraca.gov/Government/General_Plan/).

In the past, monarchs have visited several city parks in Santa Barbara, including Honda Valley, Hale Park, and La Mesa Park. If monarchs return to these parks, the overwintering trees will be protected by the city's prohibition against any destruction or damage to any tree.<sup>510</sup> Trees on private property, however, may be cut without a permit provided that it is not a setback tree, parking lot tree, tree on an approved plan, or a designated historic tree.<sup>511</sup> There do not appear to be any provisions relating to collection of monarchs (or any other wildlife) either in the LCP or the municipal code.

### c. City of Carpinteria

Monarch sites in Carpinteria include a site near Carpinteria Creek, Rincon Creek, the Carpinteria Business Park, and the Carpinteria oil and gas plant buffer zone (also known as Chevron Park). Tens of thousands to thousands of monarchs consistently cluster at Carpinteria Creek every year. Rincon Creek typically supports 50 or fewer monarchs, although hundreds to thousands have been infrequently reported. The number of monarchs observed at Carpinteria Business Park has declined over time from thousands to hundreds to fewer. It has only been monitored for four different winters and has not been monitored since 2001. Tens of thousands to thousands of monarchs typically roost at Chevron Park every year.<sup>512</sup> The Carpinteria LCP is integrated into the city's general plan and comprises the land use plan and implementing programs. The city's LCP designates monarch butterfly trees as ESHAs, specifically referring to butterfly trees located at Salzgeber Meadow, the Carpinteria oil and gas plant buffer zone, and "possibly other locations."<sup>513</sup> One of the objectives of the LCP is the protection and conservation of monarch butterfly tree habitat.<sup>514</sup> To this end, the Carpinteria LCP restricts the alteration or removal of butterfly trees and requires that adjacent development be setback a minimum of 50 feet from the dripline of the butterfly trees.<sup>515</sup> There do not appear to be any restrictions on the collection of monarchs either in the LCP or the municipal code.

### d. City of Goleta

The Ellwood sites are within the City of Goleta and show some of the highest monarch counts within California in recent years. Tens of thousands of monarchs have consistently roosted at Ellwood Main every year. Ellwood North typically supports thousands of monarchs although observers have only recorded hundreds in occasional years. Ellwood West and East were at one time part of the Ellwood complex. Thousands of monarchs once roosted at Ellwood East before a fire destroyed the site. Few to none have been observed since and the site is presumed to be extirpated. Although thousands of monarchs historically clustered at Ellwood West, strong winds destroyed the roosting trees at the site in 1995 and monarchs have only been

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<sup>510</sup> Santa Barbara's Municipal Code makes it "unlawful for any person to intentionally, willfully or maliciously injure, destroy, damage or deface any real or personal property owned and/or maintained by the City of Santa Barbara. City of Santa Barbara, Municipal Code, § 15.16.150.

<sup>511</sup> City of Santa Barbara, Municipal Code, § 15.24.020.

<sup>512</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>513</sup> See City of Carpinteria, General Plan/Local Coastal Land Use Plan and Environmental Impact Report, 96, 117 (Apr. 2003).

<sup>514</sup> See *id.*

<sup>515</sup> See *id.*, Policy 37, at 118.

observed infrequently since that year. Monitoring at the site ceased after 1999 but resumed in 2010.<sup>516</sup>

The Ellwood sites enjoy some of the most thorough protection of the sites surveyed in this report. These sites lie entirely within the coastal zone, and the City's integrated General Plan/Local Coastal Program (General Plan/LCP) designates as ESHAs all "[m]onarch butterfly aggregation sites, including autumnal and winter roost sites, and related habitat areas."<sup>517</sup> Though the General Plan/LCP names nine individual sites, the General Plan/LCP provides that all monarch overwintering sites are ESHAs whether named or not.<sup>518</sup> Prior to development on any site "where there is probable cause to believe that monarch habitats may exist," a site-specific study must be conducted, and all ESHA protections will extend to any site shown through that study to be an autumnal or overwintering site.<sup>519</sup>

The General Plan/LCP provides for thorough protection of the monarch ESHAs. The General Plan/LCP recognizes that aggregation sites may vary by year, so it emphasizes protecting entire stands of trees rather than individual trees.<sup>520</sup> Development within the sites is generally prohibited, except that public access ways may be constructed where necessary and where they are sited to avoid or minimize impacts to the monarch ESHAs.<sup>521</sup> Removal of vegetation is also prohibited, except the "minor pruning or removal of dead trees" when necessary for public safety.<sup>522</sup>

The General Plan/LCP also requires a buffer zone "of a sufficient size to ensure the biological integrity and preservation of the monarch butterfly habitat, including aggregation sites and the surrounding grove of trees."<sup>523</sup> The buffer zone must be more than 100 feet from the outermost trees of the site, but "may be reduced to 50 feet in circumstances where the trees contribute to the habitat but are not considered likely to function as an aggregation site, such as along narrow windrows."<sup>524</sup> Any proposed new development adjacent to a monarch ESHA or buffer requires a "site-specific biological study, prepared by an expert approved by the City who is qualified by virtue of education and experience in the study of monarch butterflies."<sup>525</sup> The purpose of the study is to delineate the outer bounds of the site and its required buffer, as well as to estimate the monarch populations.<sup>526</sup> Construction is not allowed within 200 feet of an active roost between October 1 and March 1.<sup>527</sup>

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<sup>516</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>517</sup> City of Goleta (Cal.), General Plan/Local Coastal Program, 4-8 (Sep. 2006).

<sup>518</sup> *Id.* at 4-9. The named sites are: Tecolote Creek, Bell Canyon Creek, Ellwood Canyon Creek, Ellwood Mesa, Evergreen Park, Glen Annie Creek, Los Carneros Creek, Los Carneros Natural and Historical Preserve, and San Jose Creek. *Id.* The General Plan/LCP provides that "[s]ites that provide the key elements essential for successful monarch butterfly aggregation areas and are locations where monarchs have been historically present shall be considered ESHAs." *Id.* at 4-18.

<sup>519</sup> *Id.* at 4-19.

<sup>520</sup> *Id.*

<sup>521</sup> *Id.*

<sup>522</sup> *Id.*

<sup>523</sup> *Id.*

<sup>524</sup> *Id.*

<sup>525</sup> *Id.* at 4-20.

<sup>526</sup> *Id.*

<sup>527</sup> *Id.*

## 2. Conclusions and Recommendations

Within Santa Barbara County, the protection of overwintering habitat from development appears to be adequate. Overwintering trees may not be removed absent a threat to human health or public safety. Pruning is allowed, at least pursuant to the county LCP, only when monarchs are not present. The relevant LCPs could be improved, however, by including a prohibition on collecting monarchs except for *bona fide* research purposes and perhaps in very small numbers for hobby collectors. In addition, they could expressly designate all known monarch overwintering sites as ESHAs; it appears that only some have been so designated.<sup>528</sup> Moreover, the Santa Barbara County and Santa Barbara City LCPs could designate as ESHAs unmapped or undesignated areas that include monarch overwintering habitat, as do the Goleta and Carpinteria General Plans/LCPs. The updated LCPs could further require site-specific evaluations at the time of any proposed development or plan amendments and provide additional guidance to responsible agencies and officials in identifying unmapped ESHAs, as does the Goleta General Plan/LCP.<sup>529</sup>

The Goleta General Plan/LCP also provides a model for other LCPs in the county by prohibiting construction near monarch overwintering sites during the months when monarchs are present. They could also prohibit the cutting, thinning, pruning, and removal of any tree or shrub used by monarchs or in a buffer zone of any overwintering site without prior consultation with a qualified monarch expert.

### K. Santa Cruz County

In addition to the two State-managed sites that continue to host significant populations of overwintering monarch butterflies described in Section II (Natural Bridges State Beach and Lighthouse Field State Beach), Santa Cruz County is also home to several other overwintering sites. Thousands of monarchs consistently roost at Moran Lake Park every year. Escalona Gulch historically supported tens of thousands of monarchs. Several key trees were removed at this site in 1998 and numbers have declined to several hundred or fewer since this year. Thousands of monarchs once clustered at Rispin Mansion. After trees were cleared in the mid-1980s, numbers have declined to 20 or less. The number of monarchs at the two overwintering sites of New Brighton/Potbelly and Seascape Golf Course in Aptos fluctuates from the thousands to the hundreds to fewer depending on the year. Home of Peace Cemetery, the California State Parks Pajaro Coast Sector Lifeguard Headquarters, and South Branciforte are small overwintering sites in Santa Cruz County that consistently support 50 or less monarchs every year.<sup>530</sup>

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<sup>528</sup> See *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . an updated map and description of existing, known habitats”).

<sup>529</sup> *Id.* at 1 (“an LCP should include . . . [c]lear policies stating that the identification of ESHA . . . will be determined in part through an evaluation of existing known resources at the time of proposed development or plan amendment . . . [and] strengthened requirements for conducting site specific biological evaluations and field observations to identify ESHA . . .”).

<sup>530</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

In 1994, the County adopted a single, comprehensive General Plan/LCP.<sup>531</sup> According to the LCP, Santa Cruz shall “[u]ndertake a major revision and updating of the [LCP] a minimum of every 10 years with substantial citizen participation with citizen task forces.”<sup>532</sup> In 2007, the Planning Commission voted to urge the County Board of Supervisors to establish a timetable for an update of the LCP, but the Board of Supervisors staff, citing the need to identify the scope of review and a lack of financial resources, recommended that staff “further evaluate this issue during fiscal year 2007-08,”<sup>533</sup> although no evidence of further work was found.

## 1. Santa Cruz County’s Local Coastal Plan (LCP)

In Santa Cruz County, the coastal zone generally, but not always, extends five miles inland; for example it extends to the ridge of Ben Lomond Mountain north of Santa Cruz, a distance fewer than five miles from the ocean, and only to 100 yards inland from Santa Cruz to Capitola and along Highway 1 from Aptos to the county line.<sup>534</sup> The major urban centers are located around the incorporated cities of Scotts Valley, Santa Cruz, Capitola, and Watsonville.<sup>535</sup> County policy is to concentrate growth in and around these areas to preserve the character of the rural areas.<sup>536</sup> The County recognizes that “planning policies and large development projects” in any of the four incorporated cities “have potential for significant impact throughout the County.”<sup>537</sup> The LCP discusses several city planning issues with County-wide impacts, recognizing in particular the importance of Capitola’s eucalyptus groves along Soquel Creek and the Escalona Gulch as monarch habitat.<sup>538</sup>

The Santa Cruz LCP sets forth three broad policies concerning environmental review of coastal projects designed to “afford maximum protection to the environmental resources of the County” and to comply with CEQA.<sup>539</sup> The first policy requires an environmental review of impacts pursuant to the California Environmental Quality Act (*see* Appendix 1) of all “new development projects, rezonings, and [LCP] Amendments.”<sup>540</sup> The second policy requires approved projects to incorporate mitigation measures identified through the process established by the California Environmental Quality Act.<sup>541</sup> The third policy requires review of those projects outside the coastal zone that may have impacts on the coastal zone.<sup>542</sup> The County has also adopted a program to review and comment on Environmental Impact Reports (EIRs) prepared by other jurisdictions that may affect the County’s coastal zone.<sup>543</sup> Because monarchs are listed as a protected species in Santa Cruz County, any EIR should report on any impacts of

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<sup>531</sup> County of Santa Cruz, Local Coastal Program, 1-12 (adopted May 24, 1994, certified Dec. 19, 1994), *available at*: [http://www.sccoplanning.com/html/policy/general\\_plan.htm](http://www.sccoplanning.com/html/policy/general_plan.htm) [hereinafter Santa Cruz LCP].

<sup>532</sup> *Id.* at 1-19.

<sup>533</sup> County of Santa Cruz, Minutes of Planning Commission, February 14, 2007 Meeting; County of Santa Cruz, Minutes of Santa Cruz County Board of Supervisors, March 27, 2007 Meeting.

<sup>534</sup> County of Santa Cruz LCP, *supra* note 535, at G-5.

<sup>535</sup> *Id.* at 1-4.

<sup>536</sup> *Id.*

<sup>537</sup> *Id.* at 1-22.

<sup>538</sup> *Id.*

<sup>539</sup> *Id.* at Objective 1.1, 1-21.

<sup>540</sup> *Id.* at Policy 1.1.1, 1-21.

<sup>541</sup> *Id.* at Policy 1.1.2, 1-21.

<sup>542</sup> *Id.* at Policy 1.1.3, 1-21.

<sup>543</sup> *Id.* at Program a, 1-21.

the proposed project on monarchs and propose mitigation measures. As described in Appendix 1 of this report, these requirements would normally only apply to proposed projects that may have “significant” environmental impacts.

The Santa Cruz LCP also includes other mechanisms for protecting monarchs. For example, it protects identified and undesignated ESHAs.<sup>544</sup> The LCP establishes specific rules for development within an ESHA to ensure that development does not significantly disrupt an ESHA’s habitat values. For example, any proposed development in an ESHA “must maintain or enhance the functional capacity of the habitat,”<sup>545</sup> and “no person shall commence any development activity within an area [affecting an ESHA] until a biotic approval has been issued,” unless that activity has already been reviewed for impacts on the ESHA during a permit application process.<sup>546</sup> In addition, new structures must be placed “as far from the [ESHA] as feasible,” use easements to protect ESHAs on undisturbed parcels within development areas as well as ESHAs on adjacent parcels, limit removal of native vegetation, and may not include landscaping with exotic species.<sup>547</sup> The LCP also prohibits the use of insecticides, herbicides, and any toxic chemicals in ESHAs with narrow exceptions.<sup>548</sup>

Monarch-related ESHAs include habitat for “locally unique biotic species/communities,” such as Santa Cruz cypress and Monterey pine,<sup>549</sup> as well as streams<sup>550</sup> and riparian corridors.<sup>551</sup> Although the LCP does not specifically list monarch overwintering sites as ESHAs, the LCP does recognize that “valuable wildlife resources” such as “migration corridors,” which may not meet the definition of an ESHA, should be protected using techniques for protecting ESHAs.<sup>552</sup>

Several programs are in place for implementing ESHA protection. For example, the Santa Cruz County Planning Department maintains a list of plant and animal species and habitats, works with state agencies to “ensure adequate protection of biological resources,” establishes a mapping program to set ESHA boundaries, updates the ESHA maps, and seeks funding to acquire ESHAs.<sup>553</sup> The Santa Cruz LCP also requires restoration of degraded ESHAs prior to

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<sup>544</sup> The County of Santa Cruz LCP adopts the definition of an “ESHA” from the Coastal Act: an ESHA is “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human developments.” *Id.* at G-10A.

<sup>545</sup> *Id.* at Policy 5.1.6, 5-4.

<sup>546</sup> Sensitive Habitat Protection Ordinance, Santa Cruz County, Cal., 16.32.060 (2001). The code actually refers to “areas of biotic concern” rather than ESHAs. However, an “area of biotic concern” is defined as “[a]ny area in which development may affect a sensitive habitat, as identified on the Local Coastal Program Sensitive Habitats maps . . .” *Id.* at 16.32.040 (2001). Note that existing agricultural operations are exempt from the biotic review requirement. *Id.*, at 16.32.105 (2001).

<sup>547</sup> County of Santa Cruz LCP, *supra* note 535, at Policy 5.1.7, 5-4.

<sup>548</sup> *Id.* at Policy 5.1.8, at 5-5. Exceptions include an emergency declaration, threats to the ESHA itself, substantial risk to public health and safety, and permitted use by the Agricultural Commissioner. *Id.*; Sensitive Habitat Protection Ordinance, Santa Cruz County, Cal., 16.32.050 (2001).

<sup>549</sup> County of Santa Cruz LCP, *supra* note 535, at Policy 5.1.2(b), 5-3; Sensitive Habitat Protection Ordinance, Santa Cruz County, Cal., 16.32.040 (2001).

<sup>550</sup> County of Santa Cruz LCP, *supra* note 535, at Policy 5.1.2(i), 5-3.

<sup>551</sup> *Id.* at Policy 5.1.2(j), 5-3.

<sup>552</sup> *Id.* at Policy 5.1.11, at 5-5. See *supra* note 543 and accompanying text (describing elements of Policy 5.1.7). In general, Policy 5.1.5 requires development to be clustered outside ESHA Grasslands and Special Forests. Special Forests include those containing Santa Cruz Cypress or Monterey Pine. *Id.* at G-18.

<sup>553</sup> *Id.* at Programs, 5-5 to 5-7.

project approval, with the objective of enhancing the “functional capacity and biological productivity of the [ESHA].”<sup>554</sup> Where an ESHA is damaged through a code violation, the scale of the restoration must comply with California Department of Fish and Game requirements.<sup>555</sup> Such restoration efforts “shall include monitoring over time to ensure” that the efforts are successful.<sup>556</sup> The LCP encourages the removal of invasive species and replacement with “characteristic” native species, “except where such invasive species provide significant habitat value and where removal of such species would severely degrade the existing habitat.”<sup>557</sup> The LCP does encourage “gradual conversion to native species providing equal or better habitat values.”<sup>558</sup>

Lastly, the LCP requires the County to maintain a Sensitive Habitat Protection Ordinance.<sup>559</sup> The purpose of this ordinance is, *inter alia*, to minimize disturbance of “rare and especially valuable” biotic communities and to implement the policies of the LCP.<sup>560</sup> The primary benefit of having such an ordinance is that it allows the County to implement the LCP without amending the LCP. Each revision to the ordinance is given to the Executive Director of the Commission for review, and if the Executive Director determines that it does not constitute an amendment of the LCP, then it does not need to go through the LCP amendment process.<sup>561</sup>

Another LCP objective is to “preserve, protect and restore all riparian corridors and wetlands for the protection of wildlife and habitat.”<sup>562</sup> Riparian corridors extend from the “top of a distinct channel or physical evidence of high water mark” for 50 feet from perennial streams and for 30 feet from intermittent streams; riparian corridors also extend 100 feet from the “high water mark” of a wetland, estuary, lake, lagoon, or other natural body of water.<sup>563</sup> Development, “land alteration,” and “vegetation disturbance” in riparian corridors are prohibited unless an exception applies.<sup>564</sup>

## 2. Local Ordinances Relevant to Monarchs

The City of Santa Cruz has zoning ordinances that impose additional regulations on coastal development in and near monarch habitat, including the Home of Peace Cemetery and the Lifeguard Headquarters monarch overwintering sites.<sup>565</sup> For example, removal of eucalyptus trees that provide monarch habitat requires a permit and will be allowed only “where it is

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<sup>554</sup> *Id.* at Policy 5.1.12, 5-7.

<sup>555</sup> *Id.* at Policy 5.1.13, 5-7.

<sup>556</sup> *Id.*

<sup>557</sup> *Id.* at Policy 5.1.14, 5-7.

<sup>558</sup> *Id.*

<sup>559</sup> Santa Cruz County Ordinances, Chapter 16.32.

<sup>560</sup> *Id.* § 16.32.010.

<sup>561</sup> *Id.* § 16.032.030.

<sup>562</sup> County of Santa Cruz LCP, *supra* note 535, at Objective 5.2, at 5-9.

<sup>563</sup> *Id.* at Policy 5.2.1, 5-9.

<sup>564</sup> *Id.* at Policy 5.2.3, 5-9. Exceptions are outlined in the County Code. Riparian Corridor and Wetlands Protection Ordinance, Santa Cruz County, Cal., 16.30.060 (2001). Most notable among these is the provision that granting the exception “will not reduce or adversely impact the riparian corridor, and there is no feasible less environmentally damaging alternative.” *Id.* 16.30.060(d)(4) (2001).

<sup>565</sup> Zoning Ordinance of the City of Santa Cruz, Title 24 of the Santa Cruz Municipal Code (2001).

demonstrated that no adverse impacts to habitat would occur.”<sup>566</sup> Aptos, the location of the New Brighton/Potbelly and Seascape Golf Course sites, is an unincorporated area of Santa Cruz County and does not have any ordinances specific to monarchs or the overwintering sites.

The City of Capitola has comparatively extensive ordinances that specifically protect the monarch overwintering sites at Rispin Mansion and Escalona Gulch.<sup>567</sup> One ordinance, for example, requires (i) development adjacent to the monarch habitat be “sited and designed to prevent impacts that would significantly degrade” that habitat, (ii) landscape plans that emphasize the “maintenance and enhancement of butterfly habitats” accompany any application for a coastal development permit, and (iii) a “qualified professional to determine the location of the outer edge of the [m]onarch habitat and to report to the city potential impacts and mitigation measures for proposed development.”<sup>568</sup> Removal or trimming of trees within the monarch habitat is prohibited unless “necessary by reason of good forestry practice, disease of the tree, or safety considerations,” and then only after “a written evaluation of the impacts of the proposed action on habitat resources by a qualified expert on the [m]onarch butterfly.”<sup>569</sup> Construction within or on properties contiguous to the designated butterfly groves is not allowed during the fall and winter seasons when monarchs are present.<sup>570</sup> The later ordinance further limits the development of areas around the monarch habitat and requires that any new development be predicated on a conservation easement for monarch habitat being conveyed to a “government agency or organization authorized to monitor and enforce easement restrictions.”<sup>571</sup>

With respect to the Escalona Gulch site, tree replanting and the planting of “[s]hrubs which flower in the early fall and could provide a good source of flower nectar for the butterflies” must be guided by a “qualified [m]onarch butterfly biologist.”<sup>572</sup> In addition, microclimatic data must be gathered before and for three years after any construction “to help develop a data base regarding environmental parameters associated with butterfly behavior.”<sup>573</sup>

### 3. Conclusions and Recommendations

The County of Santa Cruz LCP provides significant protection from development for monarch overwintering sites. The requirement for developers to restore ESHA habitat identified as degraded is particularly noteworthy, because it establishes a mechanism for restoring aging or damaged sites. In addition, Santa Cruz’s Sensitive Habitat Protection Ordinance provides an alternative to amending an LCP that could be used to provide greater protection for the monarch and its habitat. For example, monarch overwintering sites could be explicitly added to the Sensitive Habitat Protection Ordinance. Ideally, such an amendment could limit the “permitted or discretionary uses” to nature observation and research.<sup>574</sup>

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<sup>566</sup> Santa Cruz Municipal Code § 24.08.2150, *available at* <http://www.codepublishing.com/CA/SantaCruz/>.

<sup>567</sup> Capitola Municipal Code §§ 17.95.060 (Ord. 677 § 7(F), 1989; Ord. 634 § 1 (part), 1987) & 17.95.061 (Ord. 752, 1993), *available at* <http://www.ci.capitola.ca.us/>.

<sup>568</sup> *Id.* § 17.95.060.

<sup>569</sup> *Id.* at § 17.95.060(D).

<sup>570</sup> *Id.*

<sup>571</sup> *Id.* at § 17.95.061.

<sup>572</sup> *Id.*

<sup>573</sup> *Id.*

<sup>574</sup> *See* Santa Cruz County Ordinances, Chapter 16.32, § 090.

Those cities that have jurisdiction over monarch overwintering sites in Santa Cruz County generally have progressive ordinances that protect those sites from development. The City of Santa Cruz has a planning ordinance to protect trees within monarch overwintering sites. The City of Capitola's extensive ordinances protecting overwintering sites and regulating development near them may provide valuable insight into the drafting of ordinances in other jurisdictions. In particular, Capitola's ordinances require a biological assessment from a qualified expert on the monarch butterfly prior to removal or trimming of any monarch trees.

## **L. Sonoma County**

Monarchs are known to overwinter at several different sites in Sonoma County, primarily around Bodega Bay. One site near Bodega Bay is an autumnal site that typically supports several hundred monarchs in the fall. Thousands of monarchs once roosted at Ranch Road however few to none have been observed since 1997. This site has not been monitored since 2001.<sup>575</sup>

The Sonoma County LCP covers an area 55 miles in length and generally extends 1,000 yards inland from the mean high tide line, although in significant coastal estuarine habitat and recreational areas it extends as much as five miles inland.<sup>576</sup> Except for the geographic portion of the Sea Ranch, the Commission certified the land use plan component of the LCP in 1980 with suggested modifications. The Commission certified the implementation plan component in 1981, with the Sea Ranch portion of the plan, which covers a large private coastal development, receiving certification in 1982.<sup>577</sup>

The LCP has been amended various times over the years. After the General Plan was updated in 1989, the LCP was amended in 2001 to be consistent with the General Plan. Because this revision did not include an in-depth evaluation of LCP policies, the county is currently in the process of conducting a comprehensive update of the LCP. As the new draft LCP is not yet completed, this section assesses the 1981 LCP as amended in 2001.

### **1. Purpose and Structure**

The LCP is "a stand-alone policy," separate from the county-wide General Plan, that "guides land use and development in the Coastal Zone."<sup>578</sup> The LCP "integrates the appropriate General Plan goals, objectives, and policies with those necessary to comply with the California Coastal Act" and ensures consistency with the policies and requirements of the California Coastal Act.<sup>579</sup> To this end, the LCP reflects "a land use priority system which gives the highest priority to the preservation and protection of environmentally sensitive habitats and prime

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<sup>575</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>576</sup> County of Sonoma, Local Coastal Program (as amended Dec. 12, 2001), at I-5, *available at*: <http://www.sonoma-county.org/prmd/docs/lcp/>.

<sup>577</sup> California Coastal Commission, Status of LCPs, Part 2 North Central Coast District Actions through June 30, 2010, at 1 (undated), *available at*: [www.coastal.ca.gov/la/docs/lcp/Part2\\_NorthCentralCoast%20District.pdf](http://www.coastal.ca.gov/la/docs/lcp/Part2_NorthCentralCoast%20District.pdf).

<sup>578</sup> Sonoma County General Plan, Land Use Element Policy LU-1a, at LU-13 – LU-14. The LCP consists of three components: (1) the coastal plan (also referred to as the land use plan); (2) the implementation plan, which includes the coastal zoning ordinance and the coastal administrative manual; and (3) associated maps. General Plan, Land Use Element, at LU-13 – LU-14.

<sup>579</sup> *Id.* at LU-14.

agricultural and timber that the maximum amount of prime resource land shall be maintained in production.”<sup>580</sup>

The Sonoma County LCP covers a broad range of activities that take place in the coastal zone, including the protection of environmentally sensitive areas and the regulation of development and agriculture. Like other LCPs, any of these policies could affect the conservation of monarch habitat, but the policies concerning the environment and ESHAs are most relevant.

The LCP establishes three levels of environmental sensitivity, designating specific areas as “sanctuary-preservation,” “conservation,” or “potentially sensitive.”<sup>581</sup> “Sanctuary-Preservation” areas are the most environmentally sensitive areas and correspond to “Environmentally Sensitive Habitat Areas” as defined by the Coastal Act.<sup>582</sup> The plan prohibits “development other than nature trails and resource dependent uses” and “significant disruption of habitat values” in these areas.<sup>583</sup> The plan also prohibits pesticide and herbicide applications “within or affecting such areas unless it is necessary to maintain or enhance the functional capacity of the Sanctuary Preservation area.”<sup>584</sup>

“Conservation” areas also cover sensitive resource areas but receive less protection. No development is allowed in these areas, unless an environmental study determines that no adverse effects will occur. Moreover, pesticide and herbicide applications are not allowed within or affecting these areas “unless it is necessary to maintain or enhance the functional capacity of the Conservation area.”<sup>585</sup> Finally, “potentially sensitive areas” are the least environmentally sensitive or are of undetermined sensitivity and include “minor or disturbed drainages, coastal bluffs, beaches, windbreaks, known or suspected archaeological sites, and sensitive soils.”<sup>586</sup> Development is allowed in these areas only if no adverse effects would occur.<sup>587</sup> Environmental studies may also be required.<sup>588</sup>

The LCP designates specific areas within ten geographic units as sanctuary-preservation, conservation, or potentially sensitive areas.<sup>589</sup> These areas are described according to their habitat characteristics, referred to as habitat or environmental resource categories, and are defined accordingly.<sup>590</sup> For example, habitat categories include “coastal woodland,” “riparian,” and “dunes and coastal strand.” Specific policies and management recommendations pertain to each habitat category to provide guidance for the protection and management of those areas,<sup>591</sup>

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<sup>580</sup> Sonoma LCP, *supra* note 580, at 1.

<sup>581</sup> *Id.* at 20.

<sup>582</sup> *Id.*

<sup>583</sup> *Id.*

<sup>584</sup> *Id.*

<sup>585</sup> *Id.*

<sup>586</sup> *Id.*

<sup>587</sup> *Id.*

<sup>588</sup> *Id.*

<sup>589</sup> *See id.* at 22-26. Such areas are designated on the open space maps included in the coastal plan. Apparently, the final implementation plan contains a procedure to revise these maps. *Id.* at 21.

<sup>590</sup> *Id.* at 18-20.

<sup>591</sup> *Id.* at 28.

whether they exist within designated, mapped environmentally sensitive areas, on lands adjacent to environmentally sensitive areas, or in unmapped areas.<sup>592</sup>

The LCP does not specifically reference monarch overwintering sites. However, several monarch overwintering sites may be protected under existing sanctuary-preservation areas, depending on their exact location. For example, several monarch overwintering sites are located within designated conservation areas, such as Bodega Head which historically hosted thousands of monarchs but has not been monitored since 1988.<sup>593</sup> Development is prohibited unless an environmental study determines that no adverse effects will occur.

Moreover, many monarch overwintering sites can be found in coastal woodlands, whereas others may be found in riparian areas. As such, the specific policies and management recommendations that apply to those habitat categories are relevant to the protection of monarch habitat. With respect to coastal woodlands, those policies require that coastal permits include erosion and sediment control measures and that disruption to vegetation be minimized in “all grading operations, placement of fills, or construction of structures.”<sup>594</sup> In riparian areas, construction is generally prohibited, with the exception of resource-dependent development; any construction must be set back 100 feet from the lowest line of riparian vegetation.<sup>595</sup> The removal of vegetation is prohibited as are herbicide and pesticide applications.<sup>596</sup>

## 2. Conclusions and Recommendations

In sum, the Sonoma County LCP provides various levels of protection to monarch habitat, depending on whether the monarch site lies within an area designated as sanctuary-preservation, conservation, or potentially sensitive. Sites that lie outside these areas are unprotected because the LCP does not expressly protect existing, but unknown or unmapped areas, that otherwise meet the definition of an ESHA. Although a few monarch overwintering sites that lie within existing sanctuary-preservation areas may receive adequate protection, many other monarch overwintering sites receive inadequate protection.

To ensure the protection of monarch habitat and consistency with Coastal Act requirements, Sonoma County could include several revisions in its updated LCP. The updated LCP and the relevant maps could expressly designate known monarch overwintering sites as ESHAs under the Coastal Act. It could also designate as ESHAs presently unknown or unmapped monarch overwintering habitat. An updated LCP could also include specific measures designed to protect ESHAs and monarch habitat in particular, based on the most recent scientific data available on monarch overwintering sites.<sup>597</sup> For example, the LCP could prohibit the alteration or removal of trees known to provide monarch overwintering habitat, except as recommended by a qualified monarch expert. To be effective, this restriction could apply year-round.

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<sup>592</sup> *Id.* at 20.

<sup>593</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>594</sup> Sonoma LCP, *supra* note 580, at 32.

<sup>595</sup> *Id.* at 28.

<sup>596</sup> *Id.* at 29.

<sup>597</sup> *LCP Update Guide*, *supra* note 260, at 1 (“an LCP should include . . . an updated map and description of existing, known habitats”).

In addition, the updated LCP could require site-specific evaluations from a qualified expert on the monarch butterfly at the time of any proposed development or plan amendments and provide additional guidance to responsible agencies and officials in identifying unmapped ESHAs.<sup>598</sup> These management measures could be included as part of the habitat- or resource-specific management recommendations currently made for riparian zones, coastal woodlands, wetlands, and other resources.<sup>599</sup>

With respect to adjacent development, the updated LCP could ensure that land use designations and development adjacent to ESHAs and parks are compatible with resource protection, that sufficient buffers exist between ESHAs and adjacent development, and that any unavoidable impacts of adjacent development on ESHAs are adequately mitigated.<sup>600</sup>

### **M. Ventura County**

There are approximately nine monarch overwintering sites in Ventura County.<sup>601</sup> Six of these sites lie within the City of San Buenaventura (known more simply as the City of Ventura). These sites include: Arrundel Barranca, Harmon Barranca, Camino Real Park, Taylor Ranch, Vista Del Mar, and Harbor Boulevard. The number of monarchs found at Camino Real Park, Arrundel Barranca, Taylor Ranch, and Harbor Boulevard fluctuates greatly but these sites generally support several hundred to several thousand monarchs. Several thousand monarchs typically roost at Vista Del Mar every year.<sup>602</sup> One site with data from only two monitoring years is located just outside of Oxnard College, within the City of Oxnard.<sup>603</sup> The Ventura County site, Little Sycamore Canyon, is privately owned and located in an unincorporated area of Ventura County. Although the number of monarchs observed at Little Sycamore Canyon fluctuates from tens of thousands to only a few; this site has continually hosted monarchs since at least the 1980s.<sup>604</sup> An overwintering site at Point Mugu State Park is managed by the California Department of Parks and Recreation<sup>605</sup> and discussed in Section II of this report. As described below, there are two LCPs relevant to some monarch overwintering sites in Ventura County,<sup>606</sup> as well as several ordinances.

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<sup>598</sup> *Id.* at 1 (“an LCP should include . . . [c]lear policies stating that the identification of ESHA . . . will be determined in part through an evaluation of existing known resources at the time of proposed development or plan amendment . . . [and] strengthened requirements for conducting site specific biological evaluations and field observations to identify ESHA . . .”).

<sup>599</sup> See Sonoma LCP, *supra* note 580, at 28–34.

<sup>600</sup> See Cal. Pub. Res. Code § 30240(b) (“Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.”); see also *Bolsa Chica Land Trust v. Superior Court*, 71 Cal. App.4th 493, 507 (Cal. Ct. App. 1999); *LCP Update Guide*, *supra* note 237, at 1 (“an LCP should include . . . [r]eview of areas adjacent to environmentally sensitive habitat areas and parks and recreation areas to ensure land use designations and development standards are compatible with the protection of resources”).

<sup>601</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>602</sup> *Id.*

<sup>603</sup> *Id.*

<sup>604</sup> Wilshire Boulevard Temple Camps: About our Camps, available at: <http://www.wbtccamps.org/camps.asp#>; Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>605</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>606</sup> The City of Oxnard has its own LCP, but the one site in Oxnard, Oxnard College, is outside the coastal zone and not subject to the LCP. City of Oxnard Planning and Environmental Services, Oxnard Coastal Plan (Feb. 1982).

## 1. LCPs Relevant to Monarchs

### a. Ventura County

The LCP for Ventura County LCP covers the entire county, including the Little Sycamore Canyon site, except for the Cities of Port Hueneme, Oxnard and Ventura.<sup>607</sup> The Commission certified the Ventura County LCP in 1983, and through 2010 the County applied for 26 amendments to its LCP, including the 2008 major amendment that comprises the currently effective LCP.<sup>608</sup> The Commission reports that it is currently working with Ventura County on comprehensive updates of the Ventura County LCP, “including addition of provisions for development in or adjacent to environmentally sensitive habitat.”<sup>609</sup>

The Ventura County LCP does not provide protection specific to the monarch overwintering site at Little Sycamore Canyon, but, depending on its distance from the Little Sycamore Creek, the site may be within the riparian corridor ESHA.<sup>610</sup> The County’s LCP incorporates the Coastal Act’s protections for ESHAs,<sup>611</sup> described in Section IV.B.2 of this report, but does not expand on these protections other than to note that development within ESHAs “is discouraged.”<sup>612</sup> If the Little Sycamore Canyon overwintering site is outside the Little Sycamore Canyon riparian corridor ESHA, then the County LCP provides no protection for the site. In order to provide protection for the Little Sycamore Canyon site under the County LCP, the County would need to promulgate an amendment designating the area as an ESHA and have the Commission certify the amendment.

### b. City of Ventura

The City of Ventura LCP has its own LCP, which is a part of the City’s Comprehensive Plan and General Plan.<sup>613</sup> The City of Ventura LCP covers the Taylor Ranch, Vista Del Mar, and Harbor Boulevard sites.<sup>614</sup> Harmon Barranca, Camino Real Park, and Arrundel Barranca are within the city limits of Ventura but are outside the coastal zone and are therefore not subject to LCP provisions of the Comprehensive and General Plans.<sup>615</sup> The Commission is currently reviewing several updates to specific portions of the City of Ventura’s LCP, though none of those amendments relate to the areas in which the monarch overwintering sites are located.<sup>616</sup>

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<sup>607</sup> California Coastal Commission, LCP Status: South Central Coast Area as of July 1, 2009.

<sup>608</sup> Ventura County Planning Division, Ventura County General Plan–Local Coastal Program (Sep. 16, 2008), available at: <http://www.ventura.org/rma/planning/Programs/local.html> [hereinafter Ventura County GP/LCP].

<sup>609</sup> California Coastal Commission, Status of LCPs: Actions through June 30, 2010, 4:10.

<sup>610</sup> The site would need to be within 100 feet of the Creek in order to be within the ESHA. Ventura County GP/LCP, *supra* note 612, at 93.

<sup>611</sup> *Id.* at 9–11.

<sup>612</sup> *Id.* at 3.

<sup>613</sup> City of San Buenaventura, 2005 Ventura General Plan (Aug. 8, 2005); City of San Buenaventura, Comprehensive Plan Update to the Year 2010 (Aug. 28, 1989) [hereinafter Buenaventura, Comprehensive Plan Update].

<sup>614</sup> City of San Buenaventura Department of Community Development, Zoning District Map.

<sup>615</sup> *Id.*

<sup>616</sup> California Coastal Commission, Status of LCPs: Actions through June 30, 2010, 4:11–12.

The City of Ventura LCP covers the coastal zone within the City of Ventura, including the Taylor Ranch, Vista Del Mar, and Harbor Boulevard sites.<sup>617</sup> It does not include provisions specifically protecting monarchs or their overwintering sites. The City of Ventura LCP does provide for the Sensitive Habitat Overlay zones that “should be updated periodically to reflect changes in migration of species or discovery of new habitat areas.”<sup>618</sup> The specific policies addressing individual resource protection needs for each Sensitive Habitat Overlay zone are contained in the zone’s Intent and Rationale Statement.<sup>619</sup> The only monarch overwintering site that may be within a Sensitive Habitat Overlay zone is the Taylor Ranch site, which may be within the Ventura River Sensitive Habitat Overlay zone. No buildings may be built within this zone, any development must enhance or restore the natural quality of the area, access must be limited to foot traffic and non-motorized vehicles, and activities within this zone are restricted to “passive recreation, nature study, and educational and scientific research.”<sup>620</sup> Any development near this Sensitive Habitat Overlay zone must be sufficiently set back and buffered from the zone.<sup>621</sup> Providing protection specific to monarchs through the City of Ventura LCP would require the establishment by the City Council of Sensitive Habitat Overlay zones for each of the three sites within the coastal zone. This process would be the same for establishing Sensitive Habitat Overlay zones anywhere within the City of Ventura and is not a process specific to the coastal zone. Therefore, the process for protecting sites within the City of Ventura is the same regardless of whether the site is within or outside the coastal zone, but any Sensitive Habitat Overlay zone within the coastal zone would require Commission approval because these zones are treated as ESHAs.

## 2. Local Ordinances Relevant to Monarchs

There are no local ordinances within the cities of Oxnard or Ventura that protect monarchs or their overwintering sites. The city code instructs the manager of the city parks, including Camino Real Park, to remove trees of “an inappropriate species” or that pose a threat to public safety.<sup>622</sup> Given the fire risk that eucalyptus trees often pose, this provision could encourage cutting down the eucalyptus trees that compose the Camino Real Park overwintering site.

The City of Ventura does have a Sensitive Habitat ordinance that may be useful for protecting monarch overwintering sites. The ordinance allows the City Council to designate additional Sensitive Habitat Overlay zones on the official zoning map.<sup>623</sup> To meet the criteria for designation as a Sensitive Habitat Overlay area, the area (1) should be habitat for plants or animals that are especially rare or valuable to the ecosystem and (2) must require special protection from human activities and development.<sup>624</sup> Once an area is so designated,

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<sup>617</sup> City of San Buenaventura Department of Community Development, Zoning District Map.

<sup>618</sup> Buenaventura, Comprehensive Plan Update, *supra* note 609, at III:31.

<sup>619</sup> *Id.* at III:30.

<sup>620</sup> *Id.* at III:148.

<sup>621</sup> *Id.*

<sup>622</sup> City of Ventura (Cal.) Municipal Code § 20.150.140.

<sup>623</sup> City of Ventura (Cal.) Municipal Code § 24.325.20.

<sup>624</sup> City of Ventura (Cal.) Municipal Code § 24.325.60.

development within that area must be consistent with the sensitive habitat provisions of the Comprehensive Plan, including the following:<sup>625</sup>

- 1) Any development must be sited to avoid impacts to the sensitive habitat;
- 2) A buffer zone of at least 100 feet must be established around the habitat; and
- 3) Any applicant for a development permit must consult with California Fish and Game, California Department of Parks and Recreation, and/or “[o]ther appropriate agencies,” as determined by the director of the City Planning Department, to identify appropriate mitigation measures.<sup>626</sup>

This sensitive habitat ordinance applies throughout the City of Ventura, regardless of whether the site is within the coastal zone.

Camino Real Park, which contains a monarch overwintering site, is owned by the City of Ventura and is subject to the City’s Comprehensive and General Plans. The Harmon Barranca site is located at least partially in Barranca Vista Park,<sup>627</sup> another city park. The Comprehensive Plan provides that city parks “should be maintained so that special and important natural . . . resources which they contain, and which constitute a public trust, are protected and interpreted for the benefit of future generations.”<sup>628</sup> It further restricts development adjacent to city parks to development that is compatible with the purpose of protecting the park.<sup>629</sup>

### 3. Conclusions and Recommendations

Three sites within Ventura County have already been lost to habitat destruction by fire, disease, or removal for development.<sup>630</sup> Most of the sites that remain are located within developed areas that face further development pressure, and many are not within the coastal zone and are therefore outside the jurisdiction of the Commission. These sites, the six within the City of Ventura and the one in Oxnard, would best be protected by city ordinances. Protection through city ordinances would have the advantages of protecting the sites outside the coastal zone and not requiring Commission approval. The City of Ventura’s sensitive habitat ordinance also provides an opportunity to protect monarch overwintering sites throughout the City, including outside the coastal zone, with City Council approval.

Two alternatives are available to protect the Little Sycamore Site. The first alternative is to work with the County of Ventura and the Commission in amending the Ventura County LCP to protect the monarch site. The Ventura County LCP is undergoing a comprehensive update, so this may be an opportune time to seek an amendment to it. The second alternative is asking the site owner to voluntarily protect the site.

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<sup>625</sup> City of Ventura (Cal.) Municipal Code § 24.325.30.

<sup>626</sup> City of Ventura (Cal.) Municipal Code §§ 24.325.40, -.50 and -.70.

<sup>627</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>628</sup> Buenaventura, Comprehensive Plan Update, *supra* note 617, at VIII:10.

<sup>629</sup> *Id.*

<sup>630</sup> *See* Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

## VII. Conclusions

The previous sections have reviewed the adequacy of the legal protection for monarch butterflies and their overwintering sites in California. In particular, it has assessed the adequacy of relevant laws in light of the following factors:

- Does legislation protect monarch overwintering sites year round from irreversible damage?
- Does legislation protect monarchs from collection?
- Does legislation require management of monarch habitat through enhancement, restoration, or other means?

On **non-military federal lands**, in **state parks**, and in most **county or city parks**, overwintering habitat (as well as autumnal habitat) is protected from development as well as disturbance by visitors by prohibitions against removal of vegetation. However, because guidelines for trimming, pruning, and removal by land managers are absent, land managers may inadvertently or unknowingly harm overwintering sites when conducting such activities. Monarchs are also protected from collection by bans on collecting, molesting, and possessing any wildlife, including monarchs, on national parks, state parks, and in many county and city parks. Collection of monarchs without a permit for commercial or non-commercial purposes is also prohibited on Forest Service lands.

On **federal military bases**, monarch habitat appears to be adequately protected from development, although any restrictions on habitat destruction must generally be practical and consistent with the mission of the base. In some cases, management disfavors non-native vegetation, which could lead to tree cutting at some sites, but elimination of eucalyptus is not a priority and may even be disfavored where those trees support populations of birds protected by the Migratory Bird Treaty Act. The military bases reviewed for this report have no restrictions on collection for those on the base; those seeking access to the base will need to explain the reasons access is desired.

On **private land in counties and cities both inside and outside the coastal zone**, the overall assessment is that many overwintering sites are inadequately protected from development and other intentional disturbance. Only a handful of overwintering sites are protected from tree removal and trimming that may harm monarchs. Some sites are protected from tree trimming, but only when the monarchs are actually in the trees,<sup>631</sup> thus leaving the entire summer to remove

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<sup>631</sup> See, e.g., the ordinance of the City of Leandro, which provides:

It is declared to be unlawful for any persons to molest or interfere with, in any way, the peaceful occupancy of the Monarch Butterflies during the entire time they remain within the San Leandro Marina, Tony Lema Golf Course and Marina Golf Course of the City of San Leandro, in whatever spot therein they may choose to stop, provided, however, that if said butterflies should at any time swarm in, upon, or near the private dwelling house or other buildings of a citizen of the City of San Leandro in such a way as to interfere with the occupancy and use of said dwelling or other buildings, that said butterflies may be removed, if possible, to another location upon the application of said citizen to the City Manager.

trees essential for the survival of monarchs. In other cases, as in Palo Verdes, eucalyptus and pine trees may only be pruned from October 16th to April 29th—the very time when monarchs are most likely to be overwintering. Only a few cities and counties prohibit the collection of monarchs on private land. Only a couple of jurisdictions require restoration of overwintering sites.

Some cities and counties do adequately protect monarchs. For example, Pacific Grove has adopted ordinances that protect monarchs and monarch roosting trees while the monarchs are present.<sup>632</sup> The city prohibits any person from molesting or interfering with monarchs anywhere in Pacific Grove, unless the monarchs interfere with the occupancy of a private house or building.<sup>633</sup> A \$500 fine may be levied against those cited with molesting a monarch.<sup>634</sup> Unfortunately a recent effort to ensure the site was safe for visitors led to pruning and trimming at the site that might have compromised the habitat.<sup>635</sup>

The City of Capitola provides, perhaps, the best example of comprehensive monarch protection. It prohibits the removal of trees year round within monarch habitat unless “necessary by reason of good forestry practice, disease of the tree, or safety considerations,” and then only after “a written evaluation of the impacts of the proposed action on habitat resources by a qualified expert on the Monarch butterfly.”<sup>636</sup> It bars construction during the fall and winter seasons when monarchs are present.<sup>637</sup> It also limits the development of areas around monarch habitat and requires that any new development be predicated on the grant of a conservation easement for monarch habitat to a “government agency or organization authorized to monitor and enforce easement restrictions.”<sup>638</sup> The City also requires that (i) development adjacent to monarch habitat be “sited and designed to prevent impacts that would significantly degrade” that habitat, (ii) landscape plans emphasizing the “maintenance and enhancement of butterfly habitats” accompany any application for a coastal development permit, and (iii) a “qualified professional [be retained] to determine the location of the outer edge of the Monarch habitat and to report to the city potential impacts and mitigation measures for proposed development.”<sup>639</sup> Moreover, tree replanting and the planting of “[s]hrubs which flower in the early fall and could provide a good source of flower nectar for the butterflies” will be guided by a “qualified [m]onarch butterfly biologist.”<sup>640</sup> Lastly, microclimatic data must be gathered before and for three years after any construction “to help develop a database regarding environmental parameters associated with butterfly behavior.”<sup>641</sup>

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San Leandro Municipal Code (Cal) Ch. 4-1-1000.

<sup>632</sup> Pacific Grove Municipal Code § 12.16.250.

<sup>633</sup> Pacific Grove Municipal Code § 11.48.010.

<sup>634</sup> *Id.*

<sup>635</sup> Steve Chawkins, *Anger Flutters over “Butterfly Town USA”*, L.A. TIMES (Aug. 29, 2010).

<sup>636</sup> *Id.*

<sup>637</sup> *Id.*

<sup>638</sup> Capitola Municipal Code § 17.95.061.

<sup>639</sup> Capitola Municipal Code § 17.95.060.

<sup>640</sup> *Id.*

<sup>641</sup> *Id.*

Among the 200 or so sites assessed in this report, these are the exceptions. The vast majority of sites remain inadequately protected. Almost all jurisdictions allow tree trimming without the advice of a qualified expert on monarch butterflies.

## VIII. Recommendations

Against this background, advocates for monarch conservation have several options. These options include “top-down” approaches in which state law is adopted to protect monarchs and their habitat. The other approach is a “bottom-up” approach in which advocates work at the city and county level to protect monarchs.

### California Options

1. *Seek California legislation to protect monarchs.* Given the prominence of monarchs in California, a state-specific approach might be very successful. Model legislation, included in Appendix I, should have the following elements:
  - a. No person shall take or possess any monarch or any part or product thereof, or attempt any of those acts from a monarch aggregation site, unless authorized by the Department of Fish and Game.<sup>642</sup> “Take” would be defined as: “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”<sup>643</sup> Exceptions to this prohibition would be limited to scientific research or reintroduction but would not include commercial uses.
  - b. No person shall prune or remove trees within a grove at any time that are known or have been known to provide autumnal or overwintering sites for monarchs, except subject to the conditions as included in the ordinance of the City of Capitola, described in Section VI, above. This provision would not apply if the site has been monitored but no monarchs have been present for 10 consecutive years.
  - c. To ensure that trees within a monarch overwintering grove are not unintentionally removed or pruned when monarchs are not overwintering, trees will be tagged.
  - d. Development that may affect a monarch autumnal or overwintering site must be preceded by an environmental impact review subject to the California

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<sup>642</sup> This provision is modeled on the California Endangered Species Act, §2080. An earlier draft of this provision included a prohibition against the purchase or sale of monarchs within this state, or the export out of the state. The U.S. Plant Protection Act, however, may preempt state laws relating to interstate commerce. 7 U.S.C. §§ 7701–7772 (2000). The Plant Protection Act prohibits a state or political subdivision from regulation the movement in interstate commerce of any plant pest “if the Secretary has issued a regulation or order to prevent the dissemination of the biological control organism, plant pest, or noxious weed within the United States” unless state restrictions “are consistent with and do not exceed the regulations or orders issued by the Secretary.” 7 U.S.C. § 7756(b). This report does not opine on whether state restrictions on commerce in monarchs would be preempted by Plant Protection Act. Because a prohibition on collection would achieve the same purpose as a ban on interstate commerce, this report focuses on collection and regulations pertaining to habitat.

<sup>643</sup> This provision is based on the definition of “take” under the U.S. Endangered Species Act. 16 U.S.C. § 1532(19).

Environmental Quality Act (CEQA). It is worth emphasizing that several jurisdictions already require development proposals that may affect monarch sites to include environmental impact reviews.

Because the “may affect” language above could be ambiguous, that phrase could be replaced with language such as “development within X feet of a monarch autumnal or overwintering site must be preceded by an environmental impact review subject to the California Environmental Quality Act (CEQA).”

- e. As indicated in paragraph a, the implementing agency would be the California Department of Fish and Game.
  - f. Other provisions could be included that provide incentives for enhancement and restoration of sites, landscaping near autumnal and overwintering sites, and planting native milkweed away from overwintering sites, among other options.
2. ***Amend the California Fish and Game Code to expressly authorize the California Department of Fish and Game to regulate invertebrates.*** As noted in Section II, the authority of the Department of Fish and Game to regulate the taking of invertebrates and the destruction of overwintering trees is not certain. To the extent that monarch specific legislation is not desirable or likely for political reasons, specific provisions of the California Fish and Game Code could be amended to specifically authorize the Department to regulate the take of monarchs for any purpose (Section §1002) and protect overwintering trees (§2014).
  3. ***Amend the California Endangered Species Act to include “invertebrates” or perhaps “members of the Order Lepidoptera.”*** The California Endangered Species Act (CESA) defines endangered and threatened species in relevant part as a “bird, mammal, fish, amphibian, reptile, or plant.”<sup>644</sup> In other words, it does not include invertebrates such as monarchs. Advocates could seek amendment to CESA to include “invertebrates” as a taxon eligible for endangered or threatened status. Next, they would petition to list the monarch as endangered or threatened within California. Theoretically, these two actions could be combined with the California legislature listing the monarch as part of amending CESA to include invertebrates. If the legislature does not have the political will to open CESA to listings of all invertebrates, the proposal could be limited to “members of the Order Lepidoptera.”

One particular advantage of options 2 and 3 is that they apply state-wide. Thus, they would apply to monarchs and their habitat inside and outside the coastal zone.

4. ***Amend the Coastal Act to specifically recognize autumnal and overwintering sites as requiring special protection or by definition as ESHAs.*** The Coastal Act leaves to the discretion of each local jurisdiction which habitats it will designate as ESHAs. By amending the Coastal Act to require designation of monarch overwintering sites as ESHAs or with other specific legislation, this patchwork approach would be eliminated.

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<sup>644</sup> California Endangered Species Act, §§ 2062, 2067.

On the other hand, this approach would only apply to sites within the coastal zone. That approach might work in the northern part of the monarch winter range where nearly all sites on private land are in the coastal zone, but it would prove ineffective at the southern end of the monarch's winter range where far more sites are outside of the coastal zone.

### **County or City Options**

5. ***Amend individual county and city ordinances in the absence of any other legislative directive.*** Advocates could also pursue protection at the county or city level without any additional legislative directive. This approach has the advantage of engaging people at the grassroots level in monarch conservation. Working with local organizations and local politicians may help educate citizens about the importance of protecting monarchs and their habitat. It may yield some quicker, though more localized results, than the previous approaches. Also, because enforcement of the law might be an important aspect of the success of any monarch-related legal protection, building support at the local level might yield better protection for monarchs.

The obvious disadvantage of this approach is that with more than 200 sites, this approach will be time consuming and each victory will be a small one. In addition, for each site, advocates will need to know exactly which planning tools are in place, which laws apply, and the strengths and weaknesses of each planning document and law in light of monarch conservation.

Given the large number of sites, priorities could be established based on one or more of the following factors:

- the size of the overwintering populations,
- the extent of the threats to an overwintering population,
- whether a relevant planning document is currently being revised so that input can be made immediately,
- whether certain elected officials or city councils are known to view monarch favorably, or
- whether state and local nongovernmental organizations are particularly active and there is an existing constituency of active monarch enthusiasts able to move legislation effectively.

## Appendix 1

### Model Legislation for Monarch Conservation

The following model legislation is based on a set of best practices found in the ordinances of Capitola and Goleta protecting overwintering sites from development, the LCP from the County of Santa Cruz regarding restoration, ordinances of several cities banning the collection of monarchs and other species, and additional considerations in light of the threats to conservation of monarchs.

#### §1 Definitions

- (a) “Department” means the Department of Fish and Game.
- (b) “Grove” means the individual trees in which monarchs roost as well as any other surrounding trees that provide the microclimatic conditions suitable for monarch roosting.
- (c) “Roosting” and “roosting site” mean the aggregation of monarch butterflies in trees at any time of the year.
- (d) “Take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

#### §2 Prohibition against Taking

- (a) Except as provided by paragraph (b) below, no person shall take or possess any monarch or any part or product thereof, or attempt any of those acts, unless authorized by the Department of Fish and Game.
- (b) The Department may permit, under such terms and conditions as s/he prescribes, any taking for
  - (1) bona fide scientific research;
  - (2) collection in numbers not to exceed ten (10) individuals; or
  - (3) reintroduction for scientific purposes. For clarity, releases for weddings and other social events do not constitute reintroduction for purposes of this section.

#### §3 Habitat Conservation

##### (a) Scope

This section applies to all monarch roosting sites, regardless of whether they are identified on any planning maps or other official document.

**(b) Tagging of Monarch Trees**

To ensure that trees within a monarch roosting site are not unintentionally (or intentionally) removed or pruned when monarchs are not overwintering, the Department shall tag trees within a grove.

**(c) Development and Tree Removal Permits**

- (1) Development in areas adjacent to a monarch roosting site shall be sited and designed to prevent impacts which would significantly degrade the areas.
- (2) Development that may affect, including any development regardless of impacts within 100 feet of a monarch roosting site must be preceded by an environmental impact review subject to the California Environmental Quality Act (CEQA). It is worth emphasizing that several jurisdictions already require application of CEQA to developments that may affect monarch sites.
- (3) The applicant shall be required to retain a qualified expert on monarch butterflies to determine the location of the outer edge of the monarch roosting site and to report to the [relevant jurisdiction] potential impacts and mitigation measures for proposed development.
- (4) The applicant shall demonstrate that structure heights will prevent shading or other microclimatic changes to the grove.
- (5) Removal of trees within the perimeter of the habitat areas shall be prohibited unless it is determined by the [responsible local permitting official] that such removal is necessary by reason of good forestry practice, disease of the tree, or safety considerations. Any such determinations, including tree maintenance or trimming, shall be accompanied by a written evaluation of the impacts of the proposed action on habitat resources by a qualified expert on the monarch butterfly. Such report and investigations shall be arranged by the [relevant jurisdiction] and paid for by the applicant as part of environmental review.
- (6) Permit applications within or adjacent to a monarch roosting site shall contain landscaping plans which set forth the location and extent of any proposed modifications to existing vegetation and the locations, kinds, and extent of new landscaping. The emphasis of such landscaping plans shall be on the maintenance and enhancement of monarch roosting sites and other monarch habitat.
- (7) Future construction of buildings, driveways and streets shall minimize removal of trees and site coverage. Total building square footage shall be limited to [thousand square feet] and building coverage shall not have a total footprint of more than [thousand square feet]. The building(s) shall be located and designed so that they do not have a significant adverse impact on a monarch roosting site. The monarch

roosting site and area around it necessary to preserve the habitat shall be placed in a conservation easement at the time of development.

**(d) Development and Tree Removal/Landscaping**

- (1) It is unlawful to remove trees, understory and other vegetation on all lands outside the identified roadway and building envelopes through use of a conservation easement(s). The easement should be held by a government agency or organization authorized to monitor and enforce easement restrictions. Other trees and ground vegetation adjacent to the building envelopes shall not be trimmed or altered in any way unless reviewed by a qualified arborist and monarch butterfly expert and approved by the city community development director.
- (2) Trees and other vegetation within a right-of-way, but outside any planned paved area, shall be retained in their existing condition, unless a qualified expert on the monarch butterfly determines that the proposed modification will not be harmful to a monarch roosting site.
- (3) Building pads and driveways shall be designed to avoid removal of large trees. Large trees to be protected immediately adjacent to buildings should be evaluated by an arborist to assure that they will not pose a hazard in the future. Trees which are seriously diseased or hazardous should be trimmed or removed during the building process, rather than having to disturb the habitat during some future winter season when falling limbs are the most likely to occur. If removal is deemed necessary, replanting shall be implemented in conjunction with the site replanting program.
- (4) The developer shall develop and implement a tree replanting program to replace trees removed for construction in consultation with a qualified monarch butterfly expert and the California Department of Fish and Game. The trees shall be sited in strategic locations as identified by the replanting program.
- (5) Landscaping at future homesites to areas within identified building envelopes shall be limited. Shrubs that flower in the early fall and could provide a good source of flower nectar for the monarchs should be planted based on a list of landscape suggestions written by a qualified monarch butterfly expert. Such a list shall be made available to homeowners.

**(e) Buffer Zones**

A buffer area shall be established adjacent to all monarch roosting sites. The purpose of this buffer area shall be to provide for a sufficient area to protect the monarch roosting site from significant degradation resulting from future developments. The width of the buffer area shall be a minimum of 100 feet, unless an applicant can demonstrate, after consultation with a qualified monarch biologist and agreement with the California Department of Fish and Game, and County Planning Staff, that 100 feet is not necessary to protect the monarch roosting site from possible significant disruption caused by the

proposed development, but in any event shall not be less than 50 feet in width. The buffer area shall be measured from the outside edge of the dripline of the monarch grove. New land division shall not be allowed which will create new parcels entirely within a buffer area. Developments permitted within a buffer area shall generally be the same as those uses permitted in the adjacent environmentally sensitive habitat area and must comply at a minimum with each of the following standards:

- (1) It shall be sited and designed to prevent impacts which would significantly degrade the monarch roosting site;
- (2) It shall be compatible with the continuance of a monarch roosting site by maintaining its functional capacity and its ability to be self-sustaining; and
- (3) Structures will be allowed within the buffer area only if there is no other feasible site available on the parcel. Mitigation measures, such as planting vegetation, shall be required to replace the protective values of the buffer area on the parcel, at a minimum ratio of 1:1, which are lost as a result of development under this solution.

**(f) Erosion Control**

- (1) Conformance with any applicable erosion control ordinance shall be required. Grading shall be minimized within the riparian setback area, if applicable. Grading shall not be permitted to damage the roots of trees within the butterfly habitat areas. Grading shall only take place during the dry season.
- (2) The developer shall prepare and implement a drainage and erosion control plan which incorporates drainage devices (e.g., subsurface pipes, energy dissipators) to prevent long-term erosion of side slopes, as well as erosion control during construction. Erosion control measures should include limiting removal of vegetation, minimizing exposure of bare soils, replanting disturbed soils with suitable native species, controlling runoff, preventing sedimentation from entering drainages, and limiting construction to the dry season. All areas outside immediate construction areas should not be disturbed. Require measures for temporary drainage retention during construction, mulching, erosion control seeding, and other measures as needed to prevent any sediment from reaching the monarch roosting site.

**(g) Construction**

- (1) Construction within or on properties contiguous to a monarch roosting site shall be prohibited during fall and winter months when the monarch butterflies are present. Removal or modification of trees within the groves shall not be permitted during these periods except when determined by the [Department] [responsible local permitting authority] to be a necessary emergency to protect human life or property.
- (2) Up to an additional [hundred square feet] of footprint for driveway only may be allowed if a redesigned site plan, e.g., fewer buildings, relocated building(s) (including the [hundred square feet] of driveway coverage), results in reduced impacts to the monarch grove habitat.

- (3) During construction, the developer shall use barrier fencing around the trees within a grove to prevent damage to any tree within the grove.
- (4) No construction involving heavy equipment that might bump into the cluster trees or produce heavy plumes of exhaust smoke shall take place during the months in which the monarchs are in residence (October 1st to March 1st).

**(h) Data Collection and Monitoring**

Due to the lack of a quantified database and some disagreement among butterfly specialists, microclimatic measurements shall be taken before and after construction to help develop a database regarding environmental parameters associated with monarch behavior. Such monitoring shall be funded by the applicant and be conducted by a qualified monarch butterfly expert. Monitoring shall include measurements of wind direction and velocity, temperature and humidity profiles and light intensity. Monitoring shall be conducted for three years after final construction on the property. Measurements of height, diameter, and age of cluster trees shall be taken the first year.

**§4 Restoration**

**(a) Habitat Restoration With Development Approval**

The applicant, as a condition of development approval, shall restore any monarch roosting site or other habitat on the subject property which [the Department] [relevant local permitting authority] has identified as degraded, with the magnitude of restoration to be commensurate with the scope of the project. Such conditions may include erosion control measures, planting with characteristic species on which monarchs depend for roosting sites, diversion of polluting runoff, water impoundment, and other appropriate means relevant to monarch conservation. The object of habitat restoration activities shall be to enhance the functional capacity and biological productivity of the monarch habitat(s) and whenever feasible, to restore them to a condition which can be sustained by natural occurrences.

**(b) Habitats Damaged From Code Violations**

In all cases when a monarch roosting site or other monarch habitat has been damaged as a result of a code violation, the property owner shall restore the damaged areas in compliance with all necessary permits and subject to the recommendations of a qualified monarch butterfly expert and the Department. Such restoration shall include monitoring over time to ensure the success of the restoration effort.

**(c) Removal of Invasive Plant Species**

The Department shall encourage the removal of invasive species and their replacement with characteristic native plants, except where such invasive species provide significant habitat value and where removal of such species would severely degrade the existing habitat.

#### **(d) Priorities for Restoration Funding**

The Department and the relevant local permitting authority shall use the following criteria for establishing funding priorities among restoration projects:

- (3) The biological significance of the habitat, including productivity, diversity, uniqueness of area, presence of rare, endangered or unique species, or regional importance (e.g., waterfowl resting areas, etc.).
- (4) The degree of endangerment from development or other activities, and vulnerability to overuse or misuse.

#### **§5 Tree Removal and Trimming**

- (a) Except as provided by provided by paragraphs (b) and (c), below, no person shall remove, prune, or otherwise alter any tree within grove at any time that is known or has been known to be a monarch roosting site.
- (b) This section does not apply when a person obtains a permit from the [Department] [local permitting authority] to remove, prune, or otherwise alter a tree within a monarch roosting site and upon consultation with a qualified expert on the monarch butterfly. Any person who receives such a permit must remove, prune, or otherwise alter a tree consistent with the recommendations of the qualified expert on the monarch butterfly.
- (c) This section does not apply if monarchs have not been present for 10 consecutive years.

#### **§6 Miscellaneous**

- (e) Prohibit wood-burning fireplaces in structures built on site where monarch butterflies may be disturbed due to chimney smoke.

## Appendix 2

### The California Environmental Quality Act and its Relationship to the Coastal Act

The California coast is both valuable commercial property and important ecologically. As such, development along the California coast will be subject to the provisions of the Coastal Act and, to the extent that it may significantly affect the environment, will be subject to the provisions of the California Environmental Quality Act (CEQA).<sup>645</sup> The CEQA provides important procedural and substantive safeguards that can enable protection of monarch overwintering sites.

As “a comprehensive legislative scheme designed to provide long-term protection to the environment,”<sup>646</sup> CEQA directs state and local governments to give prime consideration to preventing environmental damage when carrying out their duties.<sup>647</sup> Like its federal counterpart, the National Environmental Policy Act (NEPA),<sup>648</sup> CEQA was designed to require public agencies to consider and disclose the environmental impacts of their actions and to ensure public participation in the decision-making process. However, unlike NEPA, CEQA imposes substantive requirements on state and local agencies, requiring state and local agencies to mitigate the significant environmental impacts of their activities whenever feasible.<sup>649</sup> These provisions are described below in Section A. Section B then reviews briefly how CEQA and the Coastal Act relate and how advocates can use both statutes to help them conserve monarch habitat.

#### A. The California Environmental Quality Act

##### 1. CEQA’s Procedural Requirements

To carry out its substantive requirements, CEQA sets forth specific procedural requirements that state and local agencies must follow in taking actions that impact the environment. CEQA and its implementing guidelines (CEQA Guidelines)<sup>650</sup> establish a three-step process for government agencies to follow.

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<sup>645</sup> Cal. Pub. Res. Code § 21000 et seq.

<sup>646</sup> *Mountain Lion Foundation v. Fish & Game Comm’n*, 939 P.2d 1280, 16 Cal.4th 105, 112 (Cal. 1997). Accordingly, courts must interpret CEQA “to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.” *Id.*

<sup>647</sup> *Id.* (citing Pub. Res. Code § 21000(g), which provides that state and local agencies “shall regulate . . . activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.” CEQA further provides that California state policy is to “[p]revent the elimination of fish or wildlife species due to man’s activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities,” among other things. Pub. Res. Code § 22001(c).

<sup>648</sup> 42 U.S.C. § 4321 et seq.

<sup>649</sup> See Cal. Pub. Res. Code § 21002 (“[P]ublic agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects.”).

<sup>650</sup> The Guidelines are found in the California Code of Regulations, title 14, section 15000 *et seq.* Although the Guidelines are not binding on the courts, courts “accord the Guidelines great weight except where they are clearly

### a. Negative Declaration/No Further Review Required

If there is no possibility that a proposed project may have significant environmental effects or the proposed project is statutorily exempt from CEQA's requirements, the agency need not conduct further review. As an initial matter, CEQA's procedural requirements apply to any government "project," which the statute defines as "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment."<sup>651</sup> Such activities are considered governmental if they are discretionary and are either carried out or authorized by a government agency,<sup>652</sup> including "the enactment and amendment of zoning ordinances, the issuance of zoning variances, the issuance of conditional use permits, and the approval of tentative subdivision maps." Certain projects, however, are statutorily exempt from CEQA's requirements,<sup>653</sup> including non-discretionary, ministerial actions and specific actions to mitigate or prevent an emergency.<sup>654</sup>

The Guidelines also list several categorical exemptions,<sup>655</sup> including exemptions for the construction of one single-family residence;<sup>656</sup> a multi-family residential structure of no more than four dwelling units;<sup>657</sup> or a motel, store, office or restaurant of no more than 2,500 square feet.<sup>658</sup> The Guidelines further provide that "minor alterations to land" that do "not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes" are categorically exempt from CEQA.<sup>659</sup>

Nevertheless, the CEQA Guidelines contain several exceptions to these exemptions. For example, a project is located in an ESHA is not exempt "where the project may impact on an environmental resource of . . . critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies."<sup>660</sup> Other exceptions apply to projects that may have significant impacts "due to unusual circumstances"<sup>661</sup> or when "the cumulative impact of successive projects of the same type in the same place, over time is significant."<sup>662</sup> If the agency determines that a project is exempt, it files a Notice of Exemption

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unauthorized or erroneous." *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 150 P.3d 709, 832, n.5 (Cal. 2007).

<sup>651</sup> Cal. Pub. Res. Code § 21065; *see also* Cal. Code Regs. Tit. 14, § 15378.

<sup>652</sup> *See* Cal. Pub. Res. Code § 21080(a). Section 21065 further provides that a government project is:

- (a) An activity directly undertaken by any public agency;
- (b) An activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies;
- (c) An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies."

<sup>653</sup> *See* Cal. Pub. Res. Code § 21080(b) (enumerating 16 exempt activities); *see also* Cal. Code Regs. Tit. 14, § 15260-15285.

<sup>654</sup> *See* Cal. Pub. Res. Code § 21080(b).

<sup>655</sup> *See* Cal. Code Regs. Tit. 14, §§ 15300-33.

<sup>656</sup> *Id.* § 15303(a).

<sup>657</sup> *Id.* § 15303(b).

<sup>658</sup> *Id.* § 15303(c).

<sup>659</sup> *Id.* § 15304. Such alternations include "new gardening and landscaping." *Id.* § 15304(b).

<sup>660</sup> *See* Cal. Code Regs. tit. 14, § 15300.2(a).

<sup>661</sup> *Id.* § 15300.2(c).

<sup>662</sup> *Id.* § 15300.2(b).

(NOE) with the project application and does not conduct further review.<sup>663</sup> An NOE may be challenged within 35 days after it is filed with the county clerk.<sup>664</sup>

If the project is not exempt, but the agency nevertheless determines that there is no possibility of significant environmental effects, the agency will file a negative declaration, describing the reasons why the project will not have a significant environmental effect.<sup>665</sup> An agency may also issue a mitigated negative declaration, which identifies potential significant environmental effects of a proposed project that are mitigated by revisions to the project plans.<sup>666</sup> An agency's adoption of a negative declaration or a mitigated negative declaration is subject to judicial review for abuse of discretion applying the "fair argument" standard.<sup>667</sup> Specifically, an agency must prepare an environmental impact review (EIR) "whenever it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact."<sup>668</sup> Therefore, courts will set aside a negative declaration and require an EIR "if substantial evidence in the record supports a 'fair argument' significant impacts or effects may occur."<sup>669</sup> Whether a fair argument of significant environmental effects exists is a question of law, which courts review de novo "with a preference for resolving doubts in favor of environmental review."<sup>670</sup>

## **b. Initial Study**

Only projects that may have a "significant effect on the environment" are subject to the CEQA's detailed environmental review requirements involving the preparation of an Environmental Impact Report.<sup>671</sup> Therefore, if there is a possibility that a proposed project may have significant effects on the environment, the lead agency<sup>672</sup> must conduct an initial study.<sup>673</sup>

A "significant effect on the environment" is defined as a "substantial, or potentially substantial, adverse change in the environment."<sup>674</sup> The Guidelines elaborate on this definition,

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<sup>663</sup> See generally Cal. Code Regs. tit. 14, § 15062.

<sup>664</sup> *Id.* § 15062(d). If it the NOE is not filed with the county clerk, then the applicable statute of limitations is 180 days. *Id.*

<sup>665</sup> See Cal. Pub. Res. Code § 21064.

<sup>666</sup> *Id.* § 21064.5.

<sup>667</sup> *Wollmer v. City of Berkeley*, 179 Cal.App.4th 933, 939 (Cal. Ct. App. 2009).

<sup>668</sup> *Id.*

<sup>669</sup> *Id.*

<sup>670</sup> *Id.*

<sup>671</sup> See Cal. Pub. Res. Code § 21080(d).

<sup>672</sup> "Lead agency" is "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." Cal. Pub. Res. Code § 21067; see also Cal. Code Regs. tit. 14, § 15367. ("Lead agency" means the public agency which has the principal responsibility for carrying out or approving a project.). The Guidelines further set forth the criteria for determining which agency is the lead agency. See Cal. Code Regs. tit. 14, § 15051.

<sup>673</sup> Cal. Code Regs. tit. 14, § 15063. Although the initial study is not intended or required to include the level of detail that an EIR requires, see *id.* § 15063(a)(3), it must consider "[a]ll phases of project planning, implementation, and operation." *Id.* § 15063 (a)(1).

<sup>674</sup> Cal. Pub. Res. Code § 21068. "Environment" is defined as "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance." Cal. Pub. Res. Code § 21060.5. Butterflies are fauna or wildlife within the meaning of CEQA. See, e.g., *Save Round Valley Alliance v. County of Inyo*, 157 Cal.App.4th 1437, 1467 (Cal. Ct. App. 2007) (holding that the EIR's failure to discuss butterfly species based on scientific information indicating low

providing that “significant effect on the environment” means “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”<sup>675</sup> Moreover, CEQA requires a finding of significant effect when

(1) A proposed project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals.

(2) The possible effects of a project are individually limited but cumulatively considerable. As used in this paragraph, “cumulatively considerable” means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

(3) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.<sup>676</sup>

The Guidelines incorporate these requirements and further require a significance finding when

[t]he project has the potential to . . . substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; [or] substantially reduce the number or restrict the range of an endangered, rare or threatened species . . .”<sup>677</sup>

The California legislature recently amended CEQA to cover greenhouse gas emissions,<sup>678</sup> and the guidelines were recently revised to address greenhouse gas emissions under CEQA. The new guidelines require agencies to estimate the greenhouse gas emissions of a proposed project when determining the project’s potential significant impacts<sup>679</sup> and consider “[t]he extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.”<sup>680</sup> The guidelines also allow lead agencies to use thresholds of significance developed by other agencies to determine when GHG emissions constitute a significant effect.<sup>681</sup> In 2008, California’s Air Resource Board released a draft proposal document titled “Recommended Approaches for Setting Interim Significance Thresholds for

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butterfly density at site and, thereby, implicitly acknowledging that butterflies are wildlife within meaning of CEQA).

<sup>675</sup> Cal. Code Regs. tit. 14, § 15382. The Guidelines further provide that “An economic or social change by itself shall not be considered a significant effect on the environment,” but that “[a] social or economic change related to a physical change may be considered in determining whether the physical change is significant.” *Id.*

<sup>676</sup> Cal. Pub. Res. Code § 21083(b).

<sup>677</sup> Cal. Code Regs. tit. 14, § 15065(1).

<sup>678</sup> Cal. Pub. Res. Code § 21083.05.

<sup>679</sup> Cal. Code Regs. tit. 14, § 15064.4(a).

<sup>680</sup> *Id.* § 15064.4(b)(1).

<sup>681</sup> *Id.* § 15064.7(a), (c).

Greenhouse Gases under the California Environmental Quality Act,” which defines certain levels of emissions as “significant.”<sup>682</sup> Finally, the guidelines require a cumulative impact analysis for greenhouse gas emissions and allow general plans containing summaries of greenhouse gas projects to be used for the analysis.<sup>683</sup>

Although CEQA and the Guidelines broadly define “significant effect on the environment,” the lead agency’s significance determination is discretionary based on the available scientific and factual information.<sup>684</sup> Moreover, a finding of significant environmental effects must be based on substantial evidence.<sup>685</sup>

If the agency determines that the proposed project will not have a significant effect on the environment, it must issue a Negative Declaration (ND) setting for the reasons for and evidence supporting this determination.<sup>686</sup> Upon approving the project, the agency must file a Notice of Determination (NOD), which provides a brief description of the project, the agency’s determination that the project will have no significant effect on the environment, and a statement that the agency complied with CEQA.<sup>687</sup>

### **c. Environmental Impact Report**

If substantial evidence of significant environmental impacts exists at the conclusion of the initial study, the agency must develop an EIR.<sup>688</sup> The “heart of CEQA” is the EIR, which serves to ensure informed governmental decision-making and public participation in the process.<sup>689</sup> The EIR must assess the project’s environmental impacts,<sup>690</sup> identify mitigation measures for significant effects,<sup>691</sup> and consider project alternatives.<sup>692</sup>

With respect to the scope of project alternatives, the Guidelines state that an EIR must “describe a range of reasonable alternatives to the project . . . which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.”<sup>693</sup> The Guidelines further provide that an evaluation of

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<sup>682</sup> Available at: <http://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf>.

<sup>683</sup> Cal. Code Regs. tit. 14, § 15130(a), (d).

<sup>684</sup> *See id.* § 15064(b).

<sup>685</sup> *See* Cal. Pub. Res. Code § 21080(c)(1); Cal. Code Regs. tit. 14, § 15064(f).

<sup>686</sup> *See* Cal. Code Regs. tit. 14, § 15070.

<sup>687</sup> *See* Cal. Code Regs. tit. 14, § 15075(b). The filing of the Notice of Determination and the posting of such notice starts a 30-day statute of limitations on court challenges to the project’s approval. *Id.* § 15075(g).

<sup>688</sup> Cal. Pub. Res. Code §§ 21002.1, 21061; Cal. Code Regs. tit. 14, art. 9 §§ 15120-15132.

<sup>689</sup> *Citizens for Goleta Valley v. Bd. of Supervisors*, 52 Cal.3d 553, 554 (Cal. 1990).

<sup>690</sup> *See* Cal. Pub. Res. Code § 21061; Cal. Code Regs. tit. 14, §§ 15126, 15126.2.

<sup>691</sup> *See* Cal. Pub. Res. Code § 21061; Cal. Code Regs. tit. 14, § 15126.4.

<sup>692</sup> *See* Cal. Pub. Res. Code § 21061; Cal. Code Regs. tit. 14, § 15126.6.

<sup>693</sup> Cal. Code Regs. tit. 14, § 15126.6(a). The Guidelines further provides that the agency may consider the following factors in determining the feasibility of project alternatives:

“site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent).”

*Id.* § 15126.6(f)(1).

alternatives should be governed by the “rule of reason,” which “requires the EIR to set forth only those alternatives necessary to permit a reasoned choice” and to “examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.”<sup>694</sup>

## 2. CEQA’s Substantive Obligations

Agencies must “mitigate or avoid the significant effects on the environment of projects . . . whenever it is feasible to do so.”<sup>695</sup> The statute defines “feasible” as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.”<sup>696</sup> Alternatives or mitigation measures that are rejected as infeasible “must be ‘truly infeasible.’”<sup>697</sup> Accordingly, the agency must explain “in meaningful detail the reasons and facts supporting that conclusion,” and the agency’s infeasibility determination must be supported by substantial evidence.<sup>698</sup>

If an agency makes a finding that a project alternative or mitigation measure is not feasible, the agency must also make a finding that “specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment” before it may approve the project.<sup>699</sup> Ultimately, the legal adequacy of an EIR and an agency’s consideration of project alternatives and mitigation measures is evaluated on a case-by-case basis and reviewed under the deferential abuse of discretion standard.<sup>700</sup>

### C. CEQA and the Coastal Act

The procedural and substantive provisions of CEQA frequently bear on development in the coastal zone, because coastal zone development that may have significant environmental impacts must be consistent with CEQA. In a recent case, for example, private property owners proposed to develop a 5,804-square-foot, 35-foot high, two-story, single-family residence, a 1,092-square-foot garage, a septic system, and a pool and spa. Because the planned house was in the coastal zone, the landowners submitted an application for a coastal development permit. On review, the Commission’s staff recommended denial of the permit. Because there was no approved LCP for the Santa Monica Mountains region of Los Angeles County, the application was reviewed for conformity with the relevant provisions of the Coastal Act, not a certified LCP. The Commission asserted that the proposed development would be highly visible by the public traversing Mulholland highway and planned public trails, and thus inconsistent with Section 30251 of the Coastal Act. It further concluded that the coastal sage scrub and chaparral on the

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<sup>694</sup> *Id.* § 15126.6(f).

<sup>695</sup> *See* Cal. Pub. Res. Code § 21002.1.

<sup>696</sup> *See* Cal. Pub. Res. Code § 21061.1.

<sup>697</sup> *California Native Plant Soc. v. City of Santa Cruz*, 177 Cal.App.4th 957, 982 (Cal. Ct. App. 2009) *quoting* *City of Marina v. Board of Trustees of the California State University*, 39 Cal.4th 341, 369 (Cal. Ct. App. 2006).

<sup>698</sup> Cal. Pub. Res. Code § 21081.5; Guidelines, § 15091, subd. (b).

<sup>699</sup> *Id.* at 983; Cal. Pub. Res. Code § 21081(b).

<sup>700</sup> *See, e.g., City of Marina v. Bd. of Trustees of the California State University*, 39 Cal.4th 341, 365 (Cal. 2006) (“abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence”) (internal quotation marks omitted); Cal. Pub. Res. Code § 21168.5.

property met the definition of an ESHA. The Commission also concluded that the proposed development would prejudice the ability of Los Angeles County to prepare a local coastal program for the Santa Monica Mountains. Finally, it concluded that CEQA required less invasive proposals. The Commission thus denied the landowner's application.<sup>701</sup>

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<sup>701</sup> Douda v. California Coastal Com., 159 Cal. App. 4th 1181 (Cal. Court of Appeal, 2d Appellate Dist., Div. Two 2008).

### Appendix 3

#### Xerces Society Policy on Eucalyptus Management at Monarch Overwintering Sites

Overwintering monarchs (*Danaus plexippus*) in California typically cluster in groves of trees, such as blue gum eucalyptus (*Eucalyptus globulus*), red river gum eucalyptus (*Eucalyptus camaldulensis*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Cupressus macrocarpa*). There are other examples of monarchs less frequently clustering in coastal redwood (*Sequoia sempervirens*), coast live oak (*Quercus agrifolia*), western sycamore (*Platanus racemosa*), willow (*Salix spp.*), and acacias (*Acacia spp.*). In numerous cases, Californian monarch overwintering sites are comprised exclusively of non-native eucalyptus. Many of the large monarch sites such as Pismo State Beach and Pacific Grove Monarch Butterfly Sanctuary contain of a mixture of some of the above native and non-native species.<sup>702</sup> These trees offer monarchs protection from chilly temperatures, sustained exposure to direct sunlight, and strong winds.<sup>703</sup> The removal or trimming of these trees without the consultation of a monarch expert might affect the ability of these stands to provide adequate shelter.<sup>704</sup>

Despite its significance to monarchs, eucalyptus is an invasive exotic species that was introduced to California in 1853 from Australia.<sup>705</sup> It can rapidly spread and encroach on native plant species, reducing biodiversity.<sup>706</sup> Decomposers native to California are typically unable to process fallen eucalyptus leaves and bark strips, creating a layer on the forest floor of up to four feet deep; native plants are typically unable to penetrate this deep layer.<sup>707</sup> This leaf and bark litter leaches allelopathic compounds into the soil, preventing the establishment of native plant species in the forest understory and drastically reducing plant species diversity.<sup>708</sup> However, eucalyptus can provide habitat to monarchs and some birds. One study found that while bird diversity and richness was similar between a 90 year old eucalyptus stand and an adjacent native forest, the types of bird species differed.<sup>709</sup> Cavity nesting birds, including owls, wood ducks, woodpeckers, and chickadees, are found less frequently in eucalyptus stands than native oak forests because the decay-resistant bark of eucalyptus discourages cavity formation. Warblers and vireos, which harvest insects from leaves, are also less common in eucalyptus groves than in native oak forests.<sup>710</sup> Furthermore, as the trees age, branches can become unstable and pose a

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<sup>702</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2.

<sup>703</sup> K.L.H Leong, *Microenvironmental Factors Associated with the Winter Habitat of the Monarch Butterfly* (Lepidoptera:Danaiidae) in *Central California*, 83 ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA 906–10; K.L.H Leong, *Use of Multivariate Analyses to Characterize the Monarch Butterfly* (Lepidoptera:Danaiidae) *Winter Habitat*, 84 ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA 263–67 (1991).

<sup>704</sup> STEWART WEISS, HABITAT SUITABILITY, RESTORATION, AND VEGETATION MANAGEMENT AT MONARCH GROVE SANCTUARY, PACIFIC GROVE, CALIFORNIA (Report to: Thomas Reid Associates. Palo Alto, CA.:1998).

<sup>705</sup> H.M. Butterfield, *The Introduction of Eucalyptus into California*, 3 MADRONO 149–154 (1935).

<sup>706</sup> CARLA C. BOSSARD ET AL., *INVASIVE PLANTS OF CALIFORNIA'S WILDLANDS* (2000).

<sup>707</sup> Roger del Moral & Cornelius H. Muller, *The Allelopathic Effects of Eucalyptus camaldulensis*. 83 AM. MIDLAND NATURALIST 254–82 (1970).

<sup>708</sup> Bossard et al., *supra* note 710; del Moral & Muller, *supra* note 711.

<sup>709</sup> Dov. F. Sax, *Equal Diversity in Disparate Species Assemblages: A Comparison of Native and Exotic Woodlands in California*, 11 GLOBAL ECOL. & BIOGEOGRAPHY 49–57 (2002).

<sup>710</sup> David L. Suddjian, *Birds and Eucalyptus on the Central California Coast: A Love-hate Relationship*. David Suddjian Biological Consulting: (2004).

safety hazard to people and structures.<sup>711</sup> Since many monarch overwintering sites in California are frequented by the public, site managers must take safety considerations into account.

Few historical records indicate which conifer species once provided monarch habitat before the introduction of eucalyptus. The first records of monarchs overwintering in California note that the butterflies clustered on Monterey pines.<sup>712</sup> Considering that the native ranges of Monterey pine, Monterey cypress, and coast redwood has been greatly reduced near the coast<sup>713</sup> and monarchs currently overwinter in these tree species, one may presume that Monterey pine, Monterey cypress and coast redwood served as the primary historical monarch roost trees. Monarchs currently cluster on eucalyptus within overwintering sites where evidence, such as redwood stumps, suggests that redwoods once flourished.<sup>714</sup> Monarchs may have also roosted in the other native species that they still use at certain sites – such as coast live oak and western sycamore.

Over the past several hundred years, the historical monarch overwintering sites of exclusively native tree species are thought to have been mostly extirpated or irreversibly transformed.<sup>715</sup> Most likely, monarchs have adapted to changes in the landscape by selecting sites that are anthropogenically altered but still possess the environmental conditions which monarchs require to survive. While it may be necessary to eradicate most of the non-native eucalyptus in California in order to restore native ecosystems, eucalyptus sites that host monarchs are typically small in size<sup>716</sup> and represent only a tiny fraction of the current distribution of eucalyptus in the state.<sup>717</sup> Thus, much of the eucalyptus in California could be removed without negatively impacting the monarch butterfly.

Due to the above factors, the Xerces Society recommends that eucalyptus trees be maintained if monarchs overwinter within any portion of a eucalyptus grove. Before eradication, control, or trimming of a eucalyptus grove, the potential habitat should be surveyed for monarchs during the overwintering season for several years. If the eucalyptus grove is found to support monarchs as an autumnal or overwintering site, maintaining the core and periphery of a eucalyptus grove is recommended. Since eucalyptus must be trimmed for safety reasons, it is highly recommended that overwintering monarch sites should only be trimmed after consultation with a qualified monarch expert. As eucalyptus trees age and become decadent, a long-term plan should be developed to restore a monarch grove to provide habitat with native trees. However, this needs to be conducted carefully and in consultation with a qualified monarch expert to ensure that sufficient monarch habitat exists throughout the restoration process.

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<sup>711</sup> Weiss, *supra* note 708.

<sup>712</sup> Anonymous, MONTEREY WEEKLY HERALD, May 30, 1874; A.E. Bush, *Trees Attractive to Butterflies*, 15 THE AM. NATURALIST 572 (1881); Lucy Shepardson, THE BUTTERFLY TREES (1914).

<sup>713</sup> John Lane, *Overwintering Monarch Butterflies in California: Past and Present*, in BIOLOGY AND CONSERVATION OF THE MONARCH BUTTERFLY 335–44 (Stephen B. Malcolm & Myron P. Zalucki, eds. 1993); Andrew J. Storer, David L. Wood, Thomas R. Gordon, & William J. Libby, *Restoring Native Monterey Pine in the Presence of an Exotic Pathogen*. 99(5). JOURNAL OF FORESTRY. 14-18 (2001).

<sup>714</sup> Lane, *supra* note 718, at 335-344.

<sup>715</sup> ELIZABETH BELL ET AL., CONSERVATION AND MANAGEMENT GUIDELINES FOR PRESERVING THE MONARCH BUTTERFLY MIGRATION AND MONARCH OVERWINTERING HABITAT IN CALIFORNIA (The Xerces Society: 1993).

<sup>716</sup> Xerces Society Database of Western Monarch Overwintering Locations, *supra* note 2

<sup>717</sup> Lane, *supra* note 718, at 335–44.