

Appendix A

*Efficacy Analysis of Bag Ordinance Fees
and Sample Bag Use Estimates*



Efficacy Relationship between Bag fee and Bag Use Reduction

Single-use carryout bag ordinances have become common throughout California in recent years. These ordinances often enact a flat out ban on single-use carryout bags made from plastic, and impose a mandatory fee on any other “alternative” bag provided at the register. These alternative bags are often recycled paper, but also include reusable bags. The overall goal of these ordinances is to encourage the use of reusable bags and discourage the use of all single-use bags, including those made of recycled paper. The fee placed on recycled paper bags is meant to act as an economic signal to bring a reusable bag, or forgo a bag altogether. Several studies have been conducted which try and determine the effect that various bag fees have on bag use choices.

In 2010, the City of San José commissioned a fiscal analysis to assess potential costs and cost recovery to be borne by the City and affected retailers as a result of the proposed ordinance (Herrera report). This report was included in San Jose’s EIR for their Bag Ordinance (City of San Jose Final EIR, SCH # 2009102095, October 2010). The analysis included estimates on consumer behavior changes at various store charge levels. These estimates assume a link between the amount of the fee and the level of bag uses. A higher charge on paper bags under the proposed ordinance, it is assumed, would result in a greater reduction in the number of single-use paper carryout bags being used than would a lower fee. Taking into account the information derived from a wide variety of programs implemented around the world to encourage reusable bags and/or to discourage single-use carryout bags, and averaging their success rates with the survey results mentioned above, the Herrera report estimates that 65 percent of retail customers in San José will readily change to reusable bags (or no bag) if single-use plastic carryout bags are banned and a \$.10 fee is charged for exempt single-use paper carryout bags. Once the \$.25 bag charge is implemented in two years, the percentage of customers using reusable bags (or no bag) will increase to 89 percent.

A review compiled by the Equinox Center (2013) compiled the results of three bag ordinances in California including the City of San Jose, City of Santa Monica, and County of Los Angeles. All three of these ordinances have banned single-use carryout bags and imposed a minimum \$0.10 fee on recycled paper bags. The City of San Jose’s fee will rise to \$0.25 cents after 2014 and Los Angeles County’s fee can be raised to any level above \$0.10 at the discretion of the retailer. The results of these bans can be seen in Table 1.

Table 1. Result of Single-Use Carryout Bag Ordinance

Location	Fee	Pre-Ban				Post-Ban			
		Single-Use Carryout	Recycled Paper	Reusable	No-Bag	Single-Use Carryout	Recycled Paper	Reusable	No-Bag
San Jose	\$0.10	75%	3%	3%	19%	0%	22%	35%	43%
Santa Monica	\$0.10	69%	5%	10%	15%	0%	23%	41%	36%
LA County	\$0.10	82%	2%	2%	17%	0%	2%	58%	40%

Table 1 outlines the effect of imposing a \$0.10 fee on recycled paper bags. Although an increase in recycled paper bag use can be seen, it is significantly less than the increase in paper bag use seen in places with no bag fee at all. Carmel by the Sea implemented a plastic single-use carryout bag ban without including a recycled paper bag fee. According to an observational study performed by Save Our Shores, 377 people were observed with single-use carryout bags before the ban and 366 after. With plastic bags being banned, almost all of these bags were recycled paper (Monterey Herald, 2014). This suggests that even a minor fee has the ability to significantly decrease the amount of single-use carryout bags consumed.

Although data describing the results of bag ordinances in California is not prevalent, other studies have investigated the price elasticity of demand or “willingness to pay” of single-use carryout bags. One such study utilized a contingent valuation survey to determine customer’s willingness to pay for single-use carryout bags. The study found that the average willingness to pay was \$0.33 (Dunn, 2012). Another study investigating the willingness to pay for single-use carryout bags found that 92% of respondents were unwilling to pay more than \$0.05 per bag. Although some cities including the City of Monterey have levied \$0.25 fees on recycled paper bags, no official data has been made available to quantify the effect this higher fee has had on bag use. In addition, many of the currently active bag ordinances will increase from \$0.10 to \$0.25 at a later date. This may be in reaction to the belief that consumers will become used to the new bag fee and overall single-use carryout bag use will begin to increase as it has in some other areas. (Kavanagh, 2008).

R3 Consulting performed a study for the City of Santa Monica to determine the necessary bag fees based on assumptions including bag reduction factors, City costs, and Retailer costs. Using a range of parameters this study suggests a bag fee between \$0.026 and \$0.215 (avg \$0.199) in order to cover the costs associated with the proposed ordinance. A study completed by Elway Research, Inc. for the City of Kirkland, Washington conducted a survey of 407 Kirkland residents to determine their willingness to pay for a paper or plastic bag at checkout. Approximately 33% of respondents stated that they would not be willing to pay anything for a bag, 31% would be willing to pay <\$0.05 and 10% would be willing to pay \$0.10 per bag. Only 1% of respondents reported they would still purchase a bag if it was greater than \$0.25 (Elway Research Inc. May, 2013).

Although the currently available data is not complete, the overall implications of the available data show that a bag fee between \$0.05 and \$0.25 has been successful in reducing the number of single-use carryout bags (both recycled paper and plastic). No official studies have been presented that ties a higher per bag fee to a decrease in bag use. However, this may change as current bag ordinances mature and more data is collected.

References

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Bag Use in Monterey County Associated with the Proposed Ordinance

As discussed in the Efficacy Analysis above, various studies have shown that bag ordinances similar to the Proposed Ordinance that ban single-use carryout bags and require a \$0.10 fee to be charged on recycled paper bags shift the existing bag use such that single-use carryout bags are replaced with a combination of recycled paper, reusable or no bag use (depending on the customer's preference). These existing studies and the associated change in bag use rates found in the studies are not specific to Monterey County. However, using these various studies including the Herrera Report (2010) and the Equinox Center report (2013), a reasonable estimated range of bag use related to implementation of the Proposed Ordinance in unincorporated Monterey County was completed. With a \$0.10 fee for recycled paper bags, the Proposed Ordinance could result in the following approximate range of bag use per year for each type of bag to replace the approximately 35 million single-use carryout bags currently used in unincorporated Monterey County:

- 350,000 - 1.7 million single-use carryout bags (bags associated with restaurants)
- 4.4 million - 10.55 million recycled paper bags
- 112,000 - 440,000 reusable bags
- Up to 40% of customers could choose no bag
- Some other types of plastic bags would be purchased by customers in order to replace single-use carryout bags that are currently reused for uses such as waste can liners or dog waste pickup bags

In total, it is estimated that as a result of the Proposed Ordinance, the approximately 35 million single-use carryout bags currently used in unincorporated Monterey County annually would be reduced to between 5 million and 27 million total carryout plastic, paper, and reusable bags depending on which of the various rates are utilized. In either case, the number of single-use carryout bags would be significantly reduced in Monterey County (from 35 million currently used to less than 1.7 million single-use carryout bags).

Appendix B

*Recently Adopted, Proposed and Pending Carryout Bag
Ordinances in California*



Summary Recently Adopted, Proposed and Pending Carryout Bag Ordinances in California (does not include all Jurisdictions)

Ordinance Location	Proposed Action	Status
City of Calabasas	This ordinance bans the issuance of plastic carry-out bags and imposes a ten (10) cent charge on the issuance of recyclable paper carry-out bags at regulated stores.	Adopted February 2011 Effective July 2011
City of Capitola	This ordinance bans the issuance of plastic carry-out bags at all retail establishments and imposes a 25 cent fee for paper bags at regulated retail establishments.	Adopted January 2013 Effective April 2013
City of Carmel-by-the-Sea	This ordinance is a plastic bag ban in all retail stores.	Adopted July 2012 Effective February 2013
City of Carpinteria	This ordinance is the first double bag ban in the state. Starting in July 2012, large retailers as specified are prohibited from distributing single-use paper and plastic bags. Starting in April 2013, plastic bags are banned in all other retail stores including restaurants.	Adopted March 12, 2012 Carpinteria's 2012 bag ban was challenged by the Save The Plastic Bag Coalition (STPBC) March 20, 2012. They settled out of court with the agreement that the City would exempt restaurant carry-out bags from the ordinance.
City of Culver City	This ordinance bans the issuance of plastic carry-out bags and imposes a ten (10) cent charge on the issuance of recyclable paper carry-out bags at all supermarkets and other grocery stores, pharmacies, drug stores, convenience stores, and foodmarts, in Culver City. The ordinance requires a store to provide or make available to a customer only recyclable paper carry-out bags or reusable bags.	Adopted May 2013
City of Dana Point	This ordinance places a ban on single-use carry-out bags from all retail stores within city limits.	Adopted March 6, 2012 Effective in larger stores April 1, 2013, and all other stores October 1, 2013.
Town of Fairfax	This ordinance allows all stores, shops, eating places, food vendors and retail food vendors, to provide only recyclable paper or reusable bags as carry-out bags to customers.	Adopted August 2007 After legal challenge, adopted by voter initiative November 2008
City of Fort Bragg	This ordinance bans plastic bags and requires a 10 cent paper bag charge in all retail stores.	Adopted May 14, 2012 Effective in large stores December 10, 2012 and all other stores December 2013.
City of Glendale	This ordinance is similar to the County of Los Angeles ordinance in that it bans plastic bags and places a 10 cent charge on paper bags in regulated retail establishments.	Adopted January 2013 Effective in larger stores and farmer's markets starting in July 2013 and expanded to other covered stores January 1, 2014.
City of Huntington Beach	This ordinance would prohibit distribution of plastic carry-out bags in commercial point of sale purchases within Huntington Beach, and establish a ten (10) cent charge on the issuance of recyclable paper carry-out bags at all stores that meet at least one of the criteria listed below.	Adopted March 2013 Effective To be determined
City of Laguna Beach	This ordinance requires a plastic bag ban in all retail stores. Grocery stores, pharmacies, and	Adopted February 2012 Effective January 1, 2013

Summary Recently Adopted, Proposed and Pending Carry-out Bag Ordinances in California (does not include all Jurisdictions)

Ordinance Location	Proposed Action	Status
	convenience/liquor stores must include a 10 cent minimum price requirement on paper bags distributed.	
City of Long Beach	This ordinance bans plastic carry-out bags at all supermarkets and other grocery stores, pharmacies, drug stores, convenience stores, food marts, and farmers markets and would place a ten (10) cent charge on the issuance of recyclable paper carry-out bags by an affected store, as defined. The ordinance would also require a store to provide or make available to a customer recyclable paper carry-out bags or reusable bags.	<p>Long Beach passed this ordinance in May 2011. But unlike LAC, Long Beach did not issue a statement of overriding consideration for the likelihood of passing the GHG emission threshold of significance. The suit was settled after Long Beach agreed to adopt the County's Statement of Overriding Consideration in October 2011.</p> <p>Addendum to the County of Los Angeles Final EIR certified May 2011.</p> <p>The ordinance was also effective in larger stores starting August 2011, and will expand to others stores in 2012.</p>
City of Los Angeles	The ordinance would prohibit provision of single-use carry-out bags at supermarkets. Large markets are allowed to phase out plastic bags over 6 months and then provide free paper bags for 6 months. Smaller markets have a year to phase out plastic bags. After a year, paper bags would be allowed for a charge of 10 cents.	Approved May 2013
City of Malibu	This ordinance bans the use of non-compostable and compostable plastic shopping bags for point-of-sale distribution.	Adopted May 2008 Effective November 2009
City of Manhattan Beach	This ordinance bans the distribution of plastic bags at the point-of-sale for all retail establishments in Manhattan Beach.	Adopted July 2008 The California Supreme Court overturned a legal challenge to the ordinance in July 2011, ruling in favor of an appeal by the City of Manhattan Beach affirming the right of small local governments to phase out plastic grocery bags without an EIR.
City of Millbrae	This ordinance bans single-use bags and free paper carry-out bags and would apply to all retailers. Stores can charge a minimum of 10 cents per bag, should a customer need to purchase one. Those paper bags sold must be comprised of at least 40 percent post-consumer recycled materials. Thicker reusable plastic bags are allowed but would also need to be imprinted showing the bag is made of at least 40 percent post-consumer recycled materials.	Adopted February 2012. Certified a Negative Declaration. Effective September 1, 2012.
City of Monterey	This ordinance bans plastic bags and places an initial 10 cent minimum price requirement on paper bags for the first year, and 25 cents after.	Adopted December 6, 2011 Effective January 2013

Summary Recently Adopted, Proposed and Pending Carry-out Bag Ordinances in California (does not include all Jurisdictions)

Ordinance Location	Proposed Action	Status
City of Ojai	A proposed ordinance would ban plastic shopping bags and impose a 10-cent fee on paper bags at grocery stores, supermarkets, convenience stores, liquor stores and gasoline mini-marts.	Adopted April 2012. Effective July 1, 2012.
City of Pacific Grove	The proposed ordinance would ban single-use plastic and paper bags and place a fee on recycled content paper bags.	Pending
City of Palo Alto	<p>This ordinance bans large grocery stores in Palo Alto from distributing single-use plastic check out bags. Only reusable bags (preferred) or paper bags can be distributed. Single-use carry-out bags can still be used in produce and meat departments.</p> <p>Pending expansion of the ordinance would apply the ban to all retailers including restaurants in the city. An EIR on the expanded ordinance is currently being prepared.</p>	<p>Adopted March 2009 Palo Alto's 2009 bag ban was challenged by the STPBC. They settled out of court with the agreement that the City would not expand its ban to other stores without an EIR.</p> <p>Effective September 2009</p> <p>An EIR for the expansion of the ordinance to all retailers including restaurants was prepared.</p> <p>The expanded ordinance was adopted by the City Council on May 6, 2013 and will become effective July 2013.</p>
City of Pasadena	This ordinance bans plastic bags, and imposes a 10 cent minimum price on paper bags.	Adopted November 2011 Effective July 1, 2012 for large stores and supermarkets and December 2012 for convenience stores.
City of Sacramento	This ordinance bans plastic bags and imposes a 10 cent minimum price on paper bags.	Final EIR has been completed, awaiting ordinance hearings.
City of San Francisco	<p>Retail stores governed by the ordinance can only provide the following types of bags:</p> <ul style="list-style-type: none"> a. compostable plastic b. recyclable paper c. reusable bag of any material <p>In February 2012, the ordinance was expanded to all retail and food establishments within the City and requires a minimum 10 cent charge for reusable bags.</p>	<p>Adopted April 2007</p> <p>In February 2012, San Francisco expanded its bag ban and was sued by the STPBC. The two causes of action are related to CEQA compliance and the bag ban for restaurants. A judge upheld the expansion in September 2012.</p>
City of San Jose	This ordinance prohibits the distribution of single-use carry-out paper and plastic bags at the point of sale (i.e., check-out) for all commercial retail businesses in San José except restaurants. An exception is made for "green" paper bags containing at least 40 percent recycled content, accompanied by a charge of 10 cents to the customer, with the charge retained by the retailer. For the first two years, paper bags will be sold under this ordinance at 10 cents each; after two years the minimum price per paper bag is 25 cents each.	Adopted January 2011 Effective January 2012

Summary Recently Adopted, Proposed and Pending Carry-out Bag Ordinances in California (does not include all Jurisdictions)

Ordinance Location	Proposed Action	Status
City of Santa Cruz	This ordinance bans plastic bags and places a 10 cent paper bag charge.	Adopted July 2012 Effective April 2013
City of Santa Monica	This ordinance: (1) prohibits retail establishments in Santa Monica from providing "single-use plastic carry-out bags" to customers at the point of sale; (2) prohibits the free distribution of paper carry-out bags by grocery stores, convenience stores, mini-marts, liquor stores and pharmacies; and (3) requires stores that make paper carry-out bags available to sell recycled paper carry-out bags to customers for not less than ten cents per bag.	Adopted January 2011 Effective September 2011
City of Solana Beach	This ordinance prohibits the provision of plastic bags (except at restaurants) and allows purchase of paper bags for 10 cents.	Adopted May 2012, amended July 2012
City of Sunnyvale	This ordinance prohibits specified retail establishments in Sunnyvale from providing single-use plastic carry-out bags to customers at the point of sale, and creates a mandatory 10 cent (\$0.10) charge for each paper bag distributed by these stores.	Adopted December 2011 Effective June 20, 2012 (grocery stores, convenience stores and large retailers) Effective March 2013 (all retailers)
City of Ukiah	This ordinance prohibits retail establishments (except eating establishments) in Ukiah from providing single-use bags. Recycled-content paper bags or reusable bags could be provided at a minimum charge of 10 cents per bag.	Adopted May 2012 Effective in large stores 180 days after adoption and 545 days for all other stores.
City of Watsonville	This ordinance prohibits retail establishments from providing non-recycled paper or plastic bags and allows sale of recycled and recyclable paper bags for a 10 cent charge.	Adopted May 2012
City of West Hollywood	This ordinance prohibits retail establishments from providing non-recycled paper or plastic bags and places a 10 cent recyclable paper bag charge.	Adopted August 2012
County of Alameda (Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City)	This ordinance prohibits the distribution of single-use carry-out paper and plastic bags at the point of sale (i.e., check-out) for all commercial retail businesses in Alameda County. Exception would be made for recycled paper or reusable bags containing a specified minimum percentage of recycled content, which can only be provided to customers for a nominal charge (ten cents on or before January 1, 2015 and 25 cents on or after January 1, 2015) to cover the cost to the business of providing the bags.	Adopted January 2012 Effective January 1, 2013
County of Los Angeles	This ordinance bans the issuance of plastic carry-out bags and imposes a ten (10) cent charge on the issuance of recyclable paper carry-out bags at all supermarkets and other grocery stores, pharmacies, drug stores, convenience stores, and foodmarts, in unincorporated Los Angeles County. The ordinance requires a store to provide or make available to a customer only recyclable paper carry-out bags or reusable bags. The ordinance would also encourage a store to educate its staff to promote reusable bags and to post signs encouraging customers to use	Adopted November 2010 In October 2011, Hilex and some individuals filed a petition to void the LA County ordinance. They alleged that the 10-cent charge on paper bags is really a local special tax that requires voter approval as amended by Prop 26. In March 2012, the Court denied the petition and ruled that a paper bag charge

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Ordinance Location	Proposed Action	Status
	reusable bags in the unincorporated areas of the County of Los Angeles.	was not a tax under Prop 26. Helix appealed the decision April 2012 and the case is still pending.
County of Marin ²	This ordinance prohibits the distribution of plastic carry-out bags and would charge at least \$0.05 for a recycled paper bag.	Adopted January 2011 In September 2011, Marin County Superior Court found the ordinance “a reasonable legislative and regulatory choice” to protect the environment without causing a significant negative impact. The County had correctly determined the project to be exempt based on its actions to protect the environment and natural resources. STPBC filed an appeal of this decision on November 29, 2011. On June 25, 2013 the First District Court of Appeal upheld the lower court ruling in favor of Marin County.
County of Mendocino	This ordinance bans plastic bags with a 10 cent paper bag charge.	Adopted June 12, 2012 Effective in large stores January 2013, and all other retailers January 2014
County of San Luis Obispo (City and County of San Luis Obispo, Atascadero, Grover Beach, Morro Bay, Paso Robles, and Pismo Beach)	The San Luis Obispo County Integrated Waste Management Authority adopted a plastic bag ban with a 10 cent minimum price requirement on paper bags.	Adopted January 2012 It goes into effect on September 1, 2012 in all seven incorporated cities as well as unincorporated areas of the county. A petition was filed January 30, 2012. The SLO lawsuit had two causes of action, but the second cause was dropped in February. The first cause of action is CEQA compliance. On October 15, 2012 The San Luis Obispo Superior Court ruled in favor of the IWMA.
County of San Mateo (unincorporated) and 24 participating municipalities in San Mateo and Santa Clara Counties ¹	This ordinance prohibits the provision of single-use plastic bags and places a 10 cent (up to 25 cents in January 2013) charge on recycled paper bags.	Approved by San Mateo County Board of Supervisors November 2012. Effective April 2013.
BEACON (unincorporated Santa Barbara County, Buellton,	The Beach Erosion Authority for Clean Oceans and Nourishment (BEACON) model ordinance for cities and counties in either Santa Barbara or Ventura counties would regulate the distribution of single-use	City of Santa Barbara adopted an ordinance in October 2013. The Santa Barbara County released a Draft EIR in December 2013

Summary Recently Adopted, Proposed and Pending Carry-out Bag Ordinances in California (does not include all Jurisdictions)

Ordinance Location	Proposed Action	Status
Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, Solvang, unincorporated areas of Ventura County, Camarillo, Fillmore, Moorpark, Oxnard, Port Hueneme, Santa Paula, Simi Valley, Thousand Oaks, and Ventura)	plastic and paper carry-out bags and would impose a 10 cent fee on recycled paper bags. The EIR encompasses the County of Santa Barbara (unincorporated Santa Barbara County, Buellton, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, Solvang, unincorporated areas of Ventura County, Camarillo, Fillmore, Moorpark, Oxnard, Port Hueneme, Santa Paula, Simi Valley, Thousand Oaks, and Ventura).	specifically for unincorporated areas of Santa Barbara County. All other cities and the County of Ventura are currently pending.
County of Santa Clara	This ordinance allows affected retail establishments to distribute either a 'green' paper bag or a reusable bag. Reusable bags may be given away or sold and are initially defined (until January 2013) as bags made of cloth or other machine washable fabric that has handles; or a durable plastic bag with handles that is at least 2.25 mils thick and is specifically designed and manufactured for multiple use. 'Green' paper bags may be sold to customers for a minimum charge of \$0.15 and are defined as paper bags that are 100% recyclable and are made from 100% recycled material.	Adopted April 2011 Effective January 2012
County of Santa Cruz	The ordinance bans single-use carry-out bags and places a 10 cent minimum price requirement on single-use paper bags throughout unincorporated county areas.	Adopted September 13, 2011 The STPBC filed a lawsuit in October 2011. The case was settled out of court and in February 2012 the City repealed the ban of plastic bags used at restaurants.
County of Sonoma	The Sonoma County Waste Management Agency ordinance would ban single-use carry-out bags and place a 10 cent minimum price requirement, that goes up to 25-cents, on single-use paper bags throughout the County.	Pending
Marin County Hazardous and Solid Waste Management Joint Powers Authority (JPA)	The Marin County Hazardous and Solid Waste Management Joint Powers Authority (JPA) prepared a Draft Model Single-use Carry-out Bag Reduction Ordinance that participating JPA member agencies within Marin County could consider for adoption. The model ordinance would regulate the distribution of single-use plastic and paper carry-out bags and would impose a 5 cent fee on recycled paper bags and reusable bags. The EIR encompasses the following member agencies in Marin County <ul style="list-style-type: none"> • Belvedere • Corte Madera • Larkspur • Mill Valley • Novato • Ross • San Anselmo 	EIR was certified by the JPA in January 2014. Pending adoption of the ordinance by the member agencies. Belvedere, Novato and San Rafael have each already adopted ordinances in their respective jurisdictions.

Summary Recently Adopted, Proposed and Pending Carry-out Bag Ordinances in California (does not include all Jurisdictions)

Ordinance Location	Proposed Action	Status
	<ul style="list-style-type: none"> • San Rafael • Sausalito • Tiburon 	

Source: Californians Against Waste, http://www.cawrecycles.org/issues/plastic_campaign/plastic_bags/local , accessed January 2014 ; Save the Plastic Bag Coalition, <http://savetheplasticbag.com>, accessed December 2012; San Luis Obispo County, Alameda County, City of Oakland, City of San Jose, City of Calabasas, City of Capitola, City of Carpinteria, City of Dana Point, Town of Fairfax, City of Laguna Beach, City of Palo Alto, City of Los Angeles, County of Los Angeles, City of Malibu, City of Manhattan Beach, City of San Francisco, City of Solana Beach, City of Pasadena, Marin County, City of Santa Monica, Santa Clara County, Santa Cruz County, City of Long Beach, City of Ojai, City of Sunnyvale, City of Millbrae Homepages, January 2014.

¹The City of Belmont adopted the County's Reusable Bag Ordinance in January 2013 and it became effective in April 2013. The City of Brisbane adopted the San Mateo County's Reusable Bag Ordinance on March 18, 2013 and it also became effective in April 2013. The city of Burlingame adopted the San Mateo County's Reusable Bag Ordinance on March 18, 2013 and it also became effective in April 2013. The City of Colma, Daly City, Menlo Park, Mountain View, Pacifica, Portola Valley, San Bruno, South San Francisco, and Foster City adopted the County's Ordinance January 2013 and both ordinances also became effective in April 2013. The City of Redwood City and San Carlos adopted the County's ordinance in March 2013 and it became effective in October 2013 and July 2013, respectively. The City of Cupertino adopted an amended ordinance, similar to the County's in March 2013 and it became effective in October 2013. The City of East Palo Alto adopted the County's ordinance in April 2013 and it became effective in October 2013. The City of Half Moon Bay adopted the County's ordinance in March 2013 and it became effective April 2013. The City of Los Altos adopted the County's ordinance in March 2013 and it will become effective July 4, 2013.

²This ordinance only applies to the unincorporated areas of Marin County, not the incorporated jurisdictions such as those which comprise the Study Area for the Marin County Hazardous and Solid Waste Management Joint Powers Authority (JPA) EIR .

Appendix C



*Table of Freshwater/Coastal/Marine Special-Status Species
Locations of Special-status Species and
Natural Communities in Monterey County*

Freshwater/Coastal/Marine Special-Status Species

Scientific Name	Common Name	Current Federal/State Status
Reptiles		
<i>Emys marmorata</i>	western pond turtle	SSC
<i>Thamnophis hammondi</i>	two-striped garter snake	SSC
<i>Anniella pulchra pulchra</i>	silvery legless lizard	SSC
<i>Anniella pulchra nigra</i>	black legless lizard	SSC
<i>Phrynosoma blainvillii</i>	coast horned lizard	SSC
<i>Masticophis flagellum ruddocki</i>	San Joaquin whipsnake	SSC
Amphibians		
<i>Ambystoma macrodactylum croceum</i>	Santa Cruz long-toed salamander	FE/SE
<i>Ambystoma californiense</i>	California tiger salamander	FT/ST
<i>Rana draytonii</i>	California red-legged frog	FT
<i>Spea hammondi</i>	western spadefoot	SSC
<i>Anaxyrus californicus</i>	arroyo toad	FE
<i>Taricha torosa</i>	Coast Range newt	SSC
<i>Rana boylei</i>	foothill yellow-legged frog	SSC
Birds		
<i>Haliaeetus leucocephalus</i>	bald eagle	SE
<i>Rallus longirostris obsoletus</i>	California clapper rail	FE/SE
<i>Gymnogyps californianus</i>	California condor	FE/SE
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE/SE
<i>Falco peregrinus anatum</i>	American peregrine falcon	-
<i>Pelecanus occidentalis californicus</i>	California brown pelican	-
<i>Oceanodroma homochroa</i>	ashy storm-petrel	SSC
<i>Cypseloides niger</i>	black swift	SSC
<i>Athene cunicularia</i>	burrowing owl	SSC
<i>Eremophila alpestris actia</i>	California horned lark	-
<i>Phalacrocorax auritus</i>	double-crested cormorant	-
<i>Buteo regalis</i>	ferruginous hawk	-

Freshwater/Coastal/Marine Special-Status Species

Scientific Name	Common Name	Current Federal/State Status
<i>Aquila chrysaetos</i>	golden eagle	-
<i>Ardea herodias</i>	great blue heron	-
<i>Circus cyaneus</i>	northern harrier	SSC
<i>Falco mexicanus</i>	prairie falcon	-
<i>Progne subis</i>	purple martin	SSC
<i>Agelaius tricolor</i>	tricolored blackbird	SSC
<i>Fratercula cirrhata</i>	tufted puffin	SSC
<i>Elanus leucurus</i>	white-tailed kite	-
<i>Dendroica petechia brewsteri</i>	yellow warbler	SSC
<i>Riparia riparia</i>	bank swallow	ST
<i>Buteo swainsoni</i>	Swainson's hawk	ST
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	FT
Fish		
<i>Spirinchus thaleichthys</i>	longfin smelt	FC/FT
<i>Eucyclogobius newberryi</i>	tidewater goby	FE
<i>Oncorhynchus mykiss irideus</i>	Steelhead	FT
Mammals		
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SCT
<i>Lasiurus cinereus</i>	hoary bat	SSC
<i>Antrozous pallidus</i>	pallid bat	-
<i>Eumops perotis californicus</i>	western mastiff bat	SSC
<i>Lasiurus blossevillii</i>	western red bat	SSC
<i>Reithrodontomys megalotis distichlis</i>	Salinas harvest mouse	-
Invertebrates		
<i>Coelus globosus</i>	globose dune beetle	
<i>Euphilotes enoptes smithi</i>	Smith's blue butterfly	FE
<i>Euphydryas editha bayensis</i>	Bay checkerspot butterfly	FT
<i>Socalchemmis monterey</i>	Monterey socialchemmis spider	

Freshwater/Coastal/Marine Special-Status Species

Scientific Name	Common Name	Current Federal/State Status
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT
<i>Tryonia imitator</i>	California brackishwater snail	-
<i>Optioservus canus</i>	Pinnacles optioservus riffle beetle	-

FT = Federally Threatened

FE = Federally Endangered

FC = Federal Candidate

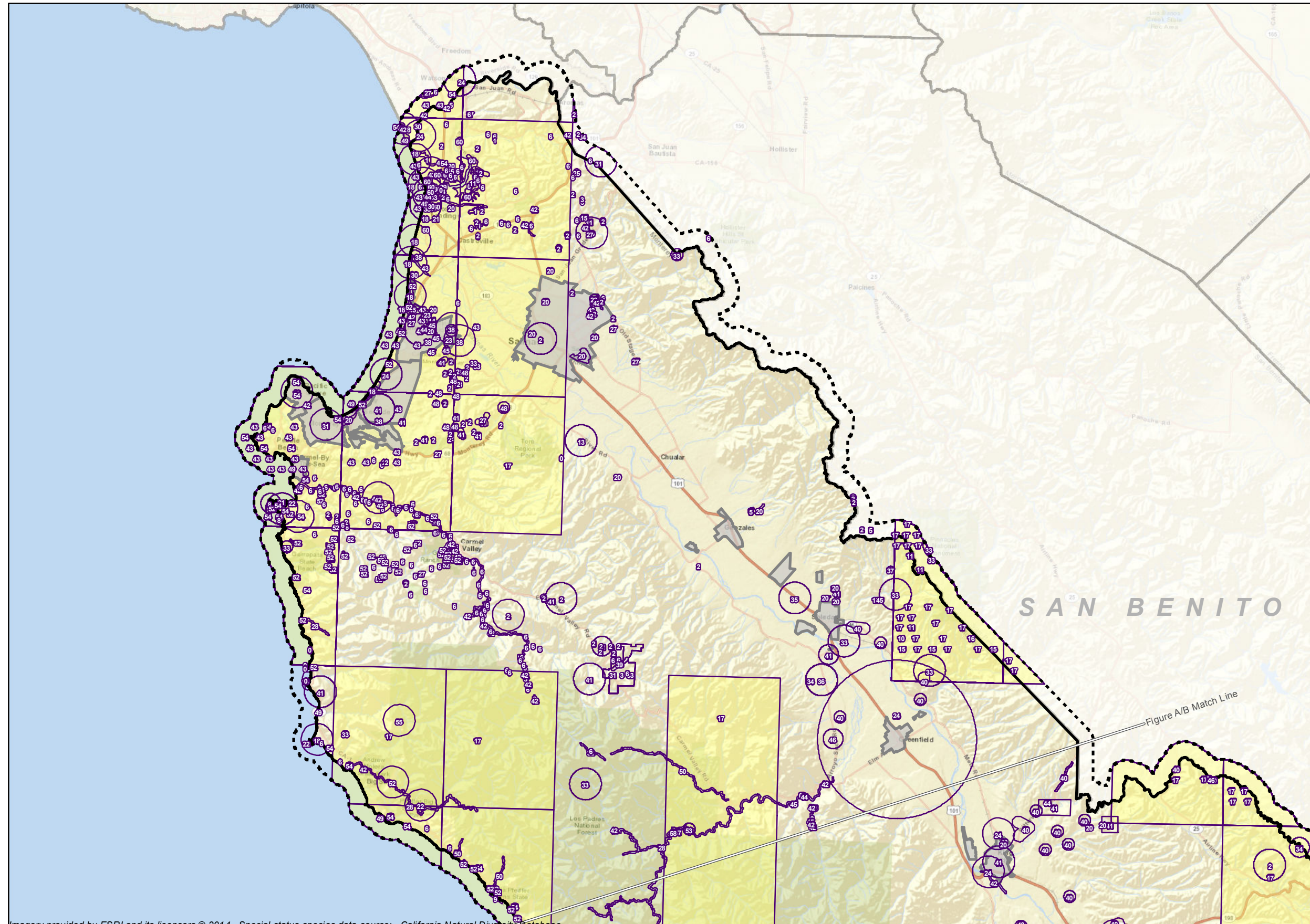
SSC = California Species of Special Concern

SE = California Endangered

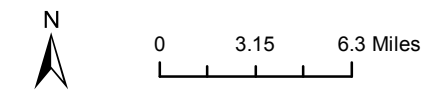
ST= California Threatened

SCT = California Candidate Threatened

- = no status but included in Rarefind database as deserving of concern



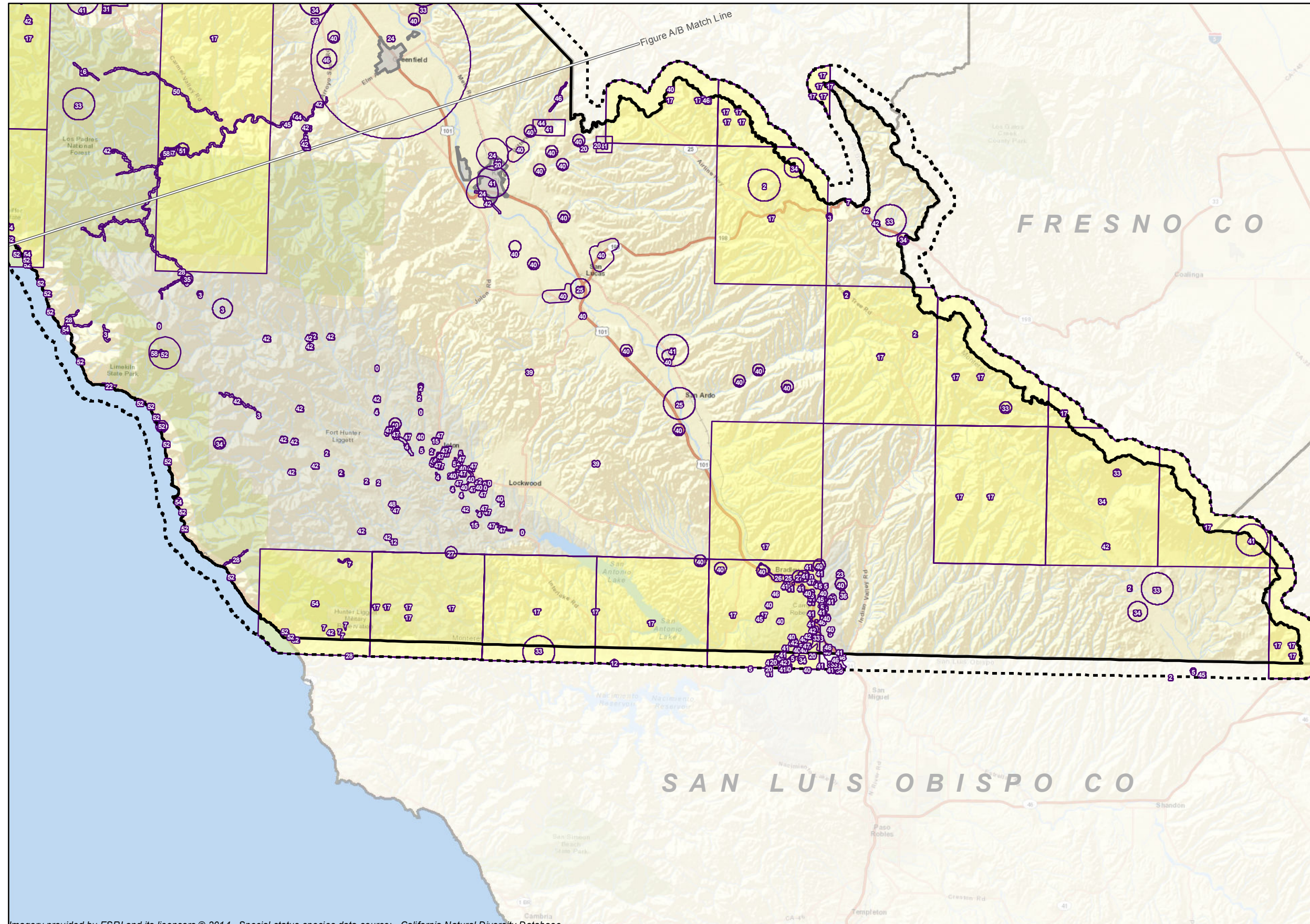
- Legend**
- Monterey County Boundary
 - One-Mile County Radius
 - City Limits (not within project)
- CNDDDB Record**
- Animal
 - CNDDDB Record Undisclosed
- 1 - Santa Cruz long-toed salamander
 - 2 - California tiger salamander
 - 3 - Coast Range newt
 - 4 - arroyo toad
 - 5 - western spadefoot
 - 6 - California red-legged frog
 - 7 - foothill yellow-legged frog
 - 8 - California brown pelican
 - 9 - double-crested cormorant
 - 10 - California condor
 - 11 - white-tailed kite
 - 12 - bald eagle
 - 13 - Swainson's hawk
 - 14 - ferruginous hawk
 - 15 - golden eagle
 - 16 - American peregrine falcon
 - 17 - prairie falcon
 - 18 - western snowy plover
 - 19 - tufted puffin
 - 20 - burrowing owl
 - 21 - short-eared owl
 - 22 - black swift
 - 23 - California horned lark
 - 24 - bank swallow
 - 25 - least Bell's vireo
 - 26 - yellow warbler
 - 27 - tricolored blackbird
 - 28 - steelhead - south/central California coast DPS
 - 29 - longfin smelt
 - 30 - tidewater goby
 - 31 - hoary bat
 - 32 - western red bat
 - 33 - Townsend's big-eared bat
 - 34 - pallid bat
 - 35 - western mastiff bat
 - 36 - Salinas pocket mouse
 - 37 - big-eared kangaroo rat
 - 38 - Salinas harvest mouse
 - 39 - Monterey dusky-footed woodrat
 - 40 - San Joaquin kit fox
 - 41 - American badger
 - 42 - western pond turtle
 - 43 - black legless lizard
 - 44 - silvery legless lizard
 - 45 - coast horned lizard
 - 46 - San Joaquin whipsnake
 - 47 - vernal pool fairy shrimp
 - 48 - California linderiella
 - 49 - globose dune beetle
 - 50 - Pinnacles optioservus riffle beetle
 - 51 - Tulare cuckoo wasp
 - 52 - Smith's blue butterfly
 - 53 - Bay checkerspot butterfly
 - 54 - monarch butterfly
 - 55 - Dolloff Cave spider
 - 56 - Arroyo Seco short-tailed whipscorpion
 - 57 - Ubick's leptonetid spider
 - 58 - Monterey socialchemmis spider
 - 59 - redwood shoulderband
 - 60 - mimic tryonia (=California brackishwater snail)



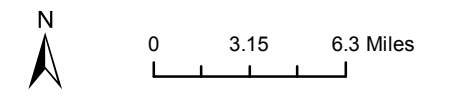
Sensitive Animals
Reported by the California
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Monterey County

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Figure 1a



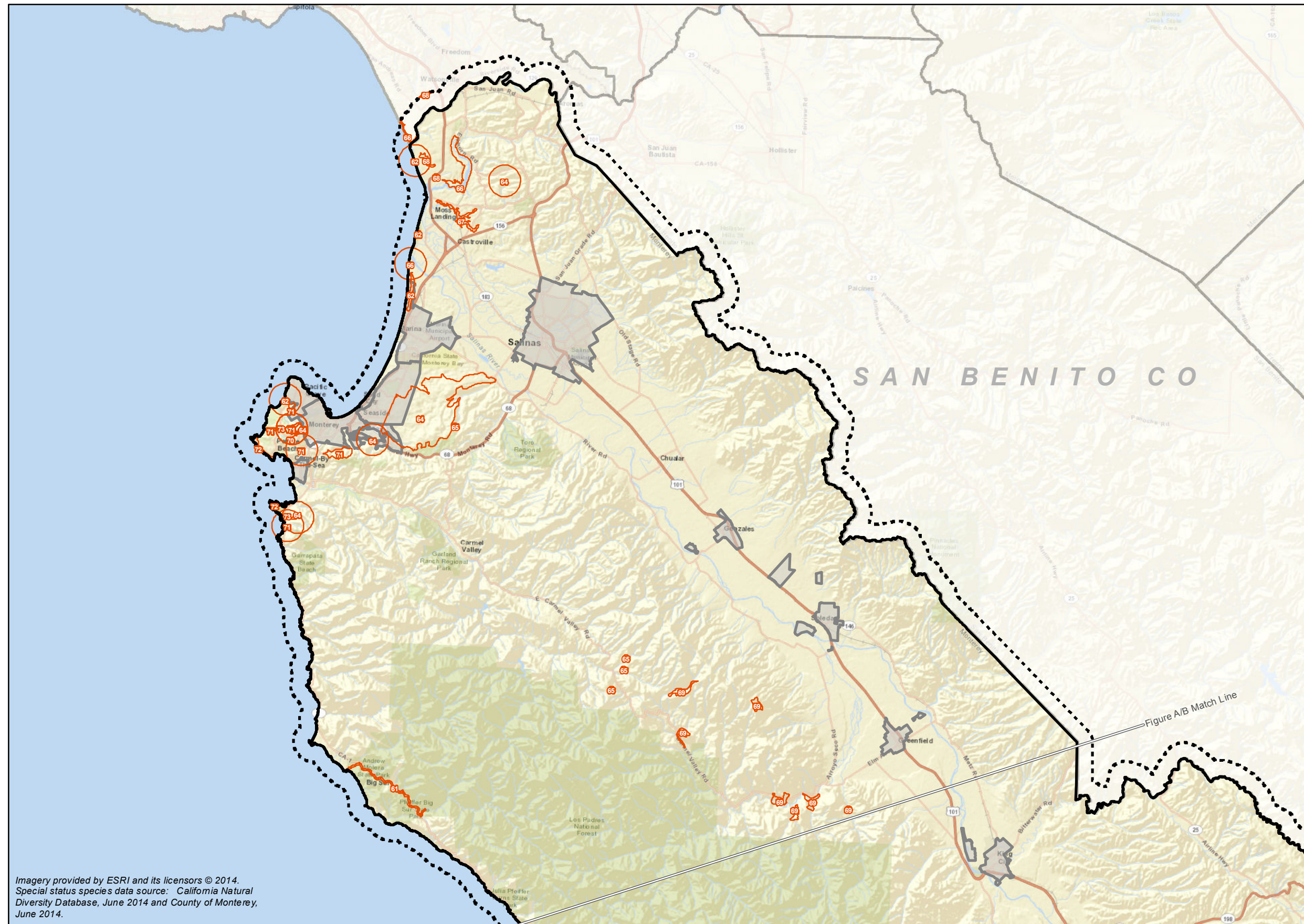
- Legend**
- Monterey County Boundary
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 - City Limits (not within project)
- CNDDB Record**
- Animal
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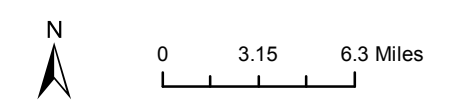
Sensitive Animals
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Figure 1b
County of Monterey



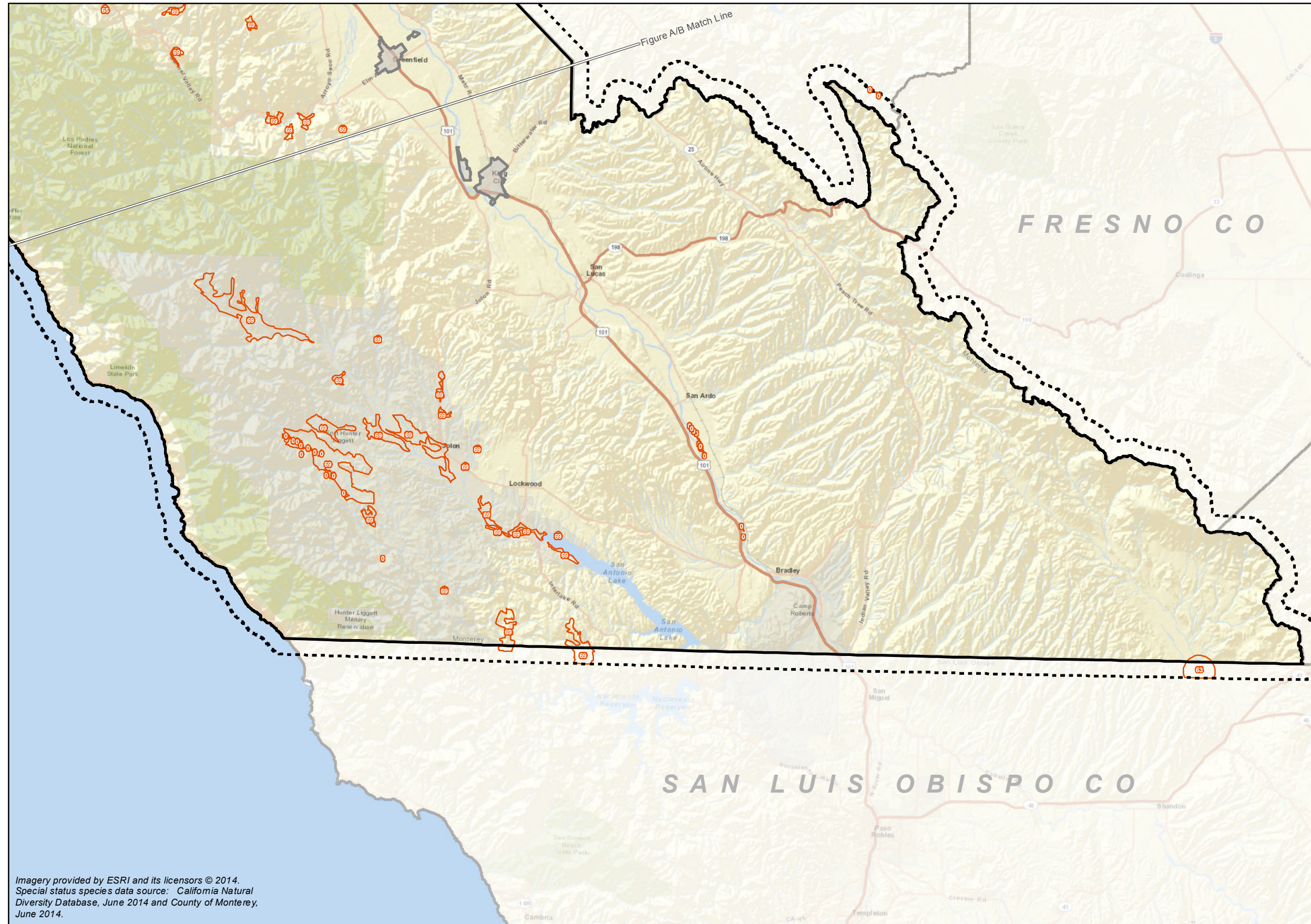
- Legend**
- ▭ Monterey County Boundary
 - ▭ One-Mile County Radius
 - ▭ City Limits (not within project)
 - CNDDDB Record**
 - Natural Communities
- 61 - North Central Coast Fall-Run Steelhead Stream
 - 62 - Central Dune Scrub
 - 63 - Valley Sink Scrub
 - 64 - Central Maritime Chaparral
 - 65 - Valley Needlegrass Grassland
 - 66 - Northern Coastal Salt Marsh
 - 67 - Coastal Brackish Marsh
 - 68 - Coastal and Valley Freshwater Marsh
 - 69 - Valley Oak Woodland
 - 70 - Northern Bishop Pine Forest
 - 71 - Monterey Pine Forest
 - 72 - Monterey Cypress Forest
 - 73 - Monterey Pygmy Cypress Forest



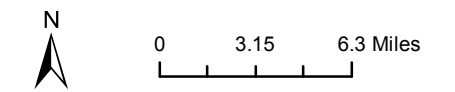
Natural Communities
Reported by the California
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Monterey County

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Figure 2a
County of Monterey



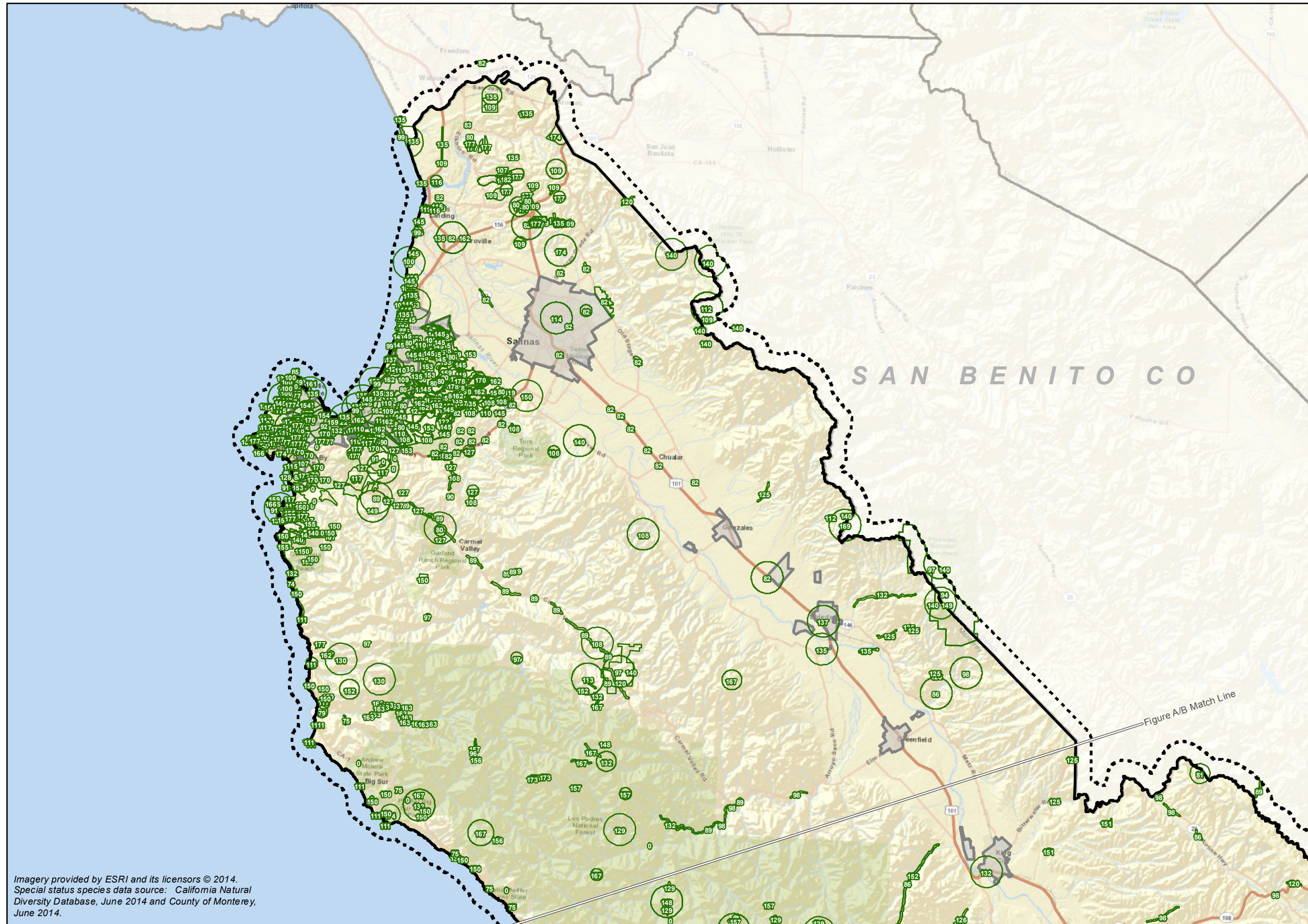
- Legend**
- Monterey County Boundary
 - One-Mile County Radius
 - City Limits (not within project)
 - CNDDDB Record**
 - Natural Communities
- 61 - North Central Coast Fall-Run Steelhead Stream
 - 62 - Central Dune Scrub
 - 63 - Valley Sink Scrub
 - 64 - Central Maritime Chaparral
 - 65 - Valley Needlegrass Grassland
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 - 68 - Coastal and Valley Freshwater Marsh
 - 69 - Valley Oak Woodland
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 - 71 - Monterey Pine Forest
 - 72 - Monterey Cypress Forest
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Natural Communities
Reported by the California
Natural Diversity Database
Monterey County

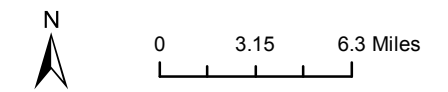
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Special status species data source: California Natural
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June 2014.

Figure 2b



- Legend**
- Monterey County Boundary
 - One-Mile County Radius
 - City Limits (not within project)
- CNDDDB Record**
- Plants

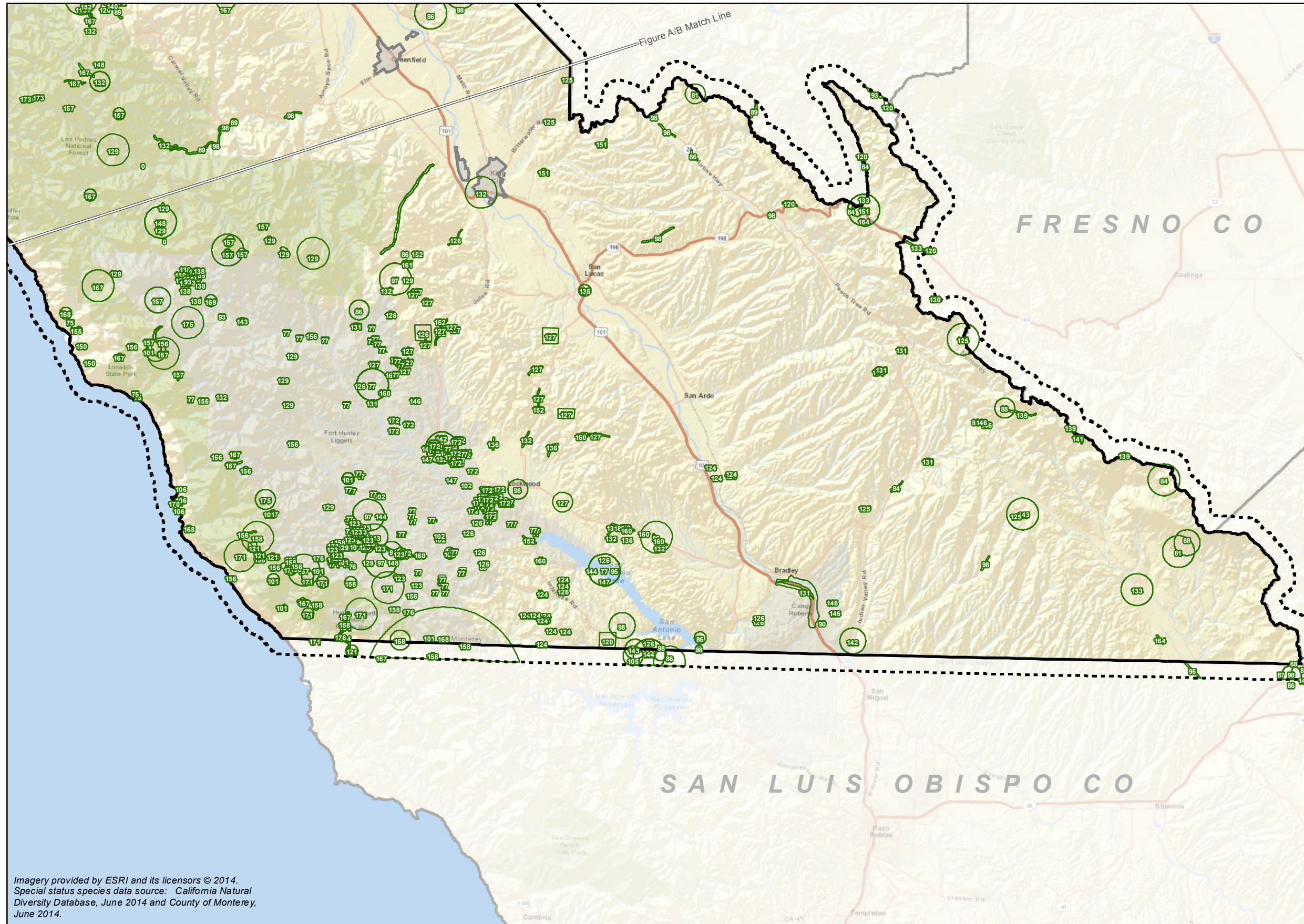
- | | |
|--|--|
| 74 - California screw moss | 127 - Carmel Valley bush-mallow |
| 75 - tear drop moss | 128 - Santa Lucia bush-mallow |
| 76 - San Simeon baccharis | 129 - Hickman's checkerbloom |
| 77 - dwarf calycadenia | 130 - maple-leaved checkerbloom |
| 78 - small-flowered calycadenia | 131 - Hardham's evening-primrose |
| 79 - compact cobwebby thistle | 132 - Jolon clarkia |
| 80 - Eastwood's goldenbush | 133 - Hernandez spineflower |
| 81 - Hall's tarplant | 134 - Brewer's spineflower |
| 82 - Congdon's tarplant | 135 - Monterey spineflower |
| 83 - Santa Cruz tarplant | 136 - straight-awned spineflower |
| 84 - Diablo Range hare-leaf | 137 - robust spineflower |
| 85 - beach layia | 138 - Butterworth's buckwheat |
| 86 - pale-yellow layia | 139 - Eastwood's buckwheat |
| 87 - Munz's tidy-tips | 140 - Pinnacles buckwheat |
| 88 - showy golden madia | 141 - Temblor buckwheat |
| 89 - Carmel Valley malacothrix | 142 - Indian Valley spineflower |
| 90 - Santa Cruz microseris | 143 - Santa Lucia monkeyflower |
| 91 - marsh microseris | 144 - yellow-flowered eriostyum |
| 92 - woodland woollythreads | 145 - Monterey gilia |
| 93 - San Benito pentachaeta | 146 - shining navarretia |
| 94 - chaparral ragwort | 147 - prostrate vernal pool navarretia |
| 95 - Mason's neststraw | 148 - Santa Cruz Mountains pussypaws |
| 96 - Muir's tarplant | 149 - Hospital Canyon larkspur |
| 97 - hooked popcornflower | 150 - Hutchinson's larkspur |
| 98 - Lemmon's jewelflower | 151 - recurved larkspur |
| 99 - sand-loving wallflower | 152 - umbrella larkspur |
| 100 - Menzies' wallflower | 153 - Kellogg's horkelia |
| 101 - most beautiful jewelflower | 154 - Hickman's cinquefoil |
| 102 - caper-fruited tropidocarpum | 155 - pine rose |
| 103 - delicate bluecup | 156 - Cone Peak bedstraw |
| 104 - legenere | 157 - Santa Lucia bedstraw |
| 105 - Robbins' nemacladus | 158 - Hardham's bedstraw |
| 106 - Arroyo de la Cruz manzanita | 159 - pink Johnny-nip |
| 107 - Hooker's manzanita | 160 - San Antonio collinsia |
| 108 - Toro manzanita | 161 - San Francisco collinsia |
| 109 - Pajaro manzanita | 162 - seaside bird's-beak |
| 110 - sandmat manzanita | 163 - Dudley's lousewort |
| 111 - Little Sur manzanita | 164 - oval-leaved snapdragon |
| 112 - Gabilan Mountains manzanita | 165 - Gowen cypress |
| 113 - Napa false indigo | 166 - Monterey cypress |
| 114 - alkali milk-vetch | 167 - bristlecone fir |
| 115 - Tidestrom's lupine | 168 - San Luis Obispo sedge |
| 116 - saline clover | 169 - Santa Lucia dwarf rush |
| 117 - Pacific Grove clover | 170 - Hickman's onion |
| 118 - Monterey clover | 171 - late-flowered mariposa-lily |
| 119 - Santa Cruz clover | 172 - Santa Lucia purple amole |
| 120 - round-leaved filaree | 173 - talus fritillary |
| 121 - Palmer's monardella | 174 - fragrant fritillary |
| 122 - northern curly-leaved monardella | 175 - San Benito fritillary |
| 123 - Santa Lucia mint | 176 - Cook's triteleia |
| 124 - Abbott's bush-mallow | 177 - Yadon's rein orchid |
| 125 - Indian Valley bush-mallow | 178 - vernal pool bent grass |
| 126 - Davidson's bush-mallow | |



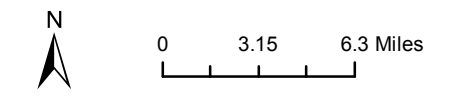
Plants
Reported by the California
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Monterey County

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Special status species data source: California Natural
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Figure 3a



- Legend**
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Plants
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Figure 3b
County of Monterey