

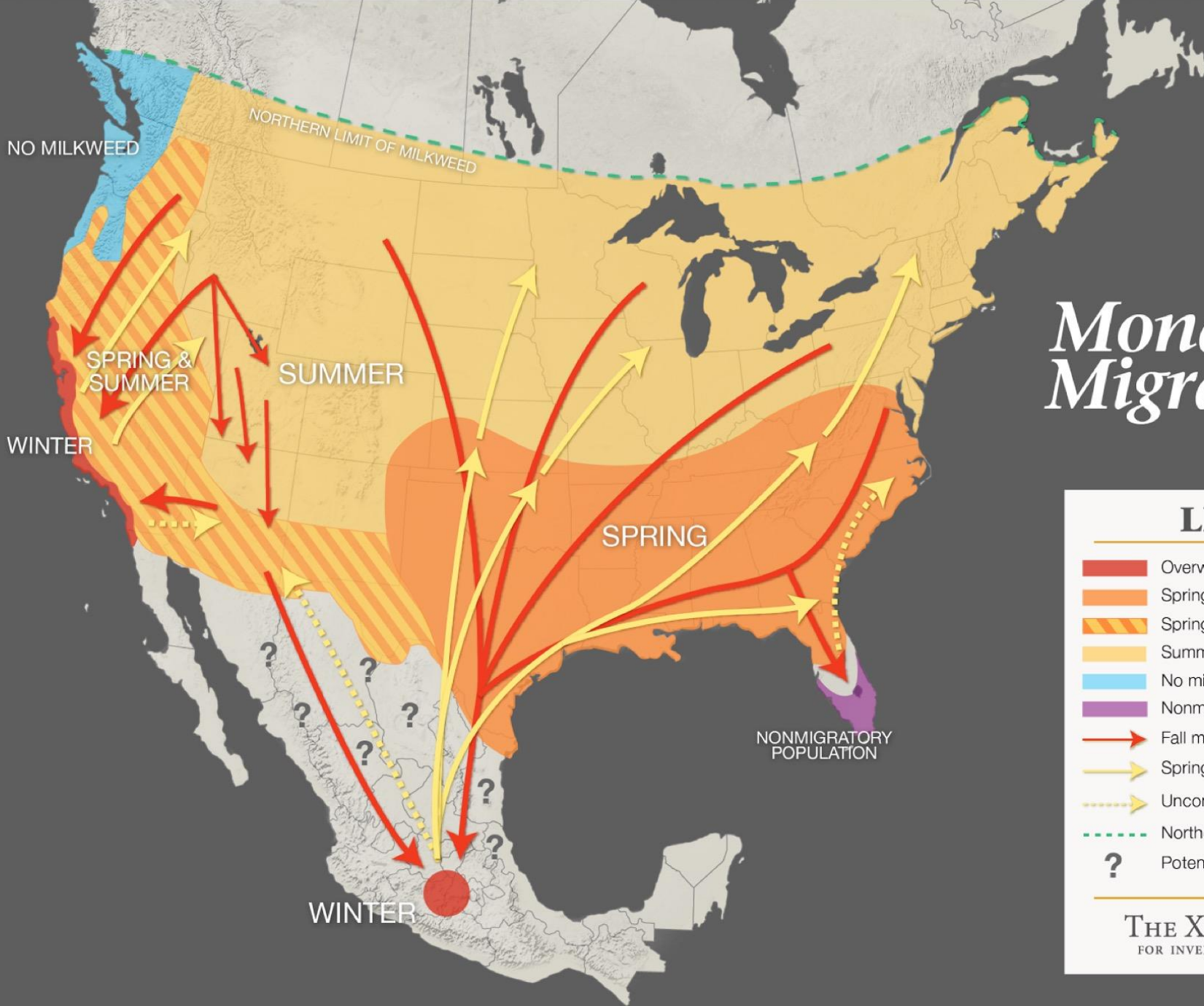
Ellwood Mesa/Sperling Preserve Open Space

Monarch Butterfly Habitat Management Plan



George Thomson
Parks and Open Space Manager
805-961-7578
gthomson@cityofgoleta.org





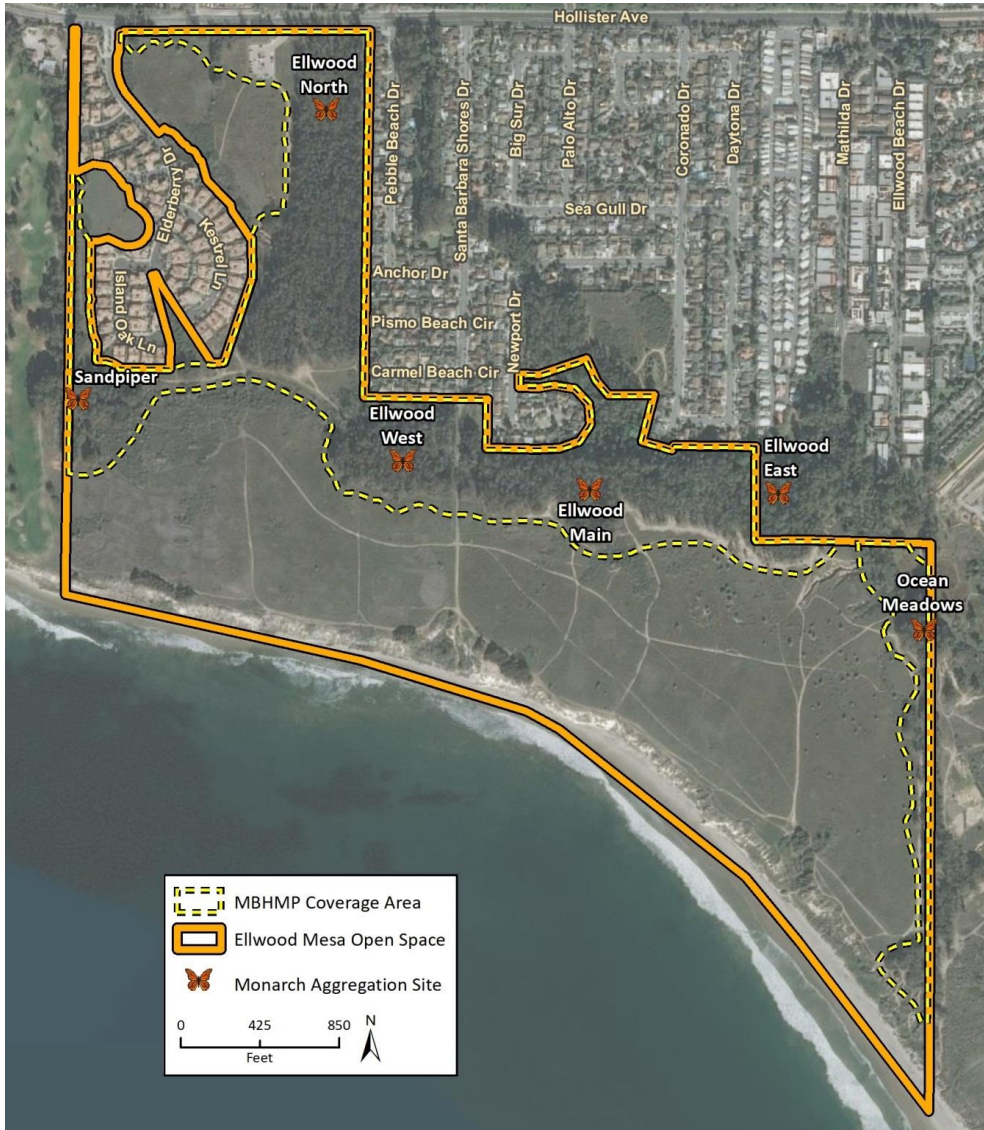
Monarch Migration

Spring & Fall

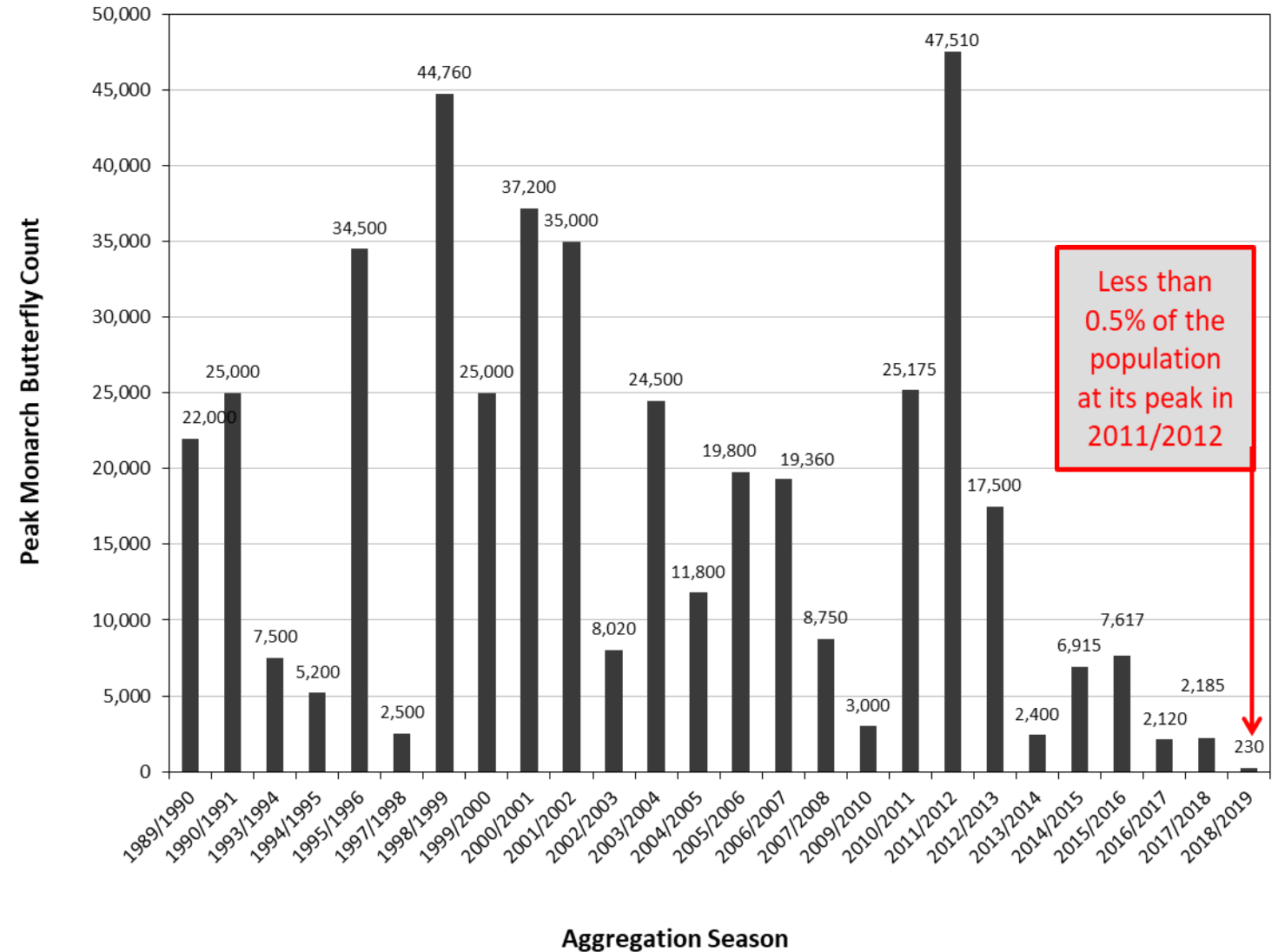
LEGEND

- Overwintering areas
- Spring breeding areas
- Spring & summer breeding areas
- Summer breeding areas
- No milkweed - no breeding area
- Nonmigratory population
- Fall migration
- Spring migration
- Unconfirmed migration
- Northern limit of milkweed
- ? Potential monarch breeding habitat

THE XERCES SOCIETY
FOR INVERTEBRATE CONSERVATION



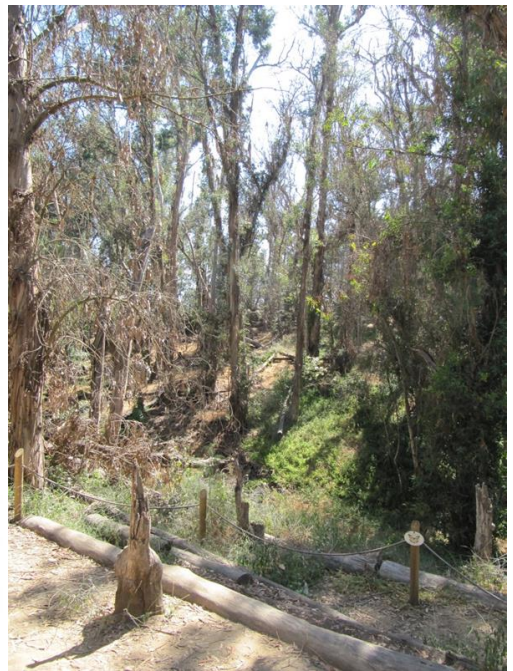
Ellwood Main Site Monarch Butterflies





Will the western monarch butterfly recover?









Ellwood Mesa Monarch Grove Issues

- Drought & Canopy Loss
- Unsafe Trails
- Increased Fire Risk
- Illegal Camping
- Littering & Vandalism
- Intermittent Stream Flow
- Low Diversity Annual Grasslands
- Low Diversity Woodland
- Complex Regulatory Permitting
- Incompatible Uses
- Regional Coordination
- Science-Based Approaches
- Emergency Maintenance
- Stakeholder Input
- City Council & State Oversight
- Long-term Funding




Monarch Butterfly Habitat Management Plan

- 1. Maintain and improve habitat conditions**
- 2. Ensure long-term viability of the monarch butterfly population**
- 3. Facilitate scientific study, educational opportunities, & recreational access**

*Final
Ellwood Mesa/Sperling Preserve Open Space
Monarch Butterfly Habitat Management Plan*

March 2019

Prepared by:



*Planning and Environmental Review Department
Public Works Department
130 Cremona, Suite B
Goleta, California 93117
(805) 961-7500*

Adopted by City Council on March 19, 2019 via Resolution No. 19-14

Where did the Habitat Management Plan come from?

- 2011 Public Workshop Project Kick-off
- 2012 Butterfly Docent Workshops, Plan Studies, Fire Plan
- 2013 Habitat Assessments, Workshops, Draft Plan Release
- 2014 Draft Plan Revisions and Further Studies
- 2017 Workshops, Tree Surveys, Plan Revisions, Emergency Tree Trimming
- 2018 Workshops, Council Site Visit, Stakeholder Meeting, PTAC, State Funding
- 2019 Plan Revisions, Environmental Review, City Council Plan Adoption, & Coastal Development Permit





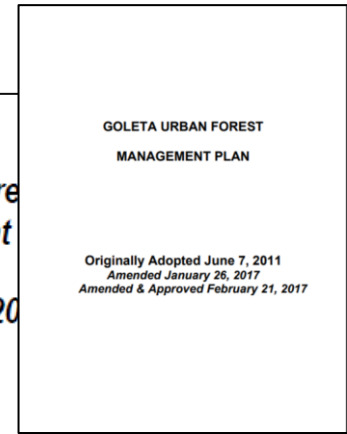
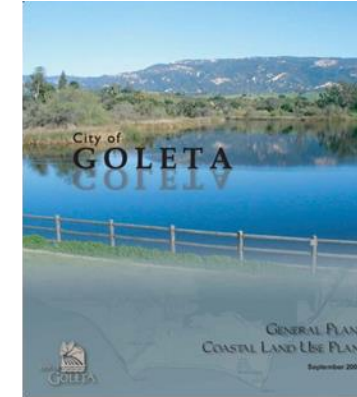
Monarch Butterfly Habitat Management Plan

Guiding Policies

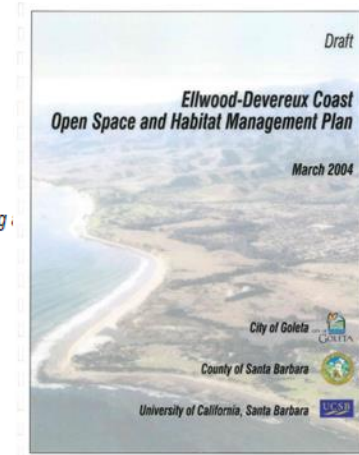
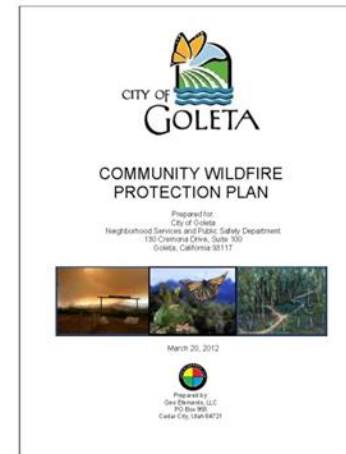
- Goleta General Plan/Coastal Land Use Plan
- Ellwood-Devereux Coast Open Space & Habitat Management Plan
- Community Wildfire Protection Plan
- Goleta Urban Forest Management Plan

Prescriptive Programs

- Administrative
- Natural Resource Management
- Outreach
- Monitoring, Research, & Adaptive Management



Final
Supplementing Pre-
Existing Butterfly Habitat
March 2012



...ing.
...ouncil on March 19, 2019 via Resolution No. 19-14

Administrative Programs

- Municipal Management Program
- Fiscal Program
- Interagency Cooperative Program
- Community Wildfire Protection Program
- Trail Management Program
- Waste Management Program
- Aesthetic Resources Management Program
- Management Plan Review, Update, and Amendment Program
- Catastrophic Event Response Program



Natural Resources Management Programs

- Monarch Butterfly Management Program
- Wildlife Habitat Management Program
- Tree Management Program
- Integrated Pest Management Program
- Habitat Enhancement and Restoration Program
- Invasive Plant Management Program
- Ecosystem-wide Management Coordination Program



Natural Resources Management Programs

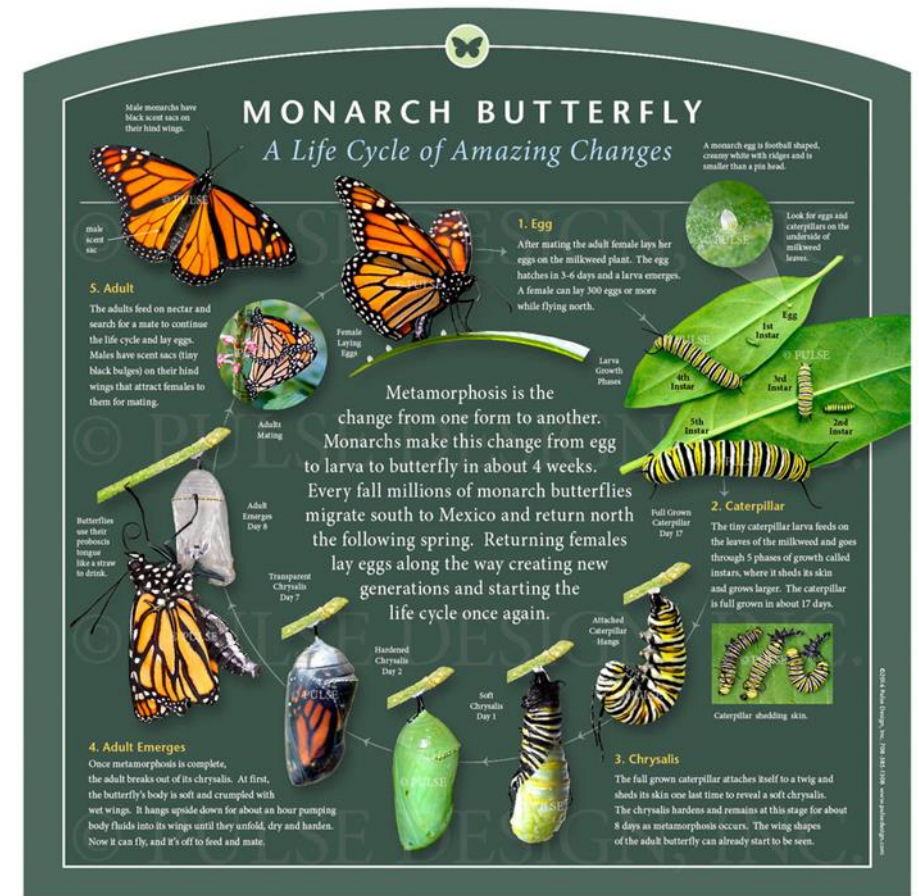
- Monarch Butterfly Management Program
- Wildlife Habitat Management Program
- Tree Management Program
- Integrated Pest Management Program
- Habitat Enhancement and Restoration Program
- Invasive Plant Management Program
- Ecosystem-wide Management Coordination Program





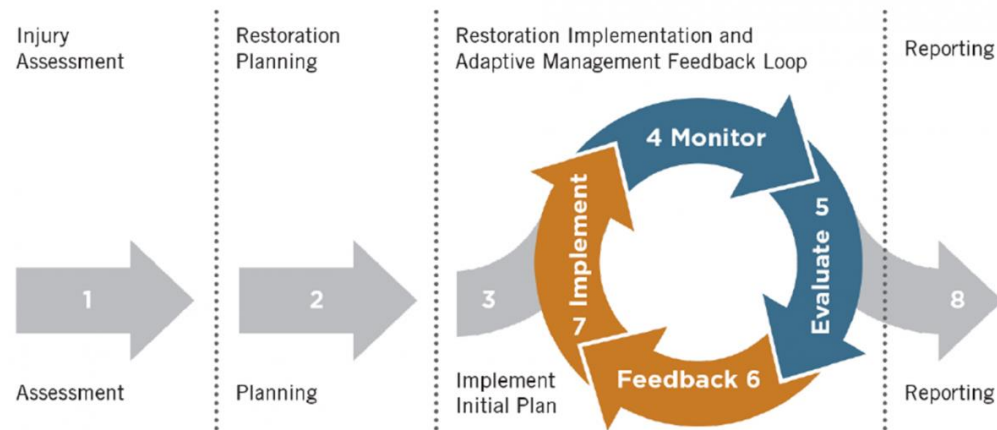
Outreach Programs


- Community Advisory and Docent Program
- Interpretive Program
- Education Program



Monitoring, Research, and Adaptive Management Programs

- Biological Monitoring Program
- Monarch Research Program
- Adaptive Management Program



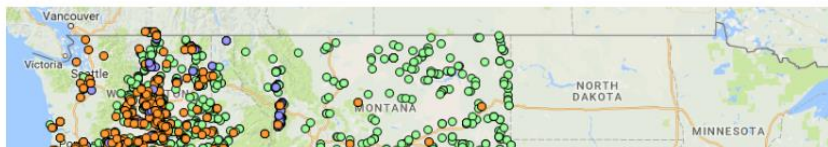
Help us track monarchs and milkweed across the west

Monarch populations across North America are in serious decline. To preserve and protect populations in western states, we need to better understand where monarchs and their milkweed host plants occur in the landscape.

Your help is critical in collecting data to better inform conservation efforts in the Western U.S.

[Learn More](#)

Check out sightings submitted in your area! [Explore now](#)





How to Submit a Sighting



Facebook: [@monarchmystery](#)
 Instagram: [@westernmonarchmystery](#)
 Twitter: [@wmonarchmystery](#)

Monarch Sighting

California
 2020-02-27
 Observed for 1 minutes
 by Michael Madariaga

Citizen Science



Ellwood Main Aggregation Site Winter 1998-1999

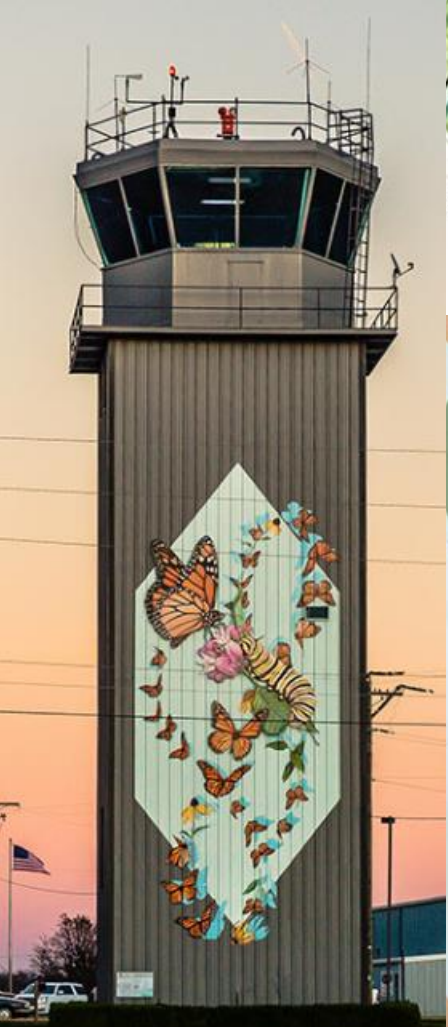
Do you also have photos to share?

Please send them to:
gthomson@cityofgoleta.org



MIGRATING MURAL

MONARCH BUTTERFLY
Danaus plexippus









What's next? When do we start work?

Emergency Tree Trimming

- 16 at Coronado Dr
- 3 at Newport Dr

Ellwood North

- Remove fallen debris
- Remove 65 down trees
- Remove 25 standing dead trees
- Plant 382 native plants
- Plant 63 eucalyptus





Coastal Development Permit Requirements

Special Condition #1 – submit final implementation plan for Coastal Commission approval. Clearly ID interim and final success criteria and performance standards.

Special Condition #2 – survey for sensitive wildlife and monitor project operations. Halt project activities if sensitive wildlife found.

Special Condition #3 – ensure proper disposal of solid debris and material unsuitable for placement into the environment.



Coastal Development Permit Requirements

Special Condition #4 – submit a Coastal Development Permit application for a comprehensive plan to manage and restore aggregation sites within Ellwood Mesa.

Special Condition #5 – submit a public access plan to ensure safe access to and around the project area during all project operations, and posting the site with expected dates of construction and/or temporary closures.

Special Condition #6 – submit a an informational/educational signage plan that describes the location, number, size, and contents of signs to be placed.



Project Logistics – Next Steps for Ellwood North

1. Hire landscape architect
2. Determine fallen eucalyptus debris removal & mowing program
3. Design and draw landscape plan for eucs and native nectar species
4. Design and draw irrigation system
5. Community outreach & input on the proposed plan
6. Submit Final Implementation Plan to Coastal Commission
7. Write contractor specifications & bidding package
8. Bid Project for Construction
9. City Council awards contract to implement work



Table 14 Prescription Guidance for Butterfly Aggregation Areas Adjacent to Structures

Location →	Primary Defense Zone (A) ^{***} (0 – 30')	Fuel Reduction Zone (B) ^{***} (30' – 100')
Fuel Type ↓	Based on Defensible Space PRC – 4291 and Firefighter Safety	
Grass/ Forbs	Reduce fuel depth to 4 inches; methods include mowing, masticating, weed-whacking, biological browsing	Same treatment as (A); longer grass in isolated open areas is acceptable.
Surface dead/down material	Clear dead/down flammable materials; methods include raking, hand-piling/removal, masticating chipping/dispersal on site	Reduce dead/down flammable material to < 3" depth; methods same as (A).
Brush/ Shrub fuel	Remove to a spacing (between edges of brush) generally 2x brush height on <20% slopes; methods include masticating or hand-cutting, biological browsing	Same Treatment as (A); a pocket or clump of brush can be treated as one large shrub in more open site conditions.
Trees Overstory without brush understory	<u>Trim or thin only trees that do not provide protection to monarch butterfly aggregation sites*</u> . Thin smaller or unhealthy trees at 10 – 20 ft crown spacing (as determined by slope, tree size and type); Leave larger trees unless toppling hazard.** Reduce ladder fuels by pruning lower branches 6-15 ft up, or lower 1/3 of tree height on trees smaller than 18 ft..	<u>Trim or thin only trees that do not provide protection to monarch butterfly aggregation sites*</u> . Thin smaller or unhealthy trees at approximately 10 ft crown spacing (as determined by slope, tree size and type);. Leave larger trees unless toppling hazard.** Reduce ladder fuels by pruning lower branches approximately 6 ft up, or lower 1/3 of tree height on trees smaller than 18 ft..
Trees Overstory with brush understory	<u>Trim or thin only vegetation that does not provide protection to monarch butterfly aggregation sites*</u> . Thin small or unhealthy trees at 10-20 ft crown spacing (based on slope, tree size and type). Leave larger trees at 10 ft. crown spacing unless toppling hazard.** (Reduce ladder fuels by pruning lower branches 6-15 ft up, or lower 1/3 of tree height on smaller trees. In understory: remove brush ladder fuel. Methods include masticating or hand-cutting.	<u>Trim or thin only vegetation that does not provide protection to monarch butterfly aggregation sites*</u> . Thin small or unhealthy trees to approximately 10 ft. crown spacing. Leave larger trees unless toppling hazard.** Reduce ladder fuels by pruning lower branches approximately 6 ft up, or lower 1/3 of tree height on smaller trees. In understory remove brush ladder fuel. In non-canopied areas, noncontinuous patches of shrubs or small trees in openings is acceptable.. Methods include masticating or hand-cutting.

*As determined by the Goleta City Project Manager overseeing mitigation work in consultation with a City approved monarch butterfly specialist and a City approved wildland fire specialist.

**As determined by the Goleta City Project Manager and Goleta City arborist.

***For further information specific to homeowner/structure mitigation measures see Section 6.2.1.



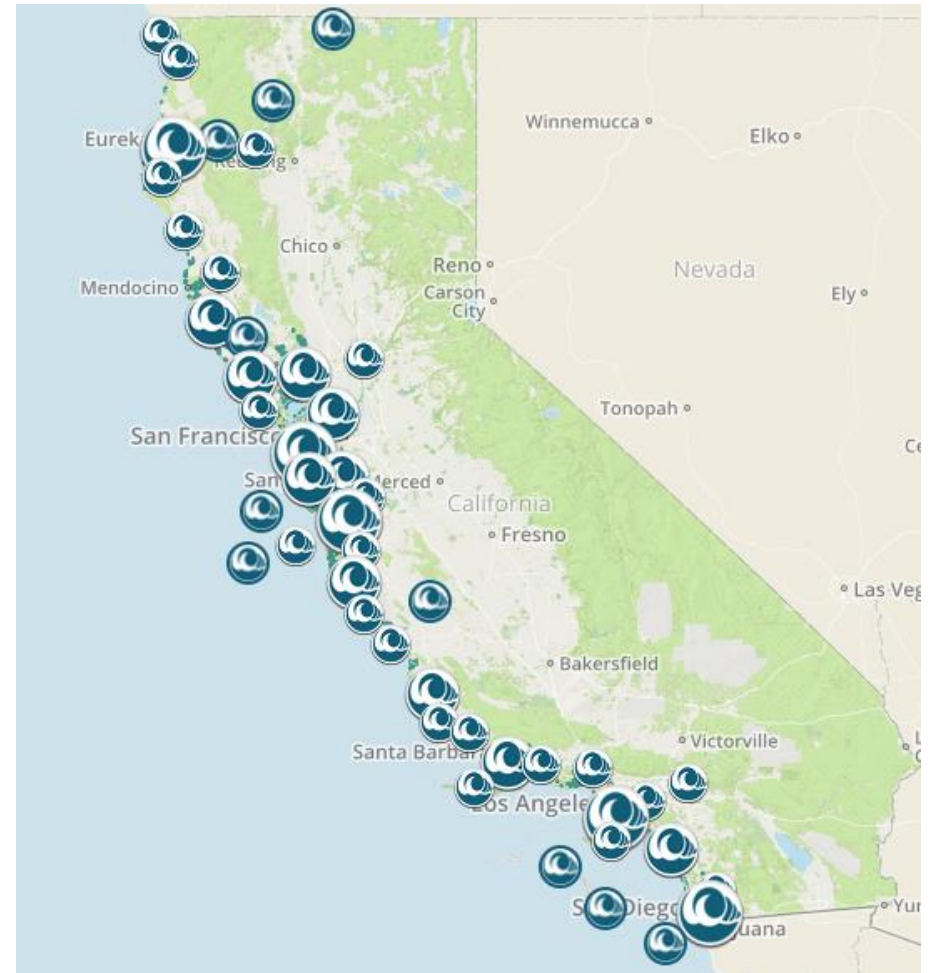
California Coastal Conservancy

- \$3.9 million grant for implementation of the butterfly management plan

South Coast Projects

Click on the links below to find out more about the Coastal Conservancy's work.

- ▶ [Malibu Coastal Access Public Works Plan](#)
- ▶ [LA Urban Greening interactive map](#)
- ▶ [Ormond Beach Wetlands Restoration Project](#)
- ▶ [Ballona Wetlands Restoration Project](#)
- ▶ [Mapping the Historical Wetlands of the Southern California Coast](#)
- ▶ [Santa Clara River Parkway](#)
- ▶ [South San Diego Bay Wetlands Restoration Project](#)
- ▶ [Southern California Wetlands Recovery Project](#)
- ▶ [Southern California Wetlands Recovery Project Regional Strategy 2018](#)





George Thomson
Parks and Open Space Manager

gthomson@cityofgoleta.org

805-961-7578

