Public Workshop: Monarch Butterfly Habitat Management Plan

CITY OF GOLETA

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Overall Purpose of the Management Plan

- Identifies actions to ensure long-term butterfly population viability
- Supports awareness of butterflies & habitat
- Focuses management actions on:
  - Preservation
  - Protection
  - Enhancement of habitat.

What does the Plan do?

- Examines historic patterns of Ellwood monarchs
- Examines recent monarch population trends
- Documents existing habitat conditions
- Provides habitat management actions that protect & promote monarch vitality

Why do we have this Plan?

… to protect and promote the vitality of monarch aggregation sites via active management.

… to enable science-based management decision-making.

… to promote awareness of this valuable resource.

Historic Patterns at Ellwood

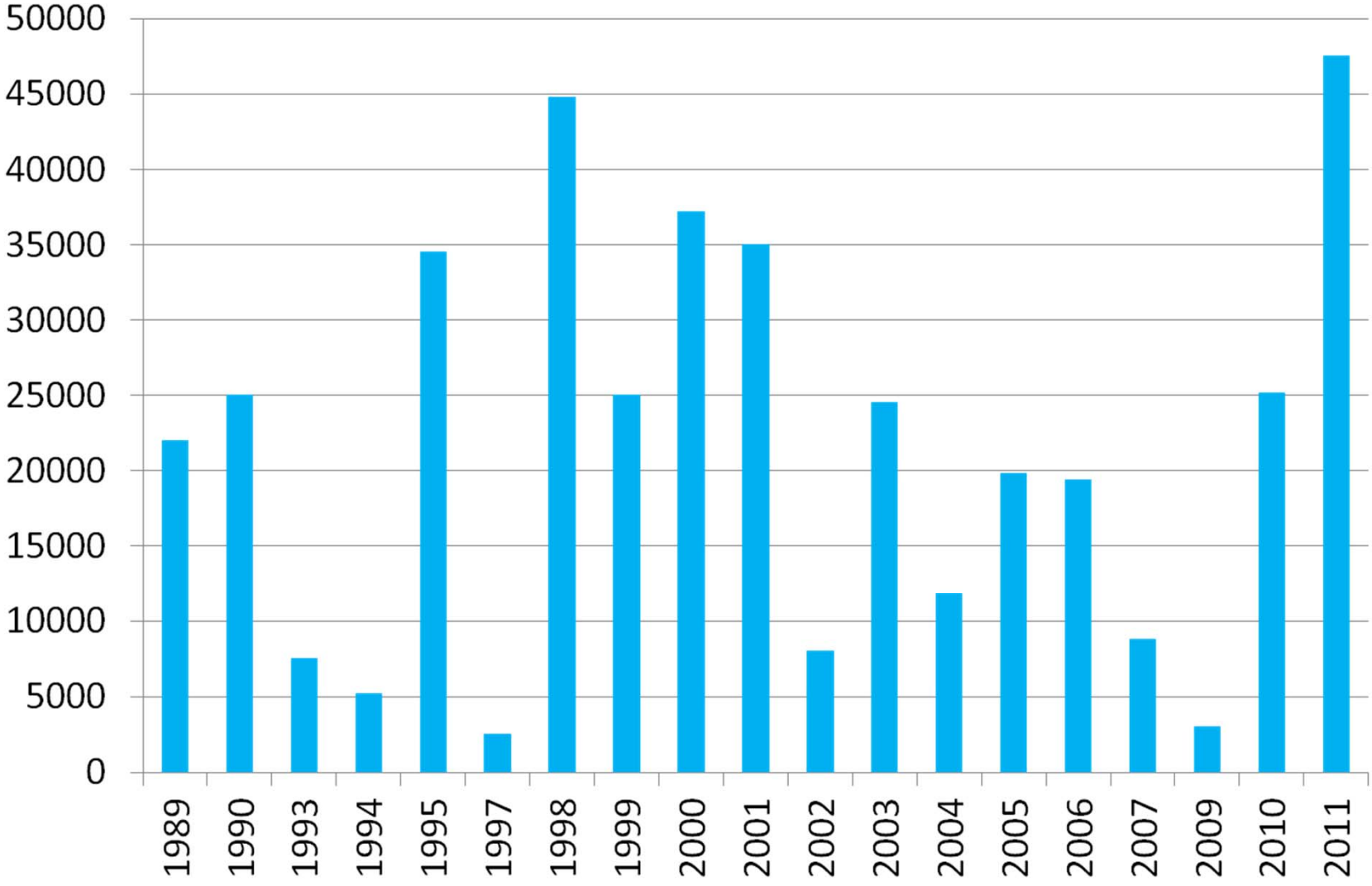
- Eucalyptus forests planted in late 1800s/early 1900s
- Monarchs likely used these forests to aggregate at that time; first records are from 1950s.
- Monarchs usually arrive at Ellwood in October to overwinter.
- There are 8 historic aggregation sites around Ellwood Mesa – Sperling Preserve Open Space.

The Grove
Business Park
Ellwood North
Sandpiper
Ellwood West
Ellwood Main
Ellwood East
Ocean Meadows
N
W
E
S
0
0.125
0.25
0.5
Miles

Current Patterns at Ellwood

- Monarchs are found at 4 sites in the recent years.
- Decline at other sites is attributed to:
  - Changes in site tree & understory configuration
  - Low abundance of monarch population
  - Other unfavorable conditions (i.e. invasive vines, debris, etc.)
- Large number of monarchs at Ellwood in 2011
  - Goleta Butterfly Grove (Ellwood Main) continues to harbor the most monarch

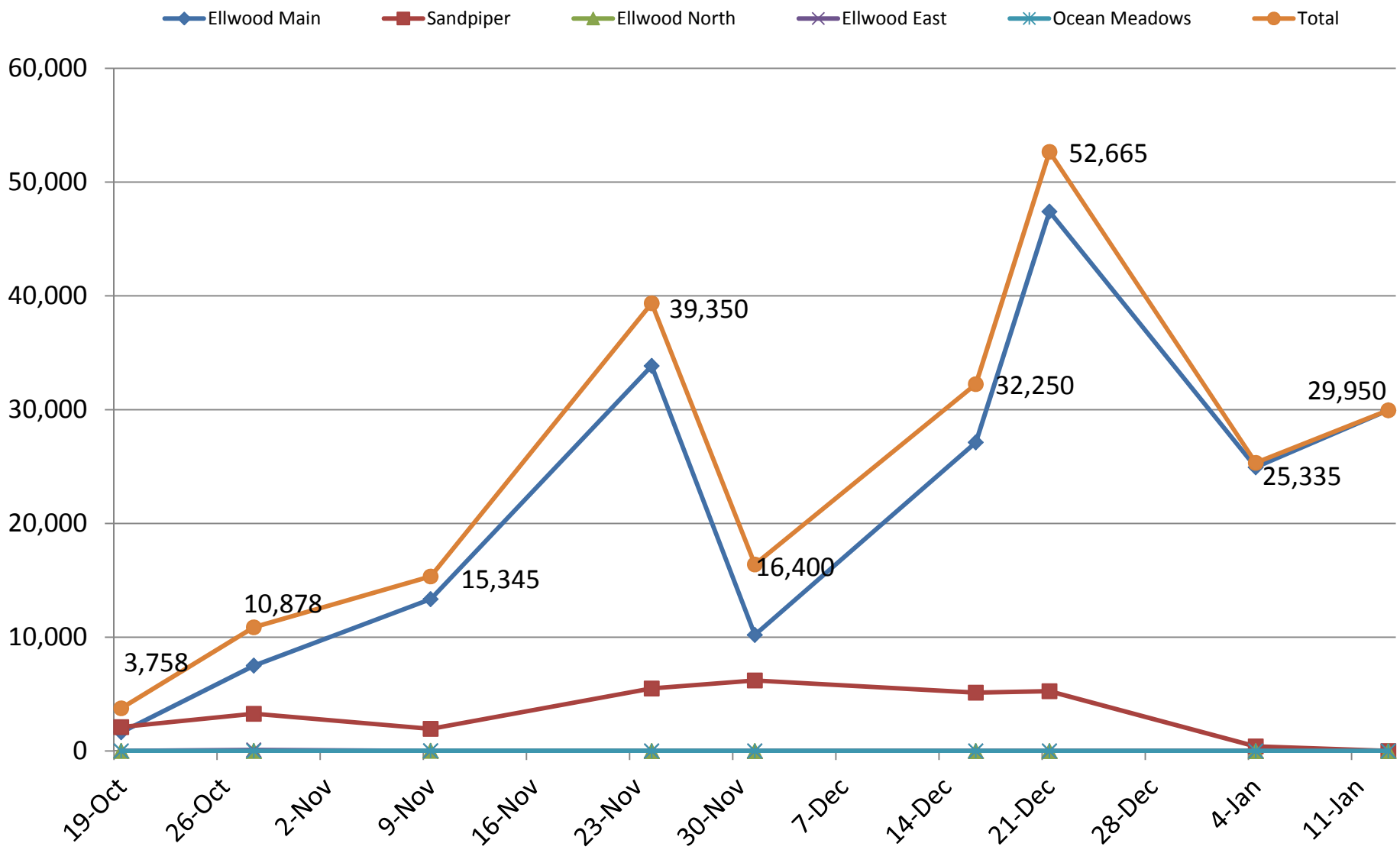
Ellwood Main Historic Patterns



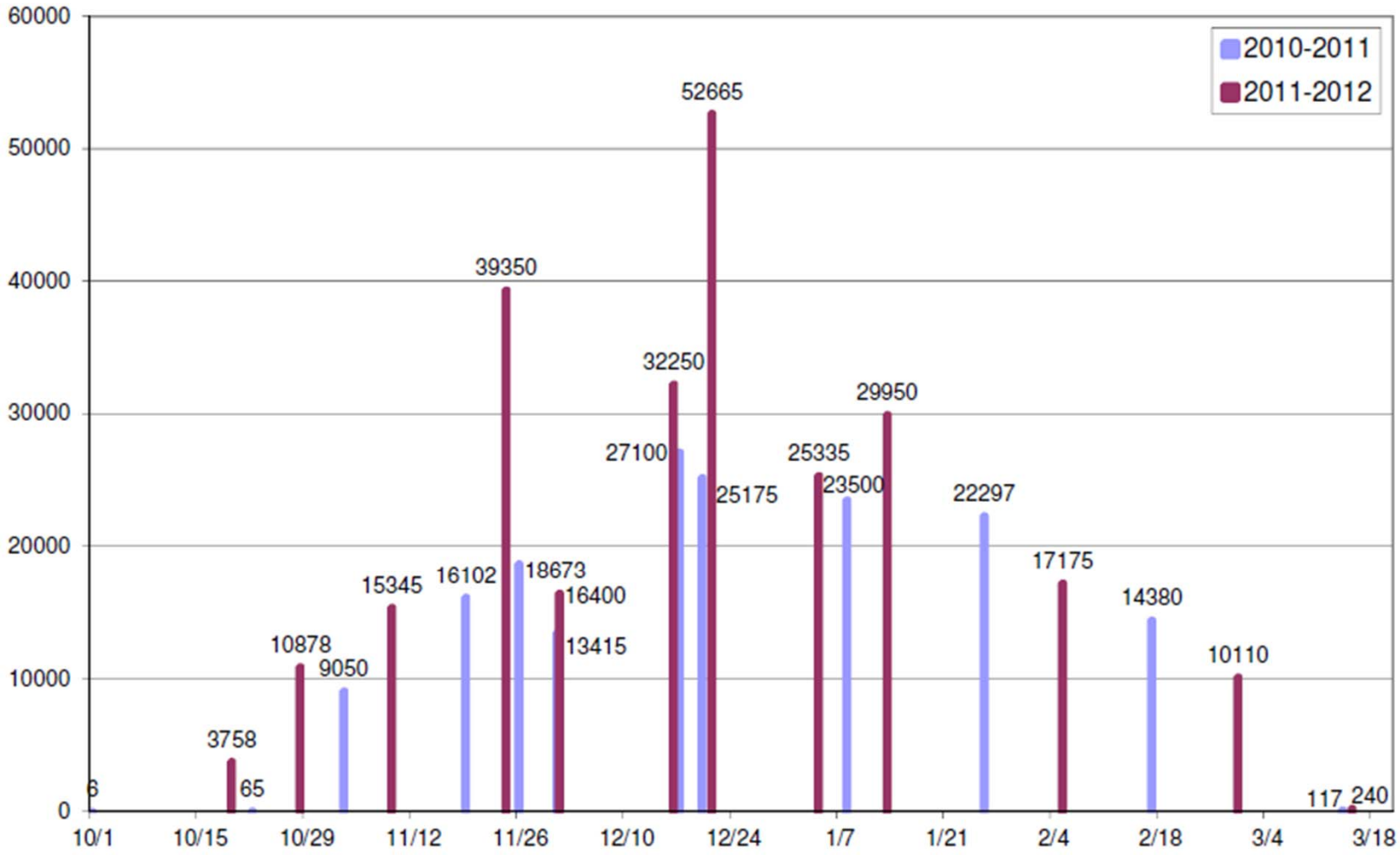
Note: In the 1970's-'80's, there are accounts of approx. 250,000 monarchs.

Active Sites - Location Map

Ellwood Complex Population 2011-2012



Ellwood Sites - Recent Patterns



Habitat Assessment

- Information Gathering

Habitat Assessment

- Identify Management Issues

Vegetation Visitors

Habitat Assessment

<u>Eucalyptus Forests & Existing Vegetation</u>

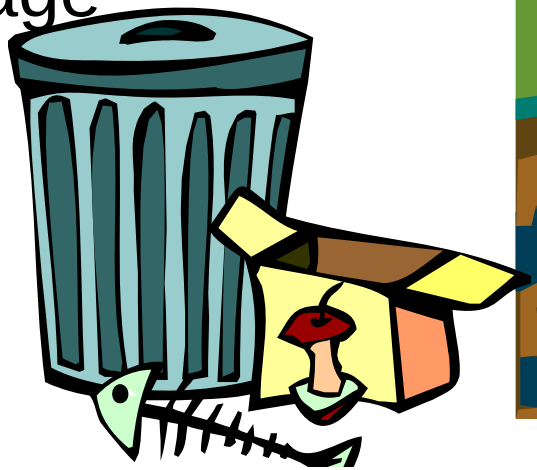
- Understory vegetation
- Debris
- Invasive plants
- Nectar source plants
- Hazard trees, windfall, toppling
- Pests
- Tree Health Rank

Habitat Assessment – Issues Summary

- Invasive vines & shrubs
- Pests & insects
- Litter & trash
- Off trail activity
- Hazard trees, branches

Visitor Impact Assessment

- Soil loss & erosion
- Multiple trails
- Exposed roots & excessive slopes
- Vegetation loss
- Fallen trees & branches
- Rope barrier damage
- Rubbish/debris



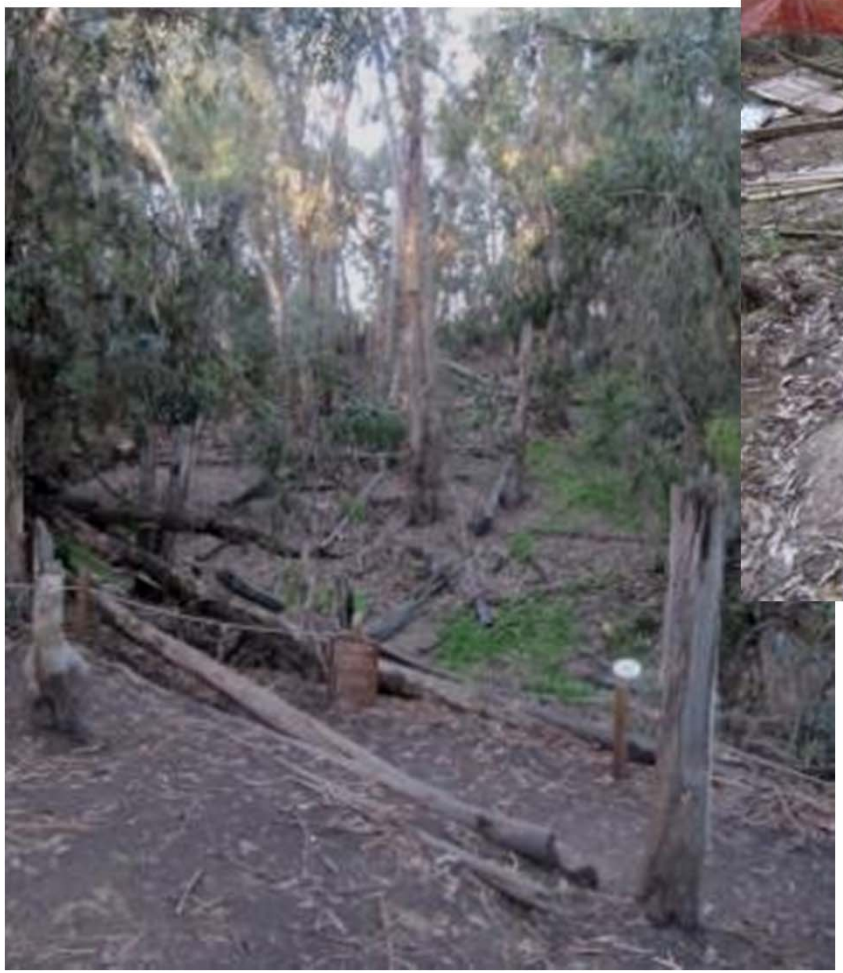
Visitor Impact Assessment
Soil Loss & Erosion

Visitor Impact Assessment
Multiple Treads, Excessive Width

Visitor Impact Assessment
Roots Exposed, Excessive Slopes

Visitor Impact Assessment
Vegetation Loss, Fallen Trees & Branches

Visitor Impact Assessment
Rope Barrier Damage, Rubbish



Visitor Impact Assessment

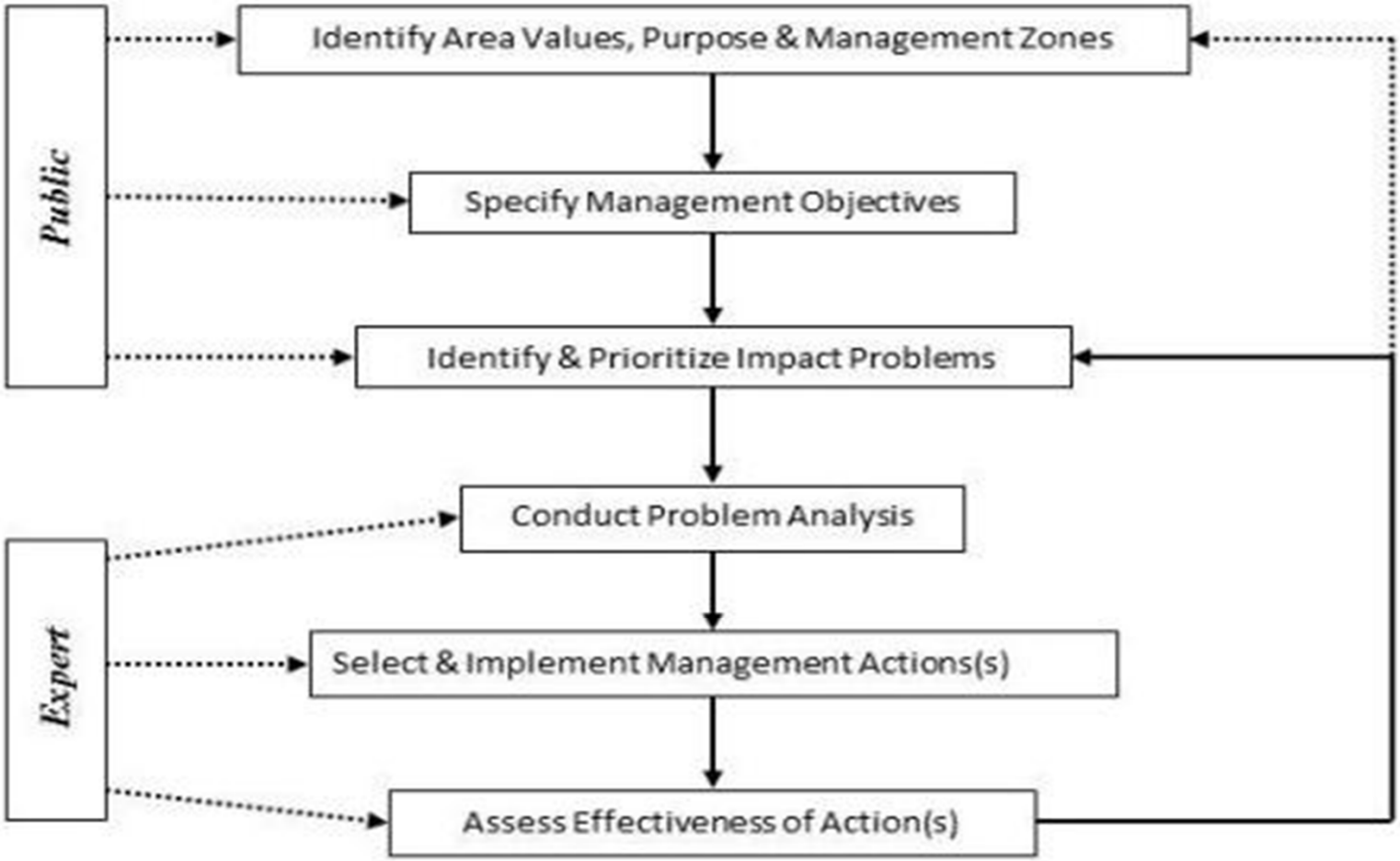
- The Draft Plan includes a recommendation to evaluate user impacts via a “Visitor Impact Assessment”.

- The “Visitor Impact Assessment” would assist in the evaluation of management action effectiveness & support contingency planning.

How do we assess visitor impacts?

- Protected Area Visitor Impact Management (PAVIM) Framework is proposed tool.
- PAVIM is for analysis & management of user impacts in natural areas.
- Can be utilized to track predefined problems.
- Provides a simple method of tracking visitor impacts that allows comparison across the aggregation season & from year to year.

The PAVIM Framework



DRAFT Visitor Impact Assessment Form

	Occurrences	Distance	
Indicator	**No.**	**ft**	**ft/mi**
Soil loss			
Excessive slope >20%			
Multiple treads			
Excessive width			
Vegetation loss			
Drainage features Ineffective Intermediate Effective			
Erosion, head cuts			
Roots exposed			
Fallen trees or branches on trail			
Rope barrier damage			
Rubbish			

Recommended Action Items

- The Management Plan defines actions by:
  - **Critical Action**
    - Must be accomplished at a prescribed time
  - **Necessary Action**
    - Should be accomplished in a timely manner
  - **Routine Action**
    - Ongoing tasks, not time critical

Examples of Critical Actions

- Butterfly Counts during November & January
- Annual Work Plan
  - Tree & ivy maintenance (April thru September, annually)
- Annual Report
  - Documents all implemented actions annually
- Annual Site Visit by arborist/biologist to identify & map downed trees, branches that are negatively impacting grove (e.g. infestations, leaning trees affecting important roosting trees, etc.)
- Trim/Remove hazards, etc. per Annual Site Visit
- Community Meetings

Examples of Necessary Actions

- Remove invasive plant species, such as vines.
  - Removal must occur between April 1 & October 1
- Replace invasive plants w/native butterfly plants.
- Include any new invasive weed locations found during annual site inspections on map of findings in Annual Work Plan.
- Investigate potential enhancement to monarch butterfly patrolling habitat by reduction of tree tangles and fallen debris.

Example of poor tree habitat

Examples of Routine Actions

- Encourage scientific research that helps to inform management of the Ellwood habitats.
- Engage the public in butterfly tree & shrub planting & site maintenance activities.
- Participate in sanctioned biological pest control programs.
- Encourage the reporting of issues related to visitor impacts.

Summary of Previous Public Comment

Feb 2011 Workshop

- Butterfly Habitat Issues:
  - Pests
  - Ivy
  - Hazard trees, branches
  - Fuel management

- Ensure fuel management & butterfly habitat management don't conflict.

- Lots of concern about fire risk from Ellwood Mesa eucalyptus trees .

Summary of Previous Public Comment

November 2012 Goleta Butterfly Docent Meeting

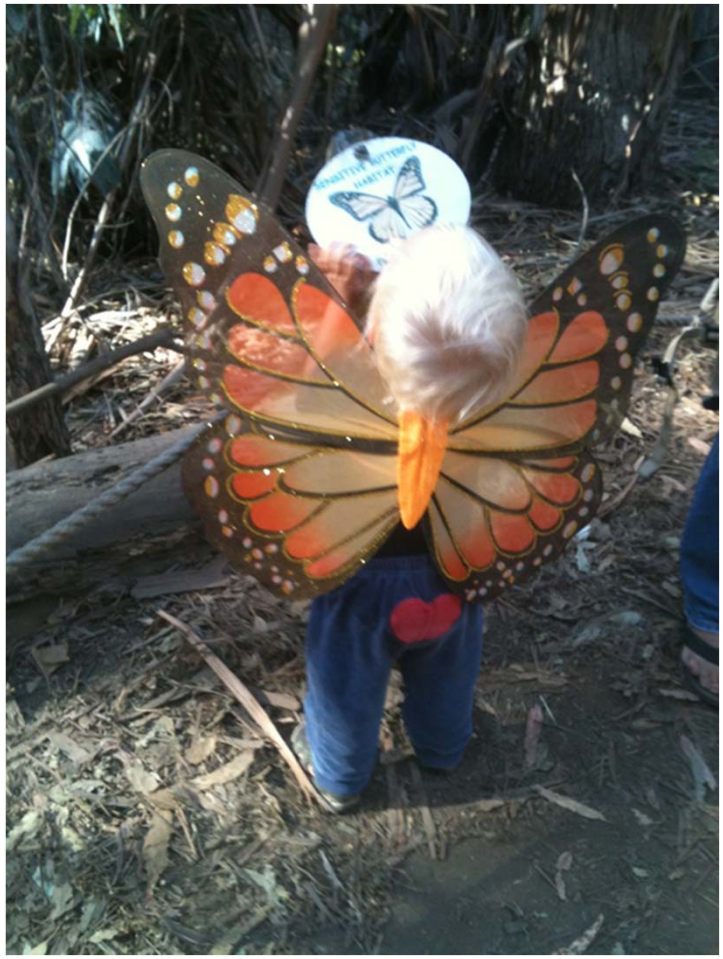
- Permitting issues need to be clarified in Plan.
  - Role of Coastal Commission
- Consider "stay out" signs in sensitive areas.
- Consider manual removal for all invasive understory plants.
- Find an expedited method to address immediate public safety hazards as they occur (i.e. fallen branches, trees, etc.).

Next Steps

- Present Plan to City Council
- Further internal review of the DRAFT Plan by City Staff & Consultants after Council meeting.
- Environmental review.
- Permitting by City Council, Coastal Commission & other agencies, as needed.

… Implementation.

Thanks for coming!



Any questions or comments?