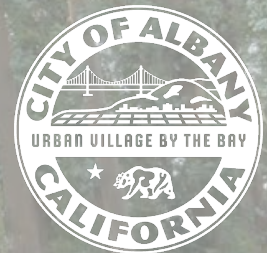


Albany Hill Forest Management & Habitat Restoration Plan

Parks, Recreation, and Open Space Commission Meeting

March 14, 2024

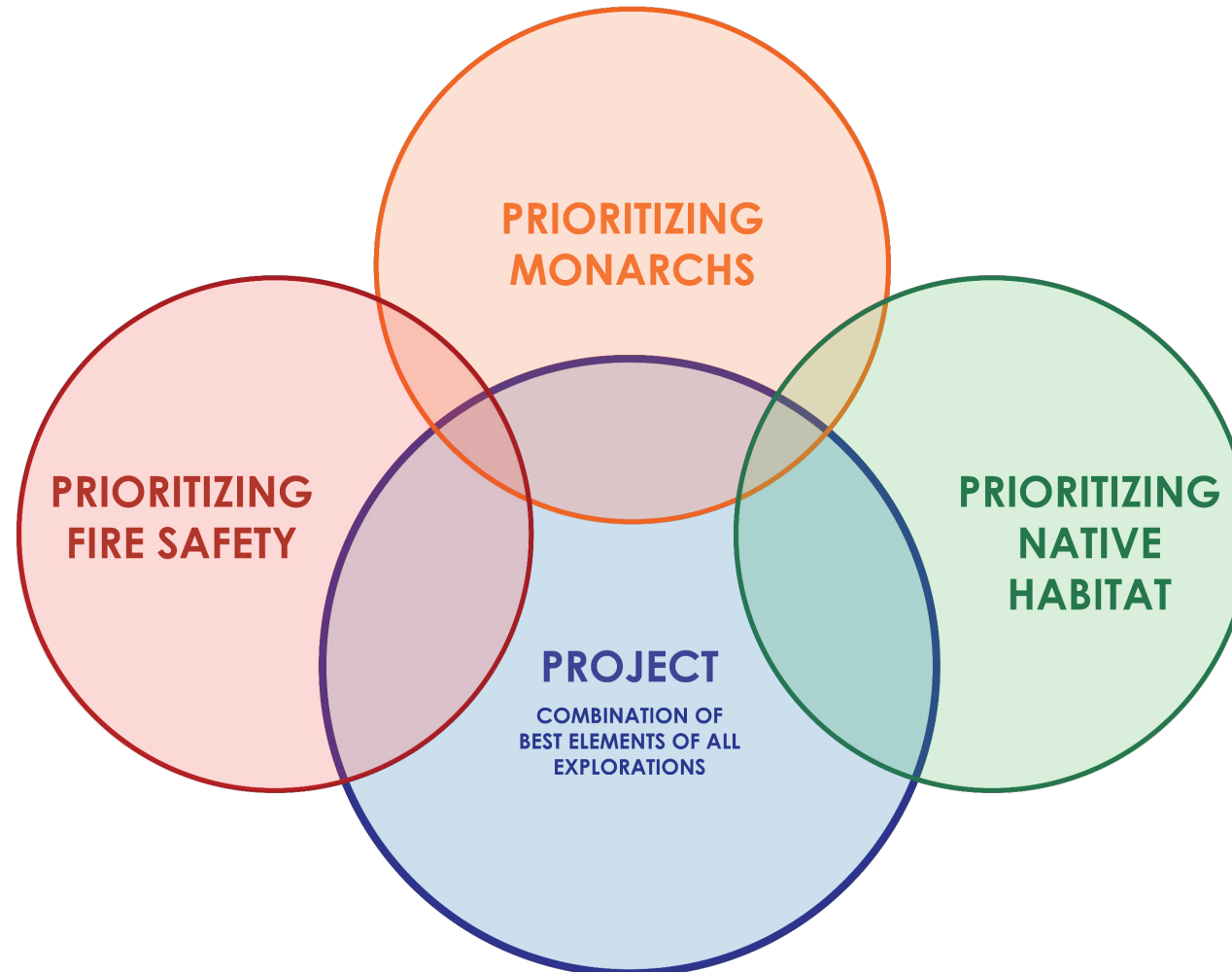


Session Goals

1. Provide an overview on project progress
2. Present Priority Explorations
3. Solicit input on Priority Explorations
4. Q & A time with consultant team



Concept Exploration Phase Diagram



FIRE PRIORITY EXPLORATION AREAS





Prioritizing Fire Safety Needs

Description of Approach

This concept exploration prioritizes the fire safety recommendations and criteria above the other project criteria to examine the opportunities and strategies which will best advance those objectives. The exploration is a design exercise to facilitate the discovery of options, strategies, and elements we might not have considered if starting from a place of compromise. In the next phase of design, the team will overlay the three explorations to create a preferred Forest Management Plan

1. Fire Department Priorities

- Good access to the Hill for Fire Department equipment and personnel
- Disconnected canopy and understory—interrupt fire ladders
- An aesthetic, enjoyable park—create a model for fire safe AND beautiful public spaces
- Remove all eucalyptus and replace with more appropriate canopy species

2. Tree Removal Extents

Priority Tree Removals

Encourage Eucalyptus removals prior to onset of project (reduce ember and home damage risk)

Phase 1 Area

Create fire break between fuel ladders on private property and City Property, remove all eucalyptus within Phase 1- general removal techniques, less careful.

- Eucalyptus chipped for mulch, larger sized, 6-8" depth
- Removals ideally happen as soon as ground is dry enough in spring to prevent erosion and allow equipment access, but before the end of June (before fire season)
- Limbing and pruning trees in Phase 3 area

Phase 2 Area

- Eucalyptus removals - selective removal techniques to protect existing oaks
- More defined drag routes

Phase 3 Area

- Eucalyptus removals as trees fail on hill summit; leave landscape largely open
- Eucalyptus mulch to control invasive grasses;
- no mulch on fire road

3. Habitat Preservation and Enhancement Approach

Phase 1

- Retain existing oaks where possible – priority is on creating a fire break.
- The re-use of Eucalyptus as chip will help stabilize the soil, prevent erosion, and discourage invasive plants.
- Native woody species like Toyon will be able to push through the denser mulch layer

Phase 2

- New oak planting at defensible spacing for slopes, based on location
- Native understory (existing and new) at defensible spacing

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Phase 3

- Eucalyptus mulch to control invasive grasses, allow existing natives to remain

4. Discussion

Pros

- Addresses priority removals for adjacent homeowners
- Reduces fire risk for all of Albany, not just adjacent properties
- Reduces liability for City by retaining no eucalyptus
- Will be a model for how defensible space can look and feel: an enjoyable, beautiful public park adjacent to neighborhoods
- Provides for shaded Oak woodlands (shaded fire breaks)

Cons

- Monarch habitat will shift to private property (reduces visible public access)
- Understory extents driven by fuel models, not habitat opportunities

Cost

Least expensive exploration \$

- General removals only
- No active restoration
- Replacement trees = oaks



NATIVE HABITAT PRIORITY EXPLORATION AREAS





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Prioritizing Native Habitat

Description of Approach

This concept exploration prioritizes the active restoration of California native habitats above the other project criteria to examine the opportunities and strategies which will best advance those objectives. The exploration is a design exercise to facilitate the discovery of options, strategies, and elements we might not have considered if starting from a place of compromise. It includes a range of restoration strategies specific to each habitat area goal.

1. Priorities for Native Habitat Enhancement

- Maximize the unique potential of Albany Hill's topography, geology, and location to provide a mosaic of native habitats in the midst of the urban East Bay
- Remove and reduce invasive species
- Prevent ground disturbance and erosion
- Provide ample botanical resources for cultural and educational use
- Protect and amplify the native plants already present on Albany Hill
- Foster multi-species benefits whenever possible

2. Tree Removal Extents

Sensitive Eucalyptus Removal

- Delineate and protect existing natives and oak saplings
- Define eucalyptus removal 'drag' or exit routes to minimize loss of natives and soil disturbance
- Utilize Eucalyptus chips between patches of protected natives

General Eucalyptus Removal

- In areas with little native understory, there is less need for careful removals
- General removal areas are good locations for spreading Eucalyptus chips fairly deeply. Toyons and other woodland species will be able to push through a deeper mulch profile. This will vary in the Open Oak Grassland area.

3. Habitat Preservation and Enhancement Approach

Oak Woodland with Grassland Understory

This area has the potential to support scattered Oaks and an understory of native coastal grasslands. There are existing understory shrubs and native grasses already present that could expand their territory with Eucalyptus removal.

Open Oak Woodland with Shrub Understory

These areas have Oak understory present among the Eucalyptus, some toyon, poison oak, and other natives that make a great starting point to develop a healthy Oak Woodland with mixed shrubs.

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Native Grasslands

These areas have tremendous potential for restoration to a native grassland. Retain existing natives as much as possible, and plant patches of new native species to inoculate the site. Focus on invasive plant suppression between the new native planting areas.

Snags for Wildlife

Three existing dead trees have been identified as suitable for wildlife use. The project team can identify unhealthy trees that are unlikely to resprout (in order to minimize herbicide use) to be left as wildlife snags during tree removals. These can be cut and left to decay in place to provide habitat distributed around the site.

- Abundant native plants are present for seed collection and native plant enhancement throughout Albany Hill – collect seed this spring and summer
- Pre-removal survey and protection measures for existing stands of natives
- Selective and Basic Eucalyptus removals phased at different times
- Prioritize minimizing ground disturbance
- Utilize eucalyptus mulch extensively for invasive weed control and soil stabilization
- Reuse Eucalyptus logs to create planting opportunities

4. Discussion

Pros

- Creates a complex CA native habitat mosaic on a unique landform near the Bay
- Provides for multi-species benefits
- Creates resources for future restoration efforts on adjacent parcels
- Maximizes opportunities for cultural use (tribal, educational, and research opportunities)
- Maximizes opportunities for community and tribal participation

Cons

- Monarch cluster locations will shift to private lands (low public visibility)
- More complex maintenance tasks
- More intensive efforts for native understory protection during eucalyptus treatment, and more requirements for removal contractor

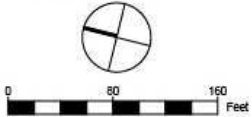
Cost

Most Expensive exploration \$\$\$

- Pre-removal native plant identification and protection
- Plant amplification / seed collecting / contract growing
- Active restoration (planting, nurse logs, snag creation)



MONARCH EXPLORATION AREAS





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Prioritizing Monarch Needs

Description of Approach

This concept promotes the needs of the Monarch population above the other project criteria to examine the most advantageous management choices for the Monarchs continued use of Albany Hill. The plan assumes that maintaining relic groves of eucalyptus on the ridge and the more sheltered groves downslope needs to be continued in perpetuity despite fire risk. As the existing groves are in decline, incorporating the replacement of existing eucalyptus with alternate species is included as part of the long term management plan.

1. Priorities for Monarchs

- Protect current clustering sites, and plant replacement trees now to insure for continued structural support on Albany Hill
- Protect current windbreak trees, and plant additional and replacement trees to continue to provide protection for clustering sites
- Protect existing and plant additional nectar sources for Monarchs in proximity of clustering sites on Hill.

2. Tree Removal Extents (see diagrams)

No Impacts to Monarchs Zone

All Eucalyptus can be removed from these zones – they are not utilized by or beneficial to monarchs.

Monarch Support Areas

Remove existing *Eucalyptus globulus* trees

Existing Monarch Use Areas

Retain existing eucalyptus in these areas

3. Habitat Preservation and Enhancement Approach

Existing Monarch Use Areas

- Retain existing eucalyptus in these areas for clustering and to provide wind protection
- Plant replacement Eucalyptus now (more appropriate species) in anticipation of failure of existing
- Plant groundcover nectar sources in open areas

Monarch Support Areas

- Plant new windbreak trees and shrubs at old cross opening
- Plan new ground plane nectar sources
- Plant *Eucalyptus diversicolor* or other alternative replacement trees
- Replacement trees need to have:
 - a better fire profile (reduce ground fuels and ladders created)
 - Drought tolerant
 - adapted to a rocky, coastal soil profile
 - Provide the morphology needed for Monarch use (leaf shape and general structure)
 - Less invasive – don't plant a future problem!

- (*Eucalyptus diversicolor* has been planted successfully at Pismo Beach North Campground)

4. Discussion

Pros

- Maintains current use patterns by Monarchs
- Albany Hill remains a special area for public viewing of monarch overwintering
- Doesn't prevent the removal of failing *E. globulus* in many areas

Cons

- Eucalyptus stands remain in high-fire spread risk areas
- *E. globulus* stands that are retained may continue to expand and invade City Property if not actively curtailed and controlled
- Introduction of new exotic species
- Risk of limb fall and other liability issues still in play over public access areas.
- Does not provide a fire break between privately owned *E. globulus* stands and those retained on City property

Cost

Blended/Mid-Level Costs \$\$

- Includes General and selective removal strategies
- Fewer removals than other explorations
- New planting costs (nectar sources and replacement trees)