What should a management plan for the El Cerrito Hillside Natural Area include?

Keeping a fire-resistant, vibrant, enjoyable Hillside Natural Area will need a long-term plan. This outline is based on Friends of Five Creeks' 15+ years of controlling invasives and observing the area's rapid changes due to climate and human activity.

A plan should be "living," specifying required review and allowing easy revision and addition, recognizing that the area is always changing and that we have much to learn.

Citizen and neighborhood stewardship should be integral and encouraged with specific city actions. Volunteers have made the following important contributions: removing invasives; maintaining trails; mapping, inspecting, and reporting (including fun citizen science); flagging plants to be protected; carrying out simple passive restoration such as collecting and spreading seed; originating and carrying out creative ideas; educating the public; and obtaining small grants for low-cost but important projects. The creativity, effectiveness, and value of this stewardship is visible throughout the area.

Keeping the existing diversity of plants and animals should be a main goal. Protecting species and allowing them to propagate is generally easier and cheaper than "restoration." A thriving forest needs snags and rotting logs; a varied understory including shrubs, vines, ferns, and mosses; and soil structure and life, including hidden animals and fungi. These depend on each other in complex ways.

Both "listed" rare species and species that are rare within the Hillside Natural Area should be treasured. In these 100 acres surrounded by city, loss of a species often is permanent. Pocket refuges, such as trail and road cuts where natives often survive, should be protected. Spread should be encouraged.

Grasslands and wildflowers should be recognized as lessening danger from wildfire, basic to our region's nature, and beautiful and enjoyable. They should be mapped accurately, to avoid fire risk from forgotten areas. Mowing should have written schedules and guidelines for height and timing to allow plants to survive and spread seeds. Expanding grasslands to reduce fire danger should be considered.

Existing fire-prone and otherwise undesirable invasives should be listed, along with how to control them, with details developed over time. Mapping and inspection should be required, along with reports of new invasives. **Sudden Oak Death and other** *Phytophthora* **species** should be approached with a list of possible measures to be tried and adapted as conditions change.

What is done with cut or mowed vegetation should be thoughtfully and explicitly considered case by case. There will be trade-offs among costs, effects on carbon emissions or storage, spread of pathogens, and uses that could benefit or harm habitat.

Ongoing follow-up should be required, because one-time efforts often fail or have unintended consequences. For example, French broom seeds can sprout for at least 20 years. Removing trees, or mowing too close to the ground, opens space for undesirable, often fire-prone pioneers. Many trees resprout from roots, often after several years. Vegetation removal should include protecting existing desirable understory, realistic encouragement of desirable fill-in, and several years of inspection and measures such as additional tarping or weed-whacking resprouts.

From California's Wildfire and Forestry Resilience Action Plan

(https://wildfiretaskforce.org/action-plan/), 2021, p. 13:

Healthy forests include woodlands, grasslands, chaparral, shrublands, and related vegetation types.

Rare plants and species diversity must be protected when "clearing" forest floors.

Grasslands and woodlands are "homes of super blooms" that can "look weedy and bare or much of the year." They are "prone to fast-moving fires" and "fires increased in severity due to presence of invasive species."

From the California Coastal Conservancy's description of their \$145,000 grant for the for the Hillside Natural Area Wildfire Planning Project:

The City of El Cerrito's Wildfire Planning Project will develop a comprehensive Fire Resilience and Forest Conservation Management Plan for the El Cerrito Hillside Natural Area (HNA). The Management Plan will identify critical resource areas and provide guidance for the City's fire fuel reduction, native forest conservation, and maintenance activities within the El Cerrito HNA.

Partial list of plants known from only or one or two places in the Hillside Natural Area. This list was developed a decade ago. Several probably are gone, others probably should be added.

Big squirrel tail grass, *Elymus multisetus* Blue witch, *Solanum umbelliferum* California goldenrod, *Solidago velutina* California sheep-burr, *Acaena pinnatifida var. Californica* Coffee fern, *Pellaea andromedifolia* Coyote mint, *Monardella villosa* Deerweed, *Acmispon glaber* Giant vetch, *Vicia gigantea* Ground rose, *Rosa spithamea* Johnny jump-up, *Viola pedunculata* Oakland star tulip, *Calochortus umbellatus* Star-flowered Solomon's seal, *Maianthemium stellatum* Summer coral root, *Corallorhiza maculata* Sun cup, *Taraxia ovata* Yampah, *Perideridia kelloggii*