

Regional Open Space



MIDPENINSULA REGIONAL OPEN SPACE DISTRICT

R-08-138
Meeting 08-27
December 4, 2008

AGENDA ITEM 1

AGENDA ITEM

Study Session to review Draft Wildland Fire Management Policy

GENERAL MANAGER'S RECOMMENDATION

Review, discuss and comment on the attached Draft Wildland Fire Management Policy.

DISCUSSION

Background

The Board of Directors prioritized the development of new or updated resource management policies during a workshop held on October 25, 2004. Policy topics included Fisheries, Water Quality, Pond Management, Grazing, Forest Diseases, Invasive Species, Ecological Succession, Habitat Connectivity, Cultural Resources, Forest Management, and Wildland Fire Management. The Draft Wildland Fire Management Policy (Attachment A) will address the management of District lands consistent with existing policies and the Coastside Service Plan.

The District held a workshop on November 6, 2007 to promote a dialog between the Board, staff, fire management professionals, and the public during the early preparation stages of the Wildland Fire Management Policy. To help provide background and context for the Board to formulate policy considerations, staff convened a panel of experts including various agency and consulting professionals who have considerable experience in the subject of wildland fire management. The panelists included CalFire Battalion Chief Darrell Wolf, California State Parks Ecologist Chris Spohrer, Principal of Wildland Resource Management, Inc Carol Rice, and Midpeninsula Regional Open Space District Operations Manager David Sanguinetti. The workshop provided an open and convenient opportunity for public comment since public perception, neighbor relations, and community-wide efforts are important considerations for the District.

The resulting Wildland Fire Management Policy reflects input from all of these sources, addressing the major themes identified and clarifying the District's role in providing public safety and managing the natural environment.

Wildland Fire Management Policy

The District makes an important contribution to wildland fire management in the San Francisco Bay Region both in fire hazard mitigation and in suppression. The District's primary role in wildland fire management embraces three main areas:

- managing vegetation to reduce the severity of wildland fire and the resultant damage to resource values and risk to public safety;
- maintaining infrastructure such as roads, gates, water tanks, and landing zones for emergency equipment and personnel;
- training staff to respond to wildland emergencies and coordinating training and response with regional and local fire agencies.

In our area, fire suppression is provided primarily through the California Department of Forestry and Fire Protection (CalFire). This state agency possesses the staffing, training, experience, and equipment necessary to suppress wildland fire where it occurs. CalFire's role is supplemented by local fire departments (such as Palo Alto, Los Altos Hills, Woodside, Saratoga, and the County fire departments for San Mateo and Santa Clara) as well as statewide mutual aid agreements where fire fighting resources can be made available when necessary for large wildland fire events. However, the District also provides direct fire suppression services. Due to the broad land management responsibilities of field staff and the capacities of District equipment, the District's fire suppression response is focused on initial attack in lighter fuels (i.e. grassland), responding to spot fires, mop-up, and interagency coordination and support.

The large population and extensive development of the San Francisco Bay region provides significant challenges to the District's wildland fire management operations. Foremost among these challenges is the extent of residential development within and adjacent to District lands and natural habitats. This Wildland-Urban Interface (WUI) is a major statewide concern that stretches fire agencies' resources in their efforts to protect public safety and property. Adequate maintenance of fire clearance on private parcels is key to protecting not only private property, but also District lands, as fire can just as easily burn into District lands from these private parcels as be threatened by fire originating on District lands.

Fire is a natural process within the vegetation communities on District lands and in many instances is essential for maintaining ecosystem health. Many plant communities have evolved with the regular occurrence of fire and have acquired unique adaptations to withstand and regenerate after a fire: manzanitas are able to resprout from underground burls, knobcone pine cones do not open to release their seeds except in response to the heat from a fire, and many plant seeds in the soil will not germinate unless exposed to chemicals found within smoke and ash from a fire. It is important to recognize this critical ecological need and also the damage to natural systems that can result when large, uncontrolled fires occur in vegetation that has been subject to decades of strict fire suppression or lack of other management. Therefore, an important goal for the District is to continue to re-introduce fire into native ecosystems when appropriate control measures are in place.

The intent of the District's Wildland Fire Management Policy is to establish and guide the actions undertaken by the District to protect the environment and ensure public safety when fire occurs on District lands. This role extends from working with neighboring property owners to

install and maintain fire clearances from structures to identifying and implementing key wildland fuel reduction projects. The Policy also establishes the District's role of assisting regional and local fire agencies with their fire fighting responsibilities while protecting the resource values within District lands.

Policy Structure

Structurally, the policy text follows the same organization as the original Resource Management Policy, which is described in the preface to the 1994 document:

“The Resource Management Policies are organized into chapters by subject and resource category. The chapter format generally consists of an introduction, goal, policies, and implementation measures. Each introduction provides background and rationale for the goal and policies that follow. The goal is phrased as a broad, general statement describing the desired state or condition to be achieved. The policies state what steps the District will take in order to attain that goal.

Each policy includes one or more recommended implementation measures, highlighted by bullets (●). These implementation measures are intended to reflect current knowledge and practices regarding resource conservation, but are not necessarily comprehensive. They further define the policy by specifying the actions needed to carry it out.”

FISCAL IMPACT

Although the adoption of this policy will not result in any direct or immediate fiscal impacts, implementation of the policy will, over time, require additional District resources and land management expenses. Staff will make annual recommendations for funding projects in light of overall District priorities and management objectives. Grant funds are available to assist in the planning and implementation of many vegetation fuel management projects and will offset some of the expected expenses associated with the implementation of policy measures. Staff will pursue these funding opportunities. Additionally, many of the District's existing programs accomplish many of the goals identified in this policy or can be modified relatively easily to accomplish multiple purposes. As discrete projects are developed, budgets will be included within the annual Action Plan process and will be presented to the Board for review and approval.

PUBLIC NOTICE

Public participation and comment is an essential component of this policy discussion. As such, notice and an invitation to the workshop has been widely distributed to the public, homeowner associations, partner agencies, and posted on the District's website. Additionally, through the policy development process, staff consulted with a number of partner agencies (among them CalFire, Palo Alto Fire, Woodside Fire, California State Parks, San Mateo County Parks, Santa Clara County Parks, Santa Clara County Open Space Authority, Committee for Green Foothills, and Lexington Hills Community Wildfire Protection Plan participants).

CEQA COMPLIANCE

The study session will not result in any action by the Board of Directors subject to CEQA compliance. Prior to implementation, wildland fuel management projects with the potential to impact the physical environment will be evaluated under CEQA and presented to the Board of Directors for consideration.

NEXT STEPS

The Board's review and tentative adoption of this Wildland Fire Management policy will conclude the focused development of specific resource management policy topics. Staff will then complete revisions and updates to the remainder of the Resource Management Policies, incorporating all of the newly drafted policies, updating existing policies, and including the recommended changes necessary to ensure the document is internally consistent. This fully revised document will be provided to the Board for review and comment in a Study Session format. Following the Board's review of the entire Resource Management Policies document, a full evaluation of environmental impacts consistent with the California Environmental Quality Act (CEQA) will be completed. At the completion of the CEQA review, staff will return to the Board to approve the CEQA document and formally adopt the revisions to the District's Resource Management Policies.

Attachment: Draft Wildland Fire Management Policy

Prepared by:
Kirk Lenington, Senior Resource Planner

Contact person:
Same as above

18 DRAFT WILDLAND FIRE MANAGEMENT

The Mediterranean climate of California's San Francisco Bay Area affords District lands an unparalleled diversity of plants and habitats; from redwood forests on the coast and northern portions of the District to dry chaparral habitats and hardwood (oak, madrone) dominated forests in the southern end of the District. Given the diversity of rainfall, climate, vegetation, soil and geology, one constant emerges throughout the District (and in fact throughout California); all landscapes have been subject to periodic fires through time. The present and future will be no different.

District Preserves encompass approximately 55,000 acres of Open Space land. Of this acreage there are approximately 30,000 acres of forest and woodland, 5,500 acres of grassland, with the remaining 20,000 acres consisting of chaparral/shrub lands. This represents a broad spectrum of vegetation with areas of considerable overlap and patchiness.

To understand the role of wildland fire on District lands, it is important to understand the past. Native Americans within the area utilized fire as a tool for improving wildlife habitat for grazing animals (deer, elk, rabbits), maintaining productive vegetation communities for food procurement (grasslands, oak woodlands), to maintain travel routes, and to manage pests. Burning by Native Americans took place for thousands of years, a practice that significantly increased the frequency of fire locally. These practices, in addition to the benefits listed above, greatly reduced much of the fuel load on the ground and significantly reduced the severity of fires within these fire managed landscapes.

Many of the vegetation communities on District lands evolved with the occurrence of periodic fire and have acquired unique adaptations to withstand and regenerate after a fire. Without periodic fire, these plant communities build abnormally high and dangerous fuel levels and are susceptible to large scale destructive fire events. Fire is a natural occurrence on the landscape; our challenge is to find ways to live safely with fire.

From 1860 through the early 1920's unprecedented alterations took place within the forests of the Santa Cruz Mountains. The ancient "old growth" forests were mostly clear-cut and burned. This removed the largest, most fire-resistant trees from the forested landscape. The forest that has grown back typically consists of a much higher density of trees that are more susceptible to fire. This period of time also corresponded to the first wave of development within the San Francisco Bay Region and ushered in a new paradigm for wildland fire response: immediate suppression. This has increased the time interval between fires on most land to time periods substantially longer than Native American burning and natural lightning-caused fire. The result is a vegetated landscape that has largely been prevented from burning, and that has accumulated fuel loads and structural characteristics that have not occurred on the landscape for thousands of years, if ever.

The Midpeninsula Regional Open Space District was formed in response to the observed population growth and development pressure within the San Francisco Bay Region of the late 1900's. This has substantially reduced residential development in some areas, and significantly decreased the level of fire risk by precluding development that would have likely otherwise resulted in additional high risk communities. Nonetheless, there is some residential development (including some on District property) intermixed with District Preserves that deserve significant consideration.

The WUI is an area where urban ignition sources such as vehicles, equipment, burn piles, barbecues, chimneys, smoking, fireworks, etc. from adjacent residential properties and public streets pose a threat to Open Space lands. Residential structures can also supply fuel for fire that can cross into open space lands.

The **wildland-urban interface (WUI)** refers to areas where residential development, from a few scattered houses to larger subdivisions or communities, exist immediately adjacent to or nearby parks, open space preserves, or other relatively undeveloped “wildlands”. Important issues within this interface include defensible space around residential structures, emergency vehicle access, and residential fire improvements such as water tanks, fire hydrants, sprinklers, and fire resistant construction techniques.

The District is an active participant in coordinating with various **fire agencies** and community fire planning efforts. District participation in these planning efforts will continue. These include the development of regional fire plans, **FireSafe Council** meetings, and the preparation of **Community Wildfire Protection Plans (CWPP)**. The District also coordinates with local fire agencies and other park agencies conducting and participating in prescribed fire for resource management purposes.

The District, for many years, has undertaken various wildland fire management practices to effectively manage fuel loads and decrease wildland fire risk. Among these, the District annually maintains a series of disc lines (where vegetation is mechanically disced with a tractor to reduce dry fuel along ignition sources such as roads); vegetation is mowed or brushed back from roads and trails; roads, parking areas, and Preserve entrances are maintained to provide access for District patrol vehicles and other emergency vehicles; and vegetation is cleared from around District structures and residences. Preserve access points are closed when appropriate during periods of high fire risk. The District possesses a number of firefighting apparatus including a water tank truck, and smaller water tanks with hoses outfitted on Ranger vehicles, as well as portable water-pack/spray outfits for individual personnel. Fire training is also provided to District personnel who may be involved in combating wildland fire.

The District has an active vegetation management program that has been targeting non-native plant species that can be fire hazards, such as Scotch and French broom. Active cattle grazing is being maintained and has been re-introduced on some Preserves to reduce the fuel loads in the mostly non-native grasslands. Conservation grazing is being used to encourage the re-establishment of native grasses and forbs that typically produce less fuel (thatch). Given their year-round growth cycle, perennial native grasses maintain moisture later into the dry season, reducing fire hazard. The vegetation management program at the District also utilizes prescribed fire for managing invasive species in addition to fuel load reduction benefits.

The substantial historic alterations of the landscape, the history of fire suppression, and the numerous jurisdictions involved in wildland fire management and suppression, present challenges in managing wildland fire, but also present many opportunities. Effective wildland fire management actions can be undertaken to reduce the severity of fires within the wildland- urban interface and within the District’s ecosystems and watersheds, when fires inevitably occur. Additionally, active management can achieve conditions suitable for the reintroduction of fire into many ecosystems, an ecological function that has been absent, except under atypically severe conditions, for most of the past century. Prescribed fire is a powerful tool that not only has ecological benefit, but also significant wildland fire management benefit.

18. Draft Wildland Fire Management Policy

Goal: Manage District land to reduce the severity of wildland fire and impact of fire suppression activities within District Preserves and adjacent residential areas; manage habitats to support fire as a natural occurrence on the landscape; and promote District and regional fire management objectives.

Policies and Implementation Measures

18.1 Implement necessary fire and fuel management practices to protect natural resources, to protect public health and safety, and to reduce the impacts of wildland fire.

- Prepare wildland fire management plans for District lands that address, at a minimum, public safety, District staff and firefighter safety, District infrastructure including residences and roads, natural resource protection (particularly rare and endangered species), cultural resources, and vegetation management for fire protection and fire behavior modification.
- Identify, with input from responsible fire agencies and neighboring public agencies, essential roads for wildland fire access. Maintain designated roads for fire access and patrol purposes, and improve with surfacing, additional turnouts and safety zones when necessary.
- Coordinate with CalFire, local fire agencies, and local communities to identify locations where additional fire infrastructure is desirable and practical (e.g. hydrants, water tanks, helicopter zones, safety zones, fuelbreaks). Work cooperatively with these groups to install needed infrastructure.
- Maintain adequate fire clearance around District structures and facilities.
- Require lessees of District land or structures to maintain fire hazard reduction measures as directed.
- Prohibit activities that have a high risk of sparking fires during periods of **extreme fire hazard**.
- Close Preserve areas of particular concern during **extreme fire weather**, as appropriate, and increase patrol levels where appropriate.
- Seek grant opportunities and partnerships for fuel management and monitoring projects.

Shaded fuel breaks are an example of a fuel reduction project that the District can undertake. They consist of areas where vegetation is thinned to break up horizontal connectivity, and where "ladder fuels", that can connect ground fire to tree canopy, are removed. Enough tall tree canopy is retained to maintain shade to discourage the re-growth of ladder fuels. These often require follow-up maintenance.

18.2 Immediately suppress all unplanned fires that threaten human life, private property or public safety.

- Respond to wildland and structure fires on District lands in coordination with responding fire agencies.
- Prepare Preserve specific wildland fire response plans that identify appropriate fire suppression activities for District lands in the event of a wildland fire. Plans should include detailed maps of infrastructure such as roads, fuel breaks, structures, water sources (hydrants, water tanks, ponds), as well as sensitive natural and cultural resources to be avoided during fire suppression activities.
- Direct bulldozer actions to areas identified in wildland fire response plans to minimize and reduce ground disturbance, erosion, and rehabilitation efforts wherever possible.
- Develop guidelines for appropriate rehabilitation measures to address erosion, revegetation, invasive species, trail and road stability, security, public safety, and natural and cultural resources following fires.

Defensible space is the area within a parcel where basic wildfire protection practices are implemented, providing a key point of defense for an approaching wildland fire or area to escape from a structure fire. The California Department of Forestry and Fire Protection publishes guidelines for fuel (vegetation) treatments to create a perimeter around buildings and structures in order to maintain minimum conditions for firefighters to defend a property.

18.3 Work with adjacent landowners and fire agencies to maintain adequate fire clearance around permitted habitable structures.

- Establish a permit system to enable adjacent landowners to maintain all or a portion of legally required fire clearance around permitted habitable structures across property boundaries onto District land consistent with the District's resource management policies, including protection of environmentally sensitive habitat.
- Work with fire agencies and local governments to develop requirements for new development to maintain required fire clearance distance from District land wherever possible.
- Focus fuel management activities in areas adjacent to development, essential facilities and improvements, major egress and emergency routes, essential fuel breaks, and sensitive natural and cultural areas.
- Investigate the establishment of Fire Hazard Abatement Districts with fire agencies and residential communities within the Wildland-Urban Interface (WUI) adjacent to District Preserves to fund and implement fire hazard reduction projects.
- Work with fire agencies and residential communities to ensure that adequate evacuation routes and vegetation clearance around structures are maintained on adjacent non-District lands.
- Coordinate with local fire agencies, CalFire, and local communities to define

locations where community-regional fire protection infrastructure is desirable and practical.

18.4 Manage District vegetation communities to reduce the risk of catastrophic fire and to maintain biological diversity.

- Promote the restoration and development of late-seral forest communities.
- Evaluate the potential to reduce forest fuel loading through the removal of smaller trees to reduce forest floor fuel buildup and ladder fuels.
- Continue to utilize and expand the District's conservation grazing program to reduce grassland fuels, brush encroachment, and encourage the re-establishment of native grass and forb species.
- Manage forest diseases when necessary to protect natural biological diversity and critical ecosystem functions. Regarding Sudden Oak Death (SOD), detect, report and monitor infested areas; utilize sanitation and best management practices to control the spread of the SOD pathogen; train staff and educate the public; and support SOD research to guide land management decisions.
- Manage shrubland / chaparral to maintain a mosaic of ages and species within strategic management corridors on roads, ridgetops, and near residential development or other critical infrastructure to compartmentalize areas and reduce fuel loads.

Sudden Oak Death mortality is also a potential concern within the wildland-urban interface area, as well as within other areas of District Preserves. This concern is currently being studied by researchers in conjunction with District staff. These studies should provide additional insight into the potential fire hazard associated with SOD mortality and propose effective management options.

18.5 Conduct prescribed burns to re-introduce fire into native ecosystems and maintain natural ecological processes on District lands.

- Continue to utilize fire as a resource management tool to reduce fuels and reestablish fire for ecosystem health where vegetation conditions, access, and public safety permit. Coordinate with other agencies for planning and implementation.
- Continue to utilize prescribed fire to reduce and prevent unwanted fire damage resulting from excessive fuel load and altered plant community structure and to control exotic species.
- Conduct prescribed burns in an ecologically sound manner which mimic natural fire regimes, and to promote biological diversity.
- Conduct public outreach to recreational users, adjacent landowners and the general public through mailings, web site postings and press releases related to the benefits of prescribed fire and other fire management activities.

18.6 Foster and maintain interagency fire management partnerships.

- Annually coordinate with fire management and park agencies to discuss pre-fire planning conditions and needs in advance of the fire season.
- Participate in county Fire Safe Councils and Community Wildfire Protection Plan efforts.
- Train with fire agencies when possible.
- Complete and distribute to fire agencies up-to-date maps of Preserve infrastructure including existing road network available for wildland fire management, helicopter landing zones, safety zones, evacuation routes, and other pertinent information.

18.7 Conduct research and monitoring to refine fire management practices.

- Monitor pre-project vegetation, soil, erosion, and water quality to establish baseline conditions for post project analysis.
- Monitor post fire and vegetation management projects to assess the achievement of project objectives and to identify potential impacts to vegetation, soil, erosion, and water quality.
- Conduct monitoring in a manner consistent with other land management agencies to obtain comparable data.
- Foster relationships with educational institutions, scientists and other land management professionals to inform District land management decisions based upon sound, current science, and to create opportunities for continuing research. Seek grants and pursue partnerships for research and monitoring.
- Integrate wildland fire management into District interpretation and education programs.

18.8 Wildland Fire management actions on District lands in the Coastside Protection Area will be in accordance with the policies established in the Service Plan for the San Mateo Coastal Annexation Area.

- In consultation with the County of San Mateo Environmental Services Department and CalFire, the District shall determine whether the construction of dry hydrants on specific lands acquired is feasible in order to provide additional remote area water supplies for fire suppression activities.
- Select indigenous plant materials and/or seed mixes utilized at staging areas or along tails for their low maintenance and drought and fire resistant characteristics to minimize additional fuel available to wildland fires to the extent feasible.

- Where compatible with other trail characteristics, planners shall locate trail alignments and access points to allow trails to also serve as emergency access routes for patrol or emergency medical transport. Where feasible for more remote areas, emergency helicopter landing sites shall be provided.
- The District shall coordinate with appropriate agencies, such as the County and the California Department of Forestry and Fire Protection to formalize mutual aid agreements.
- In addition to continuing its current fuel management practices, as new lands are acquired, the District shall consult with the San Mateo County Fire Department and CalFire in developing site-specific fuel modification and management programs for specific lands acquired as part of its Use and Management planning process.
- The District shall prohibit smoking, camping, picnicking, fireworks and off-road vehicle use and limit trail use to low hazard activities.
- The District shall develop and maintain staging areas and trail heads in accordance with the wildland fire hazard mitigation measures established in the Service Plan for the Coastside Protection Area.

Glossary

Community Wildfire Protection Plan: The Healthy Forests Restoration Act (HFRA), passed in 2003 by the federal government, established statutory incentives for the US Forest Service (USFS) and the Bureau of Land Management (BLM) to give consideration to the priorities of local communities as they develop and implement forest management and hazardous fuel reduction projects. In order for a community to take full advantage of this federal assistance, a community must first prepare a Community Wildfire Protection Plan (CWPP). Community Wildfire Protection Plans may address issues such as wildfire response, hazard mitigation, community preparedness, or structure protection—or all of the above.

Defensible Space: Defensible space is the area within a parcel where basic wildfire protection practices are implemented, providing a key point of defense for an approaching wildland fire or area to escape from a structure fire. The California Department of Forestry and Fire Protection publishes guidelines for fuel (vegetation) treatments to create a perimeter around buildings and structures in order to maintain minimum conditions for firefighters to defend a property.

Extreme Fire Hazard/Weather: The National Weather Service, operating through cooperative agreement with the State of California, issues Red Flag Warnings during conditions of extreme fire weather. This alert is used by fire agencies to plan staffing levels and preparedness and set public use restrictions (such as campfires or the use of spark producing equipment).

Fire Agencies: Agencies with jurisdiction to respond to wildland and structure fires on District lands, and that may work in cooperation with the District in planning site-specific fuel and wildland fire management practices and in conducting training in fire and fuel management. They can include CalFire as well as local, regional, city, county, and special district fire agencies.

Fire Safe Councils: The Fire Safe Council is a coalition of public and private organizations with a common, shared interest in reducing losses from wildfires.

Fugitive Retardant: A material used in combating wildland fire through aerial attack where ground-based fire suppression is not possible. Retardant is applied to vegetation in advance of an approaching fire, composed of fire-inhibiting salts. A color dye is added to the retardant to allow firefighters to see where material has been applied. Fugitive retardant loses color over time as the material is exposed to the environment and light.

Wildland-Urban Interface: The area where structures and other human development meet or intermingle with undeveloped wildland.