

APPENDIX A

Policy Report



Midpeninsula Regional Open Space District **Wildland Fire Resiliency Program** **Resource Management Policies Analysis** **and Recommendations**

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Midpeninsula Regional Open Space District

Wildland Fire Resiliency Program

Resource Management Policies Analysis and Recommendations

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1 Introduction

1.1 Midpeninsula Regional Open Space District's Mission and Lands

Midpeninsula Regional Open Space District ("Midpen" or "District") is a public agency in the San Francisco Bay Area that has preserved a regional greenbelt system of over 63,000 acres of public land and manages 26 open space preserves. Midpen's mission is:

"To acquire and preserve a regional greenbelt of open space land in perpetuity, protect and restore the natural environment, and provide opportunities for ecologically sensitive public enjoyment and education."

While implementing the District's overall mission of open space land preservation, resource management, and low-intensity recreation, the District's mission for the Coastal Annexation Area as defined by the Service Plan is:

"To acquire and preserve in perpetuity open space land and agricultural land of regional significance, protect and restore the natural environment, preserve rural character, encourage viable agricultural use of land resources, and provide opportunities for ecologically sensitive public enjoyment and education."

Midpen's Resource Management Mission Statement is that:

"The District will protect and restore the diversity and integrity of its resources and ecological processes for their value to the environment and to people and will provide for the use of the preserves consistent with resource protection."

1.2 Wildland Fire Resiliency Program Development

Midpen is in the process of preparing a Wildland Fire Resiliency Program ("program"). Wildland fire prevention, preparation, and response are central to Midpen's land stewardship under the District Mission and Resource Management Mission.

The term "resiliency" describes a landscape that can generally resist damage and recover quickly from disturbances such as wildfire, allowing the continuation of the landscapes' function and structure over time, or allowing the landscape to adapt to the new conditions but maintain a healthy ecosystem. The program will allow Midpen to take a comprehensive approach to wildfire management and landscape resiliency by:

- Expanding vegetation management practices to reduce wildfire-related risks;
- Improving pre-wildfire planning

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- Incorporating prescribed fire into the land management toolbox to improve ecosystem health, indigenous/traditional management using fire, and reduce fuels;
- Developing monitoring and adaptive management strategies to respond to changes in conditions and technology and responding after wildfire; and
- Fostering and supporting cooperative relationships with neighbors, fire agencies, regional fire safe councils, and other stakeholders on fire prevention, preparedness, and risk mitigation efforts.

1.3 Midpen's Resource Management Policies

Midpen maintains Board of Directors' approved Resource Management Policies (RMPs). The RMPs are policies and practices used by Midpen to protect and manage resources on District lands. Resources covered under the policies include plants, animals, water, soil, terrain, and geologic formations and historic, scenic, and cultural features. The purpose of the RMPs is to:

- Set the framework for Midpen's resource management program;
- Provide general guidance for issue-specific and site-specific planning;
- Provide staff and the Board a tool for informed, consistent, and effective resource management decision making;
- Inform the public of the purpose and intent of Midpen's resource management program; and
- Provide a basis for evaluating Midpen's progress in reaching its resource management objectives.

Resource management plans and programs (such as the Wildland Fire Resiliency Program) are developed based on the guiding principles set forth in the policies and implementing actions. The Wildland Fire Resiliency Program, therefore, will need to be consistent and supported by the RMPs related to wildland fire. Chapter XV of the RMPs document addresses wildland fire management. Part of the process of program development, therefore, includes a review and potential revisions to or expansion of the RMPs to support the program objectives and goals.

1.4 Purpose of this Report

A policy review and analysis has been undertaken by Midpen's consultants, Spatial Informatics Group (SIG) and Panorama Environmental, Inc. (Panorama). The consultants reviewed Midpen's and other agencies' policies related to fire ecology, fire management, prescribed fire, suppression activities, vegetation management and ecosystem resiliency, and post-fire response. The purpose of this report is to present the methods and results of the policy review undertaken by the consultants and to provide their recommendations for revised and additional policies and implementing actions to be adopted by Midpen's Board of Directors in their RMPs document that will support the overarching objectives and goals of Midpen's Wildland Fire Resiliency Program.

2 Policy Review Methods

2.1 Objectives and Components of the Program

The program is being developed by Midpen to document and permit the various planning efforts needed to meet the District's objectives for establishing wildland fire resiliency on their lands. The program will serve as a planning and implementation document that fully describes and integrates the following plans:

- **Vegetation Management Plan (VMP):** Addresses creation and maintenance of fuelbreaks, fuel management zones, and defensible space zones using vegetation management techniques addressed in Midpen's Integrated Pest Management Program
- **Prescribed Fire Plan:** Addresses the methods and implementation of prescribed fire to manage fuel and improve ecosystem health
- **Wildland Fire Pre-Fire Plan:** Provides resource advisory maps for each preserve and identifies the existing conditions and infrastructure and resources constraints needed by emergency personnel in the event of a fire
- **Monitoring Plan:** Establishes the plan to establish pre-project conditions, vegetation treatment response (including prescribed fire), fuels inventories, and adaptive management techniques

The program will guide Midpen's activities over the next decade or more and will be periodically updated, as needed, to adapt it to changing conditions and improved knowledge. The program will also serve as the basis of a Program Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA).

The primary objectives of the program are important and must be fully supported by the RMPs. The objectives of the program are as follows:

1. Manage vegetation and infrastructure on District lands to reduce wildfire risks, improve wildfire fighting capabilities and coordination, and improve safety to reduce the harmful effects of wildfire on people, property, and natural resources.
2. Manage vegetation to establish healthy, resilient, fire-adapted ecosystems to further Midpen's mission to protect and restore the diversity and integrity of the ecological processes on District lands and to facilitate post-fire recovery.
3. Provide an adaptive framework for the periodic review and revision of implementation decisions in response to changing climate but also to improved knowledge and improved technology.

2.2 Policy Review Methods

The methodology for the policy review started with a compilation of existing Midpen policies, with a focus on policies related to wildland fire management, vegetation management, forest management, ecological succession, climate change, and scenic and aesthetic resources. The primary focus was on the Board approved RMPs, but other sources were also consulted for guidance or language related to vegetation management and fuels treatment. The following additional sources provide guidance that was considered in this analysis:

- Integrated Pest Management
- Regulations for Use of Midpeninsula Open Space District Lands
- Midpen's Defensible Space Permit Program
- Good Neighbor Policy Brochure
- La Honda Creek Open Space Preserve Master Plan
- Bear Creek Redwoods Preserve Plan
- San Mateo Coastal Annexation Area – Service Plan

Surrounding jurisdictions, the California Department of Forestry and Fire (CAL FIRE), and local fire safe councils have their own policies and practices related to wildland fire management. The policies of these agencies were similarly compiled. The following agencies' policies were included in this analysis:

- CAL FIRE
- San Mateo County Parks and Recreation Commission
- San Mateo County Planning
- Santa Clara County Planning
- State of California Government
- Woodside Fire Protection District
- California Board of Forestry and Fire Protection

Fire safe councils are grassroots community-based organizations that share the objective of making California's communities less vulnerable to catastrophic wildfire. Fire safe councils accomplish this objective through education programs and projects such as shaded fuel breaks or firebreaks to protect area residents against an oncoming wildfire and to provide fire fighters with a place to fight the oncoming fire. The first fire safe councils started in the early 1990s, and there are now over 100 around the state. Local fire safe councils usually include representatives from:

- Fire agencies, including the California Department of Forestry and Fire Protection (CDF or CAL FIRE), the US Forest Service, the Bureau of Land Management, and/or local fire protection districts as appropriate
- Local governments, such as city and/or county
- Businesses, especially insurance
- Other agencies, such as Resource Conservation Districts
- The public

2 POLICY REVIEW METHODS

- Tribes

All local fire safe councils are independent entities. Some are organized as non-profit 501(c)(3) corporations; others operate under a memorandum of understanding with a county, city, and/or local fire protection district; some have no formal structure at all. Fire Safe San Mateo County, Santa Clara County Fire Safe Council, and the South Skyline Fire Safe Council are the fire safe councils in the program area. All of these fire safe councils provide for public and private partnerships for education and fuel reduction. The fire safe councils do not operate under specific policies and regulations but, as entities, provide numerous resources for defensible space, homeowners' fire risk reduction, fire codes, fire crews, information on invasive species, shaded fuelbreaks, fire history, chipper programs, and more. Community Wildfire Protection Plans (CWPPs) are also developed under local fire safe councils. The CWPP for San Mateo and Santa Cruz County was published in April 2018 and the Santa Clara County CWPP was published in August 2016. Midpen currently coordinates with the fire safe councils. . Midpen also participated in the development of both CWPPs and was a signatory to the Santa Clara County CWPP.

Neither CWPP includes specific policies, but each summarizes policies and strategies of the entities and agencies within its coverage areas and provides overarching strategies and guidance on many aspects of fuel management and wildfire preparedness that would be relevant to Midpen's program. The considerations of the CWPPs were, therefore, included in this policy analysis.

2.3 Process for Making Recommendations

Recommendations for RMP additions and revisions were made by evaluating the program objectives and general components of the program against existing policies for consistency and compatibility. The policies of other jurisdictions were then evaluated to determine if they were already included in Midpen's policies or if they provide important guidance that should be incorporated into new or existing RMPs for Board adoption. The CWPPs were also evaluated to ensure that existing policies encompass the important tenets of the program.

3 Policy Analysis and Recommendations

3.1 Midpen's Stated Goal for Wildland Fire Management

Wildland fire management is primarily addressed in the Board-approved RMPs in Chapter XV. The stated goal in the RMPs document is to:

"Manage District lands to reduce the severity of wildland fire and to reduce the impact of fire suppression activities within the 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 activities."

The pre-ambles to the existing goal in the RMPs document appropriately acknowledges the effects of historic fire suppression, the health and human threats from catastrophic wildland fire, and the need to limit those risks through vegetation management activities that can in turn reduce the severity of wildland fire should it occur. The focus on the wildland–urban interface (WUI) is emphasized, reflecting the social value placed on protection of human assets in closest proximity to wildlands.

The existing goal aligns with the Wildland Fire Resiliency Program and generally encapsulates the concepts of wildfire resiliency that are central to the program although it does not currently use the term "resiliency." The goal could be modified to incorporate Midpen's concept of resiliency, including how to define, quantify, assess, and measure how management actions achieve wildfire resiliency. Specific recommendations are presented in Section 4.

Midpen's goal, additionally, is broad enough to incorporate the program's anticipated tools for managing habitats, for establishing acceptable levels of ecological and social change within the important aspects of the landscape (e.g., water quality, human health, threatened and endangered species, aesthetics, and recreation) and for defining resiliency.

3.2 Consistency of Program Objectives with Existing Policies and Analysis of Gaps

3.2.1 Overview

This section identifies each of the existing RMPs related to the program, including policies from other chapters in addition to Chapter XV: Wildland Fire Management. The table provides an assessment of the compatibility of each policy with the program.

3 POLICY ANALYSIS AND RECOMMENDATIONS

This section then compares the policies to goals to identify any gaps where additional policies may be needed. Policies identified here are only those directly related to wildland fire management approaches. It should be noted that numerous RMPs will need to be considered during the environmental analysis of the program as they pertain to preservation of special status species, cultural resources, water quality, aesthetic value, and others.

3.2.2 Existing RMPs, Compatibility, and Analysis of Policy Gaps

Table 3.1-1 identifies the existing RMPs that relate to wildland fire and their compatibility with the program goals, objectives, and content.

3 POLICY ANALYSIS AND RECOMMENDATIONS

Table 3.2-1 Existing Midpen RMPs Related to Wildland Fire and Program Compatibility

Policy	Summary of Actions Under Policy	Program Compatibility	Gaps in Policy or Actions
Wildfire Management			
Policy Wildfire (WF)-1: Implement necessary fire and fuel management practices to protect public health and safety, protect natural resources, and reduce the impacts of wildland fire	<ul style="list-style-type: none"> • Prepare wildland fire management plans that address public safety • Identify and maintain emergency access • Identify the need for additional firefighting infrastructure • Work with CAL FIRE and other agencies, organizations, and tribal organizations to implement prescribed burning • Maintain fire clearances • Prohibit activities that have a high risk of sparks • Close preserve areas of particular concern during extreme fire weather • Seek grants and partnerships for fuel management and monitoring 	<ul style="list-style-type: none"> • The Pre-Fire Plans/Resource Advisory Maps component of the program addresses several actions under this policy, including wildland fire management plans, emergency access, and fire clearances. • The Prescribed Fire Plan addresses using prescribed burning in coordination with other agencies. • The VMP addresses maintenance of fire clearances. • The program will allow for application for additional grant funding. 	<ul style="list-style-type: none"> • Actions under policy do not address expansion of fuelbreaks and fuel reduction zones, even though these actions are an integral part of fire and fuel management practices.

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Policy	Summary of Actions Under Policy	Program Compatibility	Gaps in Policy or Actions
Policy WF-2: Aggressively support the immediate suppression of all unplanned fires that threaten human life, private property or public safety.	<ul style="list-style-type: none"> Respond to fires with fire agencies Prioritize and prepare preserve-specific wildland fire response plans Indicate areas identified in the response plans for bulldozer actions to minimize disturbance Develop guidelines for rehabilitation measures following fires 	<ul style="list-style-type: none"> The Pre-Fire Plans/Resource Advisory Maps component of the program addresses agency coordination and wildfire response plans and response to suppress dangerous wildfires. 	<ul style="list-style-type: none"> Guidelines for rehabilitation belong under a separate policy for wildfire recovery and restoration. The policy should address strategic locations that limit a fire's spread but may allow for more acreage to burn where it does not threaten human life or private property and how to prioritize suppression.
Policy WF-3: Work with adjacent landowners and fire agencies to maintain adequate fire clearance around qualifying structures.	<ul style="list-style-type: none"> Maintain a permit system for homeowners to maintain defensible space 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 in areas adjacent to development, essential facilities, emergency routes, essential fuelbreaks, and sensitive biological and cultural areas Investigate alternative funding Work with fire agencies to ensure adequate evacuation and locations where community and regional fire protection infrastructure is practical 	<ul style="list-style-type: none"> The VMP addresses maintenance of fire clearances and fuel management to protect facilities and resources. The Pre-Fire Plans/Resource Advisory Maps component of the program addresses several actions under this policy including evacuation and regional fire protection infrastructure. 	<ul style="list-style-type: none"> The action that states where to focus fuel management should clarify that vegetation management should be focused on these areas. The action should also require that Midpen maintain defensible space around Midpen's own structures Ensuring evacuations and locations of fire protection should be moved to WF-2

3 POLICY ANALYSIS AND RECOMMENDATIONS

Policy	Summary of Actions Under Policy	Program Compatibility	Gaps in Policy or Actions
Policy WF-4: Manage District vegetation communities to reduce the risk of catastrophic fire and to maintain biological diversity.	<ul style="list-style-type: none"> Promote restoration and development of late-seral forest communities Evaluate potential for reduced fuel loading Use and expand conservation grazing Manage forest disease such as Sudden Oak Death (SOD) Manage scrub, shrub, and chaparral communities to maintain a mosaic of habitats and reduce fuel loads 	<ul style="list-style-type: none"> The policy and actions are compatible with the Vegetation Management Plan 	<ul style="list-style-type: none"> This policy does not address the concepts of ecological resiliency and acceptable change from fuels management to maintain habitat functions. Where concepts are covered under the Ecological Succession RMPs, they should be cross-referenced. The policy actions do not incorporate prescribed fire, which will be important to the establishment of resiliency. The policy actions do not identify other methods of fuel load reduction, including through thinning in fuel reduction zones.
Policy WF-5: Conduct prescribed burns to re-introduce fire into native ecosystems and maintain natural ecological processes on District lands	<ul style="list-style-type: none"> Continue to utilize fire as a resource management tool to reduce fuels and reestablish fire Continue to utilize prescribed fire to prevent unwanted fire damage Conduct prescribed burns in an ecologically sound manner to mimic natural fire regimes Conduct public outreach on prescribed fire 	<ul style="list-style-type: none"> The policy and actions are addressed in the Prescribed Fire Plan. 	<ul style="list-style-type: none"> The actions do not address establishment of burn units and prioritization that would be supported by the Prescribed Fire Plan. The actions should note that fire has been used historically on the landscape as a management tool by Indigenous people, and can be again by the Amah Mutsun Native Stewards in traditional territory and that “natural” encompassed cultural and ecological fire regimes The actions do not address prescribed fire safety.

3 POLICY ANALYSIS AND RECOMMENDATIONS

Policy	Summary of Actions Under Policy	Program Compatibility	Gaps in Policy or Actions
Policy WF-6: Foster and maintain interagency fire management partnerships	<ul style="list-style-type: none"> • Annually coordinate fire management with other agencies • Participate in Fire Safe Councils and CWPP • Train with fire agencies • Distribute all available up-to-date maps of fire infrastructure; distribute additional maps as they become available 	<ul style="list-style-type: none"> • The policy and most of the identified actions will be addressed in the Pre-Fire Plans/Resource Advisory Maps component of the program. • The VMP, Monitoring Plan and the Prescribed Fire Plan will address training with fire agencies. 	<ul style="list-style-type: none"> • In the last three years, CWPPs have been published for areas covering Midpen's preserves, and no policies address integration and support of those CWPPs. • The policy should also identify that coordination should also include tribal groups for prescribed fire
Policy WF-7: Conduct research and monitoring to refine fire management practices.	<ul style="list-style-type: none"> • Monitor pre-project vegetation, soil, erosion, and water quality to establish baseline conditions • Monitor post-fire and vegetation management practices • Monitor consistent with other land management agencies • Foster relationships with institutions and seek grants • Integrate wildland fire management into education programs 	<ul style="list-style-type: none"> • The Monitoring Plan will address these components of the policy's actions. 	<ul style="list-style-type: none"> • This policy does not address the overall concept of adaptive management, nor does it emphasize the decision-making flexibility needed to respond to ecological feedback. • The actions only address monitoring but not evaluation of monitoring results and adaptation of actions. • The policy and actions do not acknowledge the need to incorporate changing technology and knowledge into management methods. • The policy should also state that relationships should be fostered with tribes.

3 POLICY ANALYSIS AND RECOMMENDATIONS

Policy	Summary of Actions Under Policy	Program Compatibility	Gaps in Policy or Actions
Policy WF-8: Wildland Fire management actions on District lands in the Coastsides Protection Area will be in accordance with the policies established in the Service Plan for the San Mateo Coastal Annexation Area	<ul style="list-style-type: none"> Determine whether construction of dry hydrants is feasible in coordination with County of San Mateo Environmental Services Department Select native plant materials and/or seed mixes for fire resistance Locate trails to also allow for emergency access Develop mutual aid agreements Consult with fire agencies in developing fuel modifications Prohibit smoking, firearms, fireworks, and off-road vehicles and limit trail use, picnicking, and camping to designated activities Develop and maintain staging areas and trailheads in accordance with the wildland fire hazard mitigation measures 	<ul style="list-style-type: none"> The Pre-Fire Plans/Resource Advisory Maps component of the program can incorporate these requirements. 	<ul style="list-style-type: none"> None, noting that this policy is intentionally focused on just the Coastsides Protection Area and the service plan for that area. Other more fire-prone areas are addressed by the other policies in this section.
Forest Management			
Policy FM-1: Inventory and assess District forest and woodland	<ul style="list-style-type: none"> Inventory Midpen forest to assess fuel loads and forest structure related to fire. Identify access issues and Midpen and community/regional fire concerns 	<ul style="list-style-type: none"> The policy and actions are compatible with the VMP, and access issues will be integrated into the Pre-Fire Plans/Resource Advisory Maps 	<ul style="list-style-type: none"> None

3 POLICY ANALYSIS AND RECOMMENDATIONS

Policy	Summary of Actions Under Policy	Program Compatibility	Gaps in Policy or Actions
Policy FM-5: Provide necessary fire and fuel management practices to protect forest resources and public health and safety	<ul style="list-style-type: none"> • Maintain essential roads for emergency fire access and forest management activities undertaken to reduce fire hazard • Maintain adequate fire clearance around Midpen structures and facilities • Encourage neighboring property owners to maintain adequate fire clearance around existing development • Evaluate the potential to reduce forest fuel loading through the removal of smaller trees to reduce forest floor fuel buildup and ladder fuels • Coordinate with fire agencies and local communities to define locations where fire protection infrastructure is practical • Reintroduce fire as a resource management tool to reduce forest floor fuels and reestablish fire for ecosystem health where stand conditions, access, and public safety permit; coordinate with other agencies for planning and implementation • Seek grant opportunities and partnerships for fuel management projects and monitoring 	<ul style="list-style-type: none"> • The policy and all actions are compatible and support all aspects of the program, including through the Pre-Fire Plans/Resource Advisory Maps, VMP, Prescribed Fire Plan, and the Monitoring Plan. • The program will allow for Midpen to seek partnerships and grants for fuels management. 	<ul style="list-style-type: none"> • This policy should define “essential roads” to focus vegetation maintenance activities. • The policy should also identify coordination with tribal entities
Policy FM-6: Protect forest health from intense wildfire, pests, and pathogens with high potential to cause damage.	<ul style="list-style-type: none"> • Evaluate potential for forest loss to intense wildfire, pests, and pathogens where effective methods are available and justified 	<ul style="list-style-type: none"> • The program is being prepared to address this policy and action. 	<ul style="list-style-type: none"> • None

3 POLICY ANALYSIS AND RECOMMENDATIONS

Policy	Summary of Actions Under Policy	Program Compatibility	Gaps in Policy or Actions
Climate Change			
Policy CC-3: Increase carbon sequestration in vegetation and soils and minimize carbon release from wildfire	<ul style="list-style-type: none"> • Manage conifer forests to sustain and encourage the development of late-seral habitat conditions. Evaluate the potential to reduce forest fuel loading through the removal of smaller trees to reduce fuel buildup and ladder fuels • Manage vegetation communities to reduce the risk of catastrophic fire and to maintain biological diversity; conduct prescribed burns 	<ul style="list-style-type: none"> • The program is compatible with the policy as its objective is to reduce wildfire. 	<ul style="list-style-type: none"> • The actions should address allowing for trade-offs between carbon sequestration losses from fuel load removal and tree thinning and emissions from prescribed fire, given the overwhelming benefits of reduced risks of catastrophic wildland fire.
Policy CC-4: Prepare for climate change impacts and promote resilience for both natural and built environments.	<ul style="list-style-type: none"> • Prioritize ecosystem function, resilience, and ecological diversity focused on multiple species benefits rather than aiming to prevent ecological change or return to past conditions • Support ecological functions and ecosystem services that protect the built environment from climate change impacts, such as flooding and increased wildland fire frequency and intensity • Evaluate, study, and implement additional land management strategies to promote ecosystem resilience 	<ul style="list-style-type: none"> • The program is compatible with this policy and fully supports its intent regarding resilience. 	<ul style="list-style-type: none"> • This policy elaborates on the central tenets of ecological resiliency and should also be included or cross-referenced in the Wildland Fire Management policies chapter. • The policy should state that Midpen should establish goals for biodiversity and ecosystem structure and function to identify the types of diversity future conditions can support.

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Policy	Summary of Actions Under Policy	Program Compatibility	Gaps in Policy or Actions
Ecological Succession			
Policy ES-3: Facilitate regeneration of disturbance-dependent special status, rare, or unique plants.	<ul style="list-style-type: none"> • Research, document, and implement site-specific fire prescriptions to improve regeneration of fire-adapted and special status vegetation in fire-dependent ecosystems where feasible. • Develop and implement an alternative management protocol to encourage seedling establishment of special status and disturbance-adapted species in aging stands when regeneration by fire is not feasible 	<ul style="list-style-type: none"> • The program is compatible with this policy through the Prescribed Fire Plan and resiliency. 	<ul style="list-style-type: none"> • This policy should be cross-referenced in the Wildland Fire Management policies chapter.
Scenic and Aesthetic Resources			
Policy SA-2: Maintain significant landscapes or features that were formerly maintained by natural processes.	<ul style="list-style-type: none"> • Control encroaching vegetation where it adversely affects significant scenic, historic, or habitat resources • Control vegetation to create or maintain important scenic viewpoints and vistas • Require Midpen tenants to maintain landscapes and improvements to acceptable visual standards that do not detract from a visitor's experience or adversely impact wildlife 	<ul style="list-style-type: none"> • The program is generally consistent with this policy since it requires the maintenance of vegetation, particularly through prescribed fire which could mimic former natural processes. 	<ul style="list-style-type: none"> • The actions under this policy do not necessarily allow for habitat changes associated with control of vegetation for fuelbreaks, disc lines, and prescribed burns.

3.3 Guidance from Other Midpen Planning Documents

While not a part of the RMPs, other Midpen documents were reviewed for relevant objectives and approaches that could support the program. Documents reviewed include Midpen's:

- Good Neighbor Policy Brochure
- Defensible Space Permit Program
- Regulations for Use of Midpeninsula Open Space District Lands
- Integrated Pest Management
- La Honda Creek Open Space Preserve Master Plan
- Bear Creek Redwoods Preserve Plan
- FY 2019-20 Strategic Plan Goals and Objectives (Goal 1, Objective 6)

The guidance of these documents is provided in Table 3.4-1.

3.4 Other Jurisdictions' Approaches to Policies Related to Wildland Fire

The next step in the analysis was to identify policies and approaches taken by other agencies to identify if any of the gaps in the RMPs, as identified in Table 3.4-2, are addressed in other policies that Midpen should incorporate. The following table summarizes several different policies and actions of other agencies, including:

- CAL FIRE
- CAL FIRE Resource Conservation District
- San Mateo County Parks and Recreation Commission
- San Mateo County
- Santa Clara County
- State of California
- California Board of Forestry and Fire Protection
- Woodside Fire Protection District

Policies or actions that provide information that would be useful to add to the RMPs are noted in bold and blue highlight. Most helpful were the actions and policies of CAL FIRE's 2018 Strategic Fire Plan.

3 POLICY ANALYSIS AND RECOMMENDATIONS

Table 3.4-1 Summary of Guidance from Other Midpen Planning Documents

Document/Source	Guidance Text	Compatibility with Program and Existing RMPs
Good Neighbor Policy, Policy Provision 13	<p>The District shall develop a Good Neighbor Brochure and shall update it regularly and distribute it to property owners with land adjoining District Preserves. The Brochure shall contain the following information:</p> <ol style="list-style-type: none">1. Emergency contact information for District and other agencies by nature of emergency (fire, flooding, medical, illegal activity, abandoned vehicles, etc.)2. District contact for resource management (weed abatement, feral animal control, restoration and re-vegetation, etc.)3. District contact for fire and hazard prevention (fuel management, information regarding fire-safe practices, fallen or hazardous trees, etc.)4. District contact for conflicts between neighbors and Preserve visitors (trespass, parking, noise, etc.)5. District contact for general questions regarding use and management of Preserves6. How to make a suggestion or file a complaint regarding use and management of District Preserves or the District’s operation in general (phone, write, e-mail, in person)<ul style="list-style-type: none">• Contact information for Ombudsperson• Management and Board of Director contact information• Website mailbox• Office hours and location• Board meeting dates and times7. Copy of the Good Neighbor Policies	The existing RMPs include provisions for public outreach through WF-3. The program generally supports this policy and the implementing actions.
Good Neighbor Policy Brochures, Fire Safety	Create a 100' clearance around your home, where first 30' is "a lean, clean, and green zone." Remaining 70' is a "reduced fuel zone," where ladder fuels are reduced and horizontal spacing of plants is maintained. Trim trees at least 15' from power lines, and 10' from chimneys. Encourage neighbors to utilize Midpen’s defensible space permit program to secure permission to create a 100’ clearance around their homes where the 100’ is on Midpen lands.	Language should be added to WF-3 for Midpen to maintain defensible space around Midpen’s own structures.
Fuels Reduction Permits	<p>Fuels reduction will generally be permitted to extend up to 100 feet from occupied structures</p> <p>Trees up to 6 inches in diameter or shrubs up to 4 inches in diameter may be cut or removed</p> <p>Removal of non-native vegetation shall take priority over removal of native vegetation</p> <p>All vegetative debris must be removed from District property, or chipped and left onsite</p> <p>No burning of material is allowed on District property</p>	RMP WF-3 requires the permit system. The program is compatible with the guidelines of the permit system.
Regulations for Use of Midpeninsula Open Space District Lands, Section 404.1	General. No person shall light, build, maintain, or attempt to light, build, or maintain, a fire of any nature on District Lands, except in permanent fixed barbecues, camp stoves or fireplaces established and authorized by the District. A fire shall include, but not be limited to any campfire, ground fire, warming fire, signal fire, charcoal fire, stove, gas lantern, punk, candle, smudge stick, flare, fusee, or any other incendiary device. This shall not apply to the permitted use of gas camp stoves or gas lanterns when used in Designated Area specified for camping.	The program is compatible with these requirements. The guidance or requirements listed here should be considered when developing the Pre-Fire Plans/Resource Advisory Maps. Policy WF-8 addresses these concerns in the San Mateo Coastal Annexation Area.
Regulations for Use of Midpeninsula Open Space District Lands, Section 404.2	Smoking. No person shall smoke on District Lands, except in Designated Areas.	The program is compatible with these requirements. The guidance or requirements listed here should be considered when developing the Pre-Fire Plans/Resource Advisory Maps.
Regulations for Use of Midpeninsula Open Space District Lands, Section 409.1	Fireworks. No person shall possess, deposit, give, sell, discharge, set off, or cause to be discharged, on or into any portion of District Lands any firecrackers, missiles, rockets, fireworks, explosives, or explosive devices.	The program is compatible with these requirements. The guidance or requirements listed here should be considered when developing the Pre-Fire Plans/Resource Advisory Maps.

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Document/Source	Guidance Text	Compatibility with Program and Existing RMPs
Regulations for Use of Midpeninsula Open Space District Lands, Section 801.1	<p>Restrictions. No person shall park a motor vehicle, except an authorized emergency vehicle, or when in compliance with the directions of a peace officer, ranger, or District employee, in any of the following places:</p> <p>a) In areas where prohibited by “NO PARKING,” or other posted signs;</p> <p>b) On or obstructing any fire road or fire lane;</p> <p>c) On or obstructing any trail;</p> <p>d) In such a place or manner as would block or obstruct any gate, entrance, or exit;</p> <p>e) In such a place or manner as to take up more than one marked parking space in any authorized parking area;</p> <p>f) In such a place or manner as to block or obstruct the free flow of traffic or to obstruct the ability to remove a parked vehicle;</p> <p>g) Within 15 feet of a fire hydrant;</p> <p>h) Adjacent to any curb painted red;</p> <p>l) In any other place on District Lands not designated by the District as an authorized area.</p>	The program is compatible with these requirements. The guidance or requirements listed here should be considered when developing the Pre-Fire Plans/Resource Advisory Maps.
Regulations for Use of Midpeninsula Open Space District Lands, Section 805	District employees may make temporary or regular closures of a portion of District Lands to the general public for public safety, or to deal with an immediate or ongoing management need	The program is compatible with these requirements. The guidance or requirements listed here should be considered when developing the Pre-Fire Plans/Resource Advisory Maps.
Integrated Pest Management	Preventive treatment actions include temporary trail closures or adjustment in equipment use during some high fire hazard conditions.	This guidance is supported by the plan. The requirements have been adopted into the IPM RMPs.
Integrated Pest Management	<p>In addition, the following actions may also be considered to prevent vegetation from becoming a fire risk:</p> <ul style="list-style-type: none">• Focus fuel management activities in WUI areas adjacent to neighborhood communities, structures, and other at-risk assets.• Work with local fire organizations to amplify results by encouraging neighbors to also manage adjoining properties for fire (reduce fuel loads) within the WUI.• Conduct visitor and neighbor outreach and education about wildfire dangers on and near District preserves.• Eliminate any redundant, unnecessary, or high maintenance roads and trails that are determined to be not necessary on individual District preserves.• Continue to control flammable invasive plants such as French broom in established fuel management areas.• Encourage the establishment of native plant communities (which are more resistant to wildfires than invasive plants such as French broom).	This guidance is supported by the plan. The requirements have been adopted into the IPM RMPs.
Integrated Pest Management	<p>The following management approach is recommended to help promote high diversity natural vegetation communities that are relatively fire safe.</p> <ul style="list-style-type: none">• Focus vegetation biomass reduction on non-native vegetation and avoid damaging native grasses, and mature shrublands and forests wherever possible. Where active treatment is needed, seek to break the vertical fuel ladder connection between the ground and the canopy layer, and create some horizontal physical separation between plants where possible. Prioritize projects where invasive plant removal alone can result in fire-safe landscapes.• Implement fuel management projects with low impact tools and methods such as hand cutting and pruning rather than vegetation removal or soil disturbance with hand methods or machines. Although managing woody plant communities can reduce fuel volume, increased disturbance resulting from the active management can counteract the process by promoting the establishment of invasive plants and reducing native plant diversity (Lavin et al. 2013, Keeley 2002). Hand cutting and pruning is not feasible on a large scale because it takes too long across large areas and can result in injuries to staff doing this kind of work over extended periods of time.• Prioritize leaving forest duff and organic soil layers undisturbed in all fuel management actions.• Avoid removing/thinning the canopy layer in mature, established forests and woodlands to maximize shading (thereby promoting shade and related increased moisture under the canopy level) and increase resistance to non-native plant invasion.	This guidance is supported by the plan. The requirements have been adopted into the IPM RMPs.
Integrated Pest Management - Grasslands	Annual mowing in summer to reduce fuel loads, especially near likely ignition sources (trails, roads, recreational facilities, and parking lots)	This guidance is compatible with and will be covered in the program. It supports WF-1.

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Document/Source	Guidance Text	Compatibility with Program and Existing RMPs
Integrated Pest Management - Shrublands	Thin brush and mow tall grasses to reduce fuel loads and break fuel ladders. In shrublands, increase spacing between shrub clusters.	This guidance is compatible with and will be covered in the program. It supports WF-1.
Integrated Pest Management - Forests	Limb up trees to a height of 8 to10 feet, thin brush, and mow tall grasses to reduce fuel loads and break fuel ladders.	This guidance is compatible with and will be covered in the program. It supports WF-1.
Integrated Pest Management – Agricultural Landscapes	Mowing and brush thinning along roads that could provide ignition sources for adjacent natural areas. Discing along borders of agricultural and rangeland properties to ensure fires do not spread beyond different management units. Conservation grazing reduces fuel loads.	This guidance is compatible with and will be covered in the program. Several RMPs address grazing.
La Honda Creek Open Space Preserve Master Plan – Goal MO-1	Goal MO-2: Reduce fire risk Obj MO-2.1: Implement practices to manage wildland fuels and reduce fire hazards Obj MO-2.2: Protect and manage natural resources by modifying vegetation/fuel Obj MO-2.3: Facilitate wildland fire response and suppression Obj MO-2.4: Prepare a Wildland Fire Response Plan	These objectives are integrated into the program.
La Honda Creek Open Space Preserve Master Plan – Ignition Reduction	Roadsides are the most common ignition sites in California; approximately 80 percent of all wildfire ignitions occur within 10 feet of a road. The California Department of Transportation (CalTrans) is the primary agency responsible for maintenance of Highways 84 and 35, including roadside vegetation management. The District will continue to facilitate CalTrans’ efforts to manage vegetation along the stretch of highway that fronts the Preserve. The District will also manage vegetation at other high-risk ignition locations within the interior of the Preserve, such as parking areas, to bolster fire prevention.	This requirement will be integrated into the program. Policy WF-1 could be bolstered to specifically address roadside ignitions, quicker response to roadside ignitions, and maintenance and coordination with CalTrans.
La Honda Creek Open Space Preserve Master Plan – Trail Closures During Red Flag Days	In accordance with the Coastside Protection Area Service Plan, trail access points within the Coastside Protection Area shall be closed on predicted high fire response level days (red flag days) to reduce fire hazards.	This requirement will be integrated into the Program. It is supported by WF-8.
La Honda Creek Open Space Preserve Master Plan – Brush Encroachment Reduction	the District intends to continue and expand conservation grazing throughout the larger grasslands in the Preserve and employ other vegetation management practices. This action will not only preserve grassland habitat, but also control brush encroachment into grassland areas and reduce fuel loads. The District will also aim to limit the encroachment of coyote brush into grassland areas along forested edges to reduce ladder fuels at the transition between grasslands and forest.	WF-4 addresses conservation grazing. Grazing will be included in the program.
La Honda Creek Open Space Preserve Master Plan – Emergency Vehicle Access	Fuels will be maintained to reduce flame length to 2 feet along fire response roads in the following areas: <ul style="list-style-type: none">• Within 10 feet of the road edge where flames are predicted to be 0-8 feet in length (generally grassy locations and in oak woodlands)• Within 30 feet of the road edge where flames are predicted to be over 8 feet in length (generally brushy locations and where understory shrubs are developed in woodlands)	Recommendations for fuel maintenance around emergency access and roads are compatible with the program and will be incorporated. RMPs generally address fuel maintenance in defensible space, but a focus on emergency access roads could be added.
Bear Creek Redwood Preserve Plan – General Vegetation-Related Provisions	Management of invasive species following the Bear Creek Redwoods Integrated Pest Management Plan to address noxious weeds and restoration. Manage Sudden Oak Death (SOD)by tracking diseased trees as budget permits, sharing data with the California Oak Mortality Task Force, removing California by trees or their branches within 15 feet of the trunks of high value oaks, and spot treating mature oaks of value with pest control sprays.	These actions are integrated into the program and covered under other existing Midpen programs.

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Document/Source	Guidance Text	Compatibility with Program and Existing RMPs
Bear Creek Redwood Preserve Plan – Fire and Fuels Management	<p>Standard District fire management practices will continue to be implemented at the Preserve. These standard practices include maintenance of defensible space within 100 feet of structures, working cooperatively with CAL FIRE to maintain fuelbreaks, vegetation management in high ignition risk areas (such as roadsides and parking areas), conducting regular staff training in fire response, and maintaining emergency access roads, turnarounds, and landing zones.</p> <p>If a fire occurs on or is threatening District lands, District staff helps establish Incident Command if first on scene, evacuates or closes the Preserves for visitor safety, performs initial attack when safe and effective to do so, provides logistical assistance given staff knowledge of the property, monitors and attacks spot fires, and supplies additional water for primary agency engines.</p> <p>Specific projects to reduce fire risk will also be implemented. As part of the Bear Creek Stables new long-term lease, the District will work with the tenant to develop a Fire Management and Emergency Evacuation and Protection Plan. At a minimum it will address maintenance of defensible space, procedure for evacuating horses when a wildland fire is threatening the area, as well as procedures for protecting horses in a situation when time does not permit evacuation. The plan also will address measures necessary to protect individuals attempting to help evacuate and/or protect horses from fire. Water tanks will be appropriately sized and located according Santa Clara County standards to provide water sources for fire suppression.</p>	These actions will be integrated into the program and applied to other preserves, where relevant. Existing policies generally support these actions, including WF-1.

Table 3.4-2 Analysis of Policies of Other Jurisdictions

Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
CAL FIRE	Recommendation #1	Work with other public agencies, landowners, and the communities themselves to implement these projects ASAP.	Community Wildfire Prevention and Mitigation Report (CWPMR)	Yes	FM-5; WF-1	N/A	
CAL FIRE	Recommendation #2	Authorize incident response to implement rapid treatment of fuels	Community Wildfire Prevention and Mitigation Report (CWPMR)	No	N/A	Yes	This policy could be incorporated into a post-fire response policy.
CAL FIRE	Recommendation #4	Suspend regulatory requirements as necessary to protect public safety through the priority fuels reduction projects identified by CAL FIRE in this report	Community Wildfire Prevention and Mitigation Report (CWPMR)	No	N/A	Yes	This policy is not specific to Midpen; however, Midpen’s support of these projects where they overlap Midpen lands, and CAL FIRE process could be identified.
CAL FIRE	Recommendation #6	Align community education campaigns across all state and local entities	Community Wildfire Prevention and Mitigation Report (CWPMR)	Yes	Good Neighbor Policy Brochure	N/A	
CAL FIRE	Recommendation #8	Identify options for retrofitting homes to new Wildland Urban Interface standards.	Community Wildfire Prevention and Mitigation Report (CWPMR)	No	N/A	No	Actions for protection of private property or homes owned by Midpen are not directly addressed by the Wildland Fire Resiliency Program.
CAL FIRE	Recommendation #9	Create incentives for fuels reduction on private lands	Community Wildfire Prevention and Mitigation Report (CWPMR)	Yes	Fuels Reduction Permits	N/A	
CAL FIRE	Recommendation #10	Continue developing methodology to assess communities at risk	Community Wildfire Prevention and Mitigation Report (CWPMR)	Yes	FM-1	N/A	
CAL FIRE	Recommendation #12	Develop mobile data collection tool for project reporting.	Community Wildfire Prevention and Mitigation Report (CWPMR)	Yes	FM-1; FM-7; GM-3; WF-7	N/A	

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Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
CAL FIRE	Recommendation #13	Coordinate with air quality regulators to enable increased use of prescribed fire.	Community Wildfire Prevention and Mitigation Report (CWPMR)	Partly	WF-1	Yes	Air quality regulators not specifically called out in existing policies and actions but including this action would support the beneficial use of prescribed fire.
CAL FIRE	Recommendation #14	Develop technology tools to enable real time prescribed fire information sharing.	Community Wildfire Prevention and Mitigation Report (CWPMR)	No	N/A	Yes	Actions to support prescribed fire and general wildfire information based on technology should be adopted into the RMPs.
CAL FIRE	Recommendation #16	Develop a scientific research plan for wildfire management and mitigation, with funding recommendations	Community Wildfire Prevention and Mitigation Report (CWPMR)	Yes	WF-7 (generally)	N/A	
CAL FIRE	Recommendation #17	Provide technical assistance to local governments to enhance or enable fire hazard planning.	Community Wildfire Prevention and Mitigation Report (CWPMR)	Yes	CC-5; WF-4	N/A	
CAL FIRE	Recommendation #18	CAL FIRE should update codes governing defensible space and forest and rangeland protection	Community Wildfire Prevention and Mitigation Report (CWPMR)	Yes	FM-5; WF-3	N/A	
CAL FIRE	Goal 4	Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage, and impacts to natural resources from wildland fires.	2018 Strategic Fire Plan	Yes	FM-5; WF-1	N/A	
CAL FIRE	Goal 4; Objective b)	Educate landowners, residents, fire safe councils, and business owners to understand that fire prevention is more than defensible space, including why structures ignite, the role embers play in such ignitions, and the importance of fire safe building materials, designs, and retrofits.	2018 Strategic Fire Plan	Partly	FM-5; WF-1; Good Neighbor Policy Brochure	Yes	Specific cause not called out: building materials – this goal can be integrated into the RMPs actions.
CAL FIRE	Goal 4; Objective l)	Analyze trends in fire cause, and focus prevention and education efforts to modify human behavior and reduce ignitions.	2018 Strategic Fire Plan	No		Yes	This action may be an important part of education that should be supported by the RMPs and should be added to the Public Interpretation and Environmental Education chapter of the RMPs.
CAL FIRE	Goal 5; Objective a)	Promote efforts to restore the ecological role of prescribed and managed fire in areas and upon jurisdictions where doing so is consistent with local land management objectives and does not present an unacceptable risk to human health and safety or security of adjacent ownerships.	2018 Strategic Fire Plan	Yes	CC-3; CC-4; WF-1; WF-5, ES-3	N/A	
CAL FIRE	Goal 5; Objective c)	Work to streamline or remove regulatory or policy barriers that limit fuels reduction activities.	2018 Strategic Fire Plan	Partly	WF-1	Yes	Work to reduce regulatory hurdles and cost of regulatory compliance to support program efforts should be added to the RMPs.

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Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
CAL FIRE	Goal 5; Objective d)	Promote and develop programmatic documents to increase the pace and scale of fuels treatment activities	2018 Strategic Fire Plan	No		Yes	Such a policy or action would support the program and should be included in the RMPs.
CAL FIRE	Goal 5; Objective f)	Promote forest and rangeland health and resilience through fuels reduction, and sustainable commercial forest management. Improve markets for and utilization of all forest products, including dead trees, waste, and biomass.	2018 Strategic Fire Plan	Partly	CC-3	No	Use of waste/commercial forest management is not discussed.
CAL FIRE	Goal 5; Objective g)	Increase public education and awareness in support of ecologically sensitive and economically efficient vegetation management activities, including prescribed fire, grazing, forest thinning, and other fuels treatment projects.	2018 Strategic Fire Plan	Yes	WF-5; Good Neighbor Policy Brochure	N/A	
CAL FIRE	Goal 6	Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.	2018 Strategic Fire Plan	No		Yes	This policy or action supports the Pre-Fire Plan/Resource Advisory Maps.
CAL FIRE	Goal 6; Objective c)	Develop a process and criteria for determining prevention resource levels and allocation based on goals and on current projected needs.	2018 Strategic Fire Plan	Partly	WF-1	Yes	Specifics from this policy or action could be added to the RMPs.
CAL FIRE	Goal 6; Objective e)	Review data, conduct analysis and implement adaptive management related to fire prevention activities.	2018 Strategic Fire Plan	Partly	ES-1	Yes	Specifics from this policy or action could be added to the RMPs.
CAL FIRE	Goal 8	Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.	2018 Strategic Fire Plan	Yes	FM-7	N/A	
CAL FIRE	Goal 8; Objective a)	Encourage rapid post-fire assessment, when and where appropriate, to determine values at risk within and downstream of the fire perimeter from flooding, debris flows, and excessive surface erosion. Provide preliminary emergency protection measures that can be implemented in a timely manner and help coordinate project implementation with appropriate agencies.	2018 Strategic Fire Plan	Partly	WF-2; WF-7	Yes	This action or policy could support the post-fire recovery efforts that are currently not addressed by the RMPs.
CAL FIRE	Goal 8; Objective d)	Assess the effects of pre- and post-fire treatments to refine best management practices.	2018 Strategic Fire Plan	Partly	FM-7; GM-3; WF-7	Yes	This action supports the adaptive management part of program, which will be defined in the Monitoring Plan.

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Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
CAL FIRE, Resource Conservation District	General Recommendations	Roadside vegetation should be reduced to a level that allows ease of access for emergency response personnel and equipment, reduces the number of roadside fire starts and ensures the safety of fire suppression personnel using roads as fire control lines.	San Mateo - Santa Cruz Community Wildfire Protection Plan 2018	Yes	Section 801.1; FM-5; WF-1	Yes	The RMPs do not currently, but should, acknowledge consideration of actions and priorities in CWPPs.
		...this work was accomplished through a combination of chemical and mechanical means. In recent years, however, there has been increasing public pressure to eliminate the use of chemicals as a roadside treatment. Therefore, most of the recent work has been completed with mechanical mowers and masticators.					
		Both local and state fire codes specify clearing of at least 10-feet on each side of a road or driveway and up to 15-feet of vertical clearance above. Unfortunately, the specifications are inconsistent across the numerous county jurisdictions. A priority should be set to attempt standardization for these requirements across each county.					
CAL FIRE, Resource Conservation District	General Recommendations	A shaded fuel break refers to “thinning” of vegetation in a specific area with the remaining vegetation shading the ground.	San Mateo - Santa Cruz Community Wildfire Protection Plan 2018	Partly	SA-1; IPM	No	The program will address the types of fuelbreaks, but policy and actions do not need to state specifics – only that CWPP actions should be supported.
		The widths of roadside shaded fuel breaks generally range from 10 feet up to 50 feet, with 75 to 100 feet a more effective, but less popular target prescription. Strategic fuel breaks can be as wide as 400 feet.					
		Shaded fuel breaks can be placed around individual structures, communities or neighborhoods identified to be at risk.					
CAL FIRE, Resource Conservation District	General Recommendations	Roadside fuel breaks are typically between 10 and 40 feet wide. The exact distance should be based on fuel type, slope, aspect, and environmental feasibility.	San Mateo - Santa Cruz Community Wildfire Protection Plan 2018	Partly	IPM	No	The program will address the types of vegetation management activities, but policy and actions do not need to state specifics – only that CWPP actions should be supported.
		Specific vegetation removal treatment methods are provided					

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Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
CAL FIRE, Resource Conservation District	Reducing Structural Ignitability	Property owners living in State Responsibility Areas (SRA) are required by Public Resource Code (PRC) 4291 to maintain clearance of flammable vegetation around their property. A property owner’s clearance responsibility is limited to 100 feet from his or her structure(s) or to the property line, whichever is closer, and is limited to their lands. However, coordination with adjacent landowners to achieve maximum defensible space is encouraged. Similar constraints have been developed for areas outside the SRA, sithin and adjacent to the WUI.	San Mateo - Santa Cruz Community Wildfire Protection Plan 2018	Yes	IPM; Good Neighbor Policy Brochure; WF-4	N/A	
		Maintain a firebreak by removing and clearing away all flammable vegetation within 30 feet of each structure. Single specimens of trees or other vegetation may be retained provided they are well-spaced and well-pruned, in order to avoid spread of fire to other vegetation or to the structure.					
		In the area from 30 to 100 feet from structures, dead and dying woody surface fuels and aerial fuels should be removed. Horizontal and vertical clearance between fuels should be maintained. Downed logs, when embedded in the soil may be retained.					
CAL FIRE	Engineering and Structure Ignitability	<p>Fire Apparatus access roads shall have an unobstructed width of not less than 20 feet except for approved security gates in accordance with Section 503.6 of Title 24, and an unobstructed vertical clearance of not less than 13 feet 6 inches. There are exceptions, contrary to State Fire Code, outside of the Urban Services Line as established by the County of Santa Cruz. In these locations access roads shall be a minimum of 18 feet wide for all access roads or driveways serving more than two habitable structures, and 12 feet for an access road or driveway serving two or fewer habitable structures. Where it is environmentally inadvisable to meet these criteria (due to excessive grading, tree removal or other environmental impacts), a 12-foot wide all-weather surface access road with 12-foot wide by 35-foot long turnouts located approximately every 500 feet may be provided with the approval of the fire code official.</p> <p>Title 19 of the California Administrative Code requires that access roads from every state governed building to a public street shall be all-weather hard-surface (suitable for use by fire apparatus) roadway not less than 20 feet in width. Such roadway shall be unobstructed and maintained only as access to the public street. Vertical clearance may be reduced; provided such reduction does not impair access by fire apparatus and approved signs are installed and maintained indicating the established vertical clearance when approved by the fire code official. It is important to note this is for new construction and that many roads, both public and private, in the county do not comply with the standard.</p>	2018 - CZU Unit Strategic Fire Plan	Partly	Section 801.1; FM-5; WF-1	No	Emergency access is covered in existing RMPs; details should be included in the program.

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Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
CAL FIRE	Information and Education	Education is arguably the most valuable tool available to reach this goal of reduced ignitions and large fires. Each year, the Unit distributes educational materials through a variety of methods: direct mailing, at defensible space inspections and at public events.	2018 - CZU Unit Strategic Fire Plan	Yes	Good Neighbor Policy Brochure, PI-2, PI-3, FM-8, WF-7	N/A	
San Mateo County Parks and Recreation Commission	6.23.1	Trails shall be temporarily closed when conditions become unsafe or environmental resources are severely impacted. Such conditions could include soil erosion, flooding, fire hazard, environmental damage, or failure to follow the specific trail management plan.	San Mateo County 2001 Trails Plan	Yes	IPM; Section 805; WF-1	N/A	
San Mateo County Parks and Recreation Commission	D.G. 1.11 Wildland Fire	Wildland fire hazards shall be considered when siting new trails. When individual trails are being designed, the CDF Fire Hazard Severity Zone Maps shall be reviewed as well as the Hazards Map in the County of San Mateo General Plan. Areas of high fire hazard shall be avoided or trail closure shall occur when fire hazard is deemed high.	San Mateo County 2001 Trails Plan	Yes	IPM; Section 805; WF-1	N/A	
San Mateo County Parks and Recreation Commission	D.G. 4.11 Wildland Fire Suppression	During preparation of design plans for specific trail alignments, the County Parks Division shall: <ul style="list-style-type: none">• Review, in conjunction with the local fire protection services, available water sources.• Select indigenous plant materials and/or seed mixes utilized at staging areas or along trails for their low maintenance and drought and fire resistant characteristics to minimize additional fuel available to wildland fires to the maximum extent feasible.	San Mateo County 2001 Trails Plan	Yes	ES-3; WF-8; IPM	N/A	
San Mateo County	15.37 Support Efforts to Reduce the Extent of the Fire Hazards	Support public and private efforts to reduce the potential of fire hazards through methods including but not limited to controlled burning programs reduction of fuel loading, construction and maintenance of fire breaks and other appropriate methods.	County of San Mateo General Plan	Yes	IPM, WF-6	N/A	
Santa Clara County	Policy R-HS 23	Areas for which inadequate access is a general concern, either due to lack of secondary access, dead-end roads of excessive length, and substandard road design or conditions, should be examined to determine if there are means by which to remedy the inadequacies. Such means may include: <ul style="list-style-type: none">a. specific local area circulation plans to establish alternative access;b. specific roadway improvements to remedy hazardous situations, financed by those most benefited by the improvements; andc. traffic routing and controls to discourage the use of such roads by non-residents.	Santa Clara County General Plan	Yes	WF-1; WF-3; RM-5	N/A	
Santa Clara County	Policy R-HS 33	For areas where it may be appropriate, fire protection agencies and districts should utilize controlled burns and other forms of vegetation management to reduce the build up of vegetative matter and the potential fire hazard within an area.	Santa Clara County General Plan	Yes	CC-3; ES-1	N/A	

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Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
County of San Mateo Parks and Recreation Department	Objective 9: Actively Manage Forests to Reduce Fire Fuels and Increase Forest Health	<ul style="list-style-type: none">• Census forests to determine hazardous fuel areas;• Develop a GIS database of hazardous tree locations (in forested and other areas) and update it regularly;• Thin underbrush;• Educate adjacent landowners about the need to maintain defensible space between their properties and parklands;• Inspect and remove hazard trees;• Detect and treat diseased plants, contain spread of disease; and• Manage fire breaks to decrease erosion and the spread of invasive plants.	Decision-Making Guidelines for Vegetation Management San Mateo County Parks	Partly	RC-1; WF-3; WF-7; VM-4; FM-1; FM-5; FM-6; Good Neighbor Policy Brochure; IPM	Yes	The RMPs would benefit from an action that includes developing a database or methods of tracking tree management areas or a “Tree Management Zone.”
County of San Mateo Parks and Recreation Department	Fuel Load and Fire Management	<p>Assessing the degree of fire hazard is dependent upon at least three factors. These include the degree of human use and occupancy of the wildland area, the level and ability of public services to respond to fires, and the natural setting of the wildland areas.</p> <p>In addition to weather factors and slope characteristics, one of the key components in measuring fire hazard severity is the type and quantity of flammable vegetation within a given unit of land area. This factor is known as “fuel loading characteristics”.</p> <p>Fuel management is important for fire hazard reduction.</p> <p>Three basic methods are commonly used to manage the spread of wildfires: firebreaks, fuel reduction areas and ornamental landscaping. A firebreak eliminates all vegetation and combustible growth to prevent fires from spreading. A fuel reduction area reduces the fuel mass of flammable vegetation and combustible growth, thereby limiting the intensity of fire and slowing its rate of spread. Landscaping with fire resistant plants provides a third option for slowing the spread of wildfires</p> <p>[Refer to plan for more specifics and details]</p>	Decision-Making Guidelines for Vegetation Management San Mateo County Parks	Partly	IPM	Yes	RMP WF actions may benefit from specifics identified here related to fuel reduction areas.

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Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
State of California	Chapter 5	Section 503 (Fire Apparatus Access Roads) 503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. Section 503.1.2 (Additional Access) The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access. Section 503.2.1 (Dimensions) Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm). Sections 503.2.2 (Authority to require modifications to the required access width) The fire code official shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.	California Fire Code	Partly	Good Neighbor Policy Brochure	No	Fire code is law and therefore must be implemented. Separate policies to follow the code are unnecessary. Details should be incorporated into the program.
State of California	Appendix D	D102.1 Access and loading. D103.1 Access road width with a hydrant D103.2 Grade D103.3 Turning radius D103.4 Dead ends D103.5 Fire apparatus access road gates D103.6 Signs D103.6.1 Roads 20 to 26 feet in width D103.6.2 Roads more than 26 feet in width	California Fire Code	Partly	Good Neighbor Policy Brochure	No	Fire code is law and therefore must be implemented. Separate policies to follow the code are unnecessary. Details should be incorporated into the program.
State of California	Public Resources Code Section 4291	(1) Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line except as provided in paragraph (2). The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Consistent with fuels management objectives, steps should be taken to minimize erosion. For the purposes of this paragraph, “fuel” means any combustible material, including petroleum-based products and wildland fuels	Public Resources Code	Partly	Good Neighbor Policy Brochure	No	Fire code is law and therefore must be implemented. Separate policies to follow the code are unnecessary. Details should be incorporated into the program.

3 POLICY ANALYSIS AND RECOMMENDATIONS

Agency	Policy Name	Policy Text	Policies Source	Addressed by Existing Midpen Policy?	Which Policy	Recommended Added?	Notes
State of California	Public Resources Code Section 4260	The board shall adopt regulations implementing minimum fire safety standards related to defensible space that are applicable to state responsibility area lands under the authority of the department, and to lands classified and designated as very high fire hazard severity zones	Public Resources Code	Partly	Good Neighbor Policy Brochure	No	Fire code is law and therefore must be implemented. Separate policies to follow the code are unnecessary. Details should be incorporated into the program.
Woodside Fire Protection District	Defensible Space: 2016 CFC sec.304.1.2 and 2015 IWUIC sec.604	Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises, Nonfire-resistive vegetation or growth shall be kept clear, 50-100 feet or to the property line, of buildings and structures in such a manner to provide a clearance for fire suppression operations. Trees are allowed within the defensible space, provided limbs located less than 6 feet above the ground have been removed a he horizontal distance between crowns of adjacent trees, structures, overhead electrical facilities and unmodified fuel is not less than 10 feet. Deadwood and liter shall be regularly removed from trees. Ornamental vegetative fuels or cultivated ground cover can be within the designated defensible space provided they do not form a means of transmitting fire from native growth to any structure.	Woodside Fire Protection District Fire Code	Yes	Good Neighbor Policy Brochure; IPM	No	This level of detail is not required in RMPs or actions, but details should be incorporated into the program.
Woodside Fire Protection District	Perimeter Property Line Clearance: 2016 CFC sec.304.1.1.A	Persons owning, controlling or leasing structures and/or property are required to remove, a minimum of 30 feet from the perimeter of the property line, hazardous vegetation specifically, flashy fuels consisting of weeds and annual grasses as well as dead vegetative material and litter that is capable of being easily ignited and endangering property as determined by the Fire Marshal.	Woodside Fire Protection District Fire Code	Yes	Good Neighbor Policy Brochure	No	This level of detail is not required in RMPs or actions, but details should be incorporated into the program.
Board of Forestry and Fire Protection	Title 14 State Responsibility Area Fire Safe Regulations	These regulations have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction and development in SRA.	California Code of Regulations	Partly	Good Neighbor Policy Brochure	No	Fire code is law and therefore must be implemented. Separate policies to follow the code are unnecessary. Details should be incorporated into the program.

4 Recommendations

4.1 Summary of Policy and Implementing Measure Gaps and Recommended Additions and Revisions

The policy analysis revealed that the goals and components of Midpen’s Wildland Fire Resiliency Program are generally supported by the RMPs. Key aspects of the program, however, would benefit from the provision of additions or modifications to the existing policies and implementation measures. These recommended additions and/or modifications to existing policies and implementation measures can be summarized as follows:

- Creation or augmentation of existing policy to define and support programmatic planning efforts for wildland fire resiliency activities and removal of regulatory barriers
- Creation or augmentation of existing policy to acknowledge consideration of the adopted CWPPs for San Mateo and Santa Clara Counties and implementation of actions identified within where consistent with Midpen practices
- Addition of ecosystem resiliency to the Wildfire Management policies and a recommendation to identify acceptable levels of change to the environment that allow for establishment and maintenance of resiliency at the landscape level
- Augmentation of existing policies to incorporate the definition and importance of adaptive management and decision-making flexibility needed to respond to ecological feedback
- Expansion of actions to identify the focus of vegetation management actions versus prescribed fire actions
- Addition to existing policy and implementation methods to acknowledge the need to adopt new technology into management methods
- Addition to existing policy for understanding indigenous use of fire, coordinating with tribes on prescribed burning practices, and incorporating cultural practices of prescribed fire for desired outcomes
- Addition to existing policy to address post-fire restoration and response
- Allowance for landscape visual changes for fuels management under Scenic and Aesthetic Resource policies
- Addition and modification of Climate Change policies to allow for trade-offs between some carbon sequestration loss and greenhouse gas emissions for fuel reduction projects and prescribed burns and development of ecological resiliency

The following table provides a summary of the policies and implementation measures that were identified in this report as having gaps, and the table also provides some of the policies and actions from other agencies that have been used to revise the RMPs. Section 4.2 provides the full text of the recommended revised policies and implementation measures.

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Table 4.1-1 Summary of Gaps in Policies or Implementation Measures, and Policies and Actions from Other Agencies that Could Fill Gaps

Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
Wildfire Management			
Policy Wildfire (WF)-1: Implement necessary fire and fuel management practices to protect public health and safety, protect natural resources, and reduce the impacts of wildland fire	<ul style="list-style-type: none"> • Prepare wildland fire management plans • Identify and maintain emergency access • Identify the need for additional firefighting infrastructure • Work with CAL FIRE and other agencies to implement prescribed burning • Maintain fire clearances • Prohibit activities that have a high risk of sparks • Close preserves during extreme fire weather • Seek grants and partnerships for fuel management and monitoring 	<ul style="list-style-type: none"> • Actions under policy do not address assessment of degree of fire hazard and expansion of fuelbreaks and fuel reduction zones even though these actions are an integral part of fire and fuel management practices. • Actions are very generic with respect to fire clearances. 	<p>Decision-Making Guidelines for Vegetation Management San Mateo County Parks:</p> <ul style="list-style-type: none"> • Assess the degree of fire hazard by evaluating the degree of human use and occupancy of the wildland area, the level and ability of public services to respond to fires, and the natural setting of the wildland area • Identify fuel reduction areas that reduce the fuel mass of flammable vegetation and combustible growth, thereby limiting the intensity of fire and slowing its rate of spread. <p>San Mateo - Santa Cruz Community Wildfire Protection Plan 2018</p> <ul style="list-style-type: none"> • Reduce roadside vegetation to a level that allows ease of access for emergency response personnel and equipment, reduces the number of roadside fire starts and ensures the safety of fire suppression personnel using roads as fire control lines. • Set a priority to work with the counties to standardize clearing widths on each side of roads and driveways.

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Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
Policy WF-2: Aggressively support the immediate suppression of all unplanned fires that threaten human life, private property or public safety.	<ul style="list-style-type: none"> • Respond to fires with fire agencies • Prioritize and prepare preserve-specific wildland fire response plans • Direct bulldozer actions to areas identified in the response plans to minimize disturbance • Develop guidelines for rehabilitation measures following fires 	<ul style="list-style-type: none"> • Guidelines for rehabilitation belong under a separate policy or added to this policy for wildfire recovery and restoration. • The policy should address an option to allow for natural ignitions to burn where they do not threaten human life and private property and how to prioritize suppression. 	<p>2018 CALFIRE Strategic Fire Plan Objectives a and d)</p> <ul style="list-style-type: none"> • Encourage rapid post-fire assessment, when and where appropriate, to determine values at risk within and downstream of the fire perimeter from flooding, debris flows, and excessive surface erosion. Provide preliminary emergency protection measures that can be implemented in a timely manner and help coordinate project implementation with appropriate agencies. • Assess the effects of pre- and post-fire treatments to refine best management practices. <p>Community Wildfire Prevention and Mitigation Report (CWPMR) Recommendation #2</p> <ul style="list-style-type: none"> • Authorize incident response to implement rapid treatment of fuels.

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Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
Policy WF-3: Work with adjacent landowners and fire agencies to maintain adequate fire clearance around qualifying structures.	<ul style="list-style-type: none"> • Maintain a permit system for homeowners to maintain defensible space • 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 in areas adjacent to development, essential facilities, emergency routes, essential fuelbreaks, and sensitive biological and cultural areas • Investigate alternative funding • Work with fire agencies to ensure adequate evacuation and where infrastructure is practical 	<ul style="list-style-type: none"> • The action that states where to focus fuel management should clarify that the focus is for vegetation management. 	<p>CAL FIRE 2018 Strategic Fire Plan Goal 4; Objective b) and Goal 4; Objective I)</p> <ul style="list-style-type: none"> • Educate landowners, residents, fire safe councils, and business owners to understand that fire prevention is more than defensible space, including why structures ignite, the role embers play in such ignitions, and the importance of fire safe building materials, designs, and retrofits. • Analyze trends in fire cause, and focus prevention and education efforts to modify human behavior and reduce ignitions.

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Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
Policy WF-4: Manage District vegetation communities to reduce the risk of catastrophic fire and to maintain biological diversity.	<ul style="list-style-type: none"> Promote restoration and development of late-seral forest communities Evaluate potential for reduced fuel loading Use and expand conservation grazing Manage forest disease like Sudden Oak Death (SOD) Manage scrub, shrub, and chaparral communities to maintain a mosaic of habitats and reduce fuel loads 	<ul style="list-style-type: none"> The policy does not address the concepts of ecological resiliency and acceptable change to maintain habitat functions. The policy actions do not incorporate prescribed fire, which will be important to the establishment of resiliency. The policy actions do not identify other methods of fuel load reduction including through thinning in fuel reduction zones. The policy does not identify environmental review and planning needed. 	<p>2018 CALFIRE Strategic Plan Goal 5; Objective d) and c)</p> <ul style="list-style-type: none"> Promote and develop programmatic documents to increase the pace and scale of fuels treatment activities Work to streamline or remove regulatory or policy barriers that limit fuels reduction activities. <p>Community Wildfire Prevention and Mitigation Report (CWPMR) Recommendation #13</p> <ul style="list-style-type: none"> Coordinate with air quality regulators to enable increased use of prescribed fire.
Policy WF-5: Conduct prescribed burns to re-introduce fire into native ecosystems and maintain natural ecological processes on District lands	<ul style="list-style-type: none"> Continue to utilize fire as a resource management tool to reduce fuels and reestablish fire Continue to utilize prescribed fire to prevent unwanted fire damage Conduct prescribed burns in an ecologically sound manner to mimic natural fire regimes Conduct public outreach on prescribed fire 	<ul style="list-style-type: none"> The actions do not address establishment of burn units and prioritization that would be supported by the Prescribed Fire Plan. The actions do not address prescribed fire safety. 	<ul style="list-style-type: none"> None

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Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
Policy WF-6: Foster and maintain interagency fire management partnerships	<ul style="list-style-type: none"> • Annually coordinate fire management with other agencies • Participate in Fire Safe Councils and CWPP • Train with fire agencies • Distribute all available up-to-date maps of fire infrastructure; distribute additional maps as they become available 	<ul style="list-style-type: none"> • In the last three years, CWPPs have been published for areas covering Midpen's preserves, and policies or actions should address integration and support of those CWPPs more specifically. 	<ul style="list-style-type: none"> • None
Policy WF-7: Conduct research and monitoring to refine fire management practices.	<ul style="list-style-type: none"> • Monitor pre-project vegetation, soil, erosion, and water quality to establish baseline conditions • Monitor post-fire and vegetation management practices • Monitor consistent with other land management agencies • Foster relationships with institutions and seek grants • Integrate wildland fire management into education programs 	<ul style="list-style-type: none"> • The policy does not address the overall concept of adaptive management, nor does it emphasize the decision-making flexibility needed to respond to ecological feedback. • The actions only address monitoring but not evaluation of monitoring results and adaptation of actions. • The policy and actions do not acknowledge the need to incorporate changing technology and knowledge into management methods. 	<p>Decision-Making Guidelines for Vegetation Management San Mateo County Parks</p> <ul style="list-style-type: none"> • Census forests to determine hazardous fuel areas; • Develop a GIS database of tree management zones (in forested and other areas) and update it regularly; • Thin underbrush; • Educate adjacent landowners about the need to maintain defensible space between their properties and parklands; • Inspect and remove hazard trees; • Detect and treat diseased plants, contain spread of disease; and • Manage fire breaks to decrease erosion and the spread of invasive plants. <p>CAL FIRE Recommendation #14</p> <ul style="list-style-type: none"> • Develop technology tools to enable real time prescribed fire and general wildfire information sharing.

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Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
			<p>2018 CALFIRE Strategic Fire Plan Goal 6</p> <ul style="list-style-type: none"> • Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies. • Develop a process and criteria for determining prevention resource levels and allocation based on goals and on current projected needs. • Review data conduct analysis and implement adaptive management related to fire prevention activities.
<p>Policy WF-8: Wildland Fire management actions on District lands in the Coastsides Protection Area will be in accordance with the policies established in the Service Plan for the San Mateo Coastal Annexation Area</p>	<ul style="list-style-type: none"> • Determine whether construction of dry hydrants is feasible in coordination with County of San Mateo Environmental Services Department • Select native plant materials and/or seed mixes for fire resistance • Locate trails to also allow for emergency access • Develop mutual aid agreements • Consult with fire agencies in developing fuel modifications • Prohibit smoking, firearms, fireworks, and off-road vehicles and limit trail use, picnicking, and camping to designated activities • Develop and maintain staging areas and trailheads in accordance with the wildland fire hazard mitigation measures 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • None

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Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
Climate Change			
Policy CC-3: Increase carbon sequestration in vegetation and soils and minimize carbon release from wildfire	<ul style="list-style-type: none"> • Manage conifer forests to sustain and encourage the development of late-seral habitat conditions. Evaluate the potential to reduce forest fuel loading through the removal of smaller trees to reduce fuel buildup and ladder fuels • Manage vegetation communities to reduce the risk of catastrophic fire and to maintain biological diversity; conduct prescribed burns 	<ul style="list-style-type: none"> • The actions should address allowing for trade-offs between carbon sequestration losses from fuel load removal and tree thinning and emissions from prescribed fire, given the overwhelming benefits of reduced risks of catastrophic wildland fire. 	<ul style="list-style-type: none"> • None
Policy CC-4: Prepare for climate change impacts and promote resilience for both natural and built environments.	<ul style="list-style-type: none"> • Prioritize ecosystem function, resilience, and ecological diversity focused on multiple species benefits, rather than aiming to prevent ecological change or return to past conditions. • Support ecological functions and ecosystem services that protect the built environment from climate change impacts, such as flooding and increased wildland fire frequency and intensity • Evaluate, study, and implement additional land management strategies to promote ecosystem resilience 	<ul style="list-style-type: none"> • The policy elaborates on the central tenets of ecological resiliency and should also be included in the Wildland Fire Management policies chapter. 	<ul style="list-style-type: none"> • None

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Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
Ecological Succession			
Policy ES-3: Facilitate regeneration of disturbance-dependent special status, rare, or unique plants.	<ul style="list-style-type: none"> • Research, document, and implement site specific fire prescriptions to improve regeneration of fire-adapted and special status vegetation in fire-dependent ecosystems where feasible. • Develop and implement an alternative management protocol to encourage seedling establishment of special status and disturbance-adapted species in aging stands when regeneration by fire is not feasible 	<ul style="list-style-type: none"> • The policy's actions should be cross-referenced in the Wildland Fire Management policies chapter 	<ul style="list-style-type: none"> • None
Scenic and Aesthetic Resources			
Policy SA-2: Maintain significant landscapes or features that were formerly maintained by natural processes.	<ul style="list-style-type: none"> • Control encroaching vegetation where it adversely affects significant scenic, historic, or habitat resources • Control vegetation to create or maintain important scenic viewpoints and vistas • Require Midpen tenants to maintain landscapes and improvements to acceptable visual standards that do not detract from a visitor's experience or adversely impact wildlife 	<ul style="list-style-type: none"> • The actions under this policy do not necessary allow for habitat changes associated with control of vegetation for fuelbreaks, disc lines, and prescribed burns 	<ul style="list-style-type: none"> • None

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Policy	Summary of Actions Under Policy	Gaps in Policy or Actions	Actions that can be Added from Other District and Other Agency Policies and Actions
Research and Information Goals, Policies, and Implementation Measures			
Policy RC-1: Maintain resource information files for each preserve and resource subject	<ul style="list-style-type: none"> • Gather information from appropriate agencies • Maintain filing system of spatial data and information by location and resource type • Facilitate reporting • Respond to public information requests and promote release of non-sensitive information • Recruit interns and volunteers 	<ul style="list-style-type: none"> • Add a cross reference in WF-7 to this policy as it pertains to GIS mapping. 	<ul style="list-style-type: none"> • None

4.2 Recommendations for Goal, Policy, and Implementing Measure Additions and Revisions to Support the Program

4.2.1 Overview

This section provides the suggested text revisions based on the policy analysis. The exact text from the RMPs document is included here with recommended deletions shown in ~~strikeout~~ and additions shown in underline.

4.2.2 Revisions to XVII. Glossary

Add:

Adaptive management - A systematic process for continually improving management policies and practices by learning from the outcomes of previously employed policies and practices

Ecological diversity - The variety and abundance of species in different habitats and communities.

Ecological resiliency - A landscape that can generally resist damage and recover quickly from disturbances such as wildfire, allowing the continuation of the landscapes' function and structure over time.

Essential roads – These are roads important to community and visitor ingress/egress and emergency access.

Fuel reduction zones - An area in which vegetation, debris, and other types of combustible fuels have been treated, cleared, or reduced to slow the spread of fire, to modify habitat, or for other reasons with the outcome of natural or cultural resources benefit.

4.2.3 Revisions to XV. Wildland Fire Management

Goal: Manage District lands under the concepts of ecological resiliency to reduce the severity of wildland fire and to reduce the impact of fire suppression activities within the 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 activities.

Policy WF-1 Implement necessary fire and fuel management practices to protect public health and safety, protect natural resources, 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 special status species), cultural resources, and vegetation management for fire protection and fire behavior and hazardous fuels modification.

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- Assess the degree of fire hazard by evaluating the degree of human use and occupancy of the wildland area, the level and ability of public services to respond to fires, and the natural setting of the wildland area.
- 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 and reduce roadside vegetation to a level that allows ease of access for emergency response personnel and equipment, improves public safety in the event of an evacuation, reduces the number of roadside fire starts, allows for quicker response, and ensures the safety of fire suppression personnel. Set a priority to work with neighboring public agencies, including the California Department of Transportation (Caltrans), county roads departments and local municipalities to standardize clearing widths on each side of roads and driveways.
- Coordinate with 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, fuel breaks, consistent with the incident command system (ICS). Work cooperatively with these groups to permit as appropriate installation and maintenance of new ~~needed~~ infrastructure.
- Work with Cal Fire, ~~and~~ other appropriate fire management and regulatory agencies, and tribal entities to develop and carry out plans that use prescribed burns to maintain and restore natural and cultural systems.
- Maintain adequate fire clearance around District structures and facilities. (See FM-5 and WF-4: Measure 5)
- Expand fuelbreak systems and identify fuel reduction areas that reduce the fuel mass of flammable vegetation and combustible growth, thereby limiting the intensity of fire and slowing its rate of spread.
- 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.

Policy WF-2: Aggressively support the immediate suppression of all unplanned fires that threaten human life, private property or public safety and develop a response plan that, in the event of wildfire, allows the District to reduce post-fire impacts and initiate habitat restoration

- Identify a Resource Advisor as the District contact in the event of an unplanned fire on District lands.

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- Respond to wildland and structure fires on District lands in coordination with responding fire agencies.
- Prioritize and 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.
- Encourage rapid post-fire assessment, when and where appropriate, to determine values at risk within and downstream of the fire perimeter from flooding, debris flows, and excessive surface erosion. Provide preliminary emergency protection measures that can be implemented in a timely manner and help coordinate project implementation with appropriate agencies. (See also GS-2)
- Assess the effects of pre- and post-fire treatments to refine best management practices and address rapid treatment of fuels in high-priority areas.
- Consider allowing unplanned ignitions to burn to predesignated areas for resource benefit where there is no clear threat to life, property, or safety and when considering how to prioritize the suppression of multiple ignitions.
- Encourage and, where appropriate, partner with fire agencies and residential communities so that adequate evacuation routes and vegetation clearance around structures are maintained on adjacent non-District lands. Coordinate with fire agencies and local communities to define locations where community and regional fire protection infrastructure is desirable and practical.

Policy WF-3: Work with adjacent landowners and fire agencies to maintain adequate fire clearance around qualifying structures. (See FM-5 and WF-1: Measure 5)

- Maintain a permit system that enables adjacent landowners to maintain defensible space clearance surrounding homes and other qualifying structures across property boundaries and onto District land as long as the activity is recommended by the local fire agency and is consistent with the District's resource management policies, including protection of environmentally sensitive habitat.
- Implement fire clearance recommendations and defensible space around District-owned structures, as appropriate.
- Collaborate with and support fire departments and fire scientists in educating landowners, residents, fire safe councils, and business owners to understand that fire prevention is more than defensible space, including why structures ignite, the

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role embers play in such ignitions, and the importance of fire safe building materials, designs, and retrofits. (See also PI-3)

- Seek fire agency guidance on understanding trends in fire cause and focus prevention and education efforts to modify human behavior and reduce ignitions.
- 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 non-prescribed fire 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 alternative funding sources in conjunction with fire agencies and residential communities within the 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 fire agencies and local communities to define locations where community and regional fire protection infrastructure is desirable and practical.~~

Policy WF-4 Manage District vegetation communities to reduce the risk of catastrophic fire, and to maintain biological diversity, and to promote resilience. (See VM-1, and FM-6, and CC-4)

- Prioritize ecosystem function, resilience, and ecological diversity focused on multiple species benefits rather than aiming to prevent ecological change or return to past conditions.
- Evaluate, study, and implement additional land management strategies to promote ecosystem resilience.
- Promote the restoration and development of late-seral forest communities.
- Evaluate the potential to reduce forest fuel loading in accordance with a Vegetation Management Plan that includes through the removal of smaller trees to reduce forest floor fuel buildup and ladder fuels, development of additional fuelbreaks, and identification of fuel reduction zones. Manage scrub, shrub, and chaparral communities to maintain a mosaic of ages and species within strategic management corridors on roads, on ridgetops, and near residential development or other critical infrastructure to compartmentalize preserves and reduce fuel loads. Manage forest diseases such as Sudden Oak Death (SOD) to improve forest health and resiliency and to reduce fuel loads.
- Continue to utilize and expand the District's conservation grazing program to reduce grassland fuels, brush encroachment, and encourage the vigor of native grass and forb species.
- ~~Manage forest diseases such as Sudden Oak Death (SOD).~~
- ~~Manage scrub, shrub, and chaparral communities to maintain a mosaic of ages and species within strategic management corridors on roads, ridgetops, and near~~

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~~residential development or other critical infrastructure to compartmentalize preserves and reduce fuel loads.~~

- Use prescribed fire to address multiple management objectives such as: training opportunities, public safety through fuels reduction, cultural-ecological enhancement with Native American tribes, and improved natural resource response to fire and rangeland resources.

Policy WF-5: Utilize programmatic documentation to increase the pace and scale of fuel treatments, ensuring that they are performed with the appropriate considerations for biological, cultural, and other natural resource constraints and to reduce regulatory hurdles to implementation.

- Perform fuel management activities under an approved Wildland Fire Resiliency Program that defines vegetation management, prescribed fire, pre-fire plans, and monitoring.
- Work to streamline or remove regulatory or policy or cost barriers that limit fuels reduction activities through the use of the programmatic documentation and defined mitigation, and CEQA exemptions, where feasible.
- Coordinate with air quality regulators to enable increased use of prescribed fire and to allow unplanned ignitions to burn to predesignated areas for resource benefit.

Policy WF-56: 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 resource benefit where vegetation conditions, access, and public safety permit. Coordinate with other agencies and tribes for planning and implementation, and perform prescribed burns following defined safety processes and protocols.
- 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 invasive species
- Conduct prescribed burns in an ecologically sound manner which mimic natural fire regimes and/or traditional cultural uses, and to promote biodiversity. Consider how traditional, indigenous fire management for food, fiber, and all forms of subsistence are different management tools and outcomes than defensible space, thinning, and prescribed fire, for example. Document/monitor the impact of traditional fire management on biodiversity, water yield and quality, and ecosystem resiliency.
- Develop burn units based on science and implement site-specific fire prescriptions to improve regeneration of fire-adapted and special status vegetation and to improve habitat conditions for special status wildlife in fire-dependent ecosystems where feasible (see ES-3).

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- Develop and implement an alternative management protocol to encourage seedling establishment of special status and disturbance-adapted species in aging stands when regeneration by fire is not feasible
- 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 and inform the public of the District's safety protocols and processes associated with prescribed burns.

Policy WF-67: Foster and maintain interagency fire management partnerships

- Annually coordinate with fire management and other resource agencies to discuss pre-fire planning conditions and needs in advance of the fire season, and also coordinate with tribes regarding feedback on prescribed burning plans and goals
- Participate in county Fire Safe Councils ~~and Community Wildfire Protection Plan (CWPP) efforts.~~
- Incorporate and include the recommendations of the Community Wildfire Protection Plans (CWPPs) adopted for San Mateo and Santa Clara Counties into the District's vegetation management practices, as appropriate and where they align with the District's practices.
- Train with fire agencies and participate in training burns 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, as the maps become available.

Policy WF-78: Conduct research and monitoring to refine fire management practices (See also RC)

- ~~Census and m~~Map in geographic information systems (GIS) databases forest and fuel conditions, including hazardous fuel areas, treatment areas and zones, tree hazard management zones or areas, and other hazards and update regularly (also see RC-1)
- 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. Implement adaptive management to respond to ecological feedback from monitoring efforts to optimize future fuel treatments and to determine the level of resources necessary to effectively identify, plan, and implement fire management activities. Manage fire breaks to decrease erosion and the spread of invasive plants.
- Conduct monitoring in a manner consistent with other land management agencies to obtain comparable data. Implement dynamic/interactive mapping and other

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methods to actively share information with surrounding and partner agencies and jurisdictions and information technology infrastructure allows.

- Utilize the latest technology to monitor weather and other real-time conditions on the preserves to improve response in the event of wildfire.
- Integrate the latest research, techniques, and technology on fire resiliency and risk into the District's forest health and vegetation monitoring, forestry practices, and fuels management practices, as part of the adaptive management strategy. \
- Foster relationships with educational institutions, scientists, tribal entities, 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.
- Collaborate with local fire departments and safe fire councils to educate adjacent landowners about the need to: maintain defensible space between their properties and parklands; inspect and remove hazard trees; detect and treat diseased plants; and contain spread of disease.
- Collaborate with the tribes on cultural practices for prescribed fire

Policy WF-89: 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 fire agencies, 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 native plant materials and/or seed mixes utilized at staging areas or along trails 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.
- Coordinate with appropriate agencies, such as the County and Cal Fire to formalize mutual aid agreements.
- Consult with fire agencies in developing site-specific fuel modification and management programs for specific lands acquired as part of its Use and Management planning process, in addition to continuing the current District fuel management practices.
- Prohibit smoking, firearms, fireworks and off-road vehicle use and limit trail use, picnicking, and camping to designated activities areas.

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- 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.

4.2.4 Revisions to XVI. Climate Change

BACKGROUND

The Carbon Cycle

The carbon cycle is a natural process by which carbon moves between different stores or reservoirs, such as the atmosphere, oceans, sedimentary rocks, soils, and plant biomass. When burning fossil fuels, humans move a massive amount of carbon from the ground to the atmosphere, putting the carbon cycle out of balance and causing climate change. The two key approaches to solving climate change are 1) to avoid adding any more carbon to the atmospheric store and 2) to move carbon from the atmospheric store to safer stores, such as plant biomass and soils. Humans can avoid adding more carbon to the atmospheric store by reducing greenhouse gas emissions from fossil fuels and preventing the release of carbon in plants and soils. Wildfire poses a considerable threat to the carbon stock of forests and open space areas. Reducing the risks of catastrophic wildfires also helps to maintain existing carbon stores. Humans can facilitate the movement of carbon from the atmosphere into plant biomass and soils, also known as carbon sequestration, through land conservation and management. The District ~~stewards has over 63,000 acres preserved~~ nearly 65,000 acres of open space lands, including redwood forests, which store large amounts of carbon in trees, other vegetation, and soils.

The management of open space lands should include actively addressing and working to increase carbon sequestration while also reducing or mitigating the risk of loss of enormous quantities of existing carbon stock in catastrophic wildfire. Vegetation management should be performed carefully with the goal to reduce the risks of carbon loss through wildfire, while carefully balancing fuel reduction needs with managing the landscape for long-term increases in carbon storage.

Policy CC-3 Increase carbon sequestration in vegetation and soils and minimize carbon release from wildfire

- Manage conifer forests to sustain and encourage the development of late-seral habitat conditions (FM-4). Evaluate the potential to reduce forest fuel loading through the removal of smaller trees to reduce fuel buildup and ladder fuels (See FM-5).
- Manage vegetation communities to reduce the risk of catastrophic fire and to maintain biological diversity (WF-4). Conduct prescribed burns to re-introduce fire into native ecosystems and maintain natural ecological processes on District lands (See WF-5).
- Evaluate, study, and implement additional land management strategies to increase carbon sequestration in vegetation and soils.

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- Improve data on carbon sequestration in District lands with a goal to pursue and maximize opportunities.
- Evaluate opportunities to create and sell carbon offsets on the California Cap and Trade market or other voluntary offset markets.
- Consider trade-offs between carbon sequestration losses from fuel load reduction and emissions from prescribed fire to establish ecological resiliency in the face of wildfire, given the overwhelming benefits of reduced risks of catastrophic wildland fire on climate change.

Policy CC-4: Prepare for climate change impacts and promote resilience for both natural and built environments.

- Prioritize ecosystem function, resilience, and ecological diversity focused on multiple species benefits, rather than aiming to prevent ecological change or return to past conditions.
- Establish goals for biodiversity and ecosystem structure and function to identify the types of diversity future conditions can support
- Incorporate climate change impacts on natural resources such as species range and phenology changes into restoration and monitoring activities. Utilize an adaptive management framework to adjust resource management methods and priorities as impacts start to occur and climate change knowledge and response options continue to increase (See GM-3).
- Support ecological functions and ecosystem services that protect the built environment from climate change impacts, such as flooding and increased wildland fire frequency and intensity.
- Incorporate climate change impacts to infrastructure, such as flooding, drought, and sea level rise, into planning, project design, and other relevant activities.
- Evaluate, study, and implement additional land management strategies to promote ecosystem resilience.

4.2.5 Revisions to VII. Scenic and Aesthetic Resources

Policy SA-2 Maintain significant landscapes or features that were formerly maintained by natural processes.

- Control encroaching vegetation where it adversely affects significant scenic, historic or habitat resources (See Vegetation Management, Cultural Resources, and Integrated Pest Management policies).
- Control vegetation to create or maintain important scenic viewpoints and vistas (See Vegetation Management and Integrated Pest Management policies).
- Require District tenants to maintain landscapes and improvements to acceptable visual standards that do not detract from a visitor's experience or adversely impact wildlife.

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- Allow for habitat changes associated with control of vegetation for fuelbreaks, disc lines, and prescribed burns under the concepts of ecological resiliency to reduce larger-scale aesthetic impacts of catastrophic wildfire.