6 Alternatives to the Program

6.1 Introduction

6.1.1 CEQA Requirements

Section 15126.6 of CEQA requires that an EIR describe a range of reasonable alternatives to the project (or Program, as applicable here) that would feasibly attain the basic objectives and avoid or substantially lessen any significant effects. Alternatives may be eliminated from detailed analysis in the EIR if they fail to meet the most basic of project objectives, are determined to be infeasible, or cannot be demonstrated to avoid or lessen significant environmental impacts. More specifically, Guidelines Section 15126.6(a) states:

> "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible."

Key provisions of this CEQA Guideline are summarized below:

- The discussion of alternatives shall focus on alternatives to the Program, which are capable of avoiding or substantially lessening any significant effects of the Program, even if these alternatives would impede to some degree the attainment of the Program objectives, or would be more costly.
- The No Project Alternative shall be evaluated along with its impact. The No Project analysis shall discuss the existing conditions at the time the notice of preparation is published, as well as what would be reasonably expected to occur in the foreseeable future if the Program were not approved.
- When the No Project Alternative is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the No Project Alternative will be the continuation of the existing plan, policy, or operation into the future.
- The range of alternatives required in an EIR is governed by a "rule of reason;" therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. What constitutes a "reasonable range" of alternatives will vary with the facts of each project and should be guided only by the purpose of offering

substantial environmental advantages over the project proposal which may be "feasibly accomplished in a successful manner" considering the economic, environmental, social, and technological factors involved (See Citizens of Goleta Valley v. Board of Supervisors [1990] 52 Cal. 3d 553, 801 [citing PRC Sections 21002, 21061.1; CEQA Guidelines Section 15364]).

- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.
- Not every conceivable alternative must be addressed, nor do infeasible alternatives need to be considered (14 CCR § 15126.6 [a]).
- The factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to alternative sites. (14 CCR § 15126.6[f][1]). Additionally, the EIR needs to examine in detail the basic Program objectives.

An EIR need not consider every conceivable alternative to a project (CEQA Guidelines Section 15126.6[a]; Mount Shasta Bioregional Ecology Center v. County of Siskiyou [2012]) 210 Cal.App.4th 184. CEQA establishes no absolute legal imperative as to the scope of alternatives to be analyzed in an EIR.

6.1.2 Program Objectives

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 objectives of the Program are defined in the Program and in Chapter 3.0: Project Description of this Program EIR. The Program objectives include the following:

1. Manage vegetation (including invasive fire-prone trees) to establish healthy, resilient, fire-dependent or fire-adapted ecosystems, furthering Midpen's mission to protect and restore the diversity and integrity of the ecological processes on Midpen lands and facilitate healthy post-fire recovery.
2. Integrate Native American traditional ecological knowledge practices of natural resource management, particularly as they relate to prescribed fire, that promote ecological resiliency and enhance biodiversity.
3. Manage vegetation (including invasive fire-prone trees) and infrastructure on Midpen lands to reduce wildland fire risks, improve wildland fire fighting capabilities and coordination, and improve overall safety to reduce the harmful effects of wildland fire on people, property, and natural resources.
4. Provide an adaptive framework for periodic review of and revisions to Midpen decisions in response to a changing climate, improved knowledge, and improved technology. This framework also considers competing Midpen priorities, capacity, funding and fiscal sustainability, and partnerships to determine the location, scale, and timing of future vegetation management activities.

6.2 Alternatives Screening Methodology

6.2.1 CEQA Requirements for Alternatives

The evaluation of alternatives to the Program was performed using a screening process that consisted of three steps:

- Step 1: Clarify the description of each alternative to allow comparative evaluation.
- Step 2: Evaluate each alternative using CEQA criteria (defined below).
- Step 3: Determine the potential feasibility of each alternative to determine which alternatives will undergo full analysis in the EIR.

Infeasible alternatives and alternatives that clearly offered no potential for overall environmental advantage over the Program were eliminated from further analysis. Following the three-step screening process, the advantages and disadvantages of the remaining alternatives were carefully weighed as part of Step 2, with respect to CEQA's criteria for consideration of alternatives. The criteria are discussed in greater detail here.

6.2.2 Consistency with Program Objectives

Alternatives should meet most of the basic Program objectives. CEQA Guidelines require the consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives" (section 15126.6 [b]). Therefore, it is not required that each alternative meet all the Program objectives.

6.2.3 Feasibility

The CEQA Guidelines (section 15364) define feasibility as:

> "…capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

The selection of alternatives is largely governed by what CEQA terms the "rule of reason," meaning that the analysis should remain focused, not on every possible eventuality, but rather on the alternatives necessary to permit a reasoned choice. Of the alternatives identified, the Program EIR must analyze those alternatives that are feasible, while still meeting most of the Program objectives.

According to the CEQA Guidelines (section 15126.6([1]), site suitability, economic viability, availability of infrastructure, general Program consistency, consistency with other programs and policies or other regulatory limitations, jurisdictional boundaries, and proponent's control over alternative sites are all considered factors when determining whether alternatives are

potentially feasible. The feasibility of potential alternatives was assessed taking the following factors into consideration:

- **Environmental Feasibility**. Would implementation of the alternative cause substantially greater environmental damage than the Program, thereby making the alternative clearly inferior from an environmental standpoint? This issue is primarily addressed in terms of the alternative's potential to eliminate significant or potentially significant effects of the Program.
- **Regulatory Feasibility**. Do regulatory or policy restrictions substantially limit the likelihood of successful implementation of an alternative? Is the alternative consistent with policies and regulatory standards or on-going Midpen practices related to regulated activities such as herbicide use, prescribed burning, and work near sensitive habitats?
- **Technical Feasibility.** Is the alternative feasible from a technological perspective, considering available technology? Are there any implementation constraints that cannot be overcome?
- **Economic Feasibility**. Is the alternative so costly that implementation would be prohibitive? The CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may "impede to some degree the attainment of project objectives or would be more costly" (CEQA Guidelines section 15126.6[b]). The Court of Appeals added in Goleta Valley v. Board of Supervisors (2nd Dist. 1988) 197 Cal.App.3d, p. 1181 (see also Kings County Farm Bureau v. City of Hanford [5th Dist. 1990] 221 Cal.App.3d 692, 736 [270 Cal. Rptr. 650]): "[t]he fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project." An example would be the costs for mowing all grassland areas annually (refer to Section 6.3 for additional discussion of alternatives considered but rejected from further analysis).

6.2.4 Potential to Eliminate Significant Environmental Effects

CEQA requires that to be fully considered in an EIR, an alternative must have the potential to "avoid or substantially lessen any of the significant effects of the project" (CEQA Guidelines section 15126.6[a]). Identified alternatives that clearly do not provide overall environmental advantage(s) when compared to the Program are eliminated from further consideration. At the screening stage, CEQA does not require the evaluation of all impacts of the alternatives in comparison to the Program with absolute certainty; nor is it possible to quantify all impacts.

Table 6.2-1 presents a summary of the potential significant environmental effects and the significant unavoidable impacts of the Program (in bold italic in the table), as identified in Chapter 4: Environmental Setting, Impacts, and Mitigation Measures. The impacts in Table 6.2-1

were used to determine whether an alternative met CEQA Guidelines section 15126.6 requirements.

Table 6.2-1 Summary of the Program's Potentially Significant Impacts that can be Mitigated, and Significant and Unavoidable Impacts

Environmental Parameter	Potential Impacts
Aesthetics	• ***Potentially significant and unavoidable impact from the potential to adversely affect scenic vistas or substantially degrade visual character from implementation of the VMP, PFP, and installation of new infrastructure.*** • ***Potentially significant and unavoidable impact from the potential to damage scenic resource, including removal of trees as viewed from a State scenic highway.***
Air Quality	• ***Significant and unavoidable impact from a considerable contribution to regional particulate matter and ozone precursor emissions that are in nonattainment, primarily from prescribed burning under the PFP.*** • Potentially significant but mitigable impacts from pile burning under the VMP in the NCCAB. • ***Significant and unavoidable short-term impacts on sensitive receptors and due to odors from smoke generated by prescribed fires under the PFP.*** • Potentially significant but mitigable impacts from serpentine dust generation under the VMP for activities that could disturb the soil surface.
Biological Resources	• Potentially significant but mitigable impacts on rare plants and special-status wildlife species, including San Francisco garter snake, California red-legged frog, Foothill yellow-legged frog, western pond turtle, California giant salamander, Santa Cruz black salamander, red-bellied newt, marbled murrelet, special status insect host plants (e.g., for bay checkerspot butterfly, Smith's blue butterfly, monarch butterfly, unsilvered fritillary butterflies, and Opler's longhorn moths), salmonids, special status bats, and nesting birds. Impacts could occur from vegetation management activities under the VMP, prescribed burning under the PFP, and installation of infrastructure under the Wildland Fire Pre-Plan. • Potentially significant but mitigable impact on sensitive natural communities, including wetlands and other jurisdictional aquatic resources, forest and woodlands, chaparral, and grasslands from use of heavy equipment and vegetation management/fuel reduction under the activities defined in the VMP. • Potentially significant but mitigable impacts associated with a violation of a local tree ordinance from activities identified in the VMP or Wildland Fire Pre-Plan.
Cultural Resources	• Potentially significant but mitigable impacts on known and previously undiscovered historic, prehistoric, and tribal cultural resources from ground disturbing activities associated with the VMP, from prescribed burning under the PFP, and from infrastructure development under the Wildland Fire Pre-Plans. • Potentially significant but mitigable impacts on human remains from ground disturbing activities.

Environmental Parameter	Potential Impacts
Geology and Soils	• Potentially significant but mitigable impacts from loss of topsoil and erosion due to ground disturbing activities from the VMP, prescribed burning under the PFP, and potential installation of new infrastructure under the Wildland Fire Pre-Plan. • Potentially significant but mitigable impact from landslides due to vegetation removal on steep slopes under the VMP. • Potentially significant but mitigable impact from installation of new infrastructure in expansive soils under the Wildland Fire Pre-Plan.
Greenhouse Gases	• ***Potentially significant and unavoidable impact from GHG emissions associated with implementation of vegetation treatments, pile burning, and prescribed burning under the PFP.***
Hazards, Hazardous Materials, and Wildland Fire	• Potentially significant but mitigable impact from exposure to hazardous materials from areas of contamination listed on government databases. • Potentially significant but mitigable impact to emergency access during implementation of Program activities. • Potentially significant but mitigable impact from exposure to hazards associated with pile burns by staff conducting the pile burns. • Potentially significant but mitigable impact to recreationalists from smoke exposure from prescribed burns. • Potentially significant but mitigable impacts related to risks to structures and people from slope instability.
Hydrology and Water Quality	• Potentially significant but mitigable impact associated with erosion from various VMP activities, prescribed burning under the PFP, and installation of new infrastructure under the Wildland Fire Pre-Fire Plan that could cause sedimentation of creeks, streams, or other waterways.
Noise	• Potentially significant but mitigable impact from equipment to implement the VMP activities, prescribed burning under the PFP, and installation of new infrastructure under the Wildland Fire Pre-Plans that could generate noise in violation of County or local noise standards.
Recreation	• Potentially significant but mitigable impacts to recreationalist safety from prescribed burns under the PFP.
Transportation	• Potentially significant but mitigable impacts to safety of the public (e.g., motorists, bicyclists) on public roads from prescribed burning under the PFP. • Potentially significant but mitigable impact to emergency access during implementation of Program activities.

See Chapter 2: Executive Summary for a more detailed summary of the impact conclusions and mitigation measures identified.

6.3 Alternatives Considered but Not Evaluated in Detail

CEQA Guidelines section 15126.6(c) states that an EIR should briefly describe the rationale for selecting the alternatives to be discussed in an EIR and the reasons for eliminating alternatives

from detailed consideration. Alternatives are eliminated if they did not meet most of the basic Program objectives, were not feasible, and/or would not avoid or substantially lessen the significant environmental effects of the Program as assessed in the EIR. Midpen considered several alternatives that were subsequently eliminated from further consideration. Table 6.3-1 provides a description of each rejected alternative and the rationale for rejection.

Table 6.3-1 Rejected Alternatives

Description of Alternative	Rationale for Rejection
Mowing of all Grasslands. This alternative focuses on grasslands within the Program area and includes treating these areas with frequent, intensive line-trim mowing instead of other methods, such as prescribed fire or prescribed herbivory. The intent of the intensive mowing would be to unearth dormant native seeds. Treatments for all habitat types outside of grasslands would be the same as described in the Program. Source: Scoping Comments	This alternative does not meet the feasibility screening criteria. Feasibility in the context of grassland management under the Program for Midpen must consider annual direct costs, annual staff resource requirements, net habitat benefits, and ability to effectively replicate the tools, practices, and approaches across approximately 9,000 acres of grassland habitat[a] on Midpen OSPs in the plan area (approximately 12 percent of the plan area). Based on preliminary information, this alternative would require annual mowing of all grasslands, equating to 350 hours per acre. With 9,000 acres of grasslands, this methodology would require 3.15 million hours of mowing per year. The costs to take this approach under a mowing alternative is at least a magnitude of order greater than the proposed annual budget for Midpen. The costs of this approach are therefore infeasible. In addition, there is limited research on the effects of this treatment for fire resiliency and needs further study. Refer to the No Prescribed Fire Plan Alternative for an analysis of the impacts associated with no prescribed burning on Midpen lands, including grasslands.
Increased Intensity of Treatments. This alternative would include increasing the amount of area treated in the VMP. Source: Scoping Comments	This alternative would not avoid or reduce any direct impacts of the Program and instead would result in greater environmental impacts from erosion and on water quality, air quality, GHG emissions, traffic, and from temporary noise due to the increased level of activities and increased acres of treated areas. It should be noted that this alternative could have added benefits to ecosystem health and resiliency and further reduce fire hazards in the long-term and reduce the severity of impacts should a wildland fire occur. The Program is optimized to maximize the use of available resources while balancing the short-term impacts with the long-term benefits (and reducing the potential for much more significant future and long-term impacts that arise with major wildland fires). Given the adaptive nature of the Program, work could potentially be scaled up, as long as direct environmental impacts stay below levels of significance and no new impacts not described in this Program EIR are created. The level of effort identified in the WFRP is based on a number of factors, including financial resources and staffing resources available to implement and oversee the Program. The amount of

Description of Alternative	Rationale for Rejection
	effort identified was also scaled such that successes in reducing wildlife risks while improving ecosystem resiliency could be realized.
Alternative Methods of Vegetation Removal. This alternative includes using alternative methods of vegetation treatments, such as biological controls, more prescribed herbivory, or other types of location-specific treatments. Source: Scoping Comments	Most of these methods implemented alone or instead of mechanical removal would not allow Midpen to meet its overall objectives. The WFRP is based on methods proven effective in the field through the IPMP and based on industry experience and accepted best practices. That said, the Program includes a Monitoring Plan that employs adaptive management. If new methods prove effective, they could be added to the Program through amendments.
Increased Scope of WFRP. This alternative includes increasing the scope of the WFRP to also include enhancing the character of Midpen lands by implementing carbon sequestration activities and other activities to enhance soil moisture, biodiversity, and habitat. Source: Scoping Comments	While an expanded scope of work to address new goals and objectives is possible, it is rejected as it does not reduce any environmental effects of the Program and could result in new potentially significant impacts from expansion of the Program. The Program as proposed is focused on vegetation management and fire protection improvements to reduce fire risk and enhance ecosystem resiliency to fires. The suggested alternative is instead focused on strategies to reduce greenhouse gas emissions and enhance habitat health. Although these goals have their own merits, they are not central to the goals and objectives of the Program. Other, separate programs could be established to address carbon sequestration and habitat health in the future.
Focus Program only on Fire Protection. This alternative would focus only on the creation and maintenance of enhanced fire management VMAs and implementation of the Wildland Fire Pre-Plan. No ecosystem resiliency activities would be included, including no creation and implementation of FRAs under the VMP, and the Program would not include the PFP. The scale and implementation of the Monitoring Plan would be greatly reduced due to the lack of ecosystem resiliency activities. Source: Midpen	This alternative would not meet the basic objectives of the Program related to ecosystem resiliency. While the alternative would improve firefighting and fire protection, it would provide no improvements to ecosystem resiliency as it relates to fire that, in the long-term, would contribute to reduced effects of wildland fire.
Reduced Program – Reduce Annual Treatment of Fuel Management Areas. Under this alternative, maximum annual acreages of treatment areas (e.g., fuelbreaks, disclines) would be reduced to equal the annual acreage of ecosystem resiliency FRAs. Total new areas treated would be reduced to 1,000 acres and total acreages maintained would also be reduced	This alternative meets basic Program objectives but effectiveness towards the third objective of improving firefighting capabilities and reducing effects to property and natural resources would be reduced as it would take longer to build out all fuel management areas. This alternative is feasible but ultimately does not substantially lessen any of the potentially significant impacts of the Program and instead delays the potential impacts to later years, since it only reduces the amount of work that would be

Description of Alternative	Rationale for Rejection
to 1,000 acres maximum per year. The treatment reduction would be approximately 40 percent less per year than proposed. The total acreage that could be treated under the overall Program over time would remain the same, but incremental impacts per year would be reduced and the Program would take longer to implement in total. Source: Midpen	conducted in any one year and total Program impacts would be the same, only taking longer to occur.

Note:

[a] The acreage presented here includes grassland vegetation communities (refer to Appendix 4.4) as well as grasslands in woodlands and savannahs.

6.4 Alternatives Considered for Detailed Evaluation

This section discusses alternatives that passed the screening process and have been retained for analysis in the Program EIR, including the No Program Alternative, as required by CEQA. Table 6.4-1 provides a list of the alternatives considered and the results of the screening analysis with respect to the criteria findings for consistency with Program objectives, feasibility, and environmental effectiveness (reduces environmental impacts as identified in Chapter 4 of this Program EIR). Each of these alternatives, other than the No Program Alternative, would substantially meet most of the Program objectives, would be feasible, and would generally reduce some potential environmental effects of the Program. It should be noted that while these alternatives reduce environmental impacts, it is typically through reducing the amount of vegetation management activities performed, which comes as a tradeoff in the extent the alternative reduces wildland fire hazards and thus potentially reduces environmental impacts of a wildland fire.

6.4.1 No Program Alternative

Description of Alternative

Pursuant to CEQA Guidelines section 15126.6(e), an EIR must include an evaluation of a No Project (Program) Alternative, so that decision makers can compare the impacts of approving the Program with the impacts of not approving the Program. The evaluation of the No Program Alternative must discuss the existing conditions at the time the NOP was published (April 2020), as well as "what would be reasonably expected to occur in the foreseeable future if the Program were not approved, based on current plans and consistent with available infrastructure and community services" (CEQA Guidelines section 15126.6[e][2]). The No Program Alternative considers the reasonably foreseeable actions that would be implemented by Midpen if the Program is not approved.

Table 6.4-1 Screening Summary of Alternatives Retained for Analysis in the Program EIR

Summary of Alternative	Program Objectives Criteria	Feasibility Criteria	Environmental Criteria
No Program Alternative Continue vegetation management activities as currently performed. No prescribed burning and no expanded activities under the VMP would be performed.	Although the alternative provides for some vegetation management activities under the existing IPMP, this alternative does not substantially meet any of the objectives of the Program. Status quo does not further reduce the existing fire threat to Midpen lands and natural resources, nor improve current fire response or suppression activities, nor further increase the level of ecosystem resiliency within habitats.	Meets feasibility criteria	Meets environmental criteria. This alternative would reduce direct, significant WFRP impacts to air quality and GHG emission impacts, soil erosion impacts, water quality impacts, and impacts on special-status species and communities, primarily because significantly less work and no prescribed burning would occur.
No Prescribed Fire Plan Alternative This alternative would involve removal of the PFP from the Program, and no prescribed burning would be implemented. Pile burning under the VMP would still be allowed at a reduced level to remove biomass.	Meets basic objectives but does not meet the second objective of integrating Native American methods of vegetation management involving prescribed fire for ecosystem resiliency. Limits or reduces the effectiveness of the Program with regard to the objectives of establishing resiliency and ecosystem health and reducing fire impacts to property and natural resources.	Meets feasibility criteria	Meets environmental criteria. This alternative would reduce significant and unavoidable impacts from criteria pollutant and GHG emissions of the Program from prescribed burning.
Reduced Program – Reduced Acreages of Vegetation Management Areas for Enhanced Fire Management This alternative would include a scheme to reduce the acreages of VMAs for enhanced fire management. This alternative would, in the long term, result in less total acreage of enhanced fire management VMAs. Correspondingly fewer acres of enhanced fire management VMAs would be treated each year as well.	This alternative meets basic Program objectives but limits the effectiveness towards the third objective of improving firefighting capabilities and reducing fire impacts to property and natural resources.	Meets feasibility criteria	Meets environmental criteria. This alternative would reduce overall impacts to any resources for which the VMP would have an impact, such as to biological resources (rare plants, special-status species habitat, sensitive communities), cultural resources, hydrology, visual resources, and others. Mitigation would still be required and the alternative may still result in significant and unavoidable impacts to aesthetics, air quality, and GHG emissions. The alternative still meets the criteria for detailed evaluation as it would reduce impacts.

Summary of Alternative	Program Objectives Criteria	Feasibility Criteria	Environmental Criteria
Reduced Program – No Acacia or Eucalyptus Removal, and Limit Treatments in Sensitive Communities to Fuel Reduction Areas This alternative would eliminate the acacia and eucalyptus removal. It would also include only FRA-level work in any sensitive vegetation community identified in this Program EIR.	This alternative meets basic Program objectives but limits the effectiveness towards the third objective of improving firefighting capabilities and reducing fire impacts to property and natural resources and it does not meet the component of the objective to manage fire-prone trees.	Meets feasibility criteria	Meets environmental criteria. Potentially significant and unavoidable visual impacts from intensive eucalyptus tree removal as viewed from scenic areas would be avoided by this alternative, although other significant and unavoidable visual impacts from VMA creation and prescribed burning would remain. Minor but potentially significant impacts could also be lessened, including impacts to special-status butterflies and nesting raptors associated with eucalyptus, as well as other impacts such as erosional impacts and slope stability impacts from large and intensive tree removal. Impacts to identified sensitive vegetation communities (e.g., riparian areas) would also be reduced (but not eliminated), by reducing the extent of work that would occur within these communities. Because the PFP and prescribed fires would still be implemented under this alternative, significant unavoidable impacts of the Program on air quality and GHG emissions would remain.

This alternative includes not undertaking the VMP or PFP. Any new firefighting infrastructure, if determined necessary, may be installed on a case-by-case basis, with individual CEQA review, as needed. Limited fuel management work would continue as described and addressed under the IPMP.

The Program was developed to reduce what could potentially be substantially greater environmental impacts should a major wildland fire occur, even though implementation of the Program could result in some unavoidable resource impacts, as summarized in Table 6.2-1. Midpen conducts fuel treatments under existing conditions, but to a far lesser scale than the Program (up to nearly 900 more acres of maintenance and up to 1,230 acres of newly created fuel management areas). Less of Midpen lands would be treated in any given year under the No Program Alternative. Implementation of the Program may result in potentially significant and unavoidable aesthetic, air quality, and GHG impacts; however, impacts from a large and intense wildland fire ignited in untreated areas under the No Program Alternative could potentially be far greater than any Program impacts.

Many studies have been conducted on the efficacy of fuel treatments, including thinning and prescribed burns to reduce the risks associated with and that alter the behavior of wildland fire. Fuel treatments may not necessarily minimize the frequency of wildland fire ignition, but fuel treatments have been shown to reduce fire intensity and severity. For example, a study on the 2014 Carlton Complex Fire in north central Washington by the University of Washington and the U.S. Forest Service found that previous tree thinning and prescribed burns helped forests survive the fire (Susan J. Prichard, 2020). A case study of the Tahoe Basin also demonstrated through modeling that fuel treatments created more diverse forest conditions by shifting dominance patterns to a more mixed conifer system. Treated forests in the modeling had a higher proportion of fire-tolerant species. Strategically placed fuel treatments were shown to substantially reduced wildland fire risk, increase fire resiliency of the forest, and provide benefits for long-term carbon management (Loudermilk, Stanton, Scheller, Dilts, & Peter J. Weisberg, 2014). Refer to Section 4.8.4 for more information on studies of wildland fire severity after forest treatments.

Impacts from the increased potential for more severe wildland fire activity under the No Program alternative is summarized below. The No Program Alternative does not meet the Program objectives, notably, objective three as it pertains to managing vegetation to reduce wildland fire risk and to reduce the harmful effects of wildland fire on natural and cultural resources, people, and property. The importance of fully meeting this objective can be illustrated in the impacts presented below. It should be noted that even with implementation of the Program, future wildland fire location, timing, extent, and impacts are unknown. Well-performed management of excess fuels on the landscape, however, should lessen the severity of a wildland fire, if it were to occur in a treated area.

Rationale for Full Analysis and Relationship to Program Objectives

The No Program Alternative would not meet the basic objectives of the Program; however, it is presented here for full analysis as required under CEQA.

Summary of Comparative Environmental Impacts

Overview

All direct and indirect impacts of implementing the VMP and Wildland Fire Pre-Plan under the Program, as identified in Chapter 4: Environmental Setting, Impacts, and Mitigation Measures of this Program EIR, would not occur under the No Program Alternative. Some fuel management activities would continue on a limited basis under the IPMP and those impacts have been addressed under the IPMP Final EIR and Addendum. Due to the reduced area of fuel management as compared to the Program, a greater portion of Midpen lands would be untreated and at a higher risk of severe wildland fire. The types of effects that could occur in the event of wildland fire ignition are described in this analysis of the No Project Alternative. Firefighting infrastructure may be installed under the No Program Alternative, but CEQA reviews would be conducted on an individual basis, with similar impacts as identified for the proposed Program.

Aesthetics

Less of Midpen lands would be treated under the No Program Alternative eliminating the significant and unavoidable aesthetic impact identified under the Program. However, a wildland fire ignited or moving into an untreated landscape on Midpen lands would likely be more severe and result in loss of most vegetation, charred ground and vegetation creating significant contrast and degrading visual quality, and potential mortality of a significant number of trees over a large area, including as viewed from designated scenic areas. A severe wildland fire could have much greater and more significant visual impacts from scenic viewpoints, roads, trails, and corridors compared to the impacts from the proposed Program and would likely result in greater degradation of visual quality over the burned areas than would occur had those areas been treated under the proposed Program.

Air Quality and GHG

The direct significant and unavoidable air quality and GHG impacts of the Program would not occur under the No Program Alternative.

Annually, wildland fires represent a variable and not insignificant portion of particulate-matter emissions in SFBAAB as well as California as a whole (CARB, 2020b; CARB, 2013). Without the increase in vegetation management treatments proposed by the Program, wildland fire hazards would remain high in many areas of Midpen lands. Under the No Program Alternative, a severe wildland fire has a higher likelihood of occurring. In the event of a severe wildland fire, large quantities of air quality and GHG emissions would be emitted. It is expected that a wildland fire on Midpen lands would have many times greater criteria pollutant and GHG emissions than Program activities, including prescribed burning, and would likely burn a larger area, due to the uncontrolled nature of wildland fires. Although the total emissions from pre-treatment and prescribed burn activities, in addition to a post-treatment wildland fire may be equivalent to a wildland fire ignited prior to treatment, based on modeling, the avoidance of a catastrophic wildland fire reduces human exposure to air pollutants. This is primarily because prescribed burns (the largest emitting fuel management activity) are conducted during optimal

weather conditions to limit smoke and air quality impacts on nearby communities (Hyde & Strand, 2019).

Biological Resources
Less of Midpen lands would be treated annually as compared to under the Program, which would reduce the direct and indirect impacts of these treatments on biological resources.

Wildland fire can burn with much greater severity in untreated areas, however, due to the presence of excessive debris, overgrowth of understories, high density of trees, and ladder fuels. The intensity of fire can result in a complete loss of habitat and potential mortality for wildlife. Even for species and communities that benefit, such as chaparral and coastal scrub communities (Keeley, 2008) or San Mateo woolly sunflower (*Eriophyllum latilobum*), extreme wildland fire behavior and temperatures could damage the seedbank or cause mortality. Large tree mortality is also possible. Impacts to sensitive communities, plants, and wildlife, including listed species, can be severe in the event of a catastrophic wildland fire due to the high heat, less ability to choose less impactful control line locations, and large size.

Cultural and Tribal Cultural Resources
Direct impacts to cultural and tribal cultural resources from vegetation treatments be greatly reduced under the No Program Alternative, as vegetation management would be limited to that described in the IPMP.

The fuel management activities conducted under the No Program Alternative would leave a larger portion of Midpen lands untreated compared to the Program. These areas could be impacted by a severe wildland fire, if one is ignited or moves into the area. Direct or first order impacts to archaeological or historic resources include damage from heat; the deposition of combustion products (e.g., tars, soot, and ash) on the resource; and the exposure of cultural resources to discovery. Indirect or second order effects include the destruction or redistribution of artifacts due to accelerated erosion of the burned site. The reduced intensity of wildland fire in a treated landscape may be easier to contain and suppress, and the fireline intensity may be reduced, which means that compared to the Program, the impacts on cultural resources may be greater should a wildland fire occur under the No Program Alternative. Control line installation for prescribed fire or less severe wildland fires can be placed to avoid or minimize effects on cultural resources, compared to a severe wildland fire where control line placement cannot always be located optimally for resource avoidance.

Geology and Soils
Direct impacts from vegetation treatments that could result in landslides or soil erosion would be reduced under the No Program Alternative since much less vegetation treatment would occur.

The untreated areas of Midpen lands, however, would be at a higher risk of a severe wildland fire. A severe wildland fire would more likely increase the mortality of vegetation, including trees can alter soils, result in soil instability, and thus devastating post-fire erosion, debris flows, and landslides can occur. Topsoil can be lost from the extreme heat of a wildland fire.

Potentially greater slope and soil instability could occur in the event of a severe wildland fire as compared to the Program.

Hydrology and Water Quality
Direct impacts to hydrology and water quality, primarily from sedimentation from erosion, would be greatly reduced under the No Program Alternative, since much less vegetation treatments would occur.

A wildland fire, however, has a higher risk of becoming severe on untreated lands. Water quality can be affected from a severe fire due to runoff from burned areas containing ash, which may have significant effects on the chemistry of receiving waters such as lakes, wetlands, reservoirs, and rivers. Runoff from burned areas also produces higher nitrate, organic carbon, and sediment levels, warmer temperatures, and flashier stream flows that can result in downstream flooding. Severe wildland fires often burn larger areas due to difficulty in fire suppression and containment. The larger burn area and greater quantity of vegetation burned by a major fire compared to a prescribed burn as proposed under the Program or a less severe wildland fire would contribute more contaminants and have greater effects on water quality.

Utilities and Recreation
Impacts to utilities and recreation would be greatly reduced under the No Program Alternative, since work would be limited the current levels of work under the IPMP.

The less area of fuel management on Midpen lands could result in a higher risk of severe wildland fire and consequently greater risk to utilities and recreational facilities. Wildland fires can affect utilities, particularly severe fires, melting electrical wires, damaging cell phone towers, and destroying water facilities that have not been hardened against wildland fire (e.g., above ground water lines or storage and treatment facilities). Wildland fire can result in the loss of recreational areas including infrastructure and habitat that is the basis of the recreational experience.

Conclusions
The No Program Alternative would avoid all the direct impacts from the VMP and PFP. This alternative, however, would have no ability to improve ecosystem health on Midpen lands, nor would it reduce the risk of severe wildland fire since fuel treatments would not increase from existing levels, nor would it provide improved fuel management for firefighting and safety. The No Program Alternative does not meet any of the Program objectives since no new work would be performed under this alternative, except for potentially some piecemeal installation of firefighting infrastructure. The work currently conducted under the IPMP includes some fuel management treatments for defensible space, fuelbreaks, and disclines but is very limited compared with the Program's VMP. The IPMP includes up to 136 acres of manual and mechanical treatments, combined with other ongoing fuel management would total approximately 505 acres of fuel management, as compared with up to 2,630 acres of fuel treatments under the WFRP's VMP. Prescribed burning would not occur under the No Program Alternative.

While the No Program Alternative would reduce all impacts associated with Program implementation identified in this Program EIR, Midpen would be unable to substantially reduce the threat of wildland fires that could potentially severely damage visual resources, natural resources, and Midpen's assets, as well as result in direct and indirect impacts to surrounding communities through loss of lives or damage and loss of personal property, and result in health-related impacts from smoke. A major wildland fire could affect many resources with greater severity and more certainty than the impacts from implementing the Program. Viewers sensitive to changes and scenic vistas would experience greater effects. Large-scale wildland fires also result in substantial quantities of GHG emissions. Approximately 28.6 metric tons of CO_2 were emitted per acre burned in wildland fires in California in 2019 (CARB, 2020a). Smoke from uncontrolled wildland fires can create toxic air quality conditions for days across the Bay Area and California. Loss and damage to property and loss of life can be substantial. While it is unknown where or with what intensity a wildland fire can occur, implementing vegetation management and prescribed fire, as proposed under the Program, can reduce hazards and thus reduce the associated consequences and impacts, should a largescale wildland fire occur. The threat of these potential long-term impacts of a severe wildland fire outweigh the largely mitigable direct impacts of conducting the Program.

6.4.2 No Prescribed Fire Plan Alternative

Description of Alternative

This alternative would involve removal of the PFP from the Program, and no prescribed burning would be implemented. Up to 500 less acres of land would be treated per year with removal of prescribed burning. Pile burning under the VMP would still be allowed. All other plans would be implemented as described in the proposed Program.

Rationale for Full Analysis and Relationship to Program Objectives

This alternative is brought forward for full analysis as it would result in implementation of the VMP, Wildland Fire Pre-Plan, and Monitoring Plan, which would allow for the accomplishment of most of the basic objectives of the Program. Given the absence of prescribed fire work, Midpen would be unable to meet all the Program objectives as effectively as for the proposed Program, particularly those objectives related to habitat resiliency, cultural burning, and reducing wildland fire hazards.

Summary of Comparative Environmental Impacts

Overview

This alternative would avoid all impacts identified in the PFP from prescribed burning. The primary impacts reduced by this alternative are from criteria pollutant and GHG emissions. Other impacts could be reduced but would not be substantially reduced since the VMP and installation of infrastructure under the Wildland Fire Pre-Plans would still be implemented in the same manner as described for the proposed Program.

Impacts to ecosystem health and resiliency would be potentially greater under this alternative, since it does not include any prescribed fire. Prescribed fire promotes fire-adapted vegetation,

reduces fuel loads to control the severity of wildland fires, and reduces invasive non-native plants.

Lessened Impacts

Aesthetics

Significant and unavoidable visual impacts associated with the appearance of burn scars in the year after the burn would be avoided by this alternative. Other significant visual impacts would remain, however, from the creation of new fuelbreaks and other VMAs. Most visual impacts would be the same as for the Program, as they are associated with the VMP and Wildland Fire Pre-Plan, which would be implemented in the same manner under this alternative. Overall, visual impacts would remain significant and unavoidable, although somewhat reduced.

Air Quality

The No PFP alternative would greatly reduce the air quality impacts as evaluated in this Program EIR. Most of the air quality emissions exceedances under the Program are from prescribed burning in the PFP (see Section 4.3: Air Quality, Table 4.3-7). Emissions across all parameters would be well below thresholds even without mitigation under this alternative. Potential health impacts on workers from prescribed burns would not occur, although health risks from pile burns could still occur and would be reduced through the same mitigation as identified for the Program. Asbestos impacts would be similar and would require the same mitigation as for the Program.

GHG Emissions

Similar to criteria pollutant emissions, prescribed burning is the largest contributor of GHG emissions under the Program. Under this alternative, total GHG emissions per year would be less than 750 $MTCO_2e$[1] (see Section 4.7: Greenhouse Gas Emissions, Table 4.7-7) as compared with 10,174 $MTCO_2e$ generated by the Program as proposed. Carbon sequestration likely would not substantially change under this alternative as large trees are not affected by prescribed burns. Mostly understory and grasses are burned, and these areas could be treated manually or mechanically under this alternative.

Similar Environmental Impacts

Biological Resources

Potential impacts on rare plant and special-status wildlife species and sensitive natural communities may be slightly reduced under this alternative since prescribed burning would not occur. Most actions that have the potential for effects on plant and wildlife species (i.e., implementation of the VMP and infrastructure under the Wildland Fire Pre-Plans) would be performed in the same way under the Program as under this alternative. Impacts would be reduced to less than significant by the same mitigation as identified for the Program. Overall

habitat impacts may be greater than for the proposed Program in the long term with this alternative since the ecosystem resiliency and wildland fire hazard reduction benefits of prescribed burning would not be realized.

Cultural and Tribal Cultural Resources

Impacts on cultural resources and tribal cultural resources would be similar and potentially slightly reduced. While prescribed burning may result in a slightly lower potential to damage or destroy previously undiscovered historic and archaeological resources (buried resources) than mechanical removal, the likelihood is still so remote that the impact is relatively the same for both the Program and this alternative. Most impacts could occur from other manual and mechanical methods of vegetation removal across the Program area, and the same mitigation as identified for the rest of the Program activities would reduce impacts of this alternative on cultural and tribal cultural resources to less than significant.

Geology, Soils, and Hydrology

This alternative would reduce the area that could potentially be subject to erosion and sedimentation from prescribed fire. In both the Program and this alternative, vegetation would be removed under the VMP, and root strength could be affected, resulting in topsoil loss and erosion and subsequent sedimentation of waterways. Installation of infrastructure under the Wildland Fire Pre-Plan could also result in erosion and sedimentation. Mitigation to reduce impacts would be the same for the alternative as the Program to reduce impacts of the VMP and infrastructure under the Wildland Fire Pre-Plan. All other aspects of vegetation removal would be the same and would require the same mitigation to reduce impacts to less than significant.

Fire Hazards

Fire hazards would decrease slightly under this alternative. The safety hazard to the public and structures from proximity to prescribed burns would be avoided. Risks of wildland fire spread from loss of control of a prescribed burn would be avoided, although under the Program as proposed would be very remote and was found to be less than significant. Similar mitigation for risks from pile burning would reduce impacts to less than significant. The benefits of prescribed fire to reduce the potential severity of a wildland fire in the future (and reduce the potential severity of impacts of a wildland fire), should one occur, would not be realized.

Hazardous Materials

Accidental spills of hazardous materials would be slightly reduced as compared with the Program under this Alternative since prescribed burning would not occur. Hazardous spills or exposures from fuels and lubricants from prescribed burning would not occur. Impacts from exposure to hazardous materials from ground disturbance within the Almaden AFS would be the same under both the Program and the alternative as would exposures from implementation of the VMP and installation of infrastructure under the Wildland Fire Pre-Plan. Mitigation for the Program would also be applicable to this alternative to reduce impacts to less than significant.

Noise
Noise impacts would be somewhat reduced for this alternative since noise associated with prescribed burns would not occur. Noise impacts would be the same for the rest of the plans under the Program for this alternative and would be mitigated to less than significant by the same measures.

Recreation and Transportation
Recreational impacts and transportation impacts would be slightly reduced since trails and roads would not need to be closed without the PFP. Overall impacts on recreation and transportation would be very similar and would be mostly related to recreationalists' or vehicular safety when using the same trails and roads as heavy equipment under the VMP and Wildland Fire Pre-Plan. Mitigation defined for the Program would also mitigate significant impacts of this alternative to less than significant.

New or Greater Environmental Impacts
The overall ecosystem benefits of this alternative would be reduced as compared with those of the Program as evaluated under this Program EIR. While it is imperative to try to reduce the occurrences of catastrophic wildland fires, fire is necessary for the proper functioning of forest ecosystems. Fire is infinitely complex. It burns in a mosaic of different intensities depending on topography, weather conditions, type and amount of fuels, season, and other parameters. Mosaic patterns are natural and help create a heterogeneous forest of different age classes, successional stages, and species diversity. Fire in mixed-conifer forests, for example, recycles nutrients, prepares the seedbed for plants to regenerate, facilitates germination in some species, opens up the forest for pioneer species to establish, affects wildlife in numerous ways, creates a mosaic of habitats, and influences pest populations and disease development. While manual and mechanical methods of vegetation control can meet some of these goals, they do not replace the fire process that has evolved in the forest that has only been suppressed in the modern era (Forestland Steward, 2013). Interior areas of the OSPs may not be treated without the PFP, and as such, may experience larger effects if a wildland fire were to occur.

Conclusions
This alternative reduces two of the significant and unavoidable impacts associated with air quality and GHG emissions from the Program. Several other impacts would be somewhat reduced since prescribed fire would not be implemented, but would not be substantially reduced. The Program, which includes the PFP, provides more benefits to overall ecosystem health than this alternative, as carefully planned prescribed burning has benefits to soil health, plant regeneration, understory growth, and species diversity over time.

This alternative, notably, does not meet the second objective of integrating Native American traditional ecological knowledge practices related to prescribed fire. It would also limit the effectiveness of the Program towards meeting the first objective of managing vegetation to establish resilient ecosystems and the third objective of the Program regarding managing vegetation on Midpen lands to reduce the harmful effects of wildland fire on people, property, and natural and cultural resources. The VMP includes activities that would improve ecosystem

resiliency and reduce wildland fire hazards, but reintroducing prescribed fire would allow for meeting both objectives to a greater extent through preservation and enhancement of existing significant biological resources by mimicking lost or diminished ecosystem processes from fire and by reducing excess fuel over large areas of the landscape that could otherwise result in a more intensive and damaging wildland fire.

6.4.3 Reduced Program – Reduced Acreages of Vegetation Management Areas for Enhanced Fire Management

Description of Alternative

Vegetation management under this alternative would focus on natural resources. The creation of ecosystem resiliency VMAs would be the same as for the proposed Program, but the total acreage of enhanced fire management VMAs (e.g., fuelbreaks) would be reduced. The size criteria used to establish the VMAs for enhanced fire management would be reduced under this alternative. Strikeout and underline are used to show the changes in the criteria for establishment of reduced VMAs for enhanced fire management, as compared with the Program:

a. Adjacent to or near existing or planned fuels treatment areas;
b. Identified by Midpen or other fire management or vegetation management professional staff as important areas for fuels treatment;
c. Up to ~~300~~ 100 feet from vulnerable populations (school, hospital, nursing home);
d. Up to 100 feet from existing occupied Midpen buildings;
e. Up to ~~200~~ 100 feet from emergency response infrastructure (communications tower, fire station, police station, medivac location, evacuation center, critical water infrastructure, such as storage tanks and pumps for fire suppression);
f. ~~Up to 200 feet from a designated expanded fire response/fire monitoring clearing zone (safety zone, parking area, staging area, helicopter landing zone, lookout);~~
g. Within ~~200~~ 100 feet of sensitive resources or other Midpen High Value Asset that would benefit from and/or respond favorably to treatment or at risk of loss in the event of a wildland fire;
h. Within ~~200~~ 100 feet of a designated Midpen evacuation route;
i. Within 10-25 feet (depending on flame length) of primary Midpen designated emergency access roads accessible by a Wildland Type 3 fire engine; and
j. ~~Areas that enhance the ability to efficiently conduct fire suppression by providing infrastructure (e.g. staging areas, disc lines) and ingress/egress of fire suppression equipment.~~

The total acreage of VMAs for enhanced fire management purposes under this reduced Program alternative has not been mapped or calculated but is expected to reduce the total acreage of VMAs for enhanced fire protection by at least 20 percent. The potential maximum acreages of VMAs for enhanced fire management could be reduced each year as shown in Table 6.4-2. Strikeout and underline are used to show the changes in maximum acreages treated, as compared with the Program.

Table 6.4-2 Maximum Annual Treatments under the Reduced Program – Reduced Acreages of Vegetation Management Areas for Enhanced Fire Management

Activity	Treatment Type	Unit	Create New or Maintain Existing	Maximum Annual Treatments
Shaded Fuelbreaks	Manual, mechanical, herbicide, prescribed herbivory	Acre	New	~~50~~ 25
			Maintain	~~100~~ 50
Non-Shaded Fuelbreaks	Mechanical, herbicide, prescribed herbivory	Acre	New	5
			Maintain	80
Evacuation Routes, Critical Infrastructure, Fire Management Logistics Fuelbreaks	Manual, mechanical, herbicide, prescribed herbivory	Acre	New	~~400~~ 200
			Maintain	~~400~~ 200
Target Hazards Fuelbreaks	Manual, mechanical, herbicide, prescribed herbivory	Acre	New	20
			Maintain	20
Fire Agency New Recommended Fuelbreaks	Manual, mechanical, herbicide, prescribed herbivory	Acre	New	100
			Maintain	N/A
Ingress/Egress Route Fuelbreaks	Mechanical, herbicide, prescribed herbivory	Acre	New	25
			Maintain	25
Disclines	Mechanical, herbicide	Acre	New	10
			Maintain	60
Midpen Structures and Facilities Defensible Space	Manual, mechanical, herbicide	Acre	New	As needed
			Maintain	175
Fire Management Logistics Areas	Manual, mechanical	Acre	New	~~100~~ 50
			Maintain	~~30~~ 15
Eucalyptus and Acacia Removal	Manual, mechanical, herbicide	Acre	New	20
			Maintain	10
Fuel Reduction Areas	Manual, mechanical, herbicide, prescribed herbivory	Acre	New	500
			Maintain	500
Total			**New**	**~~1,230~~ 955 acres**
			Maintain	**~~1,400~~ 1,135 acres**

Notes:

Monitoring actions will be determined by Midpen staff annually. Prescribed burning units and maximum burns per year will be defined through development of the PFP.

Rationale for Full Analysis and Relationship to Program Objectives

This alternative is brought forward for full analysis because it would reduce impacts associated with more intensive vegetation management activities associated with the creation and maintenance of VMAs for enhanced fire management. The Program would reduce the total acreage of enhanced fire management VMAs as well as the total acreages treated per year, while still providing a program that balances fuel management areas and ecosystem resiliency areas. It is a feasible alternative and would reduce environmental impacts of the Program associated with creation and maintenance of various types of fuelbreaks and defensible spaces.

This alternative meets most of the objectives of the Program but is not as effective as the Program at meeting the third objective of the Program regarding managing vegetation infrastructure on Midpen lands to reduce the harmful effects of wildland fire on people, property, and natural resources.

Summary of Comparative Environmental Impacts

Overview

This alternative would reduce the extent of impacts associated with VMP activities for enhanced fire management, which are more intensive than creation of FRAs for ecosystem resiliency. Overall impacts for several parameters would be reduced each year and over the life of the Program. The primary potentially significant impact that would be lessened would be direct and indirect impacts to special status-species and sensitive natural communities, since less acreages would be subject to the intensive fuelbreak treatments. Visual impacts could also be lessened.

Lessened Impacts

Aesthetics

Visual impacts from fuelbreak creation would be lessened under this alternative by lessening the number of locations where fuelbreaks that degrade of scenic quality as viewed from scenic roads, trails, corridors, or viewpoints occur. While the number of locations where a significant visual impact could occur would be reduced, the impact would remain significant and unavoidable.

Other visual impacts would be similar to the Program, including from dust, and significant and unavoidable impacts from prescribed burning and from installation of infrastructure under the Wildland Fire Pre-Plans.

Biological Resources

Implementation of this alterative would reduce both annual and total potential impacts to rare plants, special-status species, and sensitive communities by reducing the total acreage of enhanced fire management VMAs. Impacts could still occur and the same mitigation as identified for the Program would remain applicable to reduce the potentially significant impacts to biological resources. The intensity of impacts is anticipated to be less, commensurate with the reduction in areas treated (assumed to be approximately 20 percent less). For example, potential impacts to all plant and wildlife species and sensitive habitats identified in Section 4.4:

Biological Resources could still occur, since all Program activities would still occur under this alternative. While the intensity or potential for impacts may be reduced, impacts could still be significant. Mitigation to reduce impacts to species would need to be applied but may need to be used less often since less acreage may be impacted.

Impacts to biological resources from all other actions (i.e., creation of FRAs, implementation of the PFP, installation of infrastructure) would be the same as for the Program, with the same mitigation applicable for reduction of impacts to less than significant.

Geology, Soils, and Hydrology

Potentially significant impacts associated with slope stability, erosion, and sedimentation from soils exposures and loss of root strength would be reduced under this alternative. Enhanced fire management VMAs, such as fuelbreaks have the greatest potential of the activities identified in the Program for creating slope instability from loss of root strength. The likelihood is not high, but by reducing the areas treated by approximately 20 percent, the total risks of soil impact would be reduced by a commensurate percentage. Impacts could still occur and would be reduced with the mitigation identified in Chapter 4: Environmental Setting, Impacts, and Mitigation Measures. The impacts and mitigation for creation of ecosystem resiliency VMAs, implementation of the PFP, and for installation of new firefighting infrastructure under the Wildland Fire Pre-Plan would be the same as for the Program.

Similar Environmental Impacts

Air Quality and GHG Emissions

Air quality and GHG emissions would be similar to those described for the Program. Criteria pollutant emissions for fuelbreak work would be reduced by an amount commensurate with the reduction in activities associated with enhanced fire management VMA creation and maintenance, but these impacts were already less than significant for the Program, as shown in Section 4.3: Air Quality, Table 4.3-7 and Section 4.7: Greenhouse Gas Emissions, Table 4.7-7. The potentially significant air quality and GHG impacts of the Program are primarily caused by prescribed fire, which would be performed in the same manner under this alternative. The significant unavoidable impacts from prescribed fire would be the same as for the Program.

Cultural and Tribal Cultural Resources

Impacts on cultural resources would be similar, although potentially significant impacts to cultural and tribal cultural resources could be slightly reduced through a reduction in maximum fuelbreak creation and maintenance each year and over the life of the Program. Fuelbreak creation has some potential to impact known and previously undiscovered resources; however, the likelihood is small as many resources are not anticipated in these limited areas. The impact is relatively the same for both the Program and this alternative. All impacts identified for the Program could still occur and the same mitigation as identified in Chapter 4: Environmental Setting, Impacts, and Mitigation Measures would also reduce impacts to cultural and tribal cultural resources from implementation of this alternative to less than significant.

Hazardous Materials and Wildland Fire
Potentially significant impacts associated with hazardous materials accidental spills and exposure would be similar, although slightly reduced for this alternative. The likelihood and severity of a spill is low, even for the Program, so a reduction in total acreages treated for enhanced fire management VMAs by approximately 20 percent would not substantially reduce the risks as compared with the Program. The same impacts and mitigation measures would apply as identified for the Program to reduce effects to less than significant. Impacts and mitigation associated with all other aspects of the Program (i.e., the ecosystem resiliency FRAs, the PFP, and installation of firefighting infrastructure under the Wildland Fire Pre-Plan) would be the same as for the Program.

Reducing the amount of people and equipment needed each year by reducing acreage treated by approximately 20 percent would reduce the potential for accidental ignition of wildland fire when conducting activities; however, risks would still occur from the remaining activities. The same mitigation would be required to minimize these risks as identified for the Program.

Noise
Noise impacts would be similar to the Program. While the total number of sensitive receptors that could be exposed to noise could be reduced with a reduced acreage of enhanced fire management VMAs being treated each year, similar noise impacts could occur, requiring implementation of the same mitigation to ensure no violations of local noise ordinances through excessive and unnecessary noise generation.

Recreation and Transportation
Recreation and transportation impacts would be similar to the Program. There would be some reduction in safety impacts and impacts associated with emergency access with less acreage treated per year. The other activities in the Program would still generate the same impacts and would require mitigation. Impacts are relatively minor across the program, such that a reduction in total acreages treated by 20 percent would not constitute a substantial lessening of the potential impacts.

New or Greater Environmental Impacts
Reducing the total acreage and number of enhanced fire management VMAs created would not result in any greater direct environmental impacts than for the Program. This alternative may have greater potential for effects to environmental resources if a wildland fire were to occur on Midpen lands, as compared with the Program. Enhanced fire management VMAs under the Program provide protection to ingress and egress routes, firefighting equipment and staging, and allow for more locations to fight a fire. Reducing these areas would reduce the overall effectiveness of the Program.

Conclusions
This alternative provides some degree of reduction of potentially significant impacts to aesthetic and biological resources and reductions to geologic and hydrologic impacts associated with slope instability, erosion, and sedimentation by reducing fuelbreak acreages by approximately

20 percent. Many other resource parameters would see some reductions in impacts, but reductions would be minor. In all cases, mitigation measures proposed for the Program would reduce potentially significant impacts to less than significant. Because this alternative includes the PFP, impacts from criteria pollutant emissions and GHGs would remain significant and unavoidable. Aesthetics impacts would also remain significant and unavoidable.

This alternative meets most of the objectives of the Program but is not as effective at meeting the third objective of the Program regarding managing vegetation on Midpen lands to reduce the harmful effects of wildland fire on people, property, and natural resources. Impacts to life and property, should a wildland fire occur, could be greater under this alternative than under the proposed Program due to the reduction in fuelbreaks in this alternative.

6.4.4 Reduced Program – No Acacia or Eucalyptus Removal and Limit Treatments in Sensitive Communities to Fuel Reduction Areas

Description of Alternative

This alternative would eliminate the acacia and eucalyptus removal and would include conducting FRA-level of work in sensitive communities identified in this Program EIR, instead of full intensity fuelbreaks in these communities.

The approximately 200 acres of eucalyptus and acacia that could be removed under the Program would be eliminated under this alternative. Annual grassland series would be mowed, similar to treatment under the Program (up to 788 acres). The list below identifies the number of acres of sensitive communities that would be treated with FRAs instead of more intensive enhanced fire management VMAs (i.e., fuelbreaks):

- Coastal scrub: Up to 112 acres
- Chaparral: Up to 76 acres
- Oak savanna: Up to 12 acres
- Hardwood forest: Up to 325 acres
- Conifer forest: Up to 85 acres
- Aquatic: Up to 4.6 acres

Enhanced fire management VMAs for these areas under the Program include fuelbreaks, shaded fuelbreaks, disclines, and defensible space. Converting treatment to FRAs would significantly reduce the intensity of treatments and would eliminate disclines in these communities.

The total acreages treated per year would remain the same as for the Program; however, annual FRA treatments and maintenance would increase in the same proportion as the decrease in the enhanced fire management VMA treatments and maintenance.

Rationale for Full Analysis and Relationship to Program Objectives

This alternative is brought forward for full analysis because it would reduce potentially significant aesthetic and erosion impacts. It would also reduce potential impacts to sensitive

butterfly and avian species by leaving potential nesting habitat, and would reduce impacts to sensitive communities by reducing the intensity of vegetation removal and treatments in these communities.

This alternative is feasible and meets most of the objectives of the Program. This alternative is not, however, as effective at meeting the third objective of the Program regarding managing vegetation (including invasive, fire prone trees) on Midpen lands to reduce the harmful effects of wildland fire on people, property, and natural and cultural resources. Eucalyptus trees can carry fire long distances through wind-blown embers, are believed to be combustible, and create extensive dead leaf and branch matter that is also highly combustible. Acacias are also fire prone invasive species that create extensive, combustible debris. Leaving these invasive fire prone trees would make the Program less effective at reducing wildland fire hazards. Reducing the intensity of treatments in sensitive communities may also reduce the effectiveness of the alternative at meeting the third Program objective to reduce wildland fire hazards and resultant effects on property, and natural and cultural resources. Enhanced fire management VMAs may not function optimally where treatment intensity is reduced to the level of an FRA, particularly near ingress and egress routes and in defensible space.

Summary of Comparative Environmental Impacts

Lessened Environmental Impacts

Aesthetics

Significant visual impacts from enhanced fire management VMAs would be lessened under this alternative by avoiding the potentially significant and unavoidable impacts of removal of eucalyptus groves in areas, and by reducing the intensity of fuelbreak treatments in some habitat types (i.e., sensitive plant communities). Other visual impacts would be similar to the Program. Significant visual impacts from creation of fuelbreaks outside of sensitive communities, from prescribed burning, and from installation of new infrastructure would remain significant and unavoidable under this alternative.

Biological Resources

Potentially significant impacts to sensitive communities would be substantially reduced under this alternative. FRAs would be designed to minimize effects to sensitive natural communities where fuel treatments would occur in these communities. The need for compensatory mitigation for treatments in sensitive communities would be avoided. Similarly, impacts to special-status wildlife and plants that could occur in these communities would be reduced by decreasing the intensity of vegetation treatment and tree removal. Potentially significant impacts to monarch butterflies and nesting birds would be reduced by eliminating removal of acacia and eucalyptus from the Program. The same mitigation as identified for the Program would apply to this alternative to reduce other remaining impacts to less than significant.

Geology, Soils, and Hydrology

Potentially significant impacts associated with slope stability, erosion, and sedimentation from soils exposures and loss of root strength would be reduced under this alternative. Enhanced fire management VMAs, such as fuelbreaks, have the greatest potential of the activities identified in

the Program for creating slope instability from loss of root strength. Reducing the intensity of treatments in sensitive communities would reduce the potential for these impacts.

Impacts could still occur and would be reduced with the mitigation identified in Chapter 4: Environmental Setting, Impacts, and Mitigation Measures. The remaining impacts and mitigation for creation of ecosystem resiliency VMAs, implementation of the PFP, and for installation of new firefighting infrastructure under the Wildland Fire Pre-Plan would be the same as for the Program.

Similar Environmental Impacts

Air Quality and GHG Emissions

Air quality and GHG emissions would be similar to those described for the Program as similar acreages would be treated per year as identified for the Program. Criteria pollutant emissions would be somewhat reduced by converting enhanced fire management VMA creation and maintenance in sensitive communities to FRAs that involve less intensive vegetation management, but these impacts were already less than significant for the Program, as shown in Section 4.3: Air Quality, Table 4.3-7 and Section 4.7: Greenhouse Gas Emissions, Table 4.7-7. The potentially significant air quality and GHG impacts of the Program are primarily caused by prescribed fire, which would be performed in the same manner under this alternative. The significant unavoidable impacts would be the same as for the Program.

Cultural and Tribal Cultural Resources

Impacts on cultural resources would be similar, although potentially significant impacts to cultural and tribal cultural resources could be slightly reduced through a reduction in intensive treatments in sensitive natural communities. The same total areas of treatments would occur, and thus, the potential for impacts would be similar to the Program. All impacts identified for the Program could still occur and the same mitigation as identified in Chapter 4: Environmental Setting, Impacts, and Mitigation Measures would also reduce impacts to cultural and tribal cultural resources from implementation of this alternative to less than significant.

Hazardous Materials and Wildland Fire

Potentially significant impacts associated with hazardous materials accidental spills and exposure would be similar for this alternative. The likelihood and severity of a spill is low, even for the Program, so a reduction in intensity of treatments in sensitive natural communities would not substantially reduce the risks as compared with the Program. The same impacts and mitigation measures would apply as for the Program to reduce effects to less than significant. Impacts and mitigation associated with all other aspects of the Program (i.e., the ecosystem resiliency FRAs, the PFP, and installation of firefighting infrastructure under the Wildland Fire Pre-Plan) would be the same as for the Program.

Reducing the intensity of treatments in sensitive natural communities and eliminating eucalyptus and acacia removal would slightly reduce the potential for accidental ignition of wildland fire when conducting activities; however, risks would still occur from the remaining

activities. The same mitigation would be required to minimize these risks as identified for the Program.

Noise

Noise impacts would be similar to the Program. While the duration that sensitive receptors exposed to noise could be reduced with a conversion of enhanced fire management VMAs in sensitive communities to FRAs, similar noise impacts could occur, requiring implementation of the same mitigation to ensure no violations of local noise ordinances through excessive and unnecessary noise generation.

Recreation and Transportation

Recreation and transportation impacts would be similar to the Program as the same total acreages and areas would be treated. There would be some reduction in safety impacts and impacts associated with emergency access by not removing acacia or eucalyptus and reducing intensity of treatments in sensitive natural communities. The other activities in the Program, however, would still generate the same impacts requiring mitigation. Impacts are relatively minor across the Program, such that a reduction in some intensity of treatments would not constitute a substantial lessening of the potential impacts.

New or Greater Environmental Impacts

Reducing the total enhanced fire management VMAs by converting them into FRAs in sensitive natural communities would reduce their effectiveness, and thus result in a greater potential for effects to life and property if a wildland fire were to occur on Midpen lands, as compared with the Program. The enhanced fire management VMAs provide protection to ingress and egress routes, firefighting equipment and staging, and allow for more locations to fight a fire. Reducing the intensity of treatments in these areas would reduce the overall effectiveness of the alternative as compared with the Program. Leaving eucalyptus and acacia could also increase fire risks as compared with the Program, due to general higher flammability of eucalyptus. As invasive trees, removal under the Program provides benefits to ecological resiliency and native habitat (consistent with the Midpen's RM Policies). These benefits would not be realized under this alternative.

Conclusions

This alternative provides reductions to potentially significant impacts to biological resources and reductions to geologic and hydrologic impacts associated with slope instability, erosion, to visual impacts, and from sedimentation by reducing intensities of treatments in sensitive natural communities and by not removing acacia and eucalyptus. Many other resource parameters would see some reductions in impacts, but reductions would be minor. Mitigation as proposed for the Program would reduce potentially significant impacts to less than significant for this alternative. This alternative includes the PFP, and as such, impacts from criterial pollutant emissions and GHGs would remain significant and unavoidable, as would some visual impacts.

This alternative meets most of the objectives of the Program but is not as effective at meeting the third objective of the Program regarding managing vegetation infrastructure on Midpen lands to reduce the harmful effects of wildland fire on people, property, and natural resources, including elimination of some disclines and defensible space treatments where they would occur in sensitive natural communities. Enhanced fire management VMAs may not function optimally where treatment intensity is reduced to the level of an FRA, particularly near ingress and egress routes and in defensible space. As a result, if a wildland fire were to occur, the effects of that fire could be more severe under this alternative than if the Program as proposed were implemented.

6.5 Comparison of Alternatives

Table 6.5-1 includes a summary comparing the Program and the three alternatives by each impact statement within Chapter 4: Environmental Setting, Impacts, and Mitigation Measures of this Program EIR.

Table 6.5-1 Comparison of Alternatives

Impact Description	Program		No Program Alternative[a, b]	No Prescribed Fire Plan Alternative	Reduced Program - Reduced Acreages of Vegetation Management Areas for Enhanced Fire Management	Reduced Program - No Acacia or Eucalyptus and Limit Treatments in Sensitive Communities to Fuel Reduction Areas
	Before Mitigation	After Mitigation				
Impact Aesthetics-1: The proposed Program could have a substantial adverse effect on a scenic vista, or substantially degrade the existing visual character or quality of public views of the site and its surroundings.	Potentially significant	Potentially significant and unavoidable	Temporary degradation of public views from implementation of vegetation management activities would be avoided. Similar to the Program for installation of firefighting infrastructure may be significant.	Reduced impacts from no prescribed burning, with overall impacts remaining significant and unavoidable.	Reduced impacts from reducing the total acreage of enhanced fire management VMAs, with overall impacts remaining significant and unavoidable.	Reduced impacts from elimination of acacia or eucalyptus removal and reduced intensity of vegetation management in sensitive natural communities, with overall impacts remaining significant and unavoidable.
Impact Aesthetics-2: The proposed Program could substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	Less than significant	N/A	No impact	Slightly reduced impacts from no prescribed burning and less than significant.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs and less than significant.	Slightly reduced impacts from elimination of acacia or eucalyptus removal and reduced intensity of vegetation management in sensitive natural communities, less than significant.
Impact Aesthetics-3: The proposed Program could create a new source of substantial light or glare that	Less than significant	N/A	Similar to the Program for installation of firefighting	Slightly reduced impacts from no prescribed	Similar to the Program and less than significant.	Similar to the Program and less than significant.

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	Before Mitigation	After Mitigation				
would adversely affect day or nighttime views in the area.			infrastructure and less than significant.	burning and less than significant.		
Impact Air Quality-1: The proposed Program could conflict with or obstruct implementation of the applicable air quality plan.	Potentially significant	Potentially Significant and unavoidable	Less than significant because of no prescribed burning.	Less than significant because of no prescribed burning.	Significant and unavoidable because of prescribed burning, similar to the Program.	Significant and unavoidable because of prescribed burning, similar to the Program.
Impact Air Quality-2: The proposed Program could result in a cumulatively considerable net increase of any criteria pollutant for which the program region is non-attainment under an applicable federal or state ambient air quality standard.	Potentially significant	Potentially Significant and unavoidable	Less than significant because of no prescribed burning.	Less than significant because of no prescribed burning.	Significant and unavoidable because of prescribed burning, similar to the Program.	Significant and unavoidable because of prescribed burning, similar to the Program.
Impact Air Quality-3: The proposed Program could expose sensitive receptors to substantial pollutant concentrations.	Potentially significant	Potentially Significant and unavoidable	Less than significant because of no prescribed burning.	Less than significant because of no prescribed burning.	Similar to the Program and significant and unavoidable.	Slightly reduced impact from reduced intensity of vegetation management in sensitive natural communities, but significant and unavoidable.
Impact Air Quality-4: The proposed Program could result in other	Potentially significant	Potentially significant	Less than significant	Less than significant	Similar to the Program and	Slightly reduced impact from and reduced

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	Before Mitigation	After Mitigation				
emissions (such as those leading to odors) adversely affecting a substantial number of people.		and unavoidable	because of no prescribed burning.	because of no prescribed burning.	significant and unavoidable.	intensity of vegetation management in sensitive natural communities, but significant and unavoidable.
Impact Biological Resources-1: The proposed Program could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Reduced intensity of impacts from reducing the total acreage of enhanced fire management VMAs but less than significant with mitigation.	Reduced impacts from elimination of acacia and eucalyptus removal and reduced intensity of vegetation management in sensitive natural communities, but less than significant with mitigation.
Impact Biological Resources-2: The proposed Program could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS, or State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal,	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Reduced intensity of impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Less than significant from elimination of acacia and eucalyptus removal and only FRA-level work in sensitive natural communities.

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filling, hydrological interruption, or other means.						
Impact Biological Resources-3: The proposed Program could interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Reduced intensity of impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Reduced impacts from elimination of acacia and eucalyptus removal and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.
Impact Biological Resources-4: The proposed Program could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or adopted HCP, Natural Community Conservation Plan (NCCP), or other approved local, regional, or State HCP.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Reduced intensity of impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Reduced impacts from elimination of acacia and eucalyptus removal, but less than significant with mitigation.
Impact Cultural Resources-1: The proposed Program could cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to CEQA Guidelines Section 15064.5.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less	Slightly reduced impact from elimination of acacia and eucalyptus removal and only FRA-level work in sensitivity natural communities, but less

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					than significant with mitigation.	than significant with mitigation.
Impact Cultural Resources-2: The proposed Program could disturb human remains, including those interred outside of formal cemeteries.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Slightly reduced impacts from elimination of acacia and eucalyptus removal and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.
Impact Cultural Resources-3: The proposed Program could cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC § 5020.1(k); or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC § 5024.1.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Slightly reduced impact from elimination of acacia and eucalyptus removal and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.

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Impact Geology and Soils-1: The proposed Program could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; ii) Strong seismic ground shaking; iii) Seismic-related ground failure, including liquefaction; or iv) Landslides.	Less than significant	N/A	Similar to the Program for installation of infrastructure and less than significant.	Reduced impacts from no prescribed burning and less than significant.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs and less than significant.	Slightly reduced impacts from elimination of acacia and eucalyptus removal, and less intensive vegetation management for FRAs, and less than significant.
Impact Geology and Soils-2: The proposed Program could result in substantial soil erosion or the loss of topsoil.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant.	Reduced impacts from no prescribed burning, but less than significant with mitigation.	Reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Reduced impacts from elimination of acacia and eucalyptus removal, and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.
Impact Geology and Soils-3: The proposed Program could be located on a geologic unit or soil that is unstable, or that would become	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and	Reduced impacts from no prescribed burning, but less	Reduced impacts from reducing the total acreage of enhanced fire	Reduced impacts from elimination of acacia and eucalyptus removal and only FRA-level work in

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unstable as a result of the proposed plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.			less than significant with mitigation.	than significant with mitigation.	management VMAs, but less than significant with mitigation.	sensitivity natural communities, but less than significant with mitigation.
Impact Geology and Soils-4: The proposed Program could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), or a corrosive soil creating substantial direct or indirect risks to life or property.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Reduced impacts from no prescribed burning, but less than significant with mitigation.	Reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Reduced impacts from elimination of acacia and eucalyptus removal and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.
Impact Geology and Soils-5: The proposed Program area could have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	No impact	N/A	No impact	No impact	No impact	No impact
Impact Geology and Soils-6: The proposed Program could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less than significant	N/A	Similar to the Program for installation of infrastructure and less than significant.	Same impacts and less than significant	Reduced impacts from reducing the total acreage of enhanced fire management VMAs and less than significant.	Reduced impacts from elimination of acacia and eucalyptus removal and only FRA-level work in sensitivity natural communities, and less than significant.

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Impact GHG-1: The proposed Program could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially significant	Potentially significant and unavoidable	Less than significant because of no prescribed burning.	Less than significant because of no prescribed burning.	Significant and unavoidable because of prescribed burning, similar to Program.	Significant and unavoidable because of prescribed burning, similar to Program.
Impact GHG-2: The proposed Program could conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	Less than significant	N/A	Less than significant because of no prescribed burning.	Less than significant because of no prescribed burning.	Similar to Program and less than significant.	Similar to Program and less than significant.
Impact Hazards-1: The proposed Program could create a significant hazard to the public or the environment through emission of or exposure to hazardous materials.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Slightly reduced impacts from elimination of acacia and eucalyptus removal, and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.
Impact Hazards-2: The proposed Program could be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Similar to the Program and less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less	Similar to the Program and less than significant with mitigation.

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hazard to the public or the environment.					than significant with mitigation.	
Impact Hazards-3: For a proposed Program located within an area covered by an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the Program area.	No impact	N/A	No impact	No impact	No impact	No impact
Impact Hazards-4: The proposed Program could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant.	Similar to the Program and less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Similar to the Program and less than significant with mitigation.
Impact Hazards-5: The proposed Program could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant.	Slightly reduced impacts from no prescribed burn, but less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less	Slightly reduced impacts from elimination of acacia or eucalyptus removal and only FRA-level work in sensitivity natural communities, but less

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					than significant with mitigation.	than significant with mitigation.
Impact Hazards-6: Due to slope, prevailing winds, and other factors, the proposed Program could exacerbate wildland fire risks, and thereby expose project occupants to pollutant concentrations from a wildland fire or the uncontrolled spread of a wildland fire.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant.	Slightly reduced impacts from no prescribed burn, but less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Slightly reduced impacts from elimination of acacia or eucalyptus removal and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.
Impact Hazards-7: The proposed Program could require the installation or maintenance of associated infrastructure (such as roads, fuelbreaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Similar to the Program and less than significant with mitigation.	Similar to the Program and less than significant with mitigation.	Similar to the Program and less than significant with mitigation.
Impact Hazards-8: The proposed Program could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant	Slightly reduced impacts from no prescribed burn, but less than significant with mitigation	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less	Reduced impacts from elimination of acacia or eucalyptus removal and only FRA-level work in sensitivity natural communities, but less

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					than significant with mitigation	than significant with mitigation.
Impact Hydrology-1: The proposed Program could violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality, or substantially alter the existing drainage pattern of the area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on or off site.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant.	Slightly reduced impacts from no prescribed burn, but less than significant with mitigation.	Reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Reduced impacts from elimination of acacia and eucalyptus removal and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.
Impact Hydrology-2: The proposed Program could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Program may impede sustainable groundwater management of the basin.	Less than significant	N/A	Similar to the Program and less than significant.	Similar to the Program and less than significant.	Similar to the Program and less than significant.	Similar to the Program and less than significant.
Impact Hydrology-3: The proposed Program could substantially alter the existing drainage pattern of the site or area, including through the	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and	Slightly reduced impacts from no prescribed burning, but less	Reduced impacts from reducing the total acreage of enhanced fire	Reduced impacts from elimination of acacia and eucalyptus removal, and only FRA-level work in

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alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; ii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iii) impede or redirect flood flows.			less than significant with mitigation.	than significant with mitigation.	management VMAs, but less than significant with mitigation.	sensitivity natural communities, but less than significant with mitigation.
Impact Hydrology-4: The proposed Program could risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones.	Less than significant	N/A	Similar to the Program for installation of infrastructure and less than significant.	Similar to the Program and less than significant.	Similar to the Program and less than significant.	Similar to the Program and less than significant.
Impact Hydrology-5: The proposed Program could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant.	Slightly reduced impacts from no prescribed burn, but less than significant with mitigation.	Reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less	Reduced impacts from elimination of acacia and eucalyptus removal, and only FRA-level work in sensitivity natural communities, but less

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	Before Mitigation	After Mitigation				
					than significant with mitigation	than significant with mitigation.
Impact Noise-1: The proposed program could result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the program in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation	Reduced impacts from no prescribed burning, but less than significant with mitigation.	Similar to the Program and less than significant with mitigation.	Similar to the Program and less than significant with mitigation.
Impact Noise-2: The proposed program could result in generation of excessive groundborne vibration or groundborne noise levels.	Less than significant	N/A	Similar to the Program for installation of infrastructure and less than significant.	Reduced impacts from no prescribed burn and less than significant.	Similar to the Program and less than significant.	Similar to the Program and less than significant.
Impact Noise-3: For a program located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the proposed program could expose people residing or working in the project area to excessive noise levels.	No impact	N/A	No impact	No impact	No impact	No impact

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Impact Recreation-1: The proposed Program could increase the use of existing recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated or necessitate construction or expansion of recreational facilities.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation	Slightly reduced impacts from elimination of acacia or eucalyptus removal and only FRA-level work in sensitivity natural communities, but less than significant with mitigation
Impact Transportation-1: The proposed Program could substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant	Slightly reduced impacts from no prescribed burn, but less than significant with mitigation	Slightly reduced impacts from reducing the total acreage of enhanced fire management VMAs, but less than significant with mitigation.	Slightly reduced impacts from elimination of acacia or eucalyptus removal and only FRA-level work in sensitivity natural communities, but less than significant with mitigation.
Impact Transportation-2: The proposed Program could conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	Less than significant	N/A	Similar to the Program and less than significant.	Similar to the Program and less than significant.	Similar to the Program and less than significant.	Similar to the Program and less than significant.

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Impact Transportation-3: The proposed Program could result in inadequate emergency access.	Potentially significant	Less than significant	Similar to the Program for installation of infrastructure and less than significant with mitigation.	Slightly reduced impacts from no prescribed burning, but less than significant with mitigation.	Similar to the Program and less than significant with mitigation.	Similar to the Program and less than significant with mitigation.

Notes:

[a] CEQA reviews would be conducted on an individual basis for firefighting infrastructure. The anticipated effects of similar types of firefighting infrastructure as those analyzed under the Program are assumed for the comparative analysis.

[b] The comparison under the No Program Alternative is focused on direct effects avoided by not implementing the proposed Program or the action alternative. Should a wildland fire occur, impacts to many resources would likely be greater under the No Program Alternative than they would be should a wildland fire occur on treated areas under the proposed Program. The potentially increased impacts of wildland fire on untreated lands are described in Section 6.4.1

6.6 Environmentally Superior Alternative

CEQA requires the identification of the environmentally superior alternative among the alternatives to the Program that were evaluated in detail, or, to identify if the Program is environmentally superior to the alternatives. The environmentally superior alternative must be an alternative to the Program that reduces some of the environmental impacts of the Program, regardless of the financial costs associated with the alternative, otherwise the Program could be determined to be environmentally superior. Identification of the environmentally superior alternative is an informational procedure. The alternative identified as the environmentally superior alternative may not be that which best meets the goals or needs of the Program. Determination of the environmentally superior alternative does not preclude the Program or the other alternatives from being selected for implementation. The lead agency may adopt a statement of overriding considerations, which expresses the agency's views on the merits of approving a program despite its significant adverse environmental impacts. The statement of overriding considerations provides the justification for proceeding with a program despite its environmental impacts. The statement reflects the balancing of competing public objectives including factors such as environmental concerns, legal issues, technical, social, and economic factors.

The No Prescribed Fire Plan Alternative is environmentally superior by eliminating the significant and unavoidable impact on air quality and GHG emissions, although the significant and unavoidable impact on scenic resources would remain. The potential for a prescribed fire to become out of control and the risk to the public and structures from prescribed burns would also be eliminated, although these risks are very small given the controls and safety measures incorporated in practice into prescribed fires. This alternative, notably, does not meet the second objective of integrating Native American traditional ecological knowledge practices related to prescribed fire. It would also limit the effectiveness of the Program towards meeting the first objective of managing vegetation to establish resilient ecosystems and the third objective of reducing wildland fire risks to reduce the harmful effects off wildland fire on people, property, and natural resources. The VMP includes activities that would improve ecosystem resiliency, and reintroducing prescribed fire would meet this objective to a greater extent through mimicking lost or diminished ecosystem processes from fire to preserve and enhance existing significant biological resources. Prescribed fire would also reduce excess fuel over large areas of the landscape that could otherwise result in a more intensive and damaging wildland fire.

Prescribed burning is becoming an important tool for land managers to address fuel loading and habitat enhancement. The emissions and carbon release from prescribed burning in areas of a natural landscape under controlled conditions would be considerably less than the emissions released if the area were subject to a wildland fire. If a wildland fire were to occur on Midpen lands, the air quality impacts are expected to be much greater under a scenario where no treatment or reduced treatments are implemented, or where prescribed burning is not implemented, than if the proposed Program were implemented. When comparing impacts from

a wildland fire to prescribed burning, a greater quantity of carbon is lost per acre and higher particulate matter emissions rates occur in a wildland fire. Wildland fires typically burn an order of magnitude more land than any prescribed burning effort would undertake at one time (CARB, 2017d; Liu, et al., 2017). In general, two to four times more fuel is consumed during a wildland fire compared to a prescribed fire (Ottmar, 2013). During a wildland fire, fuels are generally drier, tree crowns are typically ignited, much or all of the fuel load present in an area (including live vegetation) may be consumed, and ignition generally occurs during very windy periods. Prescribed burns, however, are low intensity fires that burn less of the fuel load available, typically dead, and low-lying vegetation. Regular, low-intensity prescribed burns can reduce fuel loads that could otherwise contribute to the intensity and spread of a wildland fire (CNRA, 2018), even though prescribed burns also have emissions. It is expected that a wildland fire on Midpen lands would have many times greater criteria pollutant and GHG emissions than prescribed burning and would likely burn a larger area, due to the uncontrolled nature of wildland fires. Although the total emissions from pre-treatment and prescribed burn activities, in addition to a post-treatment wildland fire may be equivalent to a wildland fire ignited prior to treatment, based on modeling, the avoidance of a catastrophic wildland fire reduces human exposure to air pollutants. This is primarily because prescribed burning is conducted during optimal weather conditions to limit smoke and air quality impacts on nearby communities (Hyde & Strand, 2019).

The benefits of prescribed burning may outweigh the cost of temporary but significant and unavoidable emissions during the burn.