5 Other CEQA Considerations

5.1 Cumulative Impacts

5.1.1 Overview

This section provides a discussion of the potential cumulative and growth-inducing impacts associated with the Program, as required by CEQA. Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable, or that compound or increase other environmental effects. Section 15130(a) of the CEQA Guidelines states:

An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable.... Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

The discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of project-specific impacts (CEQA Guidelines section 15130(b)). The cumulative impact analysis for this Program EIR evaluates the potential cumulative impacts from the Program in combination with other past, present, and probable future projects in or near Midpen lands.

5.1.2 Approach to Analysis

CEQA Guidelines section 15130(b) presents two approaches for identifying the relevant cumulative projects to include in the cumulative analysis in an EIR:

- A list of past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the lead agency; or
- A summary of projections contained in an adopted local, regional, or Statewide plan, or related planning document that describes or evaluates conditions contributing to the cumulative effect.

This Program EIR utilizes a hybrid approach: a list of past, present, and probable future projects (collectively referred to as "cumulative projects") is considered in combination with baseline conditions, agency projections, and adopted planning documents. The cumulative analysis considers, but does not exclusively rely on, planning documents to establish the cumulative scenario for the analysis.

The discussion of cumulative impacts in this Program EIR focuses on whether the incremental impacts of the Program are cumulatively considerable when considering other, nearby projects. A cumulatively considerable impact means that the incremental impacts of an individual project are significant when viewed in context with the effects of past, present, and probable future projects (CEQA Guidelines section 15065(a)(3)). The discussion of cumulative impacts in this Program EIR follows these guidelines:

1. Define the Relevant Geographical Area of Impact.

The relevant area affected for each impact category is defined, with a reasonable explanation supporting the geographic area used in the analysis. (CEQA Guidelines section 15130(b)(3).

2. Identify the Past, Present and Probable Future Projects Producing Related or Cumulative Impacts.

If a "list approach" is used, past, present, and probable future projects for each impact category are identified. All projects that might result in related impacts, not just similar sources or projects, are included. (CEQA Guidelines section 15130(b)(1).

3. Is There a Significant Impact to which Both the Program and Other Projects Contribute?

The combined effects of both the Program and the other identified projects that could result in an impact that is cumulatively significant are identified (*Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal.App.4th 98, 120). This question has two parts: (1) is there a significant impact on the environment that (2) is the result of the effects of the Program combined with the effects of other projects? If the Program does not contribute to the impact, or the impact is not significant, then it is not considered a significant cumulative impact. Mitigation is not considered at this point in the analysis.

- 4. Is the Program's Incremental Contribution Cumulatively Considerable? If the answer to question number 3 above is "no," then the impact is discussed briefly, with the basis for the determination set forth. If the answer to question number 3 above is yes, then the Program's incremental effect is assessed to determine if it is cumulatively considerable without mitigation. Even where the Program might cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the Program may nevertheless contribute to a cumulative impact if the contribution is "cumulatively considerable" when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines sections 15064(h)(1), 15355(b).
- 5. Would Mitigation Reduce the Program's Cumulatively Considerable Contribution to a Less Than Significant Level?

If the Program contributes to a significant cumulative impact (question number 3, above) and if the Program's contribution is cumulatively considerable (question number 4, above), then the final question is whether mitigation would reduce the

Program's contribution to a less than cumulatively considerable level. Even though mitigation may render the Program's contribution less than significant when viewed in isolation (i.e., at a project-specific level), the contribution that remains after mitigation may still be cumulatively considerable and, thus, not mitigated for cumulative impact analysis purposes. If the Program's contribution is mitigated to a less than cumulatively considerable level, then the impact can be found to be less than significant.

6. What is the Significance of the Program's Contribution to the Cumulative Impact?

The significance of the Program's contribution to the cumulative impact is stated as either: (1) less than significant (i.e., less than cumulatively considerable); (2) less than significant with mitigation (i.e., the cumulatively considerable contribution has been eliminated or rendered so small that it is no longer cumulatively considerable); (3) significant and unavoidable.

5.1.3 Projects with Potentially Related or Cumulative Impacts

A total of 13 projects or programs are located within the environmental geographic extents specified for each environmental resource topic covered under the Program that could have some potential to lead to cumulative impacts. A map locating the Program in relation to the related projects, plans, and programs is shown in Figure 5.1-1. Table 5.1-1 provides a brief discussion of each project, plan, or program, including schedule, where available.

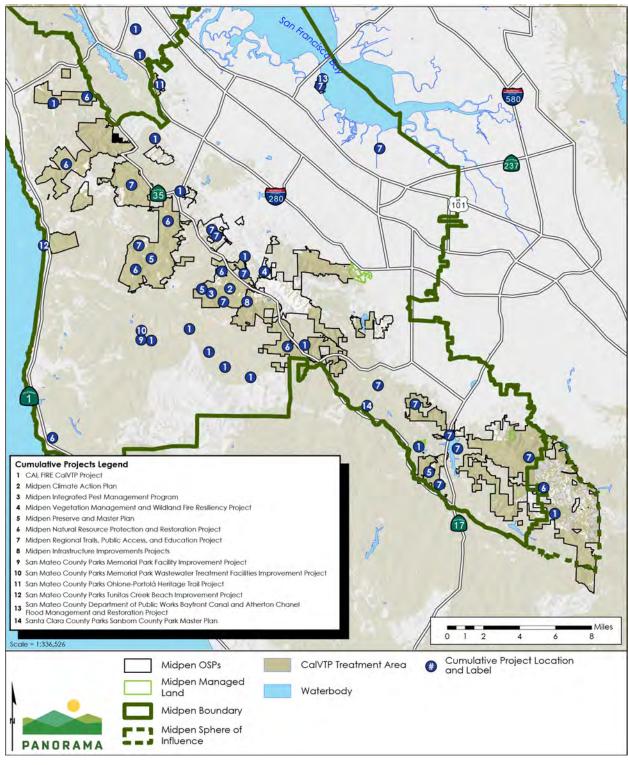


Figure 5.1-1 Location of Cumulative Projects Within and Surrounding Midpen Lands

Source: (USGS, 2013; USGS, 2016; Tele Atlas North America, Inc., 2018; Midpen, 2019; Midpen, 2014)

Table 5.1-1Cumulative Projects

ID	Project	Description	Schedule
		CAL FIRE	
1	California Vegetation Treatment Program	The program involves the expansion of CAL FIRE's vegetation treatment activities to reach a total treatment acreage target of approximately 250,000 acres per year. Treatments types include fuelbreaks, WUI fuel reduction, and ecological restoration implemented through prescribed burning, manual and mechanical methods, prescribed herbivory, and herbicides. CalVTP also addresses a project-specific implementation approach for streamlining CEQA review of later site-specific vegetation treatment projects consistent with the program.	The Final EIR was approved in December 2019 and implementation is ongoing.
		Midpeninsula Regional Open Space District	
2	Climate Action Plan	The Climate Action Plan is a roadmap to achieve Midpen's ambitious, voluntary climate change goal of reducing operational greenhouse gas emissions 20 percent by 2022, 40 percent by 2030, and 80 percent by 2050. Actions implemented under the Climate Action Plan include greener commuting behavior by employees (taking public transit, carpooling, biking and flexible work schedules), purchasing 100 percent renewable energy from Silicon Valley Clean Energy and Peninsula Clean Energy, transitioning diesel fleet vehicles and equipment to plant-based renewable electric and alternative fuel, and purchasing carbon offsets for business flights.	Actions began implementation in 2018 and will continue to be rolled out through 2050.
3	Integrated Pest Management Program	The IPMP directs management of all pests on Midpen properties with a focus on vegetation management program in wildlands; however, it also includes some rodent and insect pest management strategies at Midpen- owned structures. The IPMP involves use of non-chemical methods including manual and mechanical removal as well as chemical methods, such as pesticides, herbicides, and insecticides.	The IPMP includes up to 136 acres of manual and mechanical treatments. Implementation is ongoing since 2014 with allowable escalation of 1 percent annually for the IPMP.
4	Forest Management Projects	 Midpen utilizes various programs and plans to implement specific forest management projects on its lands. These programs and plans include: Los Trancos–Page Mill Eucalyptus Removal Restoration Forestry Demonstration Project 	Projects are in the early phases of planning or implementation.

ID	Project	Description	Schedule
5	Preserve and Master Plans	Midpen has prepared long-term use and management plans for specific OSPs and Midpen-wide plans. Stewardship actions including habitat restoration, protection of open space resources, and improvement of trails and public facilities. The Master Plans include:	Implementation is ongoing.
		Bear Creek Redwoods Preserve Plan	
		La Honda Creek Master Plan	
		Mindego Ranch Use and Management Plan	
6	Natural Resource Protection and Restoration Projects	Midpen implements numerous projects to restore and enhance open space land, which includes forests, streams, watersheds and coastal ranch areas throughout Midpen lands. Many of the following projects were identified as key project portfolios in Midpen's Vision Plan:	Construction of the Mount Umunhum Environmental Restoration and Public Access Project is complete; habitat restoration, invasive species treatment,
		Mount Umunhum Environmental Restoration and Public Access Project	and monitoring is ongoing. Many
		 Miramontes Ridge: Gateway to the San Mateo Coast Public Access, Stream Restoration, and Agriculture Enhancement Projects 	additional Natural Resource Protection and Restoration Projects are included
		 Purisima Creek Redwoods: Purisima-to-Sea Trail Completion, Watershed Protection, and Conservation Grazing Projects 	in Midpen's priority Vision Plan Actions and are in the early phases of planning and review.
		 La Honda Creek: Upper Area Recreation, Habitat Restoration, and Conservation Grazing Projects 	
		• La Honda Creek: Driscoll Ranch Area Public Access, Endangered Wildlife Protection, and Conservation Grazing Projects	
		 Russian Ridge: Public Recreation, Grazing, and Wildlife Protection Projects 	
		Cloverdale Ranch: Wildlife Protection, Grazing, and Trail Connections	
		Regional: Redwood Protection and Salmon Fishery Conservation	
		 Long Ridge: Trail, Conservation, and Habitat Restoration Projects 	
		 Various additional small creek, pond, and tree restoration projects 	
7	Regional Trails, Public Access, and Education Projects	Midpen is currently working on a Regional Trails layer and a Master Planned layer of trails in GIS. There is little information on specific future planned regional trail projects and their implementation/construction dates. Many public access improvement projects are also implemented throughout Midpen lands. Midpen has identified the following regional trail	Several trails projects are currently under construction (Ravenswood Bay Trail Project) or under Board review (Beatty Parking Area and Trail Connections Project, Hawthorns Public

ID	Project	Description	Schedule
		 and public access projects, some of which were identified as key project portfolios in Midpen's Vision Plan: Coal Creek: Reopen Alpine Road for Trail Use Beatty Parking Area and Trail Connections Project Bear Creek Redwoods: Public Recreation and Facilities Projects Highway 17 Wildlife and Regional Trail Crossings Ravenswood Bay Trail Project El Corte de Madera Creek: Bike Trail and Water Quality Projects El Sereno: Dog Trails and Connections Windy Hill: Trail Improvements and Preservation Hawthorns Public Access Project La Honda Creek/Russian Ridge: Preservation of Upper San Gregorio Watershed and Ridge Trail Completion Peninsula and South Bay Cities: Partner to Complete Middle Stevens Creek Trail Develop trails between Butano State Park, Pescadero Creek County Park, and Russian Ridge OSP, and between Skyline Ridge OSP, Portola Redwoods State Park, and Big Basin State Park Regional: Complete Upper Stevens Creek Trail South Bay Foothills: Saratoga-to-Sea Trail and Wildlife Corridor Sierra Azul: Cathedral Oaks Public Access, Regional Trails, and Habitat Projects 	Access Project). Many other projects are in the planning phase.
8	Infrastructure Improvements Projects	 Several infrastructure improvement projects are proposed within Midpen lands in order to maintain a high-quality visitor experience. Several projects currently proposed or underway include: Midpen Office Building Project American Disabilities Act (ADA) Self-Evaluation and Transition Plan Update 	Implementation of the ADA Self- Evaluation and Transition Plan Update is ongoing. Construction is planned for the Midpen Office Building Project and Mount Umunhum Radar Tower Project will be implemented in the upcoming

ID	Project	Description	Schedule
		 Rancho San Antonio: Interpretive Improvements and Refurbishing Rancho San Antonio Multimodal Access Project Mount Umunhum Radar Tower Project Sierra Azul Ranger Residence Solar Panels Installation at Skyline Field Office Various additional grazing infrastructure projects 	years. Additional projects are in the early phases of planning and review.
		San Mateo County Parks	
9	Memorial Park Facility Improvement Project	This project is the first comprehensive facility improvement project in the 95-year history of Memorial County Park. The project includes new restroom and shower buildings, resurfaced park roads, improved paths of travel, and accessible features that are ADA compliant.	Construction began in November 2019 and is anticipated to be completed prior to Summer 2021.
10	Memorial Park Wastewater Treatment Facilities Improvement Project	The project would replace Memorial Park's existing wastewater treatment plant facility and septic system with a new wastewater treatment plant located at an overflow parking lot, approximately 150 feet southeast from the existing wastewater treatment plant site. The existing wastewater treatment plant would be repurposed as a lift station. The collection system would also be improved by repairing and replacing select pipe sections and manholes throughout the system. The collection system repairs would be implemented to fix structural defects, lessen infiltration and inflow. Memorial Park is located near La Honda Creek OSP.	The Draft Initial Study/Mitigated Negative Declaration for the project was released in March 2019. Construction began in 2019 and is anticipated to be completed by October 2020.
11	Ohlone-Portolá Heritage Trail Project	The project will design and interpret an anticipated 90-mile Ohlone-Portolá Heritage Trail alignment through San Mateo County. The trail will be designated using segments of the California Coastal Trail, existing sidewalks and/or trails through lands of Peninsula Open Space Trust and Midpeninsula Regional Open Space District, State Parks and the Golden Gate National Recreation Area, and County Parks.	A Feasibility Study was completed in April 2019 and the project was presented and approved by the San Mateo County Board of Supervisors in June 2019. The San Mateo County Historical Association is in the process of formally nominating the Ohlone- Portolá Heritage Trail as a State Historic Trail and is currently requesting letters of support for the nomination.

ID	Project	Description	Schedule
12	Tunitas Creek Beach Improvement Project	The project will protect and improve Tunitas Creek Beach over a 3-year period in order to provide safe public access to the beach as a County Park. Core values to guide design of the project that were identified in the Tunitas Creek Beach Community Advisory Committee's Vision Document include improved environmental protection, equity and inclusion, education and environmental awareness, and outdoor experiences.	The San Mateo County Board of Supervisors accepted the Tunitas Creek Beach Community Advisory Committee's Vision Document in September 2019. The Kick-Off Meeting scheduled for March 2020 was postponed and next steps for the project are currently being planned. The design phase is expected to conclude Summer 2021, followed by implementation of the improvement project.
		San Mateo County Department of Public Works	
13	Bayfront Canal and Atherton Chanel Flood Management and Restoration Project	The project involves the construction of two parallel underground box culverts and associated drainage connections to route a portion of peak flood flows from Bayfront Canal into managed ponds that are part of the Ravenswood Pond Complex portion of the South Bay Salt Pond Restoration Project.	The project is in the final design and environmental review phase. Construction is planned to begin in 2020.
Santa Clara County Parks			
14	Sanborn County Park Master Plan	The plan provides the foundation necessary to balance natural resources at the Sanborn County Park with long-range development and management throughout the entire park, and at specific features such as the Welch Hurst House, the Christensen Nursey area, the Dyer House, and the former Christmas tree farm area.	The Final Initial Study/Mitigated Negative Declaration for the plan was adopted in June 2019 and implementation of the plan is ongoing.

5.1.4 Cumulative Impacts and Mitigation Measures

Aesthetics

Geographic Scope

The geographic scope for the analysis of cumulative impacts associated with aesthetic resources includes both local and regional viewsheds. Cumulative aesthetic impacts would generally occur within 1 mile or less of Midpen lands. Beyond 1 mile, objects become less distinct or not visible if they blend in sufficiently with background forms, colors, and textures. Beyond 1 mile it is likely that sightlines would become impaired or blocked by intervening terrain and vegetation. The 1-mile radius also allows for consideration of several of the adjacent open space management areas that provide contiguous forest and wildland areas.

The following projects are considered in this cumulative impact analysis because they would result or have resulted in aesthetic impacts within the geographic scope for the analysis:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects
- Memorial Park Facility Improvement Project
- Memorial Park Wastewater Treatment Facilities Improvement Project
- Ohlone-Portolá Heritage Trail Project
- Tunitas Creek Beach Improvement Project
- Bayfront Canal and Atherton Chanel Flood Management and Restoration Project
- Sanborn County Park Master Plan

Cumulative Impacts

Impact Aesthetics-Cumulative: The proposed Program could result in significant
impacts on visual resources in combination with past, present, and probable future
development in the cumulative analysis study area.

Significance Determination

Significant and unavoidable contribution

Temporary, minor visual degradation associated with the cumulative projects listed above could occur within or adjacent to Midpen lands as observed from public areas due to construction and heavy equipment, vegetation clearing for fuel management and trail development, restoration activities, and traffic improvements. However, viewers perceive these visual changes as temporary, and due to the vast extent of Midpen lands, can voluntarily leave the affected area and occupy other open space areas within the region. The construction of new buildings, structures, parking areas, and other improvements associated with cumulative projects (e.g., Midpen Infrastructure Improvements Projects, Midpen Regional Trails, Public

Access, and Education Projects, and the Memorial Park Facility Improvement Project) would not result in significant cumulative impacts because these facilities are similar to those that already exist within Midpen lands. These types of developments would generally occur in already developed locations, minimizing the contrast with the visual character of an area, and would only affect small discrete locations. The creation of new trails and trail connections would not be a significant visual impact because these types of facilities are generally narrow features minimizing the visual change and also already exist within Midpen lands; as such, they would be consistent with the existing visual character.

The combined effects of both the Program and the other similar cumulative projects could result in an impact that is cumulatively significant. Permanent visual impacts associated with construction of the Highway 17 Wildlife and Regional Trail Crossings project could significantly alter the existing visual character of the area; however, the project would provide critical benefits for wildlife and improved accessibility across regional trails in the area. Long-term visual impacts could also occur with implementation of CAL FIRE's and Midpen's vegetation and forest management projects within and surrounding Midpen lands, as these projects include similar fuel treatment activities and would utilize similar equipment. The visual impacts resulting from the CAL FIRE and Midpen Forest Management Projects would resemble the long-term visual changes that would occur with implementation of the Program, and therefore, the Program would contribute to a significant cumulative impact. Implementation of the VMP would result in the removal of trees and other vegetation, which may be considered a visual resource by some viewers. Areas of vegetation treatment would be visible from scenic viewpoints from a distance, as well as in the immediate foreground from scenic trails, roads, and within scenic corridors. Changes in patterns of existing vegetation, including color, line, and form associated with existing vegetation types and density may be considered a degradation of existing visual quality in some areas. These impacts would reduce over time as viewers adjust to the shifts in vegetation forms and configurations but would initially remain significant. The visual impacts of these projects, when viewed together with environmental changes anticipated from the Program, would be cumulatively considerable. MM Aesthetics-1 and MM Aesthetics-2 requires pre-planning actions including desktop and field reviews to reduce visual impacts from scenic areas where possible, for example by avoiding vegetation thinning in certain areas or thinning to a lesser extent to avoid or lessen impacts to scenic character or views from designated scenic areas. Mitigation, however, cannot reduce all significant visual impacts as avoidance or reduced thinning may not be possible everywhere that VMAs are needed. After mitigation, the Program's potential to substantially affect a scenic vista, or substantially degrade the existing visual character or quality of public views would be reduced but would still contribute considerably to an overall cumulatively significant and, thus, potentially unavoidable visual impact.

Air Quality

Geographic Scope

Air quality is a regional resource and is neither defined nor limited by jurisdictional boundaries, political boundaries, or project boundaries. The cumulative study area for air quality primarily

encompasses activities within the same air basins as the Program, specifically the SFBAAB and NCCAB. All of the projects and plans included in the list of cumulative projects are considered in the regional air quality cumulative impacts analysis because they would result in or have resulted in impacts on air quality within the SFBAAB or NCCAB.

The cumulative impact from some pollutants on the health of receptors is much more localized. The geographic extent for cumulative impacts from CO emissions consists of intersections where peak cumulative traffic would occur. The geographic extent for cumulative projects is 1,000 feet, which is generally the distance within which TAC emission concentrations disperse and are no longer a significant health risk. It is not possible to determine ozone concentrations or make a direct correlation to human health impacts because project-focused modeling cannot feasibly predict ozone formation and resulting regional ozone concentrations. Air districts instead generally develop mass emissions thresholds for ROG and NOx that are used to make significance determinations. Refer to Section 4.3: Air Quality for the reasoning as to why ozone concentrations are not discussed further.

Cumulative Impacts

	Significance Determination
Impact Air Quality-Cumulative: The proposed Program could result in significant impacts on air quality in combination with past, present, and probable future development in the cumulative analysis study area.	Significant and unavoidable contribution

Regional Nonattainment

Overview

Regional air quality is affected by all activities that occur within an air basin. Midpen lands are under the jurisdiction of two air districts. The majority of Midpen lands are located in SFBAAB, with a smaller portion within NCCAB. The attainment conditions and sources of air pollutants within each air basin differs (refer to Table 4.3-2 in Section 4.3: Air Quality for attainment designations). As such, the significance thresholds identified by each individual air district will be used to determine whether the emissions generated by Program activities proposed to occur within each air basin will result in a cumulative impact.

SFBAAB

The SFBAAB is in nonattainment for PM_{2.5}, PM₁₀, and ozone. Past and present projects in the SFBAAB have resulted in the nonattainment statuses. The cumulative impact from past, present, and probable future projects on criteria pollutants for which the SFBAAB are in nonattainment would be significant.

Cumulative impacts on regional air quality are addressed by the BAAQMD thresholds of significance for operational criteria pollutant emissions in the SFBAAB because BAAQMD considered all past, present, and probable future projects when they set the thresholds of significance. The construction thresholds represent the levels at which a project or plan's individual combustion emissions of criteria air pollutants and precursors would result in a

cumulatively considerable contribution to the existing nonattainment designations. If a project's emissions exceed the numerical thresholds in the SFBAAB, the project would considerably contribute to the cumulatively significant air quality impact. If a project's emissions do not exceed the numerical thresholds in the SFBAAB, the project would not considerably contribute to the cumulatively significant air quality impact.

The Program activities would generate annual emissions in excess of the significance thresholds for PM₁₀, PM_{2.5}, and NOx, a precursor to ozone. These exceedances would occur primarily due to prescribed burning, resulting in a considerable contribution to regional pollutants in nonattainment. MM Air Quality-2 requires Midpen to consider and implement techniques to minimize particulate matter emissions including mosaic burning and pre-treatment. After mitigation, the Program's potential to contribute to existing regional nonattainment would be reduced but would still contribute considerably to an overall cumulatively significant impact. The Program would have an unavoidable cumulatively significant impact.

NCCAB

The NCCAB is in nonattainment for PM₁₀ and nonattainment-transitional for ozone. Past and present projects in the NCCAB have resulted in the nonattainment statuses. The cumulative impact from past, present, and probable future projects on criteria pollutants for which the NCCAB are in nonattainment would be significant.

Similarly, cumulative impacts on regional air quality in the NCCAB are addressed by the 2016 Guidelines for Implementing the CEQA thresholds of significance for operational criteria pollutant emissions in the NCCAB. Like SFBAAB, an exceedance of the numerical significance thresholds would constitute a contribution to the cumulatively significant air quality impact.

Program activities would generate maximum daily emissions of PM₁₀ and NOx in excess of thresholds under Scenario 1, involving prescribed burning of acres of grassland. Under scenario 2, pile burning, daily emissions thresholds for PM₁₀ would be exceeded. No emissions exceeded daily significance thresholds under scenario 3, which represented a maximum day of manual and mechanical vegetation removal. MM Air Quality-2 requires Midpen to consider and implement techniques to minimize particulate matter emissions including mosaic burning and pre-treatment. After mitigation, the Program's potential to contribute under scenario 2 would be reduced to not be cumulatively considerable. Under scenario 1 (prescribed burning), the potential to contribute to existing regional nonattainment would be reduced but would still contribute considerably to an overall cumulatively significant impact. The Program would have an unavoidable cumulatively significant impact.

Localized Emissions

Carbon Monoxide

Carbon monoxide hotspots, fugitive dust emissions, or diesel emissions have the potential to result in localized impacts. Vehicle trip increases during construction and operation of cumulative projects could elevate CO emissions at intersections. CO emissions generated from gas-powered truck traffic and other combustion equipment during construction activities could

result in CO hotspots, or localized concentrations of CO. Diesel-powered vehicles and equipment, such as those used for construction or vegetation management activities, do not emit CO in the same concentrations and are less likely to cause a CO hotspot. As such, congested intersections with a large volume of traffic have the greatest potential to cause high, localized concentrations of CO, which could affect public health. On-road, motor vehicle exhaust in metropolitan areas accounts for as much as 75 percent of CO emissions based on data collected across the nation (USEPA, 2010). CO emissions and concentrations have been continually decreasing and have not exceeded the 8-hour federal or state air quality standard at any monitoring location, nationwide¹ in decades (USEPA, 2017). Prescribed burning implemented by cumulative projects and the Program could result in CO hotspots, however, the hotspot would be localized in the immediate area around the burn. Burns are not typically conducted near urban areas and receptors, nor are multiple burns conducted directly adjacent to each other. BAAQMD guidelines indicate that a project would significantly affect CO levels if project traffic would increase traffic volumes at intersections to more than 44,000 vehicles per hour. None of the cumulative projects include large-scale development associated with substantial increases in traffic and the Program would contribute on average, 60 one-way trips a day. The cumulative impact from localized CO emissions would be less than significant.

Toxic Air Contaminants

Vehicles and equipment used during construction of the cumulative projects would generate localized diesel and fugitive dust emissions near sensitive receptors. Cumulative projects, particularly Midpen's Natural Resource Protection and Restoration Projects along SR-35, could affect the same sensitive receptors as the Program (sensitive receptors within 1,000 feet of cumulative project and Program work areas). Construction of the cumulative projects has the potential to subject sensitive receptors to elevated TAC emissions for a prolonged period. Receptors near prescribed or pile burns would be especially at risk of elevated TAC emissions. Use of equipment and vehicles at Program sites may generate some TAC emissions; however, the consecutive duration of exposure on a sensitive receptor from the nearest cumulative projects and the Program would be limited to typically less than a week. Burn event locations would be distributed throughout Midpen lands, limiting the cumulative concentrations at any one sensitive receptor. Pile burn smoke would not be expected to affect a large number of people due to the duration of the burn, wet weather conditions, and limited size of the burn area. TAC emissions from cumulative projects (e.g., park renovations and land management) are limited due to the size and types of equipment and vehicles anticipated to be used. Burns conducted as part of cumulative projects (e.g., CalVTP) are generally not conducted directly adjacent to another active prescribed burn, as the number of burns allowed in a basin at one time is controlled by the air districts through a daily burn authorization system intended to minimize smoke impacts and public nuisance (CCR §80145[a]). Localized TAC emissions from

¹ United States Environmental Protection Agency Region 9, which includes California, Nevada, and Arizona, has 28 monitoring locations where CO data is collected.

cumulative prescribed burns are not expected to accumulate. The Program's contribution to cumulatively significant impacts on sensitive receptors from air toxics would be less than significant.

Biological Resources

Geographic Scope

The geographic scope for the biological resources cumulative analysis includes all similar habitats within 1 mile of Midpen lands. This geographic scope is appropriate because it accounts for the cumulative degradation or loss of a particular vegetation community or special-status species population from all projects that have impacted or would impact vegetation communities of concern or special-status species.

The following projects are considered in the cumulative impact analysis because they would occur within the geographic scope and have the potential to cause an adverse impact on biological resources:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects
- Memorial Park Facility Improvement Project
- Memorial Park Wastewater Treatment Facilities Improvement Project
- Ohlone-Portolá Heritage Trail Project
- Tunitas Creek Beach Improvement Project
- Bayfront Canal and Atherton Chanel Flood Management and Restoration Project
- Sanborn County Park Master Plan

Cumulative Impacts

Impact Biological Resources-Cumulative: The proposed Program could result in significant impacts on biological resources in combination with past, present, and probable future development in the cumulative analysis study area.

Determination Less than significant

Significance

contribution with mitigation

Vegetation Communities and General Wildlife

Nearly every project that occurs in open space areas surrounding Midpen lands would have cumulative impacts on vegetation and wildlife habitat of varying degrees, depending on the extent and intensity of the project. Of the cumulative projects and plans considered, management plans involve work within native habitat and could alter native habitat both beneficially and adversely. Management plans that increase recreation, for example, could increase impacts on biological resources due to increased noise and human presence in certain

areas. Management plans also identify ways to preserve land and biological resources resulting in a beneficial impact in the long-term. Individual cumulative projects implemented in habitat may permanently convert sensitive vegetation communities and habitat to non-habitat. Temporary disruptions to general wildlife in the area could also occur. Conversely, some individual projects specifically aim to improve habitat. These projects may result in cumulative significant adverse impacts in the short-term due to increased activity (e.g., vegetation removal) but would result in long-term beneficial impacts on biological resources. Long-term cumulative impacts to vegetation and general wildlife are not anticipated.

The Program would have similar impacts as some of the cumulative management projects. The Program would generally benefit native vegetation and wildlife in the long-term. Beneficial impacts include enhancing native vegetation habitats, promoting habitat diversity, and reducing risks of large wildland fires that could have catastrophic habitat impacts. Enhancing habitat would provide a benefit to general wildlife species as well. Sensitive vegetation communities may be altered by Program activities and recurring activities could convert sensitive communities resulting in the cumulative loss of regionally rare or significant communities. Alteration of vegetation types could result in the loss or conversion of habitat relied on by wildlife, further limiting habitat connectivity in the region. The Program could result in cumulatively considerable impacts on sensitive vegetation communities as well as general wildlife. Midpen best management practices, implementation of relevant permit conditions (i.e., 1600 permits, 401 permits, 404 permits), and numerous mitigation measures identified in Section 4.4: Biological Resources would minimize direct and indirect conversion of sensitive vegetation communities and would require compensation for any unavoidable significant losses. Therefore, implementation of the Program would not contribute to any regional, short- or long-term cumulatively significant impacts with mitigation.

Special-Status Plant Species

Most of the cumulative projects occurring within the geographic range involve some vegetation modification or removal. Given the wide geographic distribution of cumulative projects and that not all locations of special-status plants are known, there is a potential for a significant cumulative impact on special-status plant populations if a population is lost through the impacts of multiple projects. Cumulative impacts could be significant.

Implementation of the Program may affect the population size of special-status plants on Midpen lands, given that all of the actions central to the Program would involve vegetation modification activities. These modification activities could contribute to the loss of regionally rare special-status plant species, which could be a considerable contribution to the cumulatively significant impact. The Program's considerable contribution, however, would be minimized through IPMP BMPs and mitigation measures as identified in Section 4.4: Biological Resources, which require pre-treatment surveys, implementation of a training program to inform workers on the various special status species that may occur and how to avoid harming the species, as well as practices to minimize spread of forest diseases and invasive species. Mitigation measures require flagging to identify special-status plants in a work area, monitoring, avoidance, and, where needed, compensatory mitigation for loss of special-status plants. These measures would ensure that Program work would not threaten special-status plant species population. The Program's contribution to a significant cumulative impact would be minimized with implementation of mitigation.

Special-Status Animal Species

Seventy-one special-status wildlife species were identified that are known to occur or could possibly occur on Midpen lands, but only a few federally or state listed threatened, endangered, or candidate species are known to occur on Midpen lands (or waters within). These species are listed below. The last two in the list, the Ridgeway's rail and salt-marsh harvest mouse, are only found in salt marsh habitats on the bay shoreline.

- Steelhead central California coast DPS pop. 8 (Oncorhynchus mykiss irideus)
- Foothill yellow-legged frog (West/Central coast clade) (Rana boylii)
- California red-legged frog (Rana draytonii)
- San Francisco garter snake (Thamnophis sirtalis tetrantaenia)
- Ridgway's rail (*Rallus obsoletus*)
- Salt-marsh harvest mouse (Reithrodontomys raviventris)

Cumulative projects conducted on Midpen lands and other projects in the general region (such as on San Mateo County Parks land) could impact the same populations and species. The habitats on Midpen lands are often contiguous with other open space areas, or support very similar habitats. Direct impacts from construction and operation of equipment to implement the cumulative projects or implementation of the cumulative plans could have similar significant impacts on special-status wildlife species and migratory species. If these projects, as a whole, resulted in the death or injury of individuals that comprise a population, a significant impact could occur. Given the number of projects in the region and without being able to understand the individual effects on special status species of each cumulative project or program, a potentially cumulatively significant impact is assumed.

The Program's contribution to a cumulatively significant impact could be considerable. Numerous BMPs and mitigation measures, however, have been identified to minimize impacts on special-status animal species from Program actions. Most of these measures involve preactivity surveys and avoidance, or relocation of the animal, when relocation is permissible. Measures address worker training as well as species-specific avoidance and minimization measures for special-status amphibians and aquatic species, special-status insects (e.g., butterflies, moths, bees), nesting birds, special-status birds (e.g., marbled murrelet), special-status reptiles (e.g., San Francisco garter snake), and special-status mammals. Other measures address and minimize Program-related erosion and sedimentation that could affect aquatic species. With implementation of these measures, the Program would have limited impacts on special status species and, therefore, the Program's contribution to significant cumulative impacts would be reduced to less than significant.

Cultural and Tribal Cultural Resources

Geographic Scope

The geographic extent for the cultural resources cumulative analysis includes areas in and immediately adjacent to Midpen lands because an impact would only occur if a cumulative project were to impact the same type of resources affected by the Program.

The following projects are considered in this cumulative impact analysis because they would involve vegetation removal or ground disturbance within Midpen lands:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects
- Sanborn County Park Master Plan

Cumulative Impacts

Impact Cultural and Tribal Cultural Resources-Cumulative: The proposed Program	Significance Determination
could result in significant impacts on cultural or tribal cultural resources in combination with past, present, and probable future development in the cumulative	Less than significant contribution with
analysis study area.	mitigation

Cumulative projects that involve ground disturbance have the potential to impact recorded and previously undiscovered cultural resources. Program activities could disturb the ground and damage or destroy archaeological or historic resources. Cumulative projects that require the use of heavy equipment or ground disturbance and overlap with the Program work areas may impact the same types of cultural resource, which could result in a significant cumulative impact, since it could result in the loss of information from the prehistoric or historic record. Cumulative impacts are potentially significant.

Cultural history could be lost if several unique archaeological resources, tribal resources, or human burials are damaged by various construction projects, which would be considered a cumulatively significant impact. The Program's contribution to a significant cumulative impact could be considerable. Midpen requires staff at each site to receive training to recognize sensitive cultural resources and to halt work in the event of a cultural resource discovery until a qualified archaeologist can evaluate the significance of the find (IPMP BMP 26; Contract Condition 4.3). MM Cultural-1 would reduce impacts on cultural resources requiring review of Midpen's existing GIS data on cultural resource survey areas and identification of known cultural resources that overlap work areas. A pre-activity survey is required if the area has not been previously surveyed and involves ground disturbance. Any identified cultural resources within areas proposed for work would be avoided and the area of avoidance marked in the

field. Any known resources are either to be avoided entirely or evaluated for eligibility and if eligible but not avoidable, treated under MM Cultural-2. If human remains are found during Program implementation, work must stop, and appropriate measures detailed in the mitigation must be implemented. The measure also requires consultation with Native American groups if any prehistoric resources are identified and impacts cannot be avoided or minimized. Implementation of mitigation would minimize the Program's contribution to an otherwise cumulatively significant impact on known cultural and tribal resources.

Geology and Soils

Geographic Scope

Geology and Soils

The geographical extent for cumulative impacts on geology and soils includes areas in and immediately adjacent to Midpen lands because erosion and soil stability impacts from a particular activity would be confined to immediately adjacent areas. Landslides caused by a particular project or activity can impact off-site areas, but the project or activity would still need to occur or be located adjacent to Midpen lands to result in cumulative impacts with the Program.

The following cumulative projects would involve vegetation removal or ground disturbance within or immediately adjacent to Midpen lands:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects
- Sanborn County Park Master Plan

Paleontological Resources

The geographic extent for cumulative impacts on paleontological resources includes areas underlain by geologic units from the same time periods as Midpen lands because an impact would occur if a cumulative project were to result in the loss of the same types of unique paleontological resources as the Program. Most of the cumulative projects would involve ground disturbance in areas underlain by similarly aged geologic units.

Cumulative Impacts

Impact Geology and Soils-Cumulative: The proposed Program could result in significant impacts on geology and soils in combination with past, present, and probable future development in the cumulative analysis study area.

Significance Determination

Less than significant contribution with mitigation

Cumulative projects listed above would involve activities such as heavy equipment use and grading of trails that could destabilize slopes and soils or result in substantial soil erosion or the loss of topsoil and landslides, which would be a cumulatively significant impact. The Program would involve tree and vegetation removal, prescribed herbivory, prescribed burning, and installation of firefighting infrastructure. Soils within the Program area could become unstable due to the intensity of tree and vegetation removal, livestock grazing, prescribed burning, and grading for infrastructure, given the erodible soils and moderate to steep slopes prevalent across Midpen lands. The Program's contribution to a significant cumulative impact on erosion and slope stability could be considerable.

Midpen requires that erosion control measures be implemented before or after vegetation treatment near sites with loose or unstable soils, steep slopes (greater than 30 percent), where a large percentage of the groundcover will be removed, or near aquatic features that could be adversely affected by an influx of sediment (IPMP BMP 28). MM Geology-1, MM Geology-2 and MM Geology-3 would reduce potential erosion impacts by requiring implementation of several erosion control measures to avoid sedimentation of waterways or waterbodies, and erosion of steep slopes and existing erosional features or erodible soils that may result from heavy equipment use and prescribed burns and grazing. Implementation of these measures would stabilize the slopes associated with Program activities and limit the amount of erosion and slope instability that could occur. By minimizing erosion and slope instability risks from activities, the Program's contribution to potentially significant cumulative impacts on geology and soils would be less than cumulatively considerable with mitigation.

Impact Paleontological Resources-Cumulative: The proposed Program could result in	Significance Determination
significant impacts on paleontological resources in combination with past, present, and probable future development in the cumulative analysis study area.	Less than significant contribution

The majority of the geologic units that underlie Midpen lands and cumulative projects have low potential to yield unique paleontological resources. Cumulative projects that involve use of heavy equipment and ground disturbance; however, still have the potential to impact unique paleontological resources. A loss of similar types of paleontological resources from multiple projects could result in a significant cumulative impact.

The Program would result in soil disturbance, particularly through vegetation removal activities, but would not extend to the depth that paleontological resources are usually found. In the unlikely event Program activities unearth a unique paleontological resource, Midpen

requires paleontological resource identification training and stop work procedures if a resource is found. Implementation of this measure would ensure that paleontological resources within Midpen lands are recognized and avoided. The Program would not have a cumulatively considerable contribution to a significant impact.

Greenhouse Gas Emissions

Geographic Scope

GHGs are global pollutants and have long atmospheric lifetimes of one year to several thousand years, which permits dispersal of GHGs around the globe. In contrast to air quality, which generally is a regional or local concern, human-caused emissions of GHGs have been linked to climate change on a global scale. The geographic extent for the GHG emissions cumulative analysis is global. The quantity of GHGs required to ultimately result in climate change is not precisely known. A single project is very unlikely to measurably contribute to a noticeable incremental change in the global average temperature, or to the global, local, or microclimate.

Cumulative Impacts

	Significance Determination
Impact GHG-Cumulative: The proposed Program could result in significant impacts on greenhouse gas emissions in combination with past, present, and probable future development in the cumulative analysis study area.	Significant and unavoidable contribution

GHG emissions and climate change are inherently cumulative impacts. Past, present, and probable future projects worldwide contribute or would contribute to the cumulative conditions for GHG emissions. The cumulative impact of GHG emissions and climate change is significant.

Use of vehicles and equipment as well as pile and prescribed burning during implementation of the Program would generate GHG emissions. Implementation of the Program would also have some effects to carbon sequestration. Implementation of Program activities that involve vegetation removal and modification would result in some short-term losses in carbon stock. Other vegetation management programs in the region and even across the State could result in some removal of carbon stock from forests and other managed lands, which could be considered a cumulatively significant impact on carbon sequestration. The Program objectives and treatments proposed are intended to reduce the likelihood of catastrophic fire and severity of a wildland fire and the associated loss of carbon stocks. The Program is consistent with Statewide plans to manage forests that recognize the benefit of reduced wildland fire risks and long-term carbon sequestration outweighs the short-term carbon loss to some degree. Even so, GHG emissions generated would be magnitudes greater than existing conditions and could contribute to a cumulatively significant impact. The Program would have an unavoidable cumulatively significant impact on the environment.

Hazards, Hazardous Materials, and Wildland Fire

Geographic Scope

The geographic extent for the analysis of cumulative impacts associated with hazardous materials and wildland fire is the area within approximately 0.25 mile of Midpen lands. This geographic extent is appropriate to account for the small volume of hazardous materials that would be used during implementation of the Program and the potential for that material to be transported offsite during upset or accident conditions. The 0.25-mile distance also accounts for the likelihood of encountering contaminated soil from existing hazardous material sites. Cumulative impacts from wildland fire ignition could span a larger area. However, increased risks from various activities would generally only accumulate when the actions occur in the same areas (on Midpen lands). The Program is designed to improve and reduce wildland fire risks overall.

The following projects are considered in this cumulative impact analysis because they could result in the same type of hazard impact as the Program on Midpen lands or on immediately adjacent lands, where impacts could combine:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects

Cumulative Impacts

	Significance Determination
Impact Hazards-Cumulative: The proposed Program could result in significant impacts on hazardous materials and wildland fire in combination with past, present, and probable future development in the cumulative analysis study area.	Less than significant contribution with mitigation

Routine Transport, Use, and Disposal of Hazardous Materials and Accidental Hazardous Materials Releases

Construction, operation, and/or implementation of cumulative projects and implementation of the Program would use equipment and vehicles that could leak hazardous materials, including gasoline and diesel fuel, engine oil, coolant, lubricants, and grease. Hazardous materials, particularly fuel, may be transported to and from each site, which would increase the risk of accident and release. The hazard to the public from fuel leaks from the cumulative projects would be highly localized geographically and temporally, due to the small amount of hazardous materials that typical vehicles and equipment would use and the quick response time to clean up any spill.

Cumulative projects, including Midpen's IPMP, may involve use of chemicals including herbicides. Herbicide use under Midpen's IPMP and the Program would be conducted in accordance with Midpen's requirements to minimize risk of herbicide use on the public or the environment. Herbicides must be applied under the guidance of licensed and certified personnel and according to Midpen's recommendations and herbicide label requirements; applicators must use appropriate protective equipment; a 5-foot no-spray buffer must be established or the area closed for 24 hours; that application must be conducted so as to avoid drift; and storage, handling, and disposal of herbicides must be conducted appropriately (IPMP BMPs 7, 9, 10, 34, 35; MO Manual Section 17.005 and 17.006). The cumulative impact from accidental releases of hazardous materials or herbicide use would, therefore, be less than significant.

Hazardous Materials Sites

Exposure to hazardous materials from disturbance of contaminated sites are very localized impacts. Three hazardous-materials sites listed on government databases remain open on Midpen lands at Sierra Azul OSP, Miramontes OSP, and Ravenswood OSP. The Mount Umunhum Radar Tower Project involves repairs to avoid future hazardous materials contamination concerns and has been closed to public, therefore no risk of exposure to hazardous materials is associated with this project. The Beatty Parking Area and Trail Connections Project and several other cumulative projects are located within Sierra Azul OSP. The VMP would involve some fire-management activities in and around the area of the former Almaden AFS in Sierra Azul OSP. Cumulative impacts from releases caused by these other projects and the Program could be potentially significant.

The Program could contribute to a cumulatively significant impact from work in and around the area of the former Almaden AFS in Sierra Azul OSP. MM Hazards-1 requires Program activities to avoid areas containing residual contamination within any known contaminated sites or contaminated sites listed on government databases (e.g., the former Almaden AFS, Madonna Creek Ranch). With implementation of this measure, workers would not be exposed as part of the Program implementation or release contamination into the environment and, therefore, the Program would not contribute to a potentially cumulatively significant impact.

Wildland Fire

The purpose of the Program and cumulative vegetation management projects (CAL FIRE CalVTP) are largely to reduce fuel loads and wildland fire risks over the baseline conditions. Construction or implementation of cumulative projects that involve the use of heavy machinery, prescribed and pile burns, or off-road vehicle use would increase risk of starting a fire within or surrounding Midpen lands. The cumulative risk of ignition of a wildland fire could be significant.

Implementation of the Program could have similar impacts of increased risk of wildland fire ignition from use of mechanical equipment, workers smoking, and escaped prescribed or pile burns resulting in considerable contribution to a significant cumulative increase in fire risk. Midpen requires worker training in fire prevention and suppression, presence of fire-

suppression equipment at all work areas, and work to stop in extreme fire weather to ensure that no fires are accidentally set (MO Manual Section 13.005; Safety Manual Chapter 1.7.0.0; RM Policy WF-1). Adherence to regulatory requirements, including preparation of a Smoke Management Plan and Burn Plan, would limit potential for escape of a prescribed fire, but may not be adequate to prevent harm to recreationalists or the public on trails and roads adjacent to prescribed burn areas. MM Hazards-2 would reduce potential of wildland fire by requiring workers to implement specific fire risk reduction measures for stockpiling and pile burning. MM Hazards-3 requires road and trail closures and the preparation of a Traffic Control Plan for greater safety around prescribed burns. These measures would significantly reduce the risks of wildland fire while work is being performed and, therefore, minimize the Program's contribution to cumulatively increased risks of wildland fire ignition. Furthermore, the activities implemented as part of the Program are intended to reduce the size, spread, and intensity of wildland fire in the long-term within and surrounding Midpen lands. The Program's contribution to an overall increased wildland fire risk would not be cumulatively significant.

Very High Fire Hazard Severity Zones

Several cumulative projects and the Program would involve construction, operation, or implementation of activities within areas classified as very high fire hazard severity zones. As analyzed above, a cumulative increase in wildland fire ignition risk could occur due to the types of activities that would be conducted as part of the cumulative projects. Some cumulative vegetation management projects would ultimately reduce risk of wildland fire ignition, although may temporarily increase the risk during implementation. Smoke from ignited wildland fires could cumulatively expose sensitive receptors to pollutant concentrations. The cumulative increase in wildland fire ignition risk in very high fire hazard severity zones could result in a significant cumulative impact.

The Program's implementation could contribute to that risk. The Midpen and regulatory requirements discussed above require adherence to fire prevention and suppression measures during Program activities, as well as mitigation measures to reduce the risk of escaped pile or prescribed burns would be implemented. Compliance with regulatory requirements, Midpen standard practices, and mitigation measures would minimize the Program's contribution to cumulatively significant increased wildland fire risks in very high fire hazard severity zones to less than significant. As discussed above, one of the objectives of the Program is to minimize wildland fire risks in the long-term as well as enhance local agencies' abilities to suppress wildland fire in areas of high fire hazard.

Hydrology and Water Quality

Geographic Scope

Surface Water

The geographic scope for the analysis of cumulative impacts associated with hydrology and water quality is limited to the area within or very close to Midpen lands. Projects may result in

cumulative water quality and sedimentation impacts if they occur in the same watershed as the Program and can impact the same waterways and waterbodies.

The following projects are considered in the cumulative impact analysis because they could have water quality and/or erosion impacts and would occur in the same watersheds as the Program's water quality and/or erosion impacts:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Bayfront Canal and Atherton Chanel Flood Management and Restoration Project

Groundwater

The geographic scope for the cumulative groundwater analysis is limited to those projects that would be constructed in areas where the local groundwater basins recharge or that would require water that could be sourced from local groundwater. The Santa Clara subbasin recharge areas are in alluvial fan and fluvial deposits along the edge of the Santa Clara Valley floor (Valley Water, 2016).

The following projects are considered in the cumulative impact analysis because they could have impacts on groundwater recharge or supplies:

- Midpen Preserve and Master Plans
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects
- Memorial Park Facility Improvement Project
- Memorial Park Wastewater Treatment Facilities Improvement Project
- Tunitas Creek Beach Improvement Project
- Bayfront Canal and Atherton Chanel Flood Management and Restoration Project
- Sanborn County Park Master Plan

Cumulative Impacts

Significance
DeterminationImpact Hydrology-Cumulative: The proposed Program could result in significant
impacts on water resources in combination with past, present, and probable future
development in the cumulative analysis study area.Less than significant
contribution with
mitigation

Surface Water

Past and present projects in the San Francisco Bay Area have impaired the waterbodies and waterways within and downstream of Midpen lands (refer to Table 4.9-3 in Section 4.9: Hydrology and Water Quality). Ground disturbing activities associated with the cumulative projects could affect or exacerbate water quality conditions in downstream areas, as

construction, vegetation management, or road and trail maintenance and usage could all result in erosion resulting in mobilization of sediments and pollutants into downstream areas. Construction activities and tree removal implemented as part of the Program activities could expose bare soil and increase runoff as well as sediment loads and other pollutants into downstream areas. The Midpen IPMP and potentially other cumulative projects, would involve use of chemicals that could enter waterways through overspray or herbicide drift. The impacts on downstream water quality from implementation of cumulative projects could be cumulatively significant.

The Program would include activities that could contribute to erosion and sedimentation and involves increased usage of herbicides over that proposed in the IPMP. The Program could contribute to a significant cumulative impact as proposed. Midpen's standard practices require erosion control, spill prevention, and herbicide handling measures that would minimize some risks on water quality from Program activities (IPMP BMPs 4, 5, 9, 28; MO Manual Sections 14.005 and 13.010; Safety Manual Sections 1.6.5 and 1.6.6). MM Geology-1 and MM Geology-2 include several erosion control measures that, where implemented, would minimize the mobilized sediment from work areas. MM Hydrology-1 requires avoidance of instream crossings or performing work when the waterway is dry and obtaining the necessary permits, on the rare occasion water bodies may need to be crossed with equipment where there is not an existing crossing. With these measures, the Program would limit erosion that could lead to sedimentation and minimize risks on water quality from other pollutants such as herbicides and petroleum products. The Program's contribution to potentially significant cumulative impacts from sedimentation on water quality would be less than cumulatively considerable with mitigation.

Groundwater

The Santa Clara subbasin is sustainably managed and is not currently in a condition of chronic overdraft. Past projects have not contributed to a current significant cumulative impact. Several cumulative projects would require water for temporary dust control during construction. Cumulative recreational facility or infrastructure projects (e.g., Memorial Park Facility Improvement Project) would require a permanent source of water, but as small projects, it is not anticipated that withdrawals would be excessive. Implementation of the Program would not require the use of substantial groundwater and would not considerably deplete groundwater supplies. A small increase in impervious surfaces in the areas of groundwater recharge may occur as a result of constructing the cumulative projects and the wildland firefighting infrastructure as part of the Program. Due to the relatively small scale of the cumulative increase in impervious surfaces, significant cumulative effects on recharge would not occur. Cumulative impacts related to groundwater management, recharge, and depletion would be less than significant.

Noise

Geographic Scope

The geographic extent for the analysis of cumulative impacts associated with noise is limited to areas within 500 feet of Midpen lands. This geographic extent is appropriate because noise levels attenuate rapidly with distance and the noise generated by activities greater than 500 feet from the Program would not combine with the noise generated by the equipment and vehicles proposed for use under the Program.

The following projects are considered in this cumulative impact analysis because they would generate noise within the defined geographic scope during implementation of the Program:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects
- Sanborn County Park Master Plan

Cumulative Impacts

	Significance Determination
Impact Noise-Cumulative: The proposed Program could result in significant impacts	Less than significant
on noise levels in combination with past, present, and probable future development in	contribution with
the cumulative analysis study area.	mitigation

The noise from cumulative project activities could increase ambient noise temporarily in excess of local noise standards. Equipment and vehicles used during implementation of the Program would temporarily increase ambient noise at discrete work areas throughout the lifetime of the Program. Noise associated with simultaneous construction or land management activities of several cumulative projects could compound with noise generated by equipment and vehicles used during implementation of the Program. Sensitive receptors located within Midpen lands and within 500 feet of Midpen lands could be subjected to these increased noise levels resulting in a cumulatively significant noise impact.

Due to the proximity of Program activities to the cumulative project sites listed, the Program's contribution to a significant cumulative impact from temporary increases in ambient noise in excess of noise standards could be considerable. Midpen prohibits nighttime work in excess of local noise standards (IPMP BMP 29). MM Noise-1 would reduce noise impacts by requiring establishment of noise buffers for certain equipment required for implementation of Program activities when in proximity to receptors. Noise can also have impacts on biological resources. Noise impacts on sensitive species, particularly marbled murrelets and nesting birds, are mitigated to less than significant through MMs Biology-11 and Biology-12. Midpen would also

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schedule its activities on its own land and projects would not likely occur in the same location at the same time. Mitigation would reduce the Program's contribution to a significant cumulative impact to less than significant.

Recreation

Geographic Scope

The geographic extent for the analysis of cumulative impacts associated with recreation includes recreational areas within approximately 1 mile of Midpen lands. Midpen lands are a regional recreational area, which attract people from San Mateo, Santa Clara, and Santa Cruz counties, as well as neighboring counties. A 1-mile-area surrounding Midpen lands includes many other regional open spaces and parks that are most likely to be used by the same population that uses the amenities affected by the Program.

The following projects are considered in this cumulative analysis because they would impact recreation on Midpen lands or on lands connected to Midpen lands:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects
- Memorial Park Facility Improvement Project
- Memorial Park Wastewater Treatment Facilities Improvement Project
- Tunitas Creek Beach Improvement Project
- Bayfront Canal and Atherton Chanel Flood Management and Restoration Project
- Sanborn County Park Master Plan

Cumulative Impacts

Impact Recreation-Cumulative: The proposed Program could result in significant impacts on recreation in combination with past, present, and probable future development in the cumulative analysis study area.

Significance Determination

Less than significant contribution

Cumulative projects may require temporary or periodic recreational facility closures, as would the Program during construction, operation of heavy equipment, or prescribed burning. These temporary closures, however, would affect only small areas of the overall areas available for recreation within Midpen lands and the overall region. Several cumulative projects would also involve improvements of recreational facilities and trails. The cumulative projects would not degrade existing recreational facilities or result in a significant increase in use of other recreational facilities due to temporary closures and activities. The cumulative impact would be less than significant.

Transportation

Geographic Scope

The geographic extent for the transportation cumulative analysis includes the local and regional roadways and highways that would be utilized for transportation of Program materials and workers. The extent of the analysis specifically includes all projects within 1 mile of the Program because these projects are expected to use the same roads for access.

The following projects are considered in this cumulative impact analysis because they would potentially generate impacts on emergency access or traffic flow in the same place and at the same time as the Program:

- CAL FIRE CalVTP
- Midpen IPMP
- Midpen Forest Management Projects
- Midpen Preserve and Master Plans
- Midpen Natural Resource Protection and Restoration Projects
- Midpen Regional Trails, Public Access, and Education Projects
- Midpen Infrastructure Improvements Projects
- Memorial Park Facility Improvement Project
- Memorial Park Wastewater Treatment Facilities Improvement Project
- Bayfront Canal and Atherton Chanel Flood Management and Restoration Project
- Sanborn County Park Master Plan

Cumulative Impacts

	Significance Determination
Impact Transportation-Cumulative: The proposed Program could result in significant impacts on traffic in combination with past, present, and probable future development in the cumulative analysis study area.	Less than significant contribution with mitigation

Transportation Hazards

Construction of the cumulative projects within Midpen lands could increase truck traffic to and from work sites along the same roadways identified as routes for the Program. Cumulative projects that are adjacent to Midpen lands would increase truck traffic on public roads in the region. Cumulative traffic hazards could occur from changes in traffic flow. Several cumulative projects, specifically Midpen IPMP; Midpen Forest Management Projects; and Midpen Regional Trails, Public Access, and Education Projects, could result in temporary closures of roads or lanes during project activities. Overlapping timelines between the cumulative projects and the Program would increase the potential for conflict between large trucks along the truck routes, particularly if lanes or roads are closed.

The same egress points from paved roads onto unpaved roads may be used for cumulative activities on Midpen lands or adjacent lands, such as simultaneous Program and CAL FIRE CalVTP activities. Activities may also use egress points that are in different locations but along

the same roads that Program activities would use for egress. This usage could change the traffic flow at several points along one roadway. Several cumulative projects and the Program involve activities along roadways. Heavy equipment and other vehicles could use or park along the same roadways. Prescribed and pile burns may be conducted adjacent to roadways, but typically adjacent landowners would not conduct these activities simultaneously in the same area.

The impacts would be too localized to accumulate. Standard operating procedures following California MUTCD including signage and flaggers, would be implemented by all cumulative projects to reduce potentially hazardous situations at points of ingress and egress, and from equipment and vehicles along roads. All cumulative project, including the Program, would be required to acquire encroachment permits prior to work within roads, which would include stipulations to minimize traffic hazards. The cumulative impact would be less than significant.

Emergency Access

Lane or full road and trail closures may be required during construction of several cumulative projects on and around Midpen lands. Closures have the potential to restrict or slow down emergency vehicles and responders. Several cumulative projects, specifically Midpen projects and the Program, could result in temporary closures of trails, roads, or lanes in the same general area, which could cumulatively result in a significant impact due to restricting or delaying emergency access, which would be considered a potentially significant cumulative impact.

MM Transportation-1 requires Midpen to implement provisions to allow access for emergency responders across or through any work site. Unattended vehicles and equipment would be required to park in areas that would leave roads open for emergency access. With this mitigation, the Program would have very limited impacts on emergency access and, therefore, would not contribute considerably to a cumulatively significant impact.

5.2 Growth-Inducing Impacts

Section 15126.2(d) of the CEQA Guidelines (proposed amendments, as of July 2018) requires preparers of an EIR to consider the growth-inducing impacts of a proposed project. Section 15126.2(d) states that the EIR should:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects that would remove obstacles to population growth.

The Program would not involve the construction of housing and would therefore not directly induce population growth. The Program does not involve the expansion of infrastructure, such as roadways or sewer lines and it also does not involve the construction of a new facility that would indirectly induce population growth. It could generate up to 30 new full-time jobs, but workers are anticipated to be sourced from the existing and projected population in the region

and would not induce substantial growth. Implementation of the Program would not have any direct or indirect growth inducing impacts.

5.3 Significant and Irreversible Changes

5.3.1 Requirements

Section 15126.2(c) of the CEQA Guidelines requires preparers of an EIR to identify significant irreversible environmental changes that would be caused by the proposed project, should it be implemented. Section 15126.2 provides the following three examples of irreversible changes:

- Uses of nonrenewable resources may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely
- Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses
- Environmental accidents associated with the plan can result in irreversible damage

5.3.2 Use of Nonrenewable Resources

The Program would require a permanent commitment of nonrenewable resources resulting from the direct consumption of fossil fuels. The Program activities would involve vehicle and equipment use for worker travel, equipment transport, and equipment operation, which use nonrenewable fossil fuels. Fuel consumption to implement the Program is not considered wasteful given the positive outcome of the work to improve ecosystem health and reduce wildland fire hazards. Vehicle engines and fuel used during implementation of the Program would comply with energy reduction and efficiency requirements at the state and local level. Implementation of the Program would, therefore, efficiently use nonrenewable energy resources.

5.3.3 Changes in Land Use which would Commit Future Generations

The Program does not involve a change in land use that would commit future generations to a single use. The activities within the Program are meant to preserve and enhance the existing open space and natural land uses on Midpen lands. No change to the use of Midpen properties is proposed.

5.3.4 Environmental Accidents

Accidental Release of Hazardous Materials

As discussed in Section 4.8: Hazards and Hazardous Materials, the Program would involve limited quantities of miscellaneous hazardous substances, such as fuels and oils to run and maintain vehicles and other mechanized equipment. The Program would also involve use of herbicides. Workers handling hazardous materials would adhere to WPS, OSHA, and Cal/OSHA health and safety requirements. Midpen is required to have a Spill Prevention

Control and Countermeasures Plan to cover the fuel storage tanks used to fuel Program vehicles and equipment. Additionally, fueling and any fuel spills would be handled according to Midpen's spill prevention and handling of hazardous materials BMPs, which would ensure that hazardous materials are properly stored on-site and that any accidental releases of hazardous materials would be properly controlled and quickly cleaned up. Implementation of the Midpen requirements and proper herbicide application following label instructions would minimize the potential for spills and leaks. A spill or leak of hazardous materials during Program implementation would not occur in a great enough quantity to result in irreversible environmental damage.

Accidental Wildland Fire

An accidental wildland fire could trigger irreversible environmental damage. Prescribed and pile burning would be implemented as part of the Program. Equipment and vehicles as well as worker negligence could spark a fire accidentally. Midpen requirements include worker training in fire prevention and suppression, including requiring fire-suppression equipment at all work areas and stopping work in extreme fire weather to ensure that no fires are accidentally set (MO Manual Section 13.005; Safety Manual Chapter 1.7.0.0; RM Policy WF-1). Adherence to regulatory requirements, including preparation of a Smoke Management Plan and Burn Plan, would minimize the risk of an escaped prescribed burn. MM Hazards-2 would reduce the potential of accidental wildland fire by requiring workers to implement specific fire risk reduction measures for stockpiling and pile burning. MM Hazards-3 requires road and trail closures and the preparation of a Traffic Control Plan for greater safety around prescribed burns. The Program objectives and treatments proposed are intended to reduce the likelihood of catastrophic fire and severity of a wildland fire. The risk of igniting an accidental wildland fire during implementation of the activities in the Program would be minimized and in the long-term, the Program would reduce the risk of a catastrophic wildland fire.

5.4 Significant and Unavoidable Impacts

The Program would result in significant unavoidable impacts on aesthetics from tree and vegetation removal and air quality and global GHG emissions from generation of criteria air pollutant and GHG emissions during implementation of activities. Mitigation would reduce these impacts but not to less than significant levels. Mitigation has been identified and implemented to reduce all other potentially significant impacts to less than significant.

5.5 Effects Found Not to Be Significant

CEQA Guidelines section 15128 states that:

An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study.

Midpen identified effects found not to be significant from Program implementation in Section 4.1.2: Effects Found Not to be Significant. Impacts identified in this section are less than significant without mitigation or have no impact and are not discussed further in the Program EIR.