

8 Public Services and Hazard Response

Chapter 8 evaluates potential impacts to public services and hazard response from the Program implementation. Results of the evaluation are provided at the programmatic level. Section 8.1, Environmental Setting, presents an overview of the public services and hazard response in the Program Area, and contains state and local ordinances and regulations that are applicable to the Program. Section 8.2, Environmental Impacts and Mitigation Measures, presents the following:

- > Environmental concerns and evaluation criteria: A determination of whether the Program alternatives would cause significant impacts to public services and hazard response
- > Evaluation methods and assumptions
- > Discussion of the impacts from the Program alternatives, and recommendations for mitigation, if required, for those impacts
- > Cumulative impacts summary
- > A summary of environmental impacts to public services and hazard response

8.1 Environmental Setting

8.1.1 Overview of Public Services and Hazard Response

The District operates in accordance with its Emergency Response Plan, Employee Training Plan, Mitigation Procedures for Dry Material Spills or Releases and for Liquid/Gas Spills or Releases (NCMAD 2014), and its Pesticide Safety Training Program. The District has monthly safety training and equipment inspection meetings and quarterly half day trainings as well. The Emergency Response Plan is contained in part in the documentation that the District submits annually to the California Environmental Reporting System (CERS) maintained by CALEPA. New employees take state examinations to be certified as mosquito, invertebrate, and vertebrate vector control technicians. To take the comprehensive exams, they receive extensive training. Once they have passed the exams they are enrolled in a continuing education program to maintain their certifications (20 hours per year). Additionally, employees also receive extensive ongoing training each year from the District concerning equipment and pesticide use, protecting sensitive species and habitats, emergency and safety procedures, first aid, minimizing fire hazards, etc.

The plans and procedures provide BMPs for minimizing the impact of small spills of hazardous materials, storage of hazardous materials, and worker safety in the field conducting surveillance, physical control, vegetation management, and pesticide/herbicide application protocols. These BMPs are listed in Table 2-9 and repeated in Section 8.2.2.2. In 2012, the Napa County Mosquito Abatement District (NCMAD; the District) had no incidents requiring spills management, only 1 incident involving worker safety, and no fire incidents. The Proposed Program would continue activities subject to these plans and BMPs in the future, similar to the existing Program.

A combination of county sheriffs' departments and municipal police departments provides law enforcement services in the Program Area. Sheriffs' departments typically provide law enforcement and jail services within their respective counties.

Additionally, the California Highway Patrol is the state police force for California. They have specific jurisdiction over all California state routes, US highways, interstate highways, and freeways in the state, and over all public roads in unincorporated parts of a county.

Fire protection services in the Program Area are provided by a number of agencies, including county fire departments, city fire departments, and fire districts. A number of counties also have volunteer fire departments.

California Department of Forestry and Fire Protection (CAL FIRE) oversees the fire protection and stewardship of over 31 million acres of California's privately owned wildlands. CAL FIRE's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year. CAL FIRE also responds in other emergency situations such as medical aid, hazardous material spills, swiftwater rescues, search and rescue missions, civil disturbances, train wrecks, floods, earthquakes, and more. CAL FIRE provides varied emergency services in 36 of California's 58 counties via contracts with local governments.

8.1.2 Regulatory Setting

California state law and local ordinances and regulations pertaining to public services and hazard response are cited in this section. No federal regulations pertain to public services or hazard response. Regulations governing human health are discussed in Chapter 7, Human Health.

8.1.2.1 State

8.1.2.1.1 California Code of Regulations (CCR)

CCR Title 3 Division 6, Pesticides and Pest Control Operations, directs the safe use and transport of pesticides within the state. The following are some of the sections of particular relevance to the Proposed Program:

6670. Container Control

Pesticides, emptied containers or parts thereof, or equipment that holds or has held a pesticide, shall not be stored, handled, emptied, disposed of, or left unattended in such a manner or at any place where they may present a hazard to persons, animals (including bees), food, feed, crops or property. The [Agricultural] commissioner may take possession of such unattended pesticides or emptied containers to abate such hazard.

6672. Delivery of Pesticide Containers

- (a) No person shall deliver a container that holds, or has held, a pesticide to a property unless he stores it in an enclosure or closure complying with the requirements of this Section or delivers it to a person in charge of the property or his agent, or a pest control operator or his employee. The person receiving the container shall control access to it in accordance with this Section.*
- (b) Each person who controls the use of any property or premises is responsible for all containers or equipment on the property that hold, or have held, a pesticide. Unless all such containers are under his personal control so as to avoid contact by unauthorized persons, he shall:
 - (1) Provide a person responsible to him to maintain such control over the containers at all times; or*
 - (2) Store all such containers in a locked enclosure, or in the case of liquid pesticides in a container larger than 55 gallons in capacity, the container shall have a locked closure. Either shall be adequate to prevent unauthorized persons from gaining access to any of the material.**

6682. Transportation

- (a) *Pesticides shall not be transported in the same compartment with persons, food or feed.*
- (b) *Pesticide containers shall be secured to vehicles during transportation in a manner that will prevent spillage onto the vehicle or off the vehicle. Paper, cardboard, and similar containers shall be covered when necessary to protect them from moisture.*

8.1.2.1.2 California Department of Forestry and Fire Protection

Public Resources Code 4201-4204 directs CAL FIRE to map fire hazards within State Responsibility Areas based on relevant factors such as fuels, terrain, and weather. These statutes were passed after significant wildland-urban interface fires occurred; consequently, these hazards are described according to their potential for causing ignitions to buildings. These zones, referred to as Fire Hazard Severity Zones (FHSZs), provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires (CAL FIRE 2007).

Additionally, the Public Resources Code, beginning with Section 4427, includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment with internal combustion engines; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire suppression equipment that must be provided on site for various types of work in fire-prone areas. These requirements would apply to Program activities within a "Very High Fire Hazard Severity Zone."

8.1.2.2 Local

Local ordinances and regulations are usually contained within the general plans of cities and counties in the Program Area, and focus on providing adequate public services and hazard response with a reasonably brief response time throughout the Service Area. Municipal and county ordinances establish police and fire departments and districts, and some establish emergency preparedness councils or committees. Napa County Division of Environmental Health conducts regulatory oversight (review of plans and inspections) of all businesses including farms, federal agencies, state agencies, and local agencies that handle quantities of hazardous materials/ hazardous waste greater than or equal to 55 gallons of liquid, 500 pounds of solids, and 200 cubic feet of a compressed gas at any time.

8.2 Environmental Impacts and Mitigation Measures

The impacts evaluation for public services and hazard response is provided below. The evaluation analyzes the Program's impacts relative to the impact significance criteria presented in Section 8.2.1.

8.2.1 Evaluation Concerns and Criteria

The following concerns were associated with public services and hazard response and are addressed in this section:

- > Risk of spill of hazardous materials from equipment or applications of pesticides and/or herbicides
- > Risk of aerial equipment failure during applications of pesticides
- > Safe storage and disposal of chemical-related materials including pesticide containers

For this evaluation, Program impacts would be considered potentially significant according to the CEQA environmental checklists for Public Services (XIV) and Hazards and Hazardous Materials (VIII), if any of the Program alternatives would:

- > Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the

construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response time or other performance objectives for any of the public services:

- Fire protection
 - Police protection
 - Schools
 - Parks
 - Other public facilities
- > Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- > Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- > Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and, as a result, would create a significant hazard to the public or the environment; or
- > Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The other criteria contained in the checklist are not listed because they are not relevant to the impact analysis in this chapter for the Proposed Program for the following reasons. The Program could result in the application of certain pesticide treatments within 0.25 mile of an existing or proposed school; the potential for hazardous effects of the Program alternatives on sensitive populations is discussed in Chapter 7, Human Health. Public services and hazard response to impacts at or near schools would be the same as described under the first criterion listed above.

Although activities proposed under the Program alternatives could occur on or near sites included on a list of hazardous materials sites (e.g., landfills and manufacturing sites) compiled pursuant to Government Code Section 65962.5 (Cal/EPA 2013), most of these activities, with the exception of constructing new shallow ditches or minor water control features, would not involve excavation or other ground disturbance that could result in impacts related to the release of materials at these hazardous materials sites. However, the District maintains a list of these existing hazardous materials sites within their Service Area.

One of the Program alternatives involves aerial application by helicopter of chemical treatments and, therefore, could occur partially within areas covered by airport land use plans, within 2 miles of public airports or public use airports, or within the vicinity of private airstrips. However, no construction or other activities would occur that would conflict with airport land use plans or result in a safety hazard for people residing or working in proximity to these facilities. Therefore, this criterion is not applicable to the Program and is not discussed further.

None of the Program alternatives would result in any road or lane closures or detours. The Program would not involve activities that could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, this criterion is not applicable to the Program and is not discussed further.

Under some of the Program alternatives, the District and its registered contractors would practice safe disposal of pesticide products. Properly rinsed empty containers can be safely and legally disposed of at landfills. Any unused portions of Program chemicals would be disposed of at permitted hazardous waste collection locations. Adequate landfill and hazardous waste collection capacity exists in locations throughout the Program Area. The Program would not exceed the existing capacity to safely dispose of these materials. Therefore, this criterion is not applicable to the Program and is not discussed further.

Based on public concerns and the relevant CEQA criteria above, the environmental impact topics addressed in the impact analyses are:

- a. Increase Demand for Police, Fire, or Health-Care Services
- b. Create a Significant Hazard to the Public or Environment
- c. Expose People or Structures to Wildfire Risk

8.2.2 Evaluation Methods and Assumptions

The methodology and assumptions of this impact evaluation for the Program alternatives are provided below.

8.2.2.1 *Methodology*

The methodology used to prepare this public services and hazard response impact section is as follows:

- > Reviewed transcript from public scoping meeting on the PEIR in June 2011.
- > Summarized federal, state, county, and select municipal regulations, ordinances, and guidelines for general public services and hazard response issues and as they related to the Program.
- > Evaluated potential hazards requiring response and potential interference with public services and hazard response at the programmatic level.
- > Determined probable impacts and mitigation measures associated with the six alternatives proposed in Chapter 2, Program Description.

8.2.2.2 *Assumptions*

For the analysis of potential impacts to public services and hazard response, no assumptions were made beyond those explained in Chapter 2, Program Description, for the Program alternatives. They include the following BMPs (see Table 2-9) that are applicable to all of the Program alternatives:

- > Equip all vehicles used in wildland areas with a shovel and a fire extinguisher at all times. (Table 2-9, BMP J1)
- > Train employees on the safe use of equipment and machinery, including vehicle operation. (Table 2-9, BMP J2)
- > Regularly review and update the existing health and safety plan to maintain compliance with all applicable standards. Employees will be required to review these materials annually. (Table 2-9, BMP J3)
- > A hazardous spill plan will be developed, maintained, made available, and staff trained on implementation and notification for petroleum-based or other chemical-based materials prior to commencement of vector treatment activities. (Table 2-9, BMP I5)

Additional spill management BMPs for use of herbicides and pesticides under the Vegetation Management and Chemical Control Alternatives the District uses are:

- > Exercise adequate caution to prevent spillage of pesticides during storage, transportation, mixing, or application of pesticides. Report all pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment). (Table 2-9, BMP I1)
- > Maintain a pesticide spill cleanup kit and proper protective equipment at the District's Service Yard and in each vehicle used for pesticide application or transport. (Table 2-9, BMP I2)

- > Manage the spill site to prevent entry by unauthorized personnel. Contain and control the spill by stopping it from leaking or spreading to surrounding areas, cover dry spills with polyethylene or plastic tarpaulin, and absorb liquid spills with appropriate absorbent materials. (Table 2-9, BMP I3)
- > Properly secure the spilled material, label the bags with service container labels identifying the pesticide, and deliver them to a District Field Supervisor for disposal. (Table 2-9, BMP I4)
- > Conduct field-based mixing and loading operations in a manner that minimizes the risk of accidental spill or release of pesticides. (Table 2-9, BMP I6)

Under CEQA, the term “impact” is used to mean an adverse or negative effect from a physical change in the environment compared to existing conditions.

8.2.3 Surveillance Alternative

The Surveillance Alternative involves both ground surveillance and water surveillance. Surveillance activities include field investigations, trapping, sampling, and responding to public service requests. Ground surveillance would require the periodic use of light trucks, such as pickup trucks and jeeps, and low ground pressure ATVs, and would take place in all land use types. Water surveillance would require the use of ATVs and, occasionally, boats and most frequently would occur in agricultural and open-space areas. Most equipment would only be operated a few hours per day for varying periods of time throughout the year. Pesticide use is limited; only small amounts of chemicals are used for trapping purposes (i.e., dichlorvos-containing solid paper “fragments” that are used in mosquito collection jars).

8.2.3.1 Increase Demand for Police, Fire, or Health-Care Services

It is unlikely that the Surveillance Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 911 dispatchers to handle calls.

Impact PSH-1: Surveillance activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.3.1.1 Create a Significant Hazard to the Public or Environment

Surveillance activities, including the use of vehicles for site access/monitoring and very small amounts of pesticides or chemical attractants in containers (i.e., traps), would not create a significant hazard to the public or the environment. District staff would adhere to all applicable CCR requirements regarding pesticides and to trap label instructions. The District’s Injury and Illness Prevention Program and the Emergency Response Plan (NCMAD 2011b) provide safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. The NCMAD training and safety program, the CDPH Vector Control Technician training/certification, and continuing education programs are conducted for the safe use of equipment, machinery, tools, and the safe use and disposal of pesticides.

Adherence to CCR requirements and District BMPs to minimize spills reduces the potential for accident conditions; therefore, the Surveillance Alternative would not result in significant hazards to the public or environment.

Impact PSH-2: Surveillance activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.3.1.2 Expose People or Structures to Wildfire Risk

Surveillance vehicles could be used in moderate to very high FHSZs, and in Table 2-9, BMP J1. Ground surveillance requires the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, but does not require the use of large-scale, offroad equipment. In addition, surveillance is conducted via existing roads and access routes except when existing routes are unavailable and offroad access is required. All vehicles used in wildland areas are equipped with a shovel and a fire extinguisher (Table 2-9, BMP J1). The District's Injury and Illness Prevention Program and the Emergency Response Plan provide training for all employees on the safe use of equipment and machinery (Table 2-9, BMP J2), including vehicle operation. Vegetation management to provide access to surveillance sites also reduces the risk of fire from equipment use. These measures will reduce fire hazards; therefore, the Surveillance Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-3: Surveillance activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.4 Physical Control Alternative

The Physical Control Alternative involves managing vector habitat to reduce vector production or migration and typically reduces the need for pesticides. Vector management is accomplished primarily through direct habitat management and public education. Physical control for mosquitoes consists of managing wetlands and water bodies through maintenance, new construction, and cultural practices such as the installation and maintenance of water control facilities, sediment and debris removal, vegetation trimming, and the construction and maintenance of ditches or installation of culverts that eliminate mosquito-breeding habitat. The District can also request landowners to conduct similar maintenance activities for mosquito abatement. All such requests result in the District instructing the landowner of the need to consult with resource agencies about the potential for sensitive species, protection of wetlands and sensitive habitats and the need for any permits prior to commencement of work. Physical controls for mammal vectors include reducing food sources and reducing conditions that promote harborage.

The number and type of vehicles and equipment required for physical control would vary by activity, but typically, terrestrial activities would require the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs. Wetland and aquatic activities would require the use of ATVs and, occasionally, boats and sprayers.

8.2.4.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. It is unlikely that the Physical Control Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 911 dispatchers to handle calls.

Impact PSH-4: Physical control activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.4.1.2 Create a Significant Hazard to the Public or Environment

Physical control activities involve equipment use but do not include the use of pesticides and herbicides and are intended to reduce the need to use chemical control measures for mosquito and/or vector control. District BMPs include management of fuel spills. Therefore, the Physical Control Alternative would not create a significant hazard to the public or the environment.

Impact PSH-5: Physical control activities do not include the use of pesticides or herbicides; therefore, these activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or

through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.4.1.3 Expose People or Structures to Wildfire Risk

Physical control requires the use of vehicles and equipment that could be used in moderate to very high FHSZs. Access to work sites requires the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs. Physical control activities are conducted via existing roads and access routes except when existing routes are unavailable and offroad access is required. Construction or maintenance of ditches, levees, or other features could also require the use of large-scale, offroad equipment. Power tools are also used for vegetation management. The District's Injury and Illness Prevention Program, Emergency Response Plan, California Vector Control Certification Technician, CDPH Continuing Education Program, and ongoing in-house safety programs provide training for all employees on the safe use of equipment, tools, and machinery, including vehicle operation. All vehicles are equipped with a shovel and a fire extinguisher at all times (Table 2-9, BMP J1). These measures will reduce fire hazards; therefore, the Physical Control Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-6: Physical control activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.5 Vegetation Management Alternative

Vegetation management activities are conducted to reduce the value of mosquito habitat and to allow District access for inspections and treatment. The number and type of vehicles and equipment required would vary by activity, but typically, access to vegetation management areas would require the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs. Access and herbicide application at or near aquatic areas requires the use of ATVs and, occasionally, boats and sprayers. Vegetation management activities require the use of hand tools or other mechanical means (i.e., heavy equipment) for vegetation removal or thinning. Herbicide applications may be used at waste ponds and in natural habitats. Vegetation removal or thinning primarily occurs in or adjacent to aquatic habitats to allow access to sources of mosquito production or to control mosquitoes and in terrestrial habitats to control other vectors. To reduce the potential for mosquito breeding associated with water retention and infiltration structures, District staff may systematically clear weeds and other obstructing vegetation in wetlands and retention basins and at winery waste ponds (or request the structures' owners to perform this task). Tools ranging from shovels and pruners to chainsaws and weed-eaters up to heavy equipment can all be used at times to clear plant matter that either prevent access to mosquito-breeding sites or that prevent good water management practices, which would minimize mosquito populations and the potential for mosquito-borne disease transmission. Trimmed vegetation is either removed and disposed of properly from the site or broadcast in such a way as to minimize visual degradation of the habitat. Trimming is also kept to a minimum to reduce the possibility of the invasion of exotic plant and animal species. Water control structures are also used to manage vegetation by manipulating hydroperiods.

8.2.5.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. It is unlikely that the Vegetation Management Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 911 dispatchers to handle calls.

Impact PSH-7: Vegetation management activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.5.1.2 Create a Significant Hazard to the Public or Environment

The routine transport, use, or disposal of herbicides for vegetation management activities would not create a significant hazard to the public or the environment. Applicators would adhere to all applicable CCR requirements regarding pesticides to ensure safety and to District BMPs to avoid spills and accidental releases of fuels as well as herbicide materials (Table 2-9, BMPs I1 through I5). The District's Injury and Illness Prevention Program and the Emergency Response Plan provide safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. Training programs are conducted for the safe use of equipment, machinery, tools, and the safe use and disposal of pesticides and herbicides.

All small spills of herbicides or fuel would be handled according to the District's procedures for cleanup of small spills of 5 gallons or less as follows:

- > Adequate caution will be exercised to prevent spillage of pesticides during storage, transportation, mixing, or application of pesticides. All pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment) will be reported to the District Supervisor and Manager and recorded in the District safety and incident file. (Table 2-9, BMP I1)
- > A pesticide spill cleanup kit and proper protective equipment will be maintained at the Vector Control Service Yard and in each vehicle used for pesticide application or transport. (Table 2-9, BMP I2)
- > The spill site will be managed to prevent entry by unauthorized personnel. The spill will be contained and controlled by stopping it from leaking or spreading to surrounding areas, and dry spills will be covered with polyethylene or plastic tarpaulin and liquid spills will be absorbed with appropriate absorbent materials. (Table 2-9, BMP I3)
- > The spilled material will be properly secured and the bags will be labeled with service container labels identifying the pesticide and delivered to a Field Supervisor for disposal. (Table 2-9, BMP I4)

For spills greater than 5 gallons, the District would follow procedures contained in the District's Mitigation Procedures for Liquid/Gas Spills or Releases (NCMAD 2014). Adherence to CCR requirements and the District's small/large spill cleanup procedure reduces the potential for accident conditions; therefore, the Vegetation Management Alternative would not result in significant hazards to the public or environment.

Impact PSH-8: Vegetation management activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.5.1.3 Expose People or Structures to Wildfire Risk

Vehicles and power tools could be used in moderate to very high FHSZs during vegetation management activities. Power tools include leaf blowers, mowers, chainsaws, and weed-eaters. Access to sites and vegetation management requires the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, and could require the use of large-scale, offroad equipment such as tractors. Access will be via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District's Injury and Illness Prevention Program, Emergency Response Plan, Continuing Education Program (CDPH), and ongoing in-house safety programs provide training for all employees on the safe use of tools, equipment, and machinery, including vehicle operation (Table 2-9, BMP J2). All vehicles are equipped with a shovel and a fire extinguisher at all times (Table 2-9, BMP J1). These measures will reduce fire hazards substantially; therefore, the Vegetation Management Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-9: Vegetation management activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.6 Biological Control Alternative

The Biological Control Alternative involves the use of pathogens, parasites, and predators to reduce mosquito populations. Biological control of other vectors is unavailable and, therefore, not used at this time. Mosquito pathogens include bacteria and viruses specifically targeted to mosquitoes that do not pose a risk to public health and are not used at present except for the materials called out below that are addressed under the Chemical Control Alternative. Mosquito parasites are not commercially available for use. Mosquitofish (*Gambusia affinis*) are the most commonly used biological control agent throughout the world and the primary means of biological control used by the District. Biological control using mosquitofish requires the periodic use of light trucks.

The use of biological control reduces the need to use pesticides, but the use of pathogens usually involves application methods similar to chemical treatment. Examples of bacteria pathogenic to mosquitoes are Bs, the several strains of Bti, and *Saacharopolyspora spinosa* (spinosad). Because the potential environmental impacts of Bs (live organism) or Bti (spores only) and spinosad applications are generally similar to those of chemical pesticide applications, these bacterial materials and spinosad are evaluated under the Chemical Control Alternative. The analysis below is focused on the use of mosquitofish in artificial aquatic habitats such as water troughs and ornamental fish ponds.

8.2.6.1.1 **Increase Demand for Police, Fire, or Health-Care Services**

The level of activity in the future is similar to existing conditions. It is unlikely that the Biological Control Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 911 dispatchers to handle calls.

Impact PSH-10: Biological control activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.6.1.2 **Create a Significant Hazard to the Public or Environment**

Biological control activities do not include the use of pesticides and herbicides or other hazardous materials, but currently rely on mosquitofish, and are intended to reduce the need to use chemical control measures. Mosquitofish are used in controlled environments to avoid their migration into habitats used by special status species. District policy is to limit their use to contained water sources such as ornamental fish ponds, water troughs, water gardens, fountains, and unmaintained swimming pools. Therefore, the Biological Control Alternative would not create a significant hazard to the public or the environment.

Impact PSH-11: Biological control activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.6.1.3 **Expose People or Structures to Wildfire Risk**

Vehicles could be used to access areas or to release or apply mosquitofish in areas that are moderate to very high FHSZs. Access requires the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, but does not require the use of large-scale, offroad equipment. Access for biological control will be via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District's Injury and Illness Prevention Program, Emergency Response Plan, Continuing Education Program (CDPH), and continuous in-house safety training program provide training for all employees on the safe use of equipment and machinery, including vehicle operation (Table 2-9, BMP J2). All vehicles are equipped with a shovel and a fire extinguisher (Table 2-9, BMP J1). These measures will

reduce fire hazards; therefore, the Biological Control Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-12: Biological control activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.7 Chemical Control Alternative

Chemical control is a Program tool that consists of the application of nonpersistent selective insecticides to directly reduce populations of larval or adult mosquitoes and other invertebrate threats to public health (e.g., ticks, yellow jacket wasps), and the use of rodenticides to control rats and mice. Chemical control is implemented when inspections reveal that mosquitoes or other vector populations are present at levels that trigger the District's criteria for chemical control based on the vector's abundance, density, species composition, proximity to human settlements and recreational areas, water temperature, presence of predators, and other factors.

The majority of chemical control tools are used for mosquito abatement and consist of larvicides and adulticides. Mosquito larvicides the District routinely uses or may use include Bti, Bs, Methoprene (Altosid or MetaLarv), CoCoBear Oil, BVA-2, Masterline Mosquito Larvicide, *Saacharopolyspora spinosa* (Spinosad) (Natular), and Agnique. Adulticides potentially used by the District include pyrethrins and the synthetic pyrethroids Resmethrin, Phenothrin, Deltamethrin, Etofenprox, and Permethrin. Mosquito adulticide materials are used infrequently and only when necessary to control mosquito populations.

Pyrethroid-based chemicals are typically used against ground-nesting yellow jackets and ticks, and this control measure is usually triggered by public requests. When the District treats stinging insects, staff will apply the insecticide directly within the nest in accordance with the District's policies to avoid drift of the insecticide or harm to other organisms. Alternatively, they will place tamper-resistant traps or bait stations, selective for the target insect, in the immediate environment of the vector. The potential environmental impacts of these materials is minimal due to two factors: (1) their active ingredients consist largely of pyrethrins (a photosensitive natural insecticide manufactured from a *Chrysanthemum* species), or allethrin and phenothrin (first generation synthetic pyrethroids with similar photosensitive, nonpersistent characteristics as pyrethrin); and (2) the mode of their application for yellow jacket population control (i.e., directly into the underground nest), which prevents drift and further reduces the potential for inadvertent exposure to these materials.

The District's rat population control program implements the limited use of rodenticides usually in response to the identification of high rodent populations as a result of citizen complaints. The District may use two different groups of anticoagulant rodenticides, known as first-generation and second-generation rodenticides. First generation rodenticides require consecutive multiple doses or feedings over a number of days to be effective. Concentrations of active ingredient in the bait typically range from 0.005 to 0.1 percent. Second generation rodenticides are lethal after one dose and are effective against rodents that have become resistant to first generation rodenticides. Concentrations of active ingredient in the bait typically range from 0.001 to 0.005 percent, as these anticoagulant baits are far more toxic than first generation baits. These materials are also used in controlled conditions, such as in underground sewers, to minimize the potential for nontarget species to ingest either the bait or the contaminated dead rat.

8.2.7.1 *Mosquito Ground Application*

For ground larviciding, the District uses a variety of techniques and equipment to apply larvicides, including handheld sprayers, backpack sprayers, blowers, and truck- or ATV-mounted spray rigs. The District uses conventional pickup trucks, and ARGO and Polaris ATVs, as ground larvicide vehicles. ATV safety and handling is provided to employees before operating these machines. Ground larviciding allows applications while in close proximity to the actual treatment area and, consequently treatments occur to

only those microhabitats where larvae are actually present, reducing the pesticide load on the environment compared to aerial application. However, risk of chemical exposure is also greater for the applicators during ground larviciding than during aerial larviciding.

Adulticiding is the only known effective measure of reducing an adult mosquito population in a timely manner. The most common form of adulticide application is ground adulticiding via insecticide aerosols at very low dosages, which is referred to as the ULV method. This method employs specially designed ULV equipment mounted on trucks, ATVs, utility vehicles, and watercraft, or handheld devices for ground applications. Cold aerosol generators, cold foggers, and ULV aerosol machines are constructed by mounting a vortex nozzle on the forced air blower of a thermal fogger. Insecticide is applied as technical material or at moderately high concentrations (as is common with the pyrethroids), which translates to very small quantities per acre. In agriculture, this rate is assumed less than 36 ounces per acre, but mosquito control ground adulticiding operations rarely exceed 1 ounce per acre. The optimum sized droplet for mosquito control with cold aerosols applied at ground level has been determined to be in the range of 10 to 30 microns. The District does not use barrier treatments.

8.2.7.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. Occasional calls to the District or to emergency personnel could occur from the public in the treatment area due to concerns about the potential for impacts and need to stay indoors (or not), especially when a large-scale application is planned for an imminent and severe threat to public health. When performing large scale operations, local authorities, the land owner and, if needed, neighboring residences that border the operation, and any known chemically sensitive individuals, are notified prior to commencement of treatment operations. In 2013, the District received no calls of this type. (Most calls are for information on dealing with vector problems and requests for service and confirmation that treatment was conducted.) However, it is unlikely that the Chemical Control Alternative would result in a substantial increase in requests for actual services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 911 dispatchers to handle calls.

Impact PSH-13: Chemical control activities for mosquitoes would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.7.1.2 Create a Significant Hazard to the Public or Environment

The use, transport, and disposal of the pesticides would not create a significant hazard to the public or the environment. The District uses the Chemical Control method only when other alternatives are ruled out after certain criteria are met that require implementing the Chemical Control Alternative (ground larviciding and adulticiding). Ground larviciding allows applications while in close proximity to the actual treatment area and, consequently, treatments occur to only those microhabitats where larvae are actually present, reducing the pesticide load on the environment compared to aerial application. Ground adulticiding employs specialized equipment that provides targeted control and applications at small quantities per acre, reducing potential drift and nontarget exposure.

Applicators would adhere to all applicable CCR requirements regarding pesticides to ensure safety and strictly adhere to the specific label instructions for each pesticide (see Section 2.9.1 and Appendix B). District BMPs further reduce the potential for spills and accidental releases of fuel and pesticides. The District's Injury and Illness Prevention Program, Emergency Response Plan, Continuing Education Program (CDPH), and continuous in-house safety training program provide safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. Training programs are conducted for the safe use of equipment, machinery, or tools and the safe use and disposal of pesticides

All small pesticide spills would be handled according to the District's procedures for cleanup of small spills of 5 gallons or less as follows:

- > Exercise adequate caution to prevent spillage of pesticides during storage, transportation, mixing, or application of pesticides. All pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment) will be reported to the District Supervisor and Manager and recorded in the District safety and incident file. (Table 2-9, BMP I1)
- > Maintain a pesticide spill cleanup kit and proper protective equipment at the Vector Control Service Yard and in each vehicle used for pesticide application or transport. (Table 2-9, BMP I2)
- > Manage the spill site to prevent entry by unauthorized personnel. The spill will be contained and controlled by stopping it from leaking or spreading to surrounding areas, and dry spills will be covered with polyethylene or plastic tarpaulin and liquid spills will be absorbed with appropriate absorbent materials. (Table 2-9, BMP I3)
- > The spilled material will be properly secured and the bags will be labeled with service container labels identifying the pesticide and delivered to a District/Field Supervisor for disposal. (Table 2-9, BMP I4)
- > Applicators must wear a P-95 disposable filtering face piece respirator for spill of Bs and Bti dry formulations.

For spills of fuel or pesticides greater than 5 gallons, the District will follow procedures contained in the District's Mitigation Procedures for Liquid/Gas Spills or Releases (NCMAD 2014). Adherence to pesticide label instructions and the District's small and large spill cleanup procedures reduces the potential for accident conditions to affect the public or the environment; therefore, ground larviciding and adulticiding under the Chemical Control Alternative would not result in significant hazards to the public or environment. See also Sections 6.2.7 and 7.2.7.

Impact PSH-14: Chemical control ground larviciding and adulticiding activities for mosquitoes would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.7.1.3 Expose People or Structures to Wildfire Risk

Chemical control vehicles and equipment used for ground larviciding and adulticiding could be used in moderate to very high FHSZs. The District would use a variety of vehicles and equipment for access to sites and to apply ground larvicides and adulticides, including conventional pickup trucks and ATVs, blowers, and truck- or ATV-mounted spray rigs. Access to sites is via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District's Injury and Illness Prevention Program and Emergency Response Plan, Continuing Education Program (CDPH), and continuous in-house safety training program provide training for all employees on the safe use of tools, equipment, and machinery, including vehicle operation. All vehicles are equipped with a shovel and a fire extinguisher at all times (Table 2-9, BMP J1). These measures will reduce fire hazards; therefore, the Chemical Control Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-15: Chemical control ground larviciding and adulticiding activities for mosquitoes would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.7.2 Mosquito Aerial Application

When large areas are individually or simultaneously producing mosquito larvae at densities exceeding District treatment thresholds, then the District may use helicopters or other aircraft to apply larvicides and adulticides. Aerial application of larvicides is a relatively infrequent activity for the District, typically occurring only a few times each year, with each application covering around 200 to 1,200 acres. Aerial application can be more practical for remote or inaccessible areas than ground larviciding. However, risk of drift is greater with aerial applications, especially with liquid or ULV aerial larviciding and, consequently, potential risk of nontarget exposure is greater.

The aerial larvicides, excluding granular and pellet formulations, are typically combined with water and applied as a low volume wet spray mix at 2 gallons per acre and sometimes at 5 gallons per acre or more depending upon site conditions. Aerial application of liquid larvicides typically occurs during daylight hours and at an altitude above the treatment site of less than 40 feet using helicopters. Granular and pellet formulations of larvicides are applied using a large mechanical spreader with a bucket that is beneath the aircraft or pods positioned on the sides of the aircraft with spreaders that can hold several hundred pounds of granules/material beneath the aircraft. Granular applications occur during daylight hours and are applied at an altitude of approximately 50 feet.

Aerial adulticiding is often the only means available to cover a very large area quickly in case of severe mosquito outbreaks or vector-borne disease epidemics, and aerial applications may be the only reliable means of gaining effective control in some areas. Two aerial adulticiding techniques are used in California: low volume spraying and ULV aerosols. Low volume (<2 gallons per acre) sprays are applied with the pesticide diluted in light petroleum oils or water and as a rather wet spray. The size of the droplets reduces drift, thus limiting swath widths, and may not be ideal under certain circumstances for impinging on mosquitoes. The technique is compatible with equipment commonly used for aerial liquid larviciding.

A common aerial adulticiding technique applies the insecticide in a technical concentrate or in a very high concentration formulation as an ULV cold aerosol. Lighter aircraft, including helicopters, can be used because the insecticide load is a fraction of the other techniques. If the aircraft is capable of >120 knots, fine droplets can be created by the high speed air stream impacting the flow from hydraulic nozzles. Slower aircraft and most helicopters typically use some variety of rotary atomizers to create the required droplet spectrum. ULV applications can be difficult to accurately place with any regularity. Without the visual cues, drift and settling characteristics can be difficult to assess.

The flight parameters for aerial adulticiding differ by program and technique. Some operations fly during hours of daylight. At these times, the pilots should be able to see towers and other obstructions as well as keep track of the spray plume. The aircraft can be flown at a less-than-200-foot altitude, which may make it easier to hit the target area. Other operations may be conducted in the dark of the night. The aircraft typically are flown between a 200- and 300-foot altitude. Swath widths vary from operation to operation but are normally set somewhere between 400 and 1,200 feet. Swaths are flown as close to perpendicular with the wind as is possible. A number of factors affect the spray-drift offset and settling such as wind speed, droplet size, aircraft wake turbulence, altitude, and even characteristics of the individual aircraft. Pilots rely somewhat on experience for determining this offset, and some use telltale smoke or paper markers for swath alignment.

One of the public concerns was regarding aerial equipment failure, i.e., potential hazards from fuel dumping before landing, which is a procedure used to lighten an aircraft's weight in certain emergency situations. Once released, fuel would trail behind the aircraft. Most aviation fuel is a derivative of kerosene, which evaporates rapidly in the atmosphere and rarely survives in liquid form to reach the earth's surface. This issue does not apply to the District's use of helicopters or fixed-wing aircraft. These aircraft are not equipped to dump fuel. Only very large aircraft such as 727s and 747s are equipped to dump fuel prior to an emergency landing.

8.2.7.2.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. The District notifies sheriff, CHP, local police departments, fire departments, Agriculture Department, and local airports prior to commencement of aerial operations with specific information that allows for rapid and easy processing of any calls they might receive from concerned citizens.

Occasional calls to the District or to emergency personnel could occur from the public in the treatment area. However, it is unlikely that aerial application under the Chemical Control Alternative would result in a substantial increase in requests for services from emergency dispatchers, and the Program would not adversely affect the ability of 911 dispatchers to handle calls.

Impact PSH-16: Chemical control aerial application activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.7.2.2 Create a Significant Hazard to the Public or Environment

The use, transport, and disposal of the pesticides would not create a significant hazard to the public or the environment. The District uses the Chemical Control method only when other alternatives are ruled out after certain criteria are met that require implementing the Chemical Control Alternative. Aerial application of larvicides and adulticides is a relatively infrequent activity for the District. Applicators adhere to all applicable CCR requirements and District BMPs regarding pesticides to ensure safety and strictly adhere to the specific label instructions for each pesticide (see Table 2-9 and Appendix B). The District's Injury and Illness Prevention Program, Emergency Response Plan, Continuing Education Program (CDPH), and continuous in-house safety training program provide safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. Training programs are conducted for the safe use of equipment, machinery or tools, and use and disposal of pesticides. (Table 2-9, BMP J2)

All small pesticide spills would be handled according to the District's procedures for cleanup of 5-gallon-or-less spills as follows:

- > Exercise adequate caution to prevent spillage of pesticides during storage, transportation, mixing, or application of pesticides. All pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment) will be reported to the District Supervisor and Manager and recorded in the District safety and incident file. (Table 2-9, BMP I1)
- > Maintain a pesticide spill cleanup kit and proper protective equipment at the Vector Control Service Yard and in each vehicle used for pesticide application or transport. (Table 2-9, BMP I2)
- > Manage the spill site to prevent entry by unauthorized personnel. The spill will be contained and controlled by stopping it from leaking or spreading to surrounding areas, and dry spills will be covered with polyethylene or plastic tarpaulin and liquid spills will be absorbed with appropriate absorbent materials. (Table 2-9, BMP I3)
- > The spilled material will be properly secured and the bags will be labeled with service container labels identifying the pesticide and delivered to a Field Supervisor for disposal. (Table 2-9, BMP I4)
- > Applicators must wear a P-95 disposable filtering facepiece respirator for spill of Bs and Bti dry formulations.

For spills of fuel or pesticides greater than 5 gallons, the District will follow procedures contained in the District's Mitigation Procedures for Liquid/Gas Spills or Releases (NCMAD 2014). Adherence to pesticide label instructions and the District's small and large spill cleanup procedure reduces the potential for accident conditions to affect the public or the environment; therefore, the Chemical Control Alternative would not result in significant hazards to the public or environment.

Impact PSH-17: Chemical control aerial application activities for mosquitoes would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.7.2.3 Expose People or Structures to Wildfire Risk

Helicopters or other aircraft could be used in moderate to very high FHSZs for aerial application similar to existing conditions. However, continued flight operations would not pose increased fire risk in those zones, and the Program would not substantially increase the risk of wildfire from accidents; therefore, the Chemical Control (aerial application) Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-18: Chemical control aerial application activities for mosquitoes would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.7.3 Yellow Jackets, Ticks, and Rodents

8.2.7.3.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. It is unlikely that the Chemical Control Alternative (for yellow jackets, ticks, and rodents) would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 911 dispatchers to handle calls.

Impact PSH-19: Chemical control for yellow jackets, ticks, and rodents would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.7.3.2 Create a Significant Hazard to the Public or Environment

The use, transport, and disposal of the pesticides would not create a significant hazard to the public or the environment. The District uses the Chemical Control method only when other alternatives are ruled out after certain criteria are met that require implementing the Chemical Control Alternative. Applicators would adhere to all applicable CCR requirements regarding pesticides to ensure safety and strictly adhere to the specific label instructions for each pesticide (see Section 2.9.1 and Appendix B). The District's Illness and Injury Prevention Program, Emergency Response Plan, Employee Manuals, Continuing Education Program (CDPH), and continuous in-house safety training program provide safety training for all employees who may be affected by any substance, process, procedure, or equipment that represents a potential hazard. Training programs are conducted for the safe use of equipment, machinery, or tools and the safe use and disposal of pesticides and herbicides. (Table 2-9, BMP J2)

All small pesticide spills would be handled according to the District's procedures for cleanup of 5-gallon-or-less spills as follows:

- > Exercise adequate caution to prevent spillage of pesticides during storage, transportation, mixing, or application of pesticides. All pesticide spills and cleanups (excepting cases where dry materials may be returned to the container or application equipment) will be reported to the District/Field Supervisor and Manager and recorded in the District safety and incident file. (Table 2-9, BMP I1)
- > Maintain a pesticide spill cleanup kit and proper protective equipment at the Vector Control Service Yard and in each vehicle used for pesticide application or transport. (Table 2-9, BMP I2)
- > Manage the spill site to prevent entry by unauthorized personnel. The spill will be contained and controlled by stopping it from leaking or spreading to surrounding areas, and dry spills will be covered

with polyethylene or plastic tarpaulin and liquid spills will be absorbed with appropriate absorbent materials. (Table 2-9, BMP I3)

- > The spilled material will be properly secured and the bags will be labeled with service container labels identifying the pesticide and delivered to a District/Field Supervisor for disposal. (Table 2-9, BMP I4)
- > Applicators must wear a P-95 disposable filtering facepiece respirator for spill of Bs and Bti dry formulations.

For spills of fuel or pesticides greater than 5 gallons, the District will follow procedures contained in the District's Mitigation Procedures for Liquid/Gas Spills or Releases and for Dry Material Spills or Releases (NCMAD 2014). Consistent with existing conditions, the District's adherence to pesticide label instructions and the small and large spill cleanup procedures reduce the potential for accident conditions to the public or the environment; therefore, the Chemical Control Alternative would not result in significant hazards to the public or environment.

Impact PSH-20: Chemical control of yellow jackets, ticks, and rodents would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.7.3.3 Expose People or Structures to Wildfire Risk

Vehicles could be used in moderate to very high FHSZs similar to existing conditions. Access to application sites could require the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, but does not require the use of large-scale, offroad equipment. Access is via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District's Illness and Injury Prevention Program, and Emergency Response Plan, Continuing Education Program (CDPH), and continuous in-house safety training program provide training for all employees on the safe use of tools, equipment, and machinery, including vehicle operation. While in training, employees are required to take comprehensive examinations and are enrolled in a continuing education program. All vehicles are equipped with a shovel and a fire extinguisher (Table 2-9, BMP J1). These measures will reduce fire hazards; therefore, the Chemical Control Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-21: Chemical control activities for yellow jackets, ticks, and rodents would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.8 Other Nonchemical Control/Trapping Alternative

The Other Nonchemical Control/Trapping Alternative includes the use of tamper-resistant or baited traps to trap rodents and/or yellow jackets that pose a threat to public health.

8.2.8.1.1 Increase Demand for Police, Fire, or Health-Care Services

The level of activity in the future is similar to existing conditions. It is unlikely that the Other Nonchemical Control/Trapping Alternative would result in a substantial increase in requests for services from emergency dispatchers and responders, and the Program would not adversely affect the ability of 911 dispatchers to handle calls.

Impact PSH-22: Other Nonchemical Control/Trapping Alternative activities would not increase demand for police, fire, or health-care services. Therefore, **no impact** would occur.

8.2.8.1.2 Create a Significant Hazard to the Public or Environment

Other Nonchemical Control/Trapping Alternative activities do not include the use or transport of pesticides that could spill or leak into the environment. However, there is the potential for a fuel spill. For spills of fuel less than or greater than 5 gallons, the District will follow procedures contained in the District's Mitigation Procedures for Liquid/Gas Spills or Releases (NCMAD 2014). Therefore, this alternative would not create a significant hazard to the public or the environment.

Impact PSH-23: The Other Nonchemical Control/Trapping Alternative would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, **no impact** would occur.

8.2.8.1.3 Expose People or Structures to Wildfire Risk

Other Nonchemical Control/Trapping Alternative activities could require operating vehicles in moderate to very high FHSZs. Access to sites could require the periodic use of light trucks, such as pickup trucks and jeeps, and ATVs, but would not require the use of large-scale, offroad equipment. In addition, access would be via existing roads and access routes except when existing routes are unavailable and offroad access is required. The District's Illness and Injury Prevention Program, Emergency Response Plan, Continuing Education Program (CDPH), and continuous in-house safety training program provide training for all employees on the safe use of equipment, and machinery, including vehicle operation (Table 2-9, BMP J2). All vehicles are equipped with a shovel and a fire extinguisher (Table 2-9, BMP J1). These measures will reduce fire hazards; therefore, the Other Nonchemical Control/Trapping Alternative is not likely to increase wildfire hazards through the use of equipment that may produce a spark, flame, or fire and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Impact PSH-24: The Other Nonchemical Control/Trapping Alternative would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, **no impact** would occur.

8.2.9 Cumulative Impacts

The District's Program would not incrementally increase demand for police, fire, or health-care services, nor would it create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, or through the operation of aircraft. In addition, the Program would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. In short, the Program does not have incremental impacts on public services, and **implementation of any of the Program alternatives (individually or in combination) would not result in a significant contribution to any cumulative public services and hazard response impacts** that could result from other projects in the vicinity of the treatment areas.

8.2.10 Environmental Impacts Summary

Table 8-1 is a summary of all of the potential public services and hazard response impacts associated with the Program alternatives. The number of each statement correlates to its number in the text, and the significance determination symbols are provided at the end. All of the impact determinations are "no impact"; therefore, no mitigation is required.

Table 8-1 Summary of Public Services and Hazard Response Impacts by Alternative

Impact Statement	Surveillance	Physical Control	Vegetation Management	Biological Control	Chemical Control	Other Nonchemical/ Trapping
Effects on Public Services and Hazard Response						
Impact PSH-1: Surveillance activities would not increase demand for police, fire, or health-care services. Therefore, no impact would occur.	N	na	na	na	na	na
Impact PSH-2: Surveillance activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, no impact would occur.	N	na	na	na	na	na
Impact PSH-3: Surveillance activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.	N	na	na	na	na	na
Impact PSH-4: Physical control activities would not increase demand for police, fire, or health-care services. Therefore, no impact would occur.	na	N	na	na	na	na
Impact PSH-5: Physical control activities do not include the use of pesticides or herbicides; therefore, these activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, no impact would occur.	na	N	na	na	na	na
Impact PSH-6: Physical control activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.	na	N	na	na	na	na
Impact PSH-7: Vegetation management activities would not increase demand for police, fire, or health-care services. Therefore, no impact would occur.	na	na	N	na	na	na

Table 8-1 Summary of Public Services and Hazard Response Impacts by Alternative

Impact Statement	Surveillance	Physical Control	Vegetation Management	Biological Control	Chemical Control	Other Nonchemical/ Trapping
Impact PSH-8: Vegetation management activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, no impact would occur.	na	na	N	na	na	na
Impact PSH-9: Vegetation management activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.	na	na	N	na	na	na
Impact PSH-10: Biological control activities would not increase demand for police, fire, or health-care services. Therefore, no impact would occur.	na	na	na	N	na	na
Impact PSH-11: Biological control activities would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, no impact would occur.	na	na	na	N	na	na
Impact PSH-12: Biological control activities would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.	na	na	na	N	na	na
Impact PSH-13: Chemical control activities for mosquitoes would not increase demand for police, fire, or health-care services. Therefore, no impact would occur.	na	na	na	na	N	na

Table 8-1 Summary of Public Services and Hazard Response Impacts by Alternative

Impact Statement	Surveillance	Physical Control	Vegetation Management	Biological Control	Chemical Control	Other Nonchemical/ Trapping
Impact PSH-14: Chemical control ground larviciding and adulticiding activities for mosquitoes would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, no impact would occur.	na	na	na	na	N	na
Impact PSH-15: Chemical control ground larviciding and adulticiding activities for mosquitoes would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.	na	na	na	na	N	na
Impact PSH-16: Chemical control aerial application activities would not increase demand for police, fire, or health-care services. Therefore, no impact would occur.	na	na	na	na	N	na
Impact PSH-17: Chemical control aerial application activities for mosquitoes would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, no impact would occur.	na	na	na	na	N	na
Impact PSH-18: Chemical control aerial application activities for mosquitoes would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.	na	na	na	na	N	na
Impact PSH-19: Chemical control for yellow jackets, ticks, and rodents would not increase demand for police, fire, or health-care services. Therefore, no impact would occur.	na	na	na	na	N	na

Table 8-1 Summary of Public Services and Hazard Response Impacts by Alternative

Impact Statement	Surveillance	Physical Control	Vegetation Management	Biological Control	Chemical Control	Other Nonchemical/ Trapping
Impact PSH-20: Chemical control of yellow jackets, ticks, and rodents would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, no impact would occur.	na	na	na	na	N	na
Impact PSH-21: Chemical control activities for yellow jackets, ticks, and rodents would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.	na	na	na	na	N	na
Impact PSH-22: Other Nonchemical Control/Trapping Alternative activities would not increase demand for police, fire, or health-care services. Therefore, no impact would occur.	na	na	na	na	na	N
Impact PSH-23: The Other Nonchemical Control/Trapping Alternative would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, no impact would occur.	na	na	na	na	na	N
Impact PSH-24: The Other Nonchemical Control/Trapping Alternative would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.	na	na	na	na	na	N

LS = Less-than-significant impact

N = No impact

na = Not applicable

SM = Potentially significant but mitigable impact

SU = Significant and unavoidable impact

8.2.11 Mitigation and Monitoring

No impacts would occur as a result of any of the Program alternatives, and no mitigation is required for ensuring an adequate public services and hazard response. Therefore, no monitoring of mitigation measures is needed.

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