

Potential Hazard Review

Biological Hazards

- Bloodborne pathogens: Infection/disease (various)
- Bacterial infection: Infection/disease (various)

Related Safe Work Practices

- Dog Safety
- Infectious Materials

Required Personal Protective Equipment

- Depends on the level of risk as described in the sections below
- Disposable booties or rubber boots
- Disposable coveralls
- Disposable gloves
- HEPA vacuum
- Protective eyewear
- Respiratory Protection

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Special Instructions

This safe work practice is intended to provide instruction on the activities and behaviors which all recreation and park staff should follow in the prevention of unwanted animals or pests in or around our facilities. Invasive methods to remove or capture animals or pests, including the use of pesticides, shall only be coordinated or conducted through the department's Integrated Pest Management (IPM) unit (831-6306).

Pests of our buildings and grounds can include insects, rodents, birds, bacteria, molds, viruses and other animals. Pests generally enter structures in search of food, water, and/or shelter. Pests invade buildings when there is opportunity, and opportunity may be seasonal and/or reflect the condition and use of the building. The best way to prevent infestations of pests in buildings is through proper sanitation and exclusion. Exclusion generally refers to eliminating access ways into the building (openings, cracks, crevices) and eliminating sources of available food and water. Prevention is key, and simple, cost-effective methods for preventing pests do exist, such as screening open

windows and vents, modifying landscape, applying and maintaining good construction and maintenance practices, storing foodstuffs in sealed closed containers, and performing timely sanitation/cleaning. All of these methods are preferred to the addition of pesticides to our environment.

This Safe Work Practice (SWP) is organized as follows:

1. Basic Prevention
2. Pest Specific
 - a. Ants
 - b. Bees
 - c. Cockroaches
 - d. Dogs, Cats, and Other Domestic Animals on Recreation Property
 - e. Fleas
 - f. Mice, Rodents
 - g. Mosquitoes
 - h. Raccoons, Skunks, Birds, and Other Mammals
 - i. Spiders

This SWP is dedicated to helping you avoid an injury or illness from known hazards. You are advised to follow these recommendations, read and follow this SWP and any related SWPs, complete any required or recommended training, and to obtain advice from a Qualified Person if you have any questions.

A Qualified Person is a person **designated** by the employer; and by reason of **training**, experience, or instruction who has demonstrated the ability to perform safely all assigned duties; and, when required is properly licensed in accordance with federal, state, or local laws and regulations.

All tasks require that you:

- Use the equipment in accordance with the guidelines set forth by the manufacturer. This includes following all signs and labels, and reviewing any manufacturer's operating manuals.
 - If the instructions provided in the operating manual conflict with this SWP, then follow the instructions in the manual. The manufacturer's instructions prevail over this SWP.
- Review the safety data sheets (SDSs) for each chemical.
- Be trained on this SWP and those listed above as related. Training on SWPs must be completed before initial assignment. It is also recommended that you complete refresher training every two years.

Basic Prevention

1. The main source of pest problems in our recreation centers are kitchens and other food preparation and storage areas. Common sense practices to control pests need to be practiced and maintained by all employees. These practices are not the sole responsibility of custodians or Pest Management staff. Every person must do their part to make pest management work!
2. Store food in closed (plastic) containers or in the refrigerator. This is particularly important for attractive food items such as sugar, syrup, honey or other sweet items. Keep the containers washed and free of residue on outer surfaces. This includes food stored in desks or lockers!
3. Empty and rinse out soft drink and other beverage containers prior to placing them into garbage cans or recycle bins.
4. Thoroughly clean up grease and spills of food or beverage AS THEY OCCUR! Keep counters, shelves, cupboards, kitchen appliances, sinks, and garbage disposals clean. Do not leave dirty pots, pans or dishes overnight- even in a dishwasher!
5. Wipe up and vacuum cracks and crevices to remove food and debris. For heavy infestations, use of a HEPA (high efficiency particulate air) filter equipped vacuum is recommended.
6. Do not store garbage indoors overnight. Remove trash to outside garbage dumpsters or other appropriate storage areas prior to the end of your work day. If garbage must be stored indoors for any reason, containers with tight-fitting lids must be used (do not overfill!).
7. Reduce clutter. Organize or reduce storage of paper, bags, rags, boxes, or other items which provide hiding places or nesting material.
8. Identify major routes of pest entry into buildings and submit work orders to have the exclusion work completed. IPM may also assist, upon request, in the identification of and recommendations for needed building exclusion work.
9. Notify department IPM staff of problems, assuring site issues as mentioned above have been and continue to be diligently employed.
10. Identify and report plumbing leaks or other sources of free moisture. Increase ventilation, if possible, in areas where condensation is a problem.
11. Never use or bring pesticides to the workplace. It is illegal and can potentially expose you and your co-workers.

12. Avoid over-watering plants and keep areas clean of plant debris, seedpods, or leaves.
13. Assist IPM staff in follow-up to pest management issues as requested. This may include performing visual inspections, throwing away a pest lure card or trap, and checking or reporting on traps deployed (an empty bait station, for example, only creates another hiding spot!).
14. If ants are found in indoor potted plants, remove containers from the building. Submerge plants 20 minutes in standing water that contains a few drops of liquid soap.
15. Make sure children do not have access to areas where baits, traps, or chemicals have been used to control pests.
16. Recreation and Park's IPM staff performs inspections and provides pest management services and consultations, and coordinates other animal and pest issues. Call IPM for additional information on their products or services.
 - a. IPM staff have to perform their job under certain regulatory requirements. Posting for some products is mandatory for specified time periods. Contact IPM for more information on postings or their requirements.
 - b. IPM specialists may employ baits, available in a variety of liquid and solid forms, to control pests. Remember, however, that control with baits may not be immediate (several weeks or more is not uncommon for ants, for example). It is important to note that pests will not eat bait if more desirable food is near by, so sanitation and cleaning by all staff is critical.

Pest Specific

Ants

17. Ant management requires diligent efforts and the use of a combination of mechanical, cultural, sanitation, and often chemical methods of control.
18. It is unrealistic and impractical to attempt to eliminate ants from outdoor areas. Ants also can play a beneficial role in outdoor environments.
19. Since insecticides may only be used by trained IPM staff, an alternative to insecticides, which may even be as effective in temporarily removing foraging ants, is to sponge or mop ant infested areas and trails with soapy water. Removing the scent trail can help eliminate ants' return while sanitation and exclusion measures are being taken (ants will often make trails along the structural elements of buildings, such as wires and pipes).

Bees

20. Bee stings can pose a hazard in our outdoor environments. Alert department IPM staff of bee nests or developing nests which pose problems to staff so that IPM may perform/coordinate removal (24 hour response, except weekends, should be anticipated).
21. If a swarm of bees is discovered, move children, elderly, and other potentially sensitive populations away and isolate the area as possible (using cones, caution tape, etc.) from other approaching staff or clients.
22. Do not provoke bees, as some types of bees can become very aggressive.
23. "Sonic" or other sound devices for insect control have not been scientifically proven to be effective.

Cockroaches

24. Cockroach management is more difficult due to their adaptability and stamina.
25. Cockroaches reproduce rapidly and are often resistant to pesticides.
26. Your diligence and assistance particularly in sanitation therefore is even more critical.

Dogs, Cats, and Other Domestic Animals on Recreation Property

(Please see *Dog Safety* for more detailed instruction on dealing with dogs)

27. Animals can be restricted from park and play areas. The City's Municipal Park Code Section 5.02 allows the prohibition of animals from certain parks and areas, including playgrounds, sandboxes, or other areas reserved for children.
28. Specifically, the code reads "No person, other than members of the Police Mounted Detail when on duty, shall, in any park, allow any animal in his or her custody to enter any building, the Zoological Gardens, or those areas of Golden Gate Park known as the Arboretum, Japanese Tea Garden and Conservatory Valley, or any playground, sandbox or other area reserved for children, or to enter or drink the water of any drinking fountain, lake or pond, except at places designated and maintained for such purpose. Notwithstanding the above provision, a blind person may enter buildings, the Arboretum, Japanese Tea Garden and Conservatory Valley with a guide dog. (Added by Ord. 603-81, App. 12/18/81)"
29. Report code violations to your supervisor and appropriate City authorities, as needed. Use of dog license numbers and/or dog owner name/address with complaints is desirable.

30. Dog owners/custodians must carry means to properly remove and dispose of dog feces and must clean up after their dogs. The City's Municipal Health Code Section 40 (Dog to be controlled so as not to commit nuisance) specifically makes it unlawful for "any person owning or having control or custody of any dog to permit the animal to defecate upon the public property of this City...unless the person immediately removes the feces and properly disposes of it", or "for any person to walk a dog on public property of this City or upon the private property of another without carrying at all times a suitable container or other suitable instrument for the removal and disposal of dog feces." Visually handicapped persons who use Seeing Eye Guide Dogs are exempt from this law. (Amended by Ord. 420-78, App. 9/8/78)
31. Violations of this section can be reported to the Health Department at 252-3877.
32. The SF Animal Care and Control Department provides services including animal-related emergencies, stray animal pickup and rescue, animal abuse reports, and removal of dead animals from city/public property. For non-emergencies, contact 415-554-6364, ext 3. For emergencies, contact 415-554-9400 or 554-9405.
33. The SF Police Department (911) should only be contacted for life threatening, severe abuse or out of control situations. Incidences of barking or noisy dogs in SF can be reported to the police department at 415-553-0123.

Fleas

34. The type of flea commonly found in and around dwellings is the cat flea, which also finds dogs and humans quite acceptable! Since an animal host is usually the culprit of indoor infestations, these types of fleas are less problematic, although feral cat populations may be a source.
35. Birds and rodents and other warm blooded animals can also be the source of fleas.
36. Flea bites may not become irritating for some hours after the bite, so that the assumption of workplace infestation may not be valid.
37. Frequent vacuuming and elimination of the source of infestations is usually enough to control these pests.
38. Sand fleas are not very common on the West coast, but domestic animals can be a source of infestations.
39. Washing down a suspected area with soap and water may assist in flea control.

Mice, Rats, and Other Rodents

40. Rats and mice can contaminate (through their urine and feces) food and food preparation surfaces, damage buildings and building materials, and even cause fires by gnawing through electrical insulation.
41. They are fast breeders and are tough- surviving heat, cold, extremely confined spaces, and even open waterways.
42. Barriers to entry and good sanitation are again the major part of managing these pests.
43. The incidence rate of Hantavirus in the general population is VERY low. Fewer than 50 cases have been diagnosed in California in the last 10 years.
44. According to a 2006 report, rodent surveys have NOT found hantavirus-infected rodents in San Francisco. In Tuolumne and San Mateo Counties 3-17% of the rodents collected did test positive for Hantavirus. Therefore, **employees working in Camp Mather and Sharp Park need to take extra precautions against Hantavirus transmission as detailed below.** Infections may occur during all times of year, but the greatest risk is present in the spring and summer.
45. The most common way a person can be infected with Hantavirus is by inhaling airborne particles of urine, droppings or saliva from infected rodents (primarily the deer mouse). Transmission may also occur when dried materials contaminated by rodent excrement are disturbed and inhaled, directly introduced into broken skin or when ingested in contaminated food or water.
46. Hantavirus illness does not appear to be limited to any age, race or ethnic group. Your highest risk of contracting the virus comes from exposure to rodent droppings or secretions. Activities which pose the highest risk include working in enclosed spaces infested with rodents and cleaning or disturbing rodent infested barns, sheds, abandoned/ vacant dwellings or other potential mouse-inhabited areas.
47. Infectious deer mice do not appear to show any signs of illness, so there is no way to tell an infected rodent from a non-infected rodent just by looking at it. It is also difficult to distinguish between deer mice and other rodent species. Therefore, all rodents in geographical areas where Hantavirus is found, should be treated as potentially infectious and the proper precautions taken.
48. The symptoms of Hantavirus include fever, headache, shortness of breath, severe muscle aches, coughing, vomiting, and abdominal pain. These symptoms may last a few hours to several days. If left untreated, the illness can rapidly progress to respiratory failure (from lungs filling with fluid).

49. Deter rodents from colonizing dwellings and work environments to reduce the risk of disease. Preventing rodent entry into buildings, reducing available nesting materials and sites, and assuring good sanitation in and around dwellings is the most effective way to minimize contact with rodents and therefore minimize the risk.
- Inside - Keep food, water and trash in rodent proof containers. Repair water leaks and prevent rodent access to moisture (mop closets, boiler rooms, catch basins, etc). Keep exterior doors and windows closed unless protected by tight-fitting screens. Use spring-loaded traps to catch rodents (use extreme caution as these traps can cause personal injuries).
 - Outside – Place woodpiles and stacks of lumber more than 100 feet from occupied buildings. Store grains, animal feed, and trash in rodent-proof containers. Haul away trash, abandoned vehicles, tires, and other items that might serve as rodent nesting sites. Mow grass closely and cut or remove brush within 100 feet of dwellings.
50. Periodically inspect your worksite for potential rodent infestation.
51. If airborne excrement is expected and cannot be avoided, you may need respiratory protection.¹ Please call EHS for further assistance.
52. Air out areas or rooms which have been closed for a while at least 1-2 hours before starting clean up (unless ventilation disturbs or creates dust in the work area).
- 53. Do not cause dust in the area to become airborne by dry sweeping, vacuuming with a conventional vacuum, or using fans.**
54. Prior to performing any high interaction task (cleaning, maintenance, material handling/moving) which may generate dust or cause it to become airborne, cleanup any obvious rodent droppings, urine, nesting materials, and other debris using wet methods.
- Wear disposable gloves.
 - Thoroughly wet (spray or soak -without pools of water) suspect materials and surrounding areas with detergent water or a disinfectant such as Lysol or bleach solution (1.5 cups of bleach per gallon of water).
 - Allow damp area to sit for 15 minutes.
 - Take up contaminated materials with damp towel or rag and place in waste bag.
 - Contaminated items that cannot be disinfected (e.g. paper, wood) should be carefully set outside for 2-3 days to allow sunlight to inactivate the virus.
 - Dispose of gloves, and wash hands thoroughly with soap and water.
55. If you are performing a high interaction task (cleaning, maintenance or material handling/moving) at **Sharp Park or Camp Mather, you must use a vacuum equipped**

¹ Centers for Disease Control, Hantavirus Pulmonary Syndrome- United States: Updated Recommendations for Risk Reduction; July 26, 2002

with a high efficiency air particulate (HEPA) filter in lieu of the above wet-cleaning methods. While using a HEPA-equipped vacuum, you must also:

- a. Use disposable coveralls to protect clothing.
- b. Use protective eyewear or goggles.
- c. Use disposable booties or rubber boots.

56. Following cleaning of visible rodent materials in a space, proceed with other cleaning, maintenance, or moving activities. If additional rodent droppings, urine or nesting materials are identified during work, stop and repeat the procedures described above.

57. If the presence of fleas in a work area are an issue, contact Recreation and Park's IPM (Integrated Pest Management) Program and ask them for assistance prior to performing work. Only trained, authorized personnel can handle and use pesticides. You may not apply a pesticide yourself.

58. If handling a carcass:

- a. Use disposable gloves and additional PPE as needed based on the intensity of the disturbance or the infestation. Rubber boots or disposable shoe covers are required for Camp Mather or Sharp Park.
- b. Spray dead rodents with disinfectant.
- c. Double-bag, then dispose of in conventional garbage in outside containers.

59. To disinfect animal traps after use, wash traps with a soap/water solution or disinfectant.

60. Wipe off all visible dust and debris on PPE with a damp sponge, towel or rag and place in a waste bag.

61. With the exception of gloves, remove all disposable PPE and place in a waste bag. For non-disposable items such as rubber boots, thoroughly wipe down and rinse.

62. To avoid self-contamination from your gloves, disinfect gloves *before taking them off*. Wash *gloved* hands with soap or a disinfectant, then remove and place in a waste bag.

63. Thoroughly wash hands with soap and warm water.

Mosquitoes

64. Mosquitoes can transmit disease to humans. Some of the more common ones include:

- a. West Nile Virus (WNV) WNV is transmitted by mosquitoes to birds and other animals through a mosquito bite. People may then be infected if they are bitten by a WNV-infected mosquito. WNV is **not** transmitted from person to person.

- b. Zika Virus (ZV). ZV is transmitted to people primarily through the bite of an infected mosquito, from mother to fetus and sexually.
65. Both WNV and ZV infections cause either no symptoms or a mild flu-like illness. The infections are rarely fatal. People over 50 or with compromised immune systems are at greatest risk.
66. In San Francisco, mosquitoes may be present year round, but special attention should be given from approximately August through November².
67. Workers at risk of exposure to mosquito borne diseases include those working outdoors when mosquitoes are actively biting. Occupations at risk include foresters, landscapers, groundskeepers, painters, roofers, pavers, construction workers, and other outdoor workers. You should take the following steps when working at sites where mosquitoes may be actively biting:
- a. When possible, schedule work to avoid being outside when mosquitoes are most active and biting, usually from dusk to dawn.
 - b. Wear long-sleeved shirts, and long pants tucked into boots and socks when possible.
 - c. Eliminate as many sources of standing water as possible. This serves to eliminate mosquito breeding areas. Mosquitoes may be produced in any puddle or water that stands for more than four days. Take the following steps to decrease mosquito populations:
 - i. Prevent stagnant standing bodies of water by changing the water every few days or aerating it.
 - ii. Turn over, cover, or remove equipment such as tarps, buckets, barrels, and wheel barrows that accumulate water.
 - iii. Discard tires, buckets, cans, and containers in the area.
 - iv. Place drain holes in containers that collect water and cannot be discarded.
 - v. Clean out rain gutters and ditches to get rid of standing water.
 - vi. Remove debris—leaves, twigs, trash—from ditches.
 - vii. Fill in or drain ruts and other areas that accumulate water.
 - d. Use of insect repellent is **optional**. Use of chemicals on your skin comes with some risk, no matter how minimal.
 - i. READ AND FOLLOW LABEL DIRECTIONS FOR REPELLENT USE. Do not apply pump or aerosol products directly to the face. These products should be sprayed onto the hands and then carefully rubbed over the face, avoiding the eyes and mouth.
 - ii. Do not apply repellents to cuts, wounds, sunburned or irritated skin.
 - iii. When needed, reapply repellents according to label directions.
 - iv. Wash treated skin with soap and water after returning indoors.

² Verbal direction from Helen Zverina, Department of Public Health

- v. Spray clothing with repellent products as mosquitoes may bite through thin clothing. Do not spray under clothing.
 - vi. Wash treated clothing before wearing it again.
 - vii. There are several types of repellents now recommended by the CDC³. This includes products with DEET (N, N-diethyl-m-toluamide or N,N-diethyl-3-methylbenzamide), Picaridin or oil of lemon eucalyptus.
 - viii. Pregnant and breastfeeding women should only use EPA-registered repellants.
 - ix. To reduce the risk of adverse effects, you should use the lowest-concentration product you can for your situation. Use a higher-percentage product if you will be outdoors for several hours or if you will be sweating, physically active or getting wet. For longer protection without using a high-concentration product, use a "time release" Or "controlled release" product. If your time outdoors is limited, use a lower-percentage product; you can always reapply if you are out longer than expected.
 - x. If you are using a DEET product, one with a concentration of 30% or less is fine for most situations. DEET concentrations higher than 50% do not increase the length of protection.
- e. Report dead birds to the West Nile Virus Dead Bird Surveillance Program.
- i. California began testing dead crows and related birds for WNV in 2000. This will help identify where the virus is occurring in the state.
 - ii. If you find a dead bird from the corvid family (crows, jays, magpies, ravens etc.) please call 877-968-2473 **promptly**. Do not touch the bird. The Department of Health Services will arrange for pickup and lab testing.

Raccoons, Skunks, Birds, and Other Mammals

68. Raccoons, skunks, birds and other mammals may attempt to make their homes in and under building structures.

69. IPM should be called to intervene.

Spiders

70. Spiders are beneficial creatures since they feed on large amounts of insects! Spiders, therefore, should be tolerated indoors to some extent and this should be recognized as part of pest management. Few spiders are dangerous, but commonly known poisonous spiders include:

- a. **Black Widow**, recognized by its characteristic red hour-glass-shaped mark on the underside of its shiny black abdomen. Black Widows are not common in the Bay Area, and deaths from bites are rare. Bite symptoms for many are not significant enough to warrant medical treatment, but most concern is for the very young or

³ Centers for Disease Control and Prevention website,
<http://www.cdc.gov/ncidod/dybid/westnile/RepellentUpdates.htm>, 4/22/05

- the elderly. Black Widows are not aggressive and are reluctant to bite, even when provoked.
- b. Brown Recluse spider is also not common to the Bay Area, and is mostly found in South Eastern states. It has long, delicate grayish to dark brown legs covered with short, dark hairs which span about the size of a half dollar. Distinguishing characteristics are the presence of three pairs of eyes arranged in a semicircle on the front of the head with a violin-shaped, dark mark immediately behind with the neck of the violin pointing towards its abdomen.
71. Avoid the potential for spider bites!
- a. Always look where you place your hands, particularly in dark, dry, protected crevices in and around buildings.
 - b. Wear gloves to clean up garages, debris, outdoor woodpiles or seldom-disturbed inside storage areas.
 - c. Teach children not to tease spiders in their webs or to poke bare fingers into dark cracks or crevices.

References:

1. California Department of Pesticide Regulation, "Fight the Bite" pamphlets, May 2005
2. Hantavirus Pulmonary Syndrome - United States: Updated Recommendations for Risk Reduction; Centers for Disease Control, July 26, 2002
3. Vector-Borne Diseases in California; 2005 Annual Report; Vector-Borne Disease Section, California Department of Health Services, October 2006.
4. Facts About Hantavirus in California, Vector-Borne Disease Section, California Department of Health Services, April 2005
5. All About Hantaviruses, Centers for Disease Control, <http://www.cdc.gov/ncidod/diseases/hanta/hps/index.htm>, March 2007.
6. Cal OSHA Reporter, Mosquito Threat to Business Safety, Volume 43, No. 18. Dated May 6, 2016.