

The Marin County Open Space District (MCOSD) requires that contractors implement the following best management practices (BMP) while conducting work on MCOSD lands. The purposes of these BMPs are to minimize impacts to natural resources and MCOSD property. The MCOSD requires that the contractor notify the MCOSD at least 24hrs prior to entering MCOSD property for work.

1. **BMP 1 Refueling** - Prohibit or restrict equipment refueling, fluid leakage, equipment, and maintenance near special-status plant populations and waterways. Fuel storage and refueling shall occur in safe areas well away from wetlands; safe areas may include paved or cleared roadbeds and other contained areas, such as lined truck beds. Equipment and vehicles should be inspected regularly for hydraulic and oil leaks and leaking vehicles will not be allowed on the MCOSD preserves. Drip pans should be placed underneath equipment stored on site. Vehicles and construction equipment will be maintained in good working condition, and any necessary on-site servicing of equipment will be conducted away from special-status plant populations and waterways.
2. **BMP 2 Invasive Species** - Clean vehicles of contaminated soil, invasive plant seeds, or plant parts before entering the MCOSD preserves, whenever moving equipment between areas within the preserves, and before leaving the preserves. Tires and the insides and outsides of vehicles and equipment will be brushed off, vacuumed or hosed down. This requirement must be conveyed to sub-contractors prior to work prior to their arrival to ensure property cleaning. This requirement should be reiterated and enforced by the on-site foreman prior to site entry.
3. **BMP 3 Sudden Oak Death** - Proper techniques in accordance with industry standards shall be used to avoid the spread of Sudden Oak Death.
4. **BMP 4 Preconstruction Surveys** - If it is determined that special-status wildlife species may occur in a project area, a qualified biologist should survey the area during the appropriate time window to determine the presence or absence of the species. If the species is located, the MCOSD should be contacted to help determine ways to avoid impacts to the species. If avoidance is not possible, the appropriate resource agencies will need to be contacted to obtain guidance or the necessary permits.
5. **BMP 5 Bird Nesting and Bird Nesting Surveys** - If work will occur outside the nesting bird window of January 1 to August 31, surveys and avoidance measures will not be necessary for nesting birds. However, surveys for special-status species may still be necessary if they are present in the area.
 - a. Consistent with Federal law, during bird nesting season (see dates below), a bird nesting survey must be conducted prior to any vegetation removal or ground disturbance. Surveys must not be conducted more than 7 days before the start of the project and surveys will only be valid for 7 days after the survey date. After those 7 days, another bird nesting survey of the project area must be conducted. Surveys should include the

- project footprint, access roads/areas, staging areas, and a buffer (250 feet for raptors and 150 feet for songbirds) around those areas.
- b. If an active raptor or songbird nest is found, brushing, mowing, tree removal, and any other vegetation disturbance/removal at the nest site and within the buffer area is prohibited until the chicks have fledged (i.e. left the nest) and/or the nest has been abandoned. In general, MCOSD uses a 150 foot buffer around songbird nests and a 250 foot buffer around raptor nests. These buffers may not be appropriate for all projects. If that is the case, new buffers can be determined through consultation with the California Department of Fish and Wildlife, pursuant to Section 2081 of the California Fish and Game Code, and the U.S. Fish and Wildlife Service, pursuant to the Migratory Bird Treaty Act (16 U.S.C. §§ 703–712).
 - c. Bird Nesting Seasons:
 - i. Raptors: January 1 – July 31
 - ii. Rails (Black and Ridgway's): February 1 – August 31
 - iii. Northern spotted owls: February 1 – July 31
 - iv. Song birds: March 1 – July 31
 - v. Double-Crested Cormorant Nests: March 1 – August 31
 - vi. Heron and Egret Rookery Sites: February 1 – August 31
 - d. Northern spotted owls (*Strix occidentalis caurina*) have additional requirements since they are listed on both the U.S. Endangered Species Act and the California Endangered Species Act. No noise disturbance, defined as using equipment over 90 decibels or exceeding ambient noise levels by 20 decibels, is allowed in areas of suitable northern spotted owl habitat beginning February 1. Once nests have been located, a quarter mile (1/4 mile) buffer is placed around those nests of no noise disturbance until the chicks have fledged, the nest fails, or until July 31st. Work can happen in suitable habitat that is outside of the quarter mile buffer if the area has been cleared of northern spotted owl nests.
 - e. Ridgway's Rail (Federally and State listed) and Black Rails (State listed) are found in brackish marshes. Noise-generated activities, including operating heavy machinery in or near known rail sites, should be avoided during the nesting season (February 1 – August 31) and to the greatest extent possible avoid their habitat during the breeding seasons.
 - f. If impacts to nesting birds cannot be avoided, contact the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife to obtain the necessary permits before initiating project-related activities.
6. **BMP 6 Bat surveys** - Prior to any large tree removal (over 6 inches in DBH), trees must be surveyed for suitable bat habitat. If the tree support suitable bat roosting habitat, a nighttime survey must be conducted to determine if there are any roosting bats. If roosting bats are observed, a two-step removal process must be conducted for the tree. This process can only be used between March 1 and April 15 or August 31 and October 15.
7. **BMP 7 Salt Marsh Harvest Mouse** - Since trapping is usually not allowed by regulatory agencies, assume presence of salt marsh harvest mice in appropriate habitats. A 200-foot buffer around suitable habitat will be established and if work is required within the buffer, activities should be restricted to those that will not disturb nesting behavior or remove vegetation by hand.

8. **BMP 8 California Red-legged Frogs** – In areas of freshwater or in upland areas within 1 mile of freshwater, night surveys should be conducted to determine presence of California red-legged frogs. If California red-legged frogs are detected, exclusion fencing should be placed around the project area to avoid impacts to frogs. The area within the exclusion fencing should be walked once daily to confirm frogs have not entered the project site.

9. **BMP 7 Vegetation Management** - When conducting vegetation management, the following lop and scatter protocol shall be followed:
 - i. Large slash should be moved away from the base of any other trees, as it is breeding ground for harmful insects, and potential fuel for a fire.
 - ii. Slash should be spread out, with a maximum height not to exceed 28 inches; maximum of 24 inches within a quarter-of-a-mile from a structure. In high fire danger areas it may be necessary to remove slash completely, chip or masticate. Chips cannot exceed 2 inches in depth. Masticated material cannot exceed 6 inches in depth.
 - iii. Keep slash out of water bodies by removing limbs and tops well above the stream high-water mark. Slash and other forest debris can clog and damage culverts and irrigation diversions; and decomposing slash can degrade water quality and habitat for fish and other aquatic animals.

10. **BMP 8 Food and Trash Control** - Store food and food-related trash in closed containers and remove it from the project site daily. Food-related trash can attract wildlife to construction sites, disrupting their normal behavior patterns. Trash must be collected at the end of the day and properly disposed.

11. **BMP 9 Open Trenches or Holes** - All holes or trenches must be covered overnight or a ramp put in place to allow wildlife to exit the hole or trench. If covering the hole, be sure to make the seal tight so lizards and mice cannot get through.

12. **BMP 10 Vehicle Checks** – If vehicles and/or equipment will be stored on-site overnight, each vehicle and/or equipment must be checked prior to use. Look under vehicles and in wheel wells to ensure wildlife is not hiding in these areas. If wildlife is found, make sure they have left prior to using the vehicle and/or equipment.

13. **BMP 11 Driving** – In areas of sensitive wildlife habitat or during certain times of the year, speed limits will be 10 mph to protect species.

