
APPENDIX F BEST MANAGEMENT PRACTICES

1) PROTECT THE BEST HABITATS

Identify valuable native communities and species, and strive to protect them as the highest priority. Reduce existing and potential stressors which could negatively impact high-quality, native habitats. Introduction of weed seeds on or near relatively pristine sites is a leading cause of ecological degradation.

2) PHASE LARGE RESTORATION AND MANAGEMENT DISTURBANCES

Phase large-impact restoration activities so that not all of a given area of habitat is affected within a single year. For example, when burning a native prairie, burn no more than half within a single year to allow invertebrates in the untreated half to complete their life cycles.

3) MINIMIZE SOIL DISTURBANCE

Minimize soil disturbance by machinery, hikers, bicycles, and animals. Soil disturbance favors invasive, exotic species over native species, and can result in erosion. Soil erosion can mean both loss of an on-site resource for plants, and sediment pollution in waterways. Soil-disturbing restoration or construction activities are best accomplished in late summer (after July 15) when soil is dry, before fall rains begin.

4) MINIMIZE DISTURBANCE OF HYDROLOGY

Hydrology changes can affect native communities by producing conditions drier or wetter than optimal. Particularly, channelization (deepening waterways) and soil alterations (compaction, fill, removal, etc.) can affect the amount of water present in soils, which will in turn affect subterranean and terrestrial flora, fungi and fauna.

5) CAREFULLY TIME VEGETATION DISTURBANCE

Because native species generally are dormant from the warm, dry season until late winter, vegetation disturbance is best conducted between July 15 (after native seed set and bird nesting) and Dec. 31, to avoid inadvertent damage. Some collateral damage to natives may be expected to occur during chemical, mechanical or grazing treatments of exotics.

6) AVOID IMPACTS ON NESTING BIRDS

Minimize noise and vegetation disturbance from March 15 – July 15 so as not to disrupt nesting birds.

7) MINIMIZE WEED TRANSPORT

Identify how exotic invasives are being introduced to the site, and identify where actions could be taken to reduce introductions, as well as within-site and off-site movement. In general, people, pets, and birds likely are responsible for leapfrog-type plant movement. Many weeds spread by wind or water, and others spread slowly by vegetative growth or local seed fall. To minimize transportation of seed during restoration activities, soil should be washed from vehicle tires, and boots and socks should be cleaned when entering or leaving any portion of the site where invasive species are present.



8) USE INTEGRATED PEST MANAGEMENT (IPM) TO TREAT INVASIVE PLANTS

Utilize biological, manual, mechanical, chemical and other available methods to control invasive plant and animal infestations. Strive to maximize containment and reduction (eradication where possible), balanced with minimizing environmental impacts. Evaluate all feasible options fairly before making a decision for a prescription.

9) CONSIDER NEEDS OF ARTHROPODS

Plants and invertebrates are the foundation of the terrestrial food chain. In particular, insect pollinators are an often overlooked group which need native plant diversity, a variety of flower types spread throughout the growing season, and many individuals of each plant species. They also need different sizes of standing and down wood (i.e., snags and logs) for nesting (also valuable for other invertebrates). Areas of cleared ground are essential for ground-nesting bees.) Seeds of native annual plants can be broadcast in those areas.

Guidelines for maintaining arthropod-friendly habitats:

- use herbicides appropriately, to minimize impacts on native plants, and pollinators and other invertebrates
- protect and restore open habitats with diverse, native plant species, but provide a diversity of habitat types
- provide many individuals of each plant species, and provide flowering throughout the growing season
- use light-touch, ongoing management on restored habitats that does not affect an entire habitat patch in the same year
- provide different sizes of snags and logs in forest and woodland habitats
- provide small areas of cleared ground (particularly useful to ground nesting bees) by scraping or flaming; collected annual seeds can be broadcast in those areas
- educate surrounding landowners to follow these same guidelines, thereby effectively enlarging the useful habitat

10) MINIMIZE INTRODUCTION AND IMPACT OF INVASIVE ANIMALS

Evaluate presence of exotic, invasive animal species such as Eastern bullfrogs, European starlings, wild turkeys, European honeybees and other species for their impact on native communities and species. Take appropriate actions to deter invasion, and remove where necessary, coordinating with the Oregon Department of Fish and Wildlife.

11) MINIMIZE IMPACTS OF LIGHT

The impacts of night lighting on native plant and wildlife cycles are not well understood. Wherever possible, minimize night lighting near native habitat areas to minimize possible negative effects.

12) ENLIST NEARBY LANDOWNERS

Where possible, educate surrounding landowners to participate in implementing these BMPs on private property, thereby effectively enlarging target habitats, and reducing negative impacts on the adjacent and nearby restored habitats.

