

APPENDIX D

BALD EAGLE HABITAT MANAGEMENT ZONES*

Nest Site Management Zones

Nest Site Management Zones include areas that are progressively farther from a nest constructed by bald eagles (i.e., 0.5 mile, 0.5 - 1 mile, and 0.25 - 2.5 mile). Correspondingly, recommended restrictions decrease as distance from the nest site increases. Zone boundaries may be altered after intensive study of eagle activity and development of site specific management plans.

Definitions of terms used in the zone recommendations:

1. Habitat alterations – Any removal of trees, snags, or understory (includes such activities as timber harvest, firewood cutting of standing snags, or clearing and treatment of vegetation). Habitat alterations also includes projects dealing with wetland and aquatic habitats such as levee building, channeling, dredging, gravel removal, or wetland draining. Livestock use that significantly impacts the habitat or occurs at a level that would prevent habitat or prey base objectives being obtained are included in habitat alterations.
2. Minimal human activity levels – (Min) Essentially no human activity with the following exceptions:
 - a. Existing patterns of ranching and agricultural activities.
 - b. Nesting surveys and banding by biologists experienced with eagles.
 - c. River traffic by boats that continue travel at the rate of the main current and at a frequency which results in no boat traffic for at least 30% of the daylight hours (fishing from boats with such movement rates and frequency is acceptable).
3. Light human activity levels – (L) This level allows for day use and low impact activities such as boating, fishing and hiking but at low densities and frequencies. Activities which are excluded include extended use and activities such as heavy construction, timber harvest, seismic exploration, blasting, concentrated use associated with recreation centers (i.e., picnic areas, boat landings), permanent housing and helicopters or jets within ½ mile of the ground.
4. Moderate human activity levels – (Mod) Low impact (light) activity levels are included, but intensity of such activities are not limited. A limited number of recreation centers designed to avoid eagle conflicts may be considered. Other activities such as construction, seismic exploration, blasting, and timber harvest, also should be designed to specifically avoid disturbance. (Mod+) Designing projects or land uses to avoid eagle conflicts requires sufficient data to formulate a Site-specific Management Plan.

* Adapted from “Greater Yellowstone Bald Eagle Management Plan.”

Zone I: Occupied Nesting Zone

Zone I is the area within a 0.5 mile radius of an occupied nest. Ideally, this zone should be biologically relevant to the tolerance of eagles to human disturbances (i.e., the distance at which the presence of humans first causes significant stress or behavior that results in inattentiveness to young or eggs). Since human activity patterns are easier to control if restrictions do not fluctuate from year to year, it may be desirable that this zone be established for each alternate nest. However, Zone I guidelines for **habitat alterations** should be applied to all alternate nests.

Recommendations

- 1) Human activity should not exceed minimal levels during the period from first occupancy of the nest site until two weeks following fledging (approximately 1 February to 15 August). Light human activity levels should not be exceeded during the rest of the year.
- 2) Habitat alterations should be restricted to projects specifically designed for maintaining or enhancing bald eagle habitat and conducted only during September through January.
- 3) Human activity restrictions for Zone I may be relaxed during years when a nest is not occupied. However, light human activity levels should not be exceeded and land use patterns should not preclude a return to minimal activity levels.

Zone II: Primary Use Area

Zone II includes the area within a 0.5 to 1 mile radius of the active nest and of all known alternate nests. Intensive study of a nesting pair for several years should allow for the boundaries of this zone to be altered to include the area where over 75 percent of the adults foraging and loafing activity occurs during the nesting season (excluding Zone I). The area could be discontinuous if movement data indicate the need.

Recommendations

- 1) Light human activity levels should not be exceeded during the nesting season. Moderate levels should not be exceeded during other times in the year.
- 2) Habitat alterations should be carefully designed and regulated to insure preferred nesting and foraging habitat are not degraded.
- 3) Developments that may increase human activity levels and use patterns should not be allowed.
- 4) Structures that have the potential for increasing mortality due to collision should not be constructed (i.e., power and telephone lines). Existing lines posing a potential problem should be modified to minimize collision or electrocution.

Zone III: Home Range

Ideally, the home range should be delineated by monitoring eagle movements during nesting and brood rearing for several years. Lacking such data, the zone should include all potential foraging habitat within a 2½ mile radius of the nest. Areas within the 2½ mile radius of the nest that do not include potential foraging habitat may be excluded. However, the zone will include a ¼ mile buffer along foraging habitat where the zone has been reduced. The primary purposes of this zone are to maintain adequate foraging conditions and aid in maintaining the integrity of Zones I and II.

Recommendations

- 1) Human activity levels should not exceed moderate.
- 2) Projects that could potentially alter the habitat of forage species should be carefully designed to insure availability of prey is not degraded. Adequate design of such projects will require data from Site-specific Management Plans.
- 3) Terrestrial habitat alterations should insure important components are maintained (i.e., perch trees and snags, visual screening from existing or anticipated areas of human activity, and potential nesting habitat). Major habitat alterations should be considered only if Site-specific Management Plans are developed and only if alterations are compatible with management plans.
- 4) Permanent developments that are suitable for human occupancy should be avoided.
- 5) Other developments that may increase human activity levels should be carefully designed to insure objectives will not be exceeded for all 3 management zones.
- 6) Utility lines should be limited and restricted to locations where the potential for eagle collisions and electrocutions is minimal.
- 7) Avoid pesticide use within the home range.

Zone IV: Communal Winter Roost Protection Zone

The area within one mile of a communal winter roost. Zone IV would only be applicable from November 1 to April 1. No ground-disturbing activities will be permitted within ½ mile of active communal winter roost sites year-round.