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WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Management Recommendations for Washington's Priority Species
FOR USE TO GUIDE SITE SPECIFIC MANAGEMENT OF PRIORITY SPECIES

Great Blue Heron (*Ardea herodias*)

This abbreviated version of a chapter in *Management Recommendations for Washington's Priority Species: Volume IV* (see http://wdfw.wa.gov/publications/00026/) has been streamlined for easier application. Where applicable, these recommendations should be put into practice consistently across a landscape to be most effective. The following recommendations are not site-specific. Where available, a professional in a relevant field (e.g., wildlife biologist) should evaluate the site and surrounding landscape when applying these recommendations.

Attach parcel map with species location indicated if available.

INITIAL PLANNING TO PROTECT A GREAT BLUE HERON COLONY:

- Begin by identifying the Heron Management Area (HMA). An HMA consists of the nesting colony, year-round and seasonal buffer, foraging habitat, and when present, a pre-nesting congregation area.
- All survey activity such as nest tree identification and flagging should occur in the non-breeding (mid-September to mid-February) season, and preferably right after breeding season ends.
- Identify the nesting colony's boundary. To do this, flag all nest trees at the colony's outer perimeter. Mark each of these trees on a map. If a nest tree's canopy overlaps the canopy of an adjacent tree, flag the adjacent tree and consider this to be a nest tree. The outermost nest trees will be used to map the nesting colony boundary.
- Map outer perimeter of year-round buffer. The width of this buffer depends on the setting within a ¼ mile of the nesting colony (Table 1). Using the buffer as a radius, draw a circle around each peripheral nest tree. The outer edge of each circle will serve as the perimeter of the year-round buffer (Fig. 1).

Table 1. Recommended year-round buffers.

Year-round Buffers		
Feet	**Setting**	**% built within ¼ mile of the nest colony**
984	Undeveloped	0 - 2%
656	Suburban/Rural	2 - 50%
197 [a]	Urban	≥ 50%

[a] When birds in an urban area exhibit behavior indicative of a low tolerance to people, assign the 300 meter buffer regardless of setting.

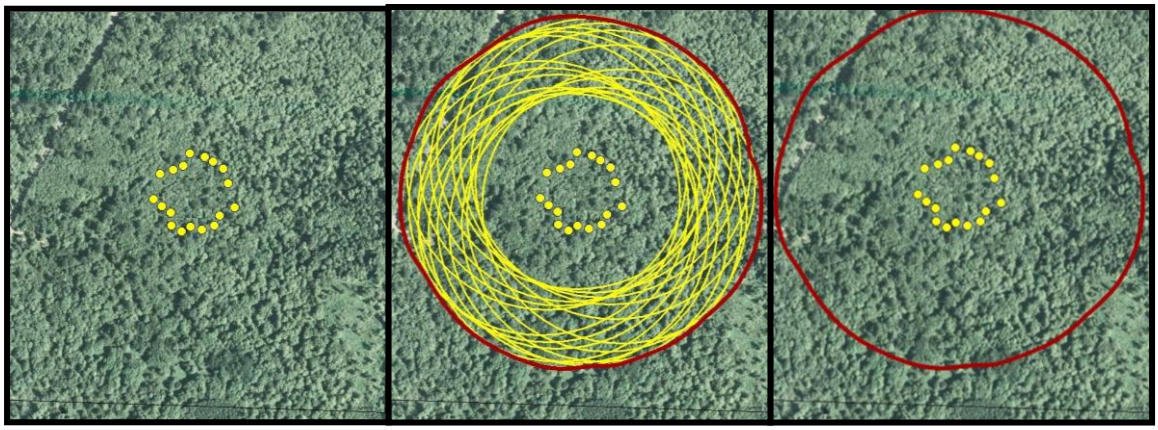

Figure 1. The left diagram shows the outer perimeter nest trees in a colony. In the middle each outer perimeter nest tree was given a 300 m buffer. The right diagram shows the final colony buffer area.

- Map seasonal buffer (Table 2) if any unusually loud activities will occur during breeding (i.e., February – September). These activities should not occur inside of the seasonal buffer during this period. Measure the seasonal buffer starting at the outer edge of the year-round buffer.

Table 2. Recommended seasonal buffers.

Seasonal Buffers [d]		
Meters	**Feet**	**Land Use Activity**
200	656	Any unusually loud land use activity
1,000	3,280	Blasting

- Locate potential foraging habitat by mapping all waterbodies within a 1.9 mile radius of the colony. The perimeter and shallow portions are especially important for foraging.
- In some colonies outlying satellite nests can be found. These usually are represented by no more than a handful of active or inactive nests located far from the nearest neighboring nest in the heart of the colony. Although these are a part of the larger nesting colony and should be protected, do not use them to map the colony's outer boundary. A satellite nest is any nest located a distance of no less than twice the length of the colony's year-round buffer from its nearest neighboring nest.

MANAGEMENT RECOMMENDATIONS:

COLONY AND YEAR-ROUND BUFFER

- Avoid any entry into an active nesting colony or year-round buffer during breeding season (mid-February to mid-September).
- Avoid clearing vegetation, grading, and construction.
- Direct trails away and close access during the breeding season (February to September).
- Allow low impact recreation, like hiking, only during the non-breeding season (mid-September to mid-February).
- Limit vegetation removal to enhance wildlife habitat (e.g., eradicating invasive vegetation) or to treat a fire-prone stand. Perform these activities in the non-breeding season under careful supervision of a wildlife biologist. When removing vegetation, avoid noticeable loss of visual screening to the nests.
- When feasible, exclude human entry into the nesting colony and year-round buffer by use of fencing or by planting dense thickets of vegetation (see Fencing with Wildlife in Mind).

INCURSIONS INTO A COLONY OR YEAR-ROUND BUFFER

- We discourage most activities in the nesting colony and year-round buffer, especially during breeding season. After all options to protect a colony or buffer have been exhausted, you should follow these recommendations:

    1. Avoid all disturbances during in the breeding season (February to September).
    2. Avoid any clearing, grading, or construction in the year-round buffer (and especially in the colony proper). When unavoidable, keep the activity as far as possible and out of the line of sight of active nests. We encourage screening by way of vegetation or topography.
    3. Mitigate project impacts.

SEASONAL BUFFER, PRE-NESTING AREAS, AND ALTERNATE NEST SITES

- Avoid unusually loud activities in the seasonal buffer area during the breeding season.
- Minimize disturbance in pre-nesting congregations when herons are present. Pre-nesting congregations are generally close to the nesting colony (≤ 1 km) and are discernable by an aggregation of birds outside the nesting colony from February to March, and as early as January.
- Protect several alternate nesting sites of at least 10 acres with dominant trees of at least 56 feet high within one kilometer of the colony. Options for finding ideal alternate nesting stands include:

    1. Centering a stand on a satellite nest when outlying satellite nests are present.
    2. Using the site of a former colony. Do not use a former nesting site if it likely was vacated due to nearby permanent (e.g., homes) or long-term (e.g., clear cut) disturbance.
    3. Find a forest stand with similar tree structure and species makeup to the active nest stand.

FORAGING HABITAT

- Do not disturb potential foraging habitat between March and September.
- Establish adequate riparian buffers such as those recommended in the PHS Riparian Guidelines.
- Minimize the following activities where herons feed:

    - removal of aquatic vegetation, especially native eelgrass.
    - use of all watercraft within 590 feet of shallow waters where herons forage.
    - logging mature forest close to nearshore foraging habitat.
    - removing perch trees adjacent to foraging areas.
    - draining, filling, or dredging wetlands or marshes.
    - building close to riparian shorelines.

FORMER NESTING COLONIES

- All recommendations applying to an active colony should remain in effect for 10 years after nesting ended at former colony, with the exception of entering a former colony when herons are absent for uses that will not alter the habitat, like hiking or dog walking.

MANAGEMENT OF URBAN COLONIES

- Avoid new activities that add to the intensity of disturbance a colony has historically tolerated (see Page 11 of the full-length recommendations for guidance).
- Avoid further infringement where development exists in the recommended year-round buffer. When more infringement will occur, avoid it happening during breeding, and large or novel events are not recommended at any time. A plan should be written to mitigate for habitat loss.

HABITAT MANAGEMENT PLAN

- You should develop a habitat management plan whenever a proposal is submitted for an area in or near an HMA. This detailed report outlines where there is habitat, any planned incursions or habitat impacts, and a strategy for limiting impacts. See Page 12 of the full-length recommendations for more guidance.