

NHI Screening Guidance for Gray Wolf

Representation of Wolf EOs within the NHI Portal

Wolf element occurrences (EOs) within the NHI Data Portal are represented as either a den site, a rendezvous site or a territory. The territory represents the geographic extent that a particular wolf pack will utilize in search of food and shelter. Den and rendezvous sites represent specific locations used for breeding and other pack activities - they may be some of the most critical portions of timber wolf habitat in the Great Lakes region and are thus given special attention. Wolf den and rendezvous site EOs are generalized to 40 acres – more precise information can be obtained from the DNR wolf biologist or the Natural Heritage Inventory Program.

Most known occurrences of a den or rendezvous site should fall within a larger wolf pack territory. However, since all den and rendezvous sites have not been located, the NHI Portal also includes territories without known den or rendezvous sites. The following is guidance on how to handle projects that occur within or near any of these EOs when they are identified during a NHI Screening review.

Den Site Identification and Protection.



Active Season for Den Sites: mid-March – mid-June

Habitat: Vegetation at den site varies in the Great Lakes region, but excavated dens most commonly occur in conifer or mixed conifer/hardwoods stands, with semi-open to closed canopies. Most dens are located near water; usually within 100 to 200 m (110-220 yds.)

Description: Dens are usually dug in middle to late March, although sometimes females will dig at the dens in the fall. Females begin to remain near the den area about 3 weeks before the pups are born. Pups are born from the second week of April until late April. Wolves move pups from den sites to rendezvous sites from mid-May to early or mid-June. *Therefore, den sites are used by wolves from mid-March to mid-June.*

Excavations into the soil are the most commonly used wolf dens, but wolves also use hollow logs, beaver lodges, the base of hollow trees, pit excavations, and rock caves. Wolves either excavate their own dens or enlarge dens from other mammals. Den openings generally are 36 to 63 cm in diameter (14-25 inches) and are oval in shape. In Alaska, large holes at den sites (those used by adult wolves) average 42 ± 9 cm in height and 51 ± 13 cm in width. Depth into the dens range from 1.5 - 5.5 m (5-18ft).

Den site usage can vary greatly. Dens in forested areas may be used for 6 years or more. Often territories have more than one den and occupancy varies from year to year. Wolves sometimes move their pup from one den to another and as many as four dens may be occupied in 1 season. Generally only 1 or 2 dens are used per year, and movements to new dens may be associated with disturbances.

Rendezvous Den Site Identification and Protection.

Active Season for Rendezvous Sites: mid-May – mid-October

Habitat: Rendezvous sites are generally open areas of grass or sedge adjacent to wetlands. The sites are characterized by extensive matted vegetation, numerous trails, and beds usually at the forest edge. Rendezvous sites are often adjacent to bogs or occur in semi-open stands of mixed conifer-hardwoods adjacent to swamps. Sometimes abandoned beaver ponds are used as rendezvous sites.

Description: Rendezvous sites are the home sites or activity sites used by wolves after the denning period, and prior to the nomadic hunting period of fall and winter. Pups are brought to the rendezvous sites from dens when they are weaned, and remain at rendezvous sites until the pups are old enough to join the pack on their hunting circuits. Rendezvous site may be associated with food sources such as ungulate kills or berry patches. Generally a series of rendezvous sites are used by a specific pack. Rendezvous sites are mostly used from mid-June to late-September, but use may start as early as mid-May and may continue to early or mid-October. Some intermittent use of rendezvous sites may continue into the fall. It appears that the average number of rendezvous sites used by wolf packs is 4-6.

Although den and rendezvous sites each serve separate functions for wolves, they are sometimes used interchangeably. Excavations sometimes occur at rendezvous sites and these may be used as den sites in the future. Sometimes rendezvous sites may represent old den site areas. Therefore, a site used as a rendezvous site one year, could be used as a den site the next year or vice versa. With the growth of the wolf population, the Department no longer feels there is need to provide special protection of rendezvous sites on public lands as long as sound ecological management is used on the landscape that maintains wild lands in a sustainable fashion. If recent excavations occur on a rendezvous site, indicating that it may become a den site, then it should be protected as an active den site.

Screening Guidance for Gray Wolf

The following guidance should be followed by DNR staff to review projects for potential impacts to the Gray Wolf. Screening involves reviewing the NHI Portal for known occurrences and the site for suitable habitat for the Wolf. Den and rendezvous sites may occur that are not reported within the NHI Portal and thus sites should be evaluated for suitable habitat.

- A. If screening indicates the presence of a wolf pack territory, staff must review vegetation condition of site to determine if suitable habitat exists for den or rendezvous site. Den sites that haven't been checked in 2 years (Note the Last Observation Date) should be field checked to determine whether they are currently active, inactive, or are no longer den sites and that information should be reported to the wolf biologist & NHI. If more precise locational information is needed, contact the DNR wolf biologist or the Natural Heritage Inventory Program.
- 1.) If suitable habitat does not exist for den or rendezvous site, no additional screening for gray wolf is required. Document no presence and continue with screening for others species.
 - 2.) If suitable habitat exists for den or rendezvous site that may be used as a den in the future, site should be walked to observe evidence of den usage.
 - a. If no evidence of denning is observed, no additional screening for gray wolf is required. Document no presence and continue with screening for others species.
 - b. If evidence of denning is observed, the following must be implemented. Please note that the following are requirements if wolves are present, and recommendations if not present. The distance measurements below extend from the main excavated den.
 - I. Require the following within 0-100 meter zone (0 - 330 feet)*:
 - (a) No land use activity, including timber harvest, is permitted at any time of year
 - (b) Prescribed burning and use of heavy equipment is not permitted from March 1 through July 31.
 - (c) No new forest roads or trails should be constructed and existing trails and forest roads should be obliterated or closed where feasible. No attempt would be made to actively keep recreational users outside the zone, but road closure and obliteration should eliminate most such activity. Road closures do not apply to major public roads such as town, county, state or federal highways.
 - (d) Human activity should be restricted to those activities specifically related to wolf research and generally done only when wolves are not active in the area. Researchers and natural resource persons should avoid spending time near dens when pups are inside and the den is actively being used.
 - II. Require the following within 100-800 meter zone (330 - 2,640 feet)*:
 - (a) No land use activity, including timber harvest, is permitted from March 1 through July 31.
 - (b) Timber harvest, mineral exploration, and other land use activities are allowed from August 1 through February 28. Clear-cutting is not likely to be detrimental to wolf activity if conducted during the open period, but care should be taken to avoid leaving the wolf home site areas isolated from other areas of standing timber.
 - (c) No new forest roads or trails should be constructed; temporary forest roads and trails should be closed to vehicle traffic after timber harvests are completed. Existing trails and forest roads should be closed on a case-by-case basis – Road closures do not apply to major public roads such as town, county, state or federal highways.

- III. Report all actively used wolf den sites to the DNR wolf program. If a den is found during routine field work, while it is actively being used (early April to mid June), obtain a GPS location, and if available take a digital photo of the den, but leave the den area right away after collecting this data. Normally only established den sites (used within last 2 years) would be recommended for protection. Intense investigations of den and rendezvous site would be conducted only after wolves have discontinued use for the year.