

Example Grizzly Bear Conservation Measures v2 January 2025

This document contains a list of example conservation measures for grizzly bears grouped by activity type. This list is provided upon request or when an official species list is received from IPaC/the Service that includes grizzly bear as potentially present. Conservation measures are optional techniques or activities that can be used by action agencies or applicants when developing their proposed actions to proactively avoid or minimize impacts to the species from action activities. While this list contains conservation measure examples, it should be noted that this list is not exhaustive, and the Service does not require the adoption of these measures. Conservation measures should be selected as appropriate and implementable for each proposed action. Adoption and implementation of these measures may assist the Federal agency in meeting their section 7(a)(1) responsibilities under the Act. This is a living document, and the Service and partners will update it with new best available science and information as needed.

Although these conservation measures may help avoid or minimize impacts from certain activities, activities or structures may still result in effects, including adverse effects, on grizzly bears. Section 7 consultation is required if a Federal agency action may affect grizzly bears; in those situations, additional site-specific measures may be recommended by the Service. The BA or BE developed for consultation should clearly explain how the conservation measures will avoid or minimize effects from the proposed action.

Presence

1. Season of use influences grizzly bear impact analyses and seasonality can be used to help consider appropriate conservation measures.
2. Where the project location is relative to likely grizzly bear recovery zones, management units, or analysis units is also important for determining likelihood of presence overlapping effects to the land, air, or water from the proposed action.

Table 1. Grizzly bear activity seasons by ecosystems in Idaho

Ecosystem	Spring season	Non-denning season	Fall season	Denning season
Cabinet-Yaak	April 1 – June 15	April 1 – Nov. 30	Sept. 16 – Nov. 30	Dec. 1 – March 31
Selkirk	April 1 – June 15	April 1 – Nov. 15	Sept. 16 – Nov. 15	Nov. 16 – March 31
Bitterroot	NA ¹	NA	NA	NA
Greater Yellowstone	March 1 – July 15	March 1 – Nov. 30	Sept. 1 – Nov. 30	Dec. 1 – Feb. 28/29

¹ The Bitterroot Ecosystem is not currently occupied by a population (within the previous six years, two or more reproductive females or one female reproducing during two separate years) (USFWS 2025, p. 63), so activity seasons are not yet known.

Example Bear Safety Conservation Measures

- Activities will adhere to all grizzly bear-related requirements in Forest Service plans or other relevant land and resource management plans. This includes consistency with any bear safety plans relevant to the action area.

- Duration of activities will be limited and activities will be phased. Areas free of disturbance will be part of the proposed action's design – for example, for a large-scale action, schedule impacts such as major equipment operations in one drainage or bear management/analysis unit at a time.
- Anyone working in grizzly bear habitat (i.e., contractors, partners, and Federal employees) will be briefed on bear-country safety. This will include bear spray training, securing attractants, and minimizing potential for conflicts and disturbance to bears. Doors and windows will be kept closed, especially when a building or vehicle is unoccupied.
- Anyone working in grizzly bear habitat (e.g., contractors, permittees, volunteers, and Federal employees) will comply with applicable attractant storage regulations or orders available at: <http://igbconline.org/food-storage/>. The Interagency Grizzly Bear Committee (IGBC) website includes an interactive map to identify applicable food storage regulations in grizzly bear habitat and a list of regulations on Federal, Tribal, and state lands for each state. If no specific rule exists for the action area, adaptation of the available food storage regulations on the IGBC website or any orders on adjacent lands can be used instead.
- The action agency will communicate with adjacent landowners and stakeholders regarding bear awareness to reduce human-bear conflict. This includes communicating with adjacent landowners if a sign(s) of grizzly bears is discovered.
- Infrastructure will be included to minimize human-bear conflict such as temporary or permanent fencing, notification system, etc. The action agency will ensure trash and food are secured in bear resistant trash cans, lockers, dumpsters, etc.
- Anyone associated with the proposed action will report grizzly bear observations to the action agency as soon as possible. The action agency will notify the Service's local field office. They will also notify the Grizzly Bear Recovery Program if any grizzly bear/human conflicts occur or if they encounter any active dens, tracks, or other evidence of grizzly bear occurrence within 24 hours of a bear/human conflict. For conflict reports, contact the grizzly bear conflict coordinator at (406) 214-0497 or benjamin_jimenez@fws.gov. For sightings and observation data, contact hilary_cooley@fws.gov
- If grizzly bears are observed within the action area during the spring season (see Table 1), an implementation plan will be developed specific to that area to minimize disturbance to grizzly bears during the spring.
- A provision will be included providing for modification, cancellation, suspension, or temporary cessation of activities to resolve grizzly bear-human conflict situations, if needed.

Example General Conservation Measures

- Grizzly bears use a variety of cover types to rest, shelter, and hide throughout their home range. If activities remove cover, the proposed design also will ensure bears have access to interspersed cover areas. The amount and location of cover needed in an area varies topographically. This will need to be discussed on an action-by-action basis. The intent is that enough visual cover remains such that bears startled by activities can quickly escape to sufficient nearby hiding cover. Some action design features and conservation measures in previous documents have included:
 - Vegetation management actions will be designed to support diverse habitat complexes, such as forest interspersed with moist grass-forb meadows, that provide both abundant food and cover for grizzly bears.
 - Within areas actively used by grizzly bears, no-cut buffers (minimum of 25 feet) will be applied in riparian zones to provide vegetative screening along streams and wetlands. No new openings will be created in riparian zones where the distance to cover would exceed 350 feet.
 - Riparian and remnant forest stands within harvest units will continue to provide good opportunities for cover in between vegetation treatments that improve forage potential. Interspersed visual cover also will be maintained adjacent to open motorized routes and major habitat components, such as snow chutes and riparian shrub fields (mixed shrub fields often contain many species of berries), or mixed shrub fields created by fires, avalanches, or timber harvest.
 - Generally, interspersed pockets of visual hiding cover will be thick enough to hide 90 percent of a bear at 200 feet.
 - Screening cover mainly will be comprised of leave clumps strategically placed in harvest units, but it could include topographic features (steep slopes, draws, small prominences, or roadside cut slopes), advanced regeneration or shrub cover, and roadside leave strips.
 - In areas along motorized routes or areas with heavy human use (e.g., campgrounds, trailheads, picnic areas, etc.), restoration efforts will avoid seeding or planting species with potential to attract grizzly bears, such as clovers or legumes.
 - Prescribed burning will be implemented in the fall rather than the spring (see Table 1).
 - Camping and associated activities will occur at developed campgrounds, or, if at dispersed sites, will consist of ≤ 20 individuals for up to 5 days/campsite.

Example Denning and Post-Denning Conservation Measures

- Activities generating noise above ambient levels will not occur within 0.25 mile (and 1.0 mile for pile driving) of known grizzly bear den sites during the denning season and

den emergence/spring season. Denning information is based on current information from state wildlife agencies and the Service. Grizzly bears typically den in areas at elevations equal to or greater than 4,000 feet (1,219 meters) with the vast majority of dens above 5,000 feet (1,524 meters).

- All activities will avoid high-quality spring habitats during the spring season (see Table 1). This includes replacement and improvement activities on culverts, trails, and trailheads in spring habitat areas. High-quality spring habitat areas are defined as snow-free forested and open habitats that afford fresh green-up of grasses, roots, and bulbs as well as foraging opportunities for small rodents, and they may include riparian areas, meadows and open grassy parklands, and avalanche chutes.
- If it is not feasible to avoid high-quality spring habitat areas during the spring season (see Table 1), actions will be completed in five or fewer days. No off-route activities will take place in the spring season.

Example Secure Habitat Conservation Measures

Although the secure habitat conservation measures may help avoid or minimize impacts from certain activities, proposed actions still may result in adverse effects on grizzly bears.

- No motorized activity (including aircraft) will occur in grizzly bear secure habitat during the grizzly bear non-denning season (see Table 1).
- During the non-denning season (see Table 1), motorized activities on Forest Service lands only will occur on routes shown as open on the Motor Vehicle Use Map. On non-Forest Service lands, motorized activities only will occur on routes that do not affect secure habitat baseline.
- Actions will not result in increased motorized or non-motorized access in secure habitat, as assessed by an action agency wildlife biologist.
- Implementation of activities in secure habitat (e.g., temporary routes) will be avoided. If activities cannot be avoided, the action agency will work with the local Service office to identify minimization measures that reduce the potential of multiple grizzly bear generations being disturbed or displaced. This is particularly relevant if female grizzly bears could occur in the action area.
- Activity in grizzly bear secure habitat for culvert upgrades will occur in a single year and will not exceed 30 days (include dates and seasons).
- Timber harvest, log hauling, and temporary route construction in grizzly bear secure habitat will be allowed only during the denning period (see Table 1).
- Route activities in secure habitat on Forest Service lands only will occur on route shown as open on the Motor Vehicle Use Map.
- Motorized access (on bermed routes or cross country) that is further than 0.31 mile (500 meters) from any open route (i.e., route that already detracts from secure habitat) will not occur.

- Activities or structures will be avoided within 0.31 mile (500 meters) of meadows and riparian areas. If activities cannot be avoided, the action agency will work with the local Service office to identify minimization measures that reduce the potential of multiple grizzly bear generations being disturbed or displaced.
- In areas that have existing wheeled motorized access conditions that are resulting in ongoing negative impacts for grizzly bears, motorized use will occur only during daylight hours and no motorized access for activities (e.g., aquatic activities) will occur further than 300 feet from any open route.

Example Road or Trail Closure Conservation Measures

- Motorized public access will remain restricted on closed routes on National Forest System lands during administrative use (use authorized by the agency). If berms, barriers, etc. are removed to access treatment units, temporary gates or effective barriers will be installed and berms will be reinstalled once activities are complete.
- When utilizing a restricted route with a closed gate, ensure that the gate remains closed and locked while activities occur, at the end of the day, and after each vehicle passes. All newly constructed routes (temporary or permanent) will be closed by barrier or gate to public motorized use during and after route building and other activities. All existing routes currently closed to public motorized use will remain closed to such use during implementation of all proposed activities.
- Currently unclassified and undrivable routes within the action area that are added to the system, reconstructed for timber hauling, and/or subsequently placed into storage (i.e., long term closure, but not removal) will be effectively gated and closed to public use during implementation.
- Logging debris will be scattered across closed routes at a location further up from the original gate or closure as an additional barrier to vehicles.

Example Decommissioning and Restoration Conservation Measures

- After completion of the action, secure habitat will be restored to the pre-existing level condition before grizzly bear emergence the following spring. This includes decommissioning, obliteration/rehabilitation of temporary routes, and returning restricted routes used for haul to administrative access only.
- All routes that will be placed in Intermittent Stored Service/stored for future use will be made impassable to motorized vehicles. This will include treatment so that the route is blocked and there is little resource risk if route maintenance is not performed on a regular basis.
- All temporary routes and areas constructed and used for activities may include the following rehabilitation activities:
 - The entire route template will be recontoured to natural ground contour.

- Routes will be recontoured for one sight distance from the beginning of the route and a permanent closure structure will be put in place to eliminate the unauthorized, motorized use of the route. Exceptions may be made to accommodate the following: prescribed burning, best management practices to protect water quality, required reforestation activities, and emergency situations.
- Installed culverts, drainage structures, or temporary bridges will be removed and water bars will be installed.
- Disturbed soil will be inoculated (soil inoculum) and seeded or planted with a native plant mix, as specified by a qualified botanist.
- Woody material will be placed across the route template to block the route and allow revegetation according to best management practices.
- Rehabilitation effectiveness will be monitored and adaptive changes implemented to ensure the route remains impassable and undetectable.

Example Unauthorized Vehicle Use Conservation Measures

- Routes will be closed in a manner that discourages future unauthorized off-road and off-trail motorized use (e.g., clear signage, scattered slash and down-woody material, adding rocks or other barriers, or recontouring).
- Routes will be frequently monitored and any unauthorized use will be reported to the land manager.
- In areas where there is evidence that unauthorized off-route vehicle use has occurred, measures will be taken before the next bear year (emergence from dens) to prevent this use from re-occurring. This may include placing large logs, rocks, or other debris at strategic points and locating or designing skid trails and temporary routes in such a way that discourages potential off-route vehicle use.
- Newly constructed firelines will be located away from public access points to prevent their use as unauthorized motorized travel routes. Where a fireline must be constructed near public access points, the fireline will be treated in a manner to make inaccessible to unauthorized motorized vehicles during the non-denning season (see Table 1).

Example Wildfire Conservation Measures

- Best management practices will be followed for wildfire response (e.g., washing all vehicles and inspecting clothes to avoid noxious weed introduction).
- As much as possible, camps will not be located in or adjacent to grizzly bear habitat. If camps must be located in or adjacent to grizzly bear habitat, they will be inspected daily to make sure food and garbage are unavailable to bears during and after site occupation. Main and spike camps will be located well away from visual cover that

may allow bears to approach undetected. This includes areas near riparian sources and bear food sources (berry bushes, etc.).

- Proper food and garbage storage, such as bear-proof containers, electric fence, and/or poles, will be used at all spike camps that are in or adjacent to grizzly bear habitat. Garbage will be removed from spike camps daily. Cooking areas will be staged at least 100 yards from sleeping areas.
- Bear safety and awareness messaging will be provided daily at morning briefings and when plans shift.
- Bear spray, bear spray training, and bear-resistant attractant storage canisters will be provided to all personnel.
- Bear safety information will be posted in visible locations throughout the camps.
- Commercial portable toilet facilities will be used, if possible. If not, all fecal matter will be buried at least 6 to 8 inches deep, well away from sleeping areas. Toiletries will be stored away from sleeping areas.
- Wildfire responses will avoid, as possible, constructing new routes or permanent and temporary travel ways. Any new routes constructed will be closed and rehabilitated, including machine built firelines, so that they are inaccessible to motorized vehicles.
- Wildfire responses will avoid, as possible, opening gated or bermed routes for wildfire response within grizzly bear habitat. If it is necessary to open these routes, they should be closed as soon as possible upon completion of fire suppression activities.
- Post-fire restoration activities will avoid seeding and planting with palatable forage species in areas near human development. Palatable species vary by location and local conditions, but generally include clovers (*Trifolium* spp.), fruits, and succulents.
- The Service's Grizzly Bear Recovery Program at (406) 243-4903 will be notified of any grizzly bear sign or grizzly-human conflicts within 24 hours from the event.
- On-the-ground managers will review any relevant guidance documents for protecting grizzly bears during wildfire in the action area. Managers will ensure feedback on effectiveness of minimization measures are discussed with the local Service office and they will apply any changes to the conservation measures, if needed.

Example Aircraft Conservation Measures

- Manned aircraft
 - Helicopter logging and associated hauling in grizzly bear secure habitat will be allowed only during the denning season (see Table 1). Logs will be decked on landings outside of secure habitat.
 - Manned aircraft flights below 0.31 mile (500 meters) in altitude will not occur over areas where grizzly bears could reasonably occur and be active during the flights (see Table 1).

- If a low-level flight or landing is needed and a grizzly bear is seen, the flight will be postponed.
 - Landings will not occur within 0.31 mile (500 meters) of a grizzly bear.
- Manned aircraft access within a female grizzly bear home range will be short in duration (activity will conclude within a 48-hour period).
- The action agency has communicated with other agencies and private companies including Federal, state, Tribe, and private entities, to coordinate avoiding or minimizing other manned aircraft activities from Federal, state, Tribe, or private companies within a 30-day period within the same female grizzly bear home range.
- Manned aircraft flights will be scheduled between one hour after sunrise to one hour before sunset during the active bear year (see Table 1).
- Flight paths will be less than ½-mile in width and directed along existing open or restricted routes or ridgelines to the extent feasible.
- Wherever feasible, flight paths will be directed outside seasonally important habitats for grizzly bears, unless they can be limited to the seasons when grizzly bears are not expected in these habitats. For example, flight paths during the active bear year (see Table 1) will avoid open alpine meadows, talus slopes, or other areas where grizzly bears congregate, especially open areas where bears do not have access to cover.
- Aircraft use for prescribed burning will be limited to 12 days total in 1 bear year and no more than 2 days per individual season (fall or spring, see Table 1).
- Unmanned aircraft systems (UAS), also known as drones.
 - UAS will implement a 200-feet elevational buffer and stay 200 feet horizontally from any grizzly bears spotted.
 - The quietest UAS available that can accomplish the mission will be used with a maximum sound output of 90 decibels; only battery powered UAS will be used.
 - Flight operator must always maintain line of sight with UAS during flight mission.
 - Prior to launching the UAS, the pilot will scan the action area for federally protected species.
 - UAS flights will be planned to avoid impacts by optimizing the route, speed, timing, and frequency of flights as well as employ technologies and techniques that help avoid impacts.
 - The UAS will be operated in a manner that minimizes audible and visual impacts to wildlife, and wildlife will not be harassed. If wildlife or other resources are encountered during the mission that may be affected by the UAS, the mission will be aborted or there will be a modification to the route, altitude, airspeed, or other operating parameters to minimize potential impacts without compromising the safety of the mission, if possible.

- The proposed operation plans will be approved by the qualified wildlife biologist prior to any UAS use. To limit the intensity of use, only one permit will be issued at a time for a single area.

Example Special Use Permit Conservation Measures

- The permit holder and all other participants will be permitted to only travel on the routes that are specifically listed in the permit while carrying out permitted activities.
- Motorized travel, including E-Bikes and E-Dirt Bikes, only will be allowed on roads or trails on dates when each route is open to public motorized access. The permit holder will be responsible for providing road and trail closure information to all tour guides.
- The permit holder will be responsible for reporting to the action agency any gates found to be damaged, improperly managed, or unauthorized motorized use that they encounter.

Example Grazing Conservation Measures

- The Forest Service will provide bear safety education, including awareness, prevention, and reporting, to livestock grazing permittees and their employees. Herders will be instructed on how to minimize the chances of an encounter with grizzly bears. For example, moving sheep to other areas of a pasture may help avoid an immediate threat, and moving sheep to other pastures/locations may need to occur if encounters persist. During the Annual Operating Instruction meetings with the permittees, conservation measures will be discussed.
- Any grizzly bear sightings will be reported to the action agency as soon as possible. All grazing permits include a clause providing for adaptive management strategies (e.g., grazing management options) to resolve a grizzly bear/human conflict situation, if needed. Permittees' full cooperation in meeting grizzly management goals and objectives will be a condition of receiving and holding permits.
- Inside of the GYE Recovery Zone, no new active permitted grazing allotments will be created beyond the identified 1998 baseline described in the 2007 Conservation Strategy (USFWS 2007, p. 43). Numbers of permitted livestock grazing allotments and numbers of Animal Unit Months within the recovery zone will be annually monitored and reported to the Interagency Grizzly Bear Study Team by the action agency.
- In grizzly bear habitat, allotment management plans will specify feasible measures to protect, in time and space, food production areas important to grizzly bears (i.e., wet alpine and subalpine meadows, stream bottoms, aspen groves, and other riparian areas) from conflicting and competing use by domestic livestock. These measures will be reflected in grazing permits. Degrees of protection could range from partial to full protection as indicated by the action agency's evaluation. Measures could include, but are not limited to, the following: closing grazing units either temporarily or permanently, exclusion fencing, changing on and off dates, and setting livestock utilization rates at levels compatible with grizzly bear needs.

- Shepherders, working dogs, and guard dogs will be kept with sheep full-time when on rangelands to reduce the likelihood of grizzly bear encounters, and to assist in efficient and prompt movement of animals when necessary.
- Allotment management plans will specify measures for the timely removal, destruction, or treatment of livestock carcasses to avoid positive conditioning of grizzly bear to livestock carrion as food (e.g., all carcasses will be removed from the Federal lands if within 0.5 mile of designated routes or developments). Herders and riders will be required to closely watch livestock for sick, injured, or stray animals. The intent is to reduce the likelihood of food association with domestic herds and reduce opportunities for depredation.
- Additionally, all dead livestock posing a health or human safety hazard will be removed when the area is deemed safe for entry and removal. Reasonable efforts will be made to remove dead livestock within 0.25 mile of: live streams, springs, lakes, water, riparian areas, system roads and trails, developed recreation areas, dispersed camping and picnic areas. When it is not reasonable to remove dead livestock due to human safety concerns, permittees promptly will report carcass locations to the action agency. The action agency, working with the permittee, will jointly determine the appropriate action.
- Where food storage is required, unnatural attractants to bears will be minimized. This includes treatment or removal of livestock carcasses and proper storage of human foods, garbage, and dog food. The IGBC approved bear-resistant containers that are required and damaged containers will be repaired or replaced so that they work as designed. Where required, all people involved with grazing on allotments must comply with food storage, which will prevent the availability of human-related food sources or attractants for grizzly bears.
- Camp tenders and managers will make periodic visits (approximately every three days) to remove trash and dead animal carcasses to eliminate potential bear attractants. In some locations, it is not feasible to remove carcasses (due to degree of decomposition and access to get them out). In such cases, a carcass is left in place and, where possible, decomposition expedited with the approved means such as explosives or proven chemicals.
- As part of the administration of the proposed action, personnel will monitor compliance of the required permit clauses, conservation measures, and conditions of the grazing permits, with special emphasis being given to conditions relative to grizzly bear protection and management.