

Chapter



Glossary

11 GLOSSARY

- 1 **100-year site index tree height** – The average height predicted by site index curves for 100-year-
2 old dominant or co-dominant tree species representative of the cover type in a given stand.
- 3 **124 permit** – A permit required under the Montana Stream Protection Act for any project that
4 requires the construction of new facilities or the modification, operation, and maintenance of an
5 existing facility that may affect the natural existing shape and form of any stream or its banks or
6 tributaries. Montana Fish, Wildlife and Parks issues and administers the 124 permit under the
7 regulatory authority of the Montana Stream Protection Act. The Act states that fisheries resources
8 are to be protected and preserved in their natural state except as may be necessary and appropriate
9 after considering all factors involved. The 124 permit process ensures that plans to modify fisheries
10 resources (e.g., stream channel, stream banks, etc.) either eliminate or diminish potential adverse
11 effects to those fisheries resources.
- 12 **303(d) listings** – Section 303(d) of the federal Clean Water Act requires states to assess the
13 condition of their waters to determine where water quality is impaired (does not fully meet
14 standards) or threatened (is likely to violate standards in the near future). The result of this review is
15 the 303(d) list, which must be submitted by each state to the U.S. Environmental Protection Agency
16 every other year. The 303(d) list in Montana is administered by the Montana Department of
17 Environmental Quality.
- 18 **Abandoned road** – A road that is impassable due to effective closure but has drainage structures
19 that have not been removed. Under this HCP, an abandoned road will not receive motorized use for
20 low-intensity forest management activities or commercial forest management activities.
- 21 **Active gravel pit** – Any gravel pit or rock source that has excavation, processing, hauling, and/or
22 other uses in a given calendar year. Motorized use of active pits may vary considerably from very
23 limited low use to continuous motorized operation and hauling.
- 24 **Active subunit** – A bear management unit subunit in which DNRC is actively conducting
25 commercial forest management activities.
- 26 **Adaptive management** – The process of monitoring the implementation of conservation measures,
27 then adjusting future conservation measures according to what was learned. Adaptive management
28 can also include testing of alternative conservation measures, monitoring the results, and then
29 choosing the most effective and efficient measures for long-term implementation.
- 30 **Animal unit** – An animal unit is one mature cow of approximately 1,000 pounds and a calf up to
31 weaning, usually 6 months of age, or their equivalent.
- 32 **Animal unit month (AUM)** – The amount of forage required by an animal unit for 1 month.

- 1 **Bankfull depth** – The depth of water in a stream as measured from the surface to the channel
2 bottom when the water surface is even with the top of the stream bank.
- 3 **Bankfull flows** – The bankfull flow stage corresponds to the discharge at which channel
4 maintenance is the most effective; that is, the discharge at which moving sediment, forming or
5 removing bars, forming or changing bends and meanders, and generally doing work that results in
6 the average morphologic characteristics of channels.
- 7 **Bear** – The grizzly bear (*Ursus arctos horribilis*).
- 8 **Bear management unit (BMU)** – A federally defined sub-designation within a grizzly bear
9 recovery zone used for habitat evaluation and population monitoring (*Grizzly Bear Recovery Plan*,
10 USFWS 1993).
- 11 **Bear-resistant** – Secured in a hard-sided camper, vehicle trunk, cab, hard-sided dwelling, hard-
12 sided storage building, approved bear-resistant container, within an effective electric fence, or
13 suspended with the bottom of the item at least 10 feet up and 4 feet out from an upright support.
- 14 **Best management practice (BMP)** – A practice or combination of land use management practices
15 that are used to achieve sediment control and protect soil productivity and prevent or reduce non-
16 point pollution to a level compatible with water quality goals. The practices must be technically and
17 economically feasible and socially acceptable.
- 18 **Best management practice (BMP) audit** – An established monitoring and reporting process
19 conducted both internally by DNRC (internal BMP audits) and by third parties (statewide BMP
20 audits) to evaluate and document the implementation and effectiveness of BMPs applied on
21 individual DNRC timber harvesting operations and associated site preparation, slash disposal, road
22 construction, and road maintenance activities.
- 23 **Blocked lands** – Areas where parcels owned by DNRC are within proximity to one another.
24 Blocked lands consisting of more than 15,000 acres, or a series of parcels in a checkerboard pattern,
25 or parcels situated in proximity to one another or that lie adjacent to each other and form small- to
26 medium-sized blocks. For the purposes of this HCP, blocked lands refer to those lands exhibiting
27 these characteristics within the Swan River, Stillwater, or Coal Creek State Forests.
- 28 **Bear management unit (BMU) subunit** – A federally defined sub-designation of a BMU that
29 approximates a female grizzly bear’s home range; BMU subunits are used for habitat evaluation and
30 population monitoring.
- 31 **Board foot** – A unit for measuring wood volumes. One board foot is a piece of wood 1 foot long,
32 1 foot wide, and 1 inch thick (144 cubic inches). This measurement is commonly used to express
33 the amount of wood in a tree, sawlog, or individual piece of lumber. A thousand board feet is
34 abbreviated mbf.
- 35 **Borrow (source or site)** – Small sources of gravel, rock, or fill material within 0.25 mile of open or
36 restricted roads. Sizes of borrows can range from small, disturbed areas associated with the removal
37 of several cubic yards of material up to larger areas of 1 acre. For the purposes of the HCP

- 1 commitments, the number of borrows is not limited when associated with allowable road
2 construction and/or road maintenance activities.
- 3 **Bottomless arch culvert** – A three-sided culvert that allows a natural stream bed in order to achieve
4 substrate and stream flow conditions similar to undisturbed channel conditions.
- 5 **Box culvert** – A concrete (pre-cast or cast-in-place) or metal rectangular culvert, which can be
6 countersunk in the stream bed to provide substrate that emulates natural conditions.
- 7 **Broadcast burning (also referred to as slash burning)** – A controlled burn, where the fire is
8 intentionally ignited and allowed to proceed over a designated area within well-defined boundaries
9 for the reduction of fuel hazard after logging or for site preparation before planting.
- 10 **Browse** (noun) – That part of leaf and twig growth of shrubs, woody vines, and trees available for
11 animal consumption.
- 12 **Bull trout nodal habitat** – Bull trout nodal habitat is a designation developed by the MBTRT
13 during preparation of the Restoration Plan for Bull Trout in the Clark Fork River Basin and
14 Kootenai River Basin (MBTRT 2000). Nodal habitats are those used by sub-adult and adult bull
15 trout as migratory corridors, rearing areas, and overwintering areas and for other critical life history
16 requirements.
- 17 **Carrying capacity** – The maximum livestock stocking rate possible without inducing permanent or
18 long-term damage to vegetation or related resources. The stocking rate may vary from year to year
19 in the same area as a result of fluctuating forage production.
- 20 **Changed circumstance** – Changed circumstances means changes in circumstances affecting a
21 species or geographic area covered by a conservation plan that can reasonably be anticipated by
22 plan developers and the Service and that can be planned for (e.g., the listing of new species, or a fire
23 or other natural catastrophic event in areas prone to such events) (50 CFR 17.3).
- 24 **Channel migration zone (CMZ)** – The width of the flood prone area at an elevation twice the
25 maximum bankfull depth.
- 26 **Classified forest trust lands** – Montana state trust lands are legally assigned to one of four land use
27 classes. The four classes are grazing, agricultural, forest, and other (which includes administrative
28 sites, cabin sites, commercial leases, military sites). The basis for classification is to ensure that
29 lands are used to best meet the Land Board’s trust and multiple-use responsibilities and that no lands
30 are sold, leased, or used under a different classification than that to which they belong.
- 31 **Coarse-filter approach (terrestrial)** – An approach to maintaining biodiversity as described in the
32 State Forest Land Management Plan (DNRC 1996) that involves maintaining a diversity of
33 structures and species composition within stands and a diversity of ecosystems across the landscape.
34 The intent is to meet most of the habitat requirements of most of the native species. Compare with
35 **fine-filter approach**.
- 36 **Commercial forest management activities** – Timber harvest and salvage harvest (which includes
37 logging, yarding, and hauling), road construction, and road reconstruction.

- 1 **Connectivity (fish)** – Connectivity is the capability of different life stages (e.g., adult or juvenile
2 fish) of HCP fish species to move among the accessible habitats within normally occupied stream
3 segments. For example, a culvert or dam may reduce connectivity by preventing or impeding
4 upstream or downstream migration. For this HCP, the objective for connectivity will focus
5 exclusively on road-stream crossings.
- 6 **Connectivity (lynx)** – Stand conditions where sapling, pole, or sawtimber stands possess at least
7 40 percent crown canopy closure, in a patch greater than 300 feet wide.
- 8 **Conservation commitment** – Specific actions and requirements comprising conservation
9 strategies.
- 10 **Conservation strategy** – A collection of conservation commitments intended to meet the goals and
11 objectives of an HCP.
- 12 **Cost-share agreement** – An agreement between the State of Montana and the USFS Region 1
13 whereby both parties agree to share in the land costs and road construction and maintenance of
14 mutually used roads in a manner commensurate to the amount of lands being accessed. The
15 resulting agreement is formalized by an exchange of documents issued by each party. The
16 agreement requires that the USFS determine the tributary area being accessed by said road system,
17 and then picking up any third-party shares when there is third-party usage within said road system.
18 Due to other applicable federal laws, the USFS becomes the controlling party of any roadway over
19 state trust lands, with an assumption of liability, maintenance, and future access requests to third
20 parties. The cost-share agreement referred to herein is specifically applicable to the Master Cost
21 Share Agreement, known as the “Montana Master Share Agreement,” and not any other cost-share
22 agreement that the State of Montana or the USFS may periodically enter into independently.
- 23 **Contingency plan** – A plan similar to a mitigation plan, but specifically in response to a changed
24 circumstance that is collaboratively prepared by DNRC and the USFWS. The contingency plan will
25 identify all HCP commitments to be incorporated into projects in response to a changed
26 circumstance and additional commitments negotiated by the two parties. The resource specialist
27 reports prepared in support of the MEPA documentation may also serve as the contingency plan.
- 28 **Cooperative management response (CMR)** – A process by which minor adjustments can be made
29 to improve the HCP or to clarify HCP language.
- 30 **Covered activities** – Otherwise legal activities covered by the HCP and incidental take permit. For
31 this HCP, covered activities include selected DNRC forest management activities related to timber
32 harvest, roads, and grazing licenses. Covered activities include commercial forestry activities (e.g.,
33 timber harvest, salvage harvest, thinning, slash disposal, prescribed burning, site preparation,
34 reforestation, weed control, fertilization, and inventory); forest management road construction,
35 reconstruction, maintenance, use, and associated gravel quarrying for road surface materials;
36 grazing licenses on classified forested trust lands (see definitions for **grazing license** and **grazing**
37 **lease**); and roaded access.
- 38 **Crown closure** – The percentage of the ground surface covered by vertical projection of tree
39 crowns. Synonymous with canopy cover and crown cover.

- 1 **Den site (lynx)** – Natural or man-made piles at least 8 feet in diameter of slash and downed logs,
2 which are at least 3 feet tall at their highest point will be considered as potential den sites. Potential
3 den sites must be situated greater than 300 feet from open or restricted roads.
- 4 **Disturbance regime** – A *disturbance regime* for an area comprises all of the various disturbances
5 that may occur. There typically would be several types of disturbances, each characterized in terms
6 of its type, size, spatial distribution, frequency, magnitude, and other spatial and temporal
7 characteristics.
- 8 **Effectiveness monitoring** – Monitoring performed to determine whether the HCP conservation
9 commitments being implemented are having the desired biological effect on the given resource or
10 species.
- 11 **Endangered Species Act (ESA)** – The Endangered Species Act (16 USC 1531et seq.), as amended,
12 and its implementing regulations. The ESA is federal legislation that provides a means to ensure the
13 continued existence of threatened or endangered species and the protection of critical habitat of such
14 species.
- 15 **Engineered substrate** – Stream bottom material, such as gravel and cobbles, mechanically placed
16 within a stream channel or culvert to emulate the natural conditions upstream or downstream.
- 17 **Fall period** – The period from September 16 through November 15.
- 18 **Fine-filter approach** – An approach to maintaining biodiversity as described in the State Forest
19 Land Management Plan (DNRC 1996) that is directed toward particular habitats or individual
20 species that might not be adequately considered under a coarse filter approach to management. The
21 habitats may be critical in some way, and the species may be sensitive, threatened, or endangered.
22 See also **coarse-filter approach**.
- 23 **Fishery** – An area of water where fish are caught for recreational or commercial purposes.
- 24 **Forage** (noun) – All browse and herbage that is available and acceptable to grazing animals or that
25 may be harvested for feeding purposes.
- 26 **Ford** – A dip constructed in the roadbed at a stream crossing, instead of a culvert or bridge. The
27 stream bed should be of erosion-resistant material, or such material must be placed in contact with
28 the stream bed.
- 29 **Forested state trust lands (also referred to as forested trust lands)** – Forested state lands
30 managed by the TLMD of DNRC for the economic benefit of the trust beneficiaries and endowed
31 institutions of Montana. These lands, totaling approximately 727,000 acres, are currently managed
32 under the State Forest Land Management Plan and the Forest Management ARMs (36.11.401
33 through 36.11.450). Forested state trust lands may include trust lands classified under any of the
34 four land use classes.
- 35 **Full market value** – A real estate transaction whereby the purchase price of a property equals the
36 appraised market value.

- 1 **Geographic information system (GIS)** – A computer system used to store and manipulate spatial
2 data for the purposes of producing maps and performing analyses of spatial features. Spatial data
3 maintained within a GIS can represent point, line, and area features on the ground, such as bald
4 eagle nests (points), roads and streams (lines), and habitat types (areas).
- 5 **Gravel quarrying** – As a covered activity is limited to the following actions in support of forest
6 management activities: (1) DNRC’s development and operation of gravel pits and borrow sites, and
7 (2) DNRC’s obtaining, stockpiling, hauling, and unloading gravel from DNRC or non-DNRC
8 borrows or gravel pits. For the purposes of the HCP commitments, the number of borrows is not
9 limited when associated with allowable road construction and/or road maintenance activities.
10 Only medium and large gravel pits count against the allowable number of pits on a given
11 administrative unit within grizzly bear recovery zones and NROH. See also borrow, medium
12 gravel pit, and large gravel pit.
- 13 **Grazing lease** – A lease to graze livestock on trust lands that are classified grazing lands. The
14 minimum rental rate for grazing leases is set by a formula that includes the average weighted price
15 for beef cattle sold in Montana during the previous year. Because grazing leases are issued by the
16 Agriculture and Grazing Management Bureau of DNRC and are not associated with DNRC forest
17 management activities, they are not included as a covered activity under this HCP.
- 18 **Grazing license** – A license to graze livestock on trust lands that are classified forest trust lands.
19 Official written permission to graze a specific number, kind, and class of livestock for a specified
20 period on a defined allotment or management area. Because grazing licenses are associated with
21 DNRC forest management activities, they are included as a covered activity under this HCP.
- 22 **Green timber** – Live trees.
- 23 **Habitat type group** – A system for stratifying the site potential of forest stands based on the habitat
24 type climax vegetation classification system described by Pfister et al. (1977). The system was
25 devised by Green et al. (1992) for the purposes of characterizing old-growth stands in the northern
26 region of the U.S. Forest Service (including the Northern Rockies). Groupings reflect similarity of
27 disturbance response, potential productivity, potential stocking density, potential for down wood
28 accumulation, fire frequency, and tree species. The habitat types within each group also exhibit
29 similar temperature and moisture regimes.
- 30 **Habitat types** – Forest vegetation types that follow the habitat type climax vegetation classification
31 system developed by Pfister et al. (1977).
- 32 **HCP species** – The aquatic and terrestrial species covered by an HCP and incidental take permit.
33 For this HCP, aquatic HCP species are bull trout (*Salvelinus confluentus*), westslope cutthroat trout
34 (*Oncorhynchus clarki lewisi*), and Columbia redband trout (*O. mykiss gairdneri*). Terrestrial HCP
35 species are grizzly bear (*Ursus arctos horribilis*) and Canada lynx (*Lynx canadensis*).
- 36 **HCP fish species (HCP aquatic species)** – The fish (aquatic) species covered by an HCP and
37 incidental take permit. For this HCP, covered fish species are bull trout (*Salvelinus confluentus*),
38 westslope cutthroat trout (*Oncorhynchus clarki lewisi*), and Columbia redband trout (*O. mykiss*
39 *gairdneri*).

- 1 **HCP project area** – The lands (including lands added to the HCP pursuant to the transition lands
2 strategy) where the covered activities occur and the lands to which the HCP’s conservation
3 commitments apply. The HCP project area includes the blocked lands consisting of the Stillwater,
4 Coal Creek, and Swan River State Forests, as well as numerous scattered parcels throughout the
5 NWLO, SWLO, and CLO as depicted in Appendix C, Figure C-2.
- 6 **Hydrologic unit code (HUC)** – For the purposes of watershed classification, a unique 11-digit
7 number assigned to individual watersheds by the U.S. Geological Survey.
- 8 **Hyporheic flow** – The percolating flow of water through the sand, gravel, sediments, and other
9 permeable soils under and beside the open streambed.
- 10 **Implementation monitoring** – Monitoring performed to determine whether the HCP conservation
11 commitments are being implemented so that DNRC’s covered activities remain in compliance with
12 HCP requirements.
- 13 **Implementing Agreement** – Part of the application for an incidental take permit that specifies the
14 HCP terms and conditions and legally binds the USFWS and permit holder (DNRC for this HCP) to
15 the requirements and responsibilities of the HCP and permit.
- 16 **Inactive subunit** – A bear management unit subunit in which DNRC is prohibited from conducting
17 commercial forest management activities.
- 18 **Incidental take** – The taking of a federally listed wildlife species, when that taking is incidental to,
19 but not the purpose of, carrying out otherwise legal activities.
- 20 **Incidental take permit (Permit)** – A permit that exempts a permittee from the take prohibition of
21 Section 9 of the Endangered Species Act (ESA), provided that a conservation plan has been
22 developed that specifies the likely take and steps that the applicant will use to mitigate and minimize
23 the take. A Permit is issued by the USFWS or NMFS or both under Section 10 of the ESA for
24 non-federal applicants.
- 25 **In-stream shade** – The total solar energy affecting the surface of the stream in the stream reach
26 adjacent to the timber harvest unit.
- 27 **Intermittent stream** – Any non-permanent (flows only for part of the year) flowing drainage
28 feature having a definable channel and evidence of annual scour or deposition.
- 29 **Internal (DNRC) best management practice (BMP) audits** – An established monitoring and
30 reporting process conducted internally by a DNRC water resource specialist, soil scientist, and
31 fisheries biologist. The audit procedures are identical to those utilized by the third party audits
32 (statewide BMP audits) to evaluate and document the implementation and effectiveness of BMPs
33 applied on individual DNRC timber harvest operations and associated site preparation, slash
34 disposal, road construction, and road maintenance activities.
- 35 **Large gravel pit** – A source of gravel or rock that involve 5 to 40 acres of disturbed area. Large
36 pits receive sporadic intensive levels of use that may be relatively continuous during some operating
37 seasons. Large pits may be activated periodically or continuously to serve as sources for multiple

- 1 road maintenance and/or construction projects in a given year or across multiple years. Large pits
2 may involve mining, crushing, sorting, and/or asphalt operations over 1 or more years. Large gravel
3 pits are typically subject to rules, regulations, and permitting governed by the Montana Open-cut
4 Mining Act (ARMs 17.24.201 through 225) administered by the Montana Department of
5 Environmental Quality).
- 6 **Large woody debris (LWD)** – Dead woody material, including logs, trees, or parts of trees that are
7 greater than 4 inches (10 centimeters) in diameter and are located within a stream or river. Large
8 woody debris contributes to healthy aquatic systems by providing habitat for fish and aquatic
9 insects, supplying nutrients to the stream, trapping sediment, forming pools, and stabilizing banks
10 and stream channels.
- 11 **Level 1 watershed analysis** – A watershed coarse-filter analysis relying primarily on existing data
12 and information, and including documentation of rationale describing those variables that may
13 contribute to cumulative watershed effects, an assessment of adverse cumulative watershed effects
14 risk, and a description of additional detailed analysis, if required.
- 15 **Level 2 watershed analysis** – An evaluation of Level 1 watershed analysis results, field review of
16 the project area, evaluation of baseline existing conditions, and a qualitative assessment of projected
17 effects of proposed actions relative to the baseline existing conditions.
- 18 **Level 3 watershed analysis** – An evaluation of Level 1 and/or Level 2 watershed analysis results,
19 field review of the project area, evaluation of baseline existing conditions, and a detailed
20 quantitative assessment of projected effects of proposed actions relative to the baseline existing
21 conditions.
- 22 **Low-intensity forest management activities** – Timber inventory, timber sale preparation, road
23 location, road maintenance, bridge replacement, mechanical site preparation, tree planting,
24 pre-commercial thinning, prescriptive and hazard reduction burning, patrol of fall/winter slash
25 burns, heavy and non-heavy equipment slash treatments, monitoring, data collection, and noxious
26 weed management, but not commercial forest management activities.
- 27 **Lynx habitat** – Forest lands consisting of subalpine fir or hemlock habitat types, as described by
28 Pfister et al. (1977). Forest types may be mixed species composition (subalpine fir, hemlock,
29 Engelmann spruce, Douglas-fir, grand fir, western larch, lodgepole pine, and hardwoods), as well as
30 stands dominated by lodgepole pine. Moist Douglas-fir, grand fir, cedar, and Engelmann spruce
31 habitat types where they are intermixed with subalpine fir habitat types also provide habitat for lynx.
- 32 **Lynx management area (LMA)** – A key geographic area in the context of DNRC ownership that
33 is of notable importance for lynx. LMAs are delineated zones that contain DNRC lands where
34 increased levels of lynx conservation commitments are applied. Within these areas, records indicate
35 that lynx are likely present (or have been in the relatively recent past) or lands are considered
36 important for maintenance of resident lynx populations.
- 37 **Mass movement** – The downslope movement of rock and soil, under the influence of gravity.
- 38 **Medium gravel pit** – A source of gravel or rock that involves 1 to 4.9 acres of disturbed area.
39 Medium pits receive intermediate levels of use and may be activated periodically to serve as sources

- 1 for multiple road maintenance and/or construction projects in a given year or across multiple years.
2 Medium pits may involve excavating, crushing, sorting, and/or asphalt operations.
- 3 **Microclimate** – The physical state of the atmosphere close to a very small area of the earth's
4 surface, often in relation to living matter, such as forests or insects.
- 5 **Motorized activities** – Motorized activities include chainsaw operation and timber felling,
6 pre-commercial thinning, motorized vehicle trips associated with administrative uses, skidding and
7 ground-based yarding operations, aerial yarding, motorized road construction and maintenance, log
8 loading, log processing, and log hauling.
- 9 **Motorized trail** – A trail that is used by motorized vehicles.
- 10 **Non-denning season** – The time of year when grizzly bears are out of hibernation and are active.
11 On the Stillwater Block, this means April 1 through November 30. On all other DNRC lands, this
12 means April 1 through November 15.
- 13 **Non-habitat areas (lynx)** – Permanent non-forested areas such as dry forest types, rock, lakes,
14 meadows, etc.
- 15 **Non-recovery occupied habitat (NROH) (grizzly bears)** – The fixed land area outside the
16 boundaries of established grizzly bear recovery zones where one would reasonably expect to find
17 grizzly bear use occurring during any/most years, as of 2002, as defined by Wittinger (2002).
- 18 **Non-vegetated gravel pit** – Previously forested areas that have fewer than 180 sapling trees per
19 acre or less than 40 percent total stand crown closure.
- 20 **Noxious weed** – An unwanted plant specified by federal, state, or local laws as being especially
21 undesirable, troublesome, and difficult to control. It grows and spreads in places where it interferes
22 with the growth and production of native plants or desired crops.
- 23 **Open road** – A road without limitation on motorized vehicle use. Some open roads could be
24 restricted for specific management reasons other than the HCP (spring breakup for example). For
25 the purpose of calculating open road density on scattered lands, open roads include roads open year-
26 long with uncontrolled public and administrative use; roads where status is currently unknown;
27 roads restricted year-long or seasonally by other landowners where DNRC does not control access;
28 and roads restricted during the winter period by DNRC that do not limit access during spring,
29 summer, or fall periods.
- 30 **Ordinary high water mark (OHWM)** – The elevation marking the highest water level that has
31 been maintained for a sufficient time to leave evidence upon the landscape. Generally, it is the
32 point where the natural vegetation changes from predominately aquatic to upland species. For
33 streams, the OHWM is generally the top of the bank of the channel. The OHWM is generally the
34 elevation from which building and sewage setbacks are measured.
- 35 **Other suitable habitat (lynx)** – Forested habitat within lynx habitat with at least medium stocking
36 levels (at least 40 percent crown closure) in any combination of seedling/sapling, pole, or sawtimber
37 size classes as identified in the DNRC stand level inventory database. Other suitable habitat also

- 1 includes stands of saplings that contain at least 180 stems per acre that are greater than or equal to
2 6 feet tall. Other suitable habitat is a subset of suitable lynx habitat but does not contain the
3 necessary attributes to classify as winter foraging habitat or young foraging habitat.
- 4 **Parcel** – Legally definable tract of land based on a 640-acre section. Portions of a legally described
5 640-acre section that are less than 640 acres but share a common boundary line (such as a
6 NE 1/4 section and a SE 1/4 section; i.e., a 1/2 section in total) typically are considered as **one**
7 parcel. Portions of a legally described 640-acre section that are less than 640 acres but share a
8 common corner (such as a NE 1/4 section and a SW 1/4 section) typically are considered as **two**
9 parcels. However, multiple 640-acre sections that share common boundary lines (or full 640-acre
10 sections with adjoining smaller units such as an adjacent 40-acre tract) typically are considered as
11 separate parcels. Two or more tracts within a section that are linked through boundary lines (**not**
12 diagonally across corners) typically are considered as one parcel. Parcels may be more specifically
13 defined for purposes such as establishing grazing animal unit months, or for identification in
14 conjunction with acquisition, disposal, or special projects.
- 15 **Perennial stream** – A well-defined channel that contains water year round during a year of normal
16 rainfall with the aquatic bed located below the water table for most of the year.
- 17 **Physiographic region** – A geographic region in which climate and geology have given rise to a
18 distinct array of land forms that are notably different from those of surrounding regions.
- 19 **Primary closure device** – A closure device (e.g., gate, berm, barricade, tank trap etc.) designed for
20 restricting road access situated off of an open road system that is primarily responsible for
21 restricting access on a particular road or road system. Secondary closure devices (similarly -- gate,
22 berm, barricade, tank trap, etc.) may or may not be present on road segments behind primary closure
23 devices.
- 24 **Reciprocal access agreement** – The method established by MCA 77-1-617, whereby DNRC can
25 acquire access to isolated state trust land by exchanging an equal right on trust land. The tract(s) the
26 state is acquiring access to must be isolated in either a legal sense (i.e., there is no legal access to the
27 state land) or there are portions of the tract that have substantial physical restrictions that prevent
28 access. A state tract may have legal access and be burdened by reciprocity as long as one or more
29 state tracts obtain access through the reciprocal agreement. Rights do not have to be equal if the
30 trust beneficiary burdened by reciprocity is compensated.
- 31 **Reclaimed gravel pit** – A gravel pit that has been made capable of supporting the uses those lands
32 were capable of supporting prior to any mining activity, through any combination of the following
33 or other means: backfilling, grading, stabilizing, or re-contouring, and re-vegetating.
- 34 **Reclaimed road** – A road that is impassable due to effective closure. It has been stabilized, and
35 culverts and other drainage structures, if present, have been removed, but the road prism may
36 remain. A reclaimed road will not receive motorized use for low-intensity forest management
37 activities or commercial forest management activities.
- 38 **Resident lynx population** – A group of lynx that has exhibited long-term persistence in an area, as
39 determined by a variety of factors, such as evidence of reproduction, successful recruitment into the
40 breeding cohort, and maintenance of home ranges (USFWS 2003).

- 1 **Rest period** – A period during the non-denning season when project activities are restricted or
2 prohibited to provide secure areas for grizzly bears.
- 3 **Restricted road** – A road that is managed to limit the manner in which motorized vehicles may be
4 used. Restricted roads will have a physical barrier that restricts the general use of motorized
5 vehicles. Restrictions will be man-made or naturally occurring (gates, barricades, earthen berms,
6 vegetation that makes the road impassable, eroded road prism, rocks, etc.).
- 7 **Riparian management zone (RMZ)** – Under the Forest Management ARMs (36.11.401 through
8 36.11.450), an RMZ refers to streamside buffer established when forest management activities are
9 proposed on sites with high erosion risk or on sites that are adjacent to fish-bearing streams or lakes
10 (ARMs 36.11.425). For the purposes of this HCP, under the aquatic conservation strategies, the
11 combined SMZ and RMZ are referred to as an RMZ, as defined in the September 2003 version of
12 the ARMs for the Streamside Management Zone (ARMs 36.11.301 through 36.11.312).
- 13 **Road** – Any created or evolved access route that is greater than 500 feet long and is reasonably and
14 prudently drivable with a conventional two-wheel-drive passenger car or two-wheel-drive pickup.
15 See also abandoned road, open road, reclaimed road, restricted road, and temporary road.
- 16 **Rosgen channel types** – A classification system for rivers based on channel morphology that was
17 developed by Rosgen (1994). Stream reaches are divided into seven major stream type categories
18 (Aa+, A, B, C, D, DA, E, F, and G) that differ in entrenchment, gradient, width/depth ratio, and
19 sinuosity in various landforms. The major categories can be further broken down into sub-
20 categories based on dominant channel materials.
- 21 **Salvage harvest** – The removal of dead trees or trees damaged or dying because of injurious agents
22 other than competition (such as fire, insects, disease, or blowdown) to recover the economic value
23 that would otherwise be lost (ARM 36.11.403).
- 24 **Scattered lands [scattered parcel(s)]** – Any DNRC section or parcel that is not part of blocked
25 lands. For the purposes of this HCP, blocked lands are identified within the Swan River, Stillwater,
26 or Coal Creek State Forests.
- 27 **Secondary closure device** – Any closure device (e.g., gate, berm, barricade, tank trap etc.) that is
28 secondarily restricting access and is situated on a restricted road or restricted road system behind a
29 primary closure device.
- 30 **Security core areas** – Areas typically greater than 2,500 acres that during the non-denning period
31 (1) are free of motorized access; (2) consider the geographic distribution of seasonal habitats
32 important for grizzly bears; (3) remain in place for long periods, preferably 10 years; and (4) are at
33 least 0.3 mile from the nearest access route that can be used by a motorized vehicle (ARM
34 36.11.403).
- 35 **Sight distance** – The distance at which 90 percent of an animal is hidden from view. On DNRC
36 lands, this is approximately 100 feet, but may be more or less, depending on specific vegetative and
37 topographic conditions.

- 1 **Site potential tree height (SPTH)** – The average maximum height for mature trees on a site, given
2 the local growing conditions.
- 3 **Spring habitat** – Low-elevation sites or other sites that maintain less snow during the spring period
4 (e.g., avalanche chutes, riparian areas, wet meadows, swamps), which are particularly important for
5 offsetting bears’ nutritional stress following hibernation. On the Stillwater Block, spring habitat is
6 modeled using habitat value functions following Mace et al. (1999) and occurs in areas associated
7 with roads possessing restricted status during the spring period. Spring management restrictions
8 apply to the Stillwater Block from April 1 until June 16 within non-spring habitat, and from April 1
9 until July 1 within spring habitat. Spring habitat on the Swan River State Forest includes all areas
10 below 5,200 feet in elevation. Spring habitat on DNRC scattered parcels refers to lands below
11 4,900 feet in elevation.
- 12 **Spring period** – For the Stillwater Block, this is April 1 through June 15 for non-spring habitat and
13 April 1 through June 30 for areas within spring habitat. For lands within the Swan River State
14 Forest and DNRC scattered parcels in recovery zones and non-recovery occupied habitat, this is
15 April 1 through June 15.
- 16 **State of Montana bull trout core habitat** – A designation developed by the Montana Bull Trout
17 Restoration Team (MBTRT), a state appointed entity, during preparation of the *Restoration Plan for*
18 *Bull Trout in the Clark Fork River Basin and Kootenai River Basin Montana* (MBTRT 2000). Core
19 habitat areas are watersheds (including tributary drainages and adjoining uplands) used by
20 migratory bull trout for spawning and early rearing and by resident bull trout for all life history
21 requirements. Core areas typically support the strongest remaining bull trout populations of
22 spawning and early rearing habitat within a restoration/conservation area and usually occur in
23 relatively undisturbed watersheds. Twelve restoration/conservation areas were established in
24 Montana and delineated by the Montana Bull Trout Scientific Group. Restoration/conservation
25 areas have been delineated largely because of fragmentation of historically connected stream
26 systems used by bull trout. These restoration/conservation areas essentially function as smaller,
27 individual bull trout metapopulations. See MBTRT (2000) for additional information. See also **bull**
28 **trout core habitat**.
- 29 **Statewide best management practice (BMP) audits** – An established monitoring and reporting
30 process conducted by third parties to evaluate and document the implementation and effectiveness
31 of BMPs that are applied on timber harvest operations and associated site preparation, slash
32 disposal, road construction, and road maintenance activities by various different landowner groups,
33 including DNRC. Audits are conducted every two years by interdisciplinary teams composed of
34 individual representing landowners, federal and state natural resource agencies, the timber industry,
35 and conservation groups.
- 36 **Stillwater Block** – The blocked portions of the Stillwater and Coal Creek State Forests within the
37 Northern Continental Divide Ecosystem recovery zone as identified in the Stillwater Block
38 Transportation Plan Map (Appendix C, Figures C-4A and C-4B).
- 39 **Stream order** – A stream numbering system ranging from 1 to 6 or higher, which ranks streams
40 beginning from the headwaters to a river terminus, and designates the relative position of a stream
41 or stream segment in a drainage basin network. First-order streams have no discrete tributaries; the

1 junction of two first-order streams produces a second-order stream; the junction of two second-order
2 streams produces a third-order stream; etc.

3 **Streamside management zone (SMZ)** – A stream, lake, or other body of water and an adjacent
4 area of varying width where management practices that might affect wildlife habitat or water
5 quality, fish, or other aquatic resources need to be modified. SMZ encompasses a buffer strip of at
6 least 50 feet wide on each side of a stream, lake, or other body of water, measured from the ordinary
7 high water mark, and extends beyond the high water mark to include wetlands and areas that
8 provide additional protection in zones with steep slopes or erosive soils.

9 **Suitable lynx habitat** – Forest stands within habitat types considered to be preferred by lynx that
10 possess at least a medium stocking level (at least 40 percent crown closure) in any combination of
11 seedling/sapling, pole, or sawtimber size classes as identified in the DNRC stand level inventory
12 database. Suitable lynx habitat also includes stands that contain at least 180 stems per acre greater
13 than or equal to 6 feet tall. On the Northern and Southwestern Land Offices, suitable lynx habitat
14 includes the subsets of young foraging habitat, winter foraging habitat, and other suitable habitat
15 categories. On the Central Land Office, suitable lynx habitat is defined as stands occurring between
16 5,500 to 8,000 feet elevation that possess at least medium stocking levels (at least 40 percent stand
17 crown closure) in any combination of pole and/or sawtimber size classes as identified in the DNRC
18 stand level inventory database.

19 **Summer period** – For the Stillwater Block, this is July 1 through September 15. For lands within
20 the Swan River State Forest and DNRC scattered parcels, this is June 16 through September 15.

21 **Swim performances** – A measure of the swimming ability of an individual fish species. Swim
22 performance is compared to culvert water velocities to properly size culverts so they are passable
23 for local fish species.

24 **Take** – Regarding federally listed species, take is defined by the Endangered Species Act as "to
25 harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in
26 any such conduct." The USFWS' implementing regulations define harm as "an act or omission
27 which actually injures or kills wildlife, including acts which annoy it to such an extent as to
28 significantly disrupt essential behavior patterns, which include, but are not limited to, breeding,
29 feeding or sheltering; significant environmental modification or degradation which has such
30 effects."

31 **Temporary non-suitable habitat (lynx)** – Recently harvested or naturally disturbed (e.g., burned)
32 areas that have fewer than 180 saplings per acre at least 6-feet tall, or less than 40 percent total stand
33 canopy cover, but have the potential to be forested suitable lynx habitat over time.

34 **Temporary road** – A low-standard road that is used for forest management which, following use,
35 is treated in such a manner so as to no longer function as an open road, restricted road, or trail.
36 Following their temporary usage, they may no longer be accessed for commercial, administrative, or
37 public motorized use. Drainage structures may or may not be removed. The road prism may
38 remain. Applicable best management practices would be implemented on these roads.

39 **Timber permit** – A commercial timber sale that does not exceed 100,000 board feet of timber, or,
40 in cases of an emergency, such as salvage sales, does not exceed 200,000 board feet of timber.

- 1 **Total maximum daily load (TMDL)** – Section 303(d) of the federal Clean Water Act directs states
2 to develop TMDLs that regulate the amount of pollutants released to water quality limited water
3 bodies. Use of TMDLs is incorporated into an overall state strategy for bringing a polluted water
4 body into compliance with water quality standards.
- 5 **Total potential lynx habitat** – The total habitat acres that are within habitat types considered to be
6 preferred by lynx. Preferred habitat structure may or may not be present on some acreage included
7 under this designation. Total potential lynx habitat includes the habitat subsets of (1) suitable lynx
8 habitat and (2) temporary non-suitable habitat.
- 9 **Trail** – Any route longer than 500 feet that does not qualify as a “road,” including those routes that
10 conventional four-wheel-drive trucks could negotiate.
- 11 **Transition lands strategy** – A process, which is included as part of the Implementing Agreement,
12 by which DNRC can allow changes in land ownership and use within the HCP project area over the
13 50-year Permit term.
- 14 **Unforeseen circumstances** – Changes in the circumstances affecting a species or geographic area
15 covered by a conservation plan that could not reasonably have been anticipated by plan developers
16 and the Service at the time of the conservation plan's negotiation and development, and that result in
17 a substantial and adverse change in the status of the covered species (50 CFR 17.3).
- 18 **Visual screening** – Vegetation and/or topography providing visual obstruction capable of hiding a
19 grizzly bear from view. The distance or patch size and configuration required to provide effective
20 visual screening depends on the topography, and/or type and density of cover available.
- 21 **Wetland** – An area that is inundated or saturated by surface water or groundwater at a frequency
22 and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated
23 soil conditions. Wetlands include marshes, swamps, bogs, and similar areas.
- 24 **Wetland management zone (WMZ)** – A specified area adjacent to and encompassing an isolated
25 wetland or adjacent to a wetland located next to a stream, lake, or other body of water where
26 specific resource protection measures are implemented (ARM 36.11.403 (94)).
- 27 **Winter foraging habitat (lynx)** – Sawtimber stands within lynx habitat that possess multi-layering
28 of moderate or well stocked coniferous vegetation and horizontal cover. Winter foraging habitat
29 consists of stands that must exhibit the following minimum structural characteristics: (1) stands
30 must occur on habitat types preferred by lynx; (2) stands must have one or more of the following
31 species present: subalpine fir, grand fir, or Engelmann spruce; (3) stands must have at least
32 10 percent canopy closure in trees greater than or equal to 9 inches diameter at breast height
33 (i.e., sawtimber category in the DNRC stand level inventory database); (4) stands must have a
34 minimum of 40 percent total stand crown density in understory and overstory combined; and
35 (5) stands must not occur in big game winter areas.
- 36 **Winter period (bears)** – The bear denning season, November 16 through March 31.
- 37 **Young foraging habitat (lynx)** – Conifer seedling and sapling stands within lynx habitat with an
38 average height greater than or equal to 6 feet and a density greater than 2,000 stems per acre.