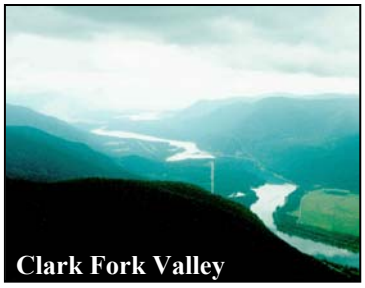

Clark Fork Valley

Clark Geographic Area

Clark Geographic Area (GA) lies primarily within Sanders County, with small portions in Bonner County in Idaho. National Forest System (NFS) lands amount to 432,000 of the total 528,000 acres, or 82% of this GA. Communities include Trout Creek, Noxon and Heron. The Clark Fork River Valley has been used as a travel corridor since prehistoric times. The nation's second transcontinental railway, built by Northern Pacific, ran through this area and the first road built into northwest Montana was constructed near present-day Highway 200. This portion of the Clark Fork River valley was filled and scoured by the repeated flooding and draining of Glacial Lake Missoula over 10,000 years ago. The ice dams that created Lake Missoula likely occurred in this GA.

Unique features within this GA include:

- **Cabinet Mountains Wilderness (Wanless Lake and Chicago Peak)**
- **Cabinet Gorge and Noxon Reservoirs**
- **Vermilion River and Vermilion Falls**
- **Historic Bull River Guard Station**
- **Many recreation opportunities, including two rental lookouts**
- **Trout Creek National Recreation Trail**

Recreational activities within Clark GA center on hunting and fishing, which provide a major economic boost for the area. The GA contains a total of 1,544 miles of existing roads, 844 of which are National Forest System Roads. Of these, 341 miles are open yearlong and 50 miles are seasonally restricted.

On NFS lands, the dominant vegetation types are western redcedar, western hemlock, Douglas-fir, and ponderosa pine. Cool and moist alpine fir, spruce, larch, and mountain hemlock dominate at higher elevations. River bottoms, such as the Clark Fork River and Bull River, have extensive cottonwood stands dependent on river flooding. Many unexpected coastal plant species are found within this GA. Since 1980, approximately 2% has been harvested to regenerate trees and is currently under management as plantations or naturally regenerated stands, with small to medium size trees. An additional 1% has been partially cut, leaving mostly medium to large size trees. Currently, 16% is in an old growth forest condition, or very near old growth (replacement) where large, old trees are a significant component of the forest.

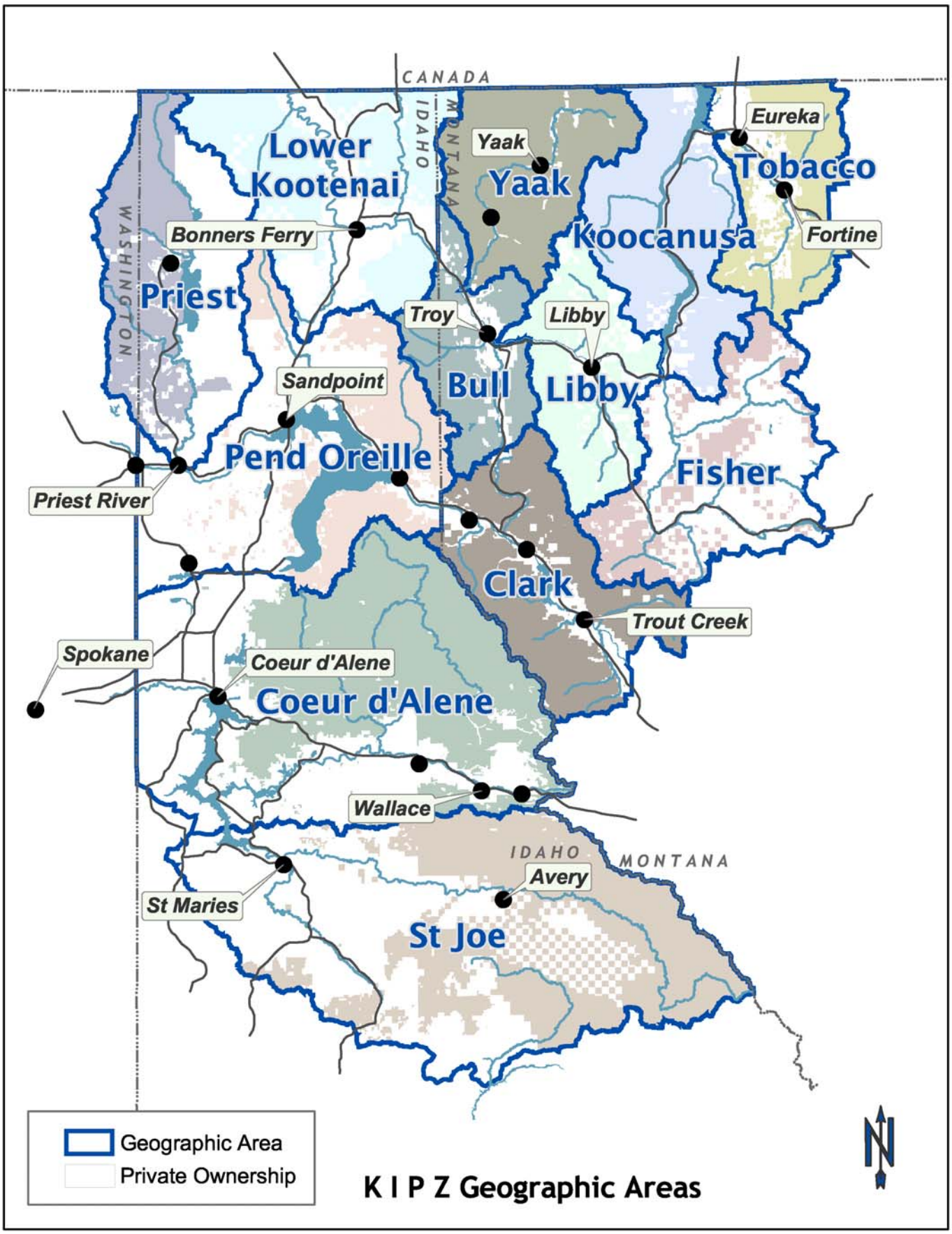
Fires have occurred sporadically throughout the GA, primarily within mountainous terrain and along the Cabinet Wilderness face. Fires of 1994 and 2000 covered smaller portions of this GA.

Channel conditions in this GA reflect consequences of the glacial lake (Missoula) that once occupied the Clark Fork River Valley. Most streams, including major named ones, go underground as they approach the river. There are concerns in some of the watersheds in this GA as a result of past management activities and fire. Many of the watersheds contain stream segments identified in the 1996 Montana State 303(d) (Impaired Waterbody) List.

The Clark Fork River provides habitat for bull trout and westslope cutthroat trout. Noxon Rapids and Cabinet Gorge Dams have created warm-water conditions that maintain a nationally-acclaimed recreational bass fishery for both largemouth and smallmouth. However, the dams also continue to have negative effects on native fish populations and downstream habitat, particularly with regard to access by migratory fish to spawning habitat and cold water habitat for native fishes.

This GA contains populations all of the big game species including bighorn sheep and mountain goat, as well as the largest elk herds on the Kootenai. The GA also contains many of the threatened and endangered species, including grizzly bear and lynx, and many of the sensitive species listed for the Kootenai. Areas north of the river are within the Cabinet/Yaak Grizzly Bear recovery zone. The Clark Fork River and associated reservoirs and wetlands provide habitat for a diverse number of bird species.

There are 40,000 acres of the Cabinet Mountains Wilderness in this GA. The area contains twenty separate Inventoried Roadless Areas totaling 201,000 acres or 46% of the NFS land in the GA. Other special designations include several portions of the Cabinet Additions and about half the Scotchman Peaks Recommended Wilderness Areas; Trout Creek and Cataract Creek Primitive Recreation Areas; Ulm Peak Research Natural Area; Bull River Guard Station Cultural Resource Area, Devils Gap and Berray Mountain Cedars Special Interest Areas, and portions of the Bull and Vermilion Rivers are eligible as recreational or wild categories of Wild and Scenic Rivers.



K I P Z Geographic Areas

Geographic Area Maps

The following maps provide some of the important information that will be considered in the development of management direction across the Geographic Area (GA) and the Forest. There are currently seven different maps available for each GA and the information on the maps has been combined as follows:

Map #	Title of Map	What information is on that map
#1	Base Layer	Forest Access and Recreation
#2	Wildlife	Bear Management Units and Lynx Analysis Units
#3	Special Designations	Inventoried Roadless Areas, Special Interest Areas, Research Natural Areas, Proposed Wilderness, and Wild and Scenic Rivers
#4	Watershed	Watershed condition and 303d streams
#5	Fish	TE&S watersheds by species (bull trout, westslope cutthroat trout, interior redband trout)
#6	Vegetation	Habitat type groups and old growth
#7	Timber, Wildfire, and Human Populations	Timber harvest, wildfire, human population density

Additional maps will be developed as data and information becomes available for the 12 geographic areas within the Kootenai and Idaho Panhandle Forest Plan Revision Zone (KIPZ).

Other Maps Under Development

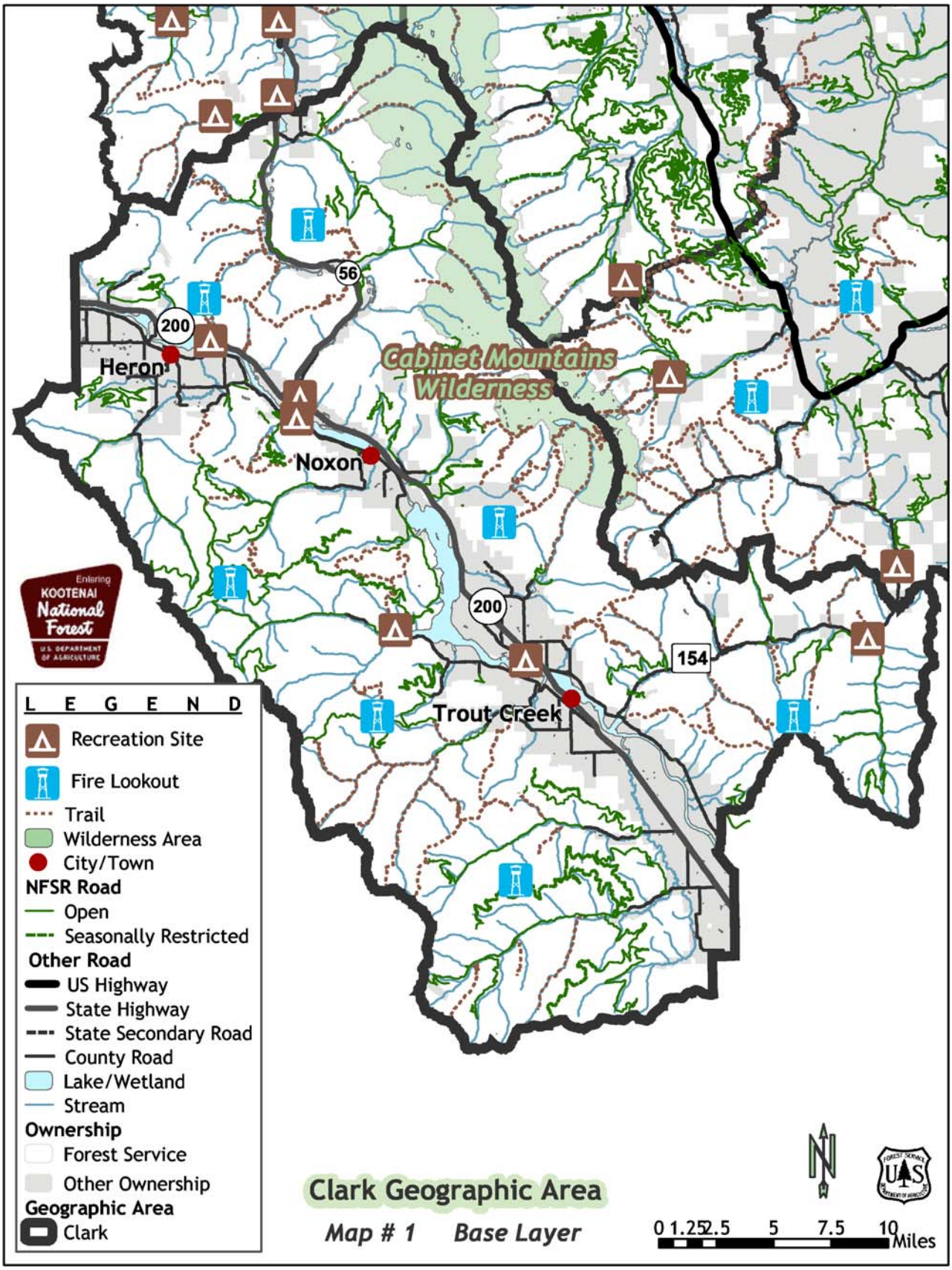
Tentatively Suitable Timberlands: Under development…This map will display those forested lands that are capable of producing commercial timber products, and:

- Have not been withdrawn from timber harvest by Congress, The Secretary of Agriculture, or the Chief;
- Existing technology and knowledge is available to ensure timber production without irreversible damage to soil productivity, or watershed conditions;
- Existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance that it is possible to restock trees adequately within 5 years after final harvest; and
- Adequate information is available to project responses to timber management activities.

Weed Risk: Under development…This map will illustrate the greatest risk for weed infestation or spread. The map will be developed in part from the delineation of disturbed sites. Disturbed sites will be combined with habitat type groups to identify which areas are susceptible to each weed. Susceptibility refers to the vulnerability of a native plant community to colonization and establishment of an exotic species. The degree of threat will be used and refers to the degree of change to the structure, composition, or function of a native community from an exotic species. Probability of exposure (POE) will also be calculated.

Fire Risk : Under development…This map will display fire risk, based on condition class and fire regime. Fire risk is related to the habitat type groups, with the drier habitat type groups having a higher fire risk than cooler, moister groups. A component of this map will be the Wildland Urban Interface, which is the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland. This is normally a two-mile area around all habitation areas, but will vary according to human population density and susceptibility of vegetation to burn.

MAP DISCLAIMER: The map products are reproduced from geospatial information prepared by the U.S. Department of Agriculture Forest Service. GIS data and product accuracy may vary. They may be: developed from sources of differing accuracy, accurate only at certain scales, based on modeling or interpretation, incomplete while being created or revised, etc. Using GIS products for purposes other than those for which they were created may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace GIS products without notification. For more information, contact the Kootenai or Idaho Panhandle National Forests Supervisor's Office.


Cabinet Mountains Wilderness
Heron
Noxon
Trout Creek
56
200
200
154
Entering KOOTENAI National Forest
U.S. DEPARTMENT OF AGRICULTURE
LEGEND
Recreation Site
Fire Lookout
Trail
Wilderness Area
City/Town
NFSR Road
Open
Seasonally Restricted
Other Road
US Highway
State Highway
State Secondary Road
County Road
Lake/Wetland
Stream
Ownership
Forest Service
Other Ownership
Geographic Area
Clark
Clark Geographic Area
Map # 1 Base Layer
0 1.25 2.5 5 7.5 10 Miles

Map #1 (Base Layer)
Forest Recreation and Access

This map layer includes forest boundaries, cities, towns, highways, major rivers, streams and water bodies, ownership, wilderness, mountain tops, developed recreation sites, and travel routes (includes roads and trails).

Access and Recreation

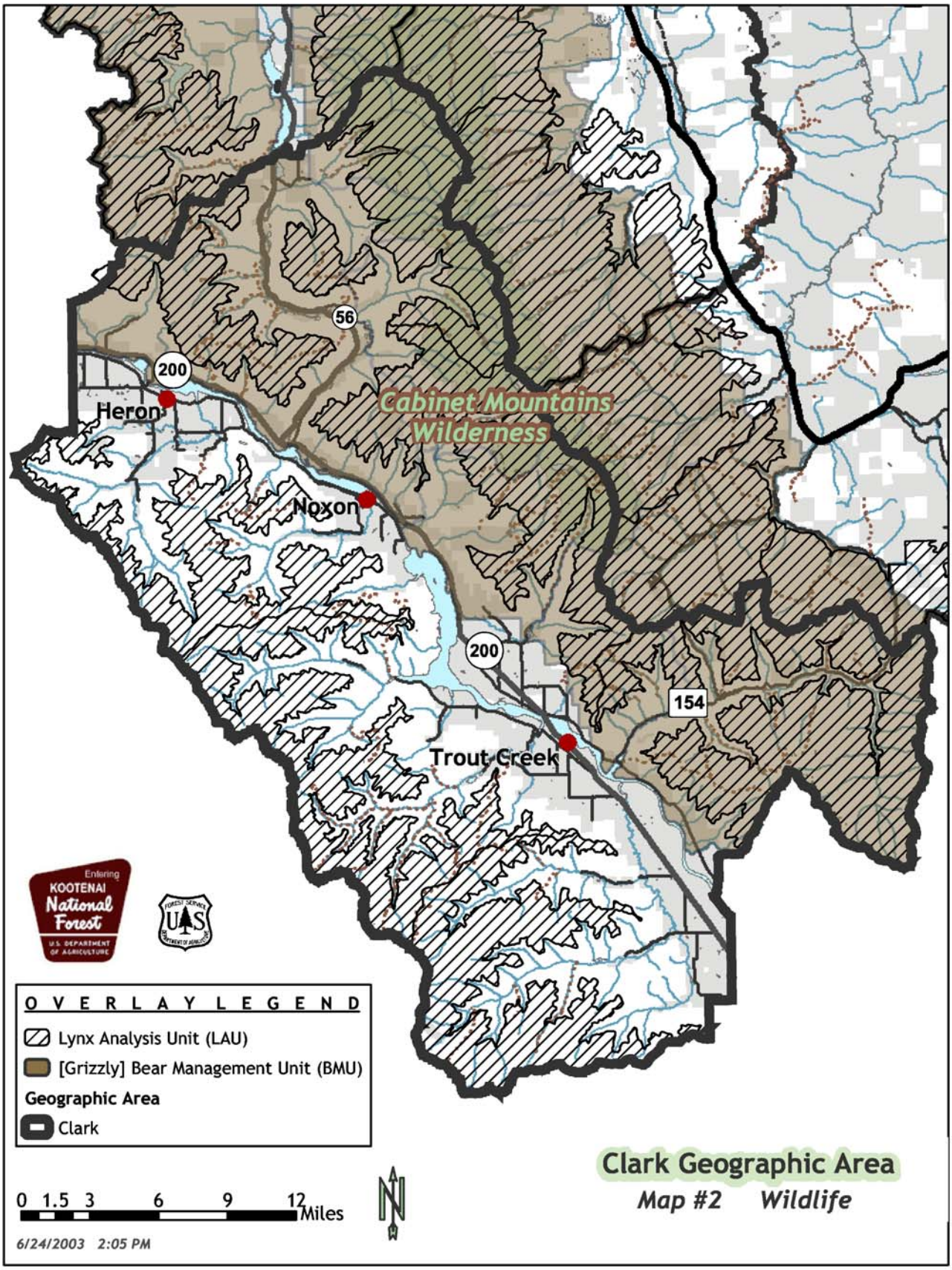
Much of the information regarding recreation and access is present on map #1. This map contains the location of developed sites and trails. It also contains information on access, showing open and seasonally restricted roads. Many opportunities for different types of recreation come from the information on this base map.

The Forest Plan Revision process is programmatic in nature and will not analyze individual routes (trails or roads), nor will it make decisions about the types of uses allowed on those routes. The revised Forest Plan will make changes to the Management Area allocations, thereby modifying the type of uses allowed within the Management Areas.

On the KNF, the Northern Region Off-Highway Vehicle (OHV) EIS and Plan Amendment prohibits motorized, wheeled, cross-country travel with some exceptions such as emergency situations or extractions. The 1987 IPNF Forest Plan was not included in this analysis and Forest Plan amendment. Limited wheeled, cross-country travel is currently permitted on the IPNF. This will be addressed in this Revision effort.

Generally, developed recreation sites meet public expectations and these sites are on this map.

Winter recreation – Under development … This map layer will include the trails and areas identified for snowmobiling and cross-country skiing.



Clark Geographic Area

Map #2 Wildlife

Map #2
Wildlife

This map layer includes the Bear Management Units and Lynx Analysis Units. The Big Game Winter Range map layer is still under development.

Bear Management Units (BMUs)

BMUs are areas established for use in grizzly bear analysis. BMUs generally (a) approximate female home range size; and (b) include representations of all available habitat components. Management requirements within and outside of BMUs have been defined to meet recovery goals for the grizzly bear. Guidelines from the grizzly bear recovery plan, the grizzly bear access amendment, and the Interagency Grizzly Bear Committee (IGBC) are as follows:

Within recovery zone (BMUs):

- No net increase in open motorized route density (OMRD) or total motorized route density (TMRD) on Forest lands within BMUs. Some BMUs require a reduction in TMRD (see recovery goals).
- No net loss of core acreage on federal ownership in all BMUs, follow criteria for core established to replace lost existing core, strive to achieve 55% core in Priority 1 BMUs. (Core area is defined as an area of secure habitat within a BMU that contains no motorized travel routes or high use nonmotorized trails during the non-denning season and is more than 0.3 miles from a drivable road.)
- No reduction in habitat effectiveness below standard. (Habitat effectiveness is defined as a measure of habitat security within a BMU calculated by establishing buffers around open roads and other activities. The width of the buffer depends on the type of activity, but is ¼ mile for most activities. The goal is to maintain at least 70% of each BMU as effective habitat during the active bear year on the KNF and 70 square miles of effective habitat on the IPNFs.)
- Activities will be conducted outside denning and spring bear use periods.
- Bears outside the recovery zone (potential management strategies may include):
- No net increase in linear open road densities during periods of activity.
- Reduce potential impacts related to grazing and sanitation.

Lynx Analysis Units (LAUs)

LAUs are areas established for use in lynx analysis. LAUs approximate the size of a female's annual home range and encompass all seasonal habitats. LAUs also contain areas of non-lynx habitat, such as lower elevation drier sites, especially in mountainous regions. Generally, lynx conservation measures apply only to lynx habitat within LAUs, although considerations related to connectivity may be appropriate for other areas. An LAU is an area of at least the size used by an individual lynx, from about 25 to 50 mi^2. Management requirements from the Lynx Conservation Assessment Strategy (LCAS) within LAUs are as follows:

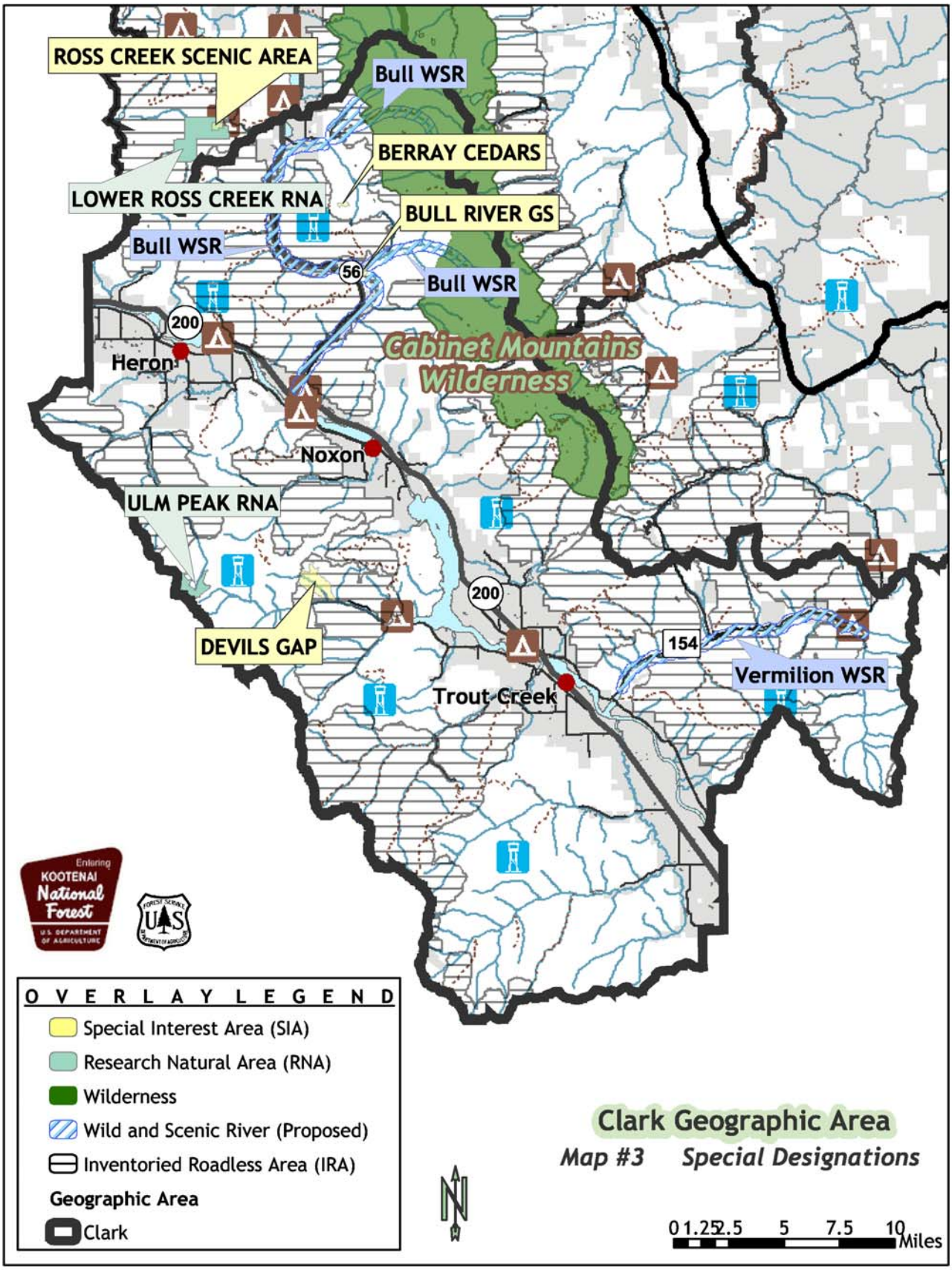
- Maintain habitat connectivity between LAUs.
- Unless a broad-scale assessment indicates otherwise, for LAUs where more than 30% of lynx habitat is currently unsuitable, no further reduction of suitable conditions shall occur as a result of vegetation management projects. (Prescribed fire activities designed to restore ecological processes and maintain or improve lynx habitat are not limited.)
- Timber management practices, such as timber harvest and salvage sales, should not change more than 15% of lynx habitat within a LAU to an unsuitable condition within a 10-year period.
- Maintain denning habitat within a LAU in patches generally larger than 5 acres, comprising at least 10% of the lynx habitat.
- Where less than 10% denning habitat is present within a LAU, defer management actions that alter vegetation in stands that have the highest potential for developing denning-habitat structure in the future.
- Allow no net increase in groomed or designated over-the-snow routes, by LAU, unless the grooming or designation serves to consolidate use and improve lynx habitat. This does not apply within permitted ski area boundaries, to winter logging, or access to private inholdings.
- Restrict motorized winter access for non-recreation special uses, timber sales and mineral and energy exploration-and-development sites and facilities to designated routes.

Big Game Winter Range

Under development...This map layer will include information on the following: White-tailed deer, mule deer, elk, moose, caribou, and to a lesser extent bighorn sheep are the principal big game species affiliated with winter range assessments. There are three primary elements to consider in managing winter range. They are thermal cover, human disturbance, and forage quality and quantity.

Thermal cover is a coniferous stand of trees 40 feet tall or taller with average crown closure of 70 percent or more. During periods of extreme snow accumulations (winter of 1996/1997) areas that provide dense crown closure are used because of snow interception that reduces snow depth on the ground. Forage quality and quantity includes the amount of available forage, the spatial arrangement of the cover and forage blocks and block size. The interaction of cover and forage may be the criteria for habitat selection. Potential management strategies may include:

- Maintaining a minimum of 60 percent cover. Favor thermal cover (no less than 40 percent) with the remaining 20 percent in thermal or hiding cover.
- Minimizing open motorized access on winter range, during the key winter use period (December 1 to April 30).
- Providing a minimum corridor width of 600 feet between forage areas. Forage areas should not exceed a maximum of 20 acres in size and no portion should be more than 600 feet from cover.
- A restoration strategy for the dry forest habitat types that are most often found on winter range. This could include thinning from below and/or underburning.


ROSS CREEK SCENIC AREA
Bull WSR
BERRAY CEDARS
LOWER ROSS CREEK RNA
BULL RIVER GS
Bull WSR
56
Bull WSR
200
Heron
Cabinet Mountains Wilderness
Noxon
ULM PEAK RNA
200
DEVILS GAP
154
Vermilion WSR
Trout Creek
Entering KOOTENAI National Forest
U.S. DEPARTMENT OF AGRICULTURE
OVERLAY LEGEND
Special Interest Area (SIA)
Research Natural Area (RNA)
Wilderness
Wild and Scenic River (Proposed)
Inventoried Roadless Area (IRA)
Geographic Area
Clark
Clark Geographic Area
Map #3 Special Designations
0 1.25 2.5 5 7.5 10 Miles

Map #3
Special Designations

This map layer includes Inventoried Roadless Areas (IRAs), Research Natural Areas (RNAs), Special Interest Areas (SIAs) and Wild, Scenic and Recreational Rivers (WSR) from the 1987 Forest Plans, as amended. "Proposed" wilderness is not included on this map layer as it will be included in the inventoried roadless area evaluation process that will be addressed in the revision process. Management considerations for each type of special management area are as follows:

Inventoried Roadless Areas (IRAs)

IRAs are defined as undeveloped areas typically exceeding 5,000 acres that met the minimum criteria for wilderness consideration under the Wilderness Act and were inventoried during the Forest Service's Roadless Area Review and Evaluation (RARE II) process, subsequent assessments, or forest planning. These areas are identified in a set of inventoried roadless area maps, contained in the *Forest Service Roadless Area Conservation Rule, Final Environmental Impact Statement, Volume 2*, dated November, 2000.

The KNF IRAs are those that were included in the Roadless Area Conservation Rule. The KNF inventory was completed from 1994 – 1999. Because of a short turn-around time, the IPNFs IRAs in the Roadless Area Conservation Rule do not show all NEPA projects since 1987 that caused a reduction in IRA acreages. The IPNFs IRAs were re-inventoried in 2001 – 2002 to reflect these changes.

Under the Forest Service Roadless Area Conservation Rule, activities that would negatively affect roadless values are prohibited. The Roadless Rule:

- Prohibits new road construction and reconstruction in IRAs on NFS lands, except:
  - To protect health and safety in cases of imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property.
  - To conduct environmental clean up required by federal law.
  - To allow for reserved or outstanding rights provided for by statute or treaty.
  - To prevent irreparable resource damage by an existing road.
  - To rectify existing hazardous road conditions.
  - Where a road is part of a Federal Aid Highway project.
  - Where a road is needed in conjunction with the continuation, extension, or renewal of a mineral lease on lands that are under lease, or for new leases issued immediately upon expiration of an existing lease.
- Prohibits cutting, selling, or removing timber except:
  - For the cutting, selling, or removal of generally small diameter trees which maintains or improves roadless characteristics and:

    To improve habitat for threatened, endangered, proposed, or sensitive species, or

    To maintain or restore ecosystem composition and structure, such as reducing the risk of uncharacteristic wildfire effects.
  - When incidental to the accomplishment of a management activity not otherwise prohibited by this rule.
  - For personal or administrative use.

Research Natural Areas

- These areas are dedicated to non-manipulative research, observation, and study.
- Timber harvest is not allowed.
- Areas are withdrawn from mineral development.
- No Surface Occupancy stipulation for oil & gas leases.
- New road construction is not allowed.
- Wildfire will usually be suppressed within these areas.

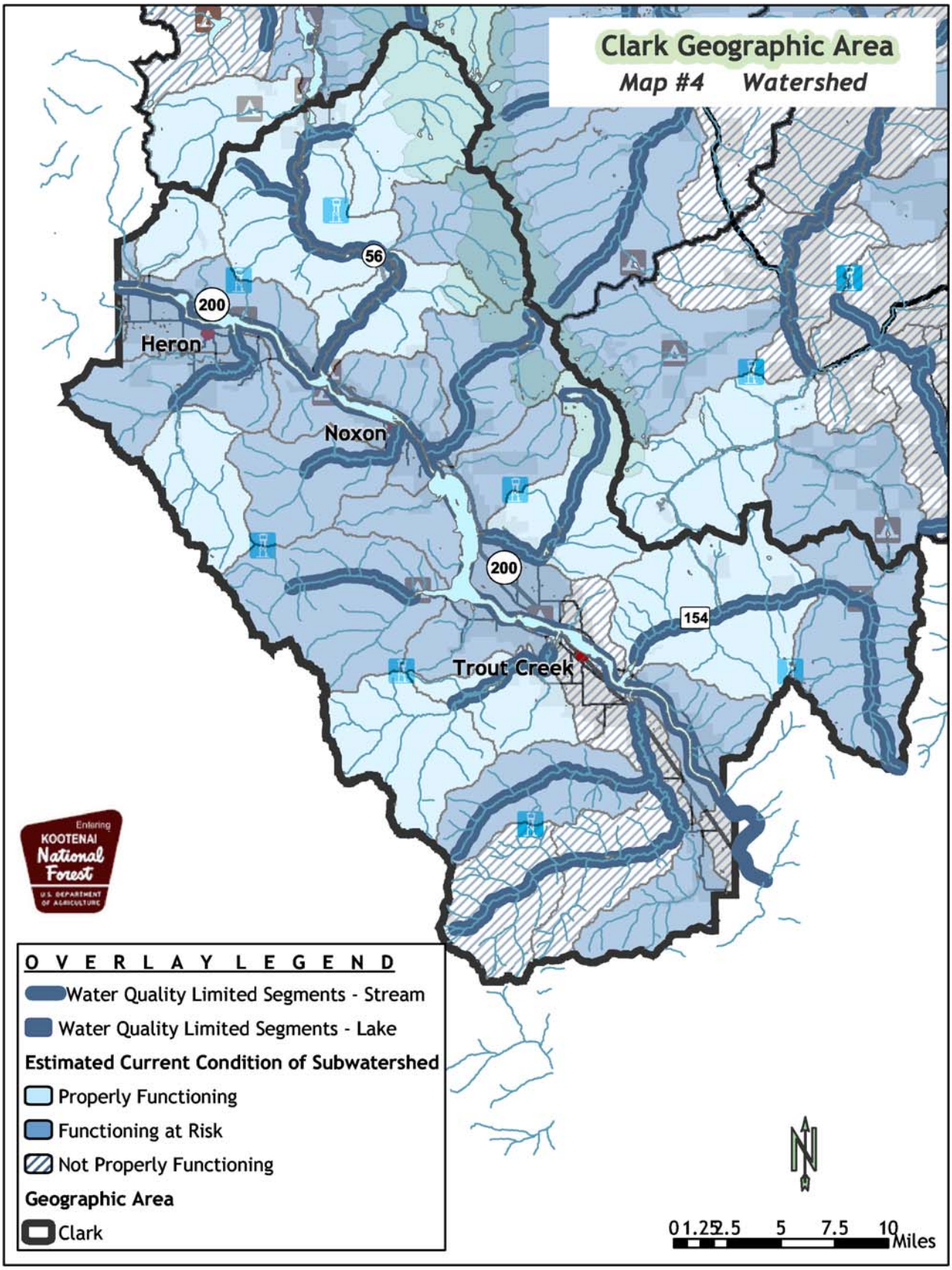
Special Interest Areas

- Timber harvest is not expected.
- No Surface Occupancy stipulation for oil & gas leases.
- New road construction is not expected.
- Prescribed fire may be used for hazard reduction.

Existing and Recommended Wild and Scenic Rivers

In all of the Recommended Wild and Scenic Rivers, management activities will protect the river corridor values so as to not preclude their potential candidacy.

The only existing Wild and Scenic River on the Zone is the St. Joe River on the IPNF. The upper portion of the river is classified as a wild river and is within the proposed Mallard Larkins wilderness area. The middle portion of the St. Joe is classified as a Recreational River.


Clark Geographic Area
Map #4 Watershed
56
200
Heron
Noxon
200
154
Trout Creek
Entering
KOOTENAI
National
Forest
U.S. DEPARTMENT OF AGRICULTURE
OVERLAY LEGEND
Water Quality Limited Segments - Stream
Water Quality Limited Segments - Lake
Estimated Current Condition of Subwatershed
Properly Functioning
Functioning at Risk
Not Properly Functioning
Geographic Area
Clark
N
0 1.25 2.5 5 7.5 10 Miles

Map #4
Watershed

This map layer includes watershed condition and 303d streams.

Watershed Condition and 303d Streams

All the watersheds on the zone have been evaluated and assigned to one of the following three condition classes:

- Properly Functioning Condition (PFC),
- Functioning At Risk (FAR)
- Not Properly Functioning (NPF).

Management strategies for these condition classes may include the following:

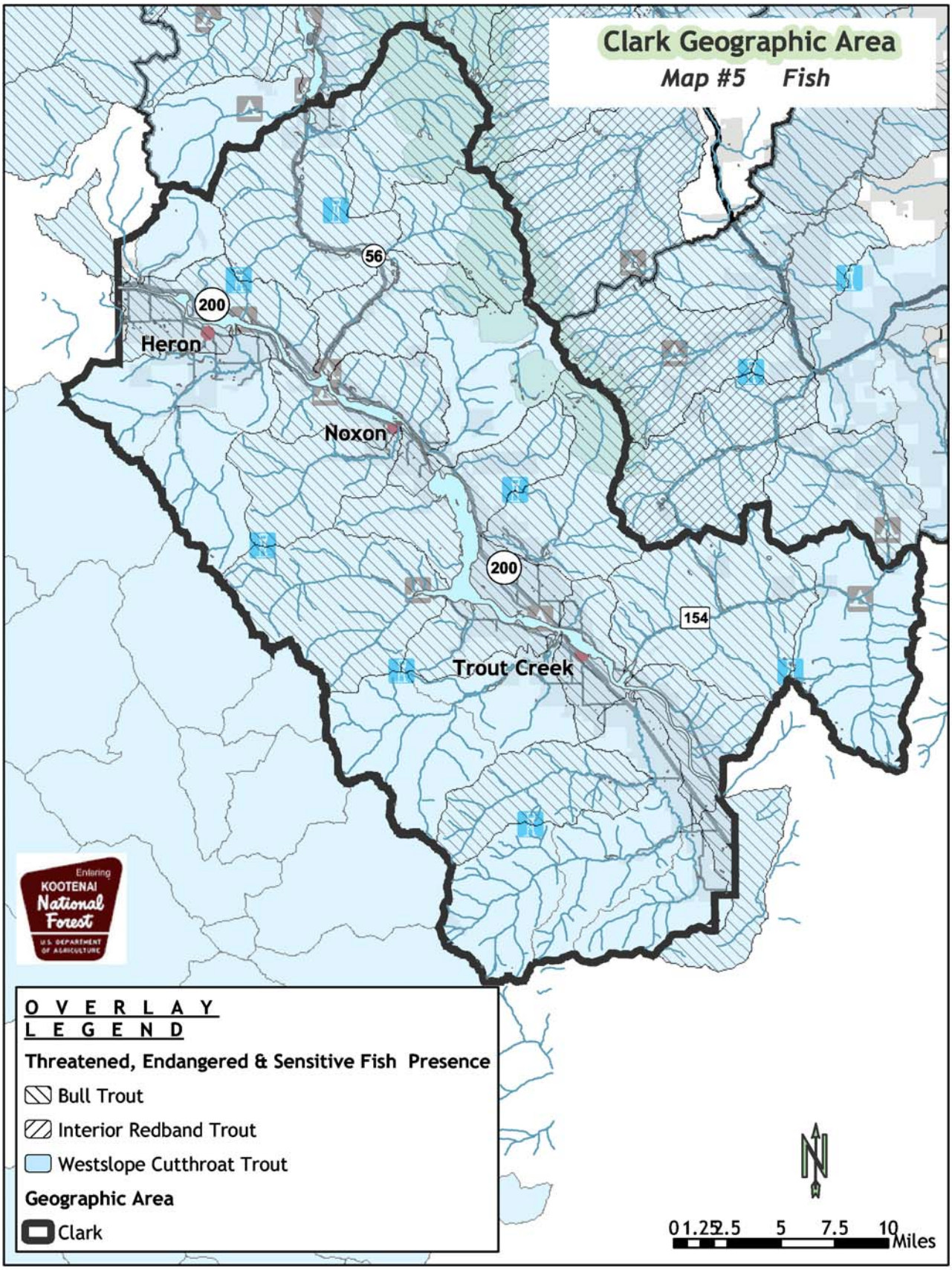
- The emphasis will be on maintaining the conditions and water quality of watersheds that are Properly Functioning and are fully supporting beneficial uses.

- The emphasis will be on restoring conditions and water quality in Not Properly Functioning and Functioning At Risk watershed adequately to fully support beneficial uses.

State water quality standards include water quality criteria, designated uses, and anti-degradation strategies designed to provide support for beneficial uses of the water.
Streams and water bodies are identified by the States as water quality limited under section 303(d) of the Clean Water Act. These are streams or water bodies that do not meet State water quality standards. Examples of management considerations for these streams include:

- Facilitate TMDL(total maximum daily loading) implementation plans and schedules with the states.

- Determine which watersheds and streams have the highest priority for restoration. This will be a collaborative process with EPA, state water quality bureaus, U.S. Fish and Wildlife Service, the public and other interested parties.


Clark Geographic Area
Map #5 Fish
56
200
Heron
Noxon
200
154
Trout Creek
Enlaring
KOOTENAI
National
Forest
U.S. DEPARTMENT OF AGRICULTURE
OVERLAY
LEGEND
Threatened, Endangered & Sensitive Fish Presence
Bull Trout
Interior Redband Trout
Westslope Cutthroat Trout
Geographic Area
Clark
N
0 1.25 2.5 5 7.5 10 Miles

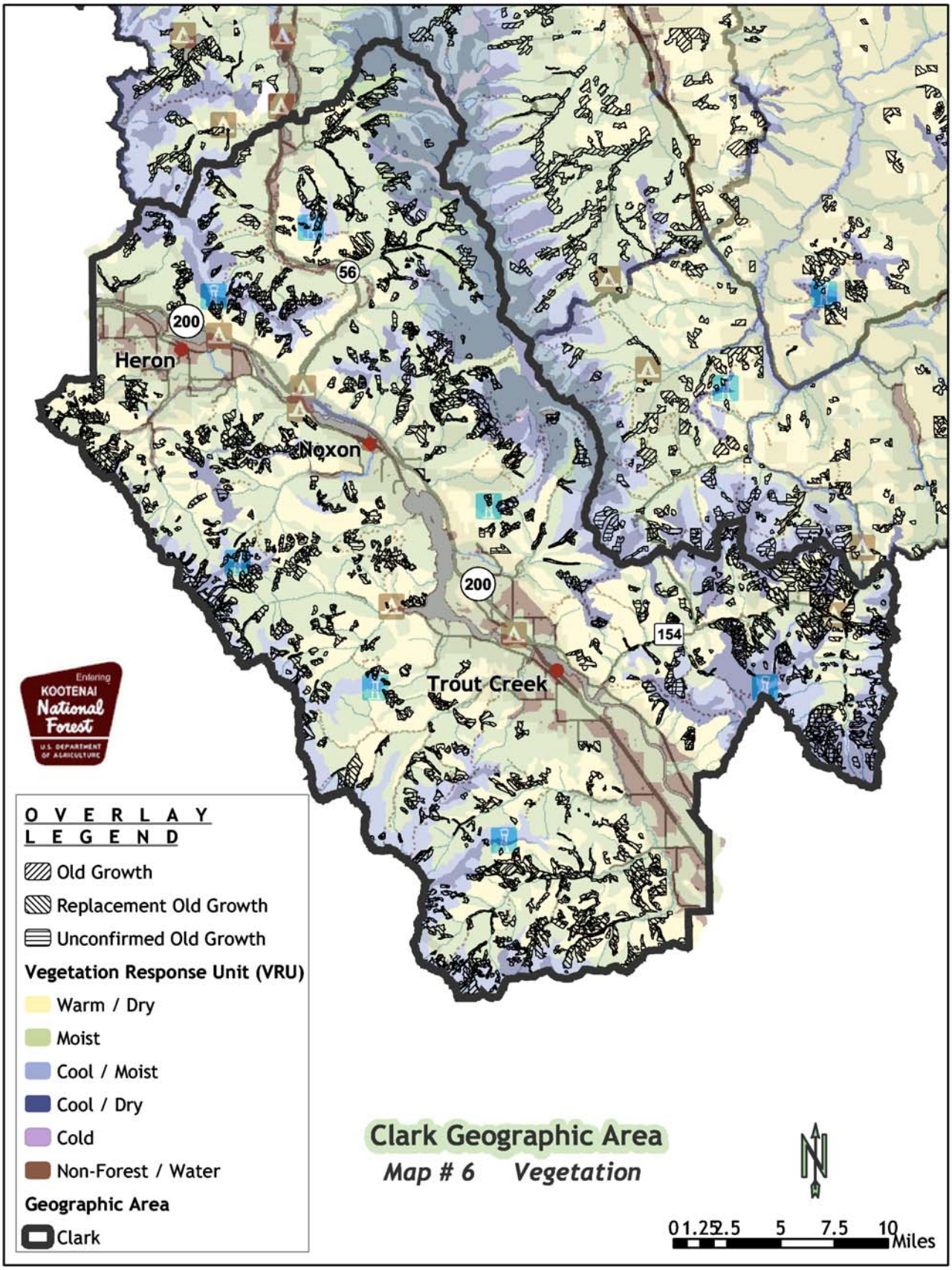
Map #5
Fish

This map layer shows watersheds with populations of threatened, endangered or sensitive fish species.

Threatened, Endangered, and Sensitive Fish

The AMS identified the fish species within KIPZ that were listed as threatened or endangered or that are on the Regional Foresters' Sensitive Species list. Current distribution and population status was provided for bull trout, westslope cutthroat trout, and interior redband trout. Management considerations for these areas include:

- Provide for recovery of these and other Threatened, Endangered, Proposed Species (TEPS) (e.g., burbot, Kootenai River sturgeon, torrent sculpin, and amphibians to extent possible)
- Avoid degradation: prohibit actions that would put these species at risk.
- Habitat restoration (ties in with physical processes – see watershed)
- Maintain and protect species richness/biological significance.


Heron
Noxon
Trout Creek
56
200
200
154
Entering
KOOTENAI
National
Forest
U.S. DEPARTMENT OF AGRICULTURE
OVERLAY LEGEND
Old Growth
Replacement Old Growth
Unconfirmed Old Growth
Vegetation Response Unit (VRU)
Warm / Dry
Moist
Cool / Moist
Cool / Dry
Cold
Non-Forest / Water
Geographic Area
Clark
Clark Geographic Area
Map # 6 Vegetation
N
0 1.25 2.5 5 7.5 10 Miles

Map #6
Vegetation

This map layer includes information on old growth and habitat type groups. The vegetation map layer is still under development.

Old Growth

Old growth forests are considered as ecosystems that are distinguished by old trees and related structural attributes. They encompass the later stages of stand development that typically differ from earlier stages in characteristics such as tree age, tree size, number of large trees per acre and basal area. Specific attributes vary by forest type.

The need to preserve and maintain stands of old growth forest is based on ecological sustainability, including needs for diversity and wildlife, as well as human values. Management considerations within old growth include:

- Old growth forests should be well distributed across the forest, representing various patch sizes, forest types and sites (i.e. dry, moist, and cold forest sites).
- Much of the former western larch and white pine old growth that occurred on upland sites have converted to cedar/hemlock old growth.
- Where upland sites experience periodic moisture stress, some of the old growth forests composed of drought prone species (cedar/hemlock, Douglas-fir) may not be sustainable in the long term.
- Old growth whitebark pine is in sever decline, due to a combination of factors, including insects, disease and plant succession effects attributable to prolonged fire suppression.

Habitat Type Groups

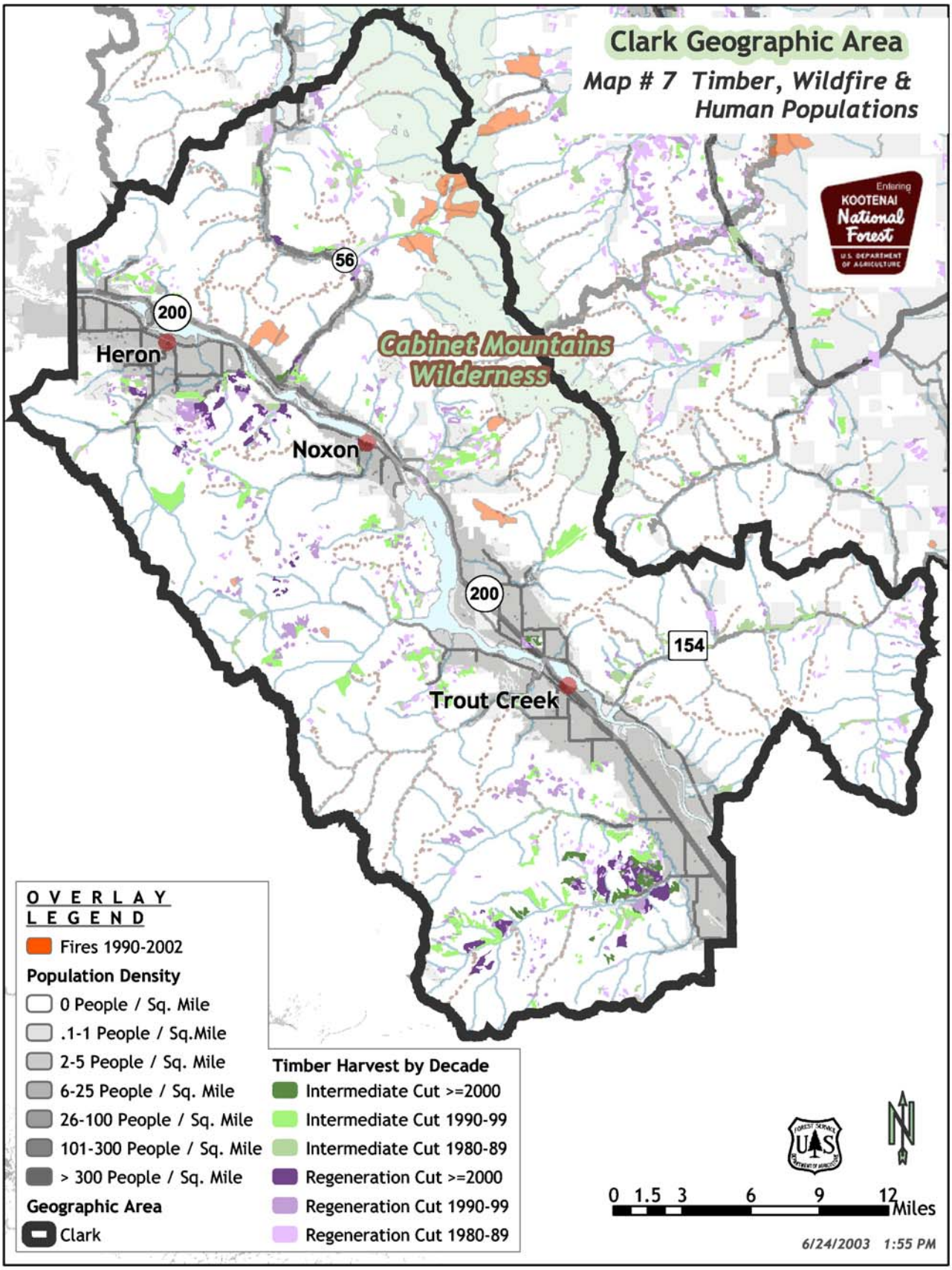
This map displays broad environmental settings that potentially support similar plant communities. Vegetation on the IPNFs has been summarized by Habitat Type Groups (HTGs), which are fairly synonymous with Vegetation Response Units (VRUs) on the KNF. In the following table are the Vegetation Response Units for the KNF and the Habitat Type Groups for the IPNFs:

Habitat Type Groups	KNF Vegetation Response Units	IPNFs Habitat Type Groups
Warm Dry	VRUs 1, 2N, 2S, and 3	HTGs 1, 2 and 3
Moist	VRUs 4N, 4S, 5N, 5S, and 6	HTGs 4, 5 and 6
Cool Moist	VRUs 7N, 7S, and 8	HTGs 7 and 8
Cool/Cold Dry	VRUs 9 and 10	HTGs 9, 10 and 11
Cold	VRU 11	

Combined with existing vegetation maps and other information sources, responses to different types of management scenarios can be predicted and evaluated.

Vegetation Map

Under development…This map will display the existing vegetation using a combination of tree dominance types, size classes and canopy cover categories. This product, combined with other information sources, will be used to analyze resource topics, including timber production, wildfire risk and various wildlife issues.


Clark Geographic Area
Map # 7 Timber, Wildfire & Human Populations
Entering KOOTENAI National Forest
U.S. DEPARTMENT OF AGRICULTURE
56
200
Heron
Cabinet Mountains Wilderness
Noxon
200
154
Trout Creek
OVERLAY LEGEND
Fires 1990-2002
Population Density
0 People / Sq. Mile
.1-1 People / Sq.Mile
2-5 People / Sq. Mile
6-25 People / Sq. Mile
26-100 People / Sq. Mile
101-300 People / Sq. Mile
> 300 People / Sq. Mile
Geographic Area
Clark
Timber Harvest by Decade
Intermediate Cut >=2000
Intermediate Cut 1990-99
Intermediate Cut 1980-89
Regeneration Cut >=2000
Regeneration Cut 1990-99
Regeneration Cut 1980-89
0 1.5 3 6 9 12 Miles
6/24/2003 1:55 PM

Map #7
Timber, Wildfire and Human Populations

This map layer includes harvest treatment by decade, human population density and wildland fires for the last 10 years.

Harvest Treatment by Decade

The harvest treatment map layer shows regeneration and intermediate harvests since 1980 on National Forest System lands. This is based on the activity information in the TSMRS database as of April 2003.

Regeneration harvests include clearcuts, shelterwood cuts, and selection (group and individual tree) cuts. Intermediate harvests include thinning, sanitation and salvage.

This map indicates where timber harvest has occurred. Past timber harvest will affect potential opportunities for future management.

Human Population Density

This map displays the concentration of people's homes in number of people per square mile. The information helps define the wildland/urban interface and displays potential areas where treatments may help to reduce the risk of wildfire.

Wildland Fires

This map displays predominantly larger, stand replacing fires originating from various sources. Not all fires are depicted on this map. For the KNF, all wildland fires since 1990 are included. In some cases fire polygons will overlap, indicating fires that have re-burned over older fires. For the IPNF, only those fires that occurred in 2000 are included. Smaller fires and underburns are not displayed.

Other Maps Under Development

Tentatively Suitable Timberlands

Under development…This map will display those forested lands that are capable of producing commercial timber products, and:

- Have not been withdrawn from timber harvest by Congress, The Secretary of Agriculture, or the Chief;
- Existing technology and knowledge is available to ensure timber production without irreversible damage to soil productivity, or watershed conditions;
- Existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance that it is possible to restock trees adequately within 5 years after final harvest; and
- Adequate information is available to project responses to timber management activities.

Weed Risk

Under development…This map will illustrate the greatest risk for weed infestation or spread. The map will be developed in part from the delineation of disturbed sites. Disturbed sites will be combined with habitat type groups to identify which areas are susceptible to each weed. Susceptibility refers to the vulnerability of a native plant community to colonization and establishment of an exotic species. The degree of threat will be used and refers to the degree of change to the structure, composition, or function of a native community from an exotic species. Probability of exposure (POE) will also be calculated.

Fire Risk

Under development…This map will display fire risk, based on condition class and fire regime. Fire risk is related to the habitat type groups, with the drier habitat type groups having a higher fire risk than cooler, moister groups. A component of this map will be the Wildland Urban Interface, which is the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland. This is normally a two-mile area around all habitation areas, but will vary according to human population density and susceptibility of vegetation to burn.