



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
5353 Yellowstone Road, Suite 308A
Cheyenne, Wyoming 82009

In Reply Refer To:
ES/61411/W.19/WY08I0036

MAY 21 2008

Ms. Carole "Kniffy" Hamilton
Forest Supervisor
Bridger-Teton National Forest
P.O. Box 1888
Jackson, Wyoming 83001-1888

Dear Ms. Hamilton:

Thank you for your letter initiating formal consultation, dated October 26, 2007 and received in our office on November 5, for the Bridger-Teton National Forest's (Forest) Bryan Flats Fuels Reduction Project (Project), located approximately five miles southeast of Hoback Junction, in Teton County, Wyoming. Included with your letter was the Biological Assessment (BA) that evaluated proposed Project activity effects to Canada lynx (*Lynx canadensis*) and gray wolf (*Canis lupus*). Subsequent to completing the BA, several Project changes occurred, partly as a result of implementing the 2007 Northern Rockies Lynx Amendment (NRLA; also referred to as the Northern Rockies Lynx Management Direction or NRLMD). During the ensuing months, the Forest's Jackson/Buffalo District Biologist, Terry Hershey, worked with Service staff to evaluate Project effects to Canada lynx based on the NRLMD standards and guidelines.

Simultaneously, the Service published a Proposed Rule (73 FR 10860) on February 28, 2008 to revise designated critical habitat for the contiguous United States distinct population segment of Canada lynx. The Forest is included in the Unit 5-Greater Yellowstone Area (GYA) portion of the proposed critical habitat. Also, the Service published a Final Rule (73 FR 10514) on February 27, 2008 to remove the Northern Rocky Mountain distinct population segment of gray wolf from the List of Endangered and Threatened Wildlife, which includes wolves in Wyoming.

As a result of these changes, the Service received an electronic copy of a revised BA on April 1, 2008. Changes included the removal of gray wolf information and the addition of a brief discussion of potential Project effects to proposed lynx critical habitat. After additional communications regarding inconsistencies with the NRLMD standards in a portion of the Project area, a final Project change was received from Mr. Hershey in an electronic mail on May 13, 2008. The final change removes all proposed Project treatments outside of the Wildland Urban

Interface (WUI) boundary. The Forest plans to collect lynx and snowshoe hare (*Lepus americanus*) habitat measurements outside the WUI and in the future, if existing habitat conditions are favorable for treatments, the Forest will consult on the non-WUI portion of the Project. This consultation addresses activities *within* the WUI portion only.

The Service has reviewed your BAs and supplemental information in accordance with section 7(a)(3) of the Endangered Species Act (Act) of 1973, as amended (50 CFR §402.14). This consultation addresses your “may affect, likely to adversely affect” determination to Canada lynx for Project activities within the WUI. In addition, the Service agrees with your conclusion that proposed treatments will not result in destruction or adverse modification of proposed lynx critical habitat in the GYA.

Within critical habitat, four primary constituent elements (PCE) necessary for the conservation of lynx have been identified. These include: (1) presence of snowshoe hares and their preferred habitat conditions, including dense understories of young trees or shrubs tall enough to protrude above the snow; (2) winter snow conditions that are generally deep and fluffy for extended periods of time; (3) sites for denning having abundant, coarse, woody debris, such as downed trees and root wads; and (4) matrix habitat (other habitat types that do not support snowshoe hares) that occurs between patches of boreal forest in close juxtaposition such that lynx are likely to travel through such habitat unimpeded. There would be insignificant Project effects to the functioning of the GYA critical habitat for lynx and the PCEs. Lynx critical habitat PCEs function on a broad landscape scale. The relatively small habitat changes that may result from the proposed fuels reduction treatments at the scale of the GYA will have insignificant effects to the PCEs, and are unlikely to change how the elements function within the unit.

On March 23, 2007, the Service issued a programmatic biological opinion for the NRLA (Service 2007). This biological opinion established a two-tiered consultation process for Forest Plan activities, with issuance of the programmatic biological opinion being Tier 1 and all subsequent site-specific project analyses constituting Tier 2 consultations. Based on our analysis of your biological assessments and supplemental information for the Bryan Flats Fuels Reduction Project, we have determined that the adverse effects of the proposed action are consistent with those contemplated in the Tier 1 biological opinion.

In the Tier 1 biological opinion, the Service anticipated that implementation of projects conducted under exemptions from or exceptions to the NRLA would result in incidental take in the form of harm through modification of lynx habitat that would result in decreased production and density of snowshoe hares, their primary prey. As a result, the Service anticipated reproductive impairment of some female lynx and impacts to kitten survival. The number of acres treated under the exemptions from or exceptions to vegetation standards VEG S1, S2, S5, and S6 were used as a surrogate measure in the Tier 1 biological opinion to estimate the amount of anticipated incidental take. In the Tier 1 biological opinion, the Service anticipated that fuels management within WUIs would be conducted in up to 6 percent of lynx habitat on the Bridger-Teton National Forest over ten years under these exemptions or exceptions, for a total of 120,000 acres.

The modified Bryan Flats Fuels Reduction Project includes 1,291 acres of proposed treatments within the WUI: 132 acres of mechanical treatments in the Ann Mountain and North Willow Creek units (73 and 59 acres, respectively) and 1,159 acres of prescribed burns in the Willow Creek and Beaver Mountain units (460 and 699 acres, respectively). The Project area has a patchy distribution of mountain shrubland, sagebrush, and mixed forest types of aspen, aspen/conifer, Douglas fir, and spruce/subalpine fir. Treatments include thinning conifers to varying densities, reducing ladder fuels, slash piling and burning, and prescribed burning.

The Lower Hoback Middle Lynx Analysis Unit (LAU; LAUs described in the Canada Lynx Conservation Assessment and Strategy, Ruediger *et al.* 2000) encompasses the Project area and currently has 11,513 acres of mapped lynx habitat, of which 345 acres (3 percent) are currently in the stand initiation structural stage. Treatments will alter no more than 717 acres (6 percent) of mapped lynx habitat, thereby increasing the total acres in stand initiation structural stage to 1,062 acres (9 percent) in this LAU.

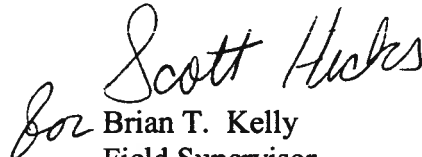
Fuels reduction treatments would reduce potential lynx and snowshoe hare foraging habitat through removal of horizontal structure and alter the mosaic of forested landscape on up to 717 acres. These activities may have adverse effects on lynx, thereby resulting in incidental take in the form of harm. The fuels reduction treatments within the WUI are included under the exceptions to Standards VEG S5 and S6. The 717 acres equal 0.6 percent under the allowable 6 percent that is exempt for fuels reduction on the Forest.

The Service agrees that the project complies with all terms and conditions in our 2007 biological opinion's Incidental Take Statement. Further, we conclude that there are no adverse effects to lynx associated with your proposed action other than those already analyzed in our biological opinion. Therefore, no additional consultation is required for the WUI portion of the Bryan Flats Fuels Reduction Project. The Forest has not used any exemptions from or exceptions to vegetation standards VEG S1, S2, S5 and S6 that were analyzed in the Tier 1 biological opinion prior to the Bryan Flats Project.

This concludes consultation on the action outlined in your October 26, 2007 request for formal consultation on the effects of the Bryan Flats Fuels Reduction Project on the Bridger-Teton National Forest's Jackson Ranger District. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease, pending reinitiation.

The Service thanks the Bridger-Teton National Forest for continued efforts to ensure the conservation of federally listed species. If you have any questions or comments regarding this letter, please contact Ann Belleman at the letterhead address or phone (307) 772-2374, extension 232.

Sincerely,


for Brian T. Kelly
Field Supervisor
Wyoming Field Office

cc: WGFD, Lander, Non-Game Coordinator (B. Oakleaf)
WGFD, Cheyenne, Statewide Habitat Protection Coordinator (V. Stelter)

Literature Cited

- Ruediger, B., J. Claar, S. Gniadek, B. Holt, L. Lewis, S. Mighton, B. Naney, G. Patton, T. Rinaldi, J. Trick, A. Vandehey, F. Wahl, N. Warren, D. Wenger, and A. Williamson. 2000. *Canada Lynx Conservation Assessment and Strategy*. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Forest Service Pub. R1-00-53, Missoula, MT. 142pp.
- USDA Forest Service. 2007. Northern Rockies Lynx Management Direction Record of Decision. National Forests in MT, parts of ID, WY, and UT. 51pp. and Attachment.
- U.S. Fish and Wildlife Service. 2007. Biological opinion on the effects of the Northern Rocky Mountains Lynx Amendment of the Distinct Population Segment of Canada lynx (*Lynx canadensis*) in the contiguous United States. U.S.D.I. Fish and Wildl. Serv., Helena, Montana. 125pp.



Terry Hershey
<thershey@fs.fed.us>
04/01/2008 09:59 AM

To Ann_Belleman@fws.gov
cc thershey <thershey@fs.fed.us>
bcc

Subject Bryan Flats Hazardous Fuels Reduction BA Revision Part 3

Ann, attached is the last part of the BA. Just a series of monitoring photos on another fuels reduction project to give you some idea of pre- and post- treatment understory cover in a mixed conifer/aspen stand. I hope the other two parts made it thru the e-mail system without any changes to the formatting of the document.

As you review the BA, you will note a change in the proposed action outside the WUI. There are now no treatment areas within the Beaver Mtn and Willow Cr. prescribe burn units to protect the most suitable horizontal cover habitat for snowshoes. Because of this change, my determination of effects for treatment outside the WUI changed to "may affect, not likely to adversely affect". Let me know ASAP if you need any additional info or need clarification on something in the document. Thanks for your patience and understanding as we try to muddle thru the maze of the NRLMD on this one.



(See attached file: Appendix A.doc) Appendix A.doc

"Event" under original project (TAILS)
2008 I 0036

Consultation Summary Worksheet for National Fire Plan Projects in the Northwest

Project Name: **Bryan Flats Fuels Reduction Project**

Administrative Unit: Jackson Ranger District, Bridger-Teton National Forest

Action Agency Contact: Terry Hershey, Buffalo/Jackson Wildlife Biologist
thershey@fs.fed.us – (307) 739-5411

Date: September 13, 2007 (March 20, 2008 – Revision for change in proposed action)

Consultation Agency Contact(s)*: Level 1 Team (Ann Belleman@fws.gov)

Affects Agreement Date*:

SUMMARY OF FINDINGS

Implementation of the proposed action will have the following effects on threatened species:

Table 1. Summary of determination of affects on threatened species on the Jackson Ranger District, Bridger-Teton National Forest

Species	No Effect	Will Not Result in Destruction or Adverse Modification of Proposed Critical Habitat	May Affect, Not Likely to Adversely Affect	May Affect, Likely to Adversely Affect
Canada Lynx		X	X Outside Wildland Urban Interface	X Within Wildland Urban Interface

Handwritten notes:
 - Above the 'X' in the 'Outside Wildland Urban Interface' column: "If no threats in lynx hab then why not 'No Eff'?"
 - Above the 'X' in the 'Within Wildland Urban Interface' column: "mini BO"

Introduction

Section 7 of the Endangered Species Act (ESA) of 1973, as amended, requires federal agencies to ensure that actions authorized, funded, or carried out by them are not likely to jeopardize the continued existence of Threatened, Endangered, or Proposed (TEP) species, or cause the destruction or adverse

modification of their critical habitats. In addition, the United States Department of Agriculture Forest Service (USFS) has established direction in Forest Service Manual (FSM) 2670 to guide habitat management for Threatened, Endangered, Proposed, and Sensitive species (TEPS). This document is prepared in accordance with legal requirements set forth under section 7 of the ESA and follows standards established in FSM direction (2672.42) and Title 50, Section 402 of the Code of Federal Regulations (CFR) (50 CFR 402). This document tiers directly to the Land and Resource Management Plan for Bridger-Teton National Forest (Forest Plan) (USFS 1990) as amended for the Northern Rockies Lynx Management Direction (July 2007).

This biological assessment (BA) is intended to evaluate whether implementation of the proposed action would affect any threatened or endangered species listed under the ESA, their critical habitats, any species proposed for listing, or proposed critical habitat. To achieve this objective, the BA reviews the proposed action in sufficient detail to identify the level of effect that would occur to each species. The determinations of effects were based on the best available scientific literature and field information, a thorough analysis of the potential effects of the project to the species and their habitat, and professional judgment based on knowledge and field experience. The four possible determinations (United States Fish and Wildlife Service [USFWS] and National Marine Fisheries Service [NMFS] 1998) are as follows:

- “No effect” – where no effect is expected;
- “May affect, not likely to adversely affect” – where effects are expected to be beneficial, insignificant (immeasurable), or discountable (extremely unlikely);
- “May affect, likely to adversely affect” – where effects are expected to be adverse or detrimental;
- “Will not result in destruction or adverse modification of their proposed critical habitat.

Information Sources

Empirical walk through field surveys of treatment units in July and August 2007
Field inventory transect data from a winter furbearer inventory conducted in the Beaver Mountain unit in 1995 (Bills, T. and M. Novak 1995).

Forest and Wyoming Game and Fish GIS spatial layers and tabular databases

Review of professional technical peer reviewed literature

Willow Creek-Poison Creek 2006 Landscape Assessment, Bridger-Teton National Forest

Hoback Basin Landscape Scale/Watershed Assessment 2004, Bridger-Teton National Forest

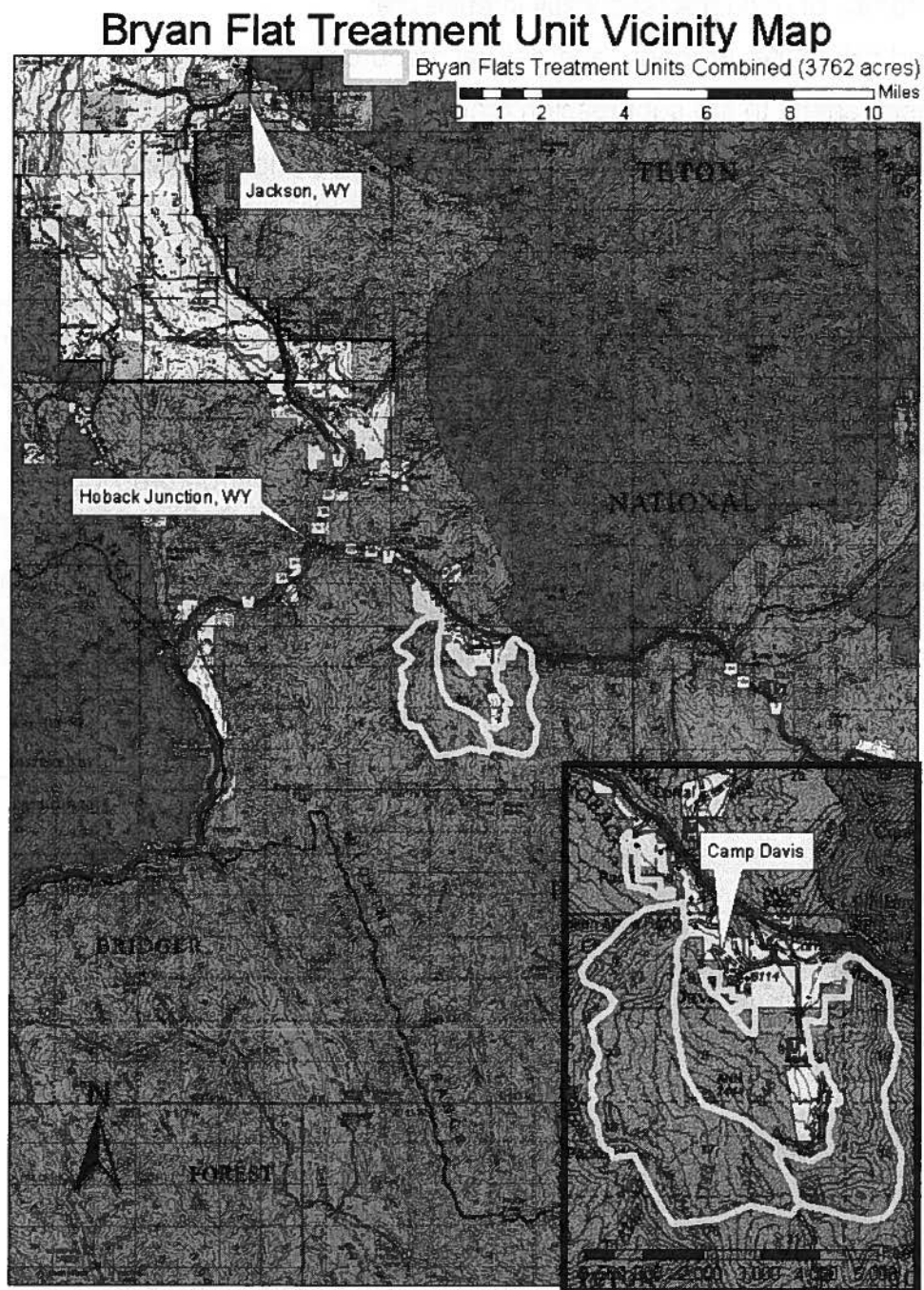
Professional technical peer reviewed published literature and progress reports on lynx

The best available science known as of the time of this report preparation was considered in the analysis of effects of the proposed action on TES species and their habitats suspected of occurring within or adjacent to the project area.

Action Area and Project Description

The Bryan Flats Hazardous Fuels Reduction project is located just southeast of Hoback Junction, WY, along the Hoback River (Fig. 1). All proposed treatment units are located on the Bridger Teton National Forest (BTNF) adjacent to private residences, ranches, ranchettes and an organizational summer camp. The project area is located within the Lower Hoback Middle Lynx Analysis Unit (LAU) and the Greater Yellowstone Area (Unit 5) proposed critical habitat.

Fig. 1. Bryan Flats Fuels Reduction proposed project area.



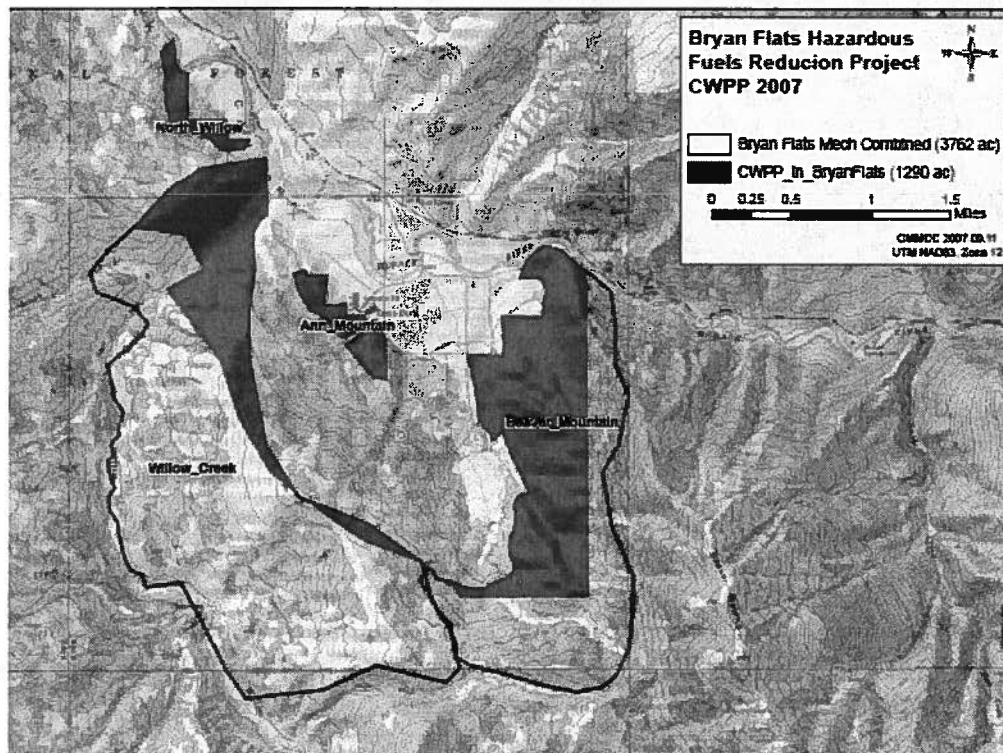
Created by Alex Enna
on February 4th, 2008

The project is proposed at this time to respond to goals and objectives of the National Fire Plan and the Bridger-Teton National Forest Land and Resource Management Plan (Forest Plan) (USDA Forest Service 1990). Comparison of the existing condition of the project area and the desired conditions from the Forest Plan indicates a need for:

- reduced forest fuels loadings and ladder fuels;
- reduced risk of uncharacteristically intense fire;
- reduced risk to life, property, and natural resources;
- increased safety to fire suppression crews;
- restore sustainable forest conditions and natural ecological processes;

The proposed project area contains dead and down fuels on the ground, closely spaced trees with interlocking crowns, along with dead standing snags and numerous small trees in the understory. Aspen stands in the area exhibit signs of conifer encroachment. Meadows and brush fields also show signs of conifer encroachment. The above mentioned conditions contribute to high flammability and resistance to control by fire crews. When these conditions lie in close proximity to private structures located on private land and Forest Service permitted areas, there is a risk that fire will spread uncontrolled from Forest Service lands to these structures, there is also the risk associated with fires starting on private lands spreading onto Forest Service lands. The Bryan Flats area was identified in the 2001 USDA-FS and USDOJ report – Urban Wildland Interface Communities within the Vicinity of Federal Lands That Are at High Risk from Wildfire (Fig. 2).

Fig. 2. Wildland Urban Interface area mapped in the Teton County, Wyoming, Community Wildfire Protection Plan (200).



Wildfires in these wildland urban interface areas are very difficult and costly to manage. Structures in the urban interface represent a large capital investment, and the owners expect that they will be protected.

Thinning of live vegetation (timbered stands as well as brush) , reduction of dead and down fuels and maintaining or increasing the coverage of aspen stands in the area will reduce the potential for high intensity fires, allowing firefighters to safely and efficiently suppress fires.

The Bryan Flats Area is near areas where Wildland Fire Use for Resource Benefit is allowed. There is a recognized need to provide assurance that Wildland Fire Use fires occurring on Forest lands will not pose a threat to communities and private land. Reducing fuels in wildland urban interface areas will contribute to lessening risks associated with Wildland Fire Use.

Specific Treatments:

Treatment Unit Physical Descriptions and Proposed Implementation Methods

Treatment Area/Type	Location	Proposed Treatment Acres		Developed areas nearby
		WUI	Non-WUI	
North Willow Creek Mechanical Treatment Area, CWPP WUI	T39N R115W sections 31 And 32	59		Spotted Horse Ranch, Bryan Flats residential area, Broken Arrow Ranch
Willow Creek Prescribed Burn Area, Partially CWPP WUI	T39N R115W sections 31 and 32/T38NR115W sections 5,6, 7, 8, 9, 16, 17, and 18	460	1055	Spotted Horse Ranch, Bryan Flats residential area, Broken Arrow Ranch, University of Michigan summer campus
Ann Mountain Mechanical Treatment Area, CWPP WUI	T38N R115W sections 5, and 16	73		Bryan Flats residential area, Broken Arrow Ranch, University of Michigan summer campus
Beaver Mountain Prescribed Burn Area, Partially CWPP WUI	T38N R115W sections 3, 10, 15, 16, 21 and 22	699	154	Bryan Flats residential area

WUI Mech: 132 ac
WUI RxB: 1,159

1,291 ac

1,209 ac

↓
where?

North Willow Creek and Ann Mountain Mechanical Treatment Areas (Fig.3 and 4)

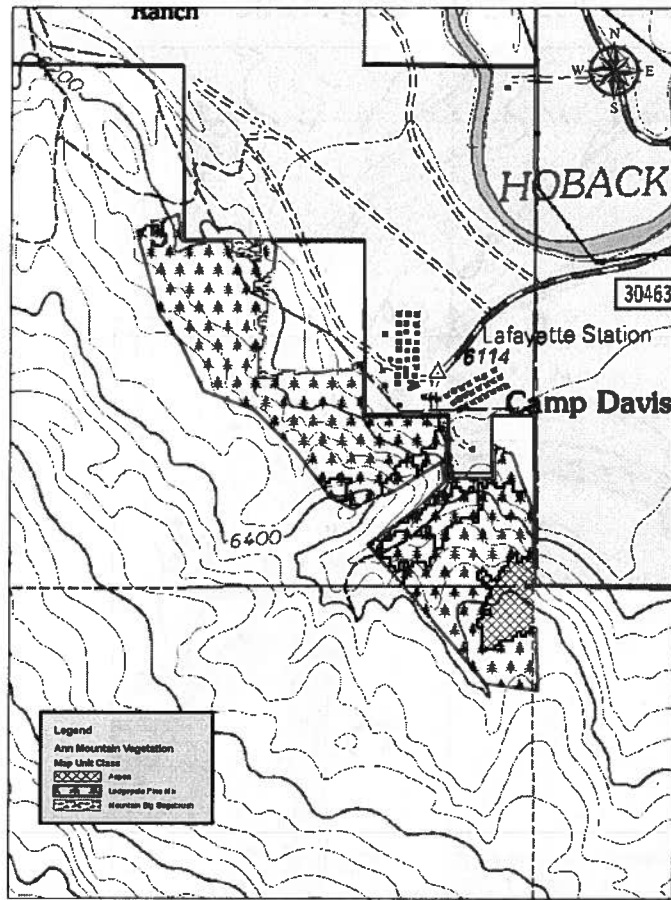
Entirely in WUIs
Mechanical treatment proposed in these two units consists of the removal of some understory ladder fuels, thinning of live trees to reduce canopy density, removal of some dead snags and follow up slash piling and prescribed burning to reduce ground fuels. The North Willow Creek area is approximately 59 acres and lies between the Willow Creek Drainage and follows Hoback Canyon North along the western boundary of the Spotted Horse Ranch. This area is designated as "inventoried roadless area" by the Bridger-Teton N.F. Forest Plan. No new roads will be constructed within this area. The Ann Mountain area is approximately 73 acres and is located along the east aspect of Ann Mountain, stretching from the Bryan Flats trailhead to the Broken Arrow Ranch along the Forest boundary. Some of this area is designated as "inventoried roadless area" by the Bridger-Teton N.F. Forest Plan. No new roads will be constructed within this area. Both treatment areas are within the Teton County Community Wildfire Protection Plan (CWPP) Wildland Urban Interface (WUI).

Treatment objectives include:

- In areas dominated by conifer: Thin from below to crown spacing of 20 feet.
- Do not remove any Douglas-fir or Engelmann spruce greater than 12 inches dbh in the North Willow Creek treatment area.
- Do not remove any conifer greater than 18 inches in the Ann Mountain treatment area
- Reduce ladder fuels by thinning conifers <8" dbh in the understory, as well as limbing overstory trees to a height of 10' above ground level. Remove smaller diameter (<8" dbh) conifers from under the dripline of mature conifers.
- Treatments in some locations will also be designed to facilitate enhanced vigor of aspen stands, through 100 % removal of conifer <8" dbh within aspen stands and up to one and a half tree lengths outside existing aspen stands.
- Reduce dead and down fuel loadings to 5 to 7 tons per acre, where the present volume exceeds this
- Residual slash will be piled. Piles will be burned after curing for approximately one calendar year and when burning conditions allow.
- Mechanical skidding is allowed to skid products such as firewood, sawlogs, post, poles to an accessible landing.

Fig. 3. Ann Mountain Mechanical Treatment Vegetation Map

Ann Mountain Mechanical Unit Vegetation

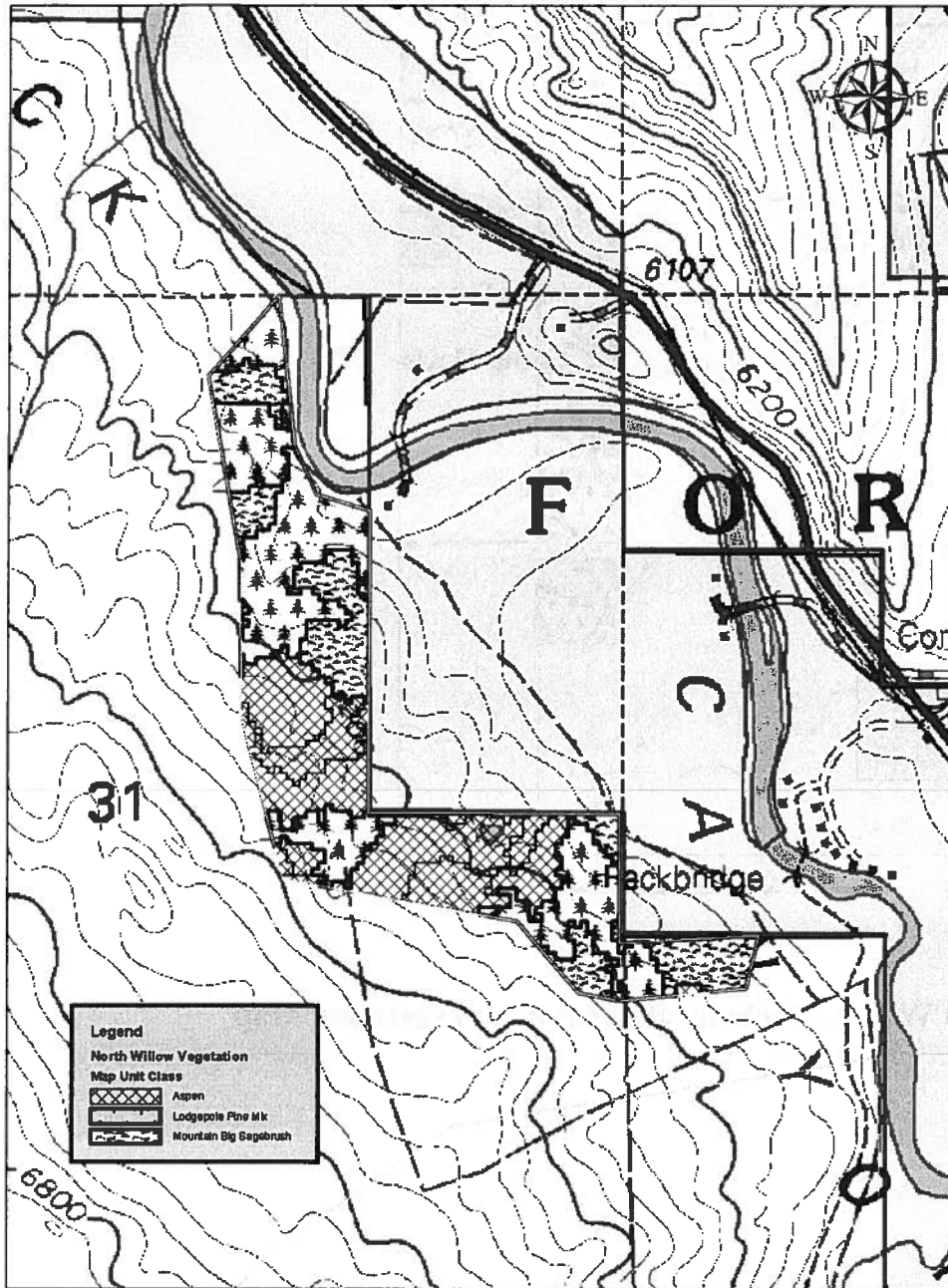


Created by Chris Vero
on March 1st, 2008

0 0.125 0.25 0.5 Miles

Fig. 4. North Willow Mechanical Treatment Vegetation Map

North Willow Mechanical Unit Vegetation



Created by Chris Vero
 on March 1st, 2008

0 0.05 0.1 0.2 0.3
 Miles

Willow Creek and Beaver Mountain Prescribed Burn Area

Prescribed burning along the western aspect of Beaver Mountain between the Hoback River and the furthest southeast corner of the private land boundary is proposed. This

2/ area is approximately 853 acres and partially within the Teton County CWPP WUI (Fig. 5). There is a no treatment area (469 acres) at the southern end of the Unit (Fig. 6) mostly outside the WUI. (lynx hab)

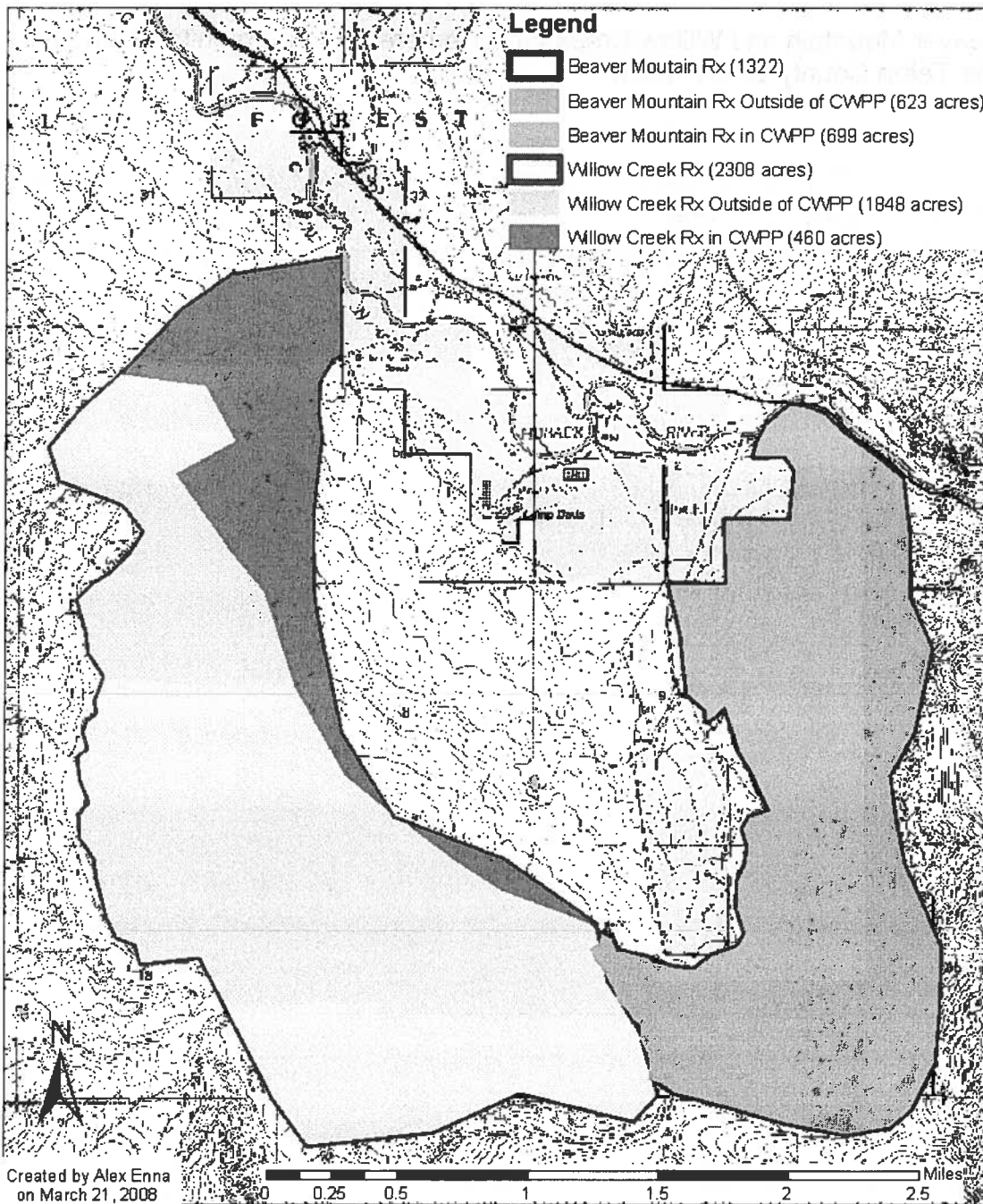
Fig. 5. Beaver Mountain and Willow Creek proposed prescribe burn units within and outside the Teton County CWPP WUI.

	WUI	Non-WUI	
Rx B Beaver Mtn	699	154	= 853 ac
No Rx B	0	469	= 469 ac

Mech: 132-ac
Rx B: 2,396 ac (853+1,515)

	WUI	Non-WUI	
Rx Willow Cr	460	1,055	= 1,515
No Rx " "	0	793	= 793 ac

Willow Creek and Beaver Mountain CWPP



Prescribed burning also is proposed on the western aspect of the Willow Creek drainage from the junction of Willow Creek and the Hoback River, south to the south aspect of Ann Mountain. This area is approximately 1515 acres and is mostly outside the WUI. There is a no treatment area (793 acres) along the western edge of the Unit (Fig. 7) outside the WUI.

outside
WUI

1,515
793

722 ac

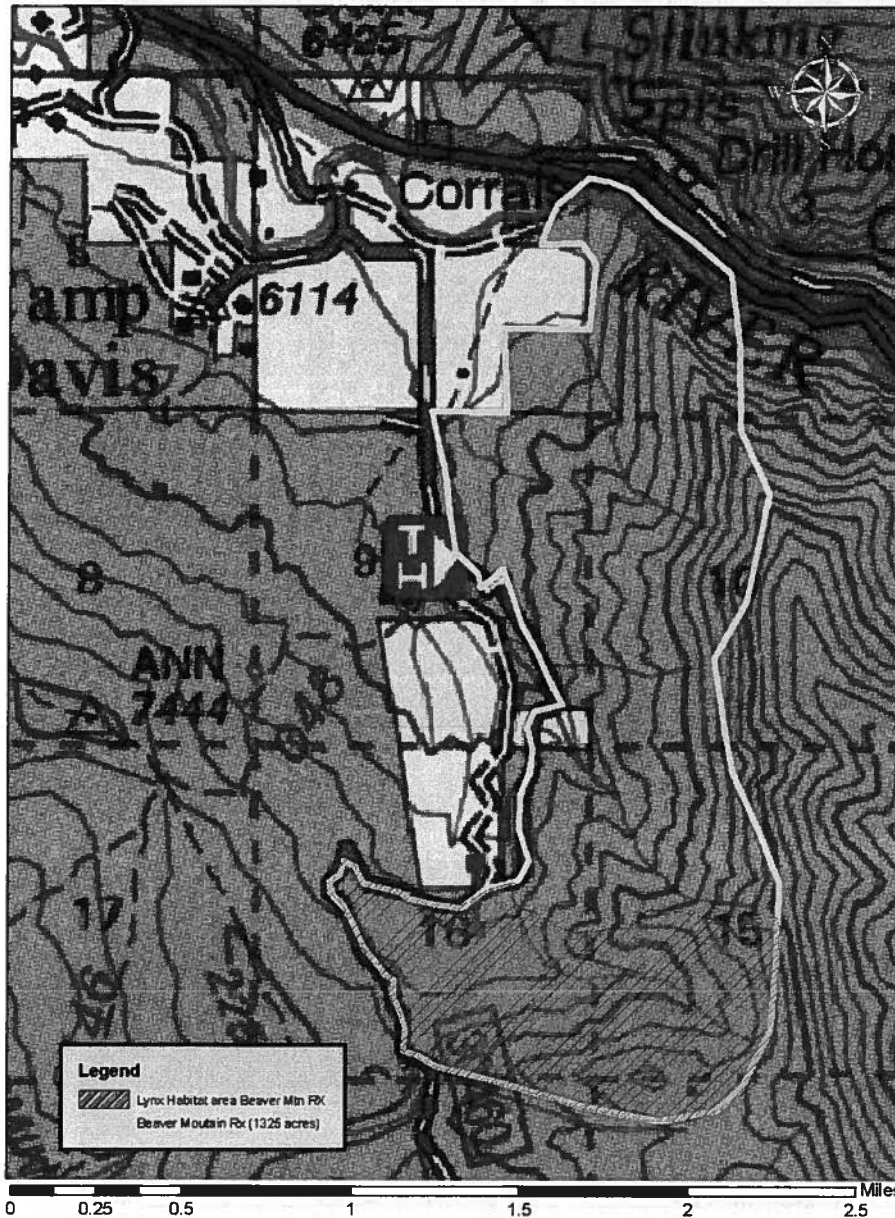
No treatment out WUX

?
other lynx hab capable
of prod SSH hab?

Fig. 6. Beaver Mountain Prescribed Burn Unit with no treatment lynx foraging habitat area.

SSH hab?

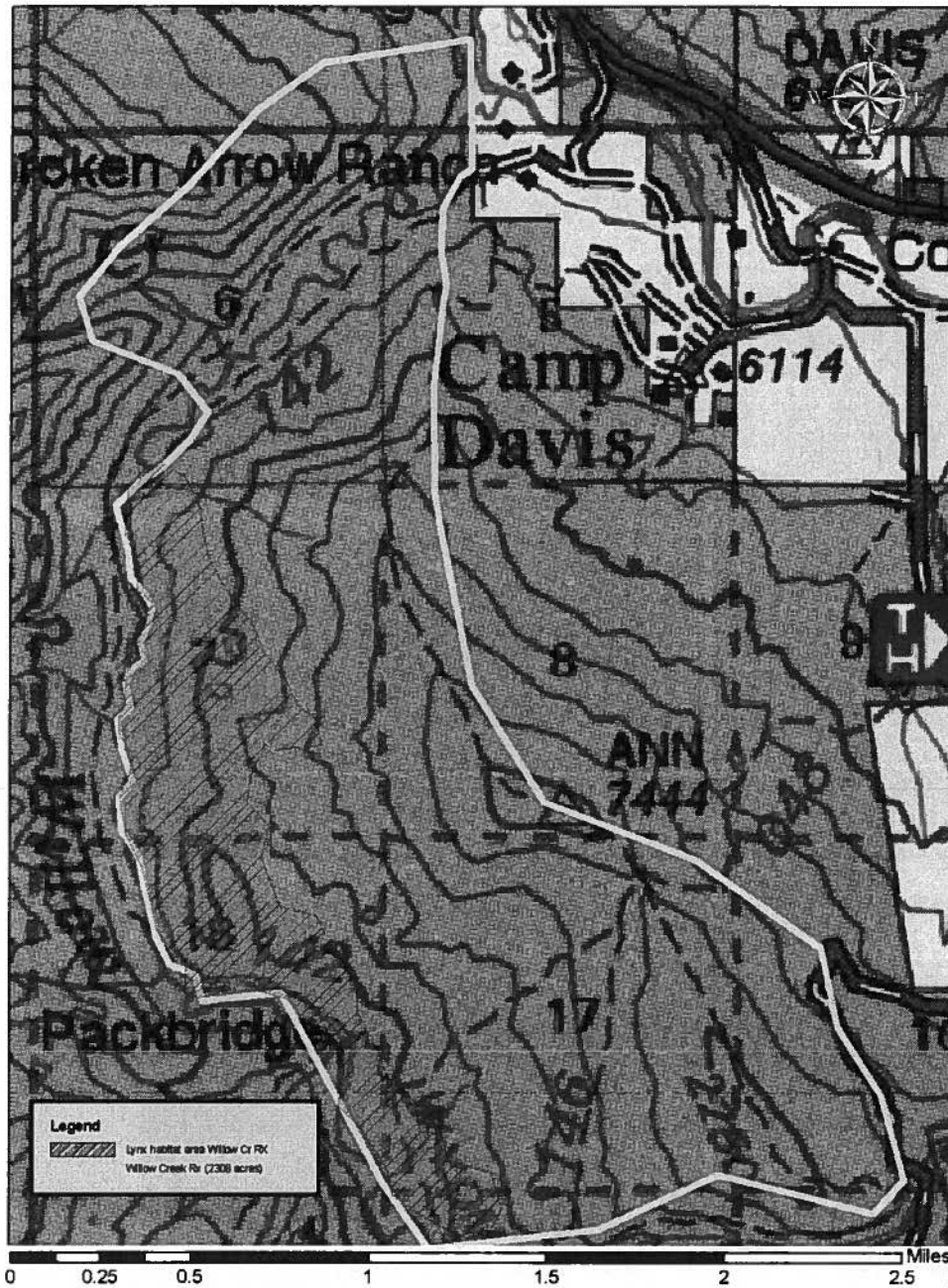
Beaver Mountain Prescribed Burn Unit



Created by Chris Vero
on March 1st, 2008

Fig.7 Willow Creek Prescribed Burn Unit with no treatment lynx foraging habitat area.

Willow Creek Prescribed Burn Unit



Created by Chris Vero
on March 1st, 2008

Treatment objectives will be to rejuvenate aspen stands, reduce sagebrush density, maintain or enhance forest openings showing signs of conifer encroachment, reduce dead and down material, thin conifer, and reduce ladder fuel loadings. This will reduce the potential wildfire intensities within this area.

Through a combination of hand and aerial ignitions treat portions of the areas identified for prescribed burning. Broadcast burning may require a need for preparation of certain areas to ensure prescribed fire stays within designated unit boundaries. When feasible the treatment will occur along existing trails or in areas of thinner vegetation. It will include thinning brush along identified trails/areas as well as thinning conifer fuels, mirroring the moderate level of treatment (mechanical). A small tractor type vehicle may be utilized to accomplish this burn preparation where terrain and access allows.

The burn prescription will achieve the following objectives.

- Greater than 60% conifer mortality in treated mixed stands;
- Retain 30 % mature aspen and convert 70% of treated aspen to earlier successional stages.
- Promote structural diversity in sagebrush stands. Attain following canopy closure (cc) in treated sagebrush areas: 20% @ 0-5% cc, 35% 6-25% cc, 45% > 26% cc. At least 30% of mature shrub/grassland plant communities will be maintained in their present condition
- Treat areas showing signs of conifer encroachment into meadows by achieving >60% conifer mortality in identified meadow areas.

*sounds like primary
veg maint
other than
fuels treat*

The *National Fire Plan Activity Descriptions* applicable to this project can be found at <http://www.or.blm.gov/fcp/docs/Activity%20descriptions.pdf>. In addition to moving vegetative community types towards the DfV, the treatments to be applied will accomplish National Fire Plan objectives by reducing hazardous fuel loadings, improving Condition Class (generally from CC2 to CC1), reducing the risk of uncharacteristic wildland fire intensities which will improve firefighter and public safety, increasing initial attack effectiveness, and enhancing the ability to manage future natural ignitions as wildland fire use fires.

Vegetation treatments using mechanical and prescribed fire treatments to reduce fuels can have both long-term beneficial effects and immediate, short-term impacts on wildlife. Even though the project is expected to have long-term beneficial impacts, the objective is to minimize as many short-term adverse impacts as possible. The following sections outline what is known about the status of species of interest in the project area and provide recommendations for project design criteria that would minimize adverse impacts to wildlife species in important habitats or during critical life history stages.

Project Design Conservation Measures

The following project design conservation measures and monitoring are necessary to comply with Forest Plan and Northern Rockies Lynx Management Direction management standards and application of guidelines where field conditions warrant, and to help minimize and/or assure no adverse impacts to T&E species:

- 1.) If a nest, den, or important site for any TES species is found within any of the treatment areas, activities may need to be curtailed or additional restrictions imposed to avoid adverse impacts. Identified nest trees and/or den sites will be protected by establishment of buffer zones in which no

treatment will occur. The size of the buffer will be determined on a case-by-case basis as deemed necessary in order to protect the species present. Buffer zones shall be delineated on the ground prior to project implementation.

- 2.) Maintain at least 4 down logs per acre at least 12 inches diameter (at large end) and 20 feet long. Snags and cull trees (of the largest diameter available) should be maintained in clumps along the perimeter of each unit at or above 4-6 per acre where present.
- 3.) Retain 5-7 tons per acre of coarse woody debris in all project units. If uncertain whether objective can be met in areas currently deficient in downed woody materials, recommend retention of at least two evenly-distributed slash piles per acre.
- 4.) No prescribed burn ignition of fuels will occur on the southern end of the Beaver Mountain Unit (469 acres) and along the western edge of the Willow Creek Unit (793 acres) outside the WUI. Ignitions will not be part of project implementation within these identified areas. The use of management ignitions will only occur if deemed necessary to hold previously ignited areas within the identified project area because of safety concerns from an escaped fire. These areas have patches of horizontal cover identified as suitable lynx foraging habitat as described in the Northern Rockies Lynx Management Direction. During prescribed burning, if fire threatens these areas, the Burn Boss, District Wildlife Biologist and District Ranger will confer on this and decide if the effect from fire entering these areas is favorable for the habitat components present, or if holding actions need to be taken to stop fire spread within. The decision to suppress or allow controlled burning within these areas will be based on current and expected fire behavior and the risk of suppressing (or not suppressing) the fire intrusion poses to firefighters and the public, in combination with the expected impact to lynx habitat components. Prescribed burn design and planning will address these areas in such a way that management ignited fire entering them will be highly unlikely. Project design, safety considerations and the necessity to develop a cost effective treatment strategy call for an allowance of the above described implementation strategy as a contingency measure. The prescribed burning portion of this project seeks to utilize natural barriers and vegetation changes as a means to contain management ignitions within the identified project area, with a minimum of ground disturbing activities to hold management ignitions within. With this strategy comes the ability to make an on site decision on effects to the lynx habitat components if fire threatens these non-ignition areas and a determination on a course of action.

stuff outside WUI
mapped as potential
lynx hab. WUI-thru
showed 2 areas

Two areas
No-treatment areas
boundary drawn for
safety

Monitoring

Required Monitoring Lynx Forest Plan Amendment for NRLMD

Report the acres of fuel treatment in lynx habitat within the wildland urban interface, as defined by HFRA, when the project decision is signed. Report whether or not the fuel treatment met the vegetation standards. If standard(s) are not met, report which standard(s) are not met, why they were not met, and how many acres were affected.

DESCRIPTION OF LISTED SPECIES AND PROPOSED CRITICAL HABITAT

Canada Lynx

Status of the Canada Lynx in the Greater Yellowstone Area

A final rule listing a Distinct Population Segment of the Canada Lynx as a threatened species in the contiguous United States was issued on March 24, 2000 (64 CFR 36836). Critical habitat was designated for the species in November 2006 (71FR 66007). No critical habitat was designated within presently and historically occupied lynx habitats within Wyoming. The FWS proposed to revise designated critical habitat for the contiguous US distinct population segment of the Canada lynx in February 2008 (73FR 10860). The project analysis area is within the proposed critical habitat designation for the Greater Yellowstone Area (Unit 5). A Recovery Plan Outline for the Contiguous United States Distinct Population Segment of Canada lynx issued by the FWS has categorized lynx habitat on the Bridger-Teton National Forest as a "core area" (USDI FWS 2005). These areas have the strongest long-term evidence of the persistence of lynx populations within the contiguous United States. The Recovery Outline states "Recovery of lynx will be achieved when conditions have been attained that will allow lynx populations to persist long-term within each of the identified core areas".

The outline is to serve as an interim strategy to guide and encourage recovery efforts until a recovery plan is completed. Four preliminary recovery objectives are presented in the outline.

1. Retain adequate habitat of sufficient quality to support the long-term persistence of lynx populations within each of the identified core areas.
2. Ensure that sufficient habitat is available to accommodate the long-term persistence of immigration and emigration between each core area and adjacent populations in Canada or secondary areas within the United States.
3. Ensure habitat in secondary areas remain available for continued occupancy by lynx.
4. Ensure threats have been addressed so that lynx populations will persist in the contiguous United States for at least the next 100 years.

Historical range of the Canada lynx in the Greater Yellowstone Area (GYA) includes Idaho, Montana, and Wyoming (USFWS 1998a and b). Since the lynx reintroduction effort was initiated in Colorado in 1999, approximately 33 of the transplanted lynx have

been located in Wyoming through 2007 (Fig. 8). The GYA is one of the two primary use areas of these dispersing animals in Wyoming (Shenk 2007).

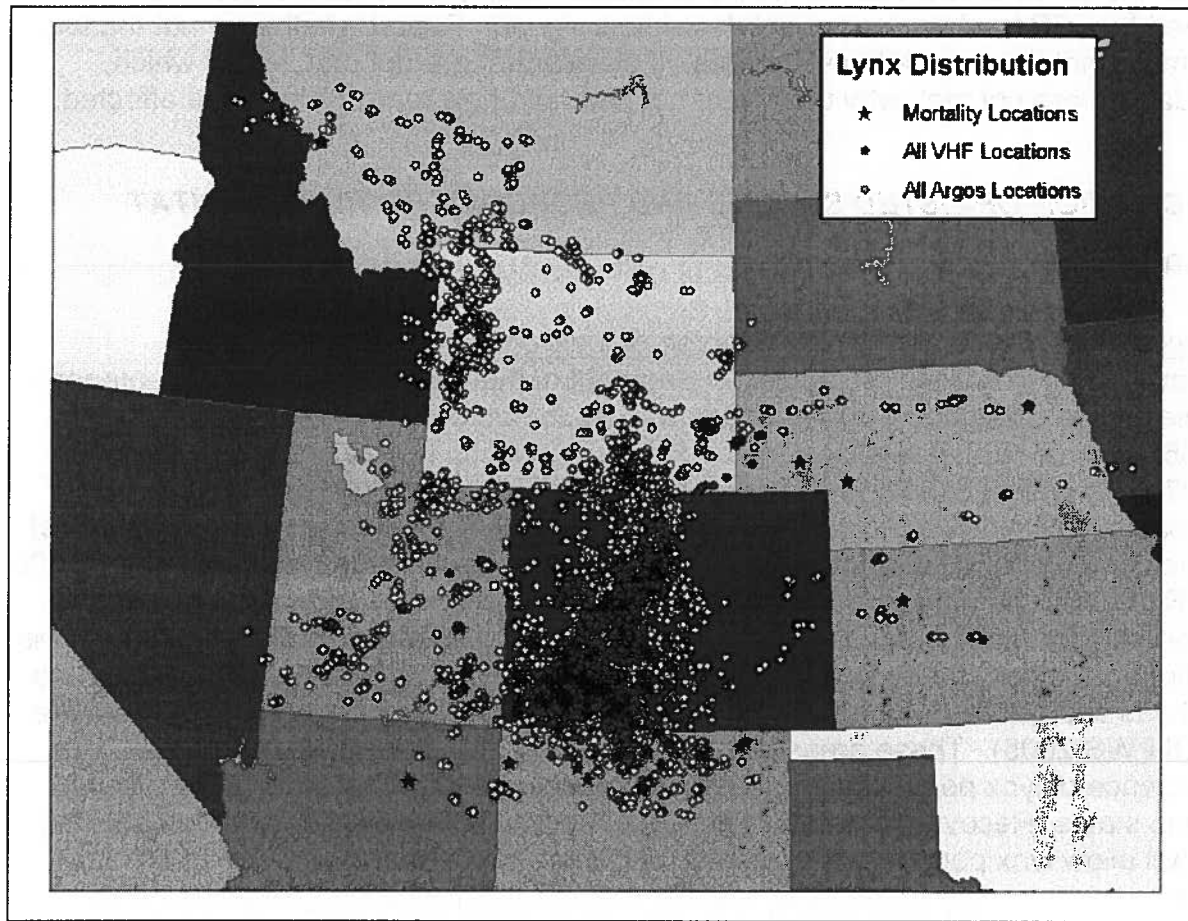


Fig. 8. Locations (1999-2007) of radio-collared lynx in Wyoming from dispersing animals reintroduced into Colorado.

In Wyoming, Canada lynx have been protected as a non-game species with no trapping season since 1973. It is considered rare (USFWS 1998a and b) in the state, but recent (winter 2004-7) surveys on the Buffalo Ranger District conducted by Endeavor Wildlife Research resulted in multiple detections with DNA confirmation of lynx presence. Reproduction was documented by John Squires (USFS Rocky Mountain Research Station) in the Wyoming Range in 2000. The Canada lynx is classified as a Species of Special Concern, Class 2 by the Wyoming Department of Game and Fish, indicating habitat is limited and populations are restricted or declining (NPS 1998).

The USFS and BLM in the northern Rockies, including the Bridger-Teton National Forest, finalized amendment of unit plans in March 2007 with the Record of Decision for the NRLMD, to incorporate conservation measures for Canada lynx and its habitat (USDA Forest Service 2007). The Lynx Conservation Assessment and Strategy, LCAS,

(Ruediger et al. 2000), Lynx Science Report, and the USFWS final listing decision (USFWS, 2000a) served as the foundation of the amendment process.

Canada lynx are solitary carnivores generally occurring at low densities in southern boreal forest habitats. Within most of their range, Canada lynx densities and population dynamics are strongly tied to the distribution and abundance of snowshoe hare (*Lepus americanus*), their primary prey. However, this relationship may be muted or absent in more southern populations (Halfpenny et al., 1982), such as those in Wyoming. Females may not reproduce during food shortages, and food availability directly influences the survival of young Canada lynx, with few kittens surviving when food is scarce (Koehler, 1990). Kittens are born in May or June after a 60 to 74 day gestation period, and typically remain with their mothers until about 10 months of age.

In Wyoming, Canada lynx occur primarily in spruce-fir and lodgepole pine forests with 8 to 12 degree slopes, at elevations between 7,995 and 9,636 feet (USFS, 1999). Quaking aspen (*Populus tremuloides*) stands and forest edges, as well as open grass meadows and forest ecotones, may also support moderate to high numbers of snowshoe hares and Canada lynx. On a landscape scale, Canada lynx habitat includes a mosaic of early seral stages supporting snowshoe hare populations and late seral stages of dense old growth forest providing ideal denning and security habitat. Connectivity between Canada lynx populations is critical. Dispersal corridors should be several miles wide with only narrow gaps, and large tracts of contiguous coniferous forest are the most desirable for Canada lynx travel and dispersal (Tanimoto, 1998).

Status of the Canada Lynx within the Area of Effect of the Proposed Project

The lynx population on the Forest is likely low, but there have been locations documented on the Buffalo and Big Piney Districts in recent years. The most recent lynx observations occurred on the Buffalo Ranger District in January 2008 (Nate Berg, personal communications). Nate photographed a lynx and lynx tracks south of Highway 26 along the Flagstaff road (#30100). Lynx scats (DNA validated) also were collected in 2008 along the Flagstaff road, Toppings Lake road (#30310) and near Togwotee Pass. Two lynx are suspected to be roaming the District.

From 1917 through 1998, there were 27 reports of lynx on the Jackson and Buffalo Ranger Districts (McKelvey et al. 1999). Most reports occurred in the 1970s and 1980s and are widely distributed throughout the two districts. Only four observations prior to 1960 are documented (McKelvey et al. 1999). Given that preferred forest cover types are available within and adjacent to the project area, lynx may be incidentally present.

Based on limited telemetry data from the Wyoming Range to the south of the project area, as well as studies of Canada lynx and snowshoe hare relationships in other areas, it appears lack of adequate prey base could be the limiting factor for the species within the southern portion of their range (LCAS, p. 7-4). Lynx home ranges on the Bridger-Teton are large, most likely because snowshoe hare densities are relatively low. Snowshoe hares in Wyoming likely do not exhibit the dramatic population cycles observed in the northern regions. The population density of snowshoe hares on the

Forest could potentially resemble that of the low end of the cycle across the primary range of the species in Canada and Alaska. Canada lynx at the southern end of their range may compensate to some degree by use of alternative prey species. Documented incidents of starvation and low reproductive success suggest the existing prey base situation for Canada lynx in this area is poor.

There have been several studies and surveys during the past few years from the Bridger-Teton National Forest. The most recent study, conducted by Endeavor Wildlife Research (EWR) in the winter of 2006-8, documented lynx presence using snow tracking and collection of scat or hair samples. Genetic (DNA) verification of lynx presence (analyzed by the FS Wildlife Genetic Laboratory in Missoula, MT.) was documented from several different Buffalo RD locations, primarily in the areas of Togwotee Pass and the North Fork of Spread Creek. The majority of samples were collected near the Flagstaff Road, which was used to search for tracks via snowmobile. DNA analysis revealed the presence of one male individual in this area, with another genetically distinct individual documented from the Greys River District in the Wyoming Range. The male lynx detected on the Buffalo District matched the DNA profile of a lynx previously identified from Yellowstone National Park's lynx study (Dr. Kerry Murphy), and was first identified in 2002. Snow tracking and subsequent diagnostic track measurements in the same areas on the Buffalo District verified there were at least two individual lynx using the same habitats at the same time. The track measurements suggested the smaller cat was a female, which presents the possibility a breeding pair of lynx might be present on the Buffalo RD. The female lynx has been detected in both 2007 and 08 with DNA validation from scat samples. Most of the aforementioned lynx locations took place several miles from the project location.

Other pertinent study findings indicated lynx from the Togwotee region spent the majority of their time hunting and traveling in heavily forested habitats. Lynx presence was also documented on more open south-facing aspects, as well as within riparian/willow habitats. EWR documented several lynx kill sites that included diverse prey items, including snowshoe hares, red squirrels, weasels, and small rodents.

Another study, "*The Conservation, Survey, and Monitoring of Canada Lynx in Jackson Hole*" (Sanjay Pyare 2001) employed barbed carpet-pad rub stations (hair rubs) nailed to trees in microhabitats where lynx prefer to move, e.g. ridges, saddles, riparian areas, near water sources, and along forest edges. Stations were maintained for 30 days and checked and replenished with lure at day 15. Hair was carefully removed from the hair

pads and trees and sent to Dr. David Petkau at Wildlife Genetics International (British Columbia, Canada), a laboratory specializing in identification of DNA extracted from wildlife hair samples. There were no lynx hairs identified from hair pads in 2001.

The third study comes from the Distribution of Lynx and Other Forest Carnivores in the Wyoming Range, south-central Wyoming (John Squires et al. 2003). Wyoming Game and Fish collared a male lynx in December 1996 and a female in March 1997 in the Wyoming Range. Snow track surveys by WGF in 1997 and 1998, also found lynx were present in the Wyoming Range near Big Piney (Piney Front). During snow-track surveys in winter 1998-1999, one set of lynx tracks also was observed in the Merna area. The primary objective of the study in the winters of 1999-2000 and 2000-2001 was to delineate the distribution of lynx in the Wyoming and Salt River Mountain Ranges. The second objective was to monitor the movements of collared lynx to better understand habitat use and connectivity.

During 1997-2000, the male and female radio-collared lynx occupied home ranges located on the Big Piney Ranger District. The collared female died of starvation during the late winter of 2000, and the collared male died of starvation during the winter of 2002. The collared male and female both made long exploratory movements of over 50km on several occasions before returning to the study area (core home range). The male was documented traveling through a linkage corridor on four separate occasions connecting the Wyoming Range and the Togwotee Pass and Union Pass areas that crosses the Hoback Canyon highway in the vicinity of Bondurant (Squires 2005), about 12 miles east of the project area. Lynx dispersing from the reintroduction area in Colorado since 1999 have been using this corridor which was first identified by Squires from the dispersal movements of this adult male.

Based on visual inspection of GIS satellite images, it appears both the male and female lynx tended to avoid the middle of clearcuts and aspen stands; travel was primarily concentrated in high elevation conifer stands. The snow track surveys indicated lynx spent the majority of their time in the northeast portion of the Wyoming Range. Historical harvest records (18 lynx trapped in 1971-1972), indicate lynx were fairly common in this area in the early 1970's.

Study results from the work of Squires suggest lynx habitat in Wyoming has a more open understory with fewer shrubs compared to lynx-use areas in northern Montana. Primary shrubs within lynx use areas included common shadbrush (*Amelanchier alnifolia*), honeysuckle (*Lonicera utahensis*), currant (*Ribes spp.*), snowberry (*Symphoricarpos oreophilus*), and *Vaccinium spp.* Throughout the survey area, forested areas were intermixed with large openings dominated by willow (*Salix spp.*) in drainage bottoms, and sagebrush (*Artemisia spp.*)-wheatgrass (*Agropyron spp.*) communities on drier sites.

The only field inventory transect data to detect lynx presence/absence within the proposed treatment units, comes from a winter furbearer inventory conducted in the Beaver Mountain unit in 1995 (Bills, T. and M. Novak 1995). Neither lynx nor snowshoe

were detected along the track intercept transects, on the track plates or at the photo stations during the five weeks from January 27 through March 3. General walk about field observations of all the treatment units in July 2007 did reveal the presence of snowshoe hares along the northwest boundary of the Beaver Mountain Unit. Snowshoe hares appear to be present in low density based on empirical observations of pellets and hares, and the suitability (relative density) of horizontal cover observed during these walkabouts. My assessment of hare density and habitat conditions is based on personal field observations of forest composition and structural conditions on snowshoe hare live trapping and pellet plot grids on the Buffalo Ranger District, BTNF, and preliminary results from on-going snowshoe hare/habitat relationships research on the BTNF.

Environmental Baseline

Condition of the Environmental Baseline

Lynx require a mix of early and late seral habitats to meet their foraging and cover needs. A mosaic of forest structural stages provide lynx with their primary prey base (snowshoe hares), denning sites and hiding cover, and secondary prey species (red squirrels, grouse). Ideal habitat consists of pockets of dense mature forest interspersed with a mosaic of earlier-staged habitats. Primary vegetation that contributes to lynx habitat includes cool, mesic subalpine fir habitat types dominated by cover types of Engelmann spruce/subalpine fir, Douglas fir and seral lodgepole pine. Other cool, moist habitat types (Douglas fir and grand fir) contribute to lynx habitat where they are intermingled with and immediately adjacent to primary vegetation (USDA Forest Service et al. 2000). At the southern extent of the lynx range such as northwestern Wyoming, habitat includes mature lodgepole pine stands with developing sub-canopies and/or lodgepole pine with very high stem densities (Bertram 2007). Lynx habitat is generally found at mid to upper elevations. Lower elevation limit in northwestern Wyoming is approximately 7,000 feet in the southern portions of the Northern Rockies lynx range.

Foraging habitat as defined in the LCAS is habitat that supports snowshoe hares (primary prey) and/or red squirrels (important alternate prey). Important hare habitats are those that support a high density of young trees or shrubs (generally thousands of stems per acre), which protrude above the snow during mid-winter (Ruediger et al. 2000). Multiple studies have found that hares prefer dense stands (Fuller 2006, Hodges 2000a, Hodges 2000b, McKelvey and McDaniel 2000, Shaw and Long 2001). Old gap-phase forests also may provide moderate densities of hares (Buskirk et al. 2000a). Horizontal cover is an important element of snowshoe hare habitat.

Lynx den in rotten logs, beneath tree roots, and in rock crevices. Koehler (1990) reported that lynx use forests with a high density of downfall logs (>40 logs per 40 yards [46 m] lying 1 to 4 feet [0.3-1.3 m] above the ground). Lynx mostly select mature mesic (73%) forest stands for denning with 18% of dens also placed in regenerating mesic stands. Proximity of these features in relation to abundant foraging habitat is also important.

Other forest structural stages, such as closed-canopy mid-age to mature forests with little understory cover, are generally not selected for either foraging or denning but may serve as travel habitat (Koehler and Brittell 1990).

The BTNF has mapped potential lynx habitat (including denning and foraging habitat) based on vegetation types according to criteria outlined in the LCAS (Ruediger et al. 2000) and USFS (2004). The project area is located within the Lower Hoback Middle Lynx Analysis Unit (LAU). This LAU (57,488 acres) contains approximately 11,513 acres of potential lynx habitat (Fig. 9). Treatment areas have approximately 1869 acres of potential habitat (Fig. 10). All potential habitat is not suitable foraging and denning habitat. Suitable foraging habitat within these acres occurs in non-contiguous patches where horizontal cover in mixed stands of coniferous forest provides snowshoe hare habitat.

see notes p 12

Fig. 9. Potential lynx habitat and Bryan Flats proposed treatment units within the Lower Middle Hoback Lynx Analysis Unit on the BTNF, Jackson RD.

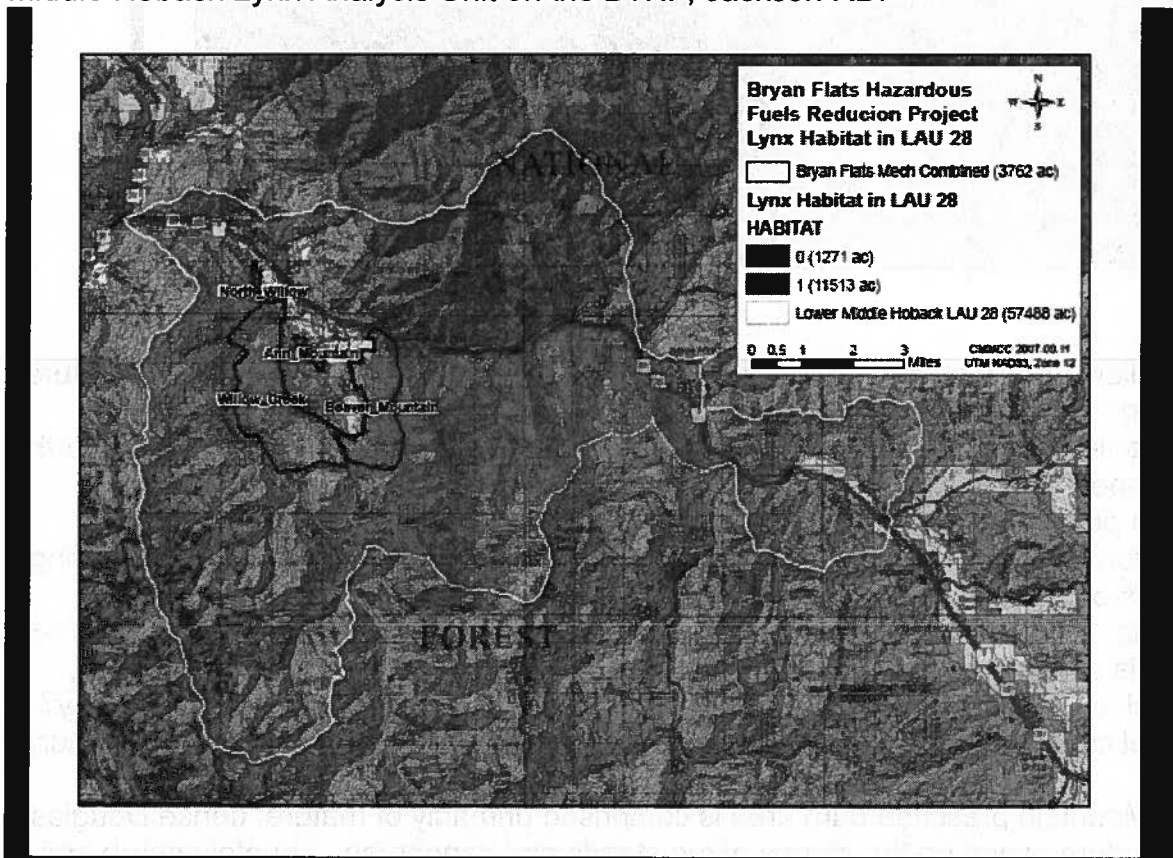
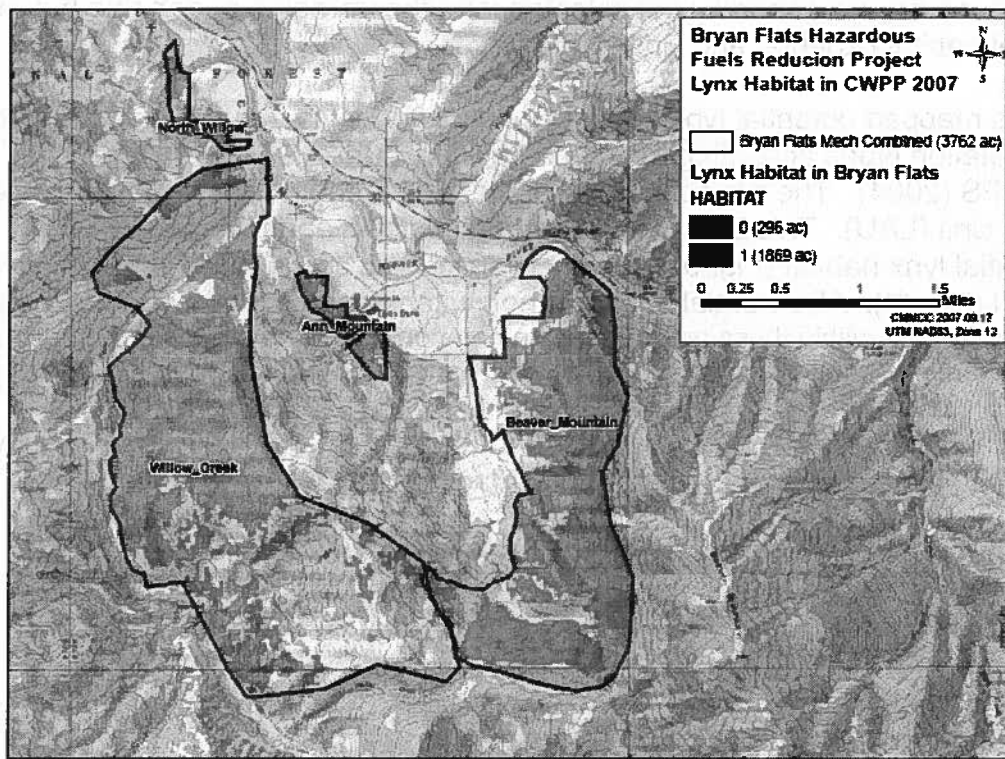


Fig.10. Potential lynx habitat within the Bryan Flats proposed treatment units. Red polygons within the blue matrix are non-lynx habitat.



North Willow, Ann Mountain and Willow Creek treatment units are comprised of mature aspen, and lodgepole pine with a few small scattered patches of Douglas fir and subalpine fir/spruce (Table 1). The canopies are dense in some areas, especially north facing slopes, and open in other areas, especially south and east facing slopes. Mountain pine bark beetle is present and killing mature lodgepole pine. Conifer competition is reducing the aspen representation on the landscape as well as reducing the likelihood of additional aspen suckers in the clones to perpetuate aspen on the landscape. The understory vegetation is sparse in some areas and dense in other areas. It is comprised of aspen, subalpine fir and lodgepole pine seedlings/saplings, syor, syal, caru, thoc, and arco. Small, scattered patches of low to moderate density? horizontal cover are available to snowshoe hares where multi-storied conditions occur.

being treated?

quantify!

Beaver Mountain prescribe burn area is comprised primarily of mature, dense Douglas-fir with mature aspen on the fringes of the stands and sagebrush, mountain shrub and bunchgrass communities interspersed on the drier aspects (Table). Douglas-fir bark beetle is present and killing older, larger diameter trees in the unit. Scattered patches of mixed lodgepole pine, Douglas fir and subalpine fir/spruce occur in forested stands on the southern end of the unit. Here dense patches of understory vegetation comprised of subalpine fir, spruce, and lodgepole pine seedlings/saplings, and mountain shrubs provide horizontal cover for snowshoes. This area will not be treated with prescribed fire.

But other areas mapped
lynx hab outside CWPP
& to the N?

17

Table 1. Present vegetation types within the proposed treatment units. Note the few acres of preferred cool/moist boreal forest (spruce/subalpine fir mix) lynx habitat.

Vegetation Type	Treatment Units			
	Ann Mountain	North Willow	Beaver Mountain	Willow Creek
	acres	acres	acres	acres
Aspen	5	22	67	261
Aspen/Conifer Mix			2	
Douglas Fir Mix			638	89
Grassland/Forbland			6	20
Lodgepole Pine Mix	66	23	25	839
Mountain Big Sagebrush	2	13	200	864
Mountain Shrubland			11	12
Sagebrush/Bitterbrush Mix			14	106
Spruce/Subalpine Fir Mix			11	43
Willow			9	24

micro cond-
moist?
age?

Conifers are also beginning to encroach non-forested grass-sedge meadows, sagebrush and mountain shrub communities.

Factors Affecting Canada Lynx Habitat within the Area of Effect

Continuous changes in snowshoe hare and lynx habitat have occurred on the Jackson District over the last century and longer, mostly resulting from fire suppression activities and the subsequent loss of well-distributed early seral and mixed-seral habitats and the development of a preponderance of late seral habitat across most of the Forest's LAUs. Canopy closure, stand density, self-pruning and apical dominance processes have likely reduced snowshoe hare cover and forage availability during winter, especially in pure lodgepole pine and aspen stands.

what about the LAU in proj. area?

Hx treatments
350
- 286
636 ac

Small wildfires (350 acres/71 fires) and prescribed burns (286 acres in 1991), and small scale mechanical aspen regeneration treatments in the Beaver Mountain and Willow Creek units have been a factor in very localized areas in promoting dense natural aspen regeneration and improving age class diversity of aspen clones.

aspen regen & not feels red

At present, the aspen type is being lost through lack of disturbance and natural succession to conifers on a landscape scale. Retention of as much aspen as possible would appear to have a beneficial long-term effect on snowshoe hares and lynx (Ruediger et al. 2000). Although late seral "gap phase" aspen and lodgepole may produce a modest number of snowshoe hares, local populations are likely similar to the low end of the hare cycle in prime lynx range further north. Retention of aspen through periodic disturbance, sprouting and cycling through early seral stages productive for snowshoe hares would appear to be beneficial for the lynx forage base over time.

what about proj area - say in 1940s that some of trtd in 40s & is this feels reduction?

actually use asp w/ mature con component

define "fair"
need data
to support
his unit
not tried
Regardless
if patchy - are
they being
tried?

The existing habitat conditions for snowshoe hares, red squirrels and lynx in the project units are estimated as fair but degrading due to natural succession as noted above and recent heavy mortality of mature lodgepole pine and Douglas fir from beetle-kill in project area stands. The best opportunities for snowshoe hares and lynx are generally found on limited north slopes with mixed conifers including a strong subalpine fir component. Subalpine fir retains live and dead branches close to the ground for an extended period of time. The most extensive subalpine fir component occurs on the southern end of the Beaver Mountain unit. Fir has only a limited, patchy presence in the other treatment units.

Also, refer to the Cumulative Effects section of the BA for additional descriptions of past, present and proposed federal, state and private actions that help to define the environmental baseline.

Effects of the Proposed Action

Direct Effects:

but does
it currently
provide
S&H hab
outside unit?

There is a slight potential for displacement of individual lynx from disturbance during project implementation and a reduction of forest understory cover. It is "slight" due to the suspected low probability of occurrence of Canada lynx in the area of effect and less than ideal foraging and denning habitats present in comparison to those found elsewhere on the BTNF. Displacement would likely be incidental rather than chronic, and temporal or seasonal rather than year-round due to the short duration of project activities and the limited extent of treatment units (3700 acres). The likelihood of lynx occupying these marginal areas of habitat in the project area during burning and thinning operations is too slight to be a real concern.

Possible denning structure occurs only incidentally in the project stands, primarily the Ann Mountain and southern end of the Beaver Mountain units, and limited potential exists for denning in the general project vicinity. Denning occurs primarily in stands that have substantial spruce/subalpine fir and accumulated coarse woody debris components which are not characteristic of the treatment units. Some potential denning habitat may be reduced from broadcast burning of dead and down logs.

need data
to support

The limited snowshoe hare habitats impacted are likely only marginally productive in their current conditions, due to the elevation, aspect, cover types and forest structural conditions present in the treatment units. Hare horizontal cover in treatment units can best be described as low to moderate density, small, scattered patches of forest understory cover (sapling trees and shrubs) and down logs. Foraging/snowshoe hare habitat will likely be less effective for a period of several years following treatments until tree crown height of regenerating aspen and conifer stands reach a level accessible to hares in the average winter (approx. 20 years).

Lower Hoback Middle LAU: Conversion of Potential Lynx Habitat

Baseline acres of potential lynx habitat	% lynx habitat previously converted to unsuitable	Potential habitat acres within treatment units	Approximate acres potential habitat within treatment units that will be converted to a less suitable condition	% habitat within LAU converted to a less suitable condition following project implementation
11513	3 = 345 ac	1869	1268	14

1268
345
1613

The proposed project will not change the permanent road system or designated over-snow routes

Indirect Effects:

In regards to habitat effectiveness, there will be no substantial habitat changes affecting potential for future habitual presence of humans or competing predators.

define

Recruitment of future denning habitat within the project area will be limited by removing trees smaller than 12-18" in diameter. Localized reduction of potential denning habitats is a possible long-term effect. In the near future, retention of the overstory trees will provide denning habitat as these mature trees die and fall. On a landscape scale, denning habitat is not a limiting factor on the Jackson and Buffalo Districts due to an abundance of mature forest habitats and the recent large tree mortality from the on-going mountain pine and Douglas fir beetle epidemic.

OK - denning info

The proposed treatments will open the forest understory, increase aspen regeneration and patch size, improve age class diversity, increase understory shrub and herbaceous productivity and forage quality, and improve forest horizontal understory cover in post-treatment years which could serve to enhance future hare and lynx foraging habitats.

Veg mgmt

Cumulative Effects:

- The North Zone Travel Management Plan Revision Project is planned for 2008.
- The Hoback Junction Fuels Reduction Project in the adjacent LAUs.
- Range Allotments
- Past aspen treatments

The North Zone Travel Management project may result in enhanced lynx habitat security since it will prohibit off road motorized travel and designate a motorized route system across the North Zone of the Forest. Presently, there is no motorized access allowed within the project area from May 1 through November 30. Over the snow motorized access is permitted from December 1 to April 30. Several miles of trails through all the proposed units are used frequently by local outfitters for day trip horseback rides and fall hunting access. Hikers and mountain bikers use the trail system less frequently.

The Hoback Junction proposal could treat up to approximately 4500 acres with prescribed fire and mechanical thinning (80 acres) in the Fall Creek South LAU, approximately 400 acres of prescribed burning in the Fall Creek North LAU and approximately 350 acres of prescribed burning and mechanical thinning (20 acres) in the Lower Hoback Middle LAU. These proposed fuels reduction treatments occur at lower elevations in more marginal lynx foraging habitats. Most of the burn treatments would occur in aspen, Douglas fir, mountain shrub and sagebrush habitats. The proposed Bryan Flat project will add another 132 acres of mechanical treatment and 2396 acres of prescribed burn treatment to the approximately 350 acres of proposed burning and mechanical thinning treatments in the Hoback Junction project for a total of 2878 acres of fuel reduction treatments in the Lower Hoback Middle LAU. This represents a potential 11% change in present habitat conditions within the area of the Lower Hoback Middle LAU.

Future proj-
don't incl.
#s in this
proj.
132
2396
2528
11,513=2290

Hoback Junction Fuels Reduction Project Proposal

TREATMENT AREA	Type of Treatment	LOCATION	DEVELOPED AREAS NEARBY	ACRES
Hoback River Mechanical	Mechanical Thinning	T39N, R116W Nw sec 6, south of Hoback river	Southern Hoback Junction	20
Deer Creek Mechanical	Mechanical Thinning	T39N, R116W Sw sec 34	Deer Creek subdivision	25
Palmer Creek Mechanical	Mechanical Thinning	T39N, R116W Eastern sec 34	Palmer Creek subdivision	55
Horse Creek Prescribed Burn	Broadcast Burn	T39N, R116W Secs 13,23,24 T39N, R116W Secs 18,19,30	Horse Creek Station Area, north Hoback Junction	Up to 2000
South Fork Prescribed Burn	Broadcast Burn	T39N, R116W Secs 21,22,27,28	Jay King subdivision and surrounding	Up to 2000
Palmer Creek Prescribed Burn	Broadcast Burn	T39N, R116W Secs 26,35,36 T38NR116W North secs 1,2	Palmer and Deer Creek subdivisions, southern Hoback Jct	Up to 1500

The proposed project will contribute up to 11% toward the 30% habitat suitability threshold for the Lower Hoback Middle LAU. The Hoback Junction proposed treatment units within the Lower Hoback Middle LAU do not provide potential lynx habitat. Less than 15% of the potential lynx habitat within this LAU has been converted to an unsuitable condition within the last 10 years. Upon project completion, up to approximately 1268 acres of lynx habitat could be converted to a less suitable condition, primarily a decrease in hiding, escape or movement cover for several years.

Wm
Wm

There are three active livestock allotments within the project area (Appendix). Two of the allotments are permitted for horses and one for cattle. The Willow Creek cattle allotment encompasses 38,773 acres and is permitted for 250 cow/calf pairs from 7/1 through 9/30. It is currently in non-use status and no livestock have been on the allotment since the 2004 grazing season. The Pfaff horse allotment covers 3 acres and is permitted 2 horses from 7/1 through 7/31. The Spotted Horse Allotment encompasses 350 acres and is permitted 50 horses from 6/16 to 10/31. The proposed treatments will increase understory herbaceous, shrub and aspen productivity and forage quality for grazing ungulates, hares and alternate lynx prey species. Aspen regeneration will need to be monitored on the Spotted Horse Allotment to assure ungulate grazing is not suppressing sprout establishment and growth.

Aspen mechanical treatments occurred adjacent to the Ann Mountain treatment area and within the Beaver Mountain prescribed burn area in the 1980s. These treatments successfully regenerated aspen in small patches and increased aspen representation on the landscape. Removal of conifers from aspen clones in the mechanical treatment units and prescribed broadcast burns within the Beaver Mountain and Willow Creek units will release aspen sprouts and further increase its presence and age class diversity on the landscape. A mosaic of aspen age classes over a greater area of the landscape will improve habitat conditions for hares and lynx foraging.

No known future non-federal actions on adjacent private lands within the LAU are likely to occur in the action area based on available information.

Compliance with Forest Plan Management Standards and Guidelines

The table below contains a list of the management standards and guidelines in the Northern Rockies Lynx Management Direction Record of Decision (2007) applicable to the proposed action.

The proposed action is consistent with the goals, objectives, standards and guidelines in the Northern Rockies Lynx Management Direction Record of Decision (2007). Although vegetation management standards do not apply to fuel treatment projects within the WUI, these standards were considered in development of the proposal. The proposed action does require an exemption from Standard Veg S6, because forest understory thinning from mechanical and prescribed burn treatments will reduce horizontal cover for snowshoe hares in multi-storied mature and late forest structural stage. *in the WUI?*

Standard or Guideline	Description of Measure	Measure <i>Project Compliance</i>	Change of the Measure in LAU from proposed treatments
Standard ALL S1	Habitat Connectivity	Maintain in LAU and/or linkage area (Complies)	Slight to No change. Mature conifer forest cover maintained across treatment units for travel and escape/hiding cover
Standard Veg S1	Limits unsuitable habitat (stand initiation structural stage not currently providing winter snowshoe	≤ 30% of LAU ~ 3% presently unsuitable	No regen treatments in conifer habitats, only in burn units in aspen stands (~357 acres, ~3% of potential lynx habitat in

Standard or Guideline	Description of Measure	Measure Project Compliance	Change of the Measure in LAU from proposed treatments
	hare habitat) created by vegetation regeneration treatments	Fuel treatment units in WUI exempt from standard (Complies)	LAU) to release sprouting, and sage/mountain shrub communities to mimic succession and natural disturbance processes.
Standard Veg S2	Limits unsuitable habitat created by timber regeneration treatments	≤ 15% of LAU in 10 year period Fuel treatment units in WUI exempt from standard (Complies)	No regen treatments in LAU in last 10 years. No regen treatments proposed in conifer habitats, only aspen stands (~357 acres and ~3% of potential lynx habitat in LAU) to release sprouting.
Standard Veg S5	Limits precommercial thinning in stand initiation structural stage that reduces snowshoe hare habitat	Only for conifer removal in aspen, daylighting aspen, or where aspen is in decline; or that would result in long-term benefits to lynx habitat. Fuel treatment units in WUI exempt from standard (not applicable to the proposed treatments)	Treatments occur in mature/overmature conifer and aspen stands in an understory re-initiation stage only, not in stand initiation stage. Conifer removal from understory using either mechanical means or prescribed fire.
Standard Veg S6	Limits vegetation management that reduces hare habitat in multi-story mature or late forest structural stage	Only within 200 feet of structures, for research studies, incidental removal during salvation harvest. Fuel treatment projects in WUI exempt from standard (Exemption for non-compliance in WUI)	Treatment units in understory re-initiation stage have forest understories with small patchy, mostly lower density horizontal cover. High density cover such as found in subalpine fir habitats is limited. Treatments will occur in stands that have generally self-pruned to a height where live branches are above the reach of snowshoe hares, but some patches of horizontal cover will be removed by the proposed treatments on up to 717 acres of potential lynx habitat in WUI. * No treatments proposed in <u>multi-storied stands</u> providing suitable hare horizontal cover outside the WUI
Guideline Veg G1	Design vegetation management projects to recruit a high density of conifers, hardwoods and shrubs where scarce	Priority for treatment is understory reinitiation structural stage in Douglas fir, aspen and lodgepole pine (Complies)	Proposed treatments will release sprouting in aspen clones. Burns will stimulate sprouting of fire adapted mountain shrubs and improve age class diversity of deciduous species. Openings created in mature conifer stands will stimulate

Not true - they are treating other mapped lynx habitat outside WUI but they say not good but they have no grant it dot to support this claim

2

Standard or Guideline	Description of Measure	Measure Project Compliance	Change of the Measure in LAU from proposed treatments
			regeneration of Douglas fir/lodgepole, grass/herb
Guideline Veg G4	Prescribed fire activities	Avoid permanent firebreaks on ridges and saddles and permanent travel routes that facilitate snow compaction (Complies)	No firebreaks or new road construction is proposed
Guideline Veg G5	Habitat for alternate prey species, primarily red squirrel	Provide in each LAU (Complies)	All conifer overstory and some mid-story trees are maintained for squirrel habitat
Guideline Veg G10	Fuel treatment projects in WUI	Project design should consider Standards VEG S1, S2, S5, S6 (Complies)	No regeneration treatments in conifer habitat, only in burn units in aspen clones and shrub fields to stimulate sprouting/regeneration for age class diversity
Guideline Veg G11	Denning habitat	Design projects in each LAU to retain pockets of large woody debris, root wads, or piles of smaller wind thrown trees. (Complies)	Project design provides for retention of at least 4 down logs per acre at least 12 inches diameter (at large end) and 20 feet long. Retain 5-7 tons per acre of coarse woody debris in all project units. If uncertain whether objective can be met in areas currently deficient in downed woody materials, recommend retention of at least two slash piles/acre if feasible. Snags and cull trees (of the largest diameter available) should be maintained in clumps along perimeter of each unit at or above 4-6 per acre where present
Guideline Graz G1	Livestock Grazing	Manage grazing in fire/harvest created openings to allow shrubs and trees to regenerate (Complies)	Monitor aspen utilization in the North Willow/Willow Creek units to assure grazing is not suppressing sprouting response and growth released from conifer removal

Effects of the Action Added to the Baseline

Because lynx populations may oscillate with snowshoe hare populations in western Wyoming, projects that promote snowshoe hare cover and food should benefit lynx (Hienselmen, 1973, Koehler, 1990). The proposed forest understory thinning and prescribed burning will have negative short-term effects by eliminating horizontal cover,

especially in North Willow and Ann Mountain units, for snowshoe hare and lynx (Appendix A photos provide a visual reference of mechanical thinning of forest understory to reduce ladder fuel stem density). As succession progresses on the treatment areas and snowshoe hare habitat improves, indirect effects of the project may benefit lynx over the long-term. Grange (1965) reported that snowshoe hares are associated with plant species that recover well following disturbances. He also stated that population explosions are limited to very early seral stages. This project will create early seral habitats, particularly in aspen and shrubsteppe habitats that support snowshoe hare and grouse.

Dominant conifer overstory trees within the treatment units would remain intact, so treatments will not result in a cover type change or vegetative conversion that would reduce red squirrel habitat. Understory conifer stand structure and mature aspen clones will be modified which will result in a temporal change in habitat suitability for hares and lynx.

Determination of Effects

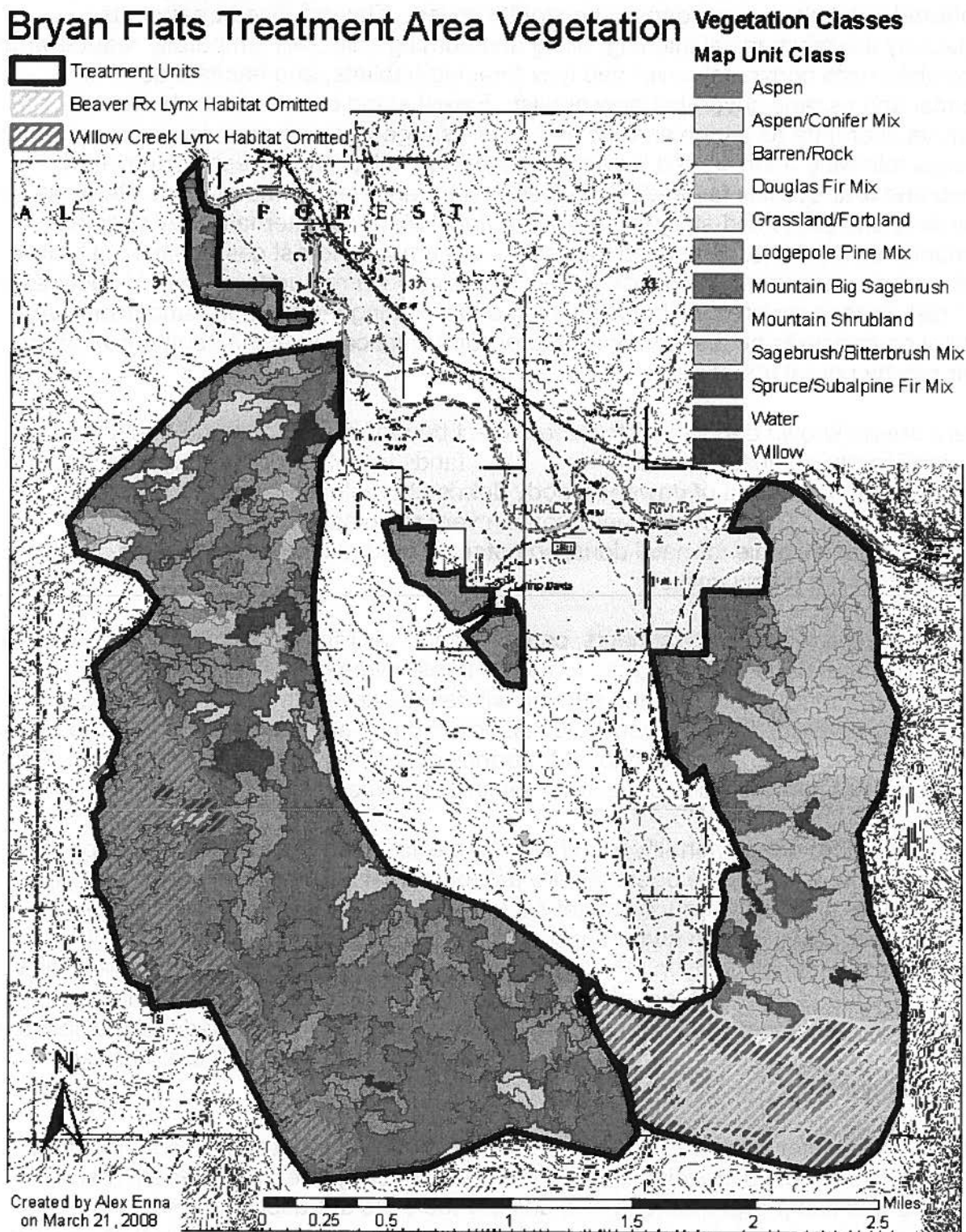
The potential for "incidental take" associated with the proposed project is very low. No lynx have been observed or tracked within or near the project area or at similar lower elevation terrain typical of lower Hoback Canyon. Bobcat tracks are commonly encountered at lower elevations in Hoback Canyon where snow depths and conditions are more favorable to bobcats. Lynx are not suspected to be regularly present within the project area, but could be transient visitors as lynx from the Wyoming Range or Colorado make exploratory movements into the Togwotee Pass area. The likelihood of lynx being present during project activities is negligible.

Treatment areas contain small, scattered patches of potentially "suitable" lynx foraging habitats (USFS 2004). Foraging habitat quality within the project units is low due to a paucity of preferred high density horizontal cover for snowshoe hare habitat. The best habitats for snowshoe hares and lynx are generally found on higher elevation north-facing slopes with mixed conifers, including a stronger subalpine fir understory component, such as at the southern edge of the Beaver Mountain treatment unit. This conifer stand is outside the WUI and is excluded from proposed treatment (Fig. 11). The generally north facing mechanical treatment units (Ann Mountain and North Willow) have small patches of mixed conifer with low to moderate density horizontal cover and thus marginal lynx foraging attributes, and the stands are small and isolated from other larger expanses of contiguous lynx foraging areas at higher elevations in the Hoback canyon. The prescribed burn units are generally drier west-facing slopes primarily dominated by mixed shrub interspersed with aspen, lodgepole pine and Douglas fir, with very small inclusions of moist/wet subalpine fir stands. The willow dominated riparian habitat along Willow Creek probably provides summer and potentially winter habitat for hares. A no treatment buffer along this riparian area that extends up into the contiguous conifer cover along the west side of Willow Creek will maintain this hare habitat and provide hiding/escape cover for lynx traveling along this riparian corridor (Fig. 11).

Fig 11 does not show any spr/subalp fir in SD part Beaver Mtn unit - 1 spot SE corner

what about rest of non-WWI?

Fig.11. Potential lynx foraging habitat (moderate to high forest understory and riparian horizontal cover for snowshoe hare) within the proposed Willow Creek and Beaver Mountain prescribed burn units that will not be treated with fire or by mechanical means.



define

Need data for "moderate" density horiz cover

* Empirical walk through field observations of all treatment units revealed that forest understories lack high density horizontal cover such as found in higher elevation subalpine fir habitats. Treatments will occur in stands that have self-pruned to a height where live branches are above the reach of snowshoe hares, except for remnant small, scattered patches of lower density horizontal cover. The proposed treatments, especially the mechanical thinning, piling and burning units, will temporally reduce what snowshoe hare horizontal cover and lynx foraging habitats, and habitats used for thermal and escape cover that now persist. Forest stand conditions for hares will improve over time as aspen sprouts and conifers regenerate to provide a mosaic of age classes following thinning and burning. Treatments will promote response by herb, shrub and tree species favored by snowshoe hare and ruffed/blue grouse. Retention of overstory and some mid-story trees will maintain habitat for alternate prey species, primarily red squirrels. Proposed treatments will produce forest composition, structure, and patterns more similar to those that would have occurred under historical succession and disturbance regimes while maintaining and restoring the temporal and transitional habitat components necessary for lynx to occupy landscapes at the southern edge of their patchy boreal forest range.

< There are no known den sites within the project boundary, and denning habitat will not be significantly reduced within the area. The stands targeted for treatment generally do not possess the amount of downed woody debris characteristic of preferred lynx denning habitat. The treatment units contain very marginal forest structural characteristics suitable for natal dens, so potential for direct adverse impacts on reproduction are highly unlikely.

| Following fuels reduction treatments, conifer stands will remain "suitable" cover for lynx movement and dispersal. Although a mature forest overstory will be maintained following treatments, thinning and burning will reduce understory escape, hiding or movement cover for several years. But, sufficient cover should remain within the project area to at least serve as travel habitat for transient lynx movement and dispersal. This project will not compromise connectivity within or between LAU's.

The potential for direct mortality from the proposal is low since no new roads, road reconstruction or extensive openings are proposed that might create barriers to lynx movement or adversely reduce habitat security. However, the treatment units are situated near areas of high human use and little secure habitat is available in this portion of the Hoback Canyon. Project areas, with the exception of most of the Willow Creek prescribed burn unit, are all adjacent to private lands (ranches, ranchettes, resorts and residences) along the Hoback Canyon and Bryan Flat roads. An extensive trail system frequented by outfitters from nearby resorts traverses all the proposed treatment units.

Due to the low elevation, current forest cover type and structural stage conditions, and proximity to residential developments and trails frequently used by adjacent resort outfitters and camp organizations, it is unlikely the units are used extensively by foraging or reproducing lynx. Given the short duration and scope of the project, the type of

Also

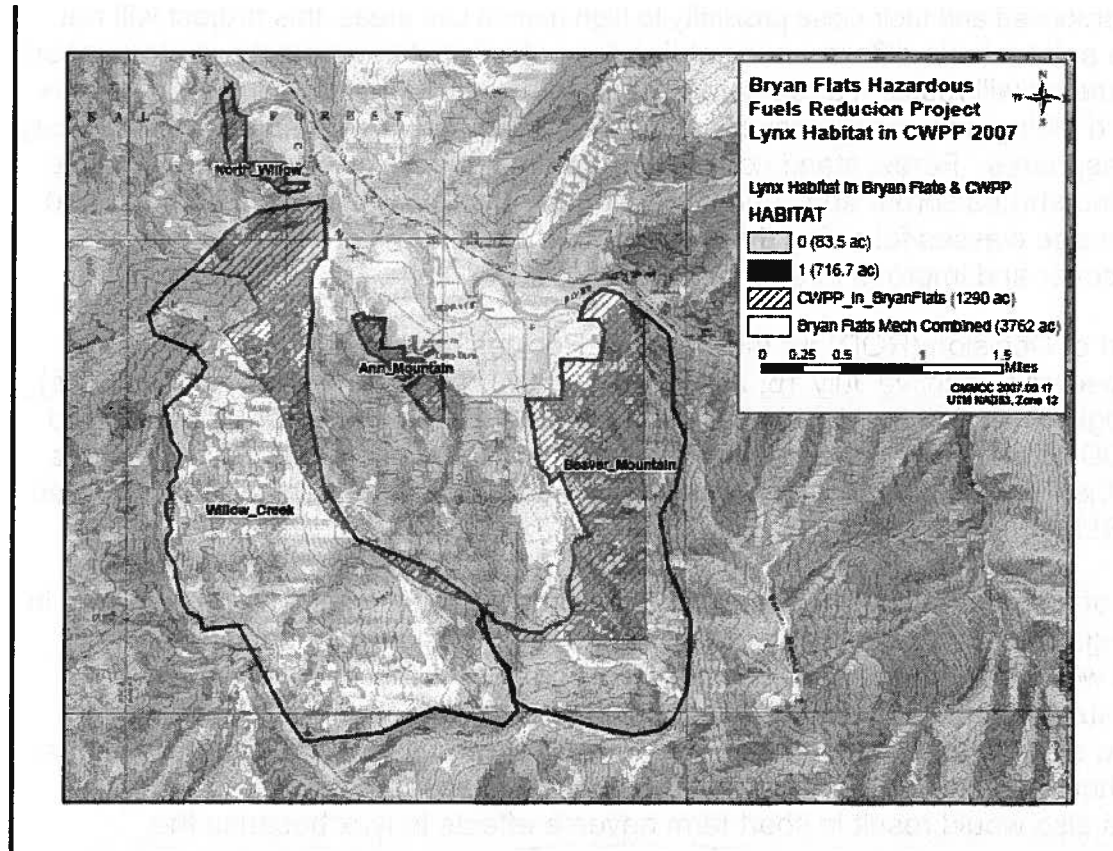
7 removing
SSH hab. w/ ?
outside w/ ?

* < treatments proposed and their close proximity to high human use areas, this project will not likely make a detectable difference regarding the potential of the project area to support lynx. Treatments will result in a temporary, short term reduction in the suitability of lynx foraging and hiding and escape cover habitat and horizontal cover habitat for its primary prey species, hares. Forest stand conditions for hares and lynx will improve over time as aspen and shrubs sprout and conifers regenerate to provide a mosaic of forest and shrub cover age classes following thinning and burning that will provide more dense horizontal cover and improve forage for hares.

The Record of Decision (ROD) for the Northern Rockies Lynx Management Direction (NRLMD) became effective July 16, 2007 (USFS2007). Terms and Conditions (T&C's) of the Biological Opinion and Incidental Take Statement (FWS 2007) are incorporated into the ROD. This Biological Assessment provides a summary to date, including this project, of the Forest's compliance with the Incidental Take Statement (ITS) associated with the NRLMD.

< Q7 { Treatment of approximately 717 acres of potential lynx habitat within the project area in the WUI (Fig. 12) would result in short term adverse effects to lynx because the treatments would reduce the density of year around horizontal cover for snowshoe hares and subsequently reduce foraging habitat for lynx. Mechanical thinning, piling and burning slash in the Ann Mountain and North Willow units would have the greatest impact on horizontal cover. Prescribed burning of the Beaver Mountain and Willow Creek units also would result in short term adverse effects to lynx because the treatments would reduce the density of year around horizontal cover for snowshoe hares and subsequently reduce foraging habitat for lynx. However, because of the discontinuous arrangement and density of ground and ladder fuels, scattered patches of horizontal cover would undoubtedly persist post-fire. Over the long term, all proposed treatments will promote retention and expansion of aspen stands, and improve their age class diversity which should improve habitat conditions for snowshoe hare, grouse and lynx. The management direction in the ROD for Standards VEG S1, VEG S2, VEG S5 and VEG S6 states that the Standards apply "... except for fuel treatment projects within the wildland urban interface (WUI) as defined by HFRA, subject to the following limitation.

Fig. 12. Potential lynx habitat within Bryan Flats proposed treatment units within the Community Wildfire Protection Plan Wildland Urban Interface.



Fuel treatment projects within the WUI that do not meet Standards VEG S1, VEG S2, VEG S5, and VEG S6 shall occur on no more than 6 percent (cumulatively) of lynx habitat on each administrative unit (a unit is a National Forest). *In addition, fuel treatment projects may not result in more than three adjacent LAUs exceeding the standard.* [The standard referred to in the last sentence is VEG S1.]

* The total cumulative acres of lynx habitat treated on the Forest since the ROD became effective, including this project, are 717 acres or 1 percent. This acreage is within provisions of the ITS, Term and Condition 1".

The proposed action would treat approximately 717 acres of potential lynx habitat in the WUI and because the treatments would reduce density of any horizontal cover found on these acres to little or no value as snowshoe hare habitat the project **"may affect, is likely to adversely affect lynx"**. The acres affected would be within the Forest's allocation of acres identified in the ITS (120,000 acres) for fuels treatments exceptions to standards in the WUI.

? Another 515 acres of fuel reduction treatment is proposed outside the WUI in potential lynx habitat. These acres are proposed to be prescribed burned. Like burn treatments proposed within the WUI, prescribed burning would result in short term adverse effects to lynx because the treatments would reduce the density of year around horizontal cover for snowshoe hares and subsequently reduce foraging habitat for lynx. Because

"Potential" = mapped lynx hab
walkthru to ID low-mod-hi horiz cover

Prof, Judgman
would not
support
SSH indens.
sufficient +

support lynx
- not foraging habitat
more security

Q22 of the discontinuous arrangement and density of ground and ladder fuels scattered patches of horizontal cover would undoubtedly persist post-fire. To maintain the most suitable hare habitat within the project units, no treatment areas have been delineated in the Beaver Mountain Unit at the higher elevation mixed conifer stand along the southern edge, and along the Willow Creek riparian corridor extending up into the contiguous conifer stand paralleling the riparian habitat. Over the long term, prescribed burning will promote retention and expansion of aspen stands, and improve their age class diversity which should improve habitat conditions for snowshoe hare, grouse and lynx. With no treatment proposed in the most suitable acres of hare habitat, restoration of a more diverse and vigorous aspen community and remnant post-fire horizontal cover patches, the proposed prescribed burn treatments outside the WUI as mitigated by the Conservation Measures **"may affect, but are not likely to adversely affect"** lynx and their habitat.

Proposed Critical Habitat

The proposed fuel reduction treatments, both within and outside the WUI, will not result in destruction or adverse modification of their proposed critical habitat in the Greater Yellowstone Area (Unit 5). The limited scope of the proposed action would not significantly reduce the quantity and quality of snowshoe hare and lynx habitat such that the landscape's ability in the Greater Yellowstone Area would not produce adequate densities of hares to support resident lynx.

Appendix B

References

Aubry, K. B. Koehler, G. M. and J. R. Squires. 1999. Ecology of the Canada lynx in southern boreal forests. Pp. 373-396 in Ecology and conservation of lynx in the United States (Ruggerio et al.) General Technical Report PNW-GTR-30WWW. USDA, Forest Service, Rocky Mountain Research Station and University of Colorado Press.

Bertram, T. 2007. Biological assessment (revised) of the Northern Rockies Lynx Amendment on threatened, endangered and proposed vertebrate and invertebrate species. USDA Forest Service, Northern Region, Missoula, MT. 105pp,

Bill, T. and M. Novak. 1995. Winter 1995 furbearer monitoring and inventory, Jackson Ranger District. USDA Forest Service, Bridger-Teton National Forest, Jackson Ranger District. 13pp.

Buskirk, S. W. Ruggiero, L. F., Aubry, K. B, Pearson, D. E., Squires, J. R., and K. S. McKelvey. 1999. Comparative ecology of lynx in North America. Pp. 397 – 418 in Ecology and conservation of lynx in the United States (Ruggerio et al.) General Technical Report PNW-GTR-30WWW. USDA, Forest Service, Rocky Mountain Research Station and University of Colorado Press.

Buskirk, S. W., L. F. Ruggiero, K. B. Aubry, D. E. Pearson, J. R. Squires and K. S. McKelvey. 2000a. Comparative ecology of lynx in North America. Pages 443-454 in Ruggiero, L. F., K. B. Aubry, S. W. Buskirk, G. M. Koehler, C. J. Krebs, K. S. McKelvey, and J. R. Squires (Tech. Eds.). Ecology and conservation of lynx in the United States. University Press of Colorado. Boulder, CO. 480 pp.

Fuller, A. K. 2006. Multi-scalar responses of forest carnivores to habitat and spatial pattern: Case studies with Canada lynx and American martens. PhD. Thesis. Unpublished. University of Maine. 223 pp.

Hodges, K. 2000a. The ecology of snowshoe hares in northern boreal forests. Pages 117-161 in Ruggiero, L. F., K. B. Aubry, S. W. Buskirk, G. M. Koehler, C. J. Krebs, K. S. McKelvey, and J. R. Squires (Tech. Eds.). Ecology and conservation of lynx in the United States. University Press of Colorado. Boulder, CO. 480 pp.

Hodges, K. 2000b. Ecology of snowshoe hares in southern boreal and montane forests. Pages 163-206 in Ruggiero, L. F., K. B. Aubry, S. W. Buskirk, G. M. Koehler, C. J. Krebs, K. S. McKelvey, and J. R. Squires (Tech. Eds.). Ecology and conservation of lynx in the United States. University Press of Colorado. Boulder, CO. 480 pp.

Grange, Wallace. 1965. Fire and tree growth relationships to snowshoe rabbits. In: Proceedings, 4th Tall Timbers fire ecology conference; 1965, March 18-19; Tallahassee, FL. Tallahassee, FL: Tall Timbers Research Station: 111-123. [13530]

Heinselman, Miron L. 1973. Fire in the virgin forests of the Boundary Waters Canoe Area, Minnesota. Quaternary Research. 3: 329-382. [282]

Koehler, Gary M.; Brittell, J. David. 1990. Managing spruce-fir habitat for lynx and snowshoe hares. Journal of Forestry. 88(10): 10-14.

McKelvey K. S. 1999. History and distribution of lynx in the contiguous United States. Pp. 207 – 264 in Ecology and conservation of lynx in the United States (Ruggerio et al.) General Technical Report PNW-GTR-30WWW. USDA, Forest Service, Rocky Mountain Research Station and University of Colorado Press.

McKelvey, K and G. W. McDaniel. 2001. An analysis of snowshoe hare (*Lepus americanus*) numbers in Island park based on pellet sampling and capture/recapture trapping. Unpublished paper, USDA Forest Service, Rocky Mountain Research Station, Missoula, Montana. 20 pp. + tables & figures.

Pyare, Sanjay. 2001. Conservation, Survey, and Monitoring of Canada Lynx in Jackson Hole. Wildlife Conservation Society/Denver Zoological Foundation. 2001 Annual Report.

Ruediger, B.J. et al. 2000. Canada lynx conservation assessment and strategy (LCAS). USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land