Wildhorse River Watershed Forestry Implementation Plan

February 24, 2010

Prepared for the Idaho DEQ

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Introduction

The Wildhorse River Watershed Total Maximum Daily Load (TMDL) Forestry Implementation Plan was drafted by land management agencies that affect water quality in this area. The Department of Lands (IDL) in coordination with the United States Forest Service (USFS) and Department of Environmental Quality (DEQ) developed the forestry implementation plan.

The Wildhorse River Watershed Advisory Group (WAG) and the designated agencies played a significant role in developing the TMDL.

Purpose, Goals, and Objectives

The purpose of this document is to identify Best Management Practices (BMPs) that are needed to reduce temperature (heat) loads and help restore the biological functions in the Wildhorse River watershed including the tributaries of Crooked River, Bear Creek and Lick Creek. These BMPs are generally applicable throughout the watershed.

Forestry

The purpose of the forestry implementation plan is to provide specific management options to reduce heat loading to the Wildhorse River watershed and prevent any further degradation. While the forested sections are generally much smaller heat sources than the non-forested reaches, this plan summarizes the current and future activities taking place in the watershed that could reduce pollutant loading.

Wildhorse River Subwatershed and TMDL Summary

The Wildhorse River watershed is part of the Brownlee Reservoir Subbasin (17050201), which is located in southwestern Idaho on the border between Idaho and Oregon (Figures A and B). In 2000, the United States Environmental Protection Agency (EPA) added streams to Idaho's 1998 §303d list of impaired waters that exceeded Idaho's temperature criteria. In the Brownlee Reservoir Subbasin, Wildhorse River was among those EPA additions.

The headwaters of the Wildhorse River originate in forested land at the southern end of the Seven Devils Mountains, which form the eastern border of Hells Canyon. The river flows southwesterly out of these mountains and enters the Snake River between Brownlee Dam and Oxbow Reservoir. This portion of the Snake River forms the border between the states of Idaho and Oregon. Although some of the southerly tributaries flow out of Washington County, the mainstem is located solely in the southern portion of Adams County. There are no towns and very few inhabitants located on the Wildhorse River. The unincorporated community of Bear is located in the Wildhorse Basin.

The Forestry group examined the tributaries to the Wildhorse River and the Wildhorse River itself in order to assess opportunities for pollutant reduction. Even if the waterbodies themselves were determined not to be impaired by temperature, the opportunity to reduce loading of that pollutant to the Wildhorse River was investigated.

In areas where tributaries are not significant sources of heat, this has been documented. These areas would be of lower priority for implementing projects since the cost incurred to implement a project may not result in an appreciable decrease in pollutant loading. Water quality improvement projects, separate from mitigation efforts for grazing or timber harvest, are listed in watersheds where they are occurring.

Table 1. Streams and Pollutants for which TMDLs Were Developed

STREAM	POLLUTANT(S)
Wildhorse River ID17050201SW015_04	Temperature

Table 2. Additional Assessment Units with TMDL Temperature Allocations

STREAM	ASSESSMENT UNIT
Crooked River	ID 17050210SW015_02
Bear Creek (excluding tornado impacted area)	ID 17050210SW016_02, 016_04
Lick Creek	ID 17050210SW016_02, 016_03, 016_04

The potential natural vegetation (PNV) approach was used to develop the Wildhorse River temperature TMDL. Percent effective shade is the most common surrogate for in stream temperature. The height and density of the PNV is compared against the width of the stream to gauge the percent effective shade achievable for a given stream. Figure 1 is a map showing the difference between the target shade and existing or more simply, areas that need improved shading. The figure illustrates estimated percent of shade improvement needed in a given reach of stream to help the waterbody meet natural background temperature requirements. Lack of shade <20% was considered in the natural range of variation for the riparian community. Thus, areas requiring increased shading of >20% were examined more closely for restoration project opportunities.

In general on public land, DEQ found that the areas >20% were recovering through observations on riparian shrub maturity classes present and current bank stability. Management prescriptions focus on recovery through adherence to grazing management plans as well as taking advantage of decommissioning roads in riparian conservation areas when engaging in new projects such as fuels reduction.

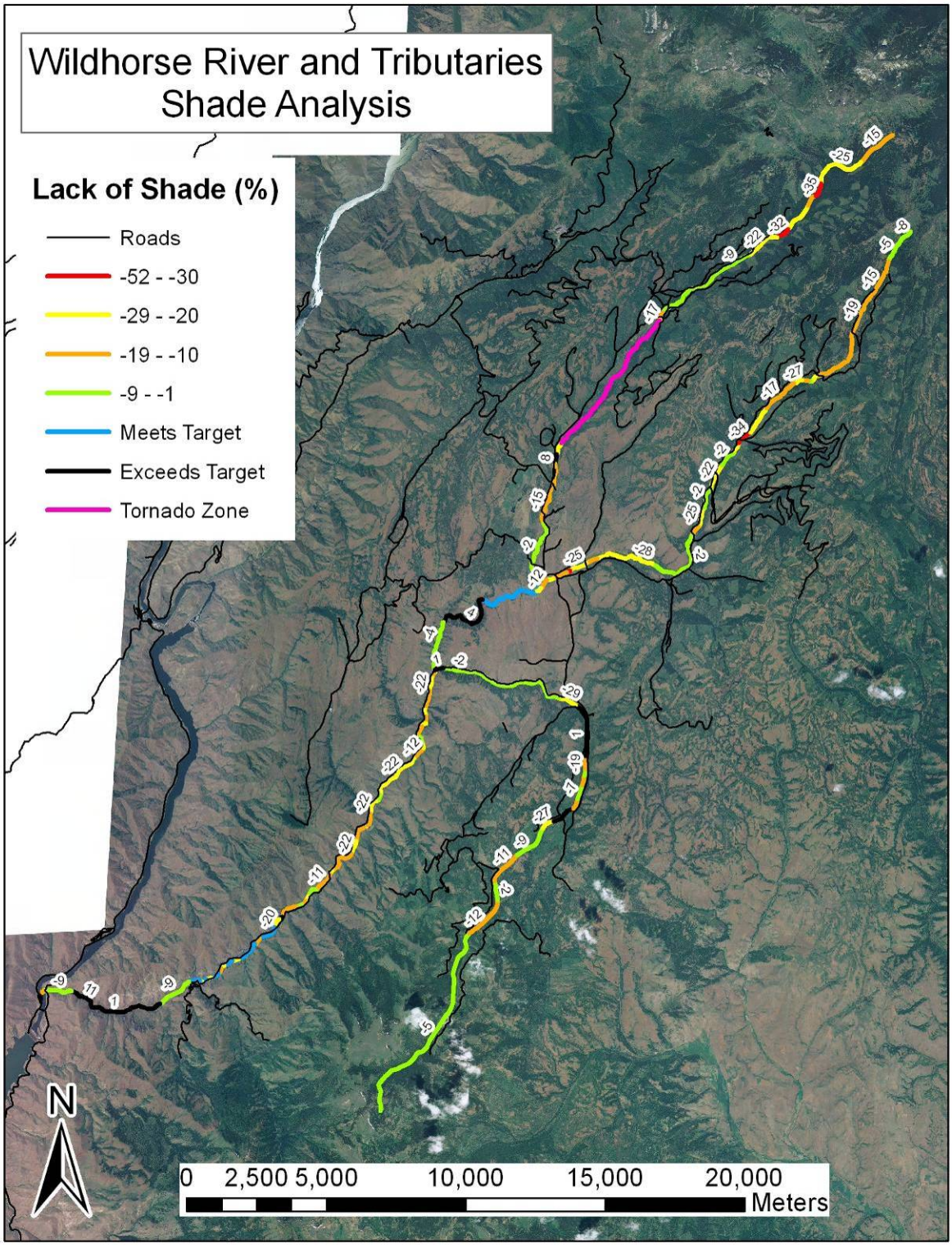


Figure 1. Lack of Shade (difference between potential shade and existing shade)

Improvement Plans

The most effective means for controlling the generation of nonpoint source pollution is by applying preventative and restorative watershed management practices. Nonpoint source pollution control is accomplished through the voluntary application of technology based BMPs. Using a feedback loop style of management, agriculture and forestry stakeholders will apply a BMP, monitor, evaluate, adapt and determine if the practices are effectively increasing shading to streams.

Designated Agencies

The Idaho Water Quality Standards and Wastewater Treatment Requirements list designated agencies responsible for reviewing and revising nonpoint source BMPs based on water quality monitoring data that is generated through the state's water quality monitoring program.

The designated state agency for forestry is the Department of Lands. As designated land management agencies, both the US Department of Agriculture Forest Service and the US Department of the Interior Bureau of Land Management entered into a Memorandum of Understanding between the US Environmental Protection Agency and various State of Idaho agency departments. Within the Forestry Practices Appendix to this MOU, the federal agencies agreed to comply with the water quality protection provisions of the Idaho Forest Practices Act Rules and Regulations.

Idaho Department of Lands (IDL)

In accordance with Idaho's Nonpoint Source Management Plan, the Department of Lands is the designated lead agency for Forest Practices activities on all forest lands in the state of Idaho, including federal lands. As the lead agency, the Department of Lands is responsible for soliciting input from affected landowners and technical specialists to help develop practices that will fully restore the beneficial uses of impaired surface waters.

Under Idaho's Antidegradation Policy, IDL is designated as the lead agency for managing surface mining, dredge and placer mining, and forest practices on all lands within the state. IDL works closely with DEQ to conduct Forest Practices Act audits, which form the basis for achieving State/Federal consistency for nonpoint source activities on forestlands.

They also work extensively with DEQ, BLM and FS on the use of the Forest Practices Cumulative Watershed Effect Process (CWE) for watershed evaluation input to the TMDL process. The Forest Practices CWE Process provides a direct linkage for developing TMDLs and implementation plans for the forested portions of watersheds on the State §303(d) list.

FPA: Strategies to Address Thermal Load

The Forest Practices Act (FPA) is designed to assure the continuous growing and harvesting of forest tree species and to protect and maintain the forest soil, air, water

resources, wildlife, and aquatic habitat. FPA rules address timber harvesting practices, forest road construction and maintenance, forest tree residual stocking and reforestation, use of chemicals/management and prescribed fire. The Idaho Water Quality Standards and Wastewater Treatment Requirements, Title 39, Chapter 1, Idaho Code references the FPA rules as the approved BMPs for silvicultural, harvesting and forestry road activities. As mentioned above, IDL is the designated state agency responsible for administering and enforcing the FPA on all forestlands in Idaho.

The FPA requires forest practices rules for state and private lands to protect, maintain, and enhance our natural resources. Federal land practices must meet or exceed the requirements of the state rules and in this case, that is to improve and protect riparian vegetation.

When an operation is found in violation of the rules and corrective measures are not taken in a reasonable time, the Idaho Department of Lands will take enforcement action against the responsible operator. Forest Practice Advisors, located statewide, also provide technical assistance to forest owners and operators who wish to learn about proper forest practices.

The Forest Practices Act as implemented has resulted in the reduction of off-site impacts due to timber management. However, recreational activities within the watershed, which may utilize the same roads network, are unregulated. As such, the following types of management activities may need to occur as they relate to recreational activities and include:

- reconstruction of existing roads to meet current standards;
- improvement of drainage structures, water bars, grass seeding;
- relocation of roads;
- resurfacing of roads;
- temporary and permanent closure of high risk road segments.

State Endowment Trust Forestlands

State endowed forested lands are specifically managed to secure the maximum long-term financial return to the institution to which granted. These lands have been harvested using refined management practices contained in the Forest Practices Act. There is very little state land in the Wildhorse River watershed.

General Forestry Mitigation

Temperature Mitigation

Activities that promote healthy diverse riparian areas throughout the watershed should be encouraged on both private and public land. These include but are not limited to:

- grazing management plans (see agricultural implementation plan for more information),
- riparian management plans,
- riparian planting,

- riparian fencing,
- ensuring that roads do not impinge upon riparian area,
- Stream Protection Zone designation and
- harvest guidelines that ensure that shade targets are met.

Roads Mitigation

Currently the National Forest land in the Wildhorse watershed is classified as a commodity production emphasis area, which is reflected in the roads information given below. This designation is likely to change to a restoration emphasis area as part of a Forest Plan Amendment. The road standards listed below will remain the same with the Forest Plan amendment.

Payette National Forest Management Plan for Snake River Management Area 2: Road Standards for Commodity Production Emphasis within Forested Landscapes

In the areas of Bear and Crooked Rivers managed for commodity production, US Forest Service road standards exist in which all new roads and landings are to be located outside of riparian conservation areas unless a project level NEPA analysis and biological assessment shows that no degradation would occur by locating these in an RCHA or that there are resource benefits to be gained by increasing the road density. The existing road density shall not be increased unless there is an emergency, outstanding right, statute or treaty or if a project level NEPA analysis and biological assessment shows no degradation to the resource or demonstrable short term or long term benefits that outweigh the adverse effects. The actual road standards are listed in Appendix A.

Timber Harvest Mitigation

Prior to any timber sales and subsequent harvest, the USFS adheres to the National Environmental Policy Act (NEPA) guidelines and prepares the appropriate environmental documentation to describe the proposal, receive public comment and describe the effects. These NEPA documents are in accordance with the Idaho Forest Practices Act. Within these statements, the potential effects on fisheries and water quality is investigated and mitigation efforts proposed to minimize or prevent any adverse effects to these resources. Table 2 in Appendix A describes the typical mitigation measures used in timber harvest activities and Table 3 in Appendix A describes the current management requirements used to achieve protection of water resources.

Grazing Mitigation

Required mitigations on National Forest lands also include adjusting grazing practices as necessary to avoid adversely affecting listed fish species, which for this TMDL means to protect riparian areas to minimize increasing water temperatures through lack of shade. Required mitigations in the Wildhorse River watershed are listed below for each allotment under specific watershed mitigation measures.

Allotment monitoring data collected on National Forest land in this subwatershed indicate that overall annual requirements are being met. With the proper level of allotment oversight and monitoring occurring annually, required mitigations, particularly the ability to adjust grazing practices causing adverse impacts, would be expected to yield a negligible risk of grazing impacts on habitat or fish species. In other words, there would not be an adverse effect on the riparian area and shading. Figures 2-4 show the grazing allotments in the watershed. Specific requirements for each allotment can be found in Appendix B.

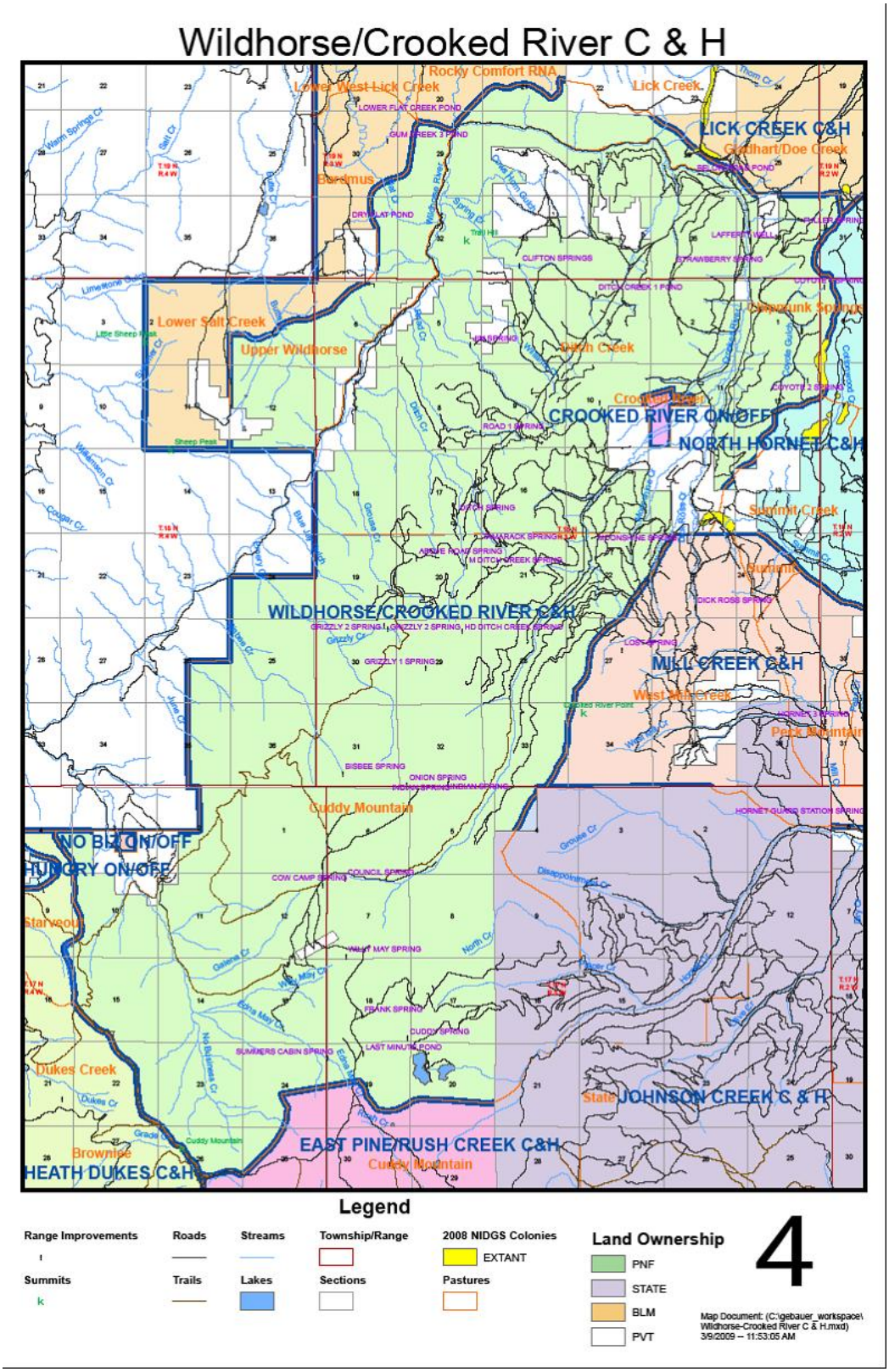


Figure 2. Wildhorse/Crooked River C&H Allotment

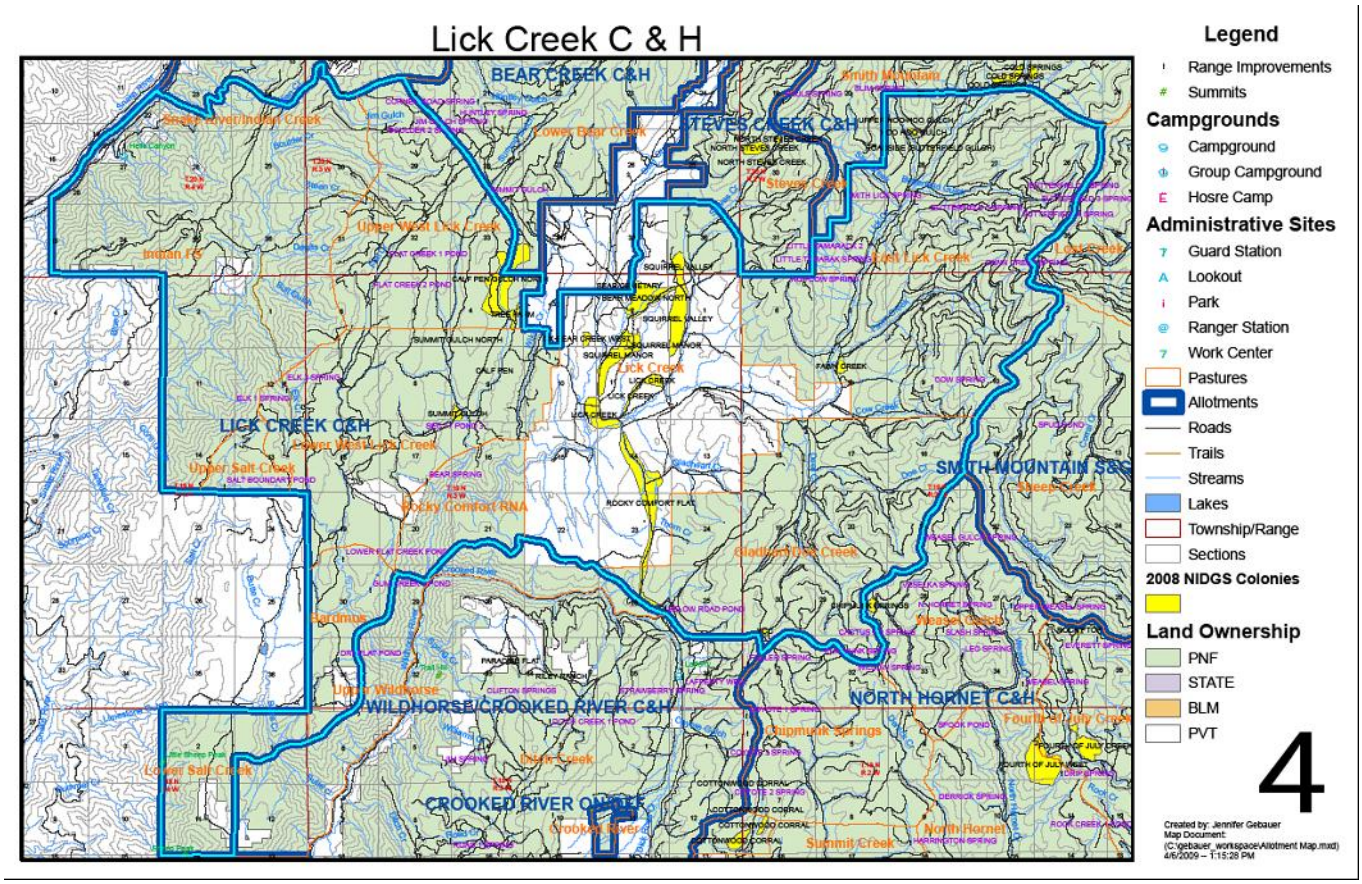


Figure 3. Lick Creek C&H Allotment

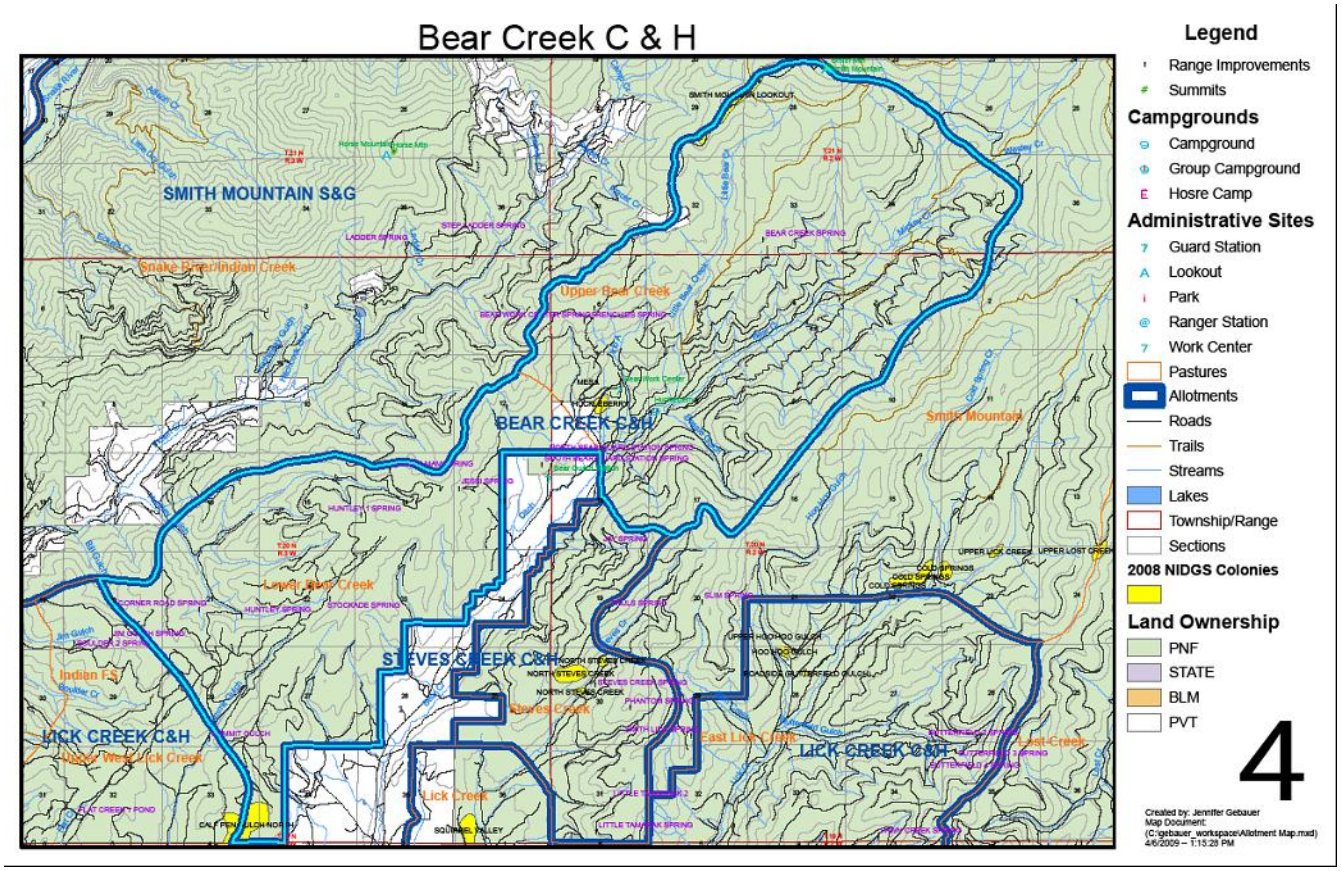


Figure 4. Bear Creek C & H Allotment

Forestry Improvement for Specific Sub Watersheds

Shade TMDLs were done on four streams in the Wildhorse watershed. Table 3 lists the tributaries and the required solar load reductions.

Table 3 Percent Reduction in Solar Load for Tributaries (Water Body Excess Load (kWh/day) Percent Reduction)

Water Body	*Percent Reduction in Solar Load*
Wildhorse River	12%
Crooked River	18%
Bear Creek	8%
Lick Creek	28%

For the purposes of prioritizing any implementation efforts geared towards improving shade, streams with percent reductions needed below 20% should be considered of lower priority. These percent reductions that are below 20% likely represent vegetative communities that will not need any additional planting or other riparian management work and will reach PNV on their own. This assumes that management of area also focuses on ensuring canopy coverage in the riparian area. Riparian management techniques may be able to hasten this PNV process. The TMDL notes that Lick creek has excessive heat loading and should be investigated further. On public land, areas with excessive heat loading are in the vicinity of Butterfield Gulch and upstream of Fawn Creek. These areas will be investigated by the USFS and DEQ to determine if the area is recovering or if additional measures are needed to increase shade. Additionally, the USFS will visit any locations in the Wildhorse, Bear and Crooked River watersheds that show a lack of shade of over 20% to determine whether those areas are recovering or whether additional measures are needed. This will be done in summer 2010 and findings will be documented by the USFS.

The activities identified under each sub watershed section have been summarized in a table and can be found in Appendix C.

Figure 5 and 7 show the percent lack of shade for a given reach of stream with land stewardship as a point of reference.

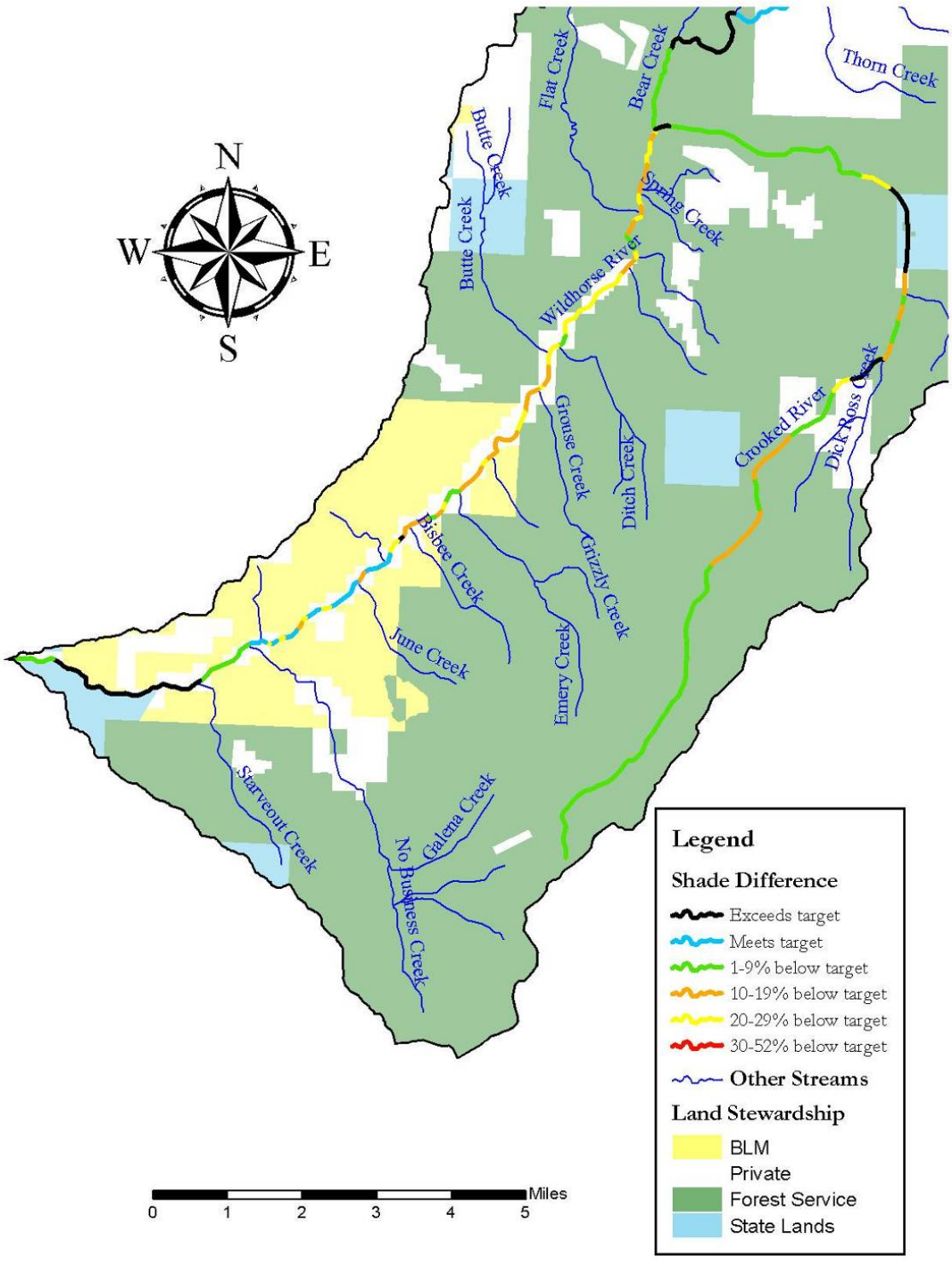


Figure 5. Percent Lack of Shade and Land Stewardship Wildhorse and Crooked Rivers

Wildhorse River

A general description of the Wildhorse River as well as water quality data can be found in the Wildhorse River TMDL (DEQ, 2007).

- The priority for TMDL temperature implementation is low on forested land.

The following sections describe ongoing activities in the Wildhorse River watershed.

Recreation

Primitive, undeveloped campsites exist in the drainage in several locations. These do not appear to be adversely affecting the riparian area.

Grazing

The Wildhorse River/Crooked River Grazing Allotment is part of the Wildhorse River Watershed. Current grazing management requirements can be found in Appendix B.

Timber Harvest

No current projects planned

Roads

The main road along the Wildhorse River impinges on the riparian area in places due to the narrow canyon.

Crooked River

A general description of Crooked River as well as water quality data can be found in the Wildhorse River TMDL (DEQ, 2007).

Timber harvest exists on both public and private lands.

- Not 303(d) listed as impaired water.
- Priority for Temperature TMDL Implementation = low for temperature on forested lands (grazing management plans reflect riparian restoration objective)

The following sections describe ongoing activities in the watershed.

Recreation

Recreation mainly consists of hunting in the late fall and ATV use on the roads as well as camping at Lafferty Campground. Trails exist in the upper Crooked River drainage.

Grazing

The Wildhorse/Crooked River C & H Allotment is found in the Crooked River drainage. Grazing management requirements can be found in Appendix B.

Timber Harvest and Roads

Current Projects: Crooked River Vegetation Management Project (Figure 5)

Proposed Action

Reduce hazardous fuels on approximately 5,574 acres. Treatments would include:

- Harvesting 1,722 acres by thinning from below to reduce tree density, crown spacing and ladder fuels. All harvest units would be underburned after treatment to reduce fuel accumulation. This includes 17 acres in riparian conservation areas (RCAs) where logging occurred in the past and stand densities are high.
- Underburn 246 acres of tree plantations (acres with trees less than 8 inches diameter) to reduce hazardous fuels and tree densities. Follow up hand thinning would be applied where needed after prescribed underburning.
- Harvesting activities will be accomplished using tractor, tractor/jammer, and skyline methods. Skidtrails will be designated to concentrate use in a limited amount of areas. Skidtrails will be reclaimed following harvest.
- Underburn 1,350 acres of forest to reduce fuels accumulation in open areas located between thinning units.
- Broadcast burn 1,773 acres of brush and grasslands to move vegetation towards the desired condition described in the Forest Plan.
- Allow prescribed fire to back into RCAs and actively ignite fire within RCAs when needed to minimize prescribed fire severity and intensity.

Upgrade road system to support project and long-term needs as identified by the road analysis process (RAP).

- Upgrade three culverts, (Dick Ross Creek, Coyote Gulch and Moonshine Creek) that are undersized and restrict passage of fish and other aquatic organisms.
- Construct 0.9 miles of new road to relocate road out of a riparian conservation area on a Crooked River Tributary and address access issues. Gravel will be supplied from a Forest gravel pit in the project area.
- Construction of temporary roads where needed to access harvest units and landings. Temporary roads will be decommissioned after use.
- Decommission 11 miles of road (approximately 7.5 within RCAs) that is currently closed to motorized travel; approximately 6 miles of additional closed road will be decommissioned if funding becomes available.

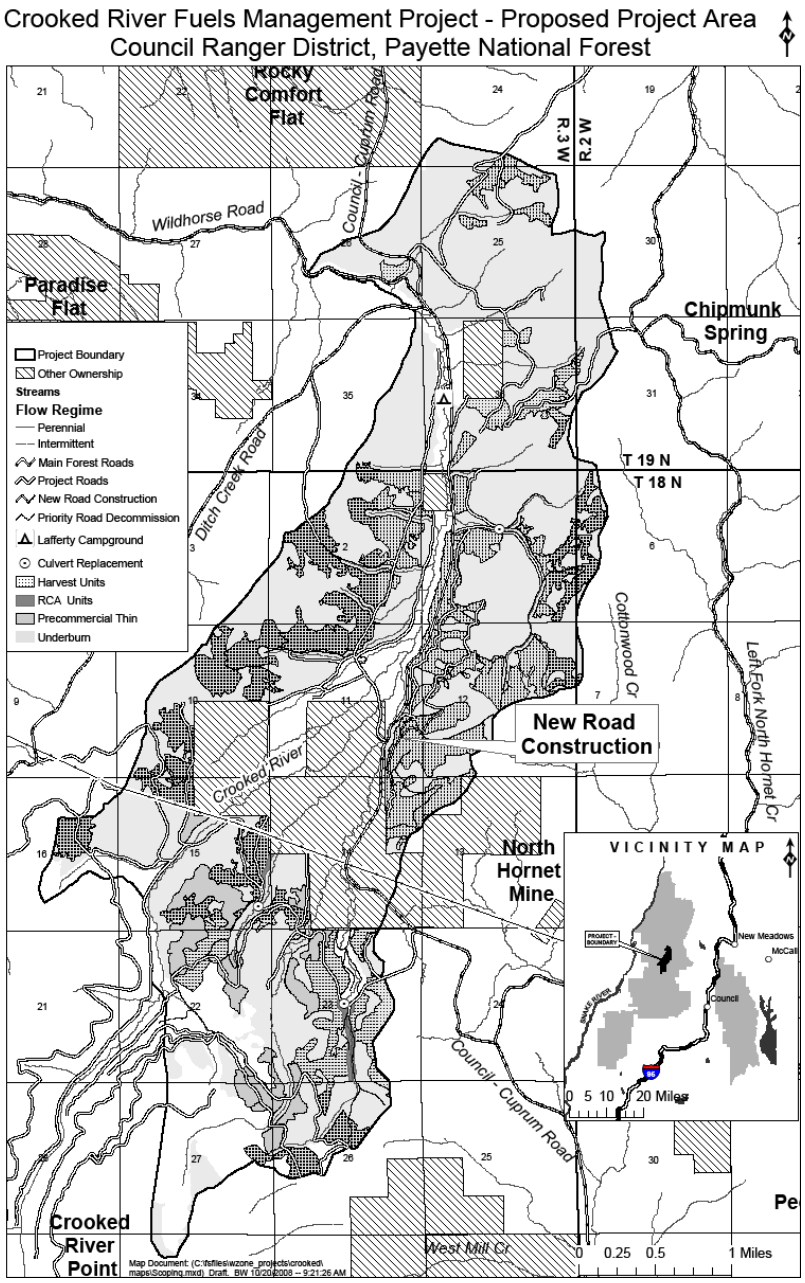


Figure 6. Crooked River Vegetation Management Project

Roads

The Forest Management Plan states that new roads and landings shall be located outside of RCA's and the there shall be no net increase in road density in the Lower Crooked Creek watershed unless it can be demonstrated through project level NEPA analysis and related biological assessment that:

For resources that are within their range of desired conditions, the increase in road densities shall not result in degradation to those resources unless outweighed by demonstrable short or long-term benefits to those resource conditions; and

For resources that are in a degraded condition, the increase in road densities shall not further degrade nor retard attainment of desired resource conditions unless outweighed by demonstrable short or long term benefits to those resource conditions; and

Adverse effects to threatened or endangered PC species or their habitat are avoided unless outweighed by demonstrable short or long term benefits to those TEPC species or their habitat.

An exception to this standard is where additional roads are required to respond to reserved or outstanding rights, statute or treaty or respond to emergency situations (e.g. wildfires threatening life or property, or search and rescue operations).

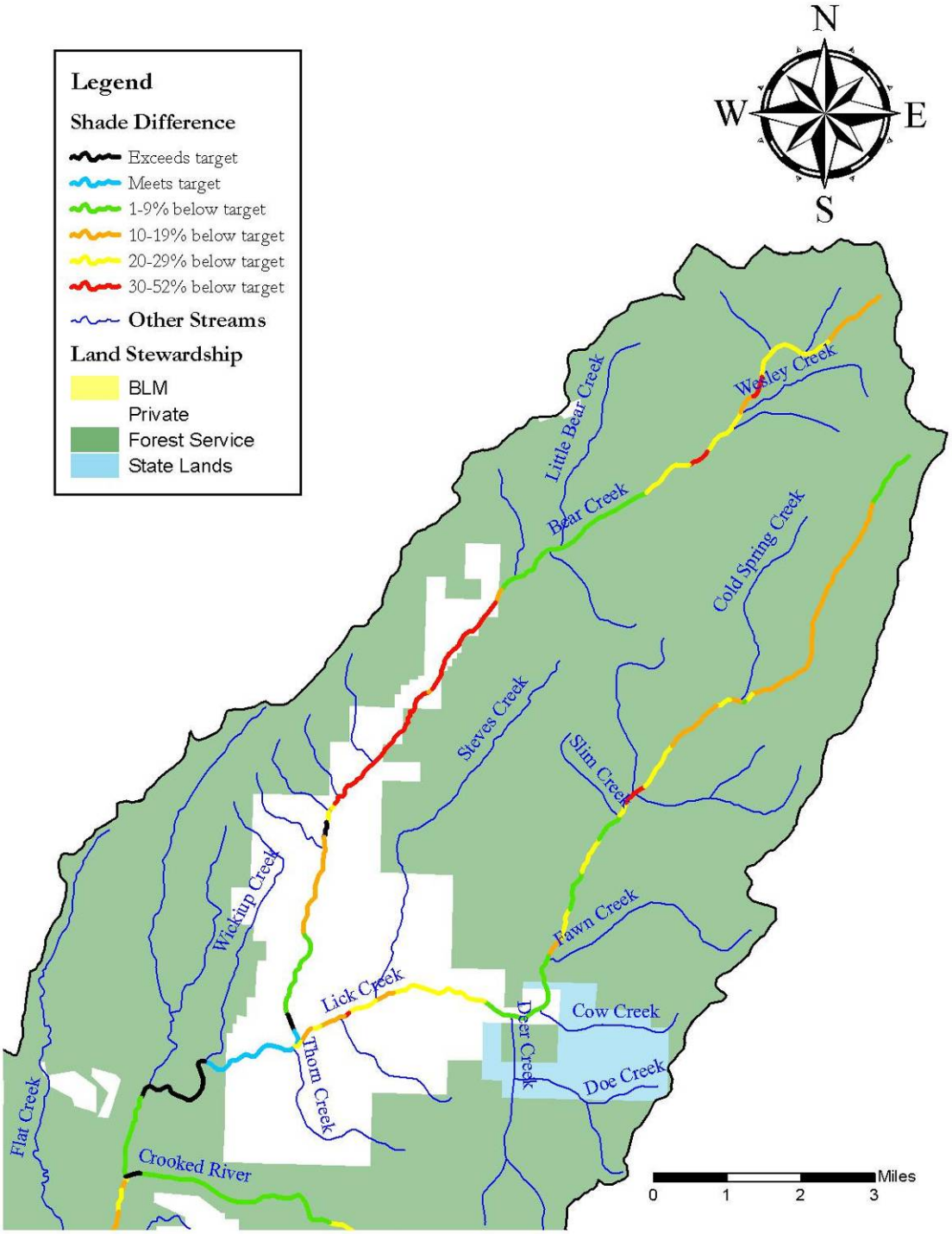


Figure 7. Percent Lack of Shade and Land Stewardship Wildhorse and Crooked Rivers

Bear Creek

A general description of Bear Creek as well as water quality data can be found in the Wildhorse River TMDL (DEQ, 2007).

- The upper part of the watershed is entirely forested and is managed for commodity production on Payette National Forestland although this management is scheduled to change in the near future to a restoration emphasis. In the middle to lower parts of the watershed, livestock grazing and rural residential development also occurs in the lower watershed. The middle part of the watershed area around the unincorporated community of Bear was impacted by a tornado in 2006.
- Priority for TMDL Temperature Implementation = moderate on forested land

The following sections describe ongoing activities in the Bear Creek watershed.

Recreation

Established camping occurs at Huckleberry Campground and there are trails in the Upper Bear Creek and Little Bear Creek areas.

Grazing

The Bear Creek C & H Allotment is in the Bear Creek watershed. Specific information on grazing management requirements can be found in Appendix B.

Timber Harvest

Areas that show >20% difference in shade in upper Bear Creek appear to be from historic logging that occurred in the riparian area. These areas show an upward trend in recovery with no recent impacts to the riparian area.

In Summer 2009, the final 5.5 miles of road decommissioning associated with the Bear Tornado Recovery EA was completed on FS ground for a total of 7.6 miles of total road decommissioning and 1 mile of longterm closure. This included the restoration of 3 perennial stream crossings (tributaries to Bear Creek), and approximately 1 mile of decommissioning in RCAs. An additional 7 miles of road of which 2 miles was a road to trail conversion in Bessie Gulch was decommissioned as part of the Upper Bear Timber Sale. This timber sale did not occur due to the tornado.

The Summit Gulch Vegetation project is planned for 2010. This fuels reduction project is to reduce the risk of high intensity wildfire and also results in the decommissioning of roads in Riparian Conservation Areas that are tributaries to Bear Creek. Although this project does not directly affect Bear Creek, it does improve shading to tributaries to Bear Creek, indirectly improving water quality to Bear Creek.

Summit Gulch Vegetation Project

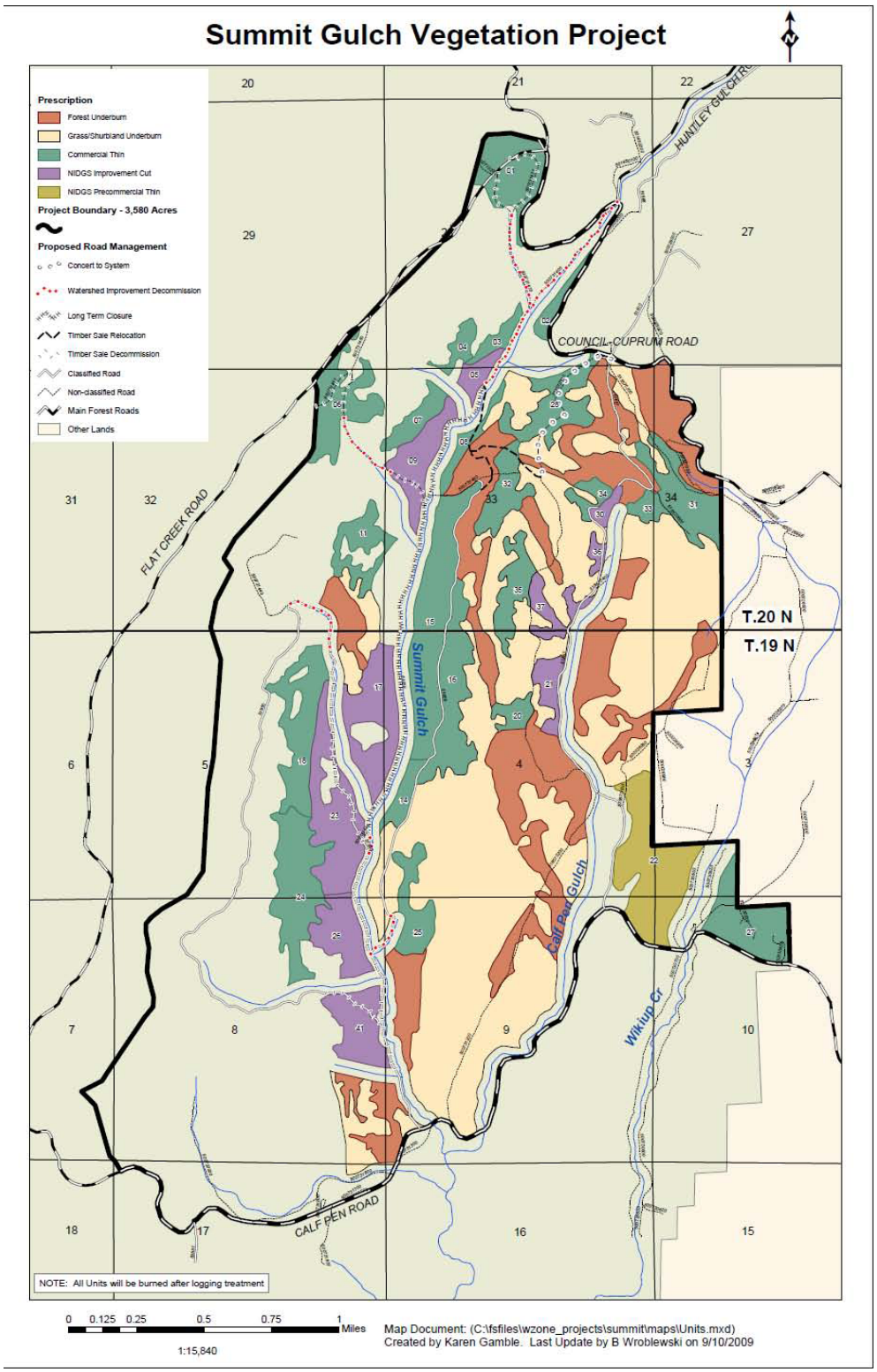


Figure 8. Summit Gulch Vegetation Project

Proposed Action:

- Promote large tree development
    - Implement thinning and improvement cutting on approximately 571 acres
- Improve northern Idaho ground squirrel (NIDGS) habitat
    - Implement improvement cutting on approximately 228 acres, followed by prescribed fire
    - Precommercially thin approximately 90 acres to reduce density and promote tree growth
- Reduce fuel loading
    - Prescribed fire will be applied to approximately 2061 acres to return fire to the landscape as an ecological process and improve NIDGS habitat by reducing conifer density, creating connective corridors, and rejuvenating grass and forb communities. About 1172 acres of prescribed burning is located outside of mechanical treatment areas.
- Manage roads
    - Decommission 5.7 miles of existing closed system (2 miles within NIDGS habitat) and non-system roads (3.7 miles in riparian areas)
    - Place 1.8 miles of system road in long-term closure status following harvest
    - Realign approximately 1.5 miles of system road to provide access and relocate the road outside of NIDGS habitat and away from riparian areas
    - Maintain all existing road closures

Lick Creek

A general description of Lick Creek as well as water quality data can be found in the Wildhorse River TMDL (DEQ, 2007).

Lick Creek is used for grazing and timber harvest.

- Not 303(d) listed as impaired water,
- Priority for TMDL temperature Implementation = Medium for temperature: efforts should be focused in the area around and upstream of Butterfield Gulch and near Fawn Creek

The following sections describe ongoing activities, current conditions and water quality improvement projects in the Lick Creek watershed.

Recreation

Current Condition: Lick Creek currently has many undeveloped dispersed camping sites on USFS managed land. Although these campsites are alongside the creek, impacts to the riparian area are localized.

Grazing

Current Condition: Cattle grazing occurs in the Lick Creek watershed on private and public land. Lick Creek is within the Lick Creek C&H allotment. Grazing allotment requirements can be found in Appendix B.

Timber Harvest

Current Condition: No current projects planned. Additional FS projects within Wildhorse 5th field HUC:

Lick Creek Vegetation Management Project This project reduces the risk of higher intensity wildfire and also decommissions roads that are within Riparian Conservation Areas, which will help improve riparian shading.

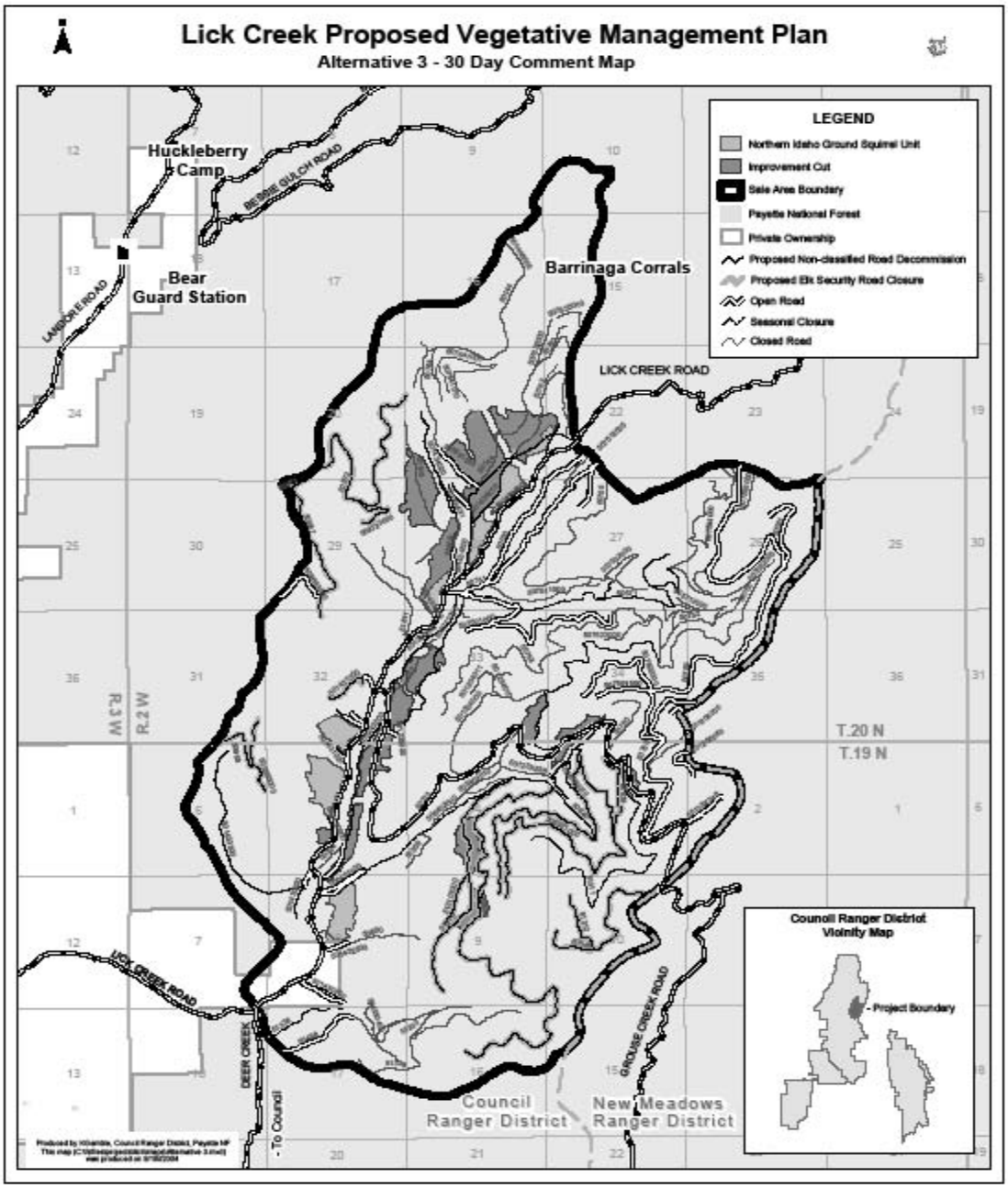


Figure 9. Lick Creek Proposed Vegetation Management Plan

Proposed Action:

- Improve Northern Idaho Ground Squirrel habitat
    - Implement thinning from below on approximately 189 acres
- Promote large tree development while improving habitat for white-headed woodpecker and flammulated owl
    - Implement thinning from below and improvement cutting on approximately 540 acres
- Reduce fuel loading
    - Whole-tree yarding
    - Lop and leave limbs and tops, then underburn (253 acres)
    - Fell residual trees- puts understory fuels on the ground for faster decay
- Manage roads
    - Decommission 11.0 miles of road (6 miles within RCAs) to reduce sediment delivery to Lick Creek and close road to imporove year-round elk security on 3388 acres
    - Construct 0.4 miles of temporary road and use 6.3 miles of existing non-system road for harvest activities- decommission after use

Roads

Current Condition: Roads in this watershed are, in general, not impinging upon the riparian area. The area directly around the bridge by Butterfield Gulch is one in which planting may help hasten recovery. This is an area that shows > 30 % difference between target and potential shade.

Monitoring Plan, Feedback Loop and Implementation Tracking

Two processes are currently in place to evaluate forestry BMP implementation and effectiveness. These are: 1. annual audits of the Forest Practices Act by IDL to determine if BMPs are being implemented on federal, state and private lands and 2. BMP effectiveness evaluations completed by DEQ every 5 years in association with the scheduled TMDL update.

Forest practices in the watershed may be inspected yearly for compliance with FPA. If any unsatisfactory conditions are identified, they will be corrected using standard IDL enforcement procedures. The IDL district office in McCall will be the office of record for all FPA inspection reports in this drainage.

In addition to the regular FPA inspection program conducted by IDL, the Forest Practices Water Quality Management Plan calls for a statewide audit of the application and effectiveness of Idaho Forest Practices Rules. This interagency independent audit is conducted every four years. The 1996 Forest Practice audit found that FPA rules were implemented 97% of the time. The audit also determined that when the FPA rules were properly implemented and maintained, the rules were effective 99% of the time. The audit process is one key component of the feedback loop mechanism used by the Forest

Practices Act Advisory Committee and the Idaho State Board of Land Commissioners to evaluate the effectiveness of Idaho forestry BMPs.

The USFS also has performed monitoring of timber sale activities including road construction. This includes project level monitoring for BMP implementation and effectiveness of the FPA. Monitoring has also been conducted on grazing allotments.

Forest landowners will also monitor implementation and effectiveness of activities conducted to reduce sediment/phosphorus loading. Potential indicators may be quantitative or qualitative depending upon the BMP implemented. 319 funded activities as well as many other grant programs require effectiveness monitoring

The Idaho Cumulative Watershed Effects process will be reinitiated in 2012 to help monitor progress in meeting beneficial use attainment goals.

Implementation Tracking

In 2004 the IDL created a geographic information system-based (GIS) tracking system with associated database to track management problems identified in CWE reports on a statewide basis. This data resides on a server at the IDL private forestry bureau in Coeur d' Alene and is available for generating reports at any supervisory area office. Data collected includes the location and type of problem, digital image, date observed and repairs initiated. Local supervisory area personnel complete updates to this system. Information on this data base is not restricted to just endowment properties, although updates to non-state problems requires voluntary reporting and coordination through the local IDL forest practices act advisor.

Each IDL supervisory area also maintains a GIS-based road inventory layer with specific information on engineering standards, drainage structures and closures on those roads maintained by the IDL and/or cooperators. Voluntary IFP terms adopted by the local IDL unit include completing a detailed inventory of drainage structures, stream crossing conditions and management problems prior to fall of 2009. Large industrial private road cooperators plan to combine inventory information with IDL and produce one data set.

The vast majority of projects undertaken by large industrial landowners and the IDL are completed by independent contractors and sale purchasers. All parties routinely inspect operations for compliance with contract terms before accepting results for payment or releasing performance bonds. Internal audits verify compliance.

In addition, the Department of Environmental Quality will track annually the progress that Designated Management Agencies have made in improving water quality. The DEQ, USFS and IDL agree to meet each year to document what projects occurred over the previous field season. Private landowner participation will also be solicited.

Summary Schedule of Implementation Actions for Wildhorse River Watershed

Table 4. Summary of Current and Planned Implementation Activities

Waterbody	Protection Activity	Goal Date
Bear Creek	Summit Gulch Vegetation Management Project: decommission of roads in riparian areas (Summit Gulch area)	2011
Crooked River	Crooked River Fuels Management Project: decommission of roads in riparian areas	2011
Lick Creek	Lick Creek Vegetation Management Project: decommission of roads in riparian areas	2011

Forestry Implementation Plan Funding

Under the FPA, logging operators are responsible for meeting the rules. Therefore, the cost of complying with the FPA is born solely by the operator or forest landowner depending on any contractual agreements that may be in existence. At present, private forest landowners are assessed $.05 per acre for all forestlands and $.08 per thousand board feet harvested to help fund the IDL administration of the FPA. Since this funding is not totally adequate to support the FPA administrative program, funds for the initiation of additional protection measures beyond the requirements of the FPA are not available. IDL also has authority to expend funds out of the FPA rehabilitation account but is limited to only those costs associated with the repair of unsatisfactory practices identified in the NOV process. The natural resource conservation income tax credit, forest landowner stewardship program and grants are other possible sources of limited funding for additional volunteer site-specific forest BMPs.

IDL Funds for implementation come from revenue associated with harvest of forest products. Major improvements (i.e. bridges, graveling, surfacing etc.) are appraised directly against the value of the timber harvested

Maintenance projects are prioritized on an annual basis and accomplished as funds are available. Since the Department has maintenance responsibilities outside the Wildhorse River watershed in any given year, all or none of the available funds may be exhausted elsewhere.

Additional Funding of Best Management Practices

Chapter Four of the Idaho Nonpoint Source Management Plan contains a fairly substantial listing of potentially available funding sources and cooperating agencies for use in the implementation of best management practices. Appendix D contains a list of potential funding sources.

Reasonable Assurance of Implementation

The Clean Water Act provides for certain control through enforcement of point sources, but leaves non-point source control to states through largely incentive based mechanisms.

Idaho has an EPA approved Nonpoint Source Management Plan which includes certification by the attorney general that adequate authorities exist to implement the plan. Idaho's water quality rules (IDAPA 16.01.02.350) state that current best management practices will be evaluated and modified by the appropriate designated agencies if found to be inadequate to protect water quality. In addition, if necessary, injunctive or other judicial relief may be sought against the operator of a nonpoint source activity in accordance with the DEQ Director's authorities provided by Idaho Code 39-108.

The DEQ believes these provide all the assurance that is reasonable and necessary to protect water quality and restore full support of beneficial uses in the watershed. Through the development of this Plan, the DEQ and the other cooperating agencies believe that this Plan includes the necessary provisions to meet the reasonable assurance needs and provided that funding is available these actions can be implemented. In particular, the Plan has described:

- The actions that will be implemented to achieve the TMDL;
- The responsible party who must undertake the management measures or control actions;
- The variety of actions that may be taken to meet the load allocation;
- When those actions will be implemented;
- The schedule for completion of milestones;
- The monitoring necessary to ensure the goals and objectives of the Plan are met.

References:

DEQ, 2007 Wildhorse River Subbasin Assessment and Total Maximum Daily Load, http://www.deq.idaho.gov/water/data_reports/surface_water/tmdls/wildhorse_river/wildhorse_river_entire.pdf

Quigley, Thomas M.; Arbelbide, Sylvia J.; technical editors. 1997. An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins. 4 volumes. PNW-GTR-405

Spruell P. 2000. Genetic analysis of bull trout from the Weiser Ranger District. Wild Trout & Salmon Genetics Laboratory, Division of Biological Sciences, University of Montana. Missoula, Montana. 9p.

USFS 2003 Payette National Forest Land and Resource Management Plan.

Appendix A. Road Standards and Timber Harvest Mitigation

Road Standards

TEST06 - Management actions shall be designed to avoid or minimize adverse effects to listed species and their habitats.

SWST01 - Management actions shall be designed in a manner that maintains or restores water quality to fully support beneficial uses and native and desired non-native fish species and their habitat, except as allowed under SWRA Standard #4 below.

SWST04 - Management actions will neither degrade nor retard attainment of properly functioning soil, water, riparian, and aquatic desired conditions, except: Where outweighed by demonstrable short- or long-term benefits to watershed resource conditions; or where the Forest Service has limited authority (e.g., access roads, hydropower, etc.). In these cases, the Forest Service shall work with permittee(s) to minimize the degradation of watershed resource conditions.

SWST08 - Fish passage shall be provided at all proposed and reconstructed stream crossings of existing and potential fish-bearing streams unless protection of pure-strain native fish enclaves from competition, genetic contamination, or predation by exotic fishes is determined to be an overriding management concern.

Road Related Standards and Guidelines specific to the MPCs in the Wildhorse River watershed

The Wildhorse River watershed is located within the Snake River Management Area (MA2). The forest plan provides additional standards and guidelines for roads and SWRA in this management area based on a Watershed Aquatic Restoration Strategy (WARS) and Aquatic Conservation Strategy. The entire Crooked River drainage is identified as high priority for active restoration according to the WARS assessment and Crooked River is identified as an ACS priority subwatershed.

MPC 4.1c Undeveloped Recreation: Maintain Unroaded Character with Allowance for Restoration Activities

Road Standard 0214 - Within IRAs, road construction or reconstruction may only occur where needed: To provide access related to reserved or outstanding rights, or b) To respond to statute or treaty

Road Standard 0215 - Outside IRAs, road construction or reconstruction may only occur where needed: To provide access related to reserved or outstanding rights, or to respond to statute or treaty, or to provide transportation systems that support accomplishment of Management Area ROS objectives.

MPC 5.1 Restoration and Maintenance Emphasis within Forested Landscapes

Road Standard 0217 - There shall be no net increase in road densities in the MPC 5.1 portion of the Lower Crooked Creek subwatershed unless it can be demonstrated through the project-level NEPA analysis and related Biological Assessment that: For resources that are within their range of desired conditions, the increase in road densities shall not result in degradation to those resources unless outweighed by demonstrable short- or long-term benefits to those resource conditions; and for resources that are in a degraded condition, the increase in road densities shall not further degrade nor retard attainment of desired resource conditions unless outweighed by demonstrable short- or long-term benefits to those resource conditions; and adverse effects to TEPC species or their habitat are avoided unless outweighed by demonstrable short- or long-term benefits to those TEPC species or their habitat. An exception to this standard is where additional roads are required to respond to reserved or outstanding rights, statute or treaty, or respond to emergency situations (e.g., wildfires threatening life or property, or search and rescue operations).

Road Standard 0218 - New roads and landings shall be located outside of RCAs in the MPC 5.1 portion of the Lower Crooked Creek subwatershed unless it can be demonstrated through a project-level NEPA analysis and Biological Assessment that: For resources that are within their range of desired conditions, any new road or landing in an RCA shall not result in degradation to those resources unless outweighed by demonstrable short- or long-term benefits to those resource conditions; and for resources that are in a degraded condition, any new road or landing in an RCA shall not further degrade nor retard attainment of desired conditions unless outweighed by demonstrable short- or long-term benefits to those resource conditions; and adverse effects to TEPC species or their habitats are avoided unless outweighed by demonstrable short- or long-term benefits to those TEPC species or their habitats. An exception to this standard is where construction of new roads in RCAs is required to respond to reserved or outstanding rights, statute or treaty, or respond to emergency situations (e.g., wildfires threatening life or property, or search and rescue operations).

Road Guidline 0221 - Road construction or reconstruction may occur where needed: To provide access related to reserved or outstanding rights, or to respond to statute or treaty, or to achieve restoration and maintenance objectives for vegetation, water quality, aquatic habitat, or terrestrial habitat; or to support management actions taken to reduce wildfire risks in wildland-urban interface areas; or to meet access and travel management objectives.

MPC 5.2 Commodity Production Emphasis within Forested Landscapes

Road Standard 0222 - There shall be no net increase in road densities in the 5.2 MPC portions of the Upper Crooked Creek and Upper Bear Creek subwatersheds unless it can be demonstrated through a project-level NEPA analysis and Biological Assessment that: For resources that are within their range of desired conditions, the increase in road densities shall not result in degradation to those resources unless outweighed by demonstrable short- or long-term benefits to those resource conditions; and for resources that are in a degraded condition, the increase in road densities shall not further degrade nor retard attainment of desired resource conditions unless outweighed by demonstrable short- or long-term benefits to those resource conditions; and adverse effects to TEPC species or

their habitat are avoided unless outweighed by demonstrable short- or long-term benefits to those TEPC species or their habitat. An exception to this standard is where additional roads are required to respond to reserved or outstanding rights, statute or treaty, or respond to emergency situations (e.g., wildfires threatening life or property, or search and rescue operations).

Road Standard 0224 - New roads and landings shall be located outside of RCAs in the MPC 5.2 portions of the Upper Crooked Creek and Upper Bear Creek subwatersheds unless it can be demonstrated through a project-level NEPA analysis and Biological Assessment that: For resources that are within their range of desired conditions, any new road or landing in an RCA shall not result in degradation to those resources unless outweighed by demonstrable short- or long-term benefits to those resource conditions; and for resources that are in a degraded condition, any new road or landing in an RCA shall not further degrade nor retard attainment of desired conditions unless outweighed by demonstrable short- or long-term benefits to those resource conditions; and adverse effects to TEPC species or their habitats are avoided unless outweighed by demonstrable short- or long-term benefits to those TEPC species or their habitats. An exception to this standard is where construction of new roads in RCAs is required to respond to reserved or outstanding rights, statute or treaty, or respond to emergency situations (e.g., wildfires threatening life or property, or search and rescue operations).

MPC 6.1 Restoration and Maintenance Emphasis within Shrubland and Grassland Landscapes

Road Guideline 0229 - Road construction or reconstruction may occur where needed: To provide access related to reserved or outstanding rights, or to respond to statute or treaty, or to achieve restoration and maintenance objectives for vegetation, water quality, aquatic habitat, or terrestrial habitat; or to support management actions taken to reduce wildfire risks in wildland-urban interface areas; or to meet access and travel management objectives.

Table 5. Mitigation Measures

Mitigation Measure	Objective	Enforcement Mechanism	Enforcement Responsibility	Effectiveness Rating Basis
Areas disturbed by skyline yarding will be stabilized by constructing waterbars or placement of slash, whichever is more appropriate	Reduce accelerated surface erosion, and prevent rill or gully formations in disturbed areas of skyline corridors	Timber Sale Contract	Contract Administrator	Moderate (experience)
Construct slash filter windrows at the toe of fill slopes on newly constructed landings and roads within contributing areas concurrent with construction. Limit the height of windrows to three feet; dispose of excess material as necessary. Provide breaks and limit length of windrows to allow easy passage of wildlife and recreational enthusiasts.	Minimize the extent of sediment routing to stream channels	Timber sale contract and transportation plan	Contract administrator and engineering representative	Moderate (Forest Service Handbook 2509.22)

Mitigation Measure	Objective	Enforcement Mechanism	Enforcement Responsibility	Effectiveness Rating Basis
Seed, mulch and fertilize on fill and cut slopes of newly constructed roads and landings that are within 300 feet of a stream and that will be kept for future use. This may be accomplished through hydromulching. Apply slash to achieve 50% ground cover on fill slopes and on cut slopes where slash material will not create a safety hazard. Where slash material is not available apply erosion control matting.	Reestablish vegetation on exposed soils and prevent soil erosion and loss	Transportation plan and timber sale contract	Engineering representative and contract administrator	Moderate (Forest Service Handbook 2509.22)
Divert flow from stream courses around project activities such as culvert installation or extraction. Use appropriate sediment control methods such as straw bales or silt	Minimize direct input of sediment to stream channels during road-related work	Transportation Plan and Timber Sale Contract	Engineering Representative and Contract Administrator	Moderate (Forest Service Handbook 2509.22)
Rehabilitate stream crossings on temporary roads prior to the end of the normal operating season, unless specifically designed to meet Forest Plan requirements for passing stream flows and debris. Otherwise, remove crossing and rehabilitate after use of road is no longer needed	Reduce sediment input to streams	Timber Sale Contract	Contract Administrator	Moderate
Locate and approve water diversion sites prior to use. The project fisheries biologist or hydrologist will approve the sites. No vehicles will be allowed in stream courses at any time for the purpose of withdrawing water	Minimize impacts to stream banks and potential sediment delivery to streams	Timber Sale Contract	Contract Administrator	Moderate (USFS 1981)
Apply a high level of mitigation where land-disturbing activities may deliver sediment to stream channels or RCA's or where activities increase detrimental disturbance or total soil resource commitment. These measures can include but are not limited to water control devices such as silt fence or straw bales, erosion control matting, seed hydromulch, fertilizer placement of woody debris and breaking up of compacted soils. Maintain or modify mitigation structures to keep them in fully functioning condition. Remove silt fence and stabilize disturbed areas with seed, mulch and fertilizer as soon as work is complete.	Minimize sediment delivery	Contract administrator will cover during pre-work	Contract administrator and engineering representative	LOW to MODERATE (Burrough and King 1989)
On haul routes prior to log hauling, gravel road stream crossings and armor ditch lines, where necessary to inhibit erosion. Gravel road sections for the full extent of the contributing road surface or within the RCA whichever is greater. Apply mitigation measures to haul route roads that are identified as delivering sediment. Mitigation measures may include but are not limited to graveling of road prism, armoring ditch lines with pit run and placing obstructions or constructing catch basins below culverts. Remove silt fencing or other non-biodegradable material after hauling is complete.	Reduce sediment input to streams	Timber Sale Contract	Contract administrator, engineering representative, fisheries biologist	MODERATE (Burroughs and King 1989)

Mitigation Measure	Objective	Enforcement Mechanism	Enforcement Responsibility	Effectiveness Rating Basis
For broadcast burning, avoid ignition in RCAs, construct no mechanical fireline in RCAs and minimize handline in RCAs. Fire may be allowed to burn down into RCAs. Pile burning within the first site potential would be allowed.	Minimize impact to RCA vegetation and reduce risk of accelerated erosion and sedimentation.	FS Soil and Water Conservation Practices (FSH 2509.22.18.03)		HIGH
No storage of fuels or other toxicants within RCAs. Fuel storage > 200 gallons will be located within a containment area lined with material sufficiently impervious to contain spilled fuel	Reduce potential for fuel spill that could affect fish or fish habitat.	Timber sale contract, 40 CF 112	Contract Administrator	MODERATE

Table 6. Management Requirements for Timber Projects

Management Requirements	Objective	Implementation Mechanism
Fish passage shall be provided at all proposed and reconstructed stream crossings of existing and potential fish-bearing streams. (Forest Plan p.III-22, SWST08)	Protect habitat for resident fish	Road package within timber sale contract
Trees that are felled within RCAs must be left unless determined not to be necessary for achieving soil, water, riparian, and aquatic desired conditions. Felled trees or snags left in RCAs shall be left intact unless resource protection or public safety requires bucking them into smaller pieces (Forest Plan p. III-22, SWST10)	Retain large wood in riparian areas to be available for sediment filtering, recruitment in streams and for soil needs.	Project design
Do not authorize storage of fuels and other toxicants or refueling within RCAs unless there are no other alternatives.	Reduce potential for fuel spills that could affect fish or habitat	Project design, contract specifications.
Conduct field verification to delineate perennial and intermittent streams, seeps, springs and bogs for riparian and wetland buffers	Ensure protection of riparian areas and wetlands	Project design, timber sale layout
Conduct site-specific analysis or field verification of landslide prone models to identify landslide prone areas in proposed management areas that may alter soil-hydrologic processes. Design management actions to avoid the potential for triggering landslides.	Provide for stream channel integrity, channel processes and the sediment regime under which the riparian and aquatic ecosystems evolved.	Project design, mitigation measures
Management Requirements	Objective	Implementation Mechanism
Within legal authorities, ensure that new proposed management activities within watersheds containing 303(d) listed waters improve or maintain overall progress toward beneficial use attainment for pollutants that led to the listing	Manage water quality to meet requirements under the Clean Water Act with special emphasis on de-listing water quality limited waters under section 303(d) and supporting stated development and implementation of TMDLs	Project design, contract specifications, mitigation measures
Proposed actions within RCAs that are associated with valid existing rights such as water diversions shall be coordinated with licensees, permittees, or claimants in an effort to maintain or restore beneficial uses and desired habitat conditions for native and desired non-native fish	Provide water quality for stable and productive riparian and aquatic ecosystems while fully supporting appropriate beneficial uses	Project Design
Management actions shall be designed to maintain or restore water quality to fully support beneficial uses and native and desired non-native fish species and their habitat.	Design and implement management programs and plans that will restore water quality and watershed function to support beneficial uses	Project Design
Apply Best Management Practices (BMPs) as described in Soil and Water Conservation Practices to all ground disturbing activities	Reduce or minimize effects of management activities on soil and water resources	Contract specifications, mitigation measures

Apply mitigation and restoration measures within the activity area so that total soil resource commitment levels are moved back toward 5 percent or less following completion of the activities.	Limit the extent of soil committed to non-productive land uses, such as roads and landings, to the minimum necessary for Forest management. Maintain soil productivity and ecological processes where functioning properly, and restore where currently degraded.	Contract specifications, proposed mitigation actions (i.e. road obliterations) as funds become available.
Neither degrade nor retard attainment of properly functioning soil, water, riparian, and aquatic desired conditions except where outweighed by demonstrable short or longterm benefits to watershed resource conditions or where the Forest Service has limited authority	Maintain surface and ground water in streams, lakes, wetlands and meadows to support healthy riparian and aquatic habitats, the stability and effective function of stream channels and downstream uses. Restore and maintain flow regimes sufficient to create and sustain soil-hydrologic and water quality conditions. Restore or maintain riparian, aquatic and wetland habitat to achieve patterns of sediment, nutrient and large woody debris routing within their inherent range of capability.	Project design, contract specifications, mitigation measures

Appendix B. Grazing Allotment Requirements

LICK CREEK C&H ALLOTMENT

PERMITTED USE:

Permittee	Livestock Numbers	Season
Rocky Comfort Cattle Company	879 cow/calf pairs*	6/1-11/30
	308 cow/calf apirs*	

* permit includes WIldhorse/Crooked River, Lick Creek and Bear Creek allotments.

GRAZING PRESCRIPTION AND LIVESTOCK ROTATIONS:

The following are specific utilization standards and guidelines from the July 2003 Forest Plan. Utilization percentages are by weight and are the maximum allowed.

RAST01 - Maximum forage utilization of representative areas within each pasture shall not exceed the values shown at the end of the growing season. Variation in utilization standards in order to achieve specific vegetative management objectives shall occur with a site-specific or project-level decision according to direction in FSM 1922.5.
a) Riparian Areas: Maximum 45 percent use or retain a minimum 4 inch stubble height of hydric greenline species, whichever occurs first.
b) Upland Vegetative Cover Types: Early season or season long pastures – 40 percent use. Vegetative slow growth, after seed ripe conditions, or late season pastures – 50 percent use.

Part of good cattle management is riding to assure proper cattle distribution. In particular we want to insure that the stream banks and meadows aren't over used. These riparian areas are considered key areas and will be monitored. When an area has reached maximum allowable use levels cattle will be removed from that area. Keeping cattle off select areas and in areas of lesser use serves to prolong the time cattle can expect to stay in an area.

When an area reaches allowable use levels the cattle will be moved and kept from returning to that area. If cattle are in the final area of the rotation sequence and utilization standards are reached, then they will have to be removed from the allotment.

Livestock in units outside the season of use or on an allotment other than the one permitted, is a violation of the terms and conditions of the Term Grazing Permit.

Salting

Salting is restricted to the following:

No less than ¼ mile from water, and not be placed in meadow bottoms.

Placed at a minimum distance of 100 yards from roads and out of sight from roads, if possible.

Should be moved yearly unless present salt ground is located in a rocky area where no vegetation grows.

Unconsumed salt will be removed from the site.

¼ mile from timber plantations with trees less than 15 feet tall. If this can't be accomplished, the District Range and Reforestation personnel will work with you to find acceptable locations.

Recommend use of containers and rocky areas.

BEAR CREEK C&H ALLOTMENT

PERMITTED USE:

Permittee	Livestock Numbers	Season
Lori Quilliam	100 cow/calf pairs*	7/12 – 10/1
Rocky Comfort Cattle Co.	879 cow/calf pairs**	6/1 – 11/30
	308 cow/calf pairs**	6/15- 10/9

*permit includes Bear Creek, Steves Creek and Wildhorse/Crooked River allotments
** permit includes Bear Creek and Lick Creek allotments

GRAZING SCHEDULE:

Quilliam: Trail onto the allotment from Steve's Creek predominantly using the area between Bessie Gulch and Huntley Gulch.

Rocky Comfort Cattle Company: Use of the Lower Bear Unit in conjunction with the Upper West Lick Creek Unit. Not authorized to move through or graze Steve's Creek Allotment.

GRAZING PRESCRIPTION:

The following are specific utilization standards and guidelines from the July 2003 Forest Plan. Utilization percentages are by weight and are the maximum allowed.

RAST01 - Maximum forage utilization of representative areas within each pasture shall not exceed the values shown at the end of the growing season. Variation in utilization standards in order to achieve specific vegetative management objectives shall occur with a site-specific or project-level decision according to direction in FSM 1922.5.

Riparian Areas: Maximum 45 percent use or retain a minimum 4 inch stubble height of hydric greenline species, whichever occurs first.

Upland Vegetative Cover Types: Early season or season long pastures – 40 percent use. Vegetative slow growth, after seed ripe conditions, or late season pastures – 50 percent use.

In cattle allotments where riparian area restoration is an objective (Upper Bear Creek), grazing systems should be designed to incorporate the following parameters where appropriate (RAGU02):

a. Provide residual vegetative cover (at least 6 inches of hydric vegetation) either through regrowth or rest treatments for at least 75 percent of the years in a rotation cycle.

b. Reduce the duration of riparian area grazing periods where needed. Grazing period reduction may be especially needed in the fall where riparian deciduous woody species are an important riparian vegetation component.

c. Design grazing periods to take advantage of favorable seasonal livestock dispersal behavior (examples: spring use of uplands, due to wet riparian conditions, late fall upland use, due to cold temperatures, poor dispersal during "hot" season).

d. Incorporate sufficient growing season rest to provide good vigor, physiological needs, and regeneration of all riparian plants.

e. Where deciduous trees and shrubs are important in the composition, modify the frequency of grazing periods, reduce the grazing duration, or reduce grazing intensity to levels that provide for recovery/maintenance of healthy diverse trees and shrubs.

Part of good cattle management is riding to assure proper cattle distribution. In particular we want to insure that the stream banks and meadows aren't over used. These riparian areas are considered key areas and will be monitored. When an area has reached maximum allowable use levels cattle will be removed from that area. Keeping cattle off select areas and in areas of lesser use serves to prolong the time cattle can expect to stay in an area.

When an area reaches allowable use levels the cattle will be moved and kept from returning to that area. If cattle are in the final area of the rotation sequence and utilization standards are reached, then they will have to be removed from the allotment.

Livestock in units outside the season of use or on an allotment other than the one permitted, is a violation of the terms and conditions of the Term Grazing Permit.

Salting

Salting is restricted to the following:

No less than ¼ mile from water, and not be placed in meadow bottoms.

Placed at a minimum distance of 100 yards from roads and out of sight from roads, if possible.

Should be moved yearly unless present salt ground is located in a rocky area where no vegetation grows.

Unconsumed salt will be removed from the site.

¼ mile from timber plantations with trees less than 15 feet tall. If this can't be accomplished, the District Range and Reforestation personnel will work with you to find acceptable locations.

Recommend use of containers and rocky areas.

WILDHORSE/CROOKED RIVER C&H ALLOTMENT

PERMITTED USE:

Permittee	Livestock Numbers	Season
Lori Quilliam	100 cow/calf pairs	5/16 – 6/7
Rocky Comfort Cattle Co	879 cow/calf**	6/1-11/30
	308 cow/calf**	6/15-10/9
	12 cow calf** (6 head months on Forest "on " portion of No Biz on/off)	6/1-10/15
	17 cow/calf**	6/1-10/15
Rod and Darla Johnson	214 cow/calf	5/20-10/10

GRAZING SCHEDULE:

Lori Quilliam: Turn on from private land along Wildhorse River. Move along Wildhorse drainage breaks staying north of the Wildhorse River road # 070, ending at the forest boundary.

Rocky Comfort Cattle Company: South of Powerline - Turn out in No Biz Basin in early June and move across top of Cuddy Mountain in July, staying above Crooked River in August. Move along Crooked River in September. Gather at Grizzly Springs and trail to the base on the Ditch Creek road, coordinating with Permittee Johnson.

Johnson: North of Powerline: Turn out 25 pair in Coyote Gulch June 1st, 125 pair in lower Ditch Creek; then move between mid-July and August 1st up Ditch Creek draw on top of ridge; then move towards Moonshine mid-August to September 1st; coming off the Forest by October 10th.

GRAZING PRESCRIPTION:

The following are specific utilization standards and guidelines from the July 2003 Forest Plan. Utilization percentages are by weight and are the maximum allowed.

RAST01 - Maximum forage utilization of representative areas within each pasture shall not exceed the values shown at the end of the growing season. Variation in utilization standards in order to achieve specific vegetative management objectives shall occur with a site-specific or project-level decision according to direction in FSM 1922.5.

Riparian Areas: Maximum 45 percent use or retain a minimum 4 inch stubble height of hydric greenline species, whichever occurs first.

Upland Vegetative Cover Types: Early season or season long pastures – 40 percent use. Vegetative slow growth, after seed ripe conditions, or late season pastures – 50 percent use.

In cattle allotments where riparian area restoration is an objective (Upper Crooked River and Lower Crooked Creek subwatersheds, and the Wildhorse River drainages), grazing systems should be designed to incorporate the following parameters where appropriate (RAGU02):

a. Provide residual vegetative cover (at least 6 inches of hydric vegetation) either through regrowth or rest treatments for at least 75 percent of the years in a rotation cycle.

b. Reduce the duration of riparian area grazing periods where needed. Grazing period reduction may be especially needed in the fall where riparian deciduous woody species are an important riparian vegetation component.

c. Design grazing periods to take advantage of favorable seasonal livestock dispersal behavior (examples: spring use of uplands, due to wet riparian conditions, late fall upland use, due to cold temperatures, poor dispersal during “hot” season).

d. Incorporate sufficient growing season rest to provide good vigor, physiological needs, and regeneration of all riparian plants.

e. Where deciduous trees and shrubs are important in the composition, modify the frequency of grazing periods, reduce the grazing duration, or reduce grazing intensity to levels that provide for recovery/maintenance of healthy diverse trees and shrubs.

Part of good cattle management is riding to assure proper cattle distribution to ensure that the stream banks and meadows aren't over used. These riparian areas are considered key areas and will be monitored. When an area has reached maximum allowable use levels cattle will be removed from that area. Keeping cattle off select areas and in areas of lesser use serves to prolong the time cattle can expect to stay in an area.

When an area reaches allowable use levels the cattle will be moved and kept from returning to that area. If cattle are in the final area of the rotation sequence and utilization standards are reached, then they will have to be removed from the allotment. Livestock in units outside the season of use or on an allotment other than the one permitted, is a violation of the terms and conditions of the Term Grazing Permit.

Salting

Salting is restricted to the following:

No less than ¼ mile from water, and not be placed in meadow bottoms.

Placed at a minimum distance of 100 yards from roads and out of sight from roads, if possible.

Should be moved yearly unless present salt ground is located in a rocky area where no vegetation grows.

Unconsumed salt will be removed from the site.

¼ mile from timber plantations with trees less than 15 feet tall. If this can't be accomplished, the District Range and Reforestation personnel will work with you to find acceptable locations.

Recommend use of containers and rocky areas.

STEVES CREEK C&H Allotment

PERMITTED USE

Permittee	Livestock Numbers	Season
Lori Quilliam	100 cow/calf pairs	6/8-7/11 & 10/2-10/31

GRAZING PRESCRIPTION:

The following are specific utilization standards and guidelines from the July 2003 Forest Plan. Utilization percentages are by weight and are the maximum allowed.

RAST01 - Maximum forage utilization of representative areas within each pasture shall not exceed the values shown at the end of the growing season. Variation in utilization standards in order to achieve specific vegetative management objectives shall occur with a site-specific or project-level decision according to direction in FSM 1922.5.

Riparian Areas: Maximum 45 percent use or retain a minimum 4 inch stubble height of hydric greenline species, whichever occurs first.

Upland Vegetative Cover Types: Early season or season long pastures – 40 percent use. Vegetative slow growth, after seed ripe conditions, or late season pastures – 50 percent use.

Part of good cattle management is riding to assure proper cattle distribution. In particular we want to insure that the stream banks and meadows aren't over used. These riparian areas are considered key areas and will be monitored. When an area has reached

maximum allowable use levels cattle will be removed from that area. Keeping cattle off select areas and in areas of lesser use serves to prolong the time cattle can expect to stay in an area.

When an area reaches allowable use levels the cattle will be moved and kept from returning to that area. If cattle are in the final area of the rotation sequence and utilization standards are reached, then they will have to be removed from the allotment.

Livestock in units outside the season of use or on an allotment other than the one permitted, is a violation of the terms and conditions of the Term Grazing Permit.

Salting

Salting is restricted to the following:

No less than ¼ mile from water, and not be placed in meadow bottoms.

Placed at a minimum distance of 100 yards from roads and out of sight from roads, if possible.

At least ¼ mile from NIDGS sites

Should be moved yearly unless present salt ground is located in a rocky area where no vegetation grows.

Unconsumed salt will be removed from the site.

¼ mile from timber plantations with trees less than 15 feet tall.

Recommend use of containers and rocky areas.

CROOKED RIVER ON/OFF C&H ALLOTMENT

PERMITTED USE:

Permittee	Livestock Numbers	Season
Jack and Ava Rubelt	100 yrlgs	7/1-7/15 & 7/16-7/31

GRAZING PRESCRIPTION AND LIVESTOCK ROTATIONS:

The following are specific utilization standards and guidelines from the July 2003 Forest Plan. Utilization percentages are by weight and are the maximum allowed.

RAST01 - Maximum forage utilization of representative areas within each pasture shall not exceed the values shown at the end of the growing season. Variation in utilization standards in order to achieve specific vegetative management objectives shall occur with a site-specific or project-level decision according to direction in FSM 1922.5.

Riparian Areas: Maximum 45 percent use or retain a minimum 4 inch stubble height of hydric greenline species, whichever occurs first.

Upland Vegetative Cover Types: Early season or season long pastures – 40 percent use. Vegetative slow growth, after seed ripe conditions, or late season pastures – 50 percent use.

Part of good cattle management is riding to assure proper cattle distribution to ensure that the stream banks and meadows aren't over used. These riparian areas are considered key areas and will be monitored. When an area has reached maximum allowable use levels cattle will be removed from that area. Keeping cattle off select areas and in areas of lesser use serves to prolong the time cattle can expect to stay in an area.

When an area reaches allowable use levels the cattle will be moved and kept from returning to that area. If cattle are in the final area of the rotation sequence and utilization standards are reached, then they will have to be removed from the allotment. Livestock in units outside the season of use or on an allotment other than the one permitted, is a violation of the terms and conditions of the Term Grazing Permit.

Salting

Salting is restricted to the following:

No less than ¼ mile from water, and not be placed in meadow bottoms.

Placed at a minimum distance of 100 yards from roads and out of sight from roads, if possible.

Should be moved yearly unless present salt ground is located in a rocky area where no vegetation grows.

Unconsumed salt will be removed from the site.

¼ mile from timber plantations with trees less than 15 feet tall.

Recommend use of containers and rocky areas.

Appendix C. 2010-2015 Implementation Table

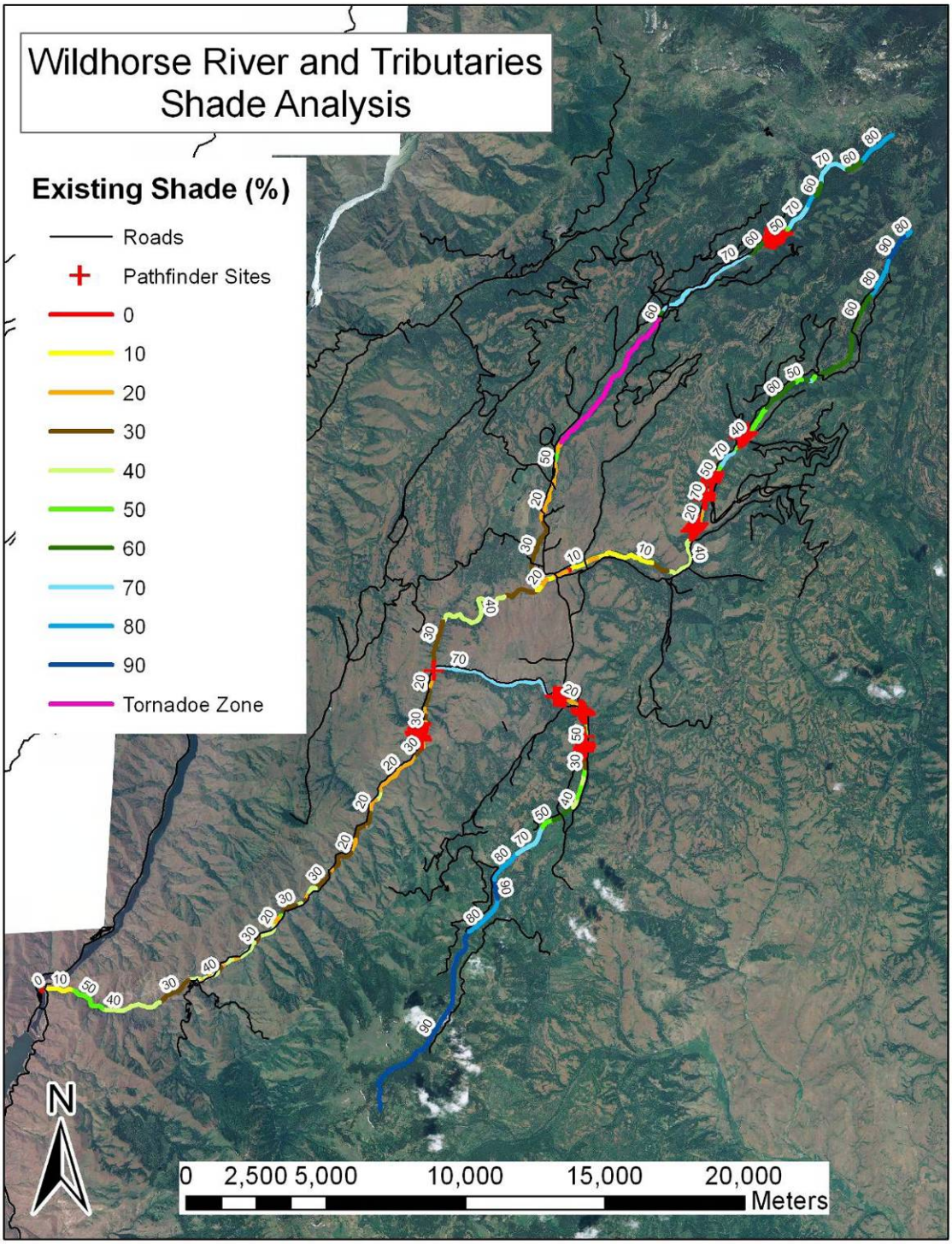
The purpose of this table is to record an improvement strategy that will begin to restore the potential natural vegetation along the Wildhorse and Crooked Rivers, and Bear and Lick Creeks to an overall mature and natural condition.

The goal is to initiate and or complement other water quality improvement projects in the watershed using specific management practices to improve potential natural vegetation and prevent further degradation.

Table 7. 2010-2015 Implementation Activities

USFS Forestry Implementation: Wildhorse River Watershed Tasks	
Action Item	Timeframe
Wildhorse River Projects	
Visit locations identified in the TMDL as needing shade improvements of 20% or greater Document findings and if appropriate prioritize the potential management practices to improve riparian shade.	2010-2011
Crooked River Projects	
Crooked RiverVegetation Management Project • Upgrade three culverts (Dick Ross Creek, Coyote Gulch and Moonshine Creek) • Construct 0.9 miles of new road to relocate road out of riparian conservation areas (RCA's). • Decommission 7.5 miles within RCAs that are currently closed to motorized travel. • Document the extent to which burning in the RCA may inadvertently affect riparian shade. • Decommission a total of 17 miles of road	2012
Visit area of >20% lack of shade to determine whether or not that area warrants any measures to enhance riparian shade	2010
Bear Creek Projects	
Summit Gulch Vegetation Project (potentially affects Bear Creek) • Decommission 5.7 miles of existing closed road systems including 3.7 miles in riparian areas. • Realign approximately 1.5 miles of system road to provide access and relocate the road away from riparian areas. • Place 1.8 miles of systems road in long term closure status following harvest.	2011
Visit areas with greater than 20% lack of shade to determine whether or not additional measures need to be implemented to enhance riparian shade	2010
Lick Creek Projects	
Lick Creek Vegetation Management Plan • Decommission 6 miles of roads within RCA's	2011

Determine if plantings will help recover the area directly around the bridge at Butterfield Gulch, if appropriate Determine if areas lacking shade greater than 20% upstream of Fawn Creek need implementation of BMPs	2010-2013 2010-2011
Grazing Management	
Review permitted uses including grazing schedule, grazing prescription, and livestock rotations to assure that riparian shade objectives are met.	Annually
Timber Management	
Ensure Adherence to Forest Practices Act and that timber management projects incorporate riparian and aquatic protection strategies	Ongoing
Monitoring	
Grazing Allotment Monitoring	Annually
Visit locations identified in the TMDL as needing shade improvements of 20% or greater (as listed in each section above). For those areas that are not showing an upward trend in riparian shading, document steps to be taken to address the lack of shade.	2010
Identify PNV monitoring locations that will document improving shade trends and provide data for use in the TMDL 5 year review.	2010-2011
Road Decommissioning Treatment Monitoring (photo points and ground cover transect survey results to show effectiveness /change in vegetation post-treatment)	Bear Tornado System and Non System Road Decommissioning Monitoring: 2010, 2012. 2014 Post-project
Implementation and Effectiveness Monitoring of Timber BMPs/SWCPs and Project Design Features	Post-project
Stream Temperature Monitoring Lick Creek 1 (UTM: 0530603/4983122) Lick Creek II (UTM: 0535102/4989776) Wildhorse River (UTM: 0521746/4978449) Bear Creek (UTM: 0398527/5402722) Crooked River (UTM: 0521739/4978460)	Annually
Funding	
Pursue 319 and other funding opportunities for top priority activities that target shade improvement.	As appropriate


Wildhorse River and Tributaries
Shade Analysis
Existing Shade (%)
Roads
Pathfinder Sites
0
10
20
30
40
50
60
70
80
90
Tornadoe Zone
N
0 2,500 5,000 10,000 15,000 20,000
Meters

Appendix D. Potential Funding Sources

Funding of Best Management Practices - Search for Many Funding Sources Using Boise State University Environmental Finance Center:

http://ssrc.boisestate.edu

Costs estimates relative to each of the designated agency responsibilities need to be estimated as individual water quality plans for private agricultural lands, grazing management plans for state lands, or water quality restoration plans for federal land. As always, funding issues and the availability of funding to implement best management practices is of concern. Much of the available funds that can be used to implement this plan are available annually on a first-come first-serve basis or through a competitive review and ranking process. The Boise State University Environmental Finance Center is a valuable resource for anyone interested in obtaining funding for projects. Chapter Four of the Idaho Nonpoint Source Management Plan (IDEQ, 1999a) also contains a fairly substantial listing of potentially available funding sources and cooperating agencies for use in the implementation of best management practices and includes several of the programs which could possibly be used as potential implementation funding sources:

§104(b)(3)...Tribal and State Wetland Protection Grant, EPA

http://yosemite.epa.gov/R10/HOMEPAGE.NSF/webpage/Grants

This program provides financial assistance to state, tribal, and local government agencies to develop new wetland protection programs or refine and improve existing programs. All projects must clearly demonstrate a direct link to improving an applicant's ability to protect, restore or manage its wetland resources.

§319 (h)...Nonpoint Source Grants, EPA/IDEQ

http://www.deq.state.id.us/water/water1.htm#ww_nonpoint

This program provides financial assistance for the implementation of best management practices to abate nonpoint source pollution. The IDEQ manages the NPS program. All projects must demonstrate the applicant's ability to abate NPS pollution through the implementation of BMPs.

Aquatic Ecosystem Restoration, CoE

http://www.nab.usace.army.mil/whatwedo/civwks/CAP/206.pdf

Section 206 of the Water Resources Development Act of 1996, provides financial assistance for aquatic and associated riparian and wetland ecosystem restoration and protection projects that will improve the quality of the environment. There is no requirement for an aquatic ecosystem project to be linked to a Corp of Engineers project. The program does require that a non-federal interest provide 35% of construction costs, including all lands, easements, right-of-ways and necessary relocations. The program also requires that 100% of the operation, maintenance, replacement, and rehabilitation be borne by the non-federal interest. The program limits the amount of federal assistance to $5 million for any single project.

Challenge Cost-share Program, BLM

http://www.dfw.state.or.us/ODFWhtml/VolunteerProg/STEP.html

This program provides 50% cost-share monies on fish, wildlife, and riparian enhancement projects to non-federal entities.

Conservation Operations Program (CO-01), NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

The CO-01 program provides technical assistance to individuals and groups of landowners for the purpose of establishing a link between water quality and the implementation of conservation practices. The NRCS technical assistance provides farmers and ranchers with information and detailed plans necessary to conserve their natural resources and improve water quality.

Conservation Research and Education, NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

The Conservation Research and Education program was created through the 1996 Farm Bill and is administered by the National Natural Resources Conservation Foundation. The purpose of the program is to fund research and educational activities related to conservation on private lands through public-private partnerships.

Conservation Reserve Program (CRP), NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

The CRP program provides a financial incentive to landowners for the protection of highly erodible and environmentally sensitive lands with grass, trees, and other long-term cover. This program is designed to remove those lands from agricultural tillage and return them to a more stable cover. This program holds promise for nonpoint source control since its aim is highly erodible lands.

Conservation Technical Assistance (CTA), NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

Technical assistance for the application of BMPs is provided to cooperators of soil conservation districts by the NRCS. Preparation and application of conservation plans is the main form of technical assistance. Assistance can include the interpretation of soil, plant, water, and other physical conditions needed to determine the proper BMPs. The CTA program also provides financial assistance in implementing BMPs described in the conservation plan.

Environmental Quality Incentives Program (EQIP), NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

EQIP is a program based on the 1996 Farm Bill legislation and combines the functions of the Agricultural Conservation Program, Water Quality Incentives Programs, Great Plains Conservation Program, and the Colorado River Basin Salinity Control Program. EQIP offers technical assistance, and cost share monies to landowners for the establishment of a five to ten year conservation agreement activities such as manure management, pest management, and erosion control. This program gives special consideration to contracts in those areas where agricultural improvements will help meet water quality objectives.

Environmental Restoration, CoE

http://www.usace.army.mil

Section 1135 of the Water Resources Development Act of 1986 provides for modifying the structure, operation, or connected influences or impacts from a Corp of Engineer project to restore fish and wildlife habitat. The project must result in the implementation or change from existing conditions, and the project benefits must be associated primarily with restoring historic fish and wildlife resources. Though recreation cannot be the primary reason for the modification, an increase in recreation may be one measure of value in the improvement to fish and wildlife resources. The program requires a non-federal sponsor which can include public agencies, private interest groups, and large national nonprofit organizations such as Ducks Unlimited or the Nature Conservancy. Operation and maintenance associated with the project modifications are the responsibility of the non-federal sponsor. Planning studies, detailed design, and construction are cost shared at a 75% federal and 25% non-federal rate. No more than $5 million in federal funds may be spent at a single location.

Farm Services Agency Direct Loan Program, FSA http://www.fsa.usda.gov/pas/default.asp

This program provides loans to farmers and ranchers who are unable to obtain financing from commercial credit sources. Loans from this program can be used to purchase or improve pollution abatement structures.

Hydrologic Unit Areas (HUAs), *NRCS*

http://www.id.nrcs.usda.gov/programs/financial.html

The NRCS is responsible for the HUA water quality projects. The purpose of these projects is to accelerate technical and cost-share assistance to farmers and ranchers in addressing agricultural nonpoint source pollution.

Idaho Water Resources Board Financial Programs, IDWR

http://www.idwr.state.id.us/waterboard/financial.htm

The Idaho Water Resources Board Financial Program assists local governments, water and homeowner associations, non-profit water companies, and canal and irrigation companies with funding for water system infrastructure projects. The various types of projects that can be funded include: public drinking water systems, irrigation systems, drainage or flood control, ground water recharge, and water project engineering, planning and design. Funds are made available through loans, grants, bonds, and a revolving development account.

National Conservation Buffer Initiative, NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

The National Conservation Buffer Initiative program provides cost-share funds in an effort to use grasses and trees as conservation buffers to protect and enhance riparian resources on farms. This program will be an integral part of TMDL/WRAS implementation planning to ensure land management practices are moved away from streams and riparian areas.

Planning Assistance, CoE

http://www.usace.army.mil

Section 22 of the Water Resources Development Act of 1974 authorizes the Corp of Engineers to assist local governments and agencies, including Indian Tribes, in preparing comprehensive plans for the development, utilization and conservation of water and related resources. Total costs for projects cannot exceed $1 million in a single year and are cost-shared at a 50% federal and 50% non-federal rate.

Range Improvement Fund - 8100, BLM

http://www.id.blm.gov

This program focuses on improving rangeland management conditions, including the implementation of best management practices. A portion of the money to operate the program comes from the grazing fees paid by permittees.

Small Watersheds (PL-566), *NRCS*

http://www.id.nrcs.usda.gov/programs/financial.html

The Small Watersheds program authorizes the NRCS to cooperate in planning and implementing efforts to improve soil and water conservation. The program provides for technical and financial assistance for water quality improvement projects, upstream flood control projects, and water conservation projects.

Partners for Wildlife (Partners), USFWS

http://partners.fws.gov

The Partners for Wildlife program is implemented by the U.S. Fish and Wildlife Service and designed to restore and enhance fish and wildlife habitat on private lands through public/private partnerships. Emphasis is on restoration of riparian areas, wetlands, and native plant communities.

Pheasants Forever

http://www.pheasantsforever.org

Pheasants Forever can provide up to 100 percent cost-share for pheasant and other upland game projects which establish, maintain, or enhance wildlife habitat.

Resource Conservation and Development (RC&D), NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

Through locally sponsored areas, the RC&D program assists communities with economic opportunities through the wise use and development of natural resources by providing technical and financial assistance. Program assistance is available to address problems including water management for conservation, utilization and quality, and water quality through the control of nonpoint source pollution.

Resource Conservation and Rangeland Development Program (RCRDP), SCC

http://www.scc.state.id.us/loans.htm

The RCRDP program provides grants for the improvement of rangeland and riparian areas, and loans for the development and implementation of conservation improvements.

State Revolving Fund (SRF), IDEQ

http://www.deq.state.id.us/water/water1.htm#funding

The IDEQ Grant and Loan Program administers the State Revolving Fund. http://www.deq.state.id.us/water/water1.htm#fundingThe purpose of the program is to provide a perpetually revolving source of low interest loans to municipalities for design and construction of sewage collection and treatment facilities to correct public health hazards or abate pollution. State Revolving Loan funds are also used to support the Source Water Assessment Program and nonpoint

source pollution where municipalities are affected. The Grant and Loan Program uses a priority rating form to rank all projects primarily on the basis of public health, compliance, and affordability. Additional points are awarded to projects that have completed a source water assessment and are maintaining a protection area around their source.

Stewardship Incentives Program (SIP), IDL

http://www2.state.id.us/lands/Forest%20Legacy/Assessment%20of%20Need%20Breakout%20Files/8-Existing%20Conservation%20Efforts.pdf

SIP provides technical and financial assistance to encourage non-industrial private landowners to keep their lands and natural resources productive and healthy. Qualifying land includes rural lands with existing tree cover or land suitable for growing trees. Eligible landowners must have an approved Forest Stewardship Plan and own less than 1,000 acres.

Water Quality Program for Agriculture (WQPA), ISCC

http://www.scc.state.id.us/docs/wqpafs.doc

Provides financial incentives to owners and operators of agricultural lands to apply conservation practices to protect and enhance water quality and fish and wildlife habitat.

Wetlands Reserve Program (WRP), NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

WRP was established to help landowners work toward the goal of "no net loss" of wetlands. This program provides landowners the opportunity to establish 30-year or permanent conservation easements, and cost-share agreements for landowners willing to provide wetlands restoration.

Wildlife Habitat Incentive Program (WHIP), NRCS

http://www.id.nrcs.usda.gov/programs/financial.html

WHIP was established to help landowners improve habitat on private lands by providing cost-share monies for upland wildlife, wetland wildlife, endangered species, fisheries, and other wildlife. Additionally, cost share agreements developed under WHIP require a minimum 10-year contract.