DECISION MEMO
Sawmill Pond Enhancement Project

USDA FOREST SERVICE
Shoshone National Forest
North Zone/Greybull Ranger District
Park County, Wyoming
T47N, R102W, NW1/4 of NE1/4 Section 19

Decision

I have reviewed the scoping notice and comments and decided to implement Alternative 3c of the Sawmill Pond Enhancement Project. It will be completed in various phases.

Phase 1 includes draining the pond. The topsoil from the meadow adjacent to the pond will be removed and stockpiled. A portion of the pond adjacent to the meadow will be deepened an additional four feet. The excavated waste material will be spread across the meadow and the stockpiled topsoil spread over the waste material. The topsoil will be planted with native grass seed.

Phase 2 includes installing a spring box in the spring/creek on the hillside above the pond. Water will be piped to the lake, to maintain full pool elevation needed to over winter and provide a viable Yellowstone cutthroat trout (YSC) fishery. A livestock tank with piping will be installed; the tank will be located below the meadow.

Phase 3 includes modification and expansion of the existing top rail fence to prevent livestock use in the pond/meadow/riparian complex.

The proposed action falls under Section 31.2 (7) of the Forest Service Handbook 1909.15 Environmental Policy and Procedures. This allows for modification or maintenance of stream or lake aquatic habitat improvement structures (or similar projects) using native materials or normal practices.

Background and Proposed Action

Proposed Action-Sawmill Pond Enhancement Project. The purpose of the project is to deepen the pond to create an over wintering cutthroat trout fishery. In addition, the spring box system is needed to keep the pond at historic full pool elevation. In summary, project benefits include:

- Provide an over wintering recreational YSC fishery
- Fill and maintain the lake at or near full pool
- Increase the range and habitat for Yellowstone cutthroat trout (a Region 2 sensitive fish species) within its historic range
- Ensure a long-term fishery and sustained production of other benefiting aquatic organisms

The project site is just inside the Forest boundary, approximately two miles southeast of the Timber Creek Ranger Station and 20 miles west of Meeteetse, Wyoming via Forest Service Road #203 (Figure 1).

The Shoshone National Forest (SNF) considered this improvement project to over winter and expand the range of Yellowstone cutthroat trout. An interdisciplinary team, including several Forest and Wyoming Game and Fish Fisheries Biologists, a Forest Hydrologist, Range Conservationist, Engineer, Archeologist, and a local Natural Resource Conservation Services representative visited the site on various occasions during 2001 and 2002.

In the past, Sawmill Pond was developed for a sawmill by diverting a very small, unnamed fishless stream/spring into the pond area (Figure 2). In 1985, the pond was excavated and the surface area expanded to just over two acres at full pool. It included the creation of an island for waterfowl nesting and habitat diversity. The earthen diversion collapsed. A hand crew reworked it in 1989 using earthen fill material. It has since collapsed due to the wet area and slumping along the far stream bank. As a result, the water level in the pond has dropped about four feet from full pool. The current maximum water depth in the pond is less than two feet. The pond cannot maintain full pool elevation throughout the year without an additional water supply.

The purpose of the proposal is to deepen the pond in order to create an over wintering Yellowstone cutthroat trout (YSC) fishery. The intent is to install a spring box in the spring/creek in order to maintain the pond at full pool. This project benefits fisheries, waterfowl, other aquatic organisms, and recreationists as summarized above.

The project design and implementation for the Sawmill Pond proposal involves various phases:

A. Pond Deepening

In the fall of 2002, we plan to use a backhoe to dig a trench that would drain the pond and allow the bottom to dry. This activity is necessary since the pond bottom has a heavy clay content that holds moisture. The bottom needs to dry for a substantial time to allow heavy equipment to operate.

During the summer of 2003, we plan to use a bulldozer to remove and stockpile topsoil from the meadow, since the pond material contains a substantial amount of clay and would be a poor medium for vegetative growth.

The bulldozer will be used to deepen a portion of the pond an additional four feet in the dam area, resulting in a maximum depth of over 10 feet at full pool.

Using the bulldozer, the excavated pond fill will be evenly distributed about 1.6 feet deep in the meadow. Silt fencing will be used to prevent sediment from entering the creek.

Once the pond deepening has been completed, the stored topsoil will be evenly spread across the meadow, covering the pond waste material. The trench draining the pond will be filled and compacted at the dam site and downstream. Native grasses will be planted in the meadow.

Forest Service Road #203 is located adjacent to the pond. The site can be accessed by vehicle; no new road construction is required.

B. Water Source

The interdisciplinary team felt that the old earthen creek/spring diversion failed not from high stream flows, rather due to the wet seep area on the far bank that resulted in bank slumping and diversion failure. After surveying the area, the interdisciplinary team felt that the best option was to use a reverse leach field spring system to develop a water source from the spring/creek to the pond. Gravel will be placed at the stream gradient break just upstream of the old diversion site. An eight to 10 inch collection pipe will be installed under the gravel to gather a portion of the stream flow. This larger pipe will be necked down to a four-inch poly pipe. The four-inch pipe will have a valve to control the amount of flow into the pond.

The pipe will be buried about six inches in the existing diversion ditch and then covered. The pipe will stop just above full pool elevation (Figure 2). Large rock will be placed in the channel at the interface of the diversion pipe with the pond to prevent channel head cutting and erosion. Diverted water tumbling over the rocks just before entering the pond will add additional oxygen needed to help ensure trout survival. With this type of system, the rate of stream flow into the pond could be adjusted to provide full pool elevation and temperature/nutrient control. This type of diversion will also minimize sediment input and extend the life of the pond. The upstream valve will be shut off in the fall. Gravity will drain the line, preventing freezing and pipe damage. The valve would be reopened in the spring.

From the 4-inch pipe going to the pond, a "T" and valve will be installed connecting a 1.5 inch pipe that will run down the hill and under the road to a stock tank below the meadow southeast of the pond near the slash pile (Figure 2). The pipe will be buried about 6 inches with a ditch digger/trencher. The tank will have an automatic float valve controlling the water level and flow for seasonal livestock use. It will be shut off during non-use.

We will apply for the water surface permit from the State of Wyoming in the fall/winter of 2002 so that the water diversion work can be installed during the summer of 2003.

C. Fencing

After the other work is completed, the existing top rail fence will be expanded to prevent livestock use around the pond/meadow/riparian area (Figure 2). The fence will be positioned so there is enough room left for vehicle pull-off and parking along the pond side of the road. A locked gate, previously installed in the existing fence system, will be kept for administrative purposes or in case livestock get inside the enclosure. The modified fence will be installed after the excavation and meadow work have been completed.

Currently, management of the area is proposed to be a dispersed recreation site with no additional developments.

Purpose of and Need for Action

This action is tied to guidance set forth in the 1986 Shoshone National Forest Plan and Record of Decision. General direction in the Forest Plan (FP-III-7) is "Manage fish and wildlife habitats, including plant diversity, to maintain viable populations of known vertebrate species and meet population objectives of management indicator species." The project is needed in order to meet Forest Plan direction described below.

Management Area 9A (Riparian Area Management). The goals of management are to provide healthy, self-perpetuating plant communities, meet water quality standards, provide habitats for viable populations of wildlife and fish, and provide stable stream channels and still water body shorelines. The aquatic ecosystem may contain fisheries habitat improvement and channel stabilization facilities that harmonize with the visual setting and maintain or improve wildlife or fish habitat requirements (FP-III-207). Additional plan direction is:

- Improve habitat capability through direct treatments of vegetation, soils and waters (FP-III-52)
- Provide habitat for viable populations of all native vertebrate species of fish and wildlife (FP-III-210).
- Plan lake and stream habitat improvement projects with the assistance of state wildlife agencies, where aquatic habitats are below productive potential. Plan those improvements that harmonize with the visual setting (FP-III-211).
- Design project construction plans, permits and activities to minimize siltation or pollution of streams and lakes (FP-III-211)

- Require sediment control for any construction activity within the aquatic zone to prevent downstream sedimentation (FP-III-211)
- Maintain proper stocking and livestock distribution to protect riparian ecosystems (F-/III-211)

The purpose of the proposal is to deepen the lake in order to create an over wintering recreational fishery. To increase the distribution of the native Yellowstone cutthroat trout within its historic range, Wyoming Game and Fish would stock Sawmill Pond with pure Yellowstone cutthroat trout. This project will also improve habitat for waterfowl, amphibians and other aquatic organisms, and improve recreational opportunities.

Scoping and Public Involvement

In February 2002, letters were sent to approximately 50 individuals and 28 American Indian Tribal contacts to scope their ideas and identify issues/concerns/opportunities. The scoping was mailed February 14 and closed March 18, 2002.

The Wyoming Game and Fish, the local Trout Unlimited Chapter, and other commenters support this project. Results from this scoping and public involvement effort are summarized as follows. Issues revolving around regulations, grazing, multiple use, fees, growth and development, tourism, economics, and others could enter the discussion. However, resolution of all issues is beyond the scope of this analysis. To narrow the scope of issues, the decision-making process was focused on these concerns/issues or comments:

- **The percentage of the lake that would be about 10 to 14 foot deep needed for over wintering of fish.** Approximately 11% of the surface area of the lake would be about 10 feet deep at full pool after excavation.
- **The Forest Service will need to file the appropriate paperwork with the surface water section of the Wyoming State Engineer's Office to develop the spring and maintain the lake at full pool elevation.** All appropriate paperwork will be filed and a surface water permit will be obtained from the State Engineer's Office in Cheyenne before creek diversion work begins.
- **Stocking of Yellowstone cutthroat trout that came from the same drainage.** Wyoming Game and Fish plans to plant YSC from the Wyoming Game and Fish Hatchery system, which were originally collected from La Hardy Rapids in Yellowstone National Park.
- **Work with Wyoming Game and Fish to implement STRICT catch-and-release regulations with barbless hooks in this watershed.** What the Forest Service is proposing is to regulate the water flow in the lake. Wyoming Game and Fish Department regulates the actual fish populations and sets the fishing regulations for specific drainages or sites. Setting catch-and-release regulations in this watershed is beyond the scope of this project and outside the authority of the Forest Service.
- **Minimize sediment introduction into streams during construction.** Forest Service standards and guidelines, Best Management Practices, and Watershed Conservation Practices Handbook applicable criteria will be followed during construction. Additionally, silt fencing will be used to help prevent pond spoils from entering the stream. The water drained from the pond will be drained through an old beaver pond before entering the creek.

This decision is being distributed to interested and potential affected parties, including those who responded during the scoping process.

Issues and the Decision-Making Process

The decision rationale for implementing the proposed action is based on the following concerns/issues and opportunities and how the decision would address the issue.

What recreational fishing opportunities would the lake provide?

The pond is adjacent to a developed road with easy access, although it is a substantial distance from any community. Fishing pressure will be high relative to the amount of fish a two-acre lake can support. As a result, Wyoming Game and Fish Department currently plans to periodically stock the lake with YSC fingerlings (basic yield).

How should the area be managed?

The area will be managed as a non-developed site with no recreational developments other than accessibility. Game and Fish currently plans to manage the lake under statewide general creel limits, which are six fish per day with only one fish over 20 inches.

The decision and actions implemented need to be the most expeditious cost efficient methods available to address concerns. A decision-making process was followed, where 1) the problem was defined with the help and input of the public, local government, and staff expertise, 2) possible alternative solutions were identified and evaluated, 3) the solution thought to be the best to solve the problem was selected, 4) project design measures developed to implement the solution and provide an adequate level of resource protection, and 5) established a procedure to evaluate progress, compliance, and need for adaptive changes.

Alternatives

Based on the interdisciplinary site visits, field survey, scoping comments, and discussions, we developed various alternatives:

Alternative 1 - no action. Do nothing; the pond would remain well below full pool and may dry up, especially during continued drought conditions. The pond would not be able to support fish. Other aquatic fauna and flora would be adversely affected.

Alternative 2. Install the spring box system in the creek. Do not deepen a portion of the pond. This would raise the water level to the existing full pool elevation (six feet max depth). Install the modified top rail fence surrounding the pond/meadow/creek complex.

Variations

a. Do not plant fish. As a result, this would primarily be a wildlife project, not a fisheries project, since we would not be able to plant and over winter fish.
b. Plant cutthroat trout annually since they would probably winter kill. Currently, Wyoming Game and Fish is not interested in planting a pond that will not over winter fish.

Alternative 3. Drain the pond and allow the pond bottom to dry so heavy equipment can excavate the pond bottom. Use a dozer or front-end loader to deepen the pond. Deepen a portion of the pond up to about four feet deep by about 475 feet long along the southern pond area with an excavator or dozer, without draining the pond. This would result in a total maximum full pool depth of about 10 feet and the ability to over winter trout.

Variations

a. From soil tests, we found a substantial amount of clay/fines in the pond bottom that would provide a poor plant-growing medium. As a result, the Forest Soil Scientist recommended spreading the waste material from the pond only two inches deep in order to regrow and not inhibit existing vegetation.

There is not enough surface area in the meadow to spread the excavated material only two inches deep.
b. Haul the excavated spoils away. This would result in substantial costs for equipment and hauling time. A suitable waste site would need to be located.
c. Scrape off and stockpile the topsoil from the meadow with a dozer. With a dozer, deepen the pond and uniformly distribute the excavated pond waste material about 1.6 feet deep. Respread the stored topsoil over the spoils. The disturbed area would be treated for weeds and planted with native grass seed. This would be the most cost effective, practical alternative. The short-term impacts to the existing aquatic biota in the pond would be far outweighed by the overall long-term benefits.

Alternative 4. Same as Alternative 3c, but do not drain the pond. This would require a large excavator and substantial additional costs to excavate the pond.

Alternative 5. Use the excavated soils to increase the elevation of the existing dam about four feet. With the existing 6-foot maximum pool, 4-foot excavation, and 4-foot increased dam height, maximum full pool depth would be increased to about 14 feet. There is about a 100-foot section of the adjacent road that has a dip in it; it would need to be raised about 2 feet to accommodate the increased elevation of the pond. This would be quite costly. Extensive permitting would also be required to raise the elevation of the existing pond. The existing fencing would also be flooded and would need to be relocated.

No other alternatives or methods were identified from issues and concerns raised through scoping and public involvement.

Resource Protection /Project Design Measures

Project design for resource protection and methods for implementation to minimize any environmental effects or site enhancement include:

Project design included a cultural clearance.

Forest Botanist was consulted for reseeding recommendations and the project was reviewed for sensitive plant potential.

Before construction of the water diversion, an application for a surface water permit will be submitted and approved by the State of Wyoming for the spring box, piping, and stock tank.

Biologists were consulted for their expertise on bear/human interactions and how to best implement this action. Guidelines for reducing bear/human conflicts would be incorporated into the project, to include compliance with the requirements of the Grizzly Bear Management and Protection Plan:

- Garbage and refuse handling and disposal procedures will be implemented
- Human safety awareness training, human/bear conflict prevention procedures, and encounter procedures will be conducted
- Enforce human activity restrictions by area, season, etc.

Reasons for Categorically Excluding the Proposed Action

The proposed action falls under Section 31.2(7) of the Forest Service Handbook 1909.15 – Environmental Policy and Procedures Handbook. Based on internal and external scoping, field reviews, and specialist's input and experience, the effects of implementing this action will be of limited context and intensity and will result in little or no environmental effects to either the physical or biological components of the environment. The primary justification for this determination is that it involves the use of the land that does not involve significant changes in the physical environment.

Forest Plan Direction/Findings Required by Other Laws

This proposal is consistent with laws, regulations, and policy, as well as direction and standards and guidelines in the Shoshone National Forest Land and Resource Management Plan (LRMP), as required by the National Forest Management Act (FSM 1922.41 and FSH 1909.12). This decision is in accordance with other applicable federal regulations and laws.

No cultural sites were identified for the Phase 1 implementation through the cultural resource inventory. Per the May 24, 2002 SHPO letter, concurrence can be assumed for the purpose of Section 106 compliance and Phase 1 of the project can proceed since no sites were found. An Army Corp of Engineers (COE) 404 permit has been obtained. A water surface permit will be applied for this winter and obtained from the state before any water diversion work commences next summer.

Finding of No Extraordinary Circumstances

Under the Forest Service Handbook definition, extraordinary circumstances exist, only when conditions associated with the proposed action are identified by the line officer making the decision "as potentially having effects which may significantly affect the environment."

Scoping was conducted to identify any conditions associated with a normally excluded action as potentially having effects, which may significantly affect the environment.

Extraordinary circumstances include, but are not limited to, threatened and endangered species or their critical habitat, wetlands and flood plains, wetlands or municipal watersheds, inventoried roadless areas, Congressionally designated areas (such as wilderness, wilderness study areas, or National Recreation Areas), Research Natural Areas, or Native American religious or cultural sites, archaeological sites, or historic properties or areas. These are summarized in the table below to describe the situation for extraordinary circumstances and the effects the project would or would not have.

Determinations for extraordinary circumstances were reviewed in the context of the Forest Service Handbook (1909.15 Chapter 30.3-30.5) and definition and the court decision below[1]. Extraordinary circumstances exist, or are "present," only when conditions associated with the proposed action are identified "as potentially having effects which may significantly affect the environment."

[1] The United States District Court for the District of Utah recently reviewed the provisions of the FSH related to categorical exclusions in Utah Environmental Congress v. U.S. Forest Service, Case No. 2:01-CV-00390B. In a Memorandum Opinion and Order issued June 19, 2001, the court found the above interpretation of the FSH to be reasonable. Specifically, the court found that the phrase "presence of" referred to conditions that may lead to a finding of extraordinary circumstances, not to the phrase "extraordinary circumstances."

Extraordinary Circumstances	Conditions that may lead to a finding of extraordinary circumstances (Yes or No). If needed, discussions of conditions that may lead to a finding of extraordinary circumstances are discussed in detail following the table.
a. Federally listed threatened and endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species (Attach concurrence from fisheries/wildlife biologist and botanist as needed)	Yes. Discussed below. A Biological Evaluation process for Proposed, Listed, and Sensitive Species was completed.
b. Flood plains, wetlands, or municipal watersheds	A COE 404 permit was obtained.
c. Congressionally designated areas, such as wilderness, wilderness study areas, or National Recreation Areas	No. None present; therefore, no effects from the project on Congressionally designated areas.
d. Inventoried roadless areas	No. None present.
e. Research Natural Areas	No. None present; therefore, no effects from the project on research natural areas.
f. American Indians and Alaska Native religious or cultural sites, archeological sites, or historic properties or areas	No. None present as determined by the Forest Archaeologist and cultural survey.
g. Archaeological sites, or historic properties or areas	No. None present as determined by the Forest Archaeologist and cultural survey.

Conditions that may lead to a finding of extraordinary circumstances are discussed in detail in the following:

Threatened, Endangered and Sensitive Species. I have concluded that the project would have no effect on any endangered or threatened species known or suspected to occur in the project influence zone; therefore no conditions that may lead to a finding of extraordinary circumstances exist. This is based on the biological evaluation process, conclusions, and determinations made by the Forest Wildlife Biologist that concluded:

"This project will have no effect on any T&E species. The action may adversely impact individual tiger salamanders or northern spotted frogs, but this will not be likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of any species rangewide. The action will have a beneficial impact on Yellowstone cutthroat trout."

The wildlife documentation for the analysis/evaluation of this proposal relative to the following species is located in the Wapiti District project file:

- Proposed, Threatened, and Endangered Species
- Region 2 Designated Sensitive Species
- SNF Forest Plan Management Indicator Species (MIS)

Summary. I have reviewed the proposal and determined that no significant effects would occur from its implementation. The effects of the actions, as determined through internal scoping, are not highly controversial and are similar to other actions that have been implemented in the area. The effects on the human environment are not highly uncertain or involve unique risks. The action is not related to any actions that would result in significant cumulative impacts. The project does not represent a decision in principle about future considerations and does not violate federal, state, or local laws or requirements imposed for protection of the environment.

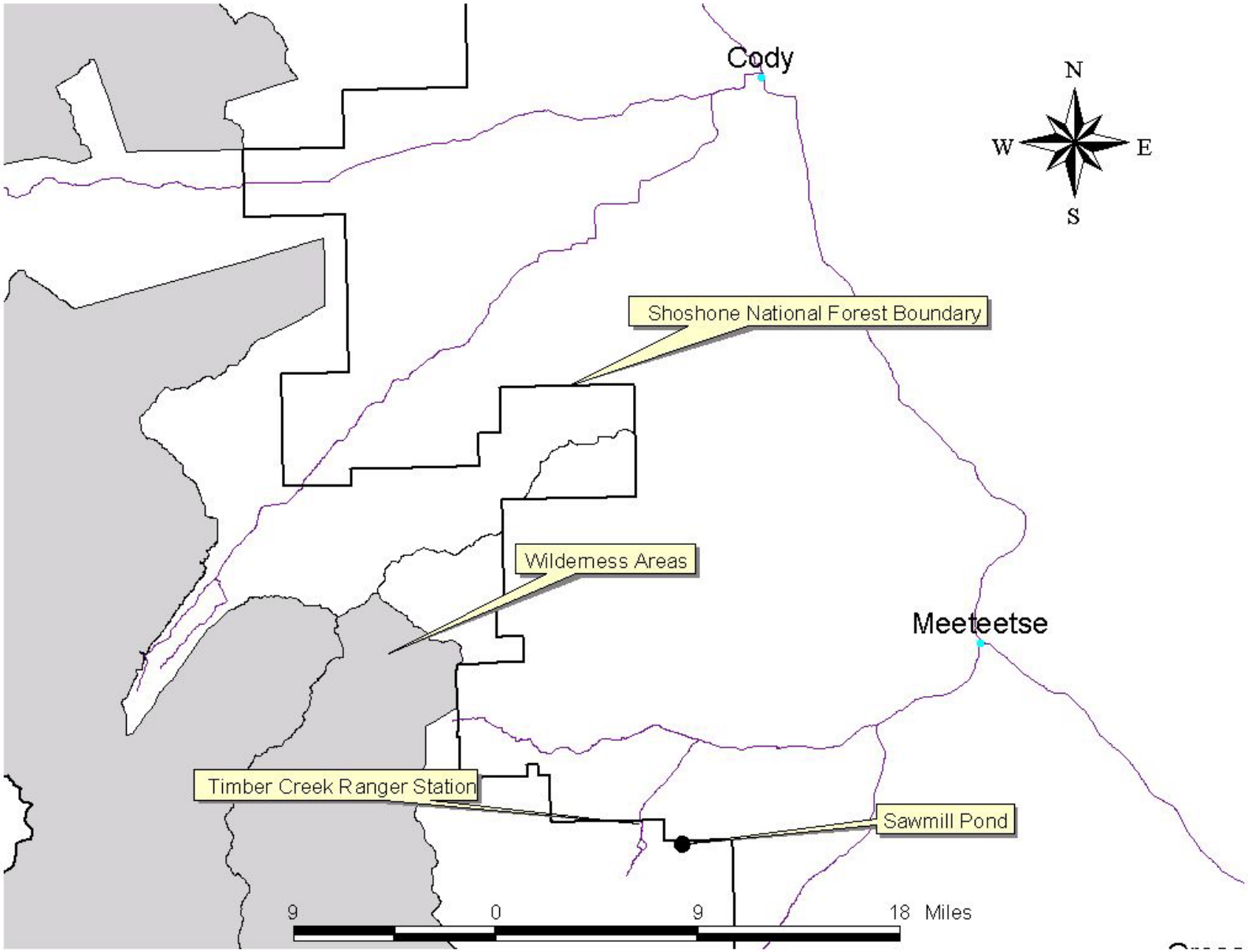
Implementation and Contacts

This decision can be implemented immediately and is not subject to appeal pursuant to 36 CFR 215.8 (a) (4). In order to ensure safety for employees and the public and protect infrastructure/facilities, this project will be implemented as soon as possible during the fall of 2002. For further information on this decision, contact Ray Zubik, Forest Aquatic Biologist, or Marty Sharp, NEPA Coordinator, 203A Yellowstone Ave., Cody, Wyoming 82414 or telephone 307-527-6921.

/s/ Brent L. Larson 9/25/02

Brent L. Larson Date
District Ranger

FIGURE 1.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Shoshone National Forest Boundary
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Sawmill Pond
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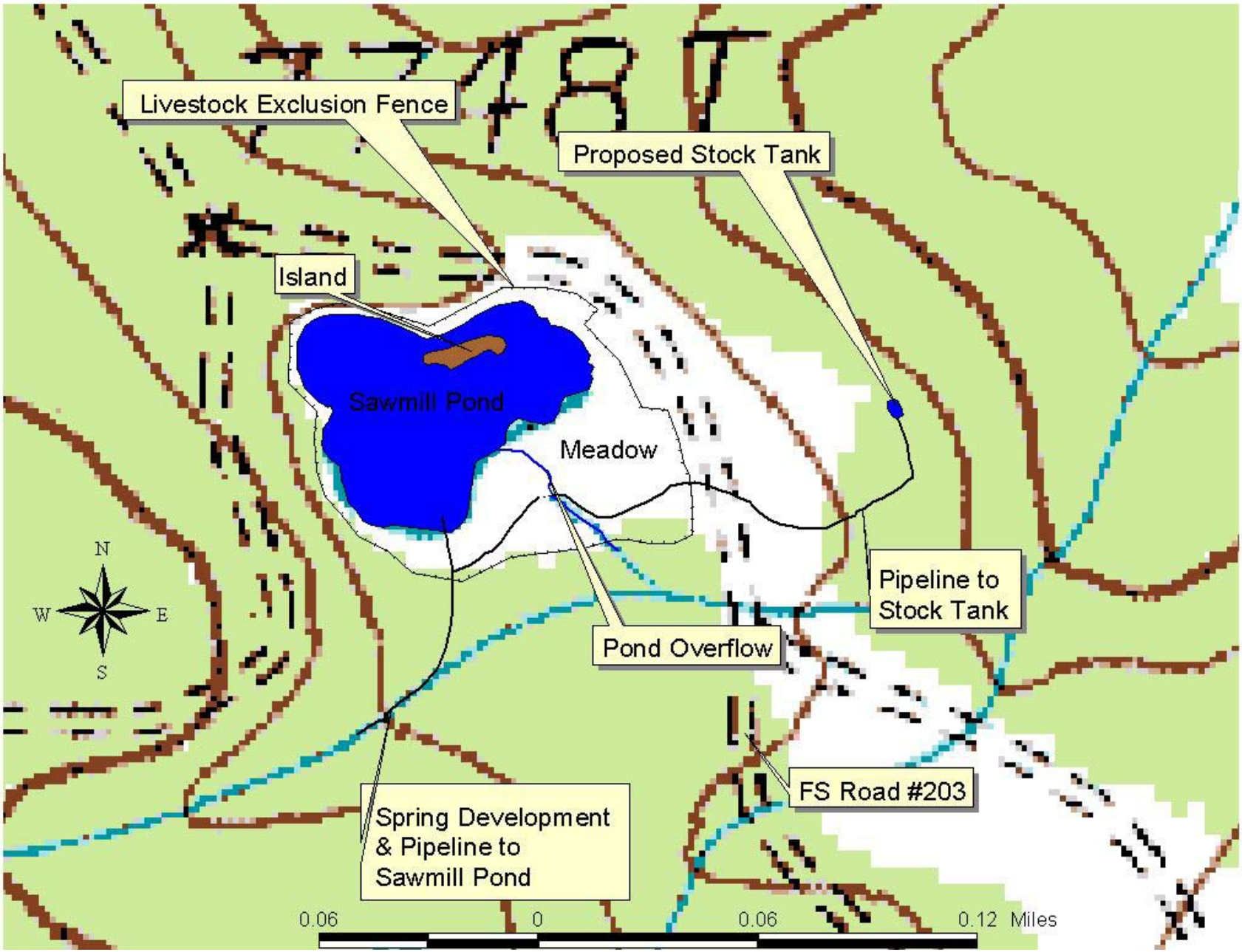
FIGURE 2.


Livestock Exclusion Fence
Proposed Stock Tank
Island
Sawmill Pond
Meadow
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Pipeline to Stock Tank
Pond Overflow
FS Road #203
Spring Development & Pipeline to Sawmill Pond
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