

RECORD OF DECISION

USDA Forest Service
Northern Region

May 2001

Changes to the Existing Yellowstone Pipeline Between Thompson Falls and Kingston

Sanders County, Montana, and Shoshone County, Idaho
Lolo and Idaho Panhandle National Forests

Decision Summary

This Record of Decision documents my decision to select a modified version of the Proposed Action described in the October 2000 Final Environmental Impact Statement (EIS) titled *Changes to the Existing Yellowstone Pipeline between Thompson Falls and Kingston*. I have not included one proposed reroute in my decision because it would be solely on private land, and my decision can only apply to National Forest System lands.

My decision includes ground-disturbing activities primarily in the Prospect Creek drainage west of Thompson Falls, Montana, plus one stream crossing on the Coeur d'Alene River between Prichard and Kingston, Idaho. My decision also includes changes to pipeline right-of-way operational terms and conditions on National Forest System lands under special-use permit between Thompson Falls and Coeur d'Alene, Idaho.

In summary, my decision requires:

- Seven separate relocations, to move the pipeline away from Prospect Creek for a total of about seven miles;
- One stream crossing repair on the Coeur d'Alene River;
- Removal of at least 2.6 miles of abandoned pipe;
- Mitigation measures for both construction and operations to improve protection of the environment and public safety.

These requirements will be implemented as revisions to the special-use permit held by the Yellowstone Pipe Line Company. The reroutes, stream crossing repair, and abandoned pipe removal will be accomplished within three years of this decision. The elements of my decision are displayed in more detail below under the section captioned "Decision (Selected Alternative)."

Project Background

Since 1954, the Yellowstone Pipe Line Company (YPL) has held a special-use permit for the existing pipeline on National Forest System (NFS) lands between Helena, Montana, and Coeur d'Alene, Idaho. The 10-inch-diameter pipeline carries refined petroleum products (e.g., gasoline, diesel, jet fuel) from refineries near Billings, Montana, to markets west of Billings. The current permit was granted under the

provisions of the Mineral Leasing Act. The Act requires the United States to renew such permits subject to terms and conditions to protect the public and the environment. The Bureau of Land Management is now responsible for administering Mineral Leasing Act occupancy for all Federal lands used by YPL between Billings and Missoula, Montana.

As the sole Federal agency with lands crossed by YPL between Missoula and Spokane, Washington, the Forest Service retains permitting responsibility for NFS lands between Missoula and Coeur d'Alene. From Missoula to Thompson Falls the pipeline is out of service – that portion of the line is not within the scope of this decision. From Thompson Falls to Thompson Pass, Montana (Mileposts 416 to 438, a distance of 22 miles), the pipeline crosses 15 miles of the Lolo National Forest. From Thompson Pass to Kingston, Idaho (Mileposts 438 to 476, a distance of 38 miles), the pipeline crosses 6.4 miles of the Idaho Panhandle National Forests.

In 1995-1996, three events converged:

- 1) YPL's easement lease across the Flathead Indian Reservation (between Thompson Falls and Missoula) expired in April 1995;
- 2) Flooding in December 1995 and again in February 1996 caused several pipeline exposures along Prospect Creek, Prichard Creek, and the Coeur d'Alene River; and
- 3) The previous Forest Service permit expired at the end of December 1995.

In the wake of these events, the Forest Service issued YPL a short-term permit renewal with a requirement for YPL to fund a detailed study, contracted by the Forest Service, of the permit area to characterize problems and recommend mitigation measures before renewing the permit for the long term (Dames & Moore, 1997).

In September 1995, the Bureau of Indian Affairs issued a Final EIS for lease renewal across the Flathead Indian Reservation. However, YPL and the Confederated Salish and Kootenai Tribes of the Flathead Nation were unable to reach agreement on terms for lease renewal and closed their negotiations in November 1995. YPL's operations across the Reservation had ceased in April 1995, and the shippers (Conoco and Exxon) instead used a combination of trucks and trains to haul product through and around the Reservation. In 1998, the shippers completed improvements for pipeline-rail transfers at their Missoula and Thompson Falls terminals. Since then, most trucking has ceased and product is shipped by rail between Missoula and Thompson Falls. The existing pipeline between Missoula and Thompson Falls has been out of service since April 1995.

YPL submitted an application to the Forest Service in August 1996 for a new pipeline route between Missoula and Thompson Falls. A Notice of Intent to prepare an EIS was published in the Federal Register in December 1996. The Forest Service contracted with Aspen Environmental Group to prepare the EIS. The Forest Service and Aspen conducted a first round of EIS public scoping meetings to consider YPL's proposals for a new pipeline in April 1997.

In June 1997, the Dames & Moore study and YPL's proposed Mitigation Plans for the existing pipeline were used as second-round scoping proposals for the EIS. We determined that the EIS should address both YPL's proposals for a new pipeline around the Flathead Indian Reservation and YPL's proposals for changes to the existing pipeline west of Thompson Falls. We formed alternatives in response to issues raised during scoping (see the Alternatives section below), and we released a Draft EIS in September 1999.

In February 2000, YPL withdrew its application for a new pipeline, and revised its proposals for changes to the existing pipeline in June 2000. We then prepared a Final EIS, released in November 2000,

focusing on the existing pipeline, eliminating the alternatives regarding a new pipeline. My decision herein is based on that Final EIS.

Purpose and Need

The purpose of the Proposed Action is to reduce existing environmental and safety risks posed by the current pipeline operations between Thompson Falls, Montana, and Kingston, Idaho, and to bring the permit into compliance with Forest Plan standards for fisheries and riparian habitat.

YPL's permit for the existing pipeline was granted under the provisions of the Mineral Leasing Act (30 USC 185(n)). Under this Act, the Forest Service "*shall renew any right-of-way, in accordance with the provisions of this section, so long as the project is in commercial operation and is operated and maintained in accordance with the provisions of this section.*" The Act requires the Forest Service to renew the permit as long as the above provisions are met, but the Act also requires the Forest Service to add terms and conditions to the permit to protect the public and the environment.

Reviews of recent flood damage and historic repairs indicate that the pipeline right-of-way will require frequent streambank modification if it remains in its current location (see Final EIS Section B, as well as Appendix 4 of the Final EIS, *Repair Actions Taken on Existing Pipeline since 1954*). Such work results in chronic impacts on the stream and fisheries habitat. That work often conflicts with habitat management objectives and can adversely affect fish. Flooding also subjects the pipeline to washout and poses risk of pipeline rupture and spill of products with further environmental damage and health and safety risk.

In addition to Mineral Leasing Act requirements to impose permit terms and conditions to protect the public and the environment, forest plans as amended by the Inland Native Fish Strategy (INFISH, 1995) require permit adjustment to meet riparian habitat objectives and to protect native fish. INFISH Standard LH-3 requires:

" . . . Where the authority to do so was retained, adjust existing leases, permits, rights-of-way, and easements to eliminate effects that would retard or prevent attainment of the Riparian Management Objectives or adversely affect inland native fish. If adjustments are not effective, eliminate the activity. Where the authority to adjust was not retained, negotiate to make changes in existing leases, permits, rights-of-way, and easements to eliminate effects that would prevent attainment of the Riparian Management Objectives or adversely affect inland native fish."

Therefore, we designed the Proposed Action to repair existing flood damage, move the pipeline away from streams, improve burial depth at stream crossings, and revise operational procedures for spill detection and right-of-way maintenance in riparian habitats. The objective is to reduce the risk of future pipeline exposures and to reduce conflicts between the maintenance and repair of the right-of-way and riparian management objectives.

Proposed Action

The Proposed Action, detailed in Section B.3 of the Final EIS, consists of mitigation plans proposed by YPL and additional measures recommended by the Forest Service, including:

- Installation of eight pipeline reroute segments totaling eight miles in length, which would include ten new stream crossings and removal of 20 existing stream crossings;
- Of the eight miles of old pipeline no longer to be used, 1.4 miles are proposed to be removed and as much as 6.6 miles may be abandoned in place;
- Removal of an additional 1.2 miles of previously abandoned pipeline;

- Various repairs and removal of structures, including replacement of 0.1 mile of pipe at a crossing of the Coeur d'Alene River as well as the relocation of a block valve in the Prospect Creek drainage.

Scope of the Decision

My decision is limited to National Forest System (NFS) lands. I do not have the authority to require changes in pipeline location, facilities, or operations on other land ownerships. Other agencies such as the COE and the Montana and Idaho Departments of Environmental Quality may use the environmental analysis in the Final EIS as a basis for separate decisions for areas within their respective jurisdictions.

My decision is also limited to changes to the terms and conditions of the special-use permit held by the Yellowstone Pipe Line Company for NFS lands between Thompson Falls and Spokane. Physical changes (relocations, reconstruction, etc.) authorized by this decision are further limited to those NFS lands between Thompson Falls and Kingston. Renewal *per se* of Mineral Leasing Act permits is a non-discretionary requirement of the Act. Therefore, this decision does not include whether or not to renew the existing special-use permit.

YPL's use of NFS lands between Helena and Missoula is now administered by the Bureau of Land Management, and therefore is not within the scope of this decision. Neither does this decision cover the NFS lands between Missoula and Thompson Falls where the pipeline is out of service, but still held by YPL under a separate Mineral Leasing Act special-use permit.

Public Involvement

As described in Section A.3 of the Final EIS, public involvement was initiated when the Forest Service published a Notice of Intent to prepare an EIS in the Federal Register (December 1996). Public involvement included an extended scoping period ending June 30, 1997. Public involvement continued throughout the preparation of 24 Specialist Reports and Interdisciplinary Addenda that provided technical support for the EIS. The Draft EIS was released in September 1999. The public review period on the Draft EIS ended on November 29, 1999. The Final EIS was released in early November 2000.

The public involvement program for this decision process and EIS included the following:

- Four scoping meetings were held during the week of April 6, 1997, in Missoula, Frenchtown, Superior, and Plains, with over 500 people attending.
- Six additional scoping meetings were held between June 2 and 9, 1997, in Missoula, Frenchtown, St. Regis, Alberton, Thompson Falls, and Wallace, Idaho, and an additional meeting was held in Billings in February of 1998.
- Public comments were captured by court reporters and Forest Service comment guide forms, and other written comments were delivered in these meetings. During the scoping period, 341 oral and written responses were received, which were summarized by the USDA Forest Service Content Analysis Enterprise Team in reports published in May and July of 1997.
- Ten "project libraries" were established to provide convenient public access to project-related documents, maps, and other information: in Alberton, Billings, Frenchtown, Missoula (two locations), Plains, Superior, and Thompson Falls, Montana, and Kellogg and Wallace, Idaho. In addition, copies of most of these documents (see Table A.4-1 of the Final EIS) may be purchased for the cost of copying at Kinko's in Missoula.
- Seven newsletters, as well as several meeting notices, were mailed to the 1,500-name project mailing list and the project libraries. In addition, meeting notices were placed in local newspapers of record throughout the project area in western Montana and northern Idaho.
- A project website is also available to provide convenient public access to many of the documents available in the project libraries, as well as project updates and meeting information (www.aspeneg.com/YPL-EIS).

- “Public briefing” meetings were held on a bimonthly basis in 1998 in various locations, including Missoula, Frenchtown, Plains, St. Regis, and Superior, to provide interested persons with the opportunity to learn about progress through the EIS process pending the release of the Draft EIS.
- Two public briefings were held on March 23 and 24, 1999, in Frenchtown and Plains, respectively, primarily to provide the public with information on minor route changes recommended by EIS Specialists to avoid or reduce impacts, and other changes made by YPL to its proposed route or suggested for alternative routes.
- The Draft EIS was released on September 7, 1999. A Notice of Availability of the Draft EIS was sent to the project mailing list, published in local newspapers of record in the project area, and posted on the project website. Notice recipients were given the option to receive a stand-alone Executive Summary or the full Draft EIS. The EIS and many other project documents have also been available in the project libraries and at Kinko’s in Missoula. The EIS and other documents have also been accessible on the project website.
- The Forest Service held informational workshops on the Draft EIS in Frenchtown, Plains, St. Regis, and Billings, Montana, and in Wallace, Idaho in early October of 1999, as well as comment hearings in early November at the same locations. The public review period on the Draft EIS ended on November 29, 1999.
- The Forest Service coordinated its Draft EIS public review process with the U.S. Army Corps of Engineers’ (COE) Section 404 permitting process, including making documents available, COE participation in the Draft EIS workshops, and concurrent public comment hearings.
- Numerous comments were received on the Draft EIS. Although most of the comments dealt with YPL’s now-withdrawn proposal for a new pipeline route through the Ninemile Valley and its alternatives, some comments regarding the existing pipeline were received. All comments were summarized and responded to (see Section F of the Final EIS), and some revisions to the Final EIS as a result of comments received were made as appropriate and as referenced in Section F of the Final EIS.

Issues

As explained in Section A.3 of the Final EIS, environmental issues raised during scoping and public involvement were used to develop the scope of environmental analysis, the proposed action and alternatives, and the recommended mitigation measures. Full lists of issues by environmental category appear at the beginning of Final EIS Section C subsections for each issue area.

Key issues that were raised during scoping and Draft EIS comment included:

- ❑ Water quality degradation from sedimentation or product spills;
- ❑ Risks to the pipeline posed by stream channel downcutting (scour) and channel migration;
- ❑ Spill risks (frequency and magnitude, and past history) and ability to detect, respond, and minimize adverse consequences;
- ❑ Disturbance and spill risks to wetlands and other plant communities, wildlife, and fish and their habitats;
- ❑ Concerns regarding degradation of rural character and land uses and values;
- ❑ Concerns regarding supplies, marketing, and costs of fuels, refinery jobs, and tax revenues.

All of these issues have been thoroughly addressed in the Final EIS. Some issues, such as risk posed by stream channel movement and disturbance to wetland habitats were primary concerns in developing the Proposed Action. Most of these issues are addressed through analysis of environmental consequences and development of mitigation measures. Some issues, such as degradation of rural character and concerns regarding supplies, marketing, fuels costs, refinery jobs, and tax revenues are discussed in the EIS, but were more relevant to the Draft EIS alternatives than they are to the alternatives in the Final EIS, because of YPL’s withdrawal of its application for a new pipeline route between Missoula and Plains.

Alternatives Considered

Alternatives Not Considered in Detail. As discussed in Section ES.1 of the Final EIS, the Proposed Action in the Draft EIS included a new pipeline proposed by YPL to connect Missoula and Plains. YPL has dropped that proposal and is not now applying for a new pipeline route between Missoula and Plains. Therefore, that proposal and the six alternatives that were fully evaluated in the Draft EIS were not considered in detail in the Final EIS. Those alternatives included:

- Ninemile Valley East Alternative (the former Proposed Action between Missoula and Plains)
- No Action Alternative (Train and Truck Routes from Missoula to Thompson Falls)
- Ninemile Road Alternative (variation of former Proposed Action between Huson and Upper Ninemile Valley)
- Ninemile Divide Alternative (another variation between Huson and Upper Ninemile Valley)
- I-90/Tamarack Alternative (employing I-90 corridor to St Regis, then St Regis to Weeksville area)
- I-90 to Kingston Alternative (Missoula to Kingston, all along I-90 corridor)
- Missoula Valley Alternative (Missoula to Huson).

In addition, a variety of other alternatives to the new pipeline proposal were eliminated from detailed consideration in the Draft EIS, through an alternatives screening process described in the Draft EIS. Alternative pipeline technologies (such as double-walled pipe) or construction methods were evaluated as potential mitigation measures in the Final EIS under System Safety, pages C.7-39 to C.7-42.

Three other alternatives were suggested in comments on the Draft EIS, but eliminated from detailed consideration in the Final EIS, as discussed in Final EIS pages B-30 to B-32. Those alternatives were:

- Reroute entire pipeline from Thompson Pass to Kingston – eliminated from detailed consideration because the Forest Service lacks jurisdiction (most of that area is not NFS land) and there were no significant environmental issues to resolve on NFS lands in that area.
- Alternative Fuels – eliminated due to lack of agency jurisdiction and non-responsiveness to purpose and need for the proposed action.
- Conservation of Fuels – eliminated due to lack of agency jurisdiction and non-responsiveness to purpose and need for the proposed action.

Alternatives Considered in Detail. For the Final EIS, the remaining alternatives considered in detail included:

- ◆ The Proposed Action (summarized above in the “Proposed Action” section)
- ◆ The No Action Alternative (summarized below)

No Action Alternative. Under the No Action Alternative for the existing pipeline, the Forest Service would renew YPL’s Special-Use permit for its right-of-way across National Forest System lands from Plains to Kingston without subjecting YPL to any new permit conditions. Any changes to the existing pipeline would be at the discretion of YPL in compliance with the current permit conditions and U.S. Department of Transportation (USDOT) regulations (49 CFR Part 195). The USDOT’s Office of Pipeline Safety (OPS) has conducted recent inspections of the pipeline between Thompson Falls and Kingston and has commissioned a study of the portion in the Prospect Creek drainage by the Oak Ridge National Laboratory (ORNL). Based on USDOT regulations and the ORNL study, the following scenario is assumed for the No Action Alternative at various stream flow levels:

- At a flow of 2,000 cubic feet per second (cfs), as measured at the USGS Station on Prospect Creek, YPL personnel will monitor pipeline at critical areas once per day.
- At 2,700 cfs, the YPL Area Supervisor, Facility Manager, Systems Engineer, and Director of Operations will consult concerning continued operations versus pipeline shutdown.
- YPL would continue to pursue getting approval from the Forest Service regarding rerouting the pipeline segments between mileposts 428 and 435 after the EIS is complete. But the construction of these routes could be piecemeal, and would not be required in the permit conditions.

Environmental Consequences of the Alternatives. The following table provides a summary comparison of the Proposed Action with the No Action Alternative by environmental issue area, based on the detailed environmental consequence disclosure given in Section C of the Final EIS.

Summary Comparison of Environmental Consequences of the Alternatives Considered in Detail

Environmental Issue	Proposed Action	No Action
Geology, Paleontology, and Minerals		
Construction below steep slopes or over-steepening of a slope during construction at the base of a slope can result in rockfalls or landslides which cause pipeline damage or rupture	Low likelihood of impact, since most of reroutes would be along or in highway rights-of-way and if pipeline construction plans recognize such areas and adopt measures to increase depth or other protection.	No impact
Fault rupture of the pipeline or other earthquake-induced impacts	Extremely low likelihood because the fault near the existing pipeline is not active - minor hazard reduction with reroutes	Minor benefit of Proposed Action would not be realized
Soils		
Soil erosion during construction, operation, maintenance, or spill clean-up	Likely to occur; would need to implement mitigation measures to reduce levels	Erosion during future piecemeal repairs is likely to occur and at levels higher than under Proposed Action because of potential lack of consistently implemented mitigation measures
Decreased reclamation potential	Likely to occur; construction should implement measures to reduce levels	Same as above
Contaminated soils from a product spill	Unlikely; Proposed Action would slightly reduce potential for spills	Small potential spill reduction benefit of Proposed Action would not be realized
Hydrology: Surface Water		
Discharge of fine sediments or chemical contaminants into surface waters	Short-term construction impacts likely, with decreasing long-term effects of erosion; erosion control and revegetation can reduce sediment impacts if implemented properly during Proposed Action. Control of equipment fueling can reduce potential for contaminants.	Erosion during future piecemeal repairs is likely to occur, and at levels higher than the Proposed Action because of potential lack of consistently implemented mitigation measures
Chronic repeat of streambank and in-stream construction	Proposed Action would substantially reduce likelihood	Highly likely, with potentially severe long-term impacts
Contamination of surface waters from an accidental release	The Proposed Action would help reduce this risk, but additional measures are suggested in Sections C.4 and C.7 to further reduce risk to areas outside of National Forest System lands	Benefits of Proposed Action would not be realized - higher likelihood of accidental release
Hydrology: Groundwater		
Change in groundwater recharge or fluid migration	Unlikely	Unlikely
Impairment or damage to a water supply	The Proposed Action would help reduce this risk.	Benefits of Proposed Action would not be realized (higher likelihood)
Reduction in groundwater supply due to water withdrawals for dust suppression or testing	Unlikely, but existing wells should be monitored if surface water is not used	Lower levels of water withdrawal potential, but could be spread out over many years with piecemeal repair actions

Environmental Issue	Proposed Action	No Action
Air Quality		
Reduction in air quality	Likely during construction because of the need to remove vegetation, trench, and use heavy equipment, but levels are not significant and mitigation measures are recommended	Emissions during future piecemeal repairs are likely to occur, and at levels higher than the Proposed Action because of potential lack of consistently implemented mitigation measures
Noise		
Noise from construction, maintenance, or inspection becomes a nuisance	Low likelihood of impact because of low level of occupation in most areas (few sensitive receptors)	Similar to Proposed Action, but likely to be spread out over many years with piecemeal repair actions
System Safety		
Injury to construction workers or bystanders from improper construction procedures	Worker safety can be maximized by following state and federal guidelines, and implementing a construction safety plan (see Section E.1) that requires contractors to be aware of and avoid risk	Similar to Proposed Action, but likely to be spread out over many years with piecemeal repair actions
Loss of property or property damage from improper construction procedures	Unlikely, but measures are suggested to maximize safety	Similar to Proposed Action, but likely to be spread out over many years with piecemeal repair actions
Injury or damage from pipeline failure that could have been detected earlier	The Proposed Action would help reduce this risk because an improved SCADA system would be installed and improvements to line would reduce likelihood of pipeline failure	Higher likelihood than Proposed Action (benefits would not be realized)
Injury or damage after the release of product	The Proposed Action would help reduce this risk because of proposed changes to pipeline and improved Oil Spill Response Plan and Operation Procedure Manual	Higher likelihood than Proposed Action (benefits would not be realized)
Larger spill volume from a pipeline leak	The Proposed Action would help reduce this risk, but additional measures are proposed, such as frequent testing and strict detection measures	Higher likelihood than Proposed Action (benefits would not be realized)
Abandoned pipe causes disturbance to lands or contamination	The Proposed Action does not change the likelihood of occurrence, only the location	Similar to Proposed Action
Biological Resources: Vegetation		
Loss or degradation of sensitive plants or habitats from human activities or spills	The Proposed Action is likely to cause this impact, but in the long-term reduces the number of construction projects which could also cause these impacts on a longer term and more piecemeal basis	This impact is likely to occur during future piecemeal repairs and at levels higher than for the Proposed Action because a reduced set of Best Management Practices would typically be employed/potential lack of consistently implemented mitigation measures
Increase or spread of weeds	Likely, but additional construction mitigation measures are suggested in Section C.8.2.1	Same as above
Biological Resources: Wildlife		
Impact to sensitive wildlife species or their habitat from human activities	The Proposed Action is likely to cause this impact, but in the long-term reduces the number of construction projects which could also cause these impacts on a longer term and more piecemeal basis	Disturbance during future piecemeal repairs is likely to occur, and at levels higher than for the Proposed Action because of a reduced set of Best Management Practices would typically be employed/potential lack of consistently implemented mitigation measures
Spills causing direct mortality, impairment, or habitat destruction	The Proposed Action would help reduce this risk	Higher likelihood than Proposed Action (benefits would not be realized)

Environmental Issue	Proposed Action	No Action
Biological Resources: Fisheries and Aquatic Resources		
Construction degrades stream habitat	Likely, but effects are short term if erosion is controlled and revegetation is in place quickly	Disturbance during future piecemeal repairs is likely to occur, and at levels higher than the Proposed Action because of a reduced set of Best Management Practices would typically be employed/potential lack of consistently implemented mitigation measures
Direct mortality of sensitive species or their habitat	Likely (short-term/construction) because of the number of stream crossings that contain sensitive species (see Table C.8-11); reduced long-term threat	See above. For long-term spill threat, benefits of Proposed Action would not be realized (higher likelihood of spill impacts)
Cultural Resources		
Threat of degradation to Native American sites	Moderate to High, but mitigable through tribal consultation and planning, site survey work, construction monitoring, avoidance of sites/resources	Disturbance during future piecemeal repairs is more likely to occur due to potential lack of consistently implemented mitigation
Overall sensitivity/resource value at risk of damage due to construction, repair, or emergency response disturbance	Moderate to High, but mitigable through site survey work, construction monitoring, avoidance of sites/resources	See above
Landscape and Visual Resources		
New clear-cut impacts	4 or 5 potential locations of significant (but generally mitigable) impacts	Could occur depending on number of repairs that become necessary in the future, with potential lack of consistently implemented mitigation
New valve site	1 location, inconsistent with VQO, requiring close consultation in siting/design with Forest Service	None
Right-of-way maintenance effects	4 or 5 locations of significant (but generally mitigable) impacts	Similar to Proposed Action
Socioeconomics and Public Services		
Increase in local business, decrease in unemployment, and increase in area earnings	Likely/short-term, but at a low level	This impact is likely to occur sporadically during future piecemeal repairs over an indefinite time period
Impacts to emergency service	No change; capacity is not exceeded; but long-term spill risks reduced	Benefit of long-term spill risk reduction would not be realized
Increase in waste disposal and water demand exceeds capacity	Unlikely to exceed capacity	Similar to Proposed Action, but demands would occur sporadically over an indefinite time period
Land Use and Public Recreation		
Residences within 1000 ft. of reroutes/repairs	less than 12: short-term, localized, and minor/non-significant or significant but mitigable impacts	Level of repairs is likely to be less than Proposed Action and spread over an indefinite time period
Recreation sites potentially affected by reroutes/repairs	4 trails: short-term, localized, and minor/non-significant or significant but mitigable impacts	See above
Recreation sites potentially affected by spill/accident	2 sites, 6 trails: impact level would be highly dependent on size and location of spill/accident; Proposed Action should serve to somewhat reduce the likelihood of such an event	Higher likelihood than for Proposed Action (benefits would not be realized)
Transportation		
Traffic congestion and blocked access to residents	Low level of impact because of isolated locations of pipeline work sites and residences	Congestion during future piecemeal repairs is likely to occur, and at levels higher than the Proposed Action because of the lack of any mitigation measures
Damage to road surfaces	Low level of impact, and all can be corrected	Similar to Proposed Action, but construction impacts would occur more sporadically over an indefinite time period

Environmental Issue	Proposed Action	No Action
Minority and Low Income Populations		
Disproportionate impacts	No potential	Same as Proposed Action

Public Comment (Final EIS)

We received comments on the Final EIS after the November 2000 release from the following six agencies: the State Historic Preservation Officer (SHPO) for Montana, the Idaho SHPO, the Prospect Creek Watershed Council, the Green Mountain Conservation District, the Idaho Fish and Game Department, and the U.S. Environmental Protection Agency (EPA).

The SHPOs for Montana (11/15/00) and Idaho (12/15/00) both requested additional consultation regarding cultural resources that might be affected. My decision below includes nine specific mitigation measures for cultural resources (Appendix A, measures C-1 to C-9). Several of those measures cover cultural resource plan develop, monitoring, and consultation with the SHPOs.

The Prospect Creek Watershed Council (12/7/00) and the Green Mountain Conservation District (12/20/00) both supported the proposed action and encouraged implementation as soon as possible. Both also offered concerns and suggestions regarding pipeline abandonment and right-of-way reclamation. My decision includes a mitigation measure requiring further study and resolution of abandonment and reclamation plans for all sections of pipeline to be taken out of service (Appendix A, measure H-23).

The Idaho Fish and Game and Game Department (12/21/00) is concerned about the lack of changes proposed in the Coeur d’Alene River drainage. The Department asked for a third alternative that would include more actions on the Idaho side of the project area. We did not pursue such an alternative because most of the Idaho side of this pipeline right-of-way is not on NFS lands, and therefore is not within Forest Service special-use permit jurisdiction. Our EIS analysis determined that only one site out of the six miles of NFS lands in Idaho presented a stream related problem that should be corrected, and that site is included in my decision below. The department expressed concerns about stream crossings not addressed in the Proposed Action. My decision also includes mitigation measures requiring further study and resolution of stream crossings and lateral erosion potential (Appendix A, measures H-4 and H-5). However, I can only require these actions for NFS lands, while most of the Idaho side is in other ownerships.

EPA (12/19/00) also expressed concern for the lack of actions proposed for the Coeur d’Alene River area, but EPA recognizes the lack of Forest Service jurisdiction there. EPA said that it would discuss the issue with the USDOT-OPS. EPA had several specific comments, as follows:

1(a). EPA recommends adding remote control to block valves, and adding a new valve near MP 448.5. My decision includes a requirement to add remote control to block valves on NFS lands (Appendix A, measure SS-27). I decided not to require a new valve near MP 448.5 because there is very little NFS land between MP 448.5 and the next downstream valve at MP 454.

1(b). EPA supports recommended surface water and groundwater mitigation measures. My decision includes those measures that would protect NFS water-related resources. I have not adopted measures H-7, H-9, H-10 through H-22, HGW-2, and HGW-3 because those measures would not affect NFS lands or resources, and are therefore beyond my jurisdiction.

1(c). EPA recommends that abandoned pipe overlying sensitive groundwater be sealed with concrete or bentonite plugs. My decision includes two mitigation measures requiring further evaluation and resolution of abandonment methods (Appendix A, measures H-23 and SS-23). Groundwater protection will be a consideration under those measures.

1(d). EPA supports our proposals for improved leak detection, verification of the leak detection system and scheduled reviews of leak-detection technology (SS-18), and quarterly shut-in tests (SS-17). I have adopted those measures in my decision (Appendix A).

1(e). EPA supports monthly ground inspections and use of hydrocarbon detectors during those inspections. My decision incorporates a modified measure SS-19a. I am requiring that YPL inspect surface conditions with ground-based methods at least twice per year. The primary reason for these inspections is to look for weather-related and human-related conditions that might not be readily detected by the bi-weekly aerial inspections. I believe that semi-annual ground-based inspections, in conjunction with the bi-weekly aerial inspections, provides an adequate inspection schedule for surface conditions, given the weather, terrain, and resources affected on the NFS lands under permit. These inspections are not the primary method of leak detection. We have sought information on the availability of portable hydrocarbon sensors for use as leak detectors for cross-country petroleum product pipelines. From our review, it does not appear that such technology is currently available or practicable. Therefore, my decision includes a requirement that YPL implement such technology when it does become practicable (see measures SS-18 and SS-19a).

1(f). EPA supports the recommended fugitive dust control mitigation, and suggests additional mitigation for fugitive organic vapor emissions from valves, pumps, flanges, and connectors. The issue of fugitive organic vapors was not a significant issue raised or considered in the EIS. I have no reason to believe that fugitive organic vapors from facilities on NFS lands have or will cause any significant impact. Therefore, I have not added any mitigation for that issue. I also find that, given the limited construction activity and remote location of the NFS lands on which construction will occur, that some of the recommended dust-control measures are not necessary. My decision adopts measures AM-1 (watering for dust control) and AM-2 (cover trucked soil loads), but does not adopt the recommendations for gravel construction pads and reduced speed limits on unpaved roads.

2. EPA encourages YPL to voluntarily relocate more pipeline in the Coeur d'Alene River area and intends to discuss the issue with the OPS.

3. EPA appreciates the Final EIS discussion of alternative technologies.

4. EPA is pleased with the Final EIS discussion of stream and wetland construction methods, restoration objectives, and reduced right-of-way construction clearing needs.

5. EPA notes that water-quality issues need to be coordinated with the Montana and Idaho Departments of Environmental Quality. As with all Forest Service special-use permit holders, YPL will be required to obtain any necessary permits from those state agencies.

6. EPA is pleased with the Final EIS discussions of coordination with the Prospect Creek Watershed Council, and that Prospect Creek is listed by the Forest Service as a priority watershed for bull trout.

7. EPA supports the use of the HGM method for wetland assessment and recommends that wetland functional losses be mitigated. EPA also notes that the Final EIS did not quantify the wetland impacts of the proposed action, and requests disclosure of the amount of wetlands to be affected. My decision includes several mitigation measures requiring the HGM method and mitigation of wetland impacts (Appendix A, measures BVWT-1 through BVWT-14). Wetlands that could be affected by the Proposed Action were delineated in a January 2001 report attached to YPL's 310/404-permit application submitted to the Montana Department of Environmental Quality (DEQ) and the COE. Wetlands affected by the construction activities authorized by my decision total about four acres. These areas will be delineated on construction plans that YPL must submit under mitigation measures Gen-4 and BVWT-1 through BVWT-14.

8. EPA recommends that consultations and reviews under the Endangered Species Act, National Historic Preservation Act, and Clean Water Act run concurrently with the Forest Service's National Environmental Policy Act review, prior to issuance of the Record of Decision, to assure that the Forest Service's preferred alternative may be permitted by other agencies. We have completed

Endangered Species Act consultation with the U.S. Fish and Wildlife Service, and I have addressed in this Record of Decision that agency's Biological Opinion. As noted earlier in this section, we have consulted with the SHPOs and I have included several mitigation measures in my decision to protect cultural resources (Appendix A, measures C-1 through C-9). The Montana DEQ and the COE have been cooperating agencies from the outset of this EIS. The Idaho DEQ was consulted on an ongoing basis after EIS alternatives affecting Idaho were developed. After release of the Final EIS, in January 2001, YPL did submit its 310/404-permit application to Montana DEQ and to the COE. My decision includes requirements assuring that YPL's construction activities must be permitted by those Clean Water Act agencies.

Decision (Selected Alternative)

I have decided to approve a series of changes to the existing Yellowstone Pipeline right-of-way across National Forest System (NFS) lands between Thompson Falls, Montana, and Kingston, Idaho. My decision includes several mitigation measures that will be included in the terms and conditions of the special-use permit held by YPL for NFS lands between Thompson Falls and Coeur d'Alene, Idaho. These changes were described and analyzed in detail in the October 2000 Final EIS, which was released in November of 2000. However, in my decision I am making two modifications to the Proposed Action described in the Final EIS:

- 1) My decision does not include Reroute R1 because that reroute would be entirely on private land and therefore cannot be made part of the special-use permit.
- 2) I have modified the language in several of the mitigation measures recommended in the Final EIS, and I have decided not to adopt several of those mitigation measures. Those measures that I am adopting as part of my decision are printed in attached Appendix A. I explain my rationale for changed language and measures that I have not adopted in my decision in Appendix B to this Record of Decision.

My decision requires YPL to reroute the pipeline away from Prospect Creek, replace a Coeur d'Alene River crossing, remove abandoned pipe, and remove or abandon in-place of several existing streambank protection structures. Those actions are listed below and described in detail in Section B of the Final EIS. In summary, my decision includes:

- Seven pipeline reroute segments totaling seven miles in length, which include 10 new stream crossings but removal of 20 old stream crossings;
- Of the seven miles of old pipeline no longer to be used, 1.4 miles will be removed and as much as 6.6 miles may be abandoned in place (subject to further evaluation, see mitigation measure H-23);
- Removal of an additional 1.2 miles of previously abandoned pipe;
- Various repairs and removal of streambank protection structures, including replacement of 0.1 mile of pipe at a crossing of the Coeur d'Alene as well as the relocation of a block valve in the Prospect Creek drainage;
- Various mitigation measures to reduce construction impacts, reduce spill risks, improve spill detection, and reduce operational impacts on natural resources (see Appendix A).
- A general construction right-of-way maximum width of 80 feet, reduced to the minimum feasible width in wetlands and riparian areas; and an operating right-of-way width of 40 feet, with routine vegetation clearing width limited to 20 feet in general, and further restricted to the minimum feasible in wetlands and riparian areas (see Appendix A, BVWT-5)

The seven reroutes will all move the pipeline away from Prospect Creek, into the highway right-of-way for State Secondary 471. With three exceptions, the reroutes will begin immediately following approval of required plans, with completion during the first construction season. The exceptions are Reroute R8 and portions of Reroutes R5 and R7, which may be delayed as discussed below, but must be completed

within three years. Repair RP1 (removal of pipe abandoned in 1996) will also begin immediately for completion in the first construction season. Repair RP2 is a Coeur d'Alene River crossing that must be completed within three years. These reroutes and repairs are listed below, and displayed in detail, with maps, in pages B-3 through B-27 of the Final EIS. At least 1.4 miles of pipe abandoned by these reroutes, plus the 1.2 miles abandoned in 1996 (Repair R1) will be removed. The remainder of the abandoned pipe and associated streambank structures will be evaluated for removal within three years under mitigation measure H-23.

Reroute R2. YPL will reroute the pipeline from MP 423.6 to 424.1. This 0.5-mile reroute will eliminate three crossings of Prospect Creek that are subject to exposure.

Reroute R3. YPL will reroute the pipeline from MP 424.5 to 425.8. This 1.3-mile reroute will eliminate three crossings of Prospect Creek that are subject to exposure.

Reroute R4. YPL will relocate the pipeline from MP 428.0 to 429.5 (about 1.5-miles).

Reroute R5. YPL will relocate the pipeline from MP 429.8 to 430.6 (about 0.8-miles). A pipeline reroute for an additional 1,400 feet (from approximately MP 430.6 to 430.8) is required, but may be delayed until the sooner of: a) completion of the Prospect Creek Watershed Council study of that reach, or, b) if and when the Forest Service or YPL determines that stream bank erosion has exposed, significantly disturbed, or poses an imminent threat of exposure to the pipeline. In any event, YPL shall complete the prescribed relocation within three years.

Reroute R6. YPL will relocate the pipeline from MP 431.4 to 432.8. This 1.4-mile reroute will include moving the Ranger Station block and check valve to a new location just north of Evans Gulch (at approximately MP 432.7, one mile northwest and upstream of the current location).

Reroute R7. YPL will relocate the line from MP 433.9 to 434.6 (about 0.7 miles). This will eliminate one crossing of Prospect Creek (at MP 434.0). An additional 1,750 feet upstream from the Twenty-three Mile bridge (MP 434.6 to 434.9, about 0.3 miles) will be relocated within 3 years. The Prospect Creek crossing at the bridge (MP 434.4) may remain unchanged, subject to further evaluation (see mitigation measure H-4).

Reroute R8. YPL will relocate the line from MP 435.3 to 435.9. This 0.6-mile reroute will be completed within 3 years.

Repair RP1. YPL completed a reroute between MP 427.2 and 427.8 in December 1996. There are approximately 6,000 feet of pipe within the streambed area that will be removed immediately following approval of required plans.

Repair RP2. YPL will reinstall the North Fork Coeur d'Alene River crossing at MP 456.7 by a method permitted by the Idaho DEQ and the COE, within three years.

Mitigation Measures. My decision incorporates the 113 mitigation measures printed in Appendix A attached to this Record of Decision. Those measures are adapted from the 159 recommendations in Section E.2 of the Final EIS, and the mandatory terms and conditions in the U.S. Fish and Wildlife Service's Biological Opinion.

I have modified the text of 53 of the Final EIS measures; to correct technical errors, clarify the intent, adjust for the reduced scope of the final selected action, or to accurately reflect the limits of Forest Service jurisdiction. I have also decided not to adopt 47 measures recommended in the Final EIS. I found those measures to be beyond Forest Service jurisdiction, not necessary given the reduced scope of the selected action, or redundant with other adopted measures. The full list of changed and rejected measures is available as Appendix B to this Record of Decision. That Appendix explains the rationale for each change or rejection. Appendix B is not circulated with this Record of Decision, but is available on request, and on the website listed below.

Rationale for the Decision

I have selected the above actions to reduce existing environmental and safety risks posed by the current pipeline operations between Thompson Falls, Montana, and Kingston, Idaho, and to bring the special-use permit for the pipeline into compliance with Forest Plan standards for fisheries and riparian habitat. These actions will reduce the probability of a spills and the need for future repairs in sensitive watersheds and they will reduce the need for vegetation clearing in riparian habitat over the long term. My decision incorporates those elements of the Proposed Action that are within my jurisdiction, and are the best practicable improvements within my discretion for reducing current and future risks to fish and riparian habitat. The No Action alternative would not meet this purpose and need.

Consistency with Other Laws, Regulation, or Policy

National Forest Management Act (Forest Plans). My decision affects National Forest System lands within the Lolo and Idaho Panhandle National Forests. I have concluded that the actions authorized and mitigations required by my decision are consistent with the Forest Land and Resource Management Plans of these two national forests, as amended by the Inland Native Fish Strategy (INFISH). The Final EIS documents this consistency in Section D.5 (pages D-7 to D-9).

The Final EIS (Table D.5-1) noted potential conflict with the three standards discussed below. The Final EIS suggested that exceptions might have to be granted for these three standards. As explained in the table below, on further consideration I now believe that the actions authorized by my decision are fully consistent with these standards. No exceptions to these standards are necessary for this decision. Because the Mineral Leasing Act requires renewal of this pipeline right-of-way, the actions and mitigations comprising my decision are the best practicable improvements within my discretion for reducing current risks to fish and riparian habitat.

Areas of Potential Conflict with Forest Plan Standards

Standard	Potential Conflict/Rationale for Consistency Finding
<p>Lolo National Forest Plan Standard 24: Manage all threatened and endangered species for recovery to non-threatened status.</p> <p>Lolo National Forest Plan Standard 27: Manage land considered essential habitat of threatened and endangered species in a compatible manner with the goal of recovery.</p>	<p>The spill risk from continued presence of a petroleum products pipeline within a bull trout core area and adjacent to Prospect Creek maintains a hazard to recovery of bull trout. However, the actions to be taken under my decision are the best of the available alternatives with respect to protection of bull trout and its habitat and will lead to a substantial long-term improvement over current conditions. These actions are designed to move the pipeline away from the stream where practicable, to reduce 1) actual chronic impacts to fisheries habitat (right-of-way maintenance and streambank armoring), and 2) potential spill hazards. Therefore, my decision is consistent with these standards – this management is significant progress toward the goal of recovery for bull trout.</p>
<p>INFISH RA-4: Prohibit storage of fuels and other toxicants within Riparian Habitat Conservation Areas. Prohibit refueling within Riparian Habitat Conservation Areas unless there are no other alternatives.</p>	<p>The Final EIS states that this project is in conflict with this standard because the pipeline is technically storing fuel within riparian habitat conservation areas and will remain within these areas in some locations even after reroutes have been completed. That conclusion was based on an incorrect interpretation of the standard. This standard applies to storage facilities, and a pipeline is a transportation facility, not a storage facility. While it is very appropriate and practicable to prohibit storage facilities within RHCAs, it would not be practicable to prohibit all crossing of RHCAs by cross-country fuel pipelines, and that could not have been the intent of this INFISH standard. Therefore, my decision is consistent with this standard. As recognized in the Final EIS (footnote b, page D-9), the actions comprising my decision are the best available alternatives and will lead to an improvement over current conditions.</p>

Endangered Species Act: The Forest Service consulted with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA). The Forest Service submitted a Biological Assessment dated October 24, 2000, requesting formal consultation regarding these actions. The USFWS responded in a Biological Opinion dated May 8, 2001, that concluded formal consultation

for these actions. With the actions to be undertaken, including conditions and mitigation measures as described herein, I find that the legal requirements of the ESA have been satisfied.

Environmental Justice (Executive Order 12898). As documented in Section C.14 of the Final EIS (pages C.14-1 to C.14-4), my decision will have no disproportionate effects on minority populations nor on low-income populations.

Environmentally Preferable Alternative

I have selected the environmentally preferable alternative from the Final EIS. My decision comprises all practicable steps within Forest Service jurisdiction to minimize damage to the biological and physical environment and is the alternative that best protects, preserves, and enhances historic, cultural, and natural resources.

Implementation Date

I intend to implement this decision as soon as possible to allow the critical reroutes and repairs to be completed this construction season, thereby reducing risks during the next high water season. Under the Secretary of Agriculture's appeal regulations at 36 CFR 215.10, the earliest possible implementation date is: a) five business days from the close of the appeal filing period (see below) if no appeals are filed, or b) 15 days following the date of appeal disposition if an appeal is filed.

Appeal Rights

This decision is subject to appeal pursuant to 36 CFR 215.14. A written appeal must be postmarked and submitted to the Appeal Deciding Officer within 45 days following publication of the notice of this decision in the *Missoulian* newspaper (Missoula, Montana). Send appeals to:

Chief, USDA Forest Service
14th and Independence, SW
201 14th Street
Washington, DC 20250

It is the appellant's responsibility to provide sufficient written evidence and rationale to show why my decision should be remanded or reversed. An appeal submitted to the Appeal Deciding Officer becomes a part of the appeal record. An appeal must meet the content requirements of 36 CFR 215.14, which include:

- State that the document is an appeal filed pursuant to 36 CFR part 215;
- List the name and address of the appellant and, if possible, a telephone number;
- Identify the decision document by title and subject, date of the decision, and name and title of the Responsible Official;
- Identify the specific change(s) in the decision that the appellant seeks or portion of the decision to which the appellant objects;
- State how the Responsible Official's decision fails to consider comments previously provided, either before or during the comment period specified in 36 CFR 215.6 and, if applicable, how the appellant believes the decision violates law, regulation, or policy.

As holder of a special-use permit affected by this decision, the Yellowstone Pipe Line Company has the option to appeal as explained above, or pursuant to 36 CFR 251, subpart C, but cannot appeal under both regulations (36 CFR 215.8(c)).

Further Information and Contact Person

Copies of the October 2000 Final EIS on *Changes Proposed to Existing Yellowstone Pipeline Between Thompson Falls and Kingston* are on file at numerous locations in the areas potentially affected by my decision, including:

- USDA Forest Service, Northern Regional Office, 200 East Broadway, Missoula, MT
- Lolo National Forest Supervisor's Office, Building 24, Fort Missoula, Missoula, MT
- Lolo National Forest, Plains/Thompson Falls Ranger District Office, Plains, MT
- Lolo National Forest, Superior Ranger District Office, Superior, MT
- Idaho Panhandle National Forests, Coeur d'Alene River Ranger District, Silverton, ID
- Public Libraries in: Alberton, Billings, Frenchtown, Missoula, Plains, Superior, and Thompson Falls, Montana, and Kellogg and Wallace, Idaho
- On the web at: www.aspeneg.com/YPL-EIS or www.fs.fed.us/r1/lolo/main

For further information regarding the EIS or this decision, contact:

Terry Egenhoff
RMLHW
USDA Forest Service, Northern Region
P.O. Box 7669
Missoula, MT 59807-7669
(406) 329-3601

Dave Rittenhouse

for KATHLEEN A. MCALLISTER
Acting Regional Forester

Date: 5/9/01

APPENDIX A

Required Mitigation

Gen-1, Construction Monitoring. Lolo National Forest and Idaho Panhandle National Forest will periodically send to the reroute and repair construction sites their chosen environmental monitors (EM) to inspect construction activities and to ensure compliance with construction plans. EMs are responsible for observing and documenting implementation of adopted mitigation measures on behalf of the responsible agencies. Monitors shall also ensure that all plans required in adopted measures have been completed and approved by appropriate agencies prior to the start of construction. Monitors may not direct contractor/construction crew actions, but will interact only with construction management, pointing out compliance problems or concerns. Non-compliance with adopted mitigation measures will be documented and may result in agency-mandated construction shutdowns if compliance is not observed. Procedures for documenting non-compliances and for resulting actions (e.g., shut-downs) shall be drafted by the agencies with jurisdiction and provided to YPL prior to the start of construction. Those procedures will include the requirement that a Forest Service approved fisheries biologist or an equally qualified construction monitor be present during construction activities, that, in the monitor's judgment, could affect Riparian Habitat Conservation Area (RHCA). This construction monitor shall have authority to direct the on-site construction foreperson to immediately suspend construction operations, safety permitting, should the riparian- and fisheries-related measures outlined within the permit conditions not be met. The monitor and foreperson should be fully informed of all measures in the Fish and Wildlife Service's Biological Opinion.

Gen-2, Bonding. YPL shall provide proof of adequate compensation, funding, or bonding mechanisms to provide for future project-induced costs incurred by other than YPL. Such costs include reasonably foreseeable costs, as well as costs resulting from unforeseeable events, such as pipeline accidents, spills, or geologic and hydrologic events that may damage or increase risk to human health, safety, or the environment associated with the pipeline construction, operation, accidents, and termination. YPL shall consider provisions for the following costs:

- Agency monitoring and review of construction and post-construction activities
- Emergency response costs
- Cleanup and remediation
- Corrective measures for project outcomes not meeting pre-determined completion or success criteria.
- Direct liability of \$1,000,000

Liability insurance and bonds shall be submitted and approved by the Forest Service before construction may begin.

Gen-3, Scheduled Review. At intervals not to exceed five years, beginning no later than five years after issuance of the Forest Service Special Use permit, continuing for the duration of the permit, YPL shall meet with the Forest Service, Fish and Wildlife Service, and other agencies with jurisdiction to review monitoring results and performance under all permit terms and conditions and related plans. After reviewing YPL's monitoring results, performance under the permit, and any relevant changes in the environment, laws and regulations, land management direction, or pipeline safety technology, the Forest Service may amend the permit, if such action is deemed necessary or desirable to incorporate new terms, conditions, and stipulations as may be required by law, regulation, land management plans, or other management decisions.

Gen-4, Construction Plans. YPL must submit construction plans to the Forest Service and the Fish and Wildlife Service for review and approval before construction can begin. These plans must be signed by an engineer with expertise in pipeline design, and who has reviewed the geologic hazard (Mitigation Measure G-1) and scour studies (Mitigation Measure H-4) for each location. YPL shall submit the final design for the North Fork Coeur d'Alene crossing to the Spokane Field Office of the Fish and Wildlife Service for concurrent interagency review. The Service shall provide written comments to the Forest Service within 30 calendar days of submission on these plans. Construction may not begin on the North Fork Coeur d'Alene crossing until the Forest Service and the Service have agreed upon plans.

G-1, YPL shall conduct a geologic or geotechnical investigation prior to relocating any pipeline segment to characterize the potential geologic hazards of the new alignment, including landslides, liquefaction, rockfalls, and debris flows. These reports shall be submitted to the Forest Service and the Montana/Idaho Departments of Environmental Quality or Montana DNRC (as appropriate) for review and approval at least 30 days before the start of pipeline construction.

E-1, Soil Salvage Plan. YPL shall include soil-salvage measures in the construction plans (including any excavation for abandoned segments) it submits to agencies with jurisdiction, at least 60 days before the start of construction. Soil-salvage measure shall define the following construction practices/parameters:

- Pipeline construction activities involving soil excavation at sites where topsoil horizons may be feasibly salvaged and revegetation will be required, shall use double-ditching methods (which shall be defined in detail in the plan) to salvage the uppermost topsoil horizon(s) and stockpile the materials for reclamation cover soil after regrading. The depth of topsoil salvage shall be determined by a soil scientist or qualified reclamation specialist and shall be approved by the Forest Service. At a minimum, the topsoil-salvaged depth shall include all horizons dominated by organic material and horizons with an accumulation of organic matter. YPL shall clearly identify in its construction plans any sites which YPL proposes to be excepted from double-ditching due to factors such as thinness of the topsoil horizon, lack of organic material accumulation, or high coarse fragment content. The Forest Service, at its discretion, may approve such exceptions, on a site-specific basis, during construction plan review.

- Regraded trench backfill shall be compacted to standard specified densities to minimize subsidence. However, the salvaged soil materials shall be respread over the regraded trench using tracked equipment to minimize soil compaction in the upper horizons.

E-2, Augment YPL Spill Response Plan. YPL's Spill Response Plan should be augmented with the following actions to minimize and reduce impacts to soils and offsite sedimentation.

- The Spill Response Plan shall identify emergency access roads to be used and sensitive areas to be avoided, such as wetlands, steep slopes, water courses, and easily erodible soils.
- The Spill Response Plan shall require the use of temporary bridges to cross waterways and hold construction of new roads to the absolute minimum. The crossing or working in wetlands or sensitive areas where soils might be severely damaged shall be avoided.
- The Spill Response Plan shall specify use of erosion and sediment control BMPs for cases where sediment may potentially reach aquatic habitats.

H-1, Erosion Control and Revegetation Plan. YPL shall submit an erosion control program, as a component of its Construction and Operation Plans. YPL shall submit this plan to the Forest Service and the Fish and Wildlife Service for review and approval at least 30 days before the start of pipeline construction. This plan shall be prepared by an engineer with expertise in the field and licensed to practice in the applicable state. The plan should address the following issues, as appropriate:

- Document that disturbed areas shall be restored to their original cross section and revegetated.
- Develop and define specific best management practices (BMPs) for erosion and sediment-control techniques to be used during construction (such as silt fences, straw bale dikes, diversion channels).
- Include limitations on the height of cut slopes.
- Define permanent erosion control measures and their inclusion in project design (i.e., water bars, trench dams, diversion ditches, water bars, energy dissipaters, dips, staked bales, erosion control mats, sediment basins, and berms). Describe typical installation of these devices and where they shall be installed, as directed by the project engineer or by Forest Service and Montana DEQ personnel. Installation of permanent erosion control devices shall be minimized and must be approved by the agencies with jurisdiction prior to their installation.
- Include drawings of erosion-control structures (such as water bars and terraces) that would be left in-place on hillsides to control gully erosion after construction.
- Require erosion-control techniques to be used during all construction activities.
- Require that streams be crossed at right angles, where possible, to minimize disturbance. If not possible, YPL shall consult with the Lolo National Forest fisheries biologist and Forest Hydrologist (or other appropriate agency personnel) for approval prior to construction of the stream crossing.
- Direct ROW drainage away from stream crossing sites.
- Minimize stream channel disturbance by staying within the construction ROW as defined in BVWT -5.
- In order to blend in with surrounding soil and vegetation, visually compatible colors shall be used on any waterbars or other long-term erosion control materials installed on slopes for erosion control or in any other highly visible portion of the ROW.

The plan shall be implemented during any construction and YPL shall monitor implementation and effectiveness of erosion prevention and revegetation on the right-of-way for the life of the project. YPL shall submit annual reports to the Forest Service describing status of erosion prevention and re-vegetation/soil stabilization efforts. The Erosion Control Plan shall be consistent with and referenced in the Revegetation Plan (defined below).

YPL shall also prepare and submit a Stormwater Construction Erosion Control Plan written in accordance with Montana Department of Environmental Quality Stormwater program requirements (for Montana segments) and EPA Region 10 requirements (for Idaho segments) if those requirements are not covered by the general Erosion Control Plan described above. [Note: This measure incorporates the requirements of measures from other Specialist Reports: Geology (G-2), Soils (E-1) and Fisheries (BF-2, BF-30)]

A Revegetation Plan shall be part of the erosion control program. The Revegetation Plan shall be prepared and submitted to the Forest Service, DNRC, and Montana/Idaho DEQ for review and approval at least 30 days prior to the start of construction. The Revegetation Plan shall apply to (1) reclamation of any new pipeline construction right-of-way, (2) to areas abandoned by relocation of the existing pipeline or, (3) to areas affected by emergency repair on the existing pipeline or new pipeline, and (4) to the entire pipeline right-of-way that requires vegetation clearance during operation (for inspection). The Plan shall include the following major components:

- All disturbed areas shall be re-seeded with site-adapted seed mixtures (as defined below) in the first appropriate season (spring or fall) after construction.
- Proposed seed mixtures for all relevant habitat types and groups shall be defined in the Revegetation Plan. The seed mixtures will be developed according to habitat types and habitat groups, and nonnative seed will not be used unless approved by the Forest Service or DEQ. Revegetation with native species will be designed so that the disturbed habitat type will be the replacement model. The native plant list will have percent purity and percent germination of the seeds by species. Non-native species should meet the requirements of "Forest Service Specifications for Roads and Bridges, 1996."

- Seeds shall be collected very close to the area being planted. According to the Region 1 native plant handbook, "The same plant species half a mile down slope has most likely adapted to a very different frost free period."
- Mulch and fertilizer would be applied according the existing Forest Service requirements.
- YPL shall revegetate with native woody species to maintain and restore bank stability in streamside areas (especially the RHCA's per Standard RA4 from INFISH, see Fisheries and Aquatic Resources Specialist Report). Revegetation shall include shrubs, and trees such as willows, alders, and cottonwoods such that some overstory tree cover is retained to provide shade, maintain streambank stability, desirable pool quality and quantity for aquatic organisms, and promote filtering of overland flows.
- Disturbed areas shall be seeded with temporary nurse crops or cover crops if construction is completed during the summer months (June through August).
- Existing vegetation shall be cleared only from areas scheduled for immediate construction work (within 10 days) and only for the width needed for active construction activities.
- The Plan shall describe methods to ensure that the pipeline ROW is maintained smooth; that neither a mound remains after construction nor a trench develops over the pipeline. Mounding or trench development shall be corrected in response to annual inspection of the ROW. YPL shall monitor project-wide revegetation efforts for a two-year period after completion of construction to determine adequate and successful revegetation. Successful revegetation criteria should consider, at a minimum, the percent vegetation cover and/or density and plant species diversity. Final revegetation success should be evaluated two years after all human support (e.g., replanting, fertilization, irrigation) has ceased. At this time, a report shall be submitted to the Forest Service/DEQ summarizing revegetation success along the ROW, and the Forest Service/DEQ will determine whether continued monitoring is required.
- The Plan shall establish criteria for reclamation using rapid establishing vegetation, the use of mulches and erosion control mats on steeper slopes (>15 percent), and reclamation monitoring every year for five years following a spill and reclamation response.
- The Plan shall require that for spill site reclamation, a scientist or engineer familiar with petroleum spill remediation techniques be consulted to help determine the potential impacts to soils and best reclamation efforts to be used.
- The Plan shall address the visual "edge" softening screening described in Measures V-6 through V-11.

The Plan shall include a section that specifically addresses YPL's vegetation clearing required for operational inspections. Clearing of riparian vegetation for routine operations shall be limited as required by Mitigation Measures BVWT -5, BF -18, and V-7. Revegetation of riparian areas shall be implemented as defined above.

H-2, In-Stream Construction Requirements. YPL shall follow plans and a schedule approved by the Forest Service or appropriate jurisdictional agency, submitted at least 30 days prior to the start of any construction activity in or affecting any stream channels. YPL's plans shall be prepared by a water quality specialist with credentials approved by the Forest Service (or other agency with jurisdiction) and with expertise in the field of river mechanics and sediment transport. YPL's Plans shall show, as applicable, stream plan view, stream cross section, location and burial depth of the pipeline, trench dimensions, location of access roads and spoil piles, stream crossing techniques, culvert sizes, diversion structures, sediment control structures, equipment to be used, staging areas and any other information relevant to the crossing as deemed appropriate by the reviewing agency. Plans showing typical rather than site-specific crossing techniques may be used for routine crossings of small drainageways at the discretion of the reviewing agency. The following specific requirements apply (see also BF-1).

- Construction in streams shall be done using "in the dry" techniques except as approved by the responsible agency. "In the dry" construction consists of diverting the streamflow into a controlled channel or culverts (flume pipes) to provide a construction zone free of surface flow. Exceptions may be granted at the discretion of the reviewing agency if it can be demonstrated that due to local conditions "in the dry" techniques are impractical. In such cases, directional drilling methods such as microtunneling and other methods to minimize stream impacts shall be considered. Flowing streams shall be bridged for equipment and vehicles. Culvert flumes and construction bridges shall have sufficient capacity to ensure a dry roadway and bridge surface for vehicles and equipment.
- No material that does not have a specific purpose related to the pipeline construction within the stream shall be placed in the streambed.
- Streambed construction shall be accomplished as quickly as possible. On the day that it intends to commence such work, YPL shall verify to the Forest Service or appropriate jurisdictional agency that all personnel, equipment, and materials needed are immediately available prior to entering the stream.
- The configuration (alignment, cross section and composition) of the river bed and banks shall not be altered except as directed by the repair design engineer. The design engineer shall consider the effects of the repair work on stream morphology and adjacent property during the design process. Exceptions may be made with Forest Service or appropriate jurisdictional agency approval for emergency repairs, as specifically provided in the contingency plans prepared under SS-8.
- Temporary, in-channel diversion structures or stream crossings shall be no more extensive than necessary to achieve the desired purpose. These structures shall be removed after construction is complete.

Streambed construction shall be accomplished as quickly as possible as approved by the responsible agency and only during the period of stream low flow (see mitigation measure BF-4 for timing).

H-3, Streambank Repair During Pipeline Operation. YPL shall implement the following procedures for any future right-of-way repair proposals involving or affecting streambanks:

- Bank stabilization and repairs to the pipeline right-of-way shall be done only during periods of low flow, except when emergency repairs are required and the repair practices are specifically provided for in the contingency plans prepared under Measure SS-8.
- All repair and restoration plans shall be approved in advance (unless specifically provided for in the contingency plans prepared under Measure SS-8) by the Forest Service or appropriate jurisdictional agency prior to construction. YPL's plans shall be prepared by a registered civil engineer or other professional with credentials acceptable to the agency(ies) with jurisdiction.

All construction activities in or affecting stream channels will comply with H-2 (In-Stream Construction Requirements)

H-4, Burial Depth for New Crossings and Study Current Crossings. All new stream crossings (Montana and Idaho) shall be buried a depth of twice the 100-year depth of scour, with a minimum burial depth of four feet, as determined by a registered professional engineer. This burial depth shall be extended horizontally across the width of the 100-year floodplain, or beyond the stream banks for a distance sufficient to avoid lateral erosion from a 100-year flood, as determined through site-specific analysis by a registered professional engineer.

Existing stream crossings on National Forest System lands not included in reroute sections shall be studied by a registered professional civil engineer to determine: 1) current depth of burial (see also measure SS-22); 2) depth of scour for 100-year and various lesser return period floods; and, 3) expected risk of exposure due to scour or lateral erosion during the life of the pipeline, in terms of the probability of occurrence of floods capable of exposing the pipeline. YPL shall submit this study to the Forest Service and the Fish and Wildlife Service by the first five-year review (Gen-3). Based on the results of this study, a determination shall be made by the Forest Service as to whether the pipeline crossing should be reburied to a depth of twice the 100-year depth of scour (minimum burial depth four feet), or monitored in the future according to monitoring procedures to be set by the Forest Service in consultation with the civil engineer. The burial depth for reburied crossings or pipeline crossings on reroute sections shall be extended horizontally beyond each stream bank a distance determined by the civil engineer to be sufficient to avoid expected lateral erosion. In the absence of site-specific evaluations by the civil engineer, this distance shall be considered to be equal to the bank-to-bank width of the stream at the crossing. Bank-to-bank width means the outside limits of the defined, active channel, not the low-flow channel (Flows outside of the bank-to-bank width would be on the overbank floodplain).

Pending results and actions from the above study, YPL shall monitor pipeline integrity and cover depth after flood or other high flow events at stream crossings on National Forest System lands. YPL shall submit plans to immediately correct improperly protected pipe and record incidences of uncovered or thinly covered pipe near streams for future monitoring and maintenance (DEIS HGW-5).

H-5, Study Lateral Erosion Potential. A detailed analysis shall be prepared by a registered civil engineer with expertise in river mechanics to evaluate the potential for lateral erosion damage to the pipeline on National Forest System lands along Prospect Creek, Prichard Creek, and the North Fork Coeur d'Alene River. This analysis will focus on pipeline segments adjacent to those streams, but not relocated with this decision, and not co-located with a highway right-of-way. YPL shall submit this study to the Forest Service and the Fish and Wildlife Service by the first five-year review (Gen-3). The engineering evaluation shall include an evaluation of river morphology including existing pipeline protection and setbacks, review of historical erosion trends, determination of erosion potential of stream banks, probable extent of lateral erosion during the life of the pipeline, comparison of current/proposed top of pipeline elevation with the elevation of the thalweg in the adjacent channel section and adequacy of existing bank protection. The study shall identify reaches of the pipeline potentially subject to lateral erosion during the life of the pipeline, identify current levels of protection, and recommend such measures as reroutes, upgrading bank protection, new bank protection, or burial to depths below twice the 100-year depth of scour of the adjacent channel invert, to protect against lateral erosion.

H-6, Review Strength of Valves. Valves and other above-ground portions of the pipeline within the floodplain on National Forest System lands shall be designed to withstand the maximum expected forces from 100-year scour, water, debris, and ice without causing a pipeline rupture. All plans, with back-up engineering analysis and calculations, shall be reviewed and approved, prior to construction, by the Forest Service or other agency with jurisdiction.

H-8, Prepare Emergency Response Plan. An emergency response plan shall be prepared by YPL and approved by the Forest Service and other agencies with jurisdiction for containment and clean-up of product spills that could possibly reach surface water either directly or through any conduit including overland and subsurface flow. See Mitigation Measure SS-8.

H-12, Study Crow Creek. For reroute R4, that portion of the rerouted pipeline adjacent to Crow Creek (approximately 600 feet) shall be studied by a registered professional engineer with expertise in river mechanics for the purpose of determining the need for and design of bank protection at that location. YPL shall install a new 100-year stream crossing downstream of the Prospect Creek bridge and remove the in-stream gabions.

H-23, Study Abandoned Pipe and Protection Structures. Within one year of permit renewal, YPL shall submit to the Forest Service and the Fish and Wildlife Service a detailed analysis of all abandoned YPL pipe or structures not specifically scheduled for removal in the Record of Decision for the "Changes Proposed to Existing Yellowstone Pipeline Between Thompson Falls and Kingston." This study shall comprise all such pipe or structures protecting abandoned YPL right-of-way on National Forest System lands between Thompson Falls and Kingston. The study shall be prepared by professionals with expertise acceptable to the Forest Service and shall cover all issues that the Forest Service deems necessary to determine whether or not any remaining abandoned pipe or structures should be left in place. The study shall specifically identify any segments of abandoned pipe or abandoned protection structures for which an interdisciplinary evaluation indicates that abandonment-in-place would result in less long-term stream-related resource impacts than would removal of the abandoned features. Any recommendations for abandonment-in-place shall be supported by site-specific analysis of the long-term impact trade-offs for stream-related resources.

The Forest Service will rely on this study to make a final determination as to which, if any, abandoned pipe segments or structures would be allowed to remain in place after abandonment of the permit area by YPL. All removal of all abandoned features that the Forest Service does not specifically agree should be abandoned in place shall be completed within three years of permit renewal.

HGW-1, Develop pollution prevention plans for construction. YPL shall submit the following plans 60 days in advance of construction to the Forest Service or other agency with jurisdiction for review and approval. YPL shall prepare a *Hazardous Materials Management Plan* (HMMP) that shall govern project construction activities. The HMMP shall include the following provisions:

- Refueling and equipment washdown shall not be conducted within INFISH Riparian Habitat Conservation Areas (RHCA), unless specific sites are authorized in the approved HMMP, or the Forest Service fisheries/riparian monitor (Gen-1) approves a site in the field.
- Staging and refueling areas shall be located a sufficient distance (recommend 300 feet) away from stream channels, wetlands or ponds to reasonably prevent spills or accidental discharge of product from entering the stream or water body unless no reasonable alternative is available.
- Description of procedures to be used if refueling is to occur less than 300 feet away from stream channels, wetlands, or ponds.
- Staging and refueling areas shall be protected during construction using best management practices (e.g., dikes, catchments) to prevent spills from leaving the site.
- Conduct refueling and equipment maintenance activities in well-marked facilities outside of high traffic portions of the ROW.
- Locations and configurations of staging and refueling areas shall be reviewed and approved prior to construction by the Forest Service or other agency with jurisdiction.
- All vehicles and equipment used in the pipeline construction shall be clean, in good repair and without leaks of oil, gasoline, or other material which could contaminate surface water according to requirements established by the Forest Service. Daily equipment inspections are required.
- Address the requirements outlined in the Clean Water Act (40 CFR Part 112) for aboveground fuel storage containers (*Spill Prevention, Control and Countermeasure Plan*).
- The plan shall include measures for storage and disposal of hazardous materials and other chemicals which could cause harm to humans, non-target wildlife, or fisheries. The Plan shall specify the following information and requirements:
 - Submit a list of type, rate of use, storage volume and storage management practices of hazardous materials expected to be used during construction to the Forest Service or other agency with jurisdiction.
 - Store chemical construction materials in secondary containment outside of high traffic portions of the construction ROW.
 - Store chemical construction materials such as fuel, lubricants, cleaning solvents, blasting materials and soil amendments in secondary containment (such as a covered bermed pad of impermeable material) such that an accidental release is immediately contained and does not affect the environment.
 - Provide a designated well-marked area for high-risk activities to reduce the potential for accidental release of harmful materials reaching an open pipeline trench.
 - Store harmful construction materials in clearly marked locations outside of high traffic portions of the ROW.
 - Store fuels, oils, and other potentially toxic fluids outside of the streamside areas (especially the RHCA per Standard RA-4 from INFISH, see Fisheries and Aquatic Resources Specialist Report).
 - Dispose of all waste fuels, lubricating fluids, insecticides, herbicides, and other chemicals in a manner which will not result in adverse environmental impact and in accordance with manufacturer and government requirements.
 - Water used for hydrostatic testing needs to discharge to an approved wastewater facility so as not to affect groundwater or surface water resources.

AM-1, Apply Water to Travel Routes. YPL's Construction Plan shall require application of water sprays to native surfaced or graveled traveled ways to control dust, as determined necessary by the Forest Service Environmental Monitor (Gen-1).

AM-2, Cover Soil Loads. YPL's Construction Plan shall require trucked soil loads to be covered using a tarp or other suitable means during transit to control dust, as determined necessary by the Forest Service Environmental Monitor (Gen-1).

N-3, Maintain Mufflers. YPL shall maintain properly functioning mufflers on all internal combustion and vehicle engines used in construction to reduce noise levels to the maximum feasible extent. YPL shall maintain written certification of muffler conditions and make the certification available upon request of any agency with jurisdiction or its designated mitigation monitor.

SS-2, Structural Integrity of the excavated ditches: During all periods when work is not being performed at a particular site, YPL shall cause the construction contractors' open ditch to be protected as follows, or by other method approved by the agency with jurisdiction over the road, as documented in the Construction Plan (Gen-4):

- Within Existing Paved and Unpaved Roads, Streets, Highways and Road Shoulders: The open ditch in these areas shall be plated in accordance with the Work Area Traffic Control Handbook.
- Pipe Ditch Parallel To and Within 20 Feet of Existing Paved or Unpaved Road, Street, or Highway: The open ditch shall be protected by placing K-rail between the ditch and the roadway or by plating in accordance with the Work Area Traffic Control Handbook).
- Other Areas. At a minimum, the open ditch shall be marked by placing Type II barricades (A-frame type barricades) every thirty feet. Brightly colored caution flagging shall be installed between the barricades to mark the ditch.

YPL shall also cause the construction contractor to minimize the length of open ditch (ditch which has been excavated, but has not yet been completely backfilled), at any one time. At no time during construction shall there be a total of more than two miles of open ditch. (This total may comprise several short sections of ditch, which do not total more than two miles in length.)

SS-3, Prevention of impacts on underground facilities. YPL shall monitor the construction contractor's compliance with existing state law. This shall include the advance marking of all proposed excavations, the dates of all UULC calls, and the on-site meeting held with facility owners. YPL shall follow location and construction procedures in compliance with the state one-call system and in consultation with the operators of potentially affected underground facilities.

SS-4, Reduction of Fire Impacts Associated with Construction. To minimize the risk of fire being caused by construction activities, YPL shall comply with state forest fire regulations during fire season, and shall comply with any additional fire prevention requirements that may be imposed by the Forest Service as fire danger conditions warrant.

SS-5, Preventing the shifting of the pipe load in transit. The intent of this mitigation measure is to prevent the shifting of the pipe load in transit and the movement of pipe once it has been strung along the right-of-way. YPL shall require all pipe being hauled on public or private roadways to be securely held in place during transit, as specified herein. This shall include periodic inspection of the load by the truck driver. Timber or other suitable dunnage shall be provided to support the bottom tier of pipe; additionally, the bottom tier of pipe shall be prevented from moving laterally on the truck by securely installing a radius cutblock to each side of the outside pipes.

Pipe strung along the right-of-way shall be secured from movement by positive means. This may include radius cut dunnage being securely fastened to the pipe skids, securely fastened wedges, or other equally effective means.

SS-7, Marking of Overhead Power Lines. Prior to right-of-way clearing, pipe stringing, or ditching operations, YPL shall mark the location of all overhead power lines with brightly colored flagging. YPL shall also note the location of these power lines on the project drawings. Further, YPL shall ensure that the construction contractor(s) includes a discussion of the hazards associated with these lines and their location in tailgate safety meetings with equipment operators.

SS-8, Revisions and Additions to the Emergency Response Plans. YPL shall review its *Operation Procedure Manual for the Yellowstone Pipe Line System* and revise as appropriate to include procedures for minimizing spill volumes at specific locations. These should include identification of areas along the pipeline where continued pumping, pump shut-downs, and valve closures are appropriate to reduce the volume of liquid released. These procedures are beyond the minimum requirements of 49 CFR 195, which is enforced by the USDOT.

YPL shall revise its Emergency Response Plans (for each response area under permit) to include procedures for responding to non-spill related emergencies. These shall include, but are not limited to, fires, explosions, bomb threats (sabotage), and natural disasters.

An Emergency Response Plan with site specific emergency response techniques, similar to the *Yellowstone Pipe Line Company, Emergency Response Plan, Area 3, Missoula, Montana to Clark Fork, Idaho*, shall be prepared which covers any existing or new pipeline under permit with the additional requirements in measures E-1, H-3, H-8, SS-15, SS-19, BF-12, BVT-3, BW-4, C-6, and T-8. YPL shall deliver the revised ERP(s) for all permitted areas to the Forest Service and the Fish and Wildlife Service for review and approval by December 31, 2001.

YPL's Operations and Maintenance manuals (*Operation Procedure Manual for the Yellowstone Pipe Line System* and *Maintenance Procedure Guide*) and Emergency Response Plans should be revised to incorporate the monitoring plan and the mitigation measures developed jointly with the Forest Service. YPL shall regularly (at minimum every five years) revise their

Emergency Response Plans and Operations and Maintenance manuals to ensure continual YPL pipeline system safety improvement. The revisions shall incorporate the data collected in support of Mitigation Measure SS-19. These revisions shall be submitted to OPS and the Forest Service for consideration in the scheduled permit reviews (Gen-3).

SS-9, Pipeline Inspection by Instrumented Pigs and through Hydrostatic Tests. YPL shall conduct an internal pipeline inspection, using a modern instrumented internal inspection device (smart pig) every five years. Both metal loss pigs and deformation pigs (to detect dents and gouges) shall be used. New crack detection pigs are being developed and tested. If these pigs are commercially available, they shall be included in the pigging program. Following the pig run, a preliminary report of all significant and immediately threatening anomalies (particularly large dents and gouges) shall be reported to the Forest Service and other responsible agencies within 30 days after the inspection. The full Report on the pigging results shall be submitted to the Forest Service for consideration in the scheduled permit reviews (Gen-3). If the results of the pigging test identified metal losses due to external corrosion, then a close interval survey as suggested in SS-10 below shall be conducted at the identified locations.

At a 10-year interval, all pipe segments containing pre-1970 pipe shall be hydrostatically tested to 90% SMYS. A report, documenting the results of these tests, shall be submitted to the Forest Service within 90 days after the hydrostatic test has been conducted, for consideration in the next scheduled permit reviews (Gen-3). The report shall include: a complete record of the hydrostatic test, a description of any leaks observed, leak records for any sites found to have been leaking in service, planned remediation, and a description of any completed or planned pipe repair and replacement work. YPL shall notify the Forest Service within 72 hours of any pipe failure detected during a hydrostatic test.

The testing interval and methods may be revised, based on the agency's review and approval of third party analyses and recommendations that may be presented by YPL in the scheduled permit reviews (Gen-3). YPL may, upon agency approval, use other testing methods to be used in lieu of hydrostatic testing (e.g., internal inspection tools), provided they provide equivalent results.

SS-11, Making Line Markers Visible. YPL shall install and maintain line markers in sufficient quantity and at such locations to ensure continuous line-of-sight marking along the pipeline (two line markers visible from any one location); however, markers shall in no case be installed more than 1,000 feet apart. Markers shall also be installed and maintained on each side of all paved and unpaved road crossings, on each side of all railroad crossings, and on each side of all navigable waterways.

SS-13, Marking Tapes for New Pipelines. For new pipeline construction, a minimum 3" wide, 6 mil, polyethylene marking tape shall be installed 12" to 18" beneath the finished ground surface, at each edge of the pipe ditch, within 12 to 18" of the pipe centerline. An appropriate warning shall be printed on the tape (e.g., Warning - Hazardous Liquid Pipeline).

SS-14, Independent Review of the New Pipeline Design. YPL shall ensure that a peer review of pipeline design, construction drawings, and specifications is completed. This peer review must be conducted by a registered engineer with no prior involvement in this project. That engineer shall submit stamped documentation to the Forest Service certifying such review and attesting that the following intentions are achieved. The intent of these reviews and observations is to help ensure adherence to high technical standards, in lieu of meeting only minimum regulatory requirements. Further, this effort will help ensure that YPL proposed design enhancements are actually constructed, project specific needs are met, and the adopted mitigation measures are incorporated into the design and pipeline construction. In addition, compliance with the applicable codes, standards, regulations, industry practices, and so forth will be verified.

SS-15, Fire Drill and Information Exchange. YPL shall include a Fire Drill in its Emergency Response Plan in which personnel from appropriate fire departments and other emergency response agencies participate. The new development in technologies and fire fighting procedures shall be discussed. This drill and information exchange shall be conducted at three-year intervals.

SS-17, Quarterly Shut-in Leak Detection. YPL shall perform shut-in leak detection tests quarterly, instead of annually. This "stand-up" test shall be held for a period sufficient to detect a 5 BPH leak, but in no case for less than 8 hours. This will reduce the potential spill volumes of very slow leaks from an approximate maximum range of 8000-4000 barrels to an approximate maximum of 2200. Quarterly test results shall be submitted to the Forest Service and any other responsible agencies. OPS has suggested that a family of curves to be developed by YPL for these shut-in tests to identify the normal relationship between the change in pressure due to changes of temperature. After eight such tests over a two-year period, YPL shall review the results in consultation with the Office of Pipeline Safety and the Forest Service, at which time the Forest Service may adjust the frequency of these tests.

SS-18, Demonstrating the Leak Detection Capability, and Periodic Updating of Leak Detection Technology. YPL shall demonstrate (within one year after the renewal of the existing permit) to the satisfaction of the Forest Service and any other responsible agencies that the leak detection system can detect leaks within the detection limits stated in Final EIS section C.7. This shall be performed by routing pipe contents from the pipeline, during normal operation, and analyzing the system performance at various simulated leak flow rates.

YPL shall also demonstrate (Within the same period stated above), to the satisfaction of the Forest Service and any other responsible agencies, that its leak detection methods will perform at least as well as state-of-the-art or best available leak detection technologies. This shall be done by submitting a report, which analyzes the predicted performance of various state-of-the-art and best available leak detection technologies (including pressure point analysis) on YPL's system. The anticipated performance of these systems shall then be compared to YPL's system. This report shall be prepared by someone with no conflict of interest as a result of any current or past interest in YPL's present leak detection or SCADA system. This report shall be submitted to the Forest Service and other responsible agencies. This report shall analyze the YPL pipeline between Missoula and Kingston. If the anticipated leak detection limits are better for one of the evaluated technologies than those anticipated or demonstrated for the YPL system, the other leak detection technology (hardware and software) shall be added to YPL's SCADA system.

Since pipeline controllers and operators have a crucial role in the process of leak detection, YPL shall demonstrate (by sending a formal letter to the Forest Service and other responsible agencies) that their pipeline controllers are trained and qualified to operate pipeline (as specified by the OPS operator training regulations in effect since April 2000).

Every five years, YPL shall conduct a review of the feasibility and commercial availability of leak detection technologies (such as hydrocarbon detectors – hand-held or buried cable sensors). The findings of this review shall be reported to the Forest Service and US DOT for consideration in the scheduled permit reviews (Gen-3).

SS-19, Reporting of Leaks and Clean Up Activities. Every five years, YPL shall submit a report summarizing all of its (system-wide) leak incidents, injuries, and fatalities to the Forest Service for consideration in the scheduled permit reviews (Gen-3). (System-wide information is required, since data from pipeline sections outside of Forest Service or other agency jurisdiction could help identify trends which could be useful in reducing the risk of leaks from the line within their jurisdiction.) This comprehensive leak report shall focus on pipeline incidents of relevance to the operations conducted on NFS lands. In addition to the USDOT required data collection, YPL should also document the following information for each leak.

- Date, time, and description of how the leak was initially identified
- A description of the leak detection system performance
- A discussion of the basis and methodology for determining/estimating the spilled volume
- The type of product(s) spilled
- Narrative of the emergency response, clean-up, and spill volume initially recovered
- A description of short- and long-term effects of the spill on terrestrial and aquatic resources, including but not limited to threatened, endangered, or sensitive species, aquatic macroinvertebrates, and riparian vegetation.
- Discussion of the site remediation procedures, methodology, performance, effectiveness, and results
- A compilation and an analysis of the data
- A description of the actions taken to prevent recurrence
- A discussion of any trends in incident rates and the causes of incidents
- Recommendations for continual improvement.

All leaks, regardless of spill volume or severity, shall be included in this report; the report shall include leaks even if they are below the USDOT or other reporting criteria. This report shall also include a summary and analysis of YPL's statistics/records regarding pipeline operations-related worker safety and public impacts (30 U.S.C. 185, section 28(g)), with a comparison to industry data.

Upon review of this report, the Forest Service (and any other agency with permit jurisdiction) will inform YPL of any concerns it may have and schedule a meeting to discuss these concerns and the YPL report. Using these data and the Forest Service's input (and any other agencies with permit jurisdiction), YPL will revise its Operations and Maintenance Procedures, Emergency Response Plans, and other appropriate documents to ensure continual YPL pipeline system safety improvement.

SS-19a, Ground Inspection of ROW. YPL shall, at least two times each calendar year, inspect the surface conditions on or adjacent to the permitted right-of-way by ground-based visual methods such as walking or driving. Motor vehicle operation for ground-based inspections will only be allowed on existing open or permitted roads, or as specifically authorized by the Forest Service – the ROW shall not be considered a road unless so designated by the Forest Service (see further measure BF -9). These inspections shall be timed to allow observation for annual weather-related conditions (e.g., after spring snowmelt and runoff), and for human-related conditions (e.g., after the summer recreation and construction season). YPL shall note any conditions arising from natural events, pipeline operations, or third-party activities that might affect pipeline safety, public safety, National Forest resources, or compliance with permit terms. When such conditions are found, YPL shall take corrective actions and notify the Forest Service and the Fish and Wildlife Service according to the terms of the permit.

When portable hydrocarbon detectors become practicable for use in leak detection on cross-county petroleum product lines, YPL shall use such devices during the semi-annual ground-based inspections required by this measure.

SS-21, Geologic Hazard Investigation. YPL shall conduct a geologic hazard investigation of the pipeline section between MP 416 and MP 476. This investigation shall be conducted by an independent third party. A report shall be submitted to OPS and

the Forest Service for review. This report shall identify any hazards that could affect pipeline safety. If significant areas of slope movement are noted in this study, a smart pig utilizing an internal navigation system (INS) shall be utilized to detect any potential excessive pipeline slope or curvature. Further, if highly unstable areas are identified, provisions for ground monitoring through enhanced ROW patrol, monitoring of ground movement, or direct measuring of the strain on the affected pipeline segment shall be established and reported to the Forest service and OPS.

SS-22, Measure Cover Depth. YPL shall demonstrate to the Forest Service, within one year of permit renewal, that the measurement of pipeline cover within stream channels and flood plains is accurate and repeatable. If the method is not accurate, YPL shall develop an alternate method that is accurate and repeatable.

SS-23, Abandoned Pipeline Cleanup and Prevention of Potential Soil Settlement. In general the abandonment of all pipelines are subject to the OPS regulations (195.402(c)(10). For any pipeline segment that is abandoned in place, once the majority of the product has been removed, a series of foam pigs shall be pushed through the abandoned sections to remove additional product. This process should be repeated until the pigs are free of residual product. Also, YPL shall submit a letter report evaluating any potential risks that could be imposed by the deteriorated pipe acting as an underground conduit and any potential negative effects of soil settlement, should the pipe be left to deteriorate. If OPS and the Forest Service determine that abandoning these segments in place may cause adverse effects, the abandoned sections should be removed or should be filled with concrete, grout, or clean drilling mud. The specific action shall be determined by OPS and the Forest Service and other responsible agencies after review of YPL's report.

SS-24, Pipeline and Stream Monitoring Plan. YPL shall prepare, for OPS and Forest Service approval, a Pipeline and Stream Monitoring Plan and incorporate this plan in its Operation and Maintenance Manuals. This plan is only required for those portions of the permitted right-of-way that are at risk to exposure by flood waters due to lateral stream channel changes or where pipeline cover depth is inadequate, as identified in the evaluations required by Measures H-4 and H-5. YPL shall submit this plan within 1 year of permit renewal. This plan should include, as a minimum, the following:

1. A methodology and frequency for monitoring the flows within Prichard Creek, Prospect Creek, and Coeur d'Alene River,
2. A description of the baseline monitoring procedures to be performed routinely by YPL personnel,
3. Stream-specific criteria to be used to increase pipeline monitoring (these criteria shall include the pipeline engineering analyses required in Mitigation Measure SS-26),
4. Description of the increased monitoring program
5. A procedure for draining the pipeline contents from Thompson Pass back to Thompson Falls station and/or displacing the line with nitrogen
6. A procedure for draining the pipeline contents from Thompson Pass toward Spokane station and/or displacing the line with nitrogen
7. Stream-specific criteria to be used to shut-down the pipeline
8. Stream-specific criteria to be used to drain down the pipeline to Thompson Falls and Spokane stations and/or displace the line with nitrogen.

These criteria should consider the entire pipeline located near existing streams along the Prichard Creek, Prospect Creek, and Coeur d'Alene River and should be stream-specific, considering potential pipeline span lengths, current loadings on the pipe, additional impact stresses which could affect the pipeline (e.g., debris, ice flows), potential for pipe buckling, stream bank migration, stream flows, and other relevant factors.

As an example of a stream-specific plan, considering the Oak Ridge National Laboratory recommendations, the following course of action should be considered:

1. Install a transmitter on the USGS stream gauge at Thompson Falls
2. Monitor the stream gauge daily, when stream flows are less than 1,500 cfs
3. Increase gauge monitoring frequency to hourly if the stream flow is greater than or equal to 1,500 cfs
4. At 2,000 cfs, the pipeline will be shut down and personnel will be dispatched to inspect previously identified areas which are likely to produce exposed pipe within the stream channel
5. At 2,500 cfs, the pipeline will be drained down and all product will be displaced with At 2,500 cfs, the pipeline will be drained down and all product will be displaced with nitrogen.

SS-25, Submittal of Maintenance Plans to Agencies. All plans for maintenance work shall be submitted to the Forest Service for review. The Forest Service could conduct this review by its own specialists, in conjunction and coordination with OPS, or by a third party specialist.

SS-26, Documentation of Adequacy of All Crossings, and Guidelines for Pipeline Exposures. YPL shall, within one year of permit renewal, document the adequacy of all uncased road crossings in the permitted area, using the API RP 1102 procedure. If any crossings are found to be over-stressed, a plan for mitigating these situations shall also be presented (e.g., pipe replacement, installation of split sleeve casing). YPL shall also document the safe span length of any existing pipe exposed within a creek or stream, its banks, or secondary channel; then any subsequent pipe exposures found within these locations shall be similarly documented and reported within 15 days of discovery. These analyses shall include, but are not limited to, the

following individual and combined loadings: circumferential stresses caused by internal pressure; circumferential stresses due to soil, traffic, or rail surcharges; longitudinal stresses caused by operating temperature; longitudinal Poisson stresses; longitudinal bending stresses (weight of pipe and contents, force of flowing water, impact forces of ice and debris); and potential pipe buckling. These documents and supporting calculations shall be submitted to the OPS and Forest Service and other responsible agencies for review and approval. The results of these engineering analyses shall be used at appropriate sites to establish the monitoring criteria in Mitigation Measure SS-24.

SS-27, Remote Actuator on Existing Valves. YPL shall install remote actuators on the block valves at MP 423.5 and MP 432.7. This will significantly reduce the spill volumes in the event of a major rupture, especially during periods of inclement weather, in the event that the check valves at those locations fail to positively shut-off flow. A Surge Analysis shall be conducted for installation of these remote actuators.

BVT-1, Mitigation Plans for TES Species. For all TES species found along the pipeline route, species specific mitigation plans will be developed by a Forest Service botanist or by a contractor for the Forest Service such that the impacts will be reduced to Class II or Class III (non-significance).

BVT-2, Survey for TES Species. Prior to construction, all lands within the construction areas to be disturbed will be field surveyed to locate additional TES species. If sensitive vegetation species (on either the Region 1 Forest Service list or the respective State Heritage list) are found, then site-specific mitigation plans should be developed. Survey should be performed at the optimum season for identification (DEIS BVT-6, BVT-7).

BVT-3, Include Plant Issues in OSCP

- The Oil Spill Contingency Plan (OSCP) shall include strategies for spills under all types of weather conditions. This includes winter with flowing slush and sheet ice or with partial and full ice coverage. Spring flood also brings unique conditions with high velocity flows and floating debris. Reestablishing pre-spill conditions should be the goal of these strategies along with a rapid removal of the petroleum product. This will reduce the likelihood of damaging or losing sensitive plant populations.
- Known downstream sensitive aquatic and wetland plant populations that could be negatively impacted by a petroleum product spill should be incorporated in emergency spill response plans of YPL. Strategies should be made to protect these populations from a worst-case scenario.
- All wetland and aquatic plants listed by the Idaho and Montana Heritage Programs and by the Region 1 Forest Service should be inventoried in areas that could be impacted by an accidental release.

BVT-4, Review for new TES Species Every 5 Years. Recently listed species, and species updated and dropped by the Forest Service, Idaho Conservation Data Center (ICDC) and Montana Natural Heritage Program (MTNHP) shall be evaluated, monitored and mitigated during the life of the project. Evaluation and monitoring of newly updated species shall occur at minimum every five years and continue for the life of the project. YPL's evaluation and monitoring shall include species that are found within 1,000 feet of the ROW, and species likely to be found within the 1,000 ft. buffer. Any maintenance activities and subsequent reclamation shall investigate opportunities for TES mitigation and restoration. This evaluation and monitoring of TES species shall include the preparation of a report submitted to Forest Service botanists every five years.

BVT-5, Protect Ute Ladies' Tresses. If the Threatened species *Spiranthes diluvialis* (Ute Ladies' tresses) is encountered within or adjacent to the ROW, a reclamation plan in conjunction with a habitat conservation plan will be prepared by a contractor for the Forest Service and funded by YPL. The pipeline and any related construction will be rerouted to avoid *S. diluvialis*.

BVWD-1, Weed Management. YPL shall prepare a Weed Management Plan for the pipeline ROW on NFS lands in compliance with LNF Forest Plan Amendment No. 11. The Weed Management Plan shall be based on an inventory, which will allow for development of Integrated Pest Management (IPM) strategies to be included in any maintenance or repair along YPL ROW. The Weed Management Plan shall be consistent with the Erosion Control and Revegetation Plan (Measure H-1). YPL will submit the Weed Management Plan to the Forest Service and county weed boards for approval. YPL shall implement the plan on existing ROW and planned ROW as soon as feasible.

Heavy equipment used in pipeline construction will be cleaned prior to operation in inventoried weed-free areas of leafy spurge, or populations of any MT category 2 or 3 weeds, or after operation in heavy (i.e. >25% cover, Cooksey and Shelley, 1996) populations of category 1, 2, or 3 weeds. Heavy equipment will also be cleaned prior to operation off of maintained roads.

Should any fill material, soil amendments, gravel, and so forth be required for construction/reclamation activities, weed-free material will be required. Material sources shall be certified "weed free" by a qualified specialist.

Herbicides will be applied according to the label instructions. Selection and orientation of spray units to avoid streams, and attention to the details of application to avoid drift, will minimize chemical entry into streams. Use a spray buffer strips along streams to greatly diminish the effects of herbicide spraying on aquatic environments (Norris et al., 1991). The width of buffer strips will be determined prior to spraying depending on the herbicide being used. See the Vegetation Specialist Report for a discussion of herbicide impacts on nontarget plant species. This mitigation measures is needed to comply with Standard RA-3

from INFISH which states, "Apply herbicides, pesticides, and other toxicants and other chemicals in a manner that does not retard or prevent attainment of riparian management objectives and avoids adverse effects on native fish." (DEIS BF-36)

BVWD-2, Prepare Reclamation Plant Seed Mixes. YPL shall develop a list of native and desirable exotic plants to be used in reclamation. The species list will be habitat specific. The emphasis will be on the use of native species. Revegetation with native species and desirable exotics will be designed so that the reclamation site functions as an early seral community of the potential plant community. Plant seed mixes will have a high percentage of pure live seed and shall be noxious weed seed free; only low levels of non-desirable exotic plant seed will be tolerated in seed mixes.

BVWT-1, Use HGM Assessment for Wetlands. Prior to any construction related disturbance, wetlands shall be evaluated using the HGM assessment technique for functions as described in Brinson et al. (1995) and modified to this region. This assessment technique will utilize reference wetlands to gauge the proper functioning condition of wetlands within a region. "Reference" wetlands serve as the foundation for identifying functions, and for determining which variables and indicators are appropriate for a particular "region" (Brinson et al., 1995). An interdisciplinary team selected by responsible agencies will approve the reference wetlands. This mitigation will safeguard against reclamation strategies that might improperly attempt to reclaim sites based on inappropriate characterization of functions. Reclamation/mitigation plans shall be designed to replace the affected values as determined in the functional assessment. Site-specific mitigation plans will be prepared by an interdisciplinary team of fisheries, hydrologic, wetland and wildlife specialists and shall be submitted to and approved by the USACOE, USFWS, USEPA, Forest Service (where applicable), and the responsible state agencies.

BVWT-2, Avoid Impacts to Dynamic Surface Water Storage. YPL will ensure that any construction related disruption does not significantly impact dynamic surface water storage (e.g. grading design allows for continued overbank flooding). Long-term surface water storage capabilities will be protected and not diminished from ROW construction related activities (e.g., loss of storage from fill of old oxbows). The energy dissipation function of wetlands shall not be significantly decreased. This can be accomplished by maintaining large woody debris and other detritus associated with wetlands. YPL shall maintain subsurface water storage capacity of wetlands. Water storage shall not be diminished or substantially enlarged by construction or operation of a pipeline. YPL shall consider the subsurface water functions when entering wetland/riparian areas. YPL construction and operation of the pipeline shall not substantially alter the moderation of subsurface flow; sites will be monitored for one year following construction to ensure compliance with this mitigation measure. Wetland subsurface flows can function as sinks for contaminants and nutrients from upland sources, contributing to improved water quality conditions downgradient.

BVWT-4, Wetland Reclamation Plan. YPL will prepare and implement a wetland reclamation plan, which will consider all species as they relate to wetlands, with particular attention to trees and shrubs. Reclamation of the vegetation component of wetlands shall utilize native species when possible. The source of the native species shall be approved prior to seeding. Should within-region species not be available, the collection of native seed will be considered. This reclamation plan will also investigate the narrowing of the overstory removal in the ROW as well as the realignment of the pipeline to minimize wetland/riparian disturbance. Vegetation/site disturbance will stockpile topsoil for use in reclamation. Additional organic matter soil amendments may, at times, be necessary. The necessity of a soil amendment(s) will be planned and approved by a wetland specialist. Species selection will be designed to mimic a community type or habitat type, though some nonnative species may be desirable to serve other functions (e.g., nitrogen fixation). Species selection will use local cultivar native species if available. All implementation will be monitored by a qualified specialist.

BVWT-5, Restrictions on ROW Width. YPL has proposed that the width of the construction right-of-way (ROW) be 80 feet, and the operational ROW (for periodic inspections) be 40 feet. In order to minimize resource impacts, the ROW width shall be reduced in size as defined below, unless otherwise approved by the Forest Service authorized officer. (This measure incorporates the requirements of DEIS BVWT -6, BW-3, BF-50, and BF-56.)

Construction. The construction ROW shall be defined by the following requirements:

- Vegetation should not be cleared from the construction ROW except where areas are scheduled for construction work to begin within 10 days.
- Habitat features within the ROW that have special significance to wildlife (such as large snags suitable for cavity nesters) shall be identified in pre-construction surveys and should not be removed. If the pre-construction survey identifies other wildlife resources that could be protected by limiting the width of the ROW, those adjustments should be made.
- The construction ROW in all jurisdictional wetlands and riparian habitat conservation areas (RHCAs as defined by INFISH) shall be cleared to the minimum width feasible for construction, based on the physical conditions at each construction site. YPL shall delineate wetlands, RHCAs, and proposed construction clearing limits therein, on maps and typical diagrams. YPL shall submit those maps and diagrams affecting RHCAs to both the Forest Service and to the U.S. Fish and Wildlife Service for field review and approval before construction begins in RHCAs. The Forest Service authorized officer, in consultation with a Forest Service fisheries biologist, will make the final determination of appropriate vegetation clearing widths in wetlands and RHCAs. In the event that any mature trees need to be cut in the riparian zone or wetland area, YPL will first confer with the Forest Service regarding placement of these trees prior to felling of the trees.
- Revegetate the remainder of the ROW with native, woody species, particularly in areas immediately adjacent to the stream. If low growing woody species will be allowed to grow adjacent to the stream, it could help to stabilize stream banks.

Operation. The operational cleared ROW will not exceed 20 feet in general, and in jurisdictional wetlands and RHCAs clearing will be restricted to the minimum feasible width which allows for safe and reasonable right-of-way inspections and operations:

- These areas shall be identified by YPL on right-of-way exhibits attached to the special-use permit, reviewed and approved by the Forest Service authorized officer in consultation with a Forest Service biologist, and reviewed every five years as prescribed by Mitigation Measure Gen-3. In the areas identified, trees and shrubs will be encouraged to regrow or shall be planted, and clearing or trimming limits based on height and diameter guides will be established in the Revegetation Plan called for by Mitigation Measure H-1.
- Site-specific exceptions may be granted by the Forest Service authorized officer.

During maintenance and repair activities, woody debris and other materials shall be left in stream channels or returned to stream channels to help create fish habitat (DEIS BF-56).

BVWT-6, Wildlife Habitat at Wetlands. YPL shall consult with wildlife biologists to develop reasonable mitigation plans designed to maintain the best wetland conditions for wildlife habitat. Wildlife mitigation plans will be linked to a monitoring plan, allowing the mitigation plan to be revised should the monitoring confirm deleterious impacts to important wildlife species.

BVWT-7, Wetland Monitoring. YPL will implement a wetland monitoring program. This program will continue yearly for the first five years of operation and the need for any further such monitoring will be evaluated in the first five-year review scheduled under measure Gen-3. This monitoring program will document the change in functions from pipeline installation and operation. The monitoring program will continue to monitor the reference wetlands.

BVWT-8, Inspect Wetland Improvements. All riparian/wetland improvement activities shall have a final inspection. This final construction inspection will measure wetland functions to determine the effectiveness of reclamation efforts. Given the time factor inherent in vegetation reclamation, a wetland monitoring program will be implemented with reporting dates and modification criteria included. The mitigation shall be deemed complete when the reclamation functions are working at the designed level, and the wetland community is self-sustaining.

BVWT-9, Compensate any Losses. Where mitigation cannot be accomplished on-site for whatever reason, (e.g. fens, bogs, forested wetlands), mitigation will compensate for the unavoidable impacts by off-site reclamation, restoration, enhancement, for example.

BVWT-10, Vegetation Plan for Abandonment. YPL shall prepare a pipeline abandonment vegetation plan that will specify in detail the type of plant communities to be disturbed and the reclamation techniques employed. This plan shall be submitted to the Forest Service and/or other agency with jurisdiction 60 days prior to scheduled work. No work shall be commenced until the YPL plan is approved.

BVWT-11, Maintenance and Repair. Prior to any maintenance, repair, or relocation construction, an on-site jurisdictional wetland delineation must be conducted according to the Corps of Engineers 1987 Wetland Delineation Manual.

- Wetlands will be mapped onto current aerial photography, for design and monitoring purposes. In conjunction with the wetland delineation, a functional assessment shall be prepared. The hydrogeomorphic method (HGM) is the preferred assessment technique. The functional assessment shall use excellent ecological condition reference wetlands to determine the level of function for existing conditions. The reference wetlands will be selected by an interdisciplinary team approved the Forest Service, YPL, and other pertinent agencies. The delineation, functional assessment procedure shall also collect relevant hydrologic, fisheries, soil, survey, and wildlife information necessary for planning.
- Reclamation/mitigation plans shall be designed to replace the affected values as determined in the functional assessment. Mitigation plans will be prepared by an interdisciplinary team of fisheries, hydrologic, wetland and wildlife specialists and shall be submitted to and approved by the USFWS, USEPA, Forest Service (where applicable), and the responsible state agencies.

On National Forest System lands, stream related maintenance shall be guided by the general riparian area management guidelines from the respective Forest plans, applicable watershed plans and the INFISH manual, especially as these relate to the Riparian Habitat Conservation Areas (includes Prospect Creek watershed).

BVWT-12, Post-Construction Reclamation

- Reclamation construction-related activity will control erosion, keep pollutants from entering the hydrologic/riparian system, and prevent destabilization of adjacent riparian communities.
- Reclamation construction shall follow a planned and approved schedule to consist of nine parts: (1) Installation of flagging and stakes for preservation and salvage of native species; (2) Salvage native species from planned disturbance where feasible. If species will not be utilized immediately a storage area will be employed; (3) Salvage specified plants; (4) Grade site to specifications; (5) Prepare seedbed, planting beds, or streambanks; (6) Insure the proper hydrologic conditions are met, e.g., water level; (7) Plant vegetation (container/bareroot) stock and seed as specified, in terms of quantity, quality, (pure live seed [PLS]) and timing; (8) Protect plantings where necessary; (9) Prepare as-builts and installation reports including photos with photo reference points.
- Wetland reclamation plantings shall be protected from grazing. In areas with active grazing use, the wetland reclamation species protection shall be noted in grazing leases and grazing management plans.

BVWT-13, Consult a Wetland Specialist. If the pipeline is relocated in Prospect Creek, pursuant to hydrology measures, this relocation shall be determined in conjunction with a wetland specialist, including a wetland inventory and evaluation to determine the least damaging placement.

BVWT-14, Revegetate Abandonment Areas. All abandoned sections of pipeline shall be revegetated. Overstory tree species shall be planted if needed. The guidelines included in "Post-Construction Reclamation" shall apply, including detailed revegetation efforts as discussed in pertinent weed and wetland mitigation.

BW-1, Consult with agency wildlife biologists. Consult with agency wildlife biologists (USFS, USFWS, IDFG and MTFWP, depending on jurisdiction and species of interest) to identify any outstanding wildlife concerns prior to initiating construction (pipeline reroutes, pipeline reconstruction or installation of instream structures). In cooperation with agency wildlife biologists, ground surveys for listed and sensitive species should be conducted along proposed reroutes. This recommendation applies primarily to avian species (bald eagle, goshawk and other species discussed above) but should be general enough to detect the presence and sign of any listed species. These surveys should be conducted at the appropriate time for detecting species of interest. Should any TES species be detected, appropriate mitigation measures may be designed to avoid or minimize likely disturbances. For example, for most avian species, potential conflicts can often be resolved by temporarily deferring construction until young have fledged from the nest. Attempt to schedule all construction activities so as to avoid excessive stress and disturbance to wildlife species that traditionally use the project area. This recommendation applies primarily to avian species.

BW-2, Schedule to Avoid Sensitive Times for Wildlife. Attempt to schedule all construction activities so as to avoid excessive stress and disturbance to wildlife species that traditionally use the project area. This recommendation applies primarily to avian breeding sites (for listed and sensitive species).

<u>Species</u>	<u>Avoidance Time</u>
Avian Breeding (listed and sensitive species)	May 1 to July 31

BW-3, Survey for Bald Eagles. Construction activities should be scheduled so as to minimize disturbance to bald eagle nests, known perch sites, or eagles that winter along Prospect Creek and the N. Fk. Coeur d'Alene River. At a minimum, surveys should be conducted prior to all pipeline reroutes or repairs to verify that no bald eagle nests occur on or near the areas affected.

BW-4, Add Wildlife to Oil Spill Contingency Plan. The Oil Spill Contingency Plan (OSCP) shall include species- and site-specific containment and cleanup procedures to protect particularly sensitive wildlife resource areas including:

- Bald eagle nest areas
- Big game winter range
- Peregrine falcon nest areas
- Elk security areas
- Wolf denning areas
- and other TES species that may be impacted.

These wildlife resource areas will be periodically updated in accordance with OSCP procedures. The OSCP shall provide stipulations for development and implementation of site-specific restoration plans and other site-specific and species-specific measures appropriate for mitigating impacts on local populations of wildlife species of concern and habitats. These measures shall be approved by agency wildlife biologists (Forest Service, USFWS, IDFG and MTFWP, depending on jurisdiction and species of interest).

BF-1, In-Stream Construction Requirements for Protection of Fisheries.

- Spoil piles from the excavation would be stored outside the floodplain, not within the river. Erosion control measures, such as straw bales or silt fence, shall be used to prevent erosion from spoil piles reaching the watercourse (DEIS BF-3).
- All perennial streams that contain bull trout or are potential bull trout habitat (such as those marked with an "X" or a "P" in Table 10.6 of the Fisheries and Aquatic Sciences Specialist Report) will be crossed using construction crossing Type 1, "in the dry" crossing methods. This construction method will also apply to pipeline removal. All perennial streams that have the potential to impact bull trout (such as those marked with an "I" in Table 10.6) would also be crossed (or have pipe removed) using "in the dry" construction methods or when there is no flow in the stream channel. Applicable streams shall be confirmed in consultation with relevant agency fisheries biologists (DEIS BF-5).
- Intermittent and ephemeral streams will be crossed when they are dry. If this is not possible then these streams will be treated as perennial streams for the purposes of determining the method of construction of stream crossings. After crossing an intermittent stream, the streambanks will be restored and seeded immediately.
- When flow in a streamcourse is temporarily diverted to accommodate construction and other activities, flow will be restored to the natural course as soon as possible. This is a standard from the LNF Plan that applies to Management Areas 13 and 14 (riparian areas). For any stream dewatering for construction, YPL shall prepare and implement a plan to salvage any bull

trout stranded during dewatering operations (stream crossing replacement, construction and removal actions) and transport any such bull trout downstream to the active channel. In the post-construction compliance report (measure FWS-1), YPL shall detail the results of any such operation.

- Should excessive streamflows occur due to wet weather during watercourse crossing construction or pipeline removal, construction shall be postponed until flows drop to acceptable levels. YPL's construction plan, to be reviewed and approved by the regulatory agencies, will include procedures for determining acceptable stream flow levels for construction.
- Vehicle crossing structures will be installed as part of the clearing operation so that no construction equipment need ford a flowing watercourse, unless use of a ford is approved in advance by the Forest Service and/or other permitting agencies.
- Trees will not be skidded or yarded across a stream.
- Backfilling will be done with original streambed material.

BF-2, Stream restoration: Streambank re-vegetation will occur at all sites where the YPL ROW has caused a loss of bank vegetation. This includes areas of new ROW as well as areas re-routes or where protective structures have been constructed or removed. Under no circumstances will disturbed streambanks be left without active re-vegetation measures being implemented. Re-vegetation will be done with native, and where appropriate, woody, species. Local harvesting and transplanting of native plants will only be utilized to the extent that it does not significantly affect existing vegetation conditions. There may be instances where native riparian plants will need to be purchased from an outside source. Decisions regarding stream channel restoration will be made by the agencies with jurisdiction, and will follow the objectives, criteria, and procedures outlined in the proposed project description.

BF-3, Vehicle crossing removal: As soon as the vehicle crossing is no longer required, the stream crossing structures will be removed and streambank revegetation will begin. A stream ford no wider than ten feet or less will be maintained at stream crossings, if required for ROW maintenance and emergency repairs.

BF-4, Timing of stream crossing construction: All perennial stream crossings and stream crossing removals will be constructed during the July 15 to September 1 time period to protect trout spawning. Construction may be allowed in September and October in locations where bull trout are not found or where they do not occur downstream, to be negotiated with the Forest Service Fisheries Biologist, or other agencies with jurisdiction, on a site-specific basis. Stream crossing construction will be allowed outside the construction window in stream channels that are completely dry, only with agreement of the Forest Service.

BF-5, Best Management Practices: The State of Montana has developed a list of best management practices (BMPs) for road construction and storm water control that will be applied to this project. In addition, the LNF has standard road construction mitigation measures that vary depending on the location and purpose of the road. Road and ROW construction must be done to meet LNF standards. Implementation of the road construction BMPs and mitigation measures will help to minimize, but will not eliminate, road and ROW construction-related impacts.

BF-6, Improve water quality in selected watersheds: The overall project must improve water quality in water quality limited watersheds and in watersheds functioning at unacceptable risk for bull trout. (See Table 1.8-1 in the Interdisciplinary Addendum, Sediment/Bull Trout Analysis, and Table 3.3-1, Fisheries and Aquatic Resources Specialist Report). The objectives for streambank restoration for the proposed project will be expanded to include an objective of improving water quality over present conditions. Adequate stream channel restoration will be undertaken so that, overall, the project will improve water quality in Prospect Creek and the North Fork Coeur d'Alene River.

BF-7, Monitoring of in-stream sediment levels will take place before and after the construction, relocation, and repair of the pipeline. A study design would be approved by the Forest Service for stream sampling to determine the impacts that occur during and after construction. This study would be conducted by the Forest Service or by a contractor under the Forest Service's supervision. The purpose of the sediment monitoring would be to identify and document any impacts on aquatic life resulting from pipeline construction, relocation, and repair.

BF-8, Dust suppression water will be pumped only from rivers and streams that contain sufficient flow that the loss of water volume will not affect aquatic life or downstream water rights holders. Pumping will not decrease streamflow below 30% of the mean annual flow at any time. All water drafting from NFS sites will be reviewed by the Forest Service Fisheries Biologist for approval by the Authorized Officer to ensure appropriate withdrawal quantity and screening for bull trout. YPL will apply to the State(s) and the Forest Service (on National Forest System Lands) for permission to divert water, including in their application proposed pumping locations and volumes. In addition, the requirements of INFISH will apply:

- RA-5** Locate water drafting sites to avoid adverse effects to inland native fish and in-stream flows, and in a manner that does not retard or prevent attainment of Riparian Management Objectives.

BF-9, Vehicle travel on ROW: Vehicle travel will not be permitted on the pipeline ROW, except as needed by YPL for repairs or maintenance of the pipeline. Physical barriers will be placed at any locations where vehicle access to the pipeline is possible to prevent vehicle entry. ROW will be left in rough condition to discourage vehicle use. This mitigation measure is needed to comply with the LNF Plan, which states, "Roads will be managed to control use and avoid damage to drainage systems and resource values. Roads will be constructed and managed in a manner to keep sedimentation hazard low."

BF-10, Hydrostatic test water will be pumped only from rivers and streams that contain sufficient flow that the loss of water volume will not affect aquatic life or downstream water rights holders. Pumping will not decrease flows below 30% of the mean annual flow at any time. All water drafting from NFS sites will be reviewed by the Forest Service Fisheries Biologist for approval by the Authorized Officer to ensure appropriate withdrawal quantity and screening for bull trout. In addition, the requirements of INFISH will apply:

RA-5: Locate water-drafting sites to avoid adverse effects to inland native fish and in-stream flows, and in a manner that does not retard or prevent attainment of Riparian Management Objectives. (INFISH, 1995)

BF-11, Disposal of hydrostatic test water: Hydrostatic test water will be water quality tested before being disposed of. Contaminated water will not be released back into streams or used for dust suppression. Water shall be disposed of by land application and direct discharge will only be allowed where land application is not feasible. Discharge permits will be obtained from the appropriate state agencies for any discharge that would affect state waters.

BF-12, No later than December 31, 2001, potential deficiencies in YPL's Emergency Response Plan shall be corrected. These corrections must be approved by the Forest Service, Fish and Wildlife Service, and other agencies with jurisdiction. Specifically:

- the current plan calls for the use of 14 foot to 18 foot boats with ≥ 25 horsepower motors. The equipment list in the plan only lists one source (Spokane, Washington) for one 16-foot powerboat with a 55 horsepower jet motor. There are three sources in California listed for shallow water push boats. Additional nearby sources of powerboats need to be identified.
- the current plan does not identify the location of launch sites for the powerboats at all recovery zones where boats are needed. Suitable boat launch sites and their distance from the work sites need to be clearly identified.
- a realistic assessment needs to be made of the characteristics of the river and stream locations where boats would be used during an emergency response. Some streams could be far too shallow, narrow, swift, and rocky to allow for the use large powerboats.
- the plan must be expanded to specify the training of the boat operators.
- the plan will be updated to reflect the listing of the bull trout as an endangered species.
- the plan must contain contingency plans in the event that a spill occurs during spring runoff or during heavy ice periods when the usual spill clean up methods will be ineffective.

BF-13, Emergency repair protocol: YPL will establish a protocol for emergency repair work. This protocol will include contacting the Forest Service and other agencies with jurisdiction as soon as an emergency becomes apparent. YPL will work cooperatively with the responsible agencies to plan emergency repairs. Every effort will be made to minimize the impacts of emergency repairs on the aquatic environment while still protecting the security of the pipeline.

BF-19, No Contaminated Fill. Sources of fill will be approved by the regulatory agencies prior to construction. No contaminated fill will be allowed to be placed within any floodplain.

C-1, Develop a Cultural Resource Management Plan. YPL shall develop a Cultural Resource Management Plan (CRMP) in consultation with state SHPOs and tribes, to address ongoing and future pipeline operation and maintenance activities on federal, state, and private lands for the existing pipeline. The CRMP shall clarify the responsibilities of YPL, other agencies, and the Forest Service management responsibilities. A protocol shall be specified for cultural resource review and survey of all pipeline project repairs, restorations, reroutes, and other activities for public and private lands during the license period. This plan shall also clarify how the SHPO and tribes would be assured opportunities to review and comment on cultural resource management actions.

C-2, Coordinate with Tribal Members. Concerned tribes shall be identified and tribal representatives shall be invited to participate in the development of a CRMP for the existing pipeline facility. The Forest Service, other responsible agencies, and YPL shall continue to provide notification to concerned tribes of all planned actions, work proposals, and other pertinent information concerning YPL maintenance activities on the existing pipeline. Tribes' comments shall be sought early in the cultural resource review process and considered when the Forest Service makes recommendations for long term management activities on the existing pipeline. Contemporary Native American heritage sites discovered during pipeline surveys shall be reported to tribal representatives in a timely manner. Copies of cultural resource site forms, survey data, and other information concerning these sites shall be provided to concerned tribes. The Forest Service, other responsible agencies, and YPL shall provide notification to concerned tribes of all planned repairs, improvements and realignments that could impact Native American heritage resources on the existing pipeline. Tribal cultural values shall be considered when evaluating the significance of identified Native American heritage resources. Tribes shall be consulted during the planning and implementation of cultural resource studies, evaluations, and treatment plans.

C-3, Cultural Resource Review of Future Repairs. Prior to the initiation of proposed and future pipeline repairs or reroutes, or other ground disturbing actions, YPL shall submit work plans to the Forest Service or other responsible agencies for cultural resource review and survey recommendations. The Forest Service or other responsible agencies shall assess potential impacts on cultural resources from the proposed actions and the need for cultural resource studies on a case-by-case basis in consultation with SHPOs and tribes. Recommendations made by the Forest Service or other responsible agencies to address cultural resource impacts shall be followed by YPL as part of the CRMP. If cultural resource studies are required, formal reports

shall be completed and submitted to the Forest Service and/or other responsible agencies at least six weeks prior to the initiation of planned pipeline management activities. Consultation and reviews by outside interests shall be conducted as specified in the CRMP.

C-4, Cultural Monitoring for all Trenching and Excavation. A qualified archaeologist approved by the Forest Service, and/or other agencies with jurisdiction, shall monitor all trenching and excavation activity within 50 feet of the exterior boundary of register-eligible subsurface archaeological resources. Any cultural resources identified shall be avoided to the maximum extent feasible. If not feasibly avoided, a complete consideration of each resource shall be made in accordance with the CRMP and appropriate state or federal cultural resource protection guidelines.

C-5, Include Aboveground Facilities in Cultural Review. The CRMP shall include a provision for consideration of cultural resource impacts from YPL aboveground facilities. Locations of all aboveground facilities (i.e., valve sites) shall be reviewed and planned in a manner that minimizes visual intrusions and/or atmospheric impacts that are incompatible with the historical setting and use of significant cultural resources to the extent feasible under pipeline engineering constraints. YPL shall provide to the Forest Service, and/or other appropriate agency cultural resource staff, plans showing the specific locations of all aboveground facilities. The Forest Service, and/or other agencies with jurisdiction, shall review the locations of proposed aboveground facilities to assess potential visual impacts to documented NRHP-eligible cultural resources. Upon completion of the facility siting review, and if deemed necessary, the Forest Service, and/or other agencies with jurisdiction, shall make recommendations for avoidance or mitigation of impacts on significant cultural resources. The Forest Service, and/or other agencies with jurisdiction, shall ensure that aboveground facilities which may pose a threat to NRHP-eligible cultural resources valued by contemporary Native Americans shall be reviewed and commented upon through consultation with concerned tribes.

C-6, Emergency Action Plan for Cultural Resources. The CRMP shall include an Emergency Action Plan for addressing impacts to cultural resources from spills or other accidents involved with pipeline operation. The plan shall identify YPL and agency responsibilities for legal compliance in case of an accident, establish reporting deadlines, and outline procedures for addressing disaster situations. Locations of significant cultural resources shall be mapped as "environmentally sensitive areas" in Emergency Response Plans or Spill Response Plans developed for the pipeline.

C-7, Review Actions near Archeological Sites. A qualified archaeologist approved by the Forest Service, and/or other agencies with jurisdiction, shall review and approve any vegetation removal, erosion control, recontouring, or revegetation plans that will cause impact within 200 feet of known significant archaeological sites. If deemed appropriate by the responsible agency, a qualified archaeologist shall monitor applications of these mechanisms.

C-8, Cultural Review of Block Valve Sites. Under the direction of the Forest Service or other responsible agencies, YPL shall coordinate a systematic cultural resource survey at block valve site locations identified as having high to medium cultural resource sensitivity. The Forest Service or other responsible agencies shall have the discretion to require implementation of specific survey recommendations for each block valve site on a case-by-case basis. Those block valve sites identified for cultural resource survey shall be inventoried at a Class III(a) (intensive pedestrian survey) level.

C-9, CRMP to Include Abandonment. The CRMP shall include a Pipeline Abandonment Plan that specifies YPL and agency responsibilities, cultural resource review procedures, and reporting standards for consideration of impacts to cultural resources. The plan should require YPL to notify cultural resource staff at LNF, or other agencies with jurisdiction, at least 120 days before pipeline abandonment is initiated. YPL shall provide the Forest Service and/or other responsible agencies with information about abandonment activities that would have the potential to impact previously undisturbed land areas. The Forest Service, and/or other agencies with jurisdiction, shall consult with SHPOs, other state agencies, and tribes and then provide stipulations for necessary cultural resource compliance measures by YPL.

V-1, Reduce Visible Construction Staging and Storage. Material storage shall be located away from residences, schools, businesses, and established recreation facilities (e.g., campgrounds, trailheads, and boat launch points). Construction staging and storage areas should also not be visible to recreationists on the Coeur d'Alene River.

V-2, Dispose of Trash. YPL shall confine construction activities and materials storage to within the pipeline ROW and aboveground facility sites. All trash (e.g., wrappers, cans, food scraps) shall be disposed of in closed containers and the containers are to be removed regularly from the construction sites.

V-3, Avoid Clear-cuts with In-Line Views. For pipeline reroutes, cut clear-cuts through forested areas at appropriate angles to primary travel corridors and sensitive viewing areas to avoid "in line" views of the ROW.

V-4, Minimize Access Roads. Construction or reroutes and repairs will utilize existing access roads to the maximum extent possible. New access road construction is to be minimized in highly scenic areas of known public concern, if such activities are likely to result in high levels of visual contrast. Construction of access or surface roads shall be restricted to specified areas permitted by agencies and incorporated into construction plans prior to permit issuance.

V-5, Restore Stream Crossings. YPL shall restore all stream channel crossings to preconstruction or better conditions. For those situations where riprap required for stabilization is highly visible to motorists or recreationists, the top of the rock should be covered with soil and revegetated with species similar to adjacent vegetation in order to accelerate coverage and restoration of the repair site. Revegetation shall be consistent with hydrology and fish habitat protection measures.

V-6, Feather ROW Edges. In revegetating those portions of the rerouted ROW in immediate foreground or foreground views from sensitive viewing areas, the ROW edges shall be "feathered" (placing vegetation in an uneven pattern to blend with adjacent vegetation) in order to lessen the visual prominence of the lines of demarcation between the ROW and existing vegetation.

V-7, Avoid Cutting Grasses and Shrubs. In visually sensitive portions of the route where the route passes through grass and shrub habitat, vegetation shall be restored to its natural height and density following reroute construction. Grasses and shrubs shall not be periodically cut back or mowed to differentiate the pipeline ROW or as part of ROW maintenance for routine visual inspections.

V-8, Restore ROW after Abandonment. Upon abandonment of individual pipeline sections or complete project abandonment, clear-cuts and scars shall be restored to the extent feasible, including any necessary regrading or recontouring to achieve natural appearing landforms and substrate conditions. Where clear-cut restoration is not feasible, visual access to the clear-cut (or land scar) must be screened from views from roads and residences. Where the pipeline ROW or access road intersects major travel corridors at angles that provide in-line views of the ROW or access road, clear-cut, or scar, YPL shall plant appropriate vegetation, in appropriate locations, to screen in-line views from the primary travel corridors.

V-9, Maintain Scenic Integrity. Where long-term visual impacts occur (i.e. at reroute ROW vegetation clear-cuts visible from public roads and at new Ranger Station valve site), appropriate revegetation shall be undertaken to screen the visual access to these locations in a way that maintains the scenic integrity of the landscape. Vegetative screening should have a natural appearance in terms of its composition and scale.

V-10, Include Forest Landscape Architect. The review of planned YPL construction, repair, and maintenance projects should include participation by the Forest Landscape Architect to assess potential implications to landscape and visual resources and to suggest visual impact mitigation measures as necessary.

V-11, Plant Trees near Thompson Pass. To eliminate public visual access from State Secondary 471 (formerly Highway 7) to the clear-cut just east of Thompson Pass at the top of the grade (see KVP 25 in Landscape and Visual Resources Specialist Report), trees or other screening vegetation should be planted along the south shoulder of the highway, provided such screening can be designed without impairment of highway or pipeline safety. The plantings would need to reach heights of approximately eight feet to provide effective mitigation. The plantings should start where the existing trees stop, directly across from the forest access road, which is located on the north side of the highway. The plantings should extend up the highway (toward Thompson Pass) for a distance of approximately 225 feet.

V-12, Paint Aboveground Valves. All new and existing valves on NFS lands, including associated structures and fencing, should be painted an appropriate earth-tone or vegetation-tone color to help the structures to blend better with the surrounding vegetation.

L-1, One-Month Notice to Property Owners and Public. YPL shall give at least one-month advance notice to the public and to potentially affected property owners and tenants prior to pipeline construction on NFS lands. Notices shall identify the pipeline ROW location, construction schedules, company contacts and phone numbers, and general construction methods and restoration procedures. Notice shall be provided by methods approved by the Forest Service, such as: 1) mailing notices to properties within 300 feet of the approved ROW; 2) posting bulletins in neighborhoods that could be affected and at Forest Service visitor centers or offices, and affected recreational facilities; and 3) placing notices in local newspapers.

L-3, Minimize Length of Construction. YPL shall incorporate measures into the Construction, Operation, and Maintenance Plan to schedule construction activities so as to minimize the length of construction time at sensitive receptor locations and at roadways or driveways providing primary access to residences, businesses, or recreation sites. Also, measures shall be incorporated into said Plan to immediately restore access and property.

1. No staging of equipment or material shall be permitted on National Forest System lands adjacent to a residence or other sensitive receptor.
2. Trails and recreational facilities disturbed by construction or maintenance shall be immediately restored to their original condition (to the extent feasible) following construction.

L-7, Avoid Noise During Peak Hunting Periods. Noise-generating maintenance activities shall be scheduled to avoid peak hunting periods in sensitive hunting grounds, unless otherwise approved by the authorized officer. Hunters shall be notified, through posting of signs, and information distributed through the Forest Service identifying maintenance schedules and locations.

L-10, Restore ROW where Visible from Residents or Recreational Locations. Consistent with land management requirements at the time of abandonment, at those locations where the pipeline ROW formerly provided recreational uses such as hunting, or is visible from developed or concentrated residential and recreational areas, YPL shall restore and revegetate the abandoned ROW with appropriate vegetation as defined in BVWT -10. Where restoration of the ROW is not feasible or would take an extended time period (e.g. to establish trees), YPL shall plant appropriate vegetation, in appropriate locations, to screen views of the ROW from said views; however, provisions of BVWT -10 shall overrule those of this measure if in conflict. YPL shall implement this measure upon project abandonment, and a Lead Agency-approved monitor will monitor compliance.

T-1, Develop Traffic Management Plan. YPL shall maintain vehicle passage on all affected public roadways, including access to intersecting roadways and private property driveways during construction at each location. In the event construction activities restrict bi-directional vehicle flow to one lane or construction activities/equipment pose potential hazards to passing motorists, the use of flaggers, warning signs, barricades, etc., shall be implemented in accordance with the agency-approved Traffic Control Plans (see Mitigation Measure T-2) when applicable. YPL shall develop a Traffic Management Plan, which identifies all construction locations within roadways and identifies traffic lanes, intersections, and private driveways that would require partial or complete closure based on the pipeline location within each subject roadway. In addition, this plan shall identify other potential activities (e.g., other construction projects) that could affect the subject roadways and measures to minimize any cumulative effect. This plan shall be approved by each local jurisdiction (if applicable) or by the LNF for National Forest System roads.

T-2, Develop Traffic Control Plans. YPL shall develop detailed site specific Traffic Control Plans when applicable for the entire pipeline route at all locations where construction activities would interfere with the existing transportation system. Input and approval from the responsible public agencies shall be obtained; copies of approval letters from each affected jurisdiction must be provided to that jurisdiction prior to the start of construction within that jurisdiction. The Traffic Control Plan shall define the use of flaggers, warning signs, lights, barricades, cones, etc., according to standard regulatory guidelines at each construction location.

T-4, Coordinate with Emergency Providers. YPL shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. Police departments, fire departments, ambulance services, and paramedic services shall be notified in advance by YPL of the proposed locations, nature, timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness. At locations where access to nearby property is blocked, provisions shall be ready at all times to accommodate emergency vehicles, such as plating over excavations, short detours, and alternate routes. The Traffic Control Plans (Mitigation Measure T-2) shall include details regarding emergency services coordination and procedures, and copies shall be provided to all relevant service providers. Documentation of coordination with service providers shall be provided to the agency with jurisdiction prior to the start of construction.

T-5, Agency Review of Staging Areas. YPL shall include in the construction plans submitted under measure Gen-4 the specific location of any NFS lands proposed for staging area(s) for review, approval, and inclusion in the construction permit area. YPL shall state the size of the area, the purpose (e.g., storage of construction equipment and employee parking), the number of vehicles and pieces of equipment to be stored, and the duration (in number of days and number of hours per day) that each staging area will be used.

T-7, Restore Roadways Disturbed by Construction. Paved or unpaved roadways disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of roadway surfaces and safe vehicle operations along subject roadways. This measure shall be applied to all roads that are damaged by construction vehicles or equipment, including roads outside of specific construction zones. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and roadway drainage features shall be protected by regrading and reconstructing roadways to drain properly.

T-8, Include Transportation in Emergency Response Plan. YPL shall modify its emergency response plan to specifically address potential disruption to the transportation system in case of a major spill, as part of YPL's overall Spill Contingency Plan. YPL shall be prepared at all times to immediately respond to a spill which would affect any transportation facility on National Forest System lands so that necessary facility closures and cleanup operations can be initiated expeditiously. Coordination with appropriate law enforcement agencies, public works departments, fire departments, and state agencies shall be required in advance of, and in the event of, an upset.

T-9, Avoid Road Subsidence at Abandonment. At the time of project abandonment, YPL or current owner of the pipeline shall ensure that no road subsidence occurs by either (a) removing the pipeline within the highway ROW and restoring the area to original condition by properly compacting soils after removal, or (b) filling the pipeline below highway ROWs with concrete grout. Prior to abandonment, YPL (or current owner) shall submit the proposed abandonment methodology for each crossing to the Montana/Idaho DOTs for review and approval.

APPENDIX A
Required Mitigation

FWS-1, Bull Trout Reporting Requirements. YPL shall comply with the following reporting requirements regarding bull trout as long as bull trout is listed as a threatened or endangered species:

- A. Prepare and submit a post-construction compliance report to the Forest Service, with a copy sent directly to the Fish and Wildlife Service no later than January 30, for each year construction or restoration occurs. The report will include: current ongoing activities, date construction began, date construction was completed, results of any dewatering bull trout transport (BF-1), any problems or deviations from the selected alternative as described in the ROD and Appendix A thereto that might affect bull trout.
- B. Within 24 hours of locating dead or injured bull trout or upon observing destruction of redds, notify the Fish and Wildlife Service Montana Field Office at 406-449-5225. Record information relative to the date, time, and location of dead or injured bull trout when found, and possible cause of injury or death of each fish and provide this information to the Forest Service and to the Fish and Wildlife Service.
- C. During project development and operation YPL shall notify the Forest Service and the Fish and Wildlife Service as soon as practicable of any emergency or unanticipated situations arising that may be detrimental for bull trout relative to construction, operation, or maintenance activities. YPL shall include a protocol for notification under emergency responses to spills in the Emergency Response Plan prescribed by measure SS-8.

Mitigation Changed or Not Adopted

Mitigation measures in the EIS were originally developed in response to categorical, potential impacts for alternatives ranging from 70 miles to 140 miles of new construction, independent of ownership. The magnitude of many potential impacts was significantly reduced between Draft and Final EIS when the proposed action was reduced to eight miles of relocation. However, many mitigation measures from the larger DEIS actions were retained in the FEIS, even though they might not have been proposed for a project of the limited scope now remaining in the FEIS.

The FEIS mitigation measures are recommendations to the applicant, other agencies, and the Forest Service decisionmaker as ways to reduce impacts of the proposed action and alternatives. The following table lists only those measures that were changed or not adopted in the Forest Service Record of Decision (ROD) (refer to Appendix A for the complete list of required mitigation). There were three primary reasons for rejection or modification of the following measures:

1. Limited Forest Service Jurisdiction – The Forest Service ROD and resulting Special-Use Permit can only impose requirements directly connected to National Forest System (NFS) lands.
2. Reduced Scope – Many measures were modified to make the requirements commensurate with the reduced, site-specific actions and effects of the FEIS, as opposed to the categorical/potential effects assumed in DEIS development of the measures.
3. Corrections and Clarifications – for example, cross-references to other mitigation measures, ambiguous procedures or responsibilities, or technical errors in the FEIS text.

Mitigation Measures – Changes from FEIS to ROD

FEIS No.	Text of Mitigation Measures (Changes from FEIS to ROD indicated by shading – deletions in <u>strikeover</u> and additions in <u>underline</u>)	Adopt in ROD? (Rationale for "no" or change)
General Measures		
Gen-1	<p>Construction Monitoring. Lolo National Forest and Idaho Panhandle National Forest will periodically send to the reroute and repair construction sites their chosen environmental monitors (EM) to inspect construction activities and to ensure compliance with construction plans. EMs are responsible for observing and documenting implementation of adopted mitigation measures on behalf of the responsible agencies. Monitors shall also ensure that all plans required in adopted measures have been completed and approved by appropriate agencies prior to the start of construction. Monitors may not direct contractor/construction crew actions, but will interact only with construction management, pointing out compliance problems or concerns. Non-compliance with adopted mitigation measures will be documented and may result in agency-mandated construction shutdowns if compliance is not observed. Procedures for documenting non-compliances and for resulting actions (e.g., shut downs) shall be drafted by the agencies with jurisdiction and provided to YPL prior to the start of construction. <u>Those procedures will include the requirement that a Forest Service approved fisheries biologist or an equally qualified construction monitor be present during construction activities, that, in the monitor's judgment, could affect Riparian Habitat Conservation Area (RHCA). This construction monitor shall have authority to direct the on-site construction foreperson to immediately suspend construction operations, safety permitting, should the riparian- and fisheries-related measures outlined within the permit conditions not be met. The monitor and foreperson should be fully informed of all measures in the Fish and Wildlife Service's Biological Opinion.</u></p>	<p>Yes (modified for compliance with USFWS Biological Opinion condition 1.A)</p>
Gen-2	<p>Bonding. YPL shall provide proof of adequate compensation, funding, or bonding mechanisms to provide for future project-induced costs incurred by other than YPL. Such costs include reasonably foreseeable costs, as well as costs resulting from unforeseeable events, such as pipeline accidents, spills, or geologic and hydrologic events that may damage or increase risk to human health, safety, or the environment associated with the pipeline construction, operation, accidents, and termination. YPL shall consider provisions for the following costs:</p> <ul style="list-style-type: none"> • Agency monitoring and review of construction and post-construction activities • Emergency response costs • Cleanup and remediation • Corrective measures for project outcomes not meeting pre-determined completion or success criteria. • Direct liability of \$1,000,000 <p><u>The plan Liability insurance and bonds</u> shall be submitted and approved by <u>all responsible agencies</u> <u>the Forest Service</u> before construction may begin.</p>	<p>Yes (revised for clarification and jurisdiction)</p>

Mitigation Changed or Not Adopted

FEIS No.	Text of Mitigation Measures (Changes from FEIS to ROD indicated by shading – deletions in <u>strikeover</u> and additions in <u>underline</u>)	Adopt in ROD? (Rationale for “no” or change)
Gen-3	<p>Scheduled Review. At intervals not to exceed five years, beginning no later than five years after issuance of the Forest Service Special Use permit, continuing for the duration of the permit, YPL shall meet with the Forest Service, <u>the Fish and Wildlife Service</u>, and other agencies with jurisdiction to review monitoring results and performance under all permit terms and conditions and related plans. After reviewing YPL’s monitoring results, performance under the permit, and any relevant changes in the environment, laws and regulations, land management direction, or pipeline safety technology, the Forest Service shall may revise and amend <u>the permit terms and conditions as appropriate, if such action is deemed necessary or desirable to incorporate new terms, conditions, and stipulations as may be required by law, regulation, land management plans, or other management decisions.</u></p>	<p>Yes (modified for compliance with USFWS Biological Opinion condition 2.A and revised to match standard amendment language in special-use permit form FS-2700-4)</p>
Gen-4	<p>Construction Plans. YPL must submit construction plans to the Forest Service <u>and the Fish and Wildlife Service</u> for review <u>and approval</u> before construction can begin. These plans must be signed by an engineer with expertise in pipeline design, and who has reviewed the geologic hazard (<u>Mitigation Measure G-1</u>) and scour studies (<u>Mitigation Measure H-4</u>) for each location. <u>YPL shall submit the final design for the North Fork Coeur d’Alene crossing to the Spokane Field Office of the Fish and Wildlife Service for concurrent interagency review. The Service shall provide written comments to the Forest Service within 30 calendar days of submission on these plans. Construction may not begin on the North Fork Coeur d’Alene crossing until the Forest Service and the Service have agreed upon plans.</u></p>	<p>Yes (modified for compliance with USFWS Biological Opinion conditions 1.F & 1.G, and added references to other measures)</p>
Soils		
E-1	<p>Soil Salvage Plan - YPL shall include soil-salvage measures in the construction plans (including any excavation for abandoned segments) it submits to agencies with jurisdiction, at least 60 days before the start of construction. Soil-salvage measure shall define the following construction practices/parameters:</p> <ul style="list-style-type: none"> • <u>Any pipeline construction activities involving soil excavation at sites where topsoil horizons may be feasibly salvaged and revegetation will be required</u>, shall use double-ditching methods (which shall be defined in detail in the plan) to salvage the uppermost topsoil horizon(s) and stockpile the materials for reclamation cover soil after regrading. The depth of topsoil salvage shall be determined by a soil scientist or qualified reclamation specialist and shall be approved by the Forest Service (for Forest Service lands) <u>and by State resource agencies</u>. At a minimum, the topsoil-salvaged depth shall include all horizons dominated by organic material and horizons with an accumulation of organic matter. <u>YPL shall clearly identify in its construction plans any sites which YPL proposes to be excepted from double-ditching due to factors such as thinness of the topsoil horizon, lack of organic material accumulation, or high coarse fragment content. The Forest Service, at its discretion, may approve such exceptions, on a site-specific basis, during construction plan review.</u> • Regraded trench backfill shall be compacted to standard specified densities to minimize subsidence. However, the salvaged soil materials shall be respread over the regraded trench using tracked equipment to minimize soil compaction in the upper horizons. 	<p>Yes (clarified to add reasonable qualifications to soil conservation requirements, and to remove a reference to other ownerships.)</p>
E-2	<p>Augment YPL Spill Response Plan. YPL’s Spill Response Plan should be augmented with the following actions to minimize and reduce impacts to soils and offsite sedimentation.</p> <ul style="list-style-type: none"> • The Spill Response Plan shall identify emergency access roads <u>to be used in advance</u> and <u>avoid, where possible</u>, sensitive areas <u>to be avoided</u>, such as wetlands, steep slopes, water courses, and easily erodible soils. • The Spill Response Plan shall establish criteria for reclamation using rapid establishing vegetation, the use of mulches and erosion control mats on steeper slopes (>15 percent), and reclamation monitoring every year for five years following the spill and reclamation response. • The Spill Response Plan shall require the use of temporary bridges to cross waterways and hold construction of new roads to the absolute minimum. <u>Helicopters shall be used where spill cleanup does not require large machinery.</u> The crossing or working in wetlands or sensitive areas where soils might be severely damaged shall be avoided. • The Spill Response Plan shall <u>state that temporary sediment retention basins be constructed specify use of erosion and sediment control BMPs for cases</u> where sediment may potentially reach aquatic habitats. • The Spill Response Plan shall require that a scientist or engineer, familiar with petroleum spill remediation techniques, be consulted to help determine the potential impacts to soils and best reclamation efforts to be used. Each individual spill response plan shall be approved by the appropriate regulatory agencies, as well as any private, State, or Federal landowners involved. 	<p>Yes (moved reclamation requirements to H-1 because the spill response plan should focus on immediate spill response needs; removed helicopter requirement as an unnecessary restriction on emergency spill response; clarified sediment control)</p>
Surface Water Hydrology		
H-1	<p>Erosion Control and Revegetation Plan. YPL shall submit an erosion control program, as a component of</p>	<p>Yes (removed)</p>

Mitigation Changed or Not Adopted

FEIS No.	Text of Mitigation Measures (Changes from FEIS to ROD indicated by shading – deletions in <u>strikeover</u> and additions in <u>underline</u>)	Adopt in ROD? (Rationale for “no” or change)
	<p>its Construction and Operation Plans. YPL shall submit this plan to the Forest Service <u>and the Montana Department of Environmental Quality, the Montana DNRC, and the U.S. EPA Region 10 (Idaho) and the Fish and Wildlife Service</u> for review and approval at least 30 days before the start of pipeline construction. This plan shall be prepared by an engineer with expertise in the field and licensed to practice in the applicable state. <u>The plan should address the following issues, as appropriate:</u></p> <ul style="list-style-type: none"> • Document that disturbed areas shall be restored to their original cross section and revegetated. • Develop and define specific best management practices (BMPs) for erosion and sediment-control techniques to be used during construction (such as silt fences, straw bale dikes, diversion channels). • Include limitations on the height of cut slopes. • Define permanent erosion control measures and their inclusion in project design (i.e., water bars, trench dams, diversion ditches, water bars, energy dissipaters, dips, staked bales, erosion control mats, sediment basins, and berms). Describe typical installation of these devices and where they shall be installed, as directed by the project engineer or by Forest Service and Montana DEQ personnel. Installation of permanent erosion control devices shall be minimized and must be approved by the agencies with jurisdiction prior to their installation. • Include drawings of erosion-control structures (such as water bars and terraces) that would be left in-place on hillsides to control gully erosion after construction. • Require <u>these erosion-control</u> techniques to be used during all construction activities. • Require that streams be crossed at right angles, where possible, to minimize disturbance. If not possible, YPL shall consult with the Lolo National Forest fisheries biologist and Forest Hydrologist (or other appropriate agency personnel) for approval prior to construction of the stream crossing. • Direct ROW drainage away from stream crossing sites. • Minimize stream channel disturbance by staying within the construction ROW as defined in BVWT -5. • In order to blend in with surrounding soil and vegetation, visually compatible colors shall be used on any waterbars or other <u>long-term</u> erosion control materials installed on slopes for erosion control or in any other highly visible portion of the ROW. <p>The plan shall be implemented during <u>any</u> construction and <u>monitoring YPL shall monitor implementation and effectiveness of erosion prevention and revegetation on the right-of-way occur after construction</u> for the life of the project <u>to ensure that erosion does not expose the pipeline</u>. <u>YPL shall submit annual reports shall be submitted</u> to the Forest Service <u>and Montana/Idaho DEQ</u> describing status of erosion prevention and restoration/revegetation efforts. The Erosion Control Plan shall be consistent with and referenced in the Revegetation Plan (defined <u>in Mitigation Measure BVWD-5 below</u>).</p> <p>YPL shall also prepare and submit a Stormwater Construction Erosion Control Plan written in accordance with Montana Department of Environmental Quality Stormwater program requirements (for Montana segments) and EPA Region 10 requirements (for Idaho segments) if those requirements are not covered by the general Erosion Control Plan described above. [Note: This measure incorporates the requirements of measures from other Specialist Reports: Geology (G-2), Soils (E-1) and Fisheries (BF -2, BF-30)]</p> <p>A Revegetation Plan shall be part of the erosion control program. The Revegetation Plan shall be prepared and submitted to the Forest Service, DNRC and Montana/Idaho DEQ for review and approval at least 30 days prior to the start of construction. The Revegetation Plan shall apply to (1) reclamation of any new pipeline construction right-of-way, (2) to areas abandoned by relocation of the existing pipeline or, (3) to areas affected by emergency repair on the existing pipeline or new pipeline, and (4) to the entire pipeline right-of-way that requires vegetation clearance during operation (for inspection). The Plan shall include the following major components:</p> <ul style="list-style-type: none"> • All disturbed areas shall be re-seeded with site-adapted seed mixtures (as defined below) in the first appropriate season (spring or fall) after construction. • Proposed seed mixtures for all relevant habitat types and groups shall be defined in the Revegetation Plan. The seed mixtures will be developed according to habitat types and habitat groups, and nonnative seed will not be used unless approved by the Forest Service or DEQ. Revegetation with native species will be designed so that the disturbed habitat type will be the replacement model. The native plant list will have percent purity and percent germination of the seeds by species. Non-native species should meet the requirements of "Forest Service Specifications for Roads and Bridges, 1996." • Seeds shall be collected very close to the area being planted. According to the Region 1 native plant handbook, "The same plant species half a mile down slope has most likely adapted to a very different frost free period." 	<p>references to other agencies where not part of USFS jurisdiction; modified for compliance with USFWS Biological Opinion condition 1.B, clarified intent of visual mitigation for erosion control; clarified monitoring requirement; added spill reclamation requirements from FEIS measure E-2; added reference to visual mitigation measures; and revised riparian vegetation clearing restrictions for consistency with other mitigation measures)</p>

Mitigation Changed or Not Adopted

FEIS No.	Text of Mitigation Measures (Changes from FEIS to ROD indicated by shading – deletions in <u>strikeover</u> and additions in <u>underline</u>)	Adopt in ROD? (Rationale for "no" or change)
	<ul style="list-style-type: none"> • Mulch and fertilizer would be applied according the existing Forest Service requirements. • YPL shall revegetate with native woody species to maintain and restore bank stability in streamside areas (especially the RHCAs per Standard RA4 from INFISH, see Fisheries and Aquatic Resources Specialist Report). Revegetation shall include shrubs, and trees such as willows, alders, and cottonwoods such that some overstory tree cover is retained to provide shade, maintain streambank stability, desirable pool quality and quantity for aquatic organisms, and promote filtering of overland flows. • Disturbed areas shall be seeded with temporary nurse crops or cover crops if construction is completed during the summer months (June through August). • Existing vegetation shall be cleared only from areas scheduled for immediate construction work (within 10 days) and only for the width needed for active construction activities. • The Plan shall describe methods to ensure that the pipeline ROW is maintained smooth; that neither a mound remains after construction nor a trench develops over the pipeline. Mounding or trench development shall be corrected in response to annual inspection of the ROW. YPL shall monitor project-wide revegetation efforts for a two-year period after completion of construction to determine adequate and successful revegetation. Successful revegetation criteria should consider, at a minimum, the percent vegetation cover and/or density and plant species diversity. Final revegetation success should be evaluated two years after all human support (e.g., replanting, fertilization, irrigation) has ceased. At this time, a report shall be submitted to the Forest Service/DEQ summarizing revegetation success along the ROW, and the Forest Service/DEQ will determine whether continued monitoring is required. • <u>The Plan shall establish criteria for reclamation using rapid establishing vegetation, the use of mulches and erosion control mats on steeper slopes (>15 percent), and reclamation monitoring every year for five years following a spill and reclamation response.</u> • <u>The Plan shall require that for spill site reclamation, a scientist or engineer familiar with petroleum spill remediation techniques be consulted to help determine the potential impacts to soils and best reclamation efforts to be used.</u> • <u>The Plan shall address the visual "edge" softening screening described in Measures V-6 through V-11.</u> <p>The Plan shall include a section that specifically addresses YPL's proposal for ongoing vegetation clearance required for operational inspections. The Plan shall state that YPL may not clear vegetation in riparian areas for inspections during pipeline operation. Clearing of riparian vegetation for routine operations shall be limited as required by Mitigation Measures BVWT -5, BF -18, and V-7. Revegetation of riparian areas shall be implemented as defined above.</p>	
H-2	<p>In-Stream Construction Requirements. YPL shall follow plans and a schedule approved by the Forest Service or appropriate jurisdictional agency, submitted at least 30 days prior to the start of any construction activity in or affecting any stream channels. YPL's plans shall be prepared by a water quality specialist with credentials approved by the Forest Service (or other agency with jurisdiction) and with expertise in the field of river mechanics and sediment transport. YPL's Plans shall show, as applicable, stream plan view, stream cross section, location and burial depth of the pipeline, trench dimensions, location of access roads and spoil piles, stream crossing techniques, culvert sizes, diversion structures, sediment control structures, equipment to be used, staging areas and any other information relevant to the crossing as deemed appropriate by the reviewing agency. Plans showing typical rather than site-specific crossing techniques may be used for routine crossings of small drainageways at the discretion of the reviewing agency. The following specific requirements apply. <u>(see also BF -1)</u>:</p> <ul style="list-style-type: none"> • Construction in streams shall be done using "in the dry" techniques except as approved by the responsible agency. "In the dry" construction consists of diverting the streamflow into a controlled channel or culverts (flume pipes) to provide a construction zone free of surface flow. Exceptions may be granted at the discretion of the reviewing agency if it can be demonstrated that due to local conditions "in the dry" techniques are impractical. In such cases, directional drilling methods such as microtunneling and other methods to minimize stream impacts shall be considered. Flowing streams shall be bridged for equipment and vehicles. Culvert flumes and construction bridges shall have sufficient capacity to ensure a dry roadway and bridge surface for vehicles and equipment. • No material that does not have a specific purpose related to the pipeline construction within the stream shall be placed in the streambed. • Streambed construction shall be accomplished as quickly as possible. <u>On the day that it intends to commence such work</u>, YPL shall certify<u>verify</u> to the Forest Service or appropriate jurisdictional agency that all personnel, equipment and materials needed are immediately available prior to entering the stream. • The configuration (alignment, cross section and composition) of the river bed and banks shall not be 	<p>Yes (corrected references to other mitigation measures and clarified the requirement to verify capability to complete in-stream work before beginning such work)</p>

Mitigation Changed or Not Adopted

FEIS No.	Text of Mitigation Measures (Changes from FEIS to ROD indicated by shading – deletions in <u>strikeover</u> and additions in <u>underline</u>)	Adopt in ROD? (Rationale for “no” or change)
	<p>altered except as directed by the repair design engineer. The design engineer shall consider the effects of the repair work on stream morphology and adjacent property during the design process. Exceptions may be made with Forest Service or appropriate jurisdictional agency approval for emergency repairs, as specifically provided in the contingency plans prepared under <u>SS-7 SS-8</u>.</p> <ul style="list-style-type: none"> • Temporary, in-channel diversion structures or stream crossings shall be no more extensive than necessary to achieve the desired purpose. These structures shall be removed after construction is complete. <p>Streambed construction shall be accomplished as quickly as possible as approved by the responsible agency and only during the period of stream low flow (<u>July 15 to September 1</u><u>see mitigation measure BF-4 for timing</u>). <u>The period of construction may be subject to further constraint in other environmental issue areas. (H-4, HE-12).</u></p>	
H-3	<p>Streambank Repair During Pipeline Operation. YPL shall implement the following procedures for any future right-of-way repair proposals involving or affecting streambanks:</p> <ul style="list-style-type: none"> • Bank stabilization and repairs to the pipeline right-of-way shall be done only during periods of low flow, except when emergency repairs are required and the repair practices are specifically provided for in the contingency plans prepared under Measure <u>SS-7 SS-8</u>. • All repair and restoration plans shall be approved in advance (unless specifically provided for in the contingency plans prepared under Measure <u>SS-7 SS-8</u>) by the Forest Service or appropriate jurisdictional agency prior to construction. YPL’s plans shall be prepared by a registered civil engineer or other professional with credentials acceptable to the agency(ies) with jurisdiction. <p>All construction activities in or affecting stream channels will comply with H-2 (In-Stream Construction Requirements)</p>	Yes (corrected references to other mitigation measures)
H-4	<p>Burial Depth for New Crossings and Study Current Crossings. All new stream crossings (<u>Montana and Idaho</u>) shall be buried a depth of twice the 100-year depth of scour, with a minimum burial depth of four feet, as determined by a registered professional engineer. <u>This burial depth shall be extended horizontally across the width of the 100-year floodplain, or beyond the stream banks for a distance sufficient to avoid lateral erosion from a 100-year flood, as determined through site-specific analysis by a registered professional engineer.</u></p> <p>Existing stream crossings <u>on National Forest System lands</u> not included in reroute sections shall be studied by a registered professional civil engineer to determine: 1) current depth of burial (<u>see also measure SS-22</u>); 2) depth of scour for 100-year and various lesser return period floods; and, 3) expected risk of exposure due to scour or lateral erosion during the life of the pipeline, in terms of the probability of occurrence of floods capable of exposing the pipeline. <u>YPL shall submit this study to the Forest Service and the Fish and Wildlife Service by the first five-year review (Gen-3).</u> Based on the results of this study, a determination shall be made by the Forest Service as to whether the pipeline crossing should be reburied to a depth of twice the 100-year depth of scour (minimum burial depth four feet), or monitored in the future according to monitoring procedures to be set by the Forest Service in consultation with the civil engineer. The burial depth for reburied crossings or pipeline crossings on reroute sections shall be extended horizontally beyond each stream bank a distance determined by the civil engineer to be sufficient to avoid expected lateral erosion. In the absence of site-specific evaluations by the civil engineer, this distance shall be considered to be equal to the bank-to-bank width of the stream at the crossing. Bank-to-bank width means the outside limits of the defined, active channel, not the low-flow channel (Flows outside of the bank-to-bank width would be on the overbank floodplain).</p> <p><u>For the scheduled review (Gen-3), YPL shall submit cover depth of all crossings on National Forest Service lands. The Forest Service, in consultation with YPL, will establish criteria for taking action based on the results of the monitoring (DEIS BF-53).</u></p> <p><u>Pending results and actions from the above study, YPL shall monitor pipeline integrity and cover depth after flood or other high flow events at stream crossings on National Forest System lands. YPL shall submit plans to immediately correct improperly protected pipe R and record incidences of uncovered or thinly covered pipe near streams for future monitoring and maintenance (DEIS HGW-5).</u></p>	Yes (consolidated ed requirements from measure BF-17; modified for compliance with USFWS Biological Opinion condition 2.B, clarified for USFS jurisdiction, clarified study due-date and interim monitoring, corrected references to other mitigation measures)
H-5	<p>Study Lateral Erosion Potential. A detailed analysis shall be prepared by a registered civil engineer with expertise in river mechanics to evaluate the potential for lateral erosion damage to the pipeline <u>on National Forest System lands</u> along Prospect Creek, <u>between Mileposts 419 and 436, along Prichard Creek, from Milepost 444 to the confluence with the North Fork Coeur d’Alene River, and along the North Fork Coeur d’Alene River from the confluence with Prichard Creek to Milepost 474.</u> <u>This analysis will</u></p>	Yes (clarified to set due date, for compliance with USFWS Biological Opinion condition

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	<p><u>focus on pipeline segments adjacent to those streams, but not relocated with this decision, and not co-located with a highway right-of-way. YPL shall submit this study to the Forest Service and the Fish and Wildlife Service by the first five-year review (Gen-3).</u> The engineering evaluation shall include an evaluation of river morphology including existing pipeline protection and setbacks, review of historical erosion trends, determination of erosion potential of stream banks, probable extent of lateral erosion during the life of the pipeline, comparison of current/proposed top of pipeline elevation with the elevation of the thalweg in the adjacent channel section and adequacy of existing bank protection. The study shall identify reaches of the pipeline potentially subject to lateral erosion during the life of the pipeline, identify current levels of protection, and recommend such measures as reroutes, upgrading bank protection, new bank protection, or burial to depths below twice the 100-year depth of scour of the adjacent channel invert, to protect against lateral erosion.</p>	<p>2.B, to focus on lands under Forest Service jurisdiction, and eliminate segments collocated with highways which will be jointly protected against lateral erosion)</p>
H-6	<p>Review Strength of Valves. Valves and other above-ground portions of the pipeline within the floodplain <u>on National Forest System lands</u> shall be designed to withstand the maximum expected forces from 100-year scour, water, debris and ice without causing a pipeline rupture. All plans, with back-up engineering analysis and calculations, shall be reviewed and approved <u>prior to construction</u>, by the Forest Service or other agency with jurisdiction <u>and property owner prior to construction</u>.</p>	<p>Yes (limited to NFS lands)</p>
H-7	<p>Protect Prichard Valve. The block valve at Station 454 shall be moved to a point outside the 100-year flood level or elevated to a level not less than one foot above the 100-year flood level and protected from erosion by riprap or other appropriate means designed by a civil engineer registered in the state of Idaho.</p>	<p>No (not on NFS lands)</p>
H-8	<p>Prepare Emergency Response Plan. An emergency response plan shall be prepared <u>by YPL</u> and approved by the Forest Service and other agencies with jurisdiction for containment and <u>clean-up</u> of product spills that could possibly reach surface water either directly or through any conduit including overland and subsurface flow. <u>See Mitigation Measure SS-8.</u></p>	<p>Yes (clarified responsibility, added reference)</p>
H-9	<p>Study Two Prospect Creek Crossings. YPL shall perform a detailed engineering analysis of the two crossings at 421.4 and 421.5 to determine: a) adequacy of the burial depth and appropriate lateral extent of burial to avoid lateral erosion damage; b) potential for lateral erosion damage to the pipeline between the crossing and the proposed reroute; and, c) engineering need, design and possible adverse effects of the bank protection at MP 421.4. The bank protection at MP 420.8 shall be included in this study to determine expected adequacy to protect against a 100-year flood. This bank protection shall be reinforced if necessary to achieve 100-year protection.</p>	<p>No (not on NFS lands; however, YPL indicates that it intends to implement)</p>
H-10	<p>Study Road Protection near MP 424.5. YPL shall submit engineering data for the level of protection given to the road for Reroute R2 and R3. Of primary concern is the level of protection at approximately MP 424.5 where a stream meander has been cut off by the road. Protection should be upgraded to a 100-year design return period if it is not already at that level.</p>	<p>No (not on NFS lands)</p>
H-11	<p>Study Erosion at MP 424.9. The erosion at Milepost 424.9 shall be studied by a registered professional engineer with expertise in river mechanics for the purpose of determining an appropriate pipeline setback or the need for and design of bank protection at that location.</p>	<p>No (not on NFS lands; however, YPL indicates it will pursue this with the Prospect Cr. Watershed Council)</p>
H-13	<p>Monitor Prichard Creek. Monitor Prichard Creek and the pipeline in the area of MP 444.5 to 446.6. Monitoring reports, along with recommendations by a registered civil engineer with expertise in river mechanics, shall be delivered to the United States Army Corps of Engineers on an annual basis. Reroute this area if determined necessary according to the recommendations of the engineer.</p>	<p>No (not on NFS lands)</p>
H-14	<p>Stabilize the bank near MP 446.1 and 446.7. Stabilize the bank near MP 446.1 and 446.7 because Prichard Creek is encroaching on the ROW. There is already a substantial amount of stream disturbance in this area from mining. This work would commence within 3 years of permit renewal.</p>	<p>No (not on NFS lands; however, YPL indicates that it intends to implement)</p>
H-15	<p>Reburial at MP 453.3 to 453.6. Make a stream scour computation and rebury the pipeline as necessary in the vicinity of MP 453.3 to 453.6 as described in Mitigation Measure H-1. Pipeline reburial should include that portion of the pipeline currently protected by bank protection unless it can be shown by engineering analysis that the bank protection provides 100-year protection.</p>	<p>No (not on NFS lands)</p>
H-16	<p>Reroute MP 455.1 to 455.6. Relocate the pipeline to the north shoulder of FS Highway 9 between MP 455.1 and 455.6. The 0.5 mile of relocation work would begin within 2 years of permit renewal. Abandonment of this section would consist of cleaning and nitrogen purging of 0.5 mile of pipeline. YPL would cap the ends and leave this section of pipeline in place.</p>	<p>No (not on NFS lands; however, YPL indicates that it intends to implement)</p>
H-17	<p>Bank Protection at MP 465.8. Bank protection should be installed to provide 100-year protection from scour at Milepost 465.8</p>	<p>No (not on NFS lands; YPL completed work here in 1998)</p>

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H-18	Reroute from MP 468.0 to 468.5. YPL would relocate the pipeline from MP 468.0 to 468.5 into the west roadway (Old River Road). This 0.5-mile reroute would be completed immediately following permit renewal. Abandonment of this section would consist of cleaning and nitrogen purging of 0.5 mile of pipeline. The two crossings of the NF Coeur d’Alene River and any temporary repair material (i.e. rock cover and riprap installed in 1999) would be removed and the streambanks restored to a natural state. The segment of pipeline across the island (0.3 mile) would be capped, purged, and left in place.	No (not on NFS lands; YPL completed work here in 2000)
H-19	New Crossing at MP 468.9. YPL would install a new river crossing at MP 468.9. The abandoned pipe would be cleaned and purged before removal. Existing riprap and rock cover would be removed and the streambank would be completely recontoured after construction and replanted with locally harvested, mature species.	No (not on NFS lands; however, YPL indicates that it intends to implement)
H-20	New Crossing at MP 471. YPL would install a new river crossing at MP 471 at a future date if and when streambank repairs become necessary at this location. After installation of a new crossing, the abandoned pipeline would be cleaned and purged before removal. YPL proposes to leave the waterbars at MP 471 in place to protect the private land downstream of this location and to retard scour and erosion. The streambanks would be restored to a natural state by recontouring and planting with locally harvested, mature species.	No (not on NFS lands; however, YPL indicates that it intends to implement)
H-21	Reroute from MP 471.7 to 472.5. YPL would relocate the pipeline to be within FS Highway 9 from MP 471.7 to 472.5, just upstream of the existing Enaville valve (which will remain unchanged). This work would commence within 3 years from permit renewal. Abandonment of this section would consist of cleaning and nitrogen purging of 0.8 mile of pipeline. Three river crossings would be removed, and all riprap and rock cover at MP 471.7 would be removed. The banks at these locations would be recontoured and planted with locally harvested mature species as part of the restoration effort.	No (not on NFS lands; however, YPL indicates that it intends to implement)
H-22	Upgrade Protection at MP 473.8. Upgrade existing bank protection upstream of Milepost 473.8 to 100-year design return period if not already at that level (supporting calculations shall be provided by YPL).	No (not on NFS lands; however, YPL indicates that it intends to implement)
H-23	<p>Study Abandoned Pipe and Protection Structures. Within one year of permit renewal, YPL shall submit to the Forest Service <u>and the Fish and Wildlife Service</u> a detailed analysis of all abandoned YPL pipe or structures not specifically scheduled for removal in the Record of Decision for the “Changes Proposed to Existing Yellowstone Pipeline Between Thompson Falls and Kingston.” This study shall comprise all such pipe or structures protecting abandoned YPL right-of-way on National Forest System lands between Thompson Falls and Kingston. The study shall be prepared by professionals with expertise acceptable to the Forest Service and shall cover all issues that the Forest Service deems necessary to determine whether or not any remaining abandoned pipe or structures should be left in place. The study shall specifically identify any segments of abandoned pipe or abandoned protection structures for which an interdisciplinary evaluation indicates that abandonment-in-place would result in less long-term stream-related resource impacts than would removal of the abandoned features. Any recommendations for abandonment-in-place shall be supported by site-specific analysis of the long-term impact trade-offs for stream-related resources.</p> <p>The Forest Service will rely on this study to make a final determination as to which, if any, abandoned pipe segments or structures would be allowed to remain in place after abandonment of the permit area by YPL. All removal of all abandoned features that the Forest Service does not specifically agree should be abandoned in place shall be completed within three years of permit renewal.</p>	Yes (modified for compliance with USFWS Biological Opinion condition 2.B)
Groundwater Hydrology		
HGW-1	<p>Develop pollution prevention plans for construction. YPL shall submit the following plans 60 days in advance of construction to the Forest Service or other agency with jurisdiction for review and approval. YPL shall prepare a <i>Hazardous Materials Management Plan</i> (HMMP) that shall govern project construction activities. The HMMP shall include the following provisions:</p> <ul style="list-style-type: none"> • <u>Refueling and equipment washdown shall not be conducted within INFISH Riparian Habitat Conservation Areas (RHCAs), unless specific sites are authorized in the approved HMMP, or the Forest Service fisheries/riparian monitor (Gen-1) approves a site in the field.</u> • Staging and refueling areas shall be located a sufficient distance (recommend 300 feet) away from stream channels, wetlands or ponds to reasonably prevent spills or accidental discharge of product from entering the stream or water body unless no reasonable alternative is available. • Description of procedures to be used if refueling is to occur less than 300 feet away from stream channels, wetlands, or ponds. • Staging and refueling areas shall be protected during construction using best management practices 	Yes (modified for compliance with USFWS Biological Opinion conditions 1.1 and 1.J)

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	<p>(e.g., dikes, catchments) to prevent spills from leaving the site.</p> <ul style="list-style-type: none"> • Conduct refueling and equipment maintenance activities in well-marked facilities outside of high traffic portions of the ROW. • Locations and configurations of staging and refueling areas shall be reviewed and approved prior to construction by the Forest Service or other agency with jurisdiction. • All vehicles and equipment used in the pipeline construction shall be clean, in good repair and without leaks of oil, gasoline or other material which could contaminate surface water according to requirements established by the Forest Service. Daily equipment inspections are required. • Address the requirements outlined in the Clean Water Act (40CFR Part 112) for aboveground fuel storage containers (<i>Spill Prevention, Control and Countermeasure Plan</i>). • The plan shall include measures for storage and disposal of hazardous materials and other chemicals which could cause harm to humans, non-target wildlife, or fisheries. The Plan shall specify the following information and requirements: <ul style="list-style-type: none"> ▪ Submit a list of type, rate of use, storage volume and storage management practices of hazardous materials expected to be used during construction to the Forest Service or other agency with jurisdiction. ▪ Store chemical construction materials in secondary containment outside of high traffic portions of the construction ROW. ▪ Store chemical construction materials such as fuel, lubricants, cleaning solvents, blasting materials and soil amendments in secondary containment (such as a covered bermed pad of impermeable material) such that an accidental release is immediately contained and does not affect the environment. ▪ Provide a designated well-marked area for high-risk activities to reduce the potential for accidental release of harmful materials reaching an open pipeline trench. ▪ Store harmful construction materials in clearly marked locations outside of high traffic portions of the ROW. ▪ Store fuels, oils, and other potentially toxic fluids outside of the streamside areas (especially the RHCA per Standard RA-4 from INFISH, see Fisheries and Aquatic Resources Specialist Report). ▪ Dispose of all waste fuels, lubricating fluids, insecticides, herbicides, and other chemicals in a manner which will not result in adverse environmental impact and in accordance with manufacturer and government requirements. <p>Water used for hydrostatic testing needs to discharge to an approved wastewater facility so as not to affect groundwater or surface water resources.</p>	
<p>HGW-2</p>	<p>Groundwater Remediation Plan: To facilitate effective emergency response to reduce or prevent groundwater contamination before drinking water is impaired, YPL shall develop an emergency response plan that specifically addresses groundwater remediation. The Remediation Plan (Plan) shall be provided to the Forest Service or other agency with jurisdiction for review and approval 60 days before pipeline construction begins and construction may not commence until the Plan is determined by the Forest Service agency with jurisdiction to be adequate. The Plan shall contain the following information: a description of all wells potentially affected by an accident throughout the length of the pipeline (including map location, owner contact information, depth of well) and identification of alternative sources of drinking water for all well users that would be potentially affected by a pipeline accident. The Plan shall also include guidelines for the investigation and remediation of groundwater impacts in event of an accident resulting in a release. The guidelines shall include the following elements: an overview of hydrogeologic conditions throughout the length of the pipeline ROW, estimated local aquifer boundaries, groundwater flow directions, locations of stream crossings and probable direction of flow at crossings. The Plan shall contain guidelines that provide an analysis of the chemical components of petroleum products and an analysis of the toxicity of petroleum products to drinking water and human health. The Plan shall also outline applicable remediation approaches and identify alternative drinking water supplies for local residents potentially affected by a release throughout the length of the pipeline.</p>	<p>No (no wells on NFS lands; no need to compile such system-wide data in advance of spills, these issues can be addressed in case-specific post-spill remediation plans)</p>
<p>HGW-3</p>	<p>Monitor existing wells. Monitor wells potentially impacted by large withdrawals (wells located in the vicinity of the YPL construction supply well) for decreases in water level. Obtain an alternative water supply for construction activities if withdrawals impact existing wells by a change in the water level that exceeds normal fluctuations for the affected well. YPL shall query existing databases through the Ground Water Information Center (GWIC) at the Montana Bureau of Mines and Geology (MBMG) would allow for an assessment of the location of potential wells that may be impacted by the pipeline construction activities or accidental releases from the pipeline. YPL shall conform to any water rights prior to groundwater withdrawal.</p>	<p>No (no NFS lands/wells affected)</p>

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Air Quality		
AM-1	<p>Apply Water to Travel Routes. <u>Apply YPL's Construction Plan shall require application of</u> water sprays to native surfaced or graveled traveled ways <u>a minimum of two times per day except when weather conditions warrant a reduction in water application. Increase dust control watering when wind speeds exceed 15 mph. The amount of additional watering would depend on soil moisture content at the time. Cease excavation and grading work when sustained wind speeds exceed 30 mph. YPL shall document in a written log the date and time of each watering and the location(s) watered by milepost, and the log shall be maintained at the construction site.</u> <u>to control dust, as determined necessary by the Forest Service Environmental Monitor (Gen-1).</u></p>	<p>Yes (relaxed requirements commensurate with reduced scope and location of final actions)</p>
AM-2	<p>Cover Soil Loads. <u>YPL's Construction Plan shall require</u> trucked soil loads <u>shall to</u> be covered using a tarp or other suitable means during transit <u>to control dust, as determined necessary by the Forest Service Environmental Monitor (Gen-1).</u></p>	<p>Yes (clarified responsibilities)</p>
AM-3	<p>Install a Gravel Pad. <u>For construction in station facilities and for staging areas, install a gravel pad at least 50 feet onto the site from the main road.</u></p>	<p>No (measures AM-1 and AM-2 provide adequate dust control, given the reduced scope and location of final actions)</p>
AM-4	<p>Reduce Speed on Unpaved Roads. <u>Reduce traffic speed on all unpaved roads, adjacent to residential units (more than three units per linear mile, or areas identified as containing contaminated soils), to 30 mph or less. YPL shall ensure that all project personnel (including contractors, subcontractors, and service company representatives) sign a statement acknowledging their awareness of the unpaved road speed limit restriction.</u></p>	<p>No (measures AM-1 and AM-2 provide adequate dust control, given the reduced scope and location of final actions)</p>
Noise		
N-1	<p>Limit Construction Times. <u>YPL shall conduct all construction activities involving motorized equipment between the hours of 7 a.m. and 7 p.m. Monday through Saturday, or as stipulated in an applicable noise ordinance if construction is located within 1,000 feet of residential or nonresidential sensitive receptors. YPL shall incorporate these restrictions in all construction plans and scheduling prior to construction.</u></p>	<p>No (not necessary with reduced scope and lack of sensitive receptors)</p>
N-2	<p>Give Notice to Sensitive Receptors. <u>YPL or its construction contractor shall provide at least 72-hour advance notice of the start of construction to all residential and non-residential sensitive receptors within 100 feet of the construction ROW centerline. Notification shall be by mail with follow up by telephone or in person. The announcement shall state specifically where and when construction will occur in the area. If construction delays of more than seven days occur, an additional notice shall be made, either in person or by mail. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. The noticing shall also advise the recipient on how to inform YPL/contractor if specific outdoor events are scheduled so that construction can be rescheduled, if necessary, to avoid a conflict, and a reasonable deadline for such contact shall be stated.</u></p>	<p>No (not necessary with reduced scope and lack of sensitive receptors; any such residents will be aware of project due to YPL right-of-way acquisition on affected private lands)</p>
System Safety		
SS-1	<p>Traffic Control Plans and Devices. <u>YPL shall require the construction contractor(s) to install and maintain traffic control devices in accordance with the Work Area Traffic Control Handbook, for all work which impacts existing roadways. (Copies of this publication are available from BNI Books, Division of Building News, Inc., Los Angeles, California.) YPL shall also prepare and submit typical traffic plans to the Forest Service (or any other agency with permit jurisdiction) for all work which will not impact the roadway, but which is within 100 of a roadway which is visible to the public. YPL shall also prepare and submit site-specific traffic plans for work within State or Federal highways and all paved roadways within incorporated areas (cities). Temporary speed limit restrictions should be considered within the construction zone. Further, YPL shall maintain the work site(s), including traffic control, in a safe condition continuously, not only during normal work hours.</u></p>	<p>No (measures T-1 and T-2 provide adequate traffic control, given the reduced scope and location of final actions)</p>
SS-2	<p>Structural Integrity of the excavated ditches: During all periods when work is not being performed at a particular site, YPL shall cause the construction contractors' open ditch to be protected as follows <u>or by other method approved by the agency with jurisdiction over the road, as documented in the Construction Plan (Gen-4):</u></p> <ul style="list-style-type: none"> • Within Existing Paved and Unpaved Roads, Streets, Highways and Road Shoulders: The open ditch in these areas shall be plated in accordance with the Work Area Traffic Control Handbook. • Pipe Ditch Parallel To and Within 20 Feet of Existing Paved or Unpaved Road, Street, or Highway: The open ditch shall be protected by placing K-rail between the ditch and the roadway or by plating in accordance with the Work Area Traffic Control Handbook. • Other Areas. At a minimum, the open ditch shall be marked by placing Type II barricades (A-frame type 	<p>Yes (added some discretion for agencies to approve alternative methods)</p>

**APPENDIX B
Mitigation Changed or Not Adopted**

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	<p>barricades) every thirty feet. Brightly colored caution flagging shall be installed between the barricades to mark the ditch.</p> <p>YPL shall also cause the construction contractor to minimize the length of open ditch (ditch which has been excavated, but has not yet been completely backfilled), at any one time. At no time during construction shall there be a total of more than two miles of open ditch. (This total may comprise several short sections of ditch, which do not total more than two miles in length.)</p>	
SS-3	<p>Prevention of impacts on underground facilities. YPL shall monitor the construction contractor's compliance with existing state law. This shall include the advance marking of all proposed excavations, the dates of all UULC calls, and the on-site meeting held with facility owners. <u>YPL shall follow location and construction procedures in compliance with the state one-call system and in consultation with the operators of potentially affected underground facilities.</u> YPL shall also require the construction contractor(s) to clear the right-of-way using a handheld line locator prior to excavation.</p> <p>Prior to digging over, or within five feet of, a known substructure, YPL shall require the construction contractor(s) to probe the area to positively locate the facility and measure the depth of the substructure; YPL shall also require the use of hand digging within two feet (horizontal and vertical) of any existing substructure, and within five feet of any pedestal, closure, riser guard, pole, meter or other structure. When paralleling an existing underground facility, the facility shall be exposed every 50 feet to positively verify the location and depth of the line.</p> <p>When boring or directionally drilling, the boring equipment shall be placed such that it is boring away from the majority of the facilities. When facilities must be crossed, they shall be exposed to verify their location and depth. The results may require that the bore route or depth be changed to avoid potential damage to the existing facility.</p> <p>Should changes in the alignment be required, YPL shall ensure that the entire one-call notification process is repeated. This will help ensure that any reroute is thoroughly investigated.</p> <p>If during the course of the work, unmarked pipelines are encountered, YPL shall take appropriate measures to identify the owner of the facility. This shall include, but is not limited to the following substructure research: research of City, County, and State records; and communication with other utility owners in the area. If the owner of the facility cannot be determined, the proposed pipeline shall be lowered to avoid any conflict. If it is impossible to avoid an existing substructure of unknown ownership or use, the pipe contents shall be positively identified before any cutting of the substructure is allowed; this shall be done by tapping or other means. The substructure may not be cut or removed until a safe procedure for doing so has been developed; this procedure will vary, depending on the pipe contents and site conditions. Once the facility has been removed, the remaining ends shall be capped using the same construction techniques as the substructure's original construction to prevent leaking. Cathodic protection tests shall also be conducted. If the facility is cathodically protected, a bonding cable shall be installed to maintain the integrity of the facility's cathodic protection system.</p>	<p>Yes (simplified and clarified responsibilities, commensurate with final project scope, location, and adjacent utilities; state one-call procedures are well established and adequate)</p>
SS-4	<p>Reduction Of Fire Impacts Associated with Construction. To minimize the risk of fire being caused by construction activities, YPL shall <u>comply with state forest fire regulations during fire season, and shall comply with any additional fire prevention requirements that may be imposed by the Forest Service as fire danger conditions warrant.:</u></p> <ol style="list-style-type: none"> 1. Maintain all areas clear of vegetation and other flammable materials for at least a 30 foot radius of any welding or grinding operations, or the use of an open flame (dry vegetation shall be removed from at least a 50 foot radius of any welding or grinding operations) 2. Nearby vegetation shall be sprayed with water, using a water truck or other suitable equipment, prior to any welding or grinding operations or the use of an open flame 3. All equipment, gasoline powered hand tools, and vehicles shall be equipped with Forest Service approved spark arresters 4. All vehicles entering the right-of-way, welding trucks or rigs shall be equipped with minimal fire suppression equipment (e.g., ax, bucket, 5-pound fire extinguisher, shovels) 5. Vehicles shall be equipped with catalytic converters and shall be parked only in cleared areas. 6. At least one half full water truck or water tanker shall be maintained at each rural work site during all periods of work and for one hour after all work has ceased for the day 7. YPL shall require the contractor to use dedicated fire watch during all hot work within existing operational stations (e.g., Missoula, Plains Tie-in, Thompson Falls). 	<p>Yes (simplified and clarified to allow adaptation to actual state and Forest Service fire prevention requirements, which are published separately and vary according to fire danger conditions)</p>

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SS-6	<p>Prevention of Collision Accidents. When working in or near existing roadways, YPL shall ensure that the construction contractor maintains all equipment within work areas designated by the traffic control devices. YPL shall also ensure that the construction contractor properly loads equipment onto appropriate trucks and trailers for transport to other work sites; the contractor(s) shall not be allowed to use active roadways to relocate construction equipment which are not licensed for use on public roads. (Backhoes, dozers, and other non-licensed equipment shall not be allowed to use active roadways to re-position themselves to support construction.) YPL shall also ensure that the traffic control requirements of Mitigation Measure SS-1 are implemented.</p>	<p>No (measures T-1 and T-2 provide adequate traffic control, given the reduced scope and location of final actions)</p>
SS-8	<p>Revisions and Additions to the Emergency Response Plans. YPL shall <u>revise review its <i>Operation Procedure Manual for the Yellowstone Pipe Line System and revise as appropriate</i></u> to include procedures for minimizing spill volumes at specific locations. These should include identification of areas along the pipeline where continued pumping, pump shut-downs, and valve closures are appropriate to reduce the volume of liquid released. These procedures are beyond the minimum requirements of 49 CFR 195, which is enforced by the USDOT.</p> <p>YPL shall revise its Emergency Response Plans <u>(for each response area under permit)</u> to include procedures for responding to non-spill related emergencies. These shall include, but are not limited to, fires, explosions, bomb threats (sabotage), and natural disasters.</p> <p>An Emergency Response Plan with site specific emergency response techniques, similar to the <u><i>Yellowstone Pipe Line Company, Emergency Response Plan, Area 3, Missoula, Montana to Clark Fork, Idaho</i></u>, shall be prepared which covers any existing or new pipeline <u>construction between Thompson Falls, Montana and Kingston, Idaho under permit with the additional requirements in measures E-1, H-3, H-8, SS-15, SS-19, BF-12, BVT-3, BW-4, C-6, and T-8.</u> YPL shall deliver the revised ERP(s) <u>for all permitted areas to the Forest Service and the Fish and Wildlife Service for review and approval by December 31, 2001.</u></p> <p>YPL's Operations and Maintenance manuals <u>(<i>Operation Procedure Manual for the Yellowstone Pipe Line System and Maintenance Procedure Guide</i>)</u> and Emergency Response Plans should be revised to incorporate the monitoring plan and the mitigation measures developed jointly with the Forest Service. YPL shall regularly (at minimum every five years) revise their Emergency Response Plans and Operations and Maintenance <u>Procedures manuals</u> to ensure continual YPL pipeline system safety improvement. The revisions shall incorporate the data collected in support of Mitigation Measure SS-19. These revisions shall be submitted to OPS and the Forest Service <u>with the leak report for consideration in the scheduled permit reviews (Gen-3).</u></p>	<p>Yes (clarified review intent and references to YPL's existing manuals and plans; added references to related measures; modified for compliance with USFWS Biological Opinion condition 2.C, and clarified reporting requirement)</p>
SS-9	<p>Pipeline Inspection by Instrumented Pigs and through Hydrostatic Tests. YPL shall conduct an internal pipeline inspection, using a modern instrumented internal inspection device (smart pig) <u>within three years of the renewal of the existing permit. Thereafter YPL shall conduct smart pigging every five years.</u> Both metal loss pigs and <u>a</u>-deformation pigs (to detect dents and gouges) shall be used. New crack detection pigs are being developed and tested. If these pigs are commercially available, they shall be included in the pigging program. Following the pig run, a preliminary report of all significant and immediately threatening anomalies (particularly large dents and gouges) shall be reported to the Forest Service and other responsible agencies within 30 days after the inspection. The full Report on the pigging results shall be submitted to the Forest Service <u>and other responsible agencies for consideration in the scheduled permit reviews (Gen-3).</u> If the results of the pigging test identified metal losses due to external corrosion, then a close interval survey as suggested in SS-10 below shall be conducted at the identified locations.</p> <p>At a 10-year interval, all pipe segments containing pre-1970 pipe shall be hydrostatically tested to 90% SMYS. A report, documenting the results of these tests, shall be submitted to <u>OPS and</u> the Forest Service within <u>30 90</u> days after the hydrostatic test has been conducted, <u>for consideration in the next scheduled permit reviews (Gen-3).</u> The report shall include: a complete record of the hydrostatic test, a description of any leaks observed, leak records for any sites found to have been leaking in service, planned remediation, and a description of any completed or planned pipe repair and replacement work. <u>YPL shall notify the Forest Service within 72 hours of any pipe failure detected during a hydrostatic test.</u></p> <p>The testing interval and methods may be revised, based on the agency's review and approval of third party analyses and recommendations that may be presented by YPL <u>in the scheduled permit reviews (Gen-3).</u> YPL may <u>propose, upon agency approval, use</u> other testing methods to be used in lieu of hydrostatic testing (e.g., internal inspection tools), provided they provide equivalent results. <u>pending agency approval.</u></p>	<p>Yes (deleted requirement for inspection within 3 years because last inspection was done in 2000; clarified relationship of test reports to the scheduled permit reviews; limited reporting requirement based on Forest Service jurisdiction; modified reporting requirements for hydrostatic tests and failures detected during such tests)</p>

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SS-10	<p>Close Interval Survey for Cathodic Protection. YPL shall conduct a close interval survey at MP 423.9, 424.6, 427.9, 435.9, 453.4, and 454.8. The survey shall be conducted for a length of at least 1,000 feet on each side of the pipe anomaly, which was discovered during the internal inspection. The survey shall be conducted in accordance with NACE standards, using both on and off rectifier readings. If inadequate cathodic protection levels or cathodic protection interference is identified, these situations shall be corrected. If nothing is identified by the close interval survey, the sites should be excavated for inspection, repair, or replacement. YPL shall submit a report, documenting the results of the close interval inspections and any intended action to OPS and the Forest Service, within six months after receiving a permit. As an alternative to the close interval survey, these pipeline locations could be excavated, the defects could be located, and the defects could be examined to positively determine the cause, extent, and nature of the defects.</p>	<p>No (the identified sites on NFS lands (MP423.9, 424.6, 427.9, and 435.9) will be addressed by Re-routes R2, R3, R4 and R8. The remaining two sites are not on NFS lands and therefore not within USFS permit jurisdiction.)</p>
SS-12	<p>Public Education Program. YPL shall prepare a public education plan in accordance with 49 CFR 195. This plan shall be submitted to the Forest Service (or any other agency with permit jurisdiction) for review and approval before pipeline start up. This plan shall outline the proposed frequency and methods for educating the public, government organizations, and contractors regarding the pipeline, its location, reporting of incidents, and emergency response actions. This plan shall specifically address any existing or planned project within the pipeline corridor, including, but not limited to those projects listed in EIS section B.5, as applicable to the constructed option. Samples of written materials, press releases, public meeting agendas, and other effective communication tools shall be included in the plan. (This measure, except as it relates to planned projects within the pipeline corridor and specific Forest Service and other agency needs, is included in 49 CFR 195, under USDOT jurisdiction.)</p>	<p>No (lack of Forest Service jurisdiction; YPL states that it complies with USDOT rule 49 CFR 195.440 to meet this requirement)</p>
SS-14	<p>Independent Review of the New Pipeline Design. The Forest Service (and/or any other agency with permit jurisdiction) shall conduct or cause to be conducted an independent third party design review of YPL proposed construction drawings and specifications. The Forest Service (and/or any other agency with permit jurisdiction) shall include a third party observation of construction as part of the mitigation monitoring program. YPL shall ensure that a peer review of pipeline design, construction drawings, and specifications is completed. This peer review must be conducted by a registered engineer with no prior involvement in this project. That engineer shall submit stamped documentation to the Forest Service certifying such review and attesting that the following intentions are achieved. The intent of these reviews and observations is to help ensure adherence to high technical standards, in lieu of meeting only minimum regulatory requirements. Further, this effort will help ensure that YPL proposed design enhancements are actually constructed, project specific needs are met, and the adopted mitigation measures are incorporated into the design and pipeline construction. In addition, compliance with the applicable codes, standards, regulations, industry practices, and so forth will be verified.</p> <p>The design review and construction observation services are not in any way intended to relieve YPL of its responsibility and liability for the design, construction, operation, maintenance or emergency response of these facilities. YPL shall, to the fullest extent permitted by law, indemnify and hold the Forest Service (and/or any other agency with permit jurisdiction) and the Agencies' subcontractors harmless from any loss, claim or cost, including reasonable attorneys' fees and costs of defense, arising or resulting from his or any other work associated with this project, except for claims arising from the sole negligence or willful misconduct of the Forest Service (and/or any other agency with permit jurisdiction) and the Agencies' subcontractors.</p>	<p>Yes (relaxed the 3rd-party requirement to accept in-house peer review, commensurate with reduced scope of the final project)</p>
SS-16	<p>Fire Prevention Education. In the Public Education Plan prepared by YPL (see SS-12), YPL shall include discussion and provide guidelines on how to: report a spill, avoid any activities that could cause fire after a spill, and evacuate residences and public locations.</p>	<p>No (lack of Forest Service jurisdiction; YPL states that it complies with USDOT rule 49 CFR 195.440 to meet this requirement)</p>
SS-17	<p>Quarterly Shut-in Leak Detection. YPL shall perform shut-in leak detection tests quarterly, instead of annually. This "stand-up" test shall be held for a period sufficient to detect a 5 BPH leak, but in no case for less than 8 hours. This will reduce the potential spill volumes of very slow leaks from an approximate maximum range of 8000-4000 barrels to an approximate maximum of 2200. Quarterly test results shall be submitted to the Forest Service and any other responsible agencies. OPS has suggested that a family of curves to be developed by YPL for these shut-in tests to identify the normal relationship between the change in pressure due to changes of temperature. After eight such tests over a two-year period, YPL shall review the results in consultation with the Office of Pipeline Safety and the Forest Service, at which time the Forest Service may adjust the frequency of these tests.</p>	<p>Yes (added a provision to review the test frequencies based on cumulative results)</p>
SS-18	<p>Demonstrating the Leak Detection Capability, and Periodic Updating of Leak Detection Technology. YPL shall demonstrate (within one year after the renewal of the existing permit) to the satisfaction of the Forest Service and any other responsible agencies that the leak detection system can detect leaks within the detection limits stated in this Specialist Report Final EIS section C.7. This shall be performed by routing pipe</p>	<p>Yes (clarified relationship of test reports to the scheduled</p>

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	<p>contents from the pipeline, during normal operation, and analyzing the system performance at various simulated leak flow rates.</p> <p>YPL shall also demonstrate (Within the same period stated above), to the satisfaction of the Forest Service and any other responsible agencies, that its leak detection methods will perform at least as well as state-of-the-art or best available leak detection technologies. This shall be done by submitting a report, which analyzes the predicted performance of various state-of-the-art and best available leak detection technologies (including pressure point analysis) on YPL’s system. The anticipated performance of these systems shall then be compared to YPL’s system. This report shall be prepared by someone with no conflict of interest as a result of any current or past interest in YPL’s present leak detection or SCADA system. This report shall be submitted to the Forest Service and other responsible agencies. This report shall analyze the YPL pipeline between Missoula and Kingston. If the anticipated leak detection limits are better for one of the evaluated technologies than those anticipated or demonstrated for the YPL system, the other leak detection technology (hardware and software) shall be added to YPL’s SCADA system.</p> <p>Since pipeline controllers and operators have a crucial role in the process of leak detection, YPL shall demonstrate (by sending a formal letter to the Forest Service and other responsible agencies) that their pipeline controllers are trained and qualified to operate pipeline (as specified by the OPS operator training regulations in effect since April 2000).</p> <p>Every five years, YPL shall conduct a <u>study on review of the</u> feasibility and commercial availability of leak detection technologies (such as <u>potential sniffing hydrocarbon detectors at residential areas – hand-held or buried cable sensors</u>). The findings of this <u>study and recommended actions review</u> shall be reported to <u>NE, DEQ, the Forest Service</u> and US DOT <u>for consideration in the scheduled permit reviews (Gen-3)</u>.</p>	<p>permit reviews; limited reporting requirement based on agency jurisdiction over final project)</p>
SS-19	<p>Reporting of Leaks and Clean Up Activities. Every five years, YPL shall submit a report summarizing all of its (system-wide) leak incidents, injuries, and fatalities to the Forest Service <u>and any other agency with permit jurisdiction for consideration in the scheduled permit reviews (Gen-3)</u>. (System-wide information is required, since data from pipeline sections outside of Forest Service or other agency jurisdiction could help identify trends which could be useful in reducing the risk of leaks from the line within their jurisdiction.) This comprehensive leak report shall <u>be organized into separate sections for the pipeline and stations focus on pipeline incidents of relevance to the operations conducted on NFS lands</u>. In addition to the USDOT required data collection, YPL should also document the following information for each leak.</p> <ul style="list-style-type: none"> - Date, time and description of how the leak was initially identified - A description of the leak detection system performance - A discussion of the basis and methodology for determining/estimating the spilled volume - The type of product(s) spilled - Narrative of the emergency response, clean-up, and spill volume initially recovered - <u>A description of short- and long-term effects of the spill on terrestrial and aquatic resources, including but not limited to threatened, endangered, or sensitive species, aquatic macroinvertebrates, and riparian vegetation</u> - Discussion of the site remediation procedures, methodology, performance, effectiveness, and results - A compilation and an analysis of the data - A description of the actions taken to prevent recurrence - A discussion of any trends in incident rates and the causes of incidents - Recommendations for continual improvement. <p>All leaks, regardless of spill volume or severity, shall be included in this report; the report shall include leaks even if they are below the USDOT or other reporting criteria. This report shall also include a summary and analysis of YPL’s <u>employee safety</u> statistics/records <u>regarding pipeline operations-related worker safety and public impacts (30 U.S.C. 185, section 28(g))</u>, with a comparison to industry data. Upon review of this report, the Forest Service (and any other agency with permit jurisdiction) will inform YPL of any concerns it may have and schedule a meeting to discuss these concerns and the YPL report. Using these data and the Forest Service’s input (and any other agencies with permit jurisdiction), YPL will revise its Operations and Maintenance Procedures, Emergency Response Plans, and other appropriate documents to ensure continual YPL pipeline system safety improvement.</p>	<p>Yes (clarified relationship of test reports to the scheduled permit reviews; limited reporting requirement based on agency jurisdiction over final project, and modified for compliance with USFWS Biological Opinion condition 2.D)</p>
SS-19a	<p>Ground Inspection of ROW. <u>YPL shall establish and conduct a monthly ground inspection of the entire ROW by personnel carrying hand held hydrocarbon detectors. This program shall be added to YPL operation Manual. It is recognized that for some</u></p>	<p>Yes (Clarified to limit the requirement the permitted area; changed the frequency to coincide with sea-</p>

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	<p>segments of the pipeline this inspection cannot be conducted during inclement weather conditions. <u>YPL shall, at least two times each calendar year, inspect the surface conditions on or adjacent to the permitted right-of-way by ground-based visual methods such as walking or driving. Motor vehicle operation for ground-based inspections will only be allowed on existing open or permitted roads, or as specifically authorized by the Forest Service – the ROW shall not be considered a road unless so designated by the Forest Service (see further measure BF-9). These inspections shall be timed to allow observation for annual weather-related conditions (e.g., after spring snowmelt and runoff), and for human-related conditions (e.g., after the summer recreation and construction season). YPL shall note any conditions arising from natural events, pipeline operations, or third-party activities that might affect pipeline safety, public safety, National Forest resources, or compliance with permit terms. When such conditions are found, YPL shall take corrective actions and notify the Forest Service and the Fish and Wildlife Service according to the terms of the permit.</u></p> <p><u>When portable hydrocarbon detectors become practicable for use in leak detection on cross-county petroleum product lines, YPL shall use such devices during the semi-annual ground-based inspections required by this measure.</u></p>	<p>sonal events and to clarify the primary purpose of ground-based inspections (surface conditions, not leak detection); added restriction on motorized vehicle use consistent with BF-9 and USFWS Biological Opinion condition 2.E. In comments on the EIS, the EPA suggested that hydrocarbon detectors should be carried during ground inspections as an auxiliary leak detection method, but our review indicates that such technology is not yet practicable for cross-country petroleum pipelines. The practicability of this technology will be reviewed at least every 5 years, per measure SS-18.)</p>
SS-20	<p>Development of Typical Plans to Expedite the Approval of Emergency Actions. <u>YPL shall develop typical plans for stream bank restoration and pipe protection within stream channels. These typical designs shall then be submitted to the Forest Service and U.S. Army Corps of Engineers for conceptual approval. These conceptually approved designs should then be modified as necessary to meet site-specific project needs. This "pre-approval" of design concepts and basic mitigation measures should help streamline the permitting process of future work and minimize any impacts of future emergency work.</u></p>	<p>No (should not be necessary for NFS lands with the reroutes, and implementation of measures H-1 through H-5 and H-23 adequately address this concern)</p>
SS-21	<p>Geologic Hazard Investigation. YPL shall conduct a geologic hazard investigation of the pipeline section between MP 416 and MP 476. This investigation shall be conducted by an independent third party. A report shall be submitted to OPS and the Forest Service for review. This report shall identify any hazards that could affect pipeline safety. If significant areas of slope movement are noted in this study, a smart pig utilizing an internal navigation system (INS) shall be utilized to detect any potential excessive pipeline slope or curvature. Further, if highly unstable areas are identified, provisions for ground monitoring through enhanced ROW patrol, monitoring of ground movement, or direct measuring of the strain on the affected pipeline segment shall be established and reported to the Forest service and OPS. In relation to pipe within streams, the actual pipe cover shall be compared to anticipated stream scour through the pipeline life. Stream bank migration and the location and depth of the pipeline within these banks shall also be considered. YPL shall propose a method to resolve each of the hazards. YPL shall work with OPS and the Forest Service to resolve any differences in opinion that may arise regarding the necessary corrective action. Unless prevented by permitting activities, all hazards shall be resolved within twelve months of the completion of the report.</p>	<p>Yes (deleted requirements covered by measures H-4 and H-5)</p>
SS-22	<p>Measure Cover Depth. YPL shall demonstrate to the Forest Service, OPS, USACE, and the applicable State agencies <u>within one year of permit renewal</u>, that the measurement of pipeline cover within stream channels and flood plains is accurate and repeatable. If the method is not accurate, YPL shall develop an alternate method that is accurate and repeatable.</p>	<p>Yes (clarified for jurisdiction, and added deadline)</p>
SS-24	<p>Pipeline and Stream Monitoring Plan. YPL shall prepare, for OPS and Forest Service approval, a Pipeline and Stream Monitoring Plan and incorporate this plan in its Operation and Maintenance Manuals. <u>This plan is only required for those portions of the permitted right-of-way that are at risk to exposure by flood waters due to lateral stream channel changes or where pipeline cover depth is inadequate, as identified in the evaluations required by Measures H-4 and H-5. YPL shall submit this plan within 1 year of permit renewal.</u> This plan should include, as a minimum, the following:</p> <ol style="list-style-type: none"> 1. A methodology and frequency for monitoring the flows within the Clark Fork River-Prichard Creek, Prospect Creek, and Coeur d'Alene River, 2. A description of the baseline monitoring procedures to be performed routinely by YPL personnel, 3. Stream-specific criteria to be used to increase pipeline monitoring (these criteria shall include the pipeline engineering analyses required in Mitigation Measure SS-10-1426), 4. Description of the increased monitoring program 5. A procedure for draining the pipeline contents from Thompson Pass back to Thompson Falls station and/or displacing the line with nitrogen 	<p>Yes (clarified for jurisdiction and to and intent; to add a deadline; and corrected reference to other mitigation measure)</p>

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	<p>6. A procedure for draining the pipeline contents from Thompson Pass toward Spokane station and/or displacing the line with nitrogen</p> <p>7. Stream-specific criteria to be used to shut-down the pipeline</p> <p>8. Stream-specific criteria to be used to drain down the pipeline to Thompson Falls and Spokane stations and/or displace the line with nitrogen.</p> <p>These criteria should consider the entire pipeline located near existing streams along the <u>Clark Fork River, Prichard Creek</u>, Prospect Creek, and Coeur d’Alene River and should be stream-specific, considering potential pipeline span lengths, current loadings on the pipe, additional impact stresses which could affect the pipeline (e.g., debris, ice flows), potential for pipe buckling, stream bank migration, stream flows, and other relevant factors.</p> <p>As an example of a stream-specific plan, considering the Oak Ridge National Laboratory recommendations, the following course of action should be considered:</p> <ol style="list-style-type: none"> 1. Install a transmitter on the USGS stream gauge at Thompson Falls 2. Monitor the stream gauge daily, when stream flows are less than 1,500 cfs 3. Increase gauge monitoring frequency to hourly if the stream flow is greater than or equal to 1,500 cfs 4. At 2,000 cfs, the pipeline will be shut down and personnel will be dispatched to inspect previously identified areas which are likely to produce exposed pipe within the stream channel 5. At 2,500 cfs, the pipeline will be drained down and all product will be displaced with At 2,500 cfs, the pipeline will be drained down and all product will be displaced with nitrogen. 	
SS-25	<p>Submittal of Maintenance Plans to Agencies. All plans for maintenance work shall be submitted to OPS <u>and</u> the Forest Service for review. The Forest Service could conduct this review by its own specialists, in conjunction and coordination with OPS, or by a third party specialist.</p>	<p>Yes (clarified for jurisdiction)</p>
SS-26	<p>Documentation of Adequacy of All Crossings, and Guidelines for Pipeline Exposures. YPL shall <u>within one year of permit renewal</u>, document the adequacy of all uncased road and rail crossings <u>in the permitted area</u>, using the API RP 1102 procedure. If any crossings are found to be over-stressed, a plan for mitigating these situations shall also be presented (e.g., pipe replacement, installation of split sleeve casing). YPL shall also document the safe span length of any existing pipe exposed within a creek or stream, its banks, or secondary channel; then any subsequent pipe exposures found within these locations shall be similarly documented and reported within 15 days of discovery. These analyses shall include, but are not limited to, the following individual and combined loadings: circumferential stresses caused by internal pressure; circumferential stresses due to soil, traffic, or rail surcharges; longitudinal stresses caused by operating temperature; longitudinal Poisson stresses; longitudinal bending stresses (weight of pipe and contents, force of flowing water, impact forces of ice and debris); and potential pipe buckling. These documents and supporting calculations shall be submitted to the OPS and Forest Service and other responsible agencies for review and approval. The results of these engineering analyses shall be used at appropriate sites to establish the monitoring criteria in Mitigation Measure SS-24.</p>	<p>Yes (clarified for jurisdiction, added deadline)</p>
SS-27	<p>Remote Actuator on Existing Valves. YPL shall install remote actuators on the block valves at MP 431.5 and MP 423.5 and MP 432.7. This will significantly reduce the spill volumes in the event of a major rupture, especially during periods of inclement weather, in the event that the recently installed check valves <u>at MP 431.5 those locations fail</u> to positively shut-off flow. A Surge Analysis shall be conducted for installation of these remote actuators.</p>	<p>Yes (corrected to reflect the relocation of the Ranger Station valve)</p>
SS-28	<p>Additional Valves. YPL shall install an additional block valve, with remote actuation capabilities, approximately midway between the existing valves, at roughly MP 448.5. A Surge Analysis shall be conducted for the installation of this new valve.</p>	<p>No (limited NFS lands between MP 448.5 and Prichard Valve at MP 454)</p>
Biological Resources: Vegetation		
BVT-2	<p>Survey for TES Species. Prior to construction, all lands within the construction areas to be disturbed will be field surveyed to locate additional TES species. This surveying will be during the most opportune time for identification (BVT-6). If sensitive vegetation species (on either the Region 1 Forest Service list or the respective State Heritage list) are found, then site-specific mitigation plans should be developed. Survey should be performed at the optimum season for identification (<u>DEIS BVT-6</u>, BVT-7).</p>	<p>Yes (removed redundant sentence and correct reference to DEIS measures)</p>
BVT-4	<p>Survey Review for new TES Species Every 5 Years. Recently listed species, and species updated and dropped by the Forest Service, Idaho Conservation Data Center (ICDC) and Montana Natural Heritage Program (MTNHP) shall be evaluated, monitored and mitigated during the life of the project. Evaluation and monitoring of newly updated species shall occur at minimum every five years and continue for the life of the</p>	<p>Yes (corrected title to better reflect intent of the measure)</p>

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	project. YPL’s evaluation and monitoring shall include species that are found within 1,000 feet of the ROW, and species likely to be found within the 1,000 ft. buffer. Any maintenance activities and subsequent reclamation shall investigate opportunities for TES mitigation and restoration. This evaluation and monitoring of TES species shall include the preparation of a report and be submitted to Forest Service botanists every five years.	
BVF-1	Inventory Vegetation along Pipeline. Conduct an inventory of areas adjacent to the YPL existing pipeline; include habitat type and current vegetation, particularly old growth and potential old growth stands for both Forest Service lands and private lands if possible.	No (not necessary with reduced scope)
BVF-2	Survey for Unique Forest Conditions. Prior to repair (except emergency repair when inspection would occur after repair), maintenance or relocation construction that would affect a forest stand, an on-site inspection by a silviculturist and wildlife biologist will be conducted to determine any unique forest conditions exist, including reserve or snag trees, old growth [for areas that may meet the old growth definition within of 20 years according to Green et al. (1992)].	No (not necessary with reduced scope)
BVF-3	Plans to be Interdisciplinary. Reclamation/mitigation plans shall be designed to replace the affected values for the site. Mitigation plans will be prepared by an interdisciplinary team of specialists and shall be submitted to and approved by the USFWS and Forest Service (where applicable) and the responsible state agencies (DNRC) for private lands.	No (not necessary with reduced scope)
BVW T-3	Document Biogeochemical Functions of Wetlands. YPL shall implement wetland reclamation strategies that consider and document biogeochemical functions. These functions will be determined in conjunction with Mitigation Measure BVWT-1 of this Section, which designates the use of reference wetlands to establish the proper biogeochemical role. Reclamation construction-related activity will control erosion, keep pollutants from entering the hydrologic/riparian system and prevent destabilization of adjacent riparian communities.	No (adequately covered by the HGM method required in BVWT -1)
BVW T-5	<p>Restrictions on ROW Width. YPL has proposed that the width of the construction right-of-way (ROW) be 80 feet, and the operational ROW (for periodic inspections) be 30 <u>40</u> feet. In order to minimize resource impacts, the ROW width shall be reduced in size as defined below, <u>unless otherwise approved by the Forest Service authorized officer.</u> (This measure incorporates the requirements of <u>DEIS</u> BVWT-6, BW-3, BF-50, and BF-56.)</p> <p>Construction. The construction ROW shall be defined by the following requirements:</p> <ul style="list-style-type: none"> Vegetation shall <u>should</u> not be cleared from the construction ROW except where areas are scheduled for construction work to begin within 10 days. Habitat features within the ROW that have special significance to wildlife (such as large snags suitable for cavity nesters) shall be identified in pre-construction surveys and shall <u>should</u> not be removed unless approved by agencies with jurisdiction or the private landowner. If the pre-construction survey identifies other wildlife resources that could be protected by limiting the width of the ROW, those adjustments shall <u>should</u> be made. The construction ROW in all jurisdictional wetlands and riparian areas (as defined by Hansen et al.) shall be narrowed to 6 feet unless otherwise approved by the agencies with jurisdiction. YPL shall identify wetland areas requiring wider ROWs, if any, and submit detailed plans for agency approval prior to the start of construction. habitat conservation areas (RHCAs as defined by INFISH) shall be cleared to the minimum width feasible for construction, based on the physical conditions at each construction site. YPL shall delineate wetlands, RHCAs, and proposed construction clearing limits therein, on maps and typical diagrams. YPL shall submit those maps and diagrams affecting RHCAs to both the Forest Service and to the U.S. Fish and Wildlife Service for field review and approval before construction begins in RHCAs. The Forest Service authorized officer, in consultation with a Forest Service fisheries biologist, will make the final determination of appropriate vegetation clearing widths in wetlands and RHCAs. In the event that any mature trees need to be cut in the riparian zone or wetland area, YPL will first confer with the Forest Service regarding placement of these trees prior to felling of the trees. Revegetate the remainder of the ROW with native, woody species, particularly in areas immediately adjacent to the stream. If low growing woody species will be allowed to grow adjacent to the stream, it could help to stabilize stream banks. <p>Operation. Restrictions to the operational ROW are as follows <u>The operational cleared ROW will not exceed 20 feet in general, and in jurisdictional wetlands and RHCAs clearing will be restricted to the minimum feasible width which allows for safe and reasonable right-of-way inspections and operations:</u></p> <ul style="list-style-type: none"> There shall be no cleared operational ROW maintained by YPL in jurisdictional wetland areas and riparian areas. These areas shall be defined as: (1) on Forest Service land, the width shall be based on 	Yes (corrected ROW width, corrected references to other measures, deleted material beyond Forest Service jurisdiction (other land ownerships), modified the construction clearing limits for RHCAs to be consistent with the USFWS Biological Opinion conditions 1.D & 1.E, and to provide flexibility to the Forest Service authorized officer to grant exceptions if warranted. Merged FEIS BF-18 into this measure, however, we found the 6-foot clearing limit to be impractical or arbitrary, so revised to re-

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	<p>surveys completed identified by YPL on right-of-way exhibits attached to the special-use permit reviewed and approved by the Forest Service authorized officer in consultation with a Forest Service biologist, and reviewed every five years as prescribed by Mitigation Measure Gen-3. with a Forest biologist who shall mark areas where no clearing shall occur, (2) on non-Forest Service land, a minimum of 50 feet from the top of the stream bank shall be left undisturbed, YPL shall use the Guide for Minimum Recommended Stream Management Zones (State Forest Land Management Plan, May 30, 1996, Table 1). In the areas identified, trees and shrubs will be encouraged to regrow (or shall be planted, as defined in the Revegetation Plan, <u>BVWD-5</u>), without subsequent trimming or clearing of vegetation and clearing or trimming limits based on height and diameter guides will be established in the Revegetation Plan called for by Mitigation Measure H-1.</p> <ul style="list-style-type: none"> Where the pipeline parallels a perennial stream within the defined Riparian Habitat Conservation Area (RHCA), but is not within a jurisdictional wetland or riparian area, the <u>operational ROW shall be reduced to 10 feet. Site-specific exceptions may be granted by the Forest Service authorized officer.</u> <p>During maintenance and repair activities, woody debris and other materials shall be left in stream channels or returned to stream channels to help create fish habitat (<u>DEIS</u> BF-56).</p>	<p>quire minimum feasible clearing in RHCAs, subject to site-specific conditions and Forest Service review and approval.</p>
BVW T-7	<p>Wetland Monitoring. YPL will implement a wetland monitoring program. This program will continue yearly for the first five years of operation and <u>every other year for the next six years the need for any further such monitoring will be evaluated in the first five-year review scheduled under measure Gen-3.</u> This monitoring program will document the change in functions from pipeline installation and operation. The monitoring program will continue to monitor the reference wetlands.</p>	<p>Yes (changed schedule to match overall 5-year review process)</p>
Biological Resources: Wildlife		
BW-2	<p>Schedule to Avoid Sensitive Times for Wildlife. Attempt to schedule all construction activities so as to avoid excessive stress and disturbance to wildlife species that traditionally use the project area. This recommendation applies primarily to avian breeding sites (for listed and sensitive species).</p> <p style="text-align: center;"><u>Species</u> <u>Avoidance Time</u></p> <p style="text-align: center;">Avian Breeding (other listed and sensitive species) May 1 to July 31 Amphibian Breeding (if wetlands are present) — April 1 to September 31</p> <p>Ungulate ranges near the existing pipeline have been delineated by agency biologists and are summarized in the preceding Environmental Setting sections, but should be confirmed through consultation with agency biologists during the planning phase for all pipeline reroutes or repairs. Except where required for emergency response, construction in important big game wintering areas should be deferred until after spring dispersal.</p>	<p>Yes (no TES amphibians and ungulate mitigation not necessary with reduced scope)</p>
BW-3	<p>Survey for Bald Eagles. Construction activities should be scheduled so as to minimize disturbance to bald eagle nests, known perch sites, or eagles that winter along <u>the Clark Fork River, Prospect Creek, Prichard Creek</u> and the N. Fk. Coeur d’Alene River. At a minimum, surveys should be conducted prior to all pipeline reroutes or repairs to verify that no bald eagle nests occur on or near the areas affected.</p>	<p>Yes (clarified for reduced scope)</p>
Biological Resources: Fisheries and Aquatic Resources		
BF-1	<p>In-Stream Construction Requirements for Protection of Fisheries.</p> <ul style="list-style-type: none"> Spoil piles from the excavation would be stored outside the floodplain, not within the river. Erosion control measures, such as straw bales or silt fence, shall be used to prevent erosion from spoil piles reaching the watercourse (DEIS BF-3). All perennial streams that contain bull trout or are potential bull trout habitat (such as those marked with an “X” or a “P” in Table 10.6 of the Fisheries and Aquatic Sciences Specialist Report) will be crossed using construction crossing Type 1, “in the dry” crossing methods. This construction method will also apply to pipeline removal. All perennial streams that have the potential to impact bull trout (such as those marked with an “I” in Table 10.6) would also be crossed (or have pipe removed) using “in the dry” construction methods or when there is no flow in the stream channel. Applicable streams shall be confirmed in consultation with relevant agency fisheries biologists (DEIS BF-5). Intermittent and ephemeral streams will be crossed when they are dry. If this is not possible then these streams will be treated as perennial streams for the purposes of determining the method of construction of stream crossings. After crossing an intermittent stream the streambanks will be restored and seeded immediately. When flow in a streamcourse is temporarily diverted to accommodate construction and other activities, flow will be restored to the natural course as soon as possible. This is a standard from 	<p>Yes (modified to match USFWS Biological Opinion condition 1.H)</p>

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	<p>the LNF Plan that applies to Management Areas 13 and 14 (riparian areas). For any stream dewatering for construction, YPL shall prepare and implement a plan to salvage any bull trout stranded during dewatering operations (stream crossing replacement, construction and removal actions) and transport any such bull trout downstream to the active channel. In the post construction compliance report (measure FWS-1), YPL shall detail the results of any such operation.</p> <ul style="list-style-type: none"> Should excessive streamflows occur due to wet weather during watercourse crossing construction or pipeline removal, construction shall be postponed until flows drop to acceptable levels. YPL’s construction plan, to be reviewed and approved by the regulatory agencies, will include procedures for determining acceptable stream flow levels for construction. Vehicle crossing structures will be installed as part of the clearing operation so that no construction equipment need ford a flowing watercourse, unless use of a ford is approved in advance by the Forest Service and/or other permitting agencies. Trees will not be skidded or yarded across a stream. <p>Backfilling will be done with original streambed material.</p>	
BF-8	<p>Dust suppression water will be pumped only from rivers and streams that contain sufficient flow that the loss of water volume will not affect aquatic life or downstream water rights holders. Pumping will not decrease streamflow below 30% of the mean annual flow at any time. <u>All water drafting from NFS sites will be reviewed by the Forest Service Fisheries Biologist for approval by the Authorized Officer to ensure appropriate withdrawal quantity and screening for bull trout.</u> YPL will apply to the State(s) and the Forest Service (on National Forest System Lands) for permission to divert water, including in their application proposed pumping locations and volumes. In addition, the requirements of INFISH will apply:</p> <p>RA-5 Locate water drafting sites to avoid adverse effects to inland native fish and in-stream flows, and in a manner that does not retard or prevent attainment of Riparian Management Objectives.</p>	Yes (modified to match USFWS Biological Opinion condition 1.C)
BF-10	<p>Hydrostatic test water will be pumped only from rivers and streams that contain sufficient flow that the loss of water volume will not affect aquatic life or downstream water rights holders. Pumping will not decrease flows below 30% of the mean annual flow at any time. <u>All water drafting from NFS sites will be reviewed by the Forest Service Fisheries Biologist for approval by the Authorized Officer to ensure appropriate withdrawal quantity and screening for bull trout.</u> In addition, the requirements of INFISH will apply:</p> <p>RA-5: Locate water-drafting sites to avoid adverse effects to inland native fish and in-stream flows, and in a manner that does not retard or prevent attainment of Riparian Management Objectives. (INFISH, 1995)</p>	Yes (modified to match USFWS Biological Opinion condition 1.C)
BF-12	<p><u>Prior to construction No later than December 31, 2001</u>, potential deficiencies in YPL’s Emergency Response Plan shall be corrected. These corrections must be approved by the <u>Lolo National Forest Forest Service, the Fish and Wildlife Service</u>, and other agencies with jurisdiction. Specifically:</p> <ul style="list-style-type: none"> the current plan calls for the use of 14 foot to 18 foot boats with ≥ 25 horsepower motors. The equipment list in the plan only lists one source (Spokane, Washington) for one 16-foot powerboat with a 55 horsepower jet motor. There are three sources in California listed for shallow water push boats. Additional nearby sources of powerboats need to be identified. the current plan does not identify the location of launch sites for the powerboats at all recovery zones where boats are needed. Suitable boat launch sites and their distance from the work sites need to be clearly identified. a realistic assessment needs to be made of the characteristics of the river and stream locations where boats would be used during an emergency response. Some streams could be far too shallow, narrow, swift, and rocky to allow for the use large powerboats. the plan must be expanded to specify the training of the boat operators. the plan will be updated to reflect the listing of the bull trout as an endangered species. the plan must contain contingency plans in the event that a spill occurs during spring runoff or during heavy ice periods when the usual spill clean up methods will be ineffective. 	Yes (modified to match USFWS Biological Opinion condition 2.C)
BF-14	<u>Reroute R-1 will take place within 3 years of permit renewal.</u>	No (not on NFS lands)
BF-15	<u>Reroute R-7: Prior to the construction of reroute R7, the depth of cover at the Prospect Creek crossing (at approximately MP 434.6) would be measured. The 100-year depth of scour would be determined at the stream crossing by a civil engineer with expertise in the field of river mechanics and sediment transport and registered in Montana. If the depth of cover is determined to be inadequate, then the stream crossing will be repaired at the time of the reroute.</u>	No (adequately covered by H-4)

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BF-17	Pipeline burial depth in floodplain: New stream crossings will be buried to at least twice the 100-year depth of scour across the width of the 100 year floodplain at all stream crossings (Montana and Idaho).	No (merged into H-4)
BF-18	ROW Width: The cleared ROW will not exceed 20 feet except as needed in the event of an emergency.	No (merged into BWWT -5)
Landscape/Visual Resources		
V-7	Avoid Cutting Grasses and Shrubs. In visually sensitive portions of the route where the route passes through grass and shrub habitat, vegetation shall be restored to its natural height and density following reroute construction. Grasses and shrubs shall not be periodically cut back or mowed to differentiate the pipeline ROW or as part of ROW maintenance <u>for routine visual inspections.</u>	Yes (qualified reference to maintenance – some types of maintenance would require vegetation clearing for excavation)
V-11	Plant Trees near Thompson Pass. To eliminate public visual access from <u>State Secondary 471 (formerly Highway 7)</u> to the clear-cut just east of Thompson Pass at the top of the grade (see KVP 25 in Landscape and Visual Resources Specialist Report), trees or other screening vegetation should be planted along the south shoulder of the highway <u>provided such screening can be designed without impairment of highway or pipeline safety.</u> The plantings would need to reach heights of approximately eight feet to provide effective mitigation. The plantings should start where the existing trees stop, directly across from the forest access road, which is located on the north side of the highway. The plantings should extend up the highway (toward Thompson Pass) for a distance of approximately 225 feet.	Yes (revised reference to renamed highway and qualified to avoid conflict with highway or pipeline safety).
V-12	Paint Aboveground Valves. Any new valves, and the existing valves between Thompson Pass and Kingston. <u>All new and existing valves on NFS lands,</u> including associated structures and fencing, should be painted an appropriate earth-tone or vegetation-tone color to help the structures to blend better with the surrounding vegetation. The Murray valve facility should be painted the appropriate earth-tone or vegetation-tone color to reduce the existing visual contrast and facilitate the blending of the structure with the surrounding landscape. If painting does not prove adequate to reduce the visual contrast, rough-hewn timbers should be installed at the west end of the facility (similar to those at the east end) to further reduce visual contrast. It is further recommended that a vegetative “baffle” be planted to create an S-shaped access lane to the valve, thereby allowing physical access to the facility while restricting visual access.	Yes (clarified for jurisdiction and removed reference to a valve not in the UFSF permit area)
V-13	Remove Materials at Eagle Creek. At the Eagle Creek crossing repair site, all materials remaining from construction on both sides of the bank shall be removed. The road shoulder and construction area shall be re-graded to remove all ruts. The area shall then be revegetated with native materials to reduce the disturbed appearance of the exposed cobbles.	No (this site is not on NFS lands)
V-14	Cease Cutting Grasses in Idaho ROW. Cease cutting of the floodplain riparian grass vegetation in those areas visible from Highways 9, Old River Road, the North Fork Coeur d’Alene River, or private residences.	No (NFS lands covered by measure V-7)
V-15	Cover Exposed Pipe with Cobble. Re-cover the exposed pipeline with cobble of similar size and coloration to that existing in this portion of the riverbed (Prichard near MP 454).	No (not on NFS lands)
V-16	Move Sign and Marker. Move the pipeline placard sign in the foreground of Landscape and Visual Resources Specialist Report Figure 10-15 closer to the road (and the “Restricted Bridge” Sign) and out of the turf area. Also, move the yellow pipeline warning marker out of the turf area to the ROW clearing on the far side of the park.	No (this site is not on NFS lands)
Land Use and Public Recreation		
L-1	One-Month Notice to Property Owners and Public. YPL shall give at least one-month advance notice to <u>the public and to</u> potentially affected property owners and tenants prior to pipeline construction <u>on NFS lands.</u> Notices shall identify the pipeline ROW location, construction schedules, company contacts and phone numbers, and general construction methods and restoration procedures. Notice shall be provided by <u>methods approved by the Forest Service, such as:</u> 1) mailing notices to properties within 300 feet of the approved ROW; 2) posting bulletins in neighborhoods that could be affected <u>and at Forest Service visitor centers or offices, and affected recreational facilities;</u> and 3) placing notices in local newspapers.	Yes (amended to cover public notice and clarified for jurisdiction and reduced scope)
L-2	Two-Week Notice to Residents and Recreationalist. At least two weeks prior to construction, maintenance, or abandonment activities, YPL shall notify residents and other affected land uses (e.g., agencies managing recreational resources) of lane closures where access to residential areas and other land uses may be restricted. Normal access to residential areas shall be restored at the end of the workday and throughout weekends (by plating open trenches where necessary, and moving equipment and materials).	No (measure L-1 provides adequate notice and measures T-1 and T-2 provide ade-

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	<p>Also, YPL shall give two weeks advance notice of future access restrictions or detours to known recreational destinations. YPL shall provide notices in local and regional newspapers and shall post this notice by posting bulletins at Forest Service visitor centers, district headquarters, affected recreational facilities, and along the access routes that would be restricted, blocked, or detoured.</p> <p>YPL shall develop alternative transportation routes for restricted residential and recreational access routes. YPL shall incorporate these advance noticing procedures and alternative routes into the Construction, Operation, and Maintenance Plan. Access measures shall be incorporated into the applicable Traffic Control Plan (see Mitigation Measure T-2). The Forest Service shall designate the party responsible for monitoring the advance noticing. Said monitor shall review and approve the Plan and shall review copies of notices and bulletins prepared and distributed by YPL prior to their distribution.</p>	<p>quate traffic control, given the reduced scope and location of final actions)</p>
L-3	<p>Minimize Length of Construction. YPL shall incorporate measures into the Construction, Operation, and Maintenance Plan to schedule construction activities so as to minimize the length of construction time at sensitive receptor locations and at roadways or driveways providing primary access to residences, businesses, or recreation sites. Also, measures shall be incorporated into said Plan to immediately restore access and property.</p> <ol style="list-style-type: none"> 1. No staging of equipment or material shall be permitted <u>on National Forest System lands</u> adjacent to a residence or other sensitive receptor. 2. Trails and recreational facilities disturbed by construction or maintenance shall be immediately restored to their original condition (to the extent feasible) following construction. 3. YPL shall compensate any resident displaced or forced to relocate due to the construction of the pipeline, be it temporary or permanent (see also, Mitigation Measure Gen-2). It is recommended that the parties participate in binding arbitration by neutral arbitrators if agreement cannot be reached on the need for, or amount of, compensation. YPL shall provide evidence of compensation to the designated mitigation monitor. 	<p>Yes (amended for jurisdiction and reduced scope)</p>
L-4	<p>Two-Week Notice to Agricultural Owners. YPL shall contact agricultural owners at least two weeks prior to arrival of construction crews, in order to arrange for their assistance in devising alternative access and locating irrigation pipelines, and to arrange for fence dismantling, and ensure timely and proper repair of fences and piping.</p> <ol style="list-style-type: none"> 1. YPL shall make arrangements with landowners (if possible) to keep livestock in fields not traversed by the pipeline and shall obtain landowner permission prior to dismantling fences. Temporary fences and gates shall be installed, if requested by landowner. Immediately following construction, YPL shall remove temporary fences and gates and replace permanent fences. Proper procedures shall be followed to ensure that fence cutting does not result in slackening along the fence line. 2. YPL shall implement measures as requested by landowners to control livestock. All gates shall be closed after entry or exit and protection from animal injury in open ditches shall be provided. 3. During construction and maintenance, YPL shall notify the landowner and construction monitor within two working days of damage to land, crops, property, or irrigation facilities, contamination or degradation of water, or livestock injury. YPL shall restore any damaged resource or property and shall compensate landowner for any unrepaid losses to personal property due to construction or maintenance activities (also, see Mitigation Measure Gen-2). 	<p>No (no agricultural lands affected by NFS permit, measure L-1 provides adequate notice and measures T-1 and T-2 provide adequate traffic control, given the reduced scope and location of final actions)</p>
L-5	<p>Avoid Construction in Peak Use Periods. YPL shall schedule construction, maintenance, or abandonment activities to avoid peak use periods (weekends, holidays, and peak use summer months or peak use winter months for winter sports) at recreational facilities, if compatible with biological mitigation measures regarding timing of construction. If not compatible with biological mitigation measures, at a minimum, construction shall be avoided during weekends and holidays. At least two weeks in advance of any construction, maintenance, or abandonment activities, hunters, anglers, boaters, and other recreationists shall be notified, through posting of signs in the vicinity and publication in local newspapers identifying construction schedules and locations.</p>	<p>No (measure L-1 provides adequate notice and measures T-1 and T-2 provide adequate traffic control, given the reduced scope and location of final actions)</p>
L-6	<p>Revegetate ROW. To avoid conflicts between the location of the pipeline and regulatory policies, the pipeline reroute-s shall be revegetated to provide proper screening of the ROW and, if necessary, realigned, reduced in width, or relocated in order to comply with regulatory policy.</p>	<p>No (adequately addressed by V-1 through V-12)</p>
L-7	<p>Avoid Noise During Peak Hunting Periods. Noise-generating maintenance activities shall be scheduled to avoid peak hunting periods in sensitive hunting grounds, <u>unless otherwise approved by the authorized officer</u>. Hunters shall be notified, through posting of signs, and information distributed through the Forest Service identifying maintenance schedules and locations.</p>	<p>Yes (clarified to allow discretion for urgent maintenance)</p>
L-8	<p>Coordinate Pipeline Location with Private Owners. To the extent feasible, YPL shall coordinate with private property owners to locate the pipeline across their land in the least impacting location, with regard to intended, planned, or permitted land uses of the property. For smaller residential lots (10 acres or less), commercial</p>	<p>No (no Forest Service jurisdiction)</p>

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	properties, and sensitive uses properties, YPL shall provide the property owner the option of selecting a feasible ROW location adjacent to the parcel's boundary (to minimize fragmented properties). In negotiating access for construction and operation, YPL shall disclose to property owners all required mitigation measures that may affect the ROW or adjacent properties. As documentation, YPL shall obtain a signed Mitigation Disclosure form from each property owner whose property will be traversed by the proposed pipeline ROW.	
L-9	Incorporate Residential Concerns into Emergency Response Plan. <u>a. In its Emergency Response Plan (ERP), YPL shall include product spill/fire emergency response procedures that specifically address sensitive land uses to further reduce spill volumes on land uses and to minimize potential land use impacts, agricultural land contamination, and agricultural animal injury. Designated representatives of these nearby land uses shall be consulted during preparation of this aspect of the ERP.</u> <u>b. To avoid uncompensated damage to residents, property owners, and businesses or agricultural operations during operation due to a petroleum product spill, YPL's Oil Spill Contingency Plan shall indicate specific measures that address disruptions to business and agricultural operations in the event of a spill, including direct cost recovery for those incurring damage. YPL shall provide evidence of compensation to the designated mitigation monitor.</u>	No (no Forest Service jurisdiction)
L-10	Restore ROW where Visible from Residents or Recreational Locations. Consistent with land management requirements at the time of abandonment, at those locations where the pipeline ROW formerly provided recreational uses such as hunting, or is visible from developed or concentrated residential and recreational areas, YPL shall restore and revegetate the abandoned ROW with appropriate vegetation as defined in <u>BVWT-11</u> , <u>BVWT-10</u> . Where restoration of the ROW is not feasible or would take an extended time period (e.g. to establish trees), YPL shall plant appropriate vegetation, in appropriate locations, to screen views of the ROW from said views; however, provisions of <u>BVWT-11</u> , <u>BVWT-10</u> shall overrule those of this measure if in conflict. YPL shall implement this measure upon project abandonment, and a Lead Agency-approved monitor will monitor compliance.	Yes (correct reference to BVWT -10)
Transportation		
T-3	Bore all MDT Road Crossings. As recommended by the MDT, all Interstate, Primary, and Secondary road crossings shall be bored, unless otherwise approved by MDT.	No (no Forest Service jurisdiction, however MDT can require this as a condition of construction in the MDT ROW)
T-5	Agency Review of Staging Areas. YPL shall submit <u>include in the construction plans submitted under measure Gen-4</u> the specific location of <u>any NFS lands</u> proposed <u>for staging area(s) to the appropriate jurisdictions</u> for review, and approval, <u>and inclusion in the construction permit area</u> . YPL shall state the size of the area, the purpose (e.g., storage of construction equipment and employee parking), the number of vehicles and pieces of equipment to be stored, and the duration (in number of days and number of hours per day) that each staging area will be used.	Yes (clarified for jurisdiction and requirement that any NFS lands occupied must be under permit)
T-6	Bus Workers to Staging Area. YPL shall provide a shuttle bus service for labor-intensive construction workers from proposed staging area(s) and/or convenient off-street parking areas to the work sites to minimize traffic volumes and parking demand at the work sites. Multiple staging areas shall be utilized, if necessary, to reduce traffic impacts on the roadways serving the staging areas. A plan for use of shuttle buses and parking areas shall be submitted to the affected jurisdictions for review and approval.	No (not needed, given the reduced scope and location of final actions)
T-7	Restore Roadways Disturbed by Construction. Paved or unpaved roadways disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of roadway surfaces and safe vehicle operations along subject roadways. This measure shall be applied to all roads that are damaged by construction vehicles or equipment, including roads outside of specific construction zones. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and roadway drainage features shall be protected by regrading and reconstructing roadways to drain properly. A roadway maintenance program shall be established and implemented by YPL for portions of the roadway where the pipeline is buried. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction.	Yes (eliminated requirements that are not within Forest Service jurisdiction)
T-8	Include Transportation in Emergency Response Plan. YPL shall modify its emergency response plan to specifically address potential disruption to the transportation system in case of a major spill, as part of YPL's overall Spill Contingency Plan. YPL shall be prepared at all times to immediately respond to a spill which would affect any transportation facility <u>on National Forest System lands</u> so that necessary facility closures and cleanup operations can be initiated expeditiously. Coordination with appropriate law enforcement agencies, public works departments, fire departments, and state agencies shall be required in advance of, and in the event of, an upset.	Yes (clarified for jurisdiction)

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<u>U.S. Fish & Wildlife Service Reporting Conditions</u>		
FWS: 1	<p><u>FWS-1, Bull Trout Reporting Requirements.</u> YPL shall comply with the following reporting requirements regarding bull trout as long as bull trout is listed as a threatened or endangered species:</p> <p><u>A. Prepare and submit a post-construction compliance report to the Forest Service, with a copy sent directly to the Fish and Wildlife Service no later than January 30, for each year construction or restoration occurs. The report will include: current ongoing activities, date construction began, date construction was completed, results of any dewatering bull trout transport (BF-1), any problems or deviations from the selected alternative as described in the ROD and Appendix A thereto that might affect bull trout.</u></p> <p><u>B. Within 24 hours of locating dead or injured bull trout or upon observing destruction of redds, notify the Fish and Wildlife Service Montana Field Office at 406-449-5225. Record information relative to the date, time, and location of dead or injured bull trout when found, and possible cause of injury or death of each fish and provide this information to the Forest Service and to the Fish and Wildlife Service.</u></p> <p><u>C. During project development and operation YPL shall notify the Forest Service and the Fish and Wildlife Service as soon as practicable of any emergency or unanticipated situations arising that may be detrimental for bull trout relative to construction, operation, or maintenance activities. YPL shall include a protocol for notification under emergency responses to spills in the Emergency Response Plan prescribed by measure SS-8.</u></p>	<p>New Item. Responding to mandatory reporting requirements in the U.S. Fish and Wildlife Service's Biological Opinion, Measure 4.</p>