



Montana Fish, Wildlife & Parks

EI - 19973

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Ref: DO015-13
January 11, 2013

Ms. Lisa Axline
Real Estate Management Bureau
Department of Natural Resources and Conservation
1625 11th Ave, PO Box 201601
Helena, MT. 59620

Dear Ms. Axline:

Montana Fish Wildlife & Parks (FWP) is responding to the Surface Transportation Board's (STB) Office of Environmental Analysis invitation to comment on the proposed Tongue River Railroad Project's Draft Scope of Study. It is FWP's understanding that you plan to organize and coordinate comments from the various state agencies for submittal to the Surface Transportation Board's Office of Environmental Analysis.

The following points and questions are FWP's comments regarding the proposal by the Tongue River Rail Road Company to build a rail line within the Tongue River drainage. The Aquatic and Terrestrial comments below are specific to the three alternatives routes that parallel the river and may apply to the Colstrip route. The final comments are specific to the Miles City Fish Hatchery and the rail line's potential impacts to this facility.

Aquatic

- Fish Populations and Migrations – Maintaining the connectivity of prairie streams and rivers needs to be considered to minimize impacts to the diverse fisheries in these systems. Fish populations in the rivers and prairie streams of Eastern Montana are dynamic, species rich, systems. The Tongue River contains 41 species most of which are native species. Native fish evolved with the warm, turbid, sporadic and short duration hydrographs experienced in prairie streams and even ephemeral streams with minimal flow of short duration can support a spawning migration of prairie fish. Spawning and other life history stages of native fish species are tied to these opportunistic habitat and climatic conditions. Many of the species produced in prairie streams are the forage base for the predatory and game species in the Tongue and Yellowstone Rivers. Large construction projects, like the Tongue River Rail Road, can

impact many prairie streams and rivers and collectively affect a considerable amount of habitat and spawning migrations.

- Impacts to Stream Morphology – Rail alignment close to, or along, the physical river bank may impact the physical nature of the stream. Alterations to stream morphology such as, stream length, change in gradient, and alteration of bed materials will impact the physical nature and function of the river, especially during high or low flow events. Any chosen alternative should minimize any impacts to stream morphology.
- Habitat Loss – Related to changes in stream morphology, the potential for loss of stream reaches, pool habitats, altered meander patterns may be high dependent upon the alternative chosen. Rail alignment alternatives should minimize physical impacts to the Tongue River proper, minimizing habitat losses.
- Bank Stabilization – Lateral migration of streams and rivers is a natural geomorphic process, and is essential for the ecological health of the aquatic system. Natural channel migration can be expected to occur within the channel-migration zone. Bank stabilization projects should consider the natural channel-migration zone and impacts the proposed project will have on the natural migration of rivers. Preservation of this natural process will sustain opportunities for continued habitat formation and maintenance. Stabilization of a bank at one location has the potential for adverse impacts beyond the immediate project footprint. The following list of techniques is the template we use when addressing bank stabilization and may provide guidance in project development:
 - Vegetated Riparian Buffer – No work to the immediate bank is performed. A vegetated riparian buffer is established or preserved. Natural erosion rates are maintained.
 - Back sloping of bank and re-vegetation
 - Vegetated soil lifts with fascine (a fascine is a rough bundle of brushwood used to protect the soil lift toe from scour)
 - Vegetated soil lifts with reinforced toe (wood, rock, etc.)
 - Woody toe, rootwads, log jams
 - Vegetated rip rap – use of rip rap with soil to promote vegetation growth
 - Rip rap over bedded gravels (no geo-textile fabric)
 - Rip rap over geo-textile
- Stream Crossings - All of the potential alignments will include stream crossings. Conveyances used to facilitate these crossings need to be built in a manner that provides the least impact to stream morphology and function.

Two main factors should be considered at crossings: location and type (bridges or culverts). Crossings should be located in straight, stable reaches of streams and positioned perpendicular to the direction of stream flow. Deep, narrow, crossing sites are preferred. Crossings in braided reaches should be avoided unless the opening spans the entire floodplain. Bridges are always favored over culverts for stream crossings.

Bridges that span the active floodplain without constricting flow are preferred. If the bridge does not span the entire floodplain, it should be designed to pass 1.25 X historic high flow levels. Inclusion of flood relief culverts in the road fill may help to accommodate water flowing across the floodplain. The number of bridge piers placed in the active channel and floodplain should be kept to the minimum amount necessary. A clear-span bridge is favorable in most situations, but not always. If a larger bridge opening can be achieved by adding additional piers the net benefit may be greater. Rip-rap around bridges should be kept to the minimum amount necessary to protect the structure. Top soil and seed should be placed on rip rap that is installed outside of the bridge deck.

Culverts should be sized to span the bankfull channel width. On fish bearing streams, including ephemeral streams, the culvert should also be embedded a minimum of 20% of the culvert rise. Studies have shown that those culverts that are embedded at least 20% do not become barriers to fish migration.

- Access – Rail alignment paralleling the river will impact stream access to anglers and floaters. Public access to the Tongue River is necessary, and any impacts to such access needs to be mitigated.
- Sediment Impacts, Erosion, Cut and Fill – Building a rail alignment paralleling the Tongue River will necessitate cuts and fill within side drainages that flow into the Tongue River proper. These sites need to be engineered so that drainage conveyances are adequate to handle 1.25 x historic flows. Sediment transport from these drainages is an important component of the physical health of this river system and has direct impacts to the life history strategies of many of the fish species that live in the aquatic system. The chronology and amounts of sediment entering the river through natural causes needs to be retained and not altered. The alteration of the amount of sediment added or restricted from the system, or the addition/reduction of sediment input at the incorrect time within the system can have dramatic effect on the both the physical features of the stream and to the species that fulfill their life cycles within the system.
- Navigation hazards – The Tongue River system is a unique prairie stream that attracts canoeists, rafters and other floating recreationists. Railroad infrastructure such as bridges, stream crossings, stream bank armament, and other structures need to be developed with the potential hazard to navigation and floaters in mind.

- Spill Hazard – Development of a rail alignment paralleling the Tongue River brings with it the potential for derailment and spill hazards. Contingencies need to be developed for when this event occurs. Potential impacts to stream morphology, water quality, invertebrates and fish populations need to be planned for with the ability to minimize these impacts.
- Fish Migration Improvements on Tongue River – Historically, fish migrations from the Yellowstone River were limited to 20 river miles of the Tongue River because of T&Y Diversion Dam. The dam blocked upstream fish migrations since its construction in 1886. Substantial fish passage projects have occurred on the Tongue River in the last six years. The most significant was construction of a fish passage structure (Muggli Bypass) at T&Y Dam in 2007 and removal of SH Dam (river mile 71) in 2008. Annual monitoring has demonstrated successful fish passage at Muggli Bypass and usage of the additional 169 river miles upstream of T&Y Dam. Five new species have been documented upstream of the dam since 2007. With time additional fish species will migrate upstream of T&Y dam. Fish species already present upstream of T&Y Dam are also using the bypass and are adding to the overall fish numbers utilizing the Tongue River and smaller tributaries.

Terrestrial

- Connectivity to Habitats – The alignment of the railroad paralleling the Tongue River may create connectivity issues with diurnal ungulate migrations. Deer, antelope and elk bed in the uplands located above the proposed rail lines and use the agricultural fields along the river as foraging sites. Placement of rail lines along the river corridor may impact use of these necessary habitats and disrupt foraging strategies of said animals.
- Wildlife Mortality due to Collision - The alignment of a railway within the Tongue River corridor creates the potential for increased mortality of a variety of wildlife species due to collisions with trains. Wildlife friendly conveyances (bridges, underpasses, etc) in known migration areas may help reduce these losses.
- Access – Rail alignment within the Tongue River corridor will impact public hunting access. Track crossings and safety issues apply to this activity as well as to farm production activities. Rail alignment should not reduce or eliminate any hunting access potential to public or private lands.
- FWP Land Interests – The MT Department of FWP has purchased interest in public and private lands within the Tongue River corridor. The attached lists of properties indicate FWP land and habitat interests. Many of these are under easement in cooperation with

local landowners to help provide wildlife habitats and hunting access. The goals of these interests need to be retained and not adversely impacted by the placement of rail alignment.

- Rocker 6 - Block Management Cooperator
 - 31,000 acre property 9 miles north of Ashland, west side of River
 - T1S R44E Rosebud County
 - Property has 2.5 miles of Tongue River frontage that would be bisected by the proposed rail route. . Average annual hunter days = 683
- Don Bice Ranch – MFWP Conservation Easement and Block Management Cooperator
 - 15,934 acre property 45 miles south of Miles City, west side of River.
 - T2N 45E, T3N 45E, T 3N R45E, Custer County
 - Tongue River forms eastern boundary of the property for approximately 11.5 miles. Railroad bisects property for its entire length along the River; separating the riparian/irrigated river bottom from the native grass uplands. Route who severely impact conservation values that FWP gained an interest in through the Conservation Easement. Would severely impact hunter access and recreational opportunity provided by ranch.
 - Average annual hunter days = 439
- Ted Hirsch (Shaw) – MFWP Conservation Easement, Block Management Cooperator
 - 6,791 acre property, 35 miles south of Miles City, east and west side of River, adjoins the Bice and Les Hirsch Conservation Easement properties
 - T3N R45 & 46E , Custer County
 - Tongue River runs through the property for approximately 3 miles. Railroad bisects property for its entire length along the River; separating the riparian/irrigated river bottom from the native grass uplands. Route who severely impact conservation values that FWP gained an interest in through the Conservation Easement. Would severely impact hunter access and recreational opportunity provided by ranch. Average annual hunter days = 379
- Les Hirsch - MFWP Conservation Easement, Block Management Cooperator
 - 9,292 acre property, 30 miles south of Miles City, west side of River, adjoins the Ted Hirsch Conservation Easement property and the DNRC owned Tongue River Ranch

- T3N R45 & 46E , Custer County
- Tongue River forms eastern boundary of the property for approximately 4.5 miles. Railroad bisects property for its entire length along the River; separating the riparian/irrigated river bottom from the native grass uplands. Route who severely impact conservation values that FWP gained an interest in through the Conservation Easement. Would severely impact hunter access and recreational opportunity provided by ranch.
 - Average annual hunter days = 551
- Tongue River Ranch – recently purchased DNRC property that FWP has some cooperative hunter access and habitat monitoring, planning and implementation.
 - 20,284 acre property west side of river adjoins the Les Hirsch Conservation Easement property.
 - Tongue River forms eastern boundary of the property for approximately 6 miles. Railroad bisects property for its entire length along the River; separating the riparian/irrigated river bottom from the native grass uplands. Would severely impact hunter access and recreational opportunity provided by ranch.
 - **** All totaled (Bice, 2 Hirsch properties, DNRC Tongue River Ranch) there are 25 miles of Tongue River Frontage and associated riparian that FWP has a conservation/ hunter access interest in that would be directly impacted by the propose rail route.
- Helm - Block Management Cooperator
 - 2,300 acre property, 16 miles south of Miles City east and west side of River
 - T5N R48E Custer County
 - Property has 2 miles of Tongue River frontage that would be impacted the proposed rail route. Average annual hunter days = 400
- Fix - Block Management Cooperator
 - 9,700 acre property 16 miles south of Miles City, west side of River
 - T5N R48E Custer County
 - Property has 3.5 miles of Tongue River frontage that would be bisected by the proposed rail route. Average annual hunter days = 279
- 12 mile Fishing Access Site
 - T6N 48E S 29 Custer County

- East side of Tongue River. Site is also the location of the Muggli Fish Bypass and the newly constructed fish ladder located at the start of the Tongue and Lower Yellowstone Irrigation District Canal. Rail route lies on the west side of the River less than 0.5 miles from the fish ladder location.
- Fort Keogh Range & Ag research Station - Block Management Cooperator
 - 25,000 federal acres. Property has approximately 20 miles of Tongue River frontage that would be bisected by the proposed rail route. Average annual hunter days = 1407

Miles City Hatchery

Train vibration issue:

- How it affects the eggs fry and fingerling stages of all the species that we raise?
- Yellowstone and Tongue water line issue – the effects of vibration and construction on both of these lines.
- The domestic water supply for the hatchery is a cistern that's located on top of the "camels hump", how will construction issues and vibration effect it?

Access issues:

- A rail crossing that allows access to FWP's Tongue River pump.
- Access to the tracks for maintenance.

Alignment issues:

- Current alignment will not allow for future expansion of the hatchery.
- Current alignment shows the tracks going through our forage fish pond.
- The current alignment of the tracks will not allow for any future expansion of the hatchery should the need ever arise.
- The tracks will cross the hatchery drainage ditch to Spotted Eagle lake.
- Current alignment may affect the hatchery sewage lagoon.

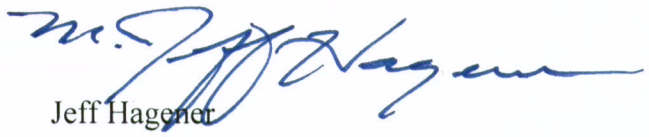
Other issues:

- How will the coal dust affect the hatchery?
- If the railroad has "common carrier" status how will this affect the hatchery and the potential for spills other than coal?
- Noxious weeds and weed spraying along the tracks needs to be addressed.
- Replacement fencing at the hatchery needs to be addressed.
- Survey and Inventory – As part of the EIS, baseline data will be collected on a variety of wildlife species. FWP staff are working with ICF (consultants) to help develop these

inventories and guide this effort. Are there plans to continue monitoring following the "snap-shot" baseline surveys? If population changes are detected, will there be or is there a plan to help recover, improve, or mitigate for these changes?

Montana Fish Wildlife and Parks appreciates this opportunity to provide scoping comments regarding the proposed Tongue River Railroad. FWP staff also provided verbal comments at the public scoping meetings held in southeastern Montana in November, 2012. FWP also supports comments provided by the US Fish and Wildlife Service submitted December 19, 2012. We would refer you to these comments as concerns of FWP as well.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mr. Jeff Hagen", written over the printed name.

Jeff Hagen
Director

c. Ken McDonald, Bruce Rich, Brad Schmitz, Rob Brooks