

Finding Of No Significant Impact

on the

Environmental Assessment

For

STPP 6-1(36)85

PARADISE - EAST (EAST SECTION)

P.M.S. CONTROL NO. 1011

&

STPP 6-1(30)99

DIXON - WEST

P.M.S. CONTROL NO. C891

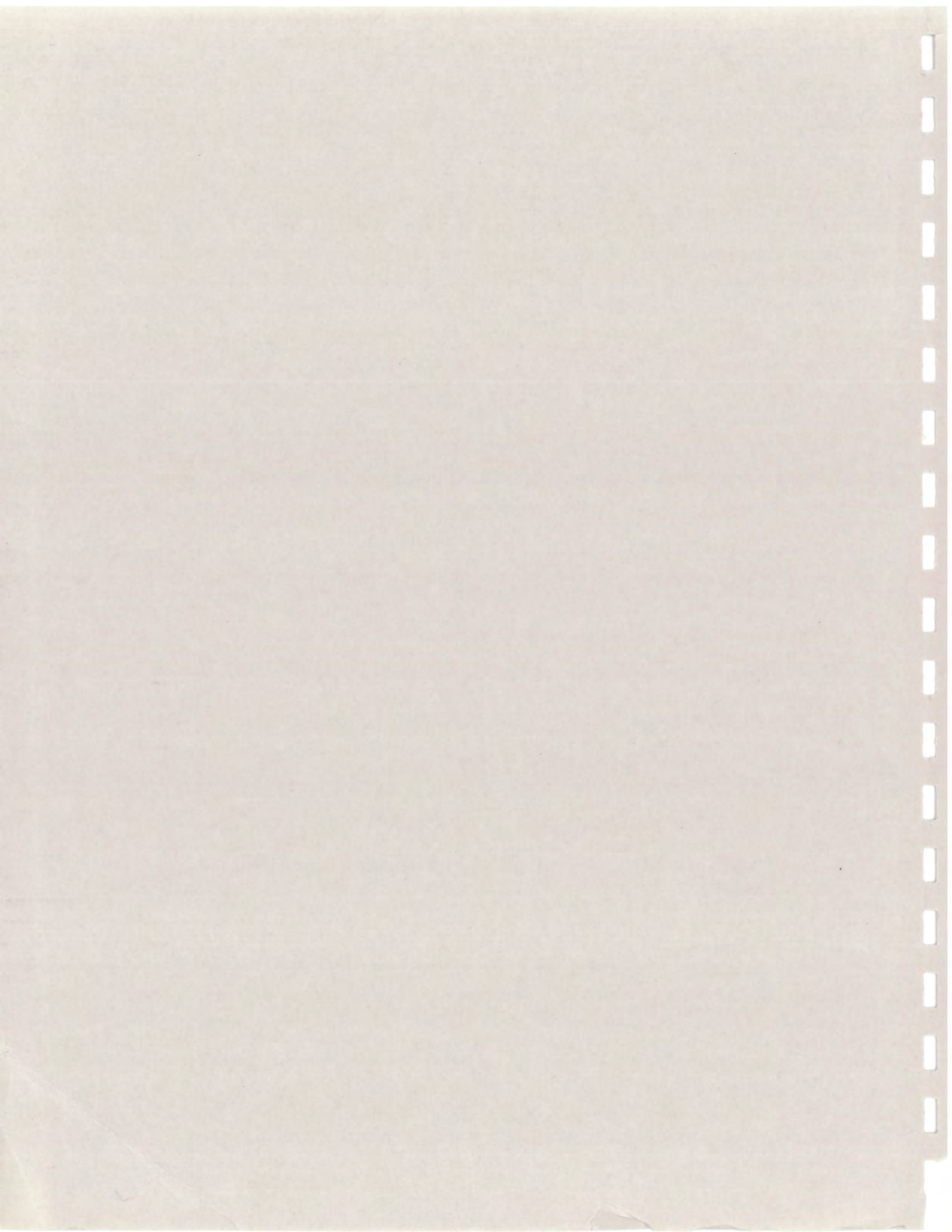
IN

SANDERS COUNTY, MONTANA

MONTANA DEPARTMENT OF TRANSPORTATION

AND

U.S. DEPARTMENT OF TRANSPORTATION,
FEDERAL HIGHWAY ADMINISTRATION



FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT

For

STPP 6-1(36)85

PARADISE - EAST (EAST SECTION)

P.M.S. CONTROL NO. 1011

&

STPP 6-1(30)99

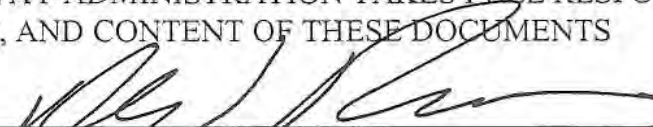
DIXON - WEST

P.M.S. CONTROL NO. C891

IN

SANDERS COUNTY, MONTANA

THE FEDERAL HIGHWAY ADMINISTRATION HAS DETERMINED THAT THE MONTANA DEPARTMENT OF TRANSPORTATION'S PREFERRED ALTERNATIVES OF THIS PROPOSED ACTION WILL HAVE NO SIGNIFICANT IMPACT ON THE HUMAN ENVIRONMENT. THIS FINDING OF NO SIGNIFICANT IMPACT IS BASED ON THE FOLLOWING ATTACHED DOCUMENTS: THE ADDENDUM TO THE ENVIRONMENTAL ASSESSMENT; COMMENTS AND RESPONSES TO COMMENTS ON THE ENVIRONMENTAL ASSESSMENT; SUMMARY OF PUBLIC HEARINGS ON THE ENVIRONMENTAL ASSESSMENT; AND THE ENVIRONMENTAL ASSESSMENT. THE FEDERAL HIGHWAY ADMINISTRATION HAS INDEPENDENTLY EVALUATED THESE DOCUMENTS AND DETERMINED THEY ADEQUATELY AND ACCURATELY DISCUSS THE NEED, ENVIRONMENTAL ISSUES, IMPACTS OF THE PROPOSED ACTION, AND APPROPRIATE MITIGATION MEASURES. THESE DOCUMENTS PROVIDE SUFFICIENT EVIDENCE AND ANALYSIS FOR DETERMINING THAT AN ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED. THE FEDERAL HIGHWAY ADMINISTRATION TAKES FULL RESPONSIBILITY FOR THE ACCURACY, SCOPE, AND CONTENT OF THESE DOCUMENTS


Federal Highway Administration

, Date

6-27-2000

**Addendum to the Environmental Assessment
for
STPP 6-1(36)85
Paradise - East (East Section)
P.M.S. Control No. 1011
and
STPP 6-1(30)99
Dixon - West
P.M.S. Control No. C891**

**Addendum To
Environmental Assessment
For
STPP 6-1(36)85
PARADISE - EAST (EAST SECTION)
P.M.S. CONTROL NO. 1011
&
STPP 6-1(30)99
DIXON - WEST
P.M.S. CONTROL NO. C891
IN
SANDERS COUNTY, MONTANA**


This document is prepared in conformance with requirements of the National Environmental Policy Act (NEPA) and contains information necessary for an environmental assessment (EA) under 23 CFR 771.119 and 40 CFR 1500 to 1508. It also is prepared in conformance with requirements of the Montana Environmental Policy Act (MEPA) for an EA under the provisions of ARM 18.2.237(2) and 18.2.239.

Submitted pursuant to 42 U.S.C. 4332(2)(c),
and Sections 75-1-201 & 2-3-104, M.C.A.

by the
Montana Department of Transportation
and
U.S. Department of Transportation, Federal Highway Administration

Submitted by:

6-27-2000
Date


for Montana Department of Transportation,
Environmental Services

Reviewed and Approved

6-27-2000
Date


for Federal Highway Administration

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INTRODUCTION

In November 1999 the Montana Department of Transportation (MDT) distributed for public review an Environmental Assessment (EA) for a proposed action to improve Montana Highway 200 (MT200) with two projects: Paradise-East (East Section) and Dixon-West.

This Addendum to the Environmental Assessment (EA Addendum) presents new and revised information, in response to comments about the EA from agencies and the public. The numbering system for chapters and sections in the EA Addendum corresponds to the numbering system for chapters and sections in the EA.

The EA Addendum contains information only for the chapters and sections that have new and revised information.

The EA Addendum does contain some new sections that are not in the EA:

- Section 2.6, Other Proposals Considered
- Section 4.4.2, Consultation with Agencies for Issues Related to Wildlife

The EA Addendum addresses the Paradise East (East Section) and Dixon-West projects. The projects would reconstruct two sections of Montana Highway 200¹ between Paradise and Dixon in Sanders County, Montana:

- Paradise-East (East Section), 8.4 kilometers (km), 5.2 miles (mi) long; beginning 0.6 km (0.4 mi) east of the junction MT200/135, at approximately Reference Post (Milepost) 85.4, and extending eastward to RP (MP) 90.6. The EA and EA Addendum refer to this section as the Paradise Section. The project number is STPP 6-1(36)85, and the MDT control number is CN 1011.
- Dixon-West, 15.8 km (9.8 mi) long; beginning at approximately RP (MP) 99.1 and extending eastward to RP (MP) 108.9 at the west edge of Dixon. The EA and EA Addendum refer to this section as the Dixon Section. The project number is STPP 6-1(30)99, and the MDT control number is CN C891.

The total length of the proposed action is 24.2 km (15.0 mi). The two sections are separated by 13.7 km (8.5 mi). The Paradise Section crosses the boundary of the Flathead Indian Reservation at RP (MP) 88.9. The eastern 2.7 km (1.7 mi) of the Paradise Section and the entire Dixon Section, 15.8 km (9.8 mi), are within the Reservation.

¹Montana Highway 200 is designated Primary Route 6 by MDT.

1 PURPOSE AND NEED FOR ACTION

1.1 Proposed Action

The proposed action, which includes two projects that are part of a larger planning area between the communities of Ravalli and Paradise, does not have as an objective an intent to induce population growth, economic development, or increased traffic. The proposed projects would replace an existing two-lane highway with a new two-lane highway that has improved alignment and grades in the current highway corridor. Highway design, using appropriate widths for traffic lanes, shoulders, recovery areas and rights-of-way, along with actions to manage new approaches and realign, relocate, consolidate, eliminate or perpetuate existing approaches, would support tribal and county efforts for land use planning and regulation.

In the mid-1980s, MDT planned two construction projects to improve MT200 between Ravalli and Paradise: Paradise to Dixon and Dixon to Ravalli. MDT established the segments with "logical termini," which were based on communities, other highways, and topographic and geographic factors, to begin and end the two projects (23 CFR 771.111). The segments connected logical termini and were of sufficient length to address environmental matters throughout the lower Flathead River corridor. The segments also had independent utility without considering other projects in the area. The segments also did not restrict consideration of other reasonably foreseeable transportation improvements.

By the late-1980s, MDT retained the Dixon to Ravalli project and divided the Paradise to Dixon segment into four projects due to scheduled availability of funding:

- Paradise-East (West Section)
- Paradise-East (East Section)
- Perma East and West
- Dixon-West

The four segments had logical termini based on termini for adjacent projects already completed, topographic and geographic factors, and timing requirements for funding. The termini of the four projects correspond to beginnings and endings of local trips. MDT has constructed three of the five projects between Ravalli and Paradise: Perma East and West in 1993, Paradise-East (West Section) in 1997, and Dixon-Ravalli in 1998.

Addendum Table 1-1 identifies other proposed and completed projects in the region. These projects also have communities, connections with other highways, and topographic and geographic features as logical termini. The projects are located across a region encompassing the Jocko, Mission, Lower Flathead, and Clark Fork valleys. These projects are separated from the proposed action by considerable distance, intersections with other highways, distinct geographic

Addendum Table 1-1 Highway Projects					
Project	Project Number	Highway and Begin RP (MP)*	Length [km (mi)]	Type	Year
Montana Department of Transportation					
Plains-West	RTF 6-1(74)69	MT200, 68.7	11.27 (7.00)	Seal and Cover	1995
Plains-Paradise	RTF 6-1(75)77	MT200, 76.6	9.33 (5.80)	Seal and Cover	1995
Dixon-Ravalli	STPP 6-1(61)109	MT200, 108.7	11.75 (7.30)	Reconstruct	1998
Perma East and West	STPP 6-1(49)91	MT200, 90.5	5.6 (3.5)	Seal and Cover	1993
Paradise-East (West)	BR-STPP 6-1(65)83	MT200, 82.4	4.7 (2.9)	Reconstruct	1997
Lonepine-N and E	STPP 36-1() 26	MT28, 25.1	16.09 (10.00)	Reconstruct	2001
Polson-East	STPP 52-1(17)0	MT35, 0.0	4.7 (2.90)	Reconstruct	2003
Perma Canyon N	STPS 382-1(9)4	S-382, 3.9	11.43 (7.10)	Widen and Overlay	1997
Dixon-North	RTS 212-1(6)0	S-212, 0.0	7.56 (4.70)	Seal and Cover	1997
Evato North	STPN 5-1(20)6	US93, 6.3	14.00 (8.70)	Repave (Thin Overlay)	1999
North of Evato	STPHS 5-1(22)10	US93, 9.7	0.60 (0.40)	Safety Improvement	1999
South of Arlee	NH 002 (378)	US93, 14.9	0.60 (0.40)	Portable Scale Site	2001
South of Ronan	STPHS 5-2(82)42	US93, 41.9	0.96 (0.60)	Safety Improvement	1999
Post Creek Hill	NH 5-2(84)39	US93, 38.5	2.4 (1.50)	Climbing Lane	2002
Ravalli-St. Ignatius	RTF 5-2(83)27	US93, 27.0	6.44 (4.00)	Repave (Thin Overlay)	1999
St. Ignat - N and S	NH 5-2(85)31	US93, 31.2	9.98 (6.20)	Repave (Thin Overlay)	1999
Ronan-Polson N	RTF 56-2(69)47	US93, 46.5	29.13 (18.10)	Repave (Thin Overlay)	1995
South of Polson	NH 5-2(71)57	US93, 56.7	1.13 (0.70)	Widen and Repave	1996
Polson-Elmo	NH 5-2(59)67	US93, 67.2	19.31 (12.00)	Repave	1996
Ronan-S	NH 5-2()36	US93, 36.0	19.74 (12.30)	Reconstruct	2003
Ronan-Polson	NH 5-2(50)48 F	US93, 47.8	18.02 (11.20)	Reconstruct	--
Ronan-Polson N	RTF 56-2(69)47	S-354, 46.5	29.13 (18.10)	Repave (Thin Overlay)	1995
Prospect Crk Road	RTS 471-1(5)0	W of T. Falls	35.57 (22.1)	Seal and Cover	1994
Federal Highway Administration (FHWA)					
Thomp River Road	RTS 556 (FH 56)	N and E of T. Falls	68.5 (42.6)	Reconstruct	After 2005
<p>Source: Montana Department of Transportation. Data from History File, based on System, Route, and Milepost. Data for future projects from TCP (Red Book).</p> <p>*Reference Post (Milepost)</p>					

areas with communities, distinct watersheds, and timing requirements for funding (40 CFR 1508.25).

MDT has completed environmental analyses for other projects on MT200 and US93. MDT has not developed the five projects between Ravalli and Paradise as connected actions. Construction of the Perma East and West, Paradise-East (West Section), and Dixon to Ravalli projects has not caused other actions that required an environmental impact statement. The completed projects also proceeded independently; they were not dependent on other actions, and they were not interdependent parts of a larger action (40 CFR 1508.25). Section 1.3 in the EA and EA Addendum identify MDT's environmental analyses for projects on MT200 and US93.

The proposed action would complete the last two of five projects to reconstruct MT200 between Ravalli and Paradise.

Addendum Figure 1-1 presents a project vicinity map.

1.2.3 Traffic

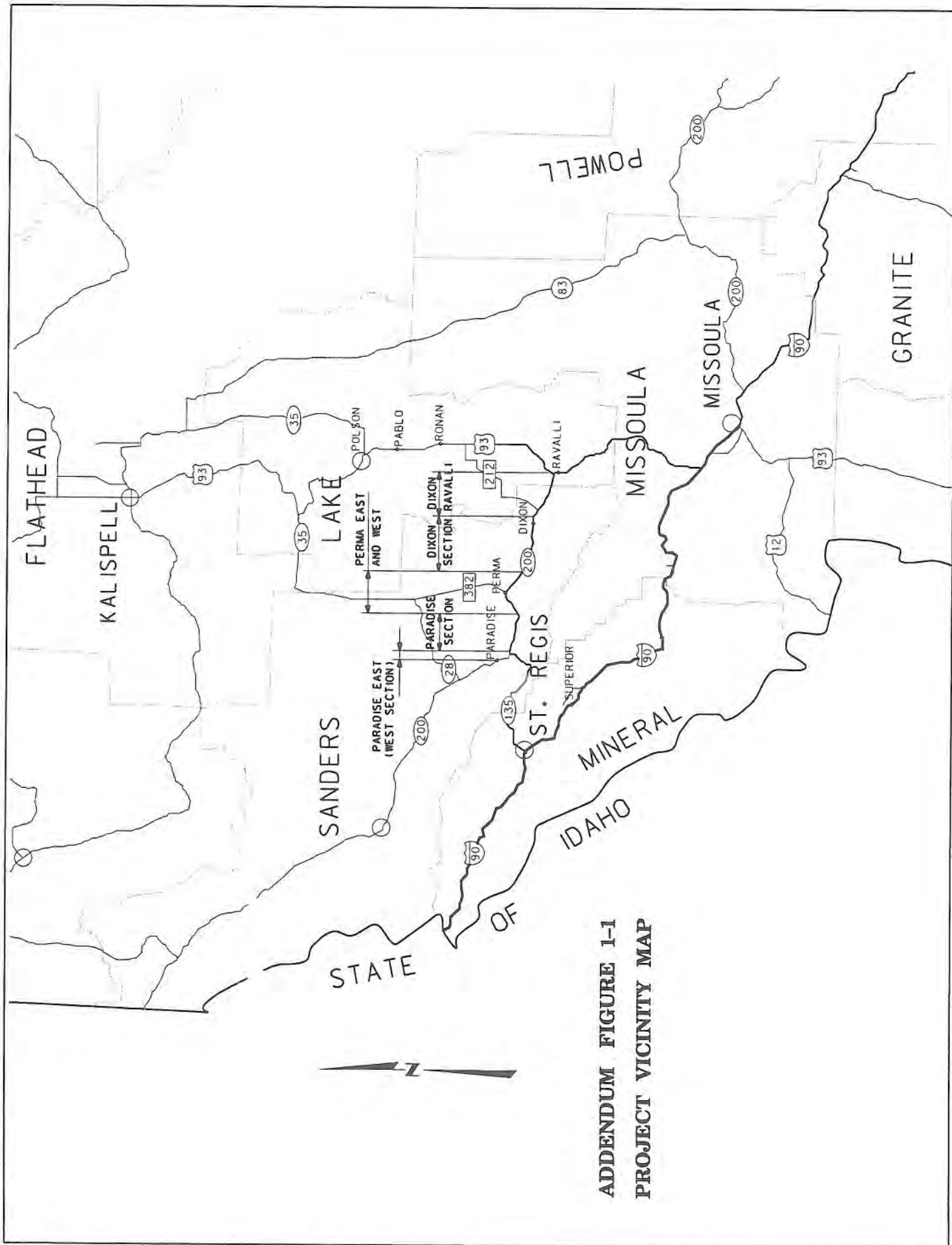
The Dixon and Paradise sections had average daily traffic (ADT) volumes 1,120 and 1,320, respectively, in 1999. Addendum Table 1-2 shows recent and projected traffic volumes and characteristics.

1.3 Project History

Addendum Table 1-1 lists other past and proposed projects in the vicinity of the project area.

The EA Addendum incorporates by reference the following environmental documents for US93 between Evaro and Polson:

- Final Environmental Impact Statement and Section 4(f) Evaluation. Volume I. Project F 5-1(9)6. U.S. Highway 93, Evaro-Polson. Missoula and Lake Counties, Montana. FHWA-MT-EIS-95-01-F.
- Final Environmental Impact Statement and Section 4(f) Evaluation. Volume II. Project F 5-1(9)6. U.S. Highway 93, Evaro-Polson. Missoula and Lake Counties, Montana. FHWA-MT-EIS-95-01-F.
- Record of Decision. Project F 5-1(9)6. U.S. Highway 93, Evaro-Polson. Missoula and Lake Counties, Montana. Final Environmental Impact Statement and Section 4(f) Evaluation. FHWA-MT-EIS-95-01-F.
- Confederated Salish and Kootenai Tribes and Montana Department of Transportation, Conceptual Design for the Dixon-West Wetland Mitigation Site, Project No. STPP 45(29), Control No. 4144, May 19, 2000.



Addendum Table 1-2 Traffic Data			
Item	Paradise Section	Dixon Section	Description
1999 ADT	1320	1120	Current Traffic
2000 ADT	–	1130	Letting Date
2003 ADT	1380	--	Letting Date
2020 ADT	–	1380	Design Year Traffic
2023 ADT	1680	--	Design Year Traffic
DHV	250	200	Design Hourly Volume
D	55-45	55-45	% Directional Distribution ¹
T	17.5	13.3	% Trucks, Medium and Heavy
<p><u>Source.</u> Montana Department of Transportation. Traffic by Section. ¹Directional distribution represents a typical peak hour. Directional distribution could be either direction.</p>			

2 DESCRIPTION OF ALTERNATIVES

2.3 Paradise Minimum Build Alternative

- From RP (MP) 88.2 to 89.1 in the Robertson Creek area, the horizontal alignment roughly follows the centerline of the existing roadway. The Confederated Salish and Kootenai Tribes have identified concerns about the alignment in this area, where the highway would be between a rock face and fringe wetlands along the Flathead River.

Design in this area could require evaluation of a minor adjustment in alignment. This is a confined area, and a minor adjustment of the alignment would not be expected to result in impacts different from those discussed in this document. Ongoing coordination for design and analysis is expected to focus on cultural, biological, aquatic, visual, and other applicable resources.

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes will coordinate ongoing design options and related environmental analysis for the Paradise Minimum Build Alternative. The Paradise Minimum Build Alternative would continue to have an objective to minimize impacts to all identified resources by following the existing alignment as closely as possible.

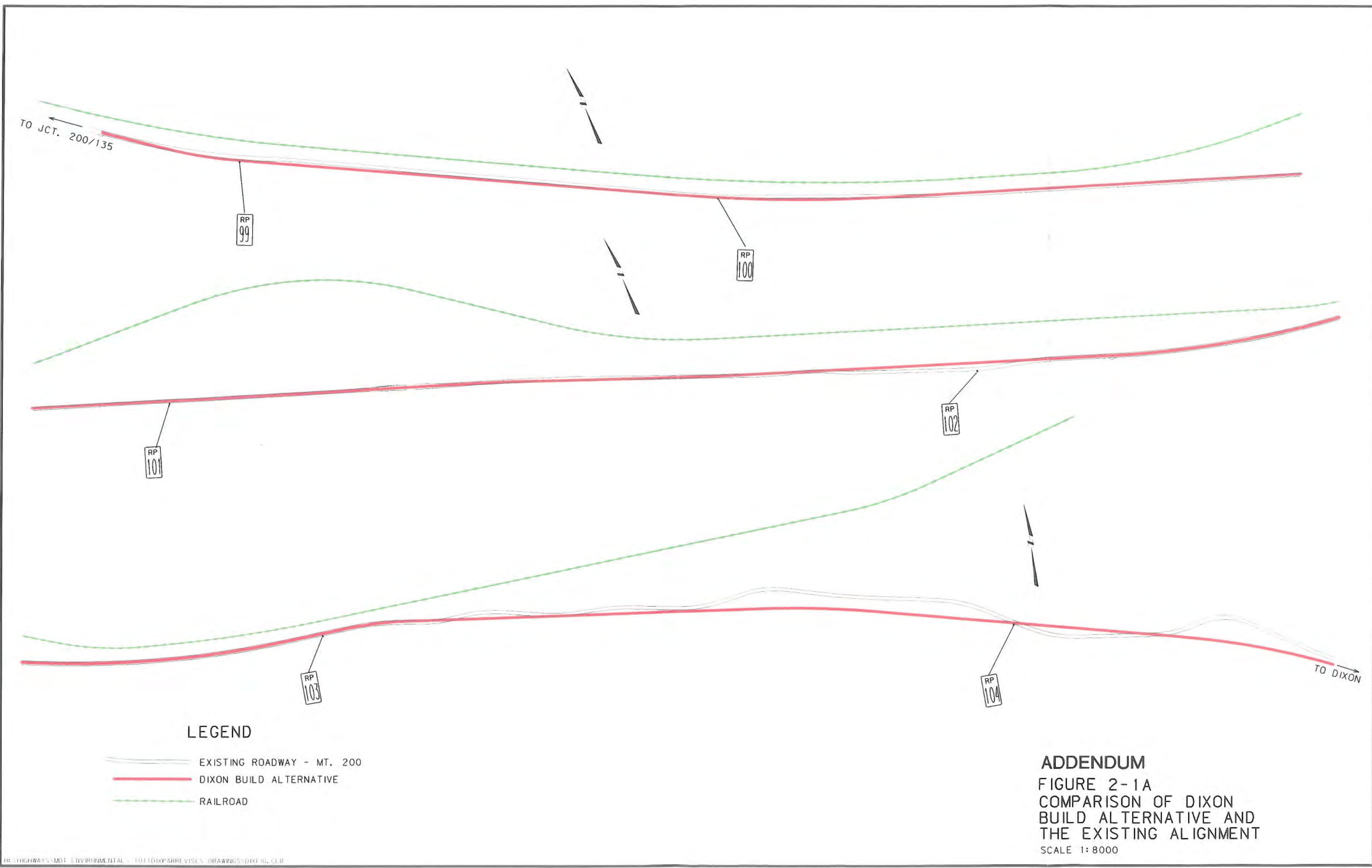
2.4 Dixon Build Alternative

Addendum Figure 2-1a illustrates the alignment of the Dixon Build Alternative in comparison with the existing alignment.

2.6 Other Proposals Considered

Elements of a proposal suggested by the Flathead Resource Organization (FRO) are listed below (from a letter dated November 30, 1998 and included in Appendix D of the EA).

Although the letter references a number of suggested design features and mitigation measures, it does not constitute a discrete alternative that would be wholly separate from the Preferred Alternatives. Below, in more detailed discussion, there are responses to the details found in the November 30, 1998 letter. As can be seen, many of the suggestions are incorporated in the Preferred Alternatives. Where the suggestions were not incorporated, there is an explanation. The Preferred Alternatives incorporate a flexible approach in considering design features and mitigation measures. The flexibility provides a balance among design guidelines and standards, traffic and safety, topography and climate, cost, and environmental concerns.



TO JCT. 200/135

RP 99

RP 100

RP 101




RP 102

RP 103

RP 104

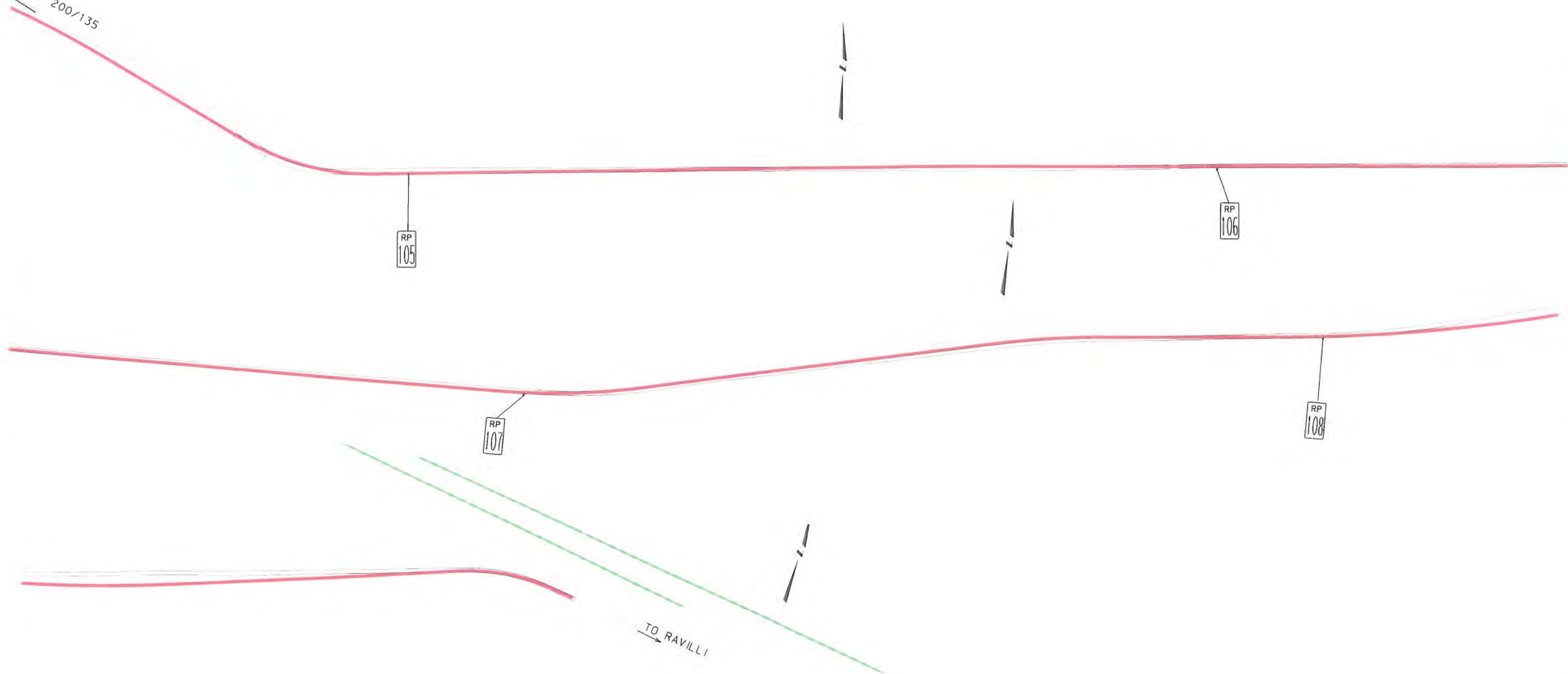
TO DIXON

LEGEND




-  EXISTING ROADWAY - MT. 200
-  DIXON BUILD ALTERNATIVE
-  RAILROAD

ADDENDUM
FIGURE 2-1A
COMPARISON OF DIXON
BUILD ALTERNATIVE AND
THE EXISTING ALIGNMENT
 SCALE 1:8000

TO JCT. 200/135



LEGEND

-  EXISTING ROADWAY - MT. 200
-  DIXON BUILD ALTERNATIVE
-  RAILROAD

ADDENDUM

FIGURE 2-1A (CONTINUED)
COMPARISON OF DIXON
BUILD ALTERNATIVE AND
THE EXISTING ALIGNMENT

SCALE 1:8000

As explained in italics following each element, most, but not all, of these suggestions have been incorporated in the Preferred Alternatives (Chapter 2 of the EA).

1. Smallest feasible right-of-way (ROW), while achieving safety improvements, with least possible cut and fill and maximum retention of existing alignment.

Achieving safety improvements with the least practical cut and fill and maximum use of existing pavement and roadbed also is the intent of the Montana Department of Transportation.

- Seek maximum avoidance and reduction in impacts on wetlands and the landscape.
Throughout these projects, wetlands have been identified and delineated. With the Preferred Alternative's designs, slopes have been steepened and alignments have been adjusted to avoid impacts where practical and feasible.
- Acceptance of lower design speeds for at least certain sections of the road.
This suggestion has been incorporated in the Paradise Minimum Build Alternative which is the Preferred Alternative for the Paradise Section (See Sections 2.3 and 2.5 of the EA).
- Analyze safety of widened shoulders and 4 meter (m), 12-foot (ft) traffic lanes on existing horizontal alignment, with some superelevation (banking on curves) as necessary.
This has been done. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have all been evaluated to determine appropriate lane and shoulder widths for the proposed projects based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines.
- Analyze whether wider paved shoulder with steeper drop-off, with guardrails or other devices where appropriate, would have as good or better effect on safety as the MDT proposal (smaller shoulders with very gradual slope).
The appropriate shoulder widths and slopes have been determined specifically for these projects using universally accepted national and state guidelines, as mentioned in the previous paragraph. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum. It should be noted that using a wider shoulder with a steeper inslope would not necessarily decrease the overall impact or footprint of the new roadway because the reduced footprint width resulting from the steeper inslope would be offset by the wider shoulder.
- Preserve necessity of reevaluation if a bigger highway is proposed in the future.

The option of reevaluation if a bigger highway is proposed in the future is always available.

2. Agricultural considerations:

- Seek minimization of impacts on agricultural operations, including taking of irrigated pasture.
This has been done. The appropriate shoulder widths and slopes have been determined specifically for these projects using universally accepted national and state guidelines, as mentioned in the previous paragraph. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.
- Require the EA to analyze impact of various alternatives on ranching/farming in area.
This has been done. See Section 3.2 of the EA.
- Require construction of stock underpasses where stockmen need them.
This has been done. See Section 3.1 of the EA.
- Require features to provide for safer lateral movement of stock, such as lighted signs and pavement markings.
This has been evaluated but no specific practical measures have been identified. In addition, no information has been provided that identifies lateral movement of stock as a substantial concern.
- Require written guarantees on quality of fencing and other materials.
As with all MDT projects, construction contractors and suppliers will be required to certify quality of materials in writing.

3. Other environmental considerations:

- Analyze impacts on the Flathead River corridor, including noise impacts, of making Montana Highway 200 more attractive to truckers using the St. Regis cut-off.
This has been done. No factors have been identified that indicate the proposed projects would cause substantial numbers of trucks to change from other routes to MT200. See Section 3.4 of the EA and the EA Addendum.
- Analyze possible benefits of wildlife underpasses, particularly at Revais Creek.
This has been done. Wildlife underpasses are available or will be provided at Revais Creek and other appropriate crossing sites throughout the proposed project.
- Coordination with CSKT wildlife to reduce poaching and harassment of wildlife.
This has been done. See Chapter 4 of the EA and the EA Addendum.

- Require MDT to specify in the EA all gravel and fill sites, and management plan describing immediate rehabilitation. This should not be left to the subcontractor. *It is not practical and feasible to identify all borrow sites at this time. Construction contractors will be required to comply with all local, state, federal and tribal regulations and obtain appropriate permits. See Section 3.20 of the EA Addendum.*
- Require that all reseeded is done with native species and seed stock approved by the Tribes. *As indicated in Appendix C of the EA and EA Addendum, appropriate seed mixtures have been developed in coordination with the Confederated Salish and Kootenai Tribes.*
- Provide safe bicycling facilities on shoulders and make funding available for local public transportation. *This has been done. There are several state and federal funding sources available for local public transportation.*

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Land Use

3.1.1 Affected Environment

Sanders County has a proposed 'Final Growth Policy' that would guide and control development in areas under the jurisdiction of the county government. The county expects to adopt the document by August 2000.

The Yellowstone Pipeline formerly entered the project area about 3.2 km (2 mi) west of Dixon. The pipeline is closed through this section. The Yellowstone Pipeline Company has removed parts of the pipeline's infrastructure.

3.1.3 Mitigation

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes will coordinate design and placement of scenic turnouts and interpretive signs. The Tribes and MDT have identified four locations for scenic turnouts:

Dixon-West

- South of Dixon dump site; Milepost 104.7; MDT has completed a plan for a turnout with parking.
- McDonald railroad siding; Milepost 102.3; MDT has completed a plan for a turnout with parking.

Paradise-East

- Robertson Creek fishing access; Milepost 88.5; MDT will not construct a turnout with parking; MDT will maintain the existing access.
- Burgess Lake turnout; Milepost 91.1; MDT will maintain the existing turnout with parking.

The Tribes will develop a conceptual, unified theme for interpretive signs to apply throughout the Flathead Indian Reservation. The tribal theme will provide interpretive signing for landscape features, specific site interpretation, and portals at the Reservation's boundaries. MDT will develop a sign plan and incorporate the Tribes' theme for nonregulatory signing. The Tribes and MDT will coordinate schedules for incorporating the conceptual interpretive theme in the sign plan.

3.3 Right-of-Way, Relocation and Utilities

3.3.1 Affected Environment

Utilities are located in the right-of-way for the Dixon Section between Reference Post (RP)—Milepost (MP) 99.1 and 108.9. Utilities are located in the right-of-way for the Paradise Section between RP (MP) 85.4 and 90.6.

3.3.2 Impacts and Mitigation

Relocation of utilities would occur with any of the build alternatives, subject to the provisions of MCA 60-4-103 and MCA 60-4-401. Overhead utility relocations are typically placed within five or 10 feet of the right-of-way line, outside the clear recovery area. Underground utilities are trenched just inside the ROW, with the first one within five feet of the line. Additional underground facilities would have no more than a four-foot separation from the first facility. Temporary impacts that may occur where utilities are relocated include clearing of trees and shrubs for the installation of above-ground utility poles, cross members, and wires. Any underground utility relocations would require clearing of some vegetation for trenching and back filling the trench.

Utility companies are responsible for obtaining applicable permits and clearances from the Montana Department of Transportation and other agencies, as necessary prior to relocation of the utilities. Sections 3.23 and 4.2 identify MDT permits that may be required for relocation of utilities, when applicable. Under MDT's Utility Guidelines (September 1995), the utility companies shall clean up the disturbed area to an original-like condition and reseed any disturbed ground.

3.4 Social

3.4.1 Affected Environment

Estimates of Historical Levels of Traffic

Levels of total traffic and truck traffic on MT200 in the project area are summarized on Addendum Table 3-1.² Statewide, truck traffic was approximately 10 percent of total traffic on rural primary highways during 1996-1998.³

²Total traffic expressed as average daily traffic (ADT).

³Montana Department of Transportation, Interstate, nonInterstate NHS, and Primary Rural Traffic Comparison (1996-1998).

Estimates of Future Levels of Traffic

Addendum Table 3-2 presents estimates from the Montana Department of Transportation for future levels of traffic. The table also presents estimates of future levels of truck traffic, based on expected future traffic and representative, historical rates of increase for truck traffic.

Patterns of Truck Traffic

Montana Highway 200 in the project area is a direct route for truck traffic traveling east-west and north-south through the Missoula, Flathead, Libby-Thompson Falls, and St. Regis areas. Highways including MT135, MT200, MT28, SR382, and SR212 carry traffic between I90 at St. Regis and US93 at locations spread between Ravalli in the south and Elmo in the north.⁴

Addendum Table 3-1 Historical Traffic¹						
Year	Paradise Section			Dixon Section		
	Total Traffic (ADT)	Truck Traffic (Daily)	Truck % of ADT	Total Traffic (ADT)	Truck Traffic (Daily)	Truck % of ADT
1975	580	100	17.2%	740	125	16.9%
1985	900	190	21.1%	1,050	215	20.5%
1995	1060	215	20.3%	1,115	190	17.0%
1997	1,360	205	15.1%	1,565	205	13.1%

Source: Montana Department of Transportation. Traffic by Section, Data for 1975-1995.
¹Estimates of historical traffic use estimates from the Montana Department of Transportation for the highway in the Dixon and Paradise sections. Estimates of historical traffic also use estimates for traffic by section near Jct. MT200/SR382 for the Paradise Section and near Jct. MT200/SR212 for the Dixon Section.
 Numbers are rounded to nearest 5.

Where MT200 is the short, direct route through the project area, alternate, longer routes increase travel distances by 17 to 73 percent between locations that are typical origins and destinations for the pattern of truck traffic in the project area. Addendum Table 3-3 presents distances for MT200 and alternate highway routes. Refer to Table 3-4 in the EA for average travel speeds in the area.

⁴ Montana Highway 135 (MT135); Montana Highway 28 (MT28); Secondary Route 382 (SR382); and Secondary Route 212 (SR212).

**Addendum Table 3-2
Estimates of Future Truck Traffic^{1,2}**

Year	Paradise Section			Dixon Section		
	Total Traffic (ADT)	Truck Traffic (Daily)	Truck % of ADT	Total Traffic (ADT)	Truck Traffic (Daily)	Truck % of ADT
1999	1,320	230	17.4%	1,120	150	13.4%
2005	1,690	265	15.7%	1,810	240	13.3%
2010	1,950	310	15.9%	2,090	270	12.9%
2015	2,200	350	15.9%	2,360	300	12.7%
2019	2,410	390	16.2%	2,570	335	13.0%

Source: Montana Department of Transportation. Traffic by Section, Data for 1975-1995.

¹Note. This table is based on MDT traffic projections for ADT from 1997 through a 2019 design year for the Dixon and Paradise sections. Section 1.2.3 in the EA presents the 1997 traffic data. Section 1.2.3 in the EA Addendum presents revised MDT traffic projections for ADT from 1999 through a 2020 design year for the Dixon Section and a 2023 design year for the Paradise Section. The 1997 MDT traffic projections had design-year ADTs of 2,410 and 2,570 for the Dixon and Paradise sections, respectively. The 1999 MDT traffic projections had design-year ADTs of 1,380 and 1,680 for the Dixon and Paradise sections, respectively. The estimates of future truck traffic in this table use a 20-year period from 1999-2019, based on the level of 1997 MDT traffic projections for ADT (Section 1.2.3 in the EA). The 1997 MDT traffic projections provide a higher base of ADT than the 1999 MDT traffic projections to estimate future truck traffic.

²Estimates of future total traffic (ADT) are from the Montana Department of Transportation for MT200 in the Dixon and Paradise sections. Estimates of future truck traffic calculated based on assumed 2.5 percent annual rate of increase for truck traffic between 1999 and 2019.

Numbers are rounded to nearest 5.

Telephone interviews, in February and March 2000 with 17 shipping companies that dispatch trucks carrying freight, developed information about patterns of truck traffic in the vicinity of MT200 in the project area.⁵ The shipping companies' trucks carry freight between origins and destinations for which the short, direct route includes all or parts of the highway network with MT135, MT200, MT28, SR382, and SR212. Trucks that use this highway network could travel on MT200 in the project area.

Addendum Table 3-4 presents information about the shipping companies' patterns of truck travel.

⁵Morrison-Maierle, Inc. Telephone Interviews with Shipping Companies. February 2000.

Addendum Table 3-3 Comparative Distance for Highway Routes			
From Origin to Destination	Via Long Route, km (mi)	Via Short Route, km (mi)	Difference km (mi)
St. Regis <u>to</u> Jct. US93/MT200	<i>I90/US93</i> 145 (90)	<i>MT135/MT200</i> 84 (52)	61 (38)
St. Regis <u>to</u> Jct. US93/SR212	<i>I90/US93,</i> 167 (104)	<i>MT135/MT200/SR212,</i> 104 (65)	63 (39)
St. Regis <u>to</u> Kalispell	<i>I90/US93,</i> 274 (170)	<i>MT135/MT200/MT84/US93,</i> 172 (107)	101 (63)
Jct. MT135/MT200 <u>to</u> Missoula	<i>MT135/I90,</i> 148 (92)	<i>MT200/US93/I90,</i> 106 (66)	42 (26)
Missoula <u>to</u> Plains	<i>I90/MT135/MT200,</i> 159 (99)	<i>I90/US93/MT200,</i> 117 (73)	42 (26)
Missoula <u>to</u> Libby	<i>US93/US2,</i> 328 (204)	<i>US93/MT200/SR56,</i> 280 (174)	48 (30)
Source: Mileage from Official Montana Highway Map.			

The 17 shipping companies provided information that estimated they would have a total of approximately 605 trucks⁶ in a typical month traveling between locations for which the highway network of MT135, MT200, MT28, SR382, and SR212 would be the short, direct route.⁷ Four of the 17 companies identified a total of approximately 19 trucks (three percent of the total 605 trucks) that would travel on the longer route, either seasonally or episodically. Two other companies indicated their trucks 'infrequently' would use the longer route. Improving the highway could attract these trucks to switch from the longer route to the short, direct route.

The shipping companies identified four factors that control decisions on highway routes for trucks that travel on regular routes and as line haulers (i.e., traveling through the area):

- Distance
- Time
- Cost
- Safety

⁶Trucks, in large numbers, transport seed potatoes, seasonally (i.e., typically mid-February through March), from the Mission and Flathead valleys westward to farms in Washington and Idaho.

⁷Numbers of trucks do not represent numbers of trips.

**Addendum Table 3-4
Patterns of Truck Travel from Interviews with 15 Shipping Companies
February 2000**

No.	Trucks Use MT200 in Typical Month ¹	Typically Travel Round Trip ²	Type of Freight	Standard Practice to Use MT200	Use of Longer Route		Likely to Use Improved MT200
					Typical Month	Reason	
1	140	Yes	Wood products	Yes	No	--	n.a.
2	20	Yes	Wood products	Yes	No	--	n.a.
3	20	No	Auto Parts	Yes	No	Regular route	n.a.
4	40	Yes	Wood products	Yes	5	Wet pavement	Yes
5	5	No	Wood products	No	5	Narrow No services	Yes
6	20	No	Motor Freight	Yes	No	Regular route	No
7	20	Yes	Motor Freight	Yes	No	--	n.a.
8	20	Yes	Petroleum	Yes	No	--	n.a.
9	20	Yes	Wood products	Yes	Infrequent	Weather Construction	Yes
10	60	Yes	Wood products	Yes	Infrequent	Seasonal weight ³ limits Snow and icy pavement Driver decision	Yes
11	40	Yes	Wood products	Yes	No	--	n.a.
12	100	Yes	Wood products	Yes	No	--	n.a.
13	24	No	Groceries	Yes	No	Regular route	n.a.
14	20	Yes	Wood products	Yes	No	--	n.a.
15	48	Yes	Groceries	Yes	1	Regular route Icy pavement	Yes
16	8	No	Livestock	No	8	Narrow and curves Poor sight distance	Yes
17	N.A. ⁴ (Seasonal)	Yes	Seed potatoes	No	N.A. ²	Seasonal weight ³ limits	No

Source: Morrison-Maierle, Inc. Telephone Interviews with Shipping Companies. February 2000.

¹Trucks traveling between locations where the highway network of MT135, MT200, MT28, SR382, and SR212 is the short, direct route to travel through the Missoula, Flathead, Libby-Thompson Falls, and St. Regis areas.

Number of trucks in Column 2 represents shipping companies' estimates of the number of vehicles that could use the highway network of MT135, MT200, MT28, SR382, and SR212 as the short, direct route to travel through the Missoula, Flathead, Libby-Thompson Falls, and St. Regis areas. Number of trucks does not represent number of trips.

²Indicates whether trucks typically would return on same highway route as a round trip.

³MDT expects to continue seasonal weight limits for frost during spring thaw after improving MT200.

⁴Trucks in large numbers transport seed potatoes seasonally (i.e., typically mid-February through March) from the Mission and Flathead valleys westward to farms in Washington and Idaho.

n.a. is not applicable; N.A. is Not Available

The shipping companies identified seasonal and episodic conditions that cause trucks to divert from a short, direct highway route through the project area to a longer highway route around MT200 in the project area. The conditions, including severe weather affecting road conditions and spring thaw requiring weight restrictions, cause trucks to use a longer route around rather than through the area served by the highway network of MT135, MT200, MT28, SR382, and SR212:

- | | |
|---|--|
| □ Seasonal weight limits during spring thaw | □ Construction and heavy traffic on US93 |
| □ Wet, snowy, and icy road conditions | □ Driver discretion |
| □ Narrow, winding road | □ Regular route through communities |

Summary of findings:

- The 17 shipping companies identified a total of approximately 605 trucks that could use MT200 in a typical month.
- Sixteen of the 17 companies reported it is standard practice for their trucks to use MT200.
- For the company whose trucks do not use MT200:
 - The company, with approximately five trucks per month, allowed drivers discretion to always use an alternate route. Its trucks infrequently travel through northwestern Montana; being unfamiliar with highways in the area, the company's truck drivers prefer to use highways with readily available services for repair and maintenance. The company also preferred their truck drivers use wider highways rather than narrower highways.
- Of the 16 companies using MT200:
 - Ten companies do not divert trucks away from MT200, either seasonally or episodically.
 - Four companies do divert trucks to a longer route, either seasonally or episodically.
 - Two companies' trucks, which transport livestock and seed potatoes, travel unloaded on MT200 and divert to a longer route when loaded.
 - One company reported it directed its trucks to use MT200 when road conditions are dry; this company's drivers could use a longer route if the pavement were merely wet, not snowy or icy.
- Of the six companies using MT200 and diverting trucks to a longer route:
 - Two companies reported use of the longer route as infrequent.
 - Three companies identified a total of approximately 14 trucks that would use the longer route in a typical month.

- Six of the seven companies with trucks using a longer route reported improving MT200 would likely cause them to not divert their trucks to an alternate route, either seasonally or episodically.

Petroleum is the predominant hazardous material transported on highways in this area of western Montana. Carriers of hazardous materials comply with the Federal Motor Carrier Safety Regulations pertaining to transport of hazardous materials. Available information indicates overall patterns of truck traffic would apply to hazardous materials (Stenberg pers. comm.).

3.4.2 Impacts

With the No Action and all Build Alternatives, previous patterns of change in traffic would be expected to continue, with projected ADT expected to increase from 1999-levels of approximately 1,120 and 1,320, for the Dixon and Paradise sections, respectively, to a 2020-level of approximately 1,380 for the Dixon Section and a 2023-level of approximately 1,680 for the Paradise Section (Addendum Table 1-2). Based on patterns of growth since 1995, future truck traffic would increase from estimated levels of approximately 230 and 150 in 1999 to estimated levels of approximately 390 and 335 in 2019 for the Dixon and Paradise sections, respectively (Addendum Tables 3-1 and 3-2).

With the Build Alternatives, safety and reliability of MT200 would improve substantially. The current pattern of truck traffic would continue; MT200, as a part of the highway network of MT135, MT200, MT28, SR382, and SR212, would continue to be a direct route for truck traffic traveling east-west and north-south through the Missoula, Flathead, Libby-Thompson Falls, and St. Regis areas. MT200 would continue to be the primary route for traffic between I90 at St. Regis and US93 at locations spread between Ravalli in the south and Elmo in the north.

Based on the result of telephone interviews with shipping companies, as discussed above, improving the highway would be expected to attract a relatively small number of trucks, which currently divert from the short, direct route, either seasonally or episodically, because of weather and road conditions and other factors. Most of these trucks currently do use MT200 when weather and road conditions are not adverse (Addendum Table 3-4).

Truckers already use the route because of its substantial savings in time and distance. Minor increases in truck traffic would be expected due to improved operation and safety when weather and road conditions present wet, snowy, and icy pavement.

Refer to Table 3-4 in the EA for information about reduction in travel times expected with improvement of the highway.

The community of Charlo, which is located on SR212, between MT200 and US93, has a legal posted speed zone of 70-55-40 km/h (45-35-25 mph).

3.4.3 Mitigation

If the Build Alternatives are constructed, the resulting improvements in operation and safety will serve to adequately accommodate increased truck traffic.

3.5 **Economics**

3.5.1 Affected Environment

The scenic, historic and cultural values of the southern part of the Flathead Indian Reservation, and the lower Flathead River corridor, provides opportunity to consider further developing the tourist economy of the area. The Confederated Salish and Kootenai Tribes, along with individuals and organizations participating in public involvement for this proposed action, have indicated interest in determining if MT200 along the Flathead River would be eligible for the National Scenic Byways Program.

Information from the Institute for Tourism and Recreation Research (ITRR) at the University of Montana indicates the project area provides recreational opportunities attractive to tourists. In a 1997 study of nonresident summer visitors traveling by private vehicle or commercial carrier, ITRR found the largest segment of first-time visitors were from five states in the Northwest: Washington (13 percent), Idaho (six percent), Oregon (four percent), Alaska and Hawaii. The nonresident summer visitors identified mountains, national parks, rivers, open space and wildlife as the state's major types of attractions. Glacier and Yellowstone national parks were the visitors' two single primary attractions. The visitors reported wildlife watching was the most popular activity during their stay in Montana.⁸

The Federal Highway Administration (FHWA) and the U.S. Forest Service (USFS) have independent programs to designate highways as national scenic byways. MT135, between St. Regis and the Junction MT200/135 is designated a USFS National Scenic Byway.

FHWA identifies potential scenic highways as roads having a corridor of high natural beauty and cultural or historic value. FHWA describes scenic highways as giving the highway user glimpses of history, nature, geology, landscaping and cultural activities—scenic highways serve both recreational and transportation purposes.

In 1994, the Montana Department of Transportation completed a feasibility study for a scenic byways program in Montana. The study concluded such a program is feasible in a unified, statewide system. The feasibility study identified nationally recognized requirements for programs to designate either national or state scenic byways:⁹

⁸Institute for Tourism and Recreation Research, University of Montana. Nonresident summer travelers to Montana: Profiles and Characteristics. 1997.

⁹Scenic Byways Feasibility Study, Executive Summary. Montana Department of Transportation, Transportation Planning Division, in cooperation with Federal Highway Administration. July 1994.

- Absolute Requirements for National Scenic Byways Nomination
 - ▶ Route must meet criteria for user safety, user facilities, and local and state plans to maintain the intrinsic values of the corridor through which it passes.
 - ▶ Route must safely and conveniently accommodate two-wheel-drive automobiles with standard clearances.
 - ▶ Route must safely and conveniently accommodate, where feasible, bicycle and pedestrian travel.
 - ▶ Route should be as continuous as possible, without too many gaps.
 - ▶ Route must demonstrate a practical balance between private property rights and the public interest through tools such as land use zoning, conveyance of easements, and economic incentives.
 - ▶ A corridor management plan must accompany each nomination. The plan must indicate means for implementing operation, management, preservation and enhancement. The plan must include a map and inventory of existing and planned development.
 - ▶ Corridor management plan must show strong evidence of local support, continuing advocacy, and commitment to the designation of a highway as a scenic byway.
 - ▶ Corridor management plan must demonstrate minimization of intrusions on visitor experience, to the extent feasible, and include a plan for making improvements to enhance that experience.
 - ▶ Corridor management plan must provide an indication that the levels of corridor protection will be highest through areas of greatest intrinsic value.
 - ▶ Corridor management plan must contain a viable marketing plan describing various measures that would be taken to attract travelers.

- Absolute Requirements for State Scenic Byways Nomination
 - ▶ Route must possess at least one of the following thematic, outstanding qualities: Scenic/visual; scientific/educational; historic/cultural; natural features; or recreational opportunities.
 - ▶ Only existing roads that can safely accommodate expected traffic volumes will be considered for a scenic byway (or backway). Nominated byways (not backways) must be paved with an identifiable shoulder.
 - ▶ All nominated routes must have strong local support, continuing advocacy, and commitment—by a majority of agencies and landowners with jurisdiction adjacent to the route—to the designation as a scenic byway.
 - ▶ Each agency, entity, or government with jurisdiction and responsibility for any roadway nominated for designation shall approve any application submitted for byway designation.
 - ▶ A corridor management plan, which is consistent with federal, state, tribal, local and other relevant land use/management plans, must accompany each nomination.

The 1999 Montana Legislature enacted Senate Bill No. 421 to create a Montana Scenic-Historic Byways Program.¹⁰ The Montana Transportation Commission has authority to designate roads to

¹⁰1999 Montana Legislature. Senate Bill No. 421. Introduced by D. Mahlum. 1999.

include in the program, based on intrinsic scenic, historic, recreational, cultural, archaeological, educational, or natural qualities. The transportation commission may not designate a road as a scenic-historic byway without concurrence of affected local governments and agencies responsible for maintenance and operation of the road. Localities are responsible for developing and implementing corridor management plans for designated scenic-historic byways. The Montana Department of Transportation is responsible for developing rules to administer the program.

An advisory council, with members having expertise in tourism, visual assessment, Montana history, resource protection, economic development, transportation, or planning, will review applications. The advisory council will recommend to the transportation commission roads that should be included in the program.

The 1999 Montana Legislature did not provide funding for MDT to develop rules for administering the scenic-historic byways program. MDT will request the 2001 Montana Legislature appropriate funds to develop the program.

Senate Bill No. 421 identifies guidelines for developing criteria in the rules to designate a road for inclusion in the Montana Scenic-Historic Byways Program:

Factors defining opportunities allowed to localities participating in the program:

- Enhance the experience of the traveling public;
- Stimulate or allow for economic development and marketing strategies;
- Preserve intrinsic resources for the benefit of future generations.

Factors to consider in a locality's corridor management plan for designated scenic-historic byways:

- The corridor management plan should serve as a visioning tool to direct enhancing and marketing the corridor.
- Localities should not use the corridor management plan for the following purposes:
 - ▶ Land management
 - ▶ Zoning
 - ▶ Scoping or prioritization for highway improvement
 - ▶ Highway management
- The corridor management plan for a designated scenic-historic byway should accommodate commerce and commercial vehicle and maintain a safe and efficient level of highway services.
- The corridor management plan should protect private property rights:
 - ▶ Assure private property rights adjacent to or visible from the road are not diminished by designation as a scenic-historic byway; or
 - ▶ Accommodate private property rights through mutually agreeable compensation.
- Preclude localities adopting corridor management plans from establishing goals or commitments outside the locality's jurisdiction.

- Accommodate all jurisdictions affected, or to be affected, by designation of a road as a scenic-historic byway.

Procedures to ensure localities participating in the scenic-historic byways program have authority to:

- Exclude from designation any segment of a highway that is inconsistent with the state's criteria for scenic-historic byways:
 - ▶ A locality may allow off-premises advertising in the form of billboards or painted signs, subject to applicable federal, state or local laws.
 - ▶ A locality may use signage recognized as exceptions, or as information signs, in all areas along a designated route, provided the signage complies with 23 U.S.C. 131, Title 60, chapter 5, part 5, Title 75, chapter 15, part 1, and all applicable state or locally adopted rules, requirements and restrictions.

3.5.2 Impacts

The Federal Highway Administration has studied the economic impacts of scenic byways on local economies. FHWA's studies found scenic highways can increase local revenues by encouraging tourist trade and by increasing land values. The studies identify potential economic advantages in areas with scenic highways:¹¹

- Attraction of intrastate and interstate visitors, bringing additional income and economic vitality;
- Increased land values, with increased attractiveness of the area;
- Opportunity for promoting a tourist economy by taking advantage of increased numbers of visitors;
- Enhanced community identity and pride, encouraging reinvestment in communities.

The No Action Alternatives would not improve the highway for travelers seeking aesthetic experiences of traveling a scenic highway. The existing highway would perpetuate narrow shoulders, deteriorating paved surface, and curves with inadequate horizontal and vertical alignments. These deficiencies would continue to create safety hazards for vehicular traffic and pedestrians and bicyclists. No Action would not satisfy national and state criteria for designating the highway as a national or a state scenic byway.

The Build Alternatives would satisfy national and state criteria for designating the highway as a national or a state scenic byway. The Build Alternatives would improve the highway's operation and safety to accommodate increased tourist traffic and travelers seeking aesthetic experiences of a scenic highway.

The Dixon Build and Paradise Minimum Build alternatives, which are the Preferred Alternatives, would improve the highway to provide appropriate alignments, traffic lanes, and shoulders, with

¹¹The California Scenic Highway Program. Economic Benefits of Scenic Highways. California Department of Transportation. Revised March 1996.

the least necessary impact from cut and fill in areas with sensitive cultural, visual, biological and other resources. The Paradise Build Alternative would cause more severe visual impacts due to relocating the alignment and need for large areas of cut and fill.

3.5.3 Mitigation

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes will coordinate mitigation measures to preserve and enhance scenic values. Mitigation measures include cooperatively evaluating design plans for cut and fill in sensitive areas, developing plans for scenic turnouts, interpretive signs, and reclamation by revegetation with native seed mixes. MDT and CSKT will coordinate design and placement of scenic turnouts and interpretive signs.

3.6 Visual

3.6.3 Mitigation

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes will coordinate mitigation measures to preserve and enhance scenic values. Mitigation measures include scenic turnouts, seeding, and reclamation. MDT and CSKT will coordinate design and placement of scenic turnouts and interpretive signs.

Two mitigation measures have been identified for visual impacts in the Revais curves area of the Dixon Section: 1) Plant pine trees on slopes, in areas outside the safety clear zone. 2) Install 'wildlife-friendly' fencing (i.e., four strands, barbed top and bottom wires) along the north right-of-way in the Revais curves area and for the entire length of the Dixon-West and Paradise-East projects. MDT and the Tribes will coordinate use of fencing, including appropriate types of fence to use in areas use for grazing livestock.

MDT will include specifications for fencing in the right-of-way plan and the construction contract. MDT and the Tribes have committed to participate in ongoing coordination for design and mitigation measures at selected locations of the Dixon and Paradise sections. The Preferred Alternatives comply with the Lower Flathead River Corridor Management Plan's visual goals and objectives, encompassing culture, scenery and recreation.

3.7 Historical and Cultural Resources

3.7.3 Mitigation

Prior to construction, the Confederated Salish and Kootenai Tribes will salvage plant species of cultural significance within the construction limits. In order to mitigate for losses of plant species of importance to the Tribes, MDT will coordinate the timing of the preconstruction clearing and grubbing activities with the Tribes to allow for salvage and possible relocation of species of concern.

3.13 Water Quality, Erosion Control, and Reseeding

3.13.2 Impacts

Long-term impacts to surface water and water quality are expected to be minimal for all Build Alternatives. Information available from an FHWA research program concluded that highway facilities with levels of average daily traffic less than 30,000 vehicles have minimal impacts to receiving waters. Soils and vegetation adjacent to highways are active in filtering and diminishing levels of pollutants during runoff when ADT is below 30,000 vehicles (Rexnord, 1985).

Stormwater runoff on rural highways such as MT20 in the Dixon and Paradise sections typically would be expected to contain nonpoint source pollutants, including oil, grease, particles of wear from vehicles and pavement, combustion products, and sand, salt, or chemicals from road maintenance. The highway's increased impervious surface would flow to the roadside borrow area. The soils and vegetation adjacent to the highway would filter and diminish the runoff as a part of natural open drainage.

3.13.3 Mitigation

The Confederated Salish and Kootenai Tribes have approved authority from the U.S. Environmental Protection Agency to implement the provisions of the Clean Water Act on the Flathead Indian Reservation. That authority covers the following tribal activities and documents related to water quality standards and certification and nonpoint source assessment and management:

- Water quality standards (CSKT Water Quality Standards and Antidegradation Policy, 1995)
- 401 Water Quality Certification
- Nonpoint source assessment (CSKT Nonpoint Source Assessment for Streams, Rivers, Lakes and Wetlands, Flathead Indian Reservation, Montana, January 2000)
- Nonpoint source management (CSKT Nonpoint Source Management Plan for Streams, Rivers, Lakes and Wetlands, February 2000)

3.15 Wetlands

3.15.1 Affected Environment

The Wetlands Conservation Plan for the Flathead Indian Reservation (CSKT 1999a) sets interim and long-term goals for wetland and riparian resources of the Reservation. The interim goal is to halt loss of remaining wetlands and riparian areas and their decline in quality. The long-term goal is to increase the acreage of these areas and improve their quality. Wetlands are discussed below; riparian areas are discussed in Section 3.16.

Fifty-three primary wetland areas were identified within the ROW and temporary construction easements along the projects. Thirty-three of these occur along the Dixon Section, while 20 occur along the Paradise Section. Individual wetland descriptions were presented in the Biological Resources Report (BRR) prepared for these projects.

The 1996 MDT functional assessment form was used to assess wetland functions. This method assesses and assigns each of 12 functions and values ratings of 'low', 'moderate', or 'high', and scores each on a scale of 0.1 (lowest) to 1.0 (highest) 'functional points.' These points are then used in conjunction with other criteria to provide an overall wetland ranking into one of four categories. Category I is the highest overall ranking a wetland can receive, followed by Category II, Category III, and Category IV. Functional points can also be multiplied by the acreage of wetlands impacted in the assessment area (AA) to determine the total 'functional units' lost for a given site.

Dixon West. Wetlands along the Dixon Section range from emergent-dominated sites associated with agricultural areas and roadside borrow areas to forested and scrub-shrub sites associated with springs and streams. Dominant species at emergent marsh and wet meadow communities include reed canarygrass, broad-leaf cattail, hard-stem bulrush, small-fruited bulrush, water smart weed, Nebraska sedge, beaked sedge, wooly sedge, water sedge, retrorse sedge, Baltic rush, redtop, tall manna grass, Canada goldenrod, and large-leaf avens. These sites receive their wetland hydrology primarily from shallow groundwater, runoff, or directly or indirectly from irrigation. Most sites rated as Category III or IV wetlands using the MDT evaluation form. A prominent function at many of these sites is sediment/nutrient/toxicant removal. Few other functions, such as wildlife habitat, are prominent due to the high degree of disturbance associated with many of these sites. An exception to this is wetland D-2, which is a Category II site that receives high levels of wildlife use.

Scrub-shrub and forest-dominated sites generally occur in association with seeps and intermittent drainages in the project area. Common dominants at these sites include quaking aspen, black cottonwood, speckled alder, red-osier dogwood, sandbar willow, and Pacific willow. Climbing nightshade also occurs in association with most of these sites. Many of these sites receive their wetland hydrology from springs, seeps, and in-channel or overbank flow from small drainages. Most sites rated as Category III wetlands using the MDT evaluation form. Prominent functions at many of these sites include wildlife habitat (particularly from a travel corridor perspective), production export/food chain support, and groundwater discharge. Higher-quality (Category II) forested or scrub-shrub-dominated sites include D11, D19, and D22 (on the north side of the highway).

The majority of wetlands in the ROW rated as Category III sites using the 1996 MDT evaluation method. These consist of small to moderate-sized sites functioning at moderate capacities. Category II wetlands generally occur in association with areas of high habitat diversity and wildlife use. Category IV sites generally consist of disturbed, linear, excavated roadside ditches in which wetland vegetation has developed. No Category I sites were identified in the project area.

Paradise East. Wetlands along the Paradise Section predominantly occur in association with the Flathead River or springs and streams. Few sites along this section occur in association with agricultural areas and roadside borrow areas.

Most wetlands along this section are associated with the Flathead River. These wetlands are mostly dominated by emergents and submergents including beaked sedge, northern arrowhead, field horsetail, yellow iris, large-leaf avens, water smartweed, creeping spikerush, least spikerush, broad water-weed, and common bladderwort. Shrub and forest community dominants include red-osier dogwood, sandbar willow, speckled alder, quaking aspen, and black cottonwood. Sites along the Flathead River generally rated as Category I wetlands using the MDT evaluation form due to the presence of bull trout, a federally listed species, within the assessment area. Prominent functions at many of these sites include wildlife and fish habitat, sediment/shoreline stabilization, production export/food chain support, and recreation potential.

Wetlands along Burgess, Wilson, and Robertson creeks and at scattered seep areas contain many of the same emergent and shrub species listed above. However, the actual wetland fringe along Robertson Creek is extremely narrow, less than 1 m (3 ft), in comparison with the other two streams, which contain wetlands throughout their active channels. These sites rated as Category II or III wetlands using the MDT evaluation form. Prominent functions include wildlife habitat (particularly from a travel corridor perspective), fish habitat (at streams), and sediment/shoreline stabilization.

The two largest emergent-dominated sites occurring in association with agricultural use (hay/pasture land) are P17 and P20. Both are dominated by reed canarygrass, and rated as Category IV wetlands using the 1996 MDT evaluation form. Dynamic surface water storage and sediment/nutrient/toxicant removal are prominent functions at these sites.

The majority of wetland acreage in the ROW rated as Category III wetlands using the 1996 MDT evaluation method. Scrub-shrub and forest-dominated seeps and sloughs were generally rated as Category II sites due primarily to high habitat diversity, wildlife use and/or fish use. Sites along the Flathead River generally rated as Category I wetlands due to the presence of bull trout, a federally listed threatened species, within the assessment area. Category IV sites generally consisted of disturbed, linear, excavated roadside ditches or disturbed hayfields in which wetland vegetation had developed.

3.15.2 Impacts

Under the No Action alternatives, no direct wetland impacts are anticipated. Accidents and related potential for spills of fuel and other contaminants into area waters may increase in proportion to projected increasing traffic volumes. Impacts associated with road maintenance, such as herbicide use, would continue.

Under the Build Alternatives, wetland impacts, both in terms of actual loss and decreases in functional capacity, would result primarily from vegetation clearing and grubbing and fill placement. Temporary impacts may result from movement of equipment within the ROW but

outside of construction limits; however, these potential impacts would be minimized by prohibiting vegetation clearing or grubbing beyond the construction limits. Temporary impacts associated with clearing for relocation of utilities may occur along the edge of the ROW (Section 3.3.2). Wetland impacts resulting from fill placement are discussed below. Potential for accidents and related spills of fuel and other contaminants into area waters would be reduced through reduction of horizontal and vertical curves and modifications to the superelevation along both sections.

At each wetland, functional points were multiplied by the acreage of wetlands to be impacted (e.g., within the construction limits) to project the total 'functional units' to be lost. Functional unit losses were then cumulatively totaled for the projects to provide a target for functional unit replacement at the proposed mitigation site.

Degrees of functional loss would also occur beyond actual construction limits as the existing highway 'zone of influence' extends into these areas commensurate with widening. While such losses would occur, they are generally not considered substantial because: an existing two-lane highway occurs adjacent to these areas and, with the exception of the Paradise Build Alternative, drastic alignment shifts are not proposed in wetland areas; wetlands in the project area are either moderate to very large in size (e.g., fringe along the Flathead River) and the relative percentage of impact to total area is very small, or are very small in size (e.g., roadside ditches) and would be completely lost to construction, in which case additional impacts would not occur; and, cross highway drainage via culverts would be perpetuated at all wetlands where such drainage currently exists, minimizing impacts to hydrological functions.

In an effort to quantify such functional losses, an additional 10 percent was added to projected functional unit losses under all alternatives. This takes into account areas that would experience more or less than this estimated 10 percent loss in functional capacity, as well as sites that would be completely filled and would experience no additional loss beyond the construction limits.

Addendum Table 3-5 compares wetland losses by wetland community type and wetland category. This table considers cumulative impacts of the Dixon and Paradise sections under each of the Build Alternatives.

Addendum Table 3-6 compares losses of functional units for wetlands within the construction limits.

Dixon Build. The Dixon Section would result in a loss of 1.6 hectares (ha), 3.99 acres (ac) of wetlands within the construction limits. The majority of impacts would occur at Category III wetlands and within emergent communities. No Category I wetlands would be affected. Approximately 14.49 functional units would be lost within construction limits. Adding an additional 10 percent (1.45) to account for indirect losses in functional capacity results in a projected 15.94-functional unit loss. Temporary disturbance impacts associated with equipment use in temporary construction easements may occur at wetlands D-15 (Gunderson Creek), D-33, D-19, and D-21.

Addendum Table 3-5 Estimated Projected Wetland Loss, within Project Construction Limits Hectares (Acres)			
Community Type	Paradise Build Alternative	Paradise Minimum Build Alternative ¹	Dixon Build Alternative
Emergent	0.04 (0.11)	0.02 (0.05)	1.13 (2.80)
Emergent/Scrub Shrub	0.19 (0.46)	0.21 (0.52)	0.24 (0.60)
Emergent/Forested	--	--	0.06 (0.16)
Scrub Shrub	0.04 (0.09)	0.04 (0.09)	0.08 (0.19)
Scrub Shrub/Forested	--	--	0.10 (0.24)
Forested	0.06 (0.16)	0.01 (0.04)	
Total	0.33 (0.82)	0.28 (0.70)	1.61 (3.99)
Wetland Category	Paradise Build Alternative	Paradise Minimum Build Alternative ¹	Dixon Build Alternative
I (exceptional)	--	--	--
II (high)	0.18 (0.45)	0.20 (0.51)	0.19 (0.48)
III (moderate)	0.14 (0.35)	0.06 (0.16)	1.06 (2.62)
IV (low)	0.00 (0.02)	0.01 (0.03)	0.36 (0.89)
Total	0.33 (0.82)	0.28 (0.70)	1.61 (3.99)
Source: Morrison-Maierle, Inc. ¹ Estimated from 1999 conceptual design; these numbers may change as design progresses.			

Addendum Table 3-6 Estimated Projected Wetland Loss, in Wetland Functional Units¹			
Impact Scenario	Paradise Build Alternative	Paradise Minimum Build Alternative ²	Dixon Build Alternative
Impacts within Construction Limits	4.31	4.02	14.49
Additional Indirect Impacts	0.43	0.40	1.45
Total Estimated Impacts	4.74	4.42	15.94
Source: Morrison-Maierle, Inc. ¹ Wetland functional units are computed by multiplying the acreage of affected wetlands by the functional points. The functional unit losses can then be used as a target for functional unit replacement at the designated wetland replacement sites. ² Estimated from 1999 conceptual design; these numbers may change as design progresses.			

Paradise Build. Implementation of this alternative would result in an approximate 0.33 ha (0.82 ac) wetland loss within the construction limits. The majority of impacts would occur at Category II wetlands and within scrub-shrub/emergent communities. Approximately 4.31 functional units would be lost within construction limits. Adding an additional 10 percent (0.43) to account for indirect losses in functional capacity results in a projected 4.74-functional unit loss. Temporary construction easements have not been identified for this alternative.

Paradise Minimum Build. Based on preliminary estimates, implementation of this alternative would result in an approximate 0.28 ha (0.70 ac) wetland loss within the construction limits. As under the Paradise Build Alternative, the majority of impacts would occur at Category II wetlands and within scrub-shrub/emergent communities. Approximately 4.02 functional units would be lost within construction limits. Adding an additional 10 percent (0.40) to account for indirect losses in functional capacity results in a projected 4.42-functional unit loss. Temporary construction easements have not been identified for this alternative.

3.15.3 Mitigation

The *1990 Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines* requires that wetland mitigation be addressed in the following sequence:

- (1) Avoid potential impacts to the maximum extent practicable.
- (2) Minimize unavoidable impacts to the extent appropriate and practicable.
- (3) Compensate for unavoidable adverse impacts which remain after all appropriate and practicable minimization has been required.

Avoidance and Minimization. Impacts were avoided and minimized to the extent practicable by keeping the proposed alignments as close as possible to the existing alignment, particularly on the Dixon Build and Paradise Minimum Build alternatives. The majority of impacts would occur at sites immediately adjacent to the road, often on both sides, and are largely unavoidable regardless of the direction of centerline shift. Along the Dixon Section, impacts to Magpie and Revais creeks and associated wetlands will be avoided by utilizing existing bridges through these areas. Potential impacts at the higher-quality Wetland D2 will be minimized by reducing fill slopes from 6:1 to 1.5:1. Potential impacts at the higher-quality Wetland D10/D11/D12 complex will be minimized by reducing fill slopes from 6:1 to 4:1. The Dixon Build Alternative will avoid impacts to Flathead River fringe wetlands.

Along the Paradise Section, both Build Alternatives' impacts to the Flathead River and associated fringe wetlands generally will be avoided. For the Paradise Minimum Build Alternative, MDT and the Tribes will coordinate mitigation of impacts in the Robertson Creek area, where the alignment would be between a rock face and Flathead River fringe wetlands. The Paradise Minimum Build Alternative further minimizes wetland impacts by following the existing alignment as closely as possible.

Compensation. Compensatory mitigation for jurisdictional wetland loss is being developed in compliance with the *Memorandum of Agreement Between the MDT and the CSKT of the Flathead Indian Reservation for Mitigation of Unavoidable Impacts to Wetlands by Highway Construction (June 1993)*, the *Wetlands Conservation Plan for the Flathead Indian Reservation - Montana (CSKT 1999a)*, and the 1996 MDT Interagency Wetland Group operating procedures in cooperation with the Confederated Salish and Kootenai Tribes. As of the writing of this report, onsite wetland mitigation for the Dixon and Paradise sections is proposed at the 19.6 ha (48.23 ac) tribally owned Hoskins Landing restoration site north of Dixon along the Flathead River. In the event that mitigation is not possible at this site, additional mitigation sites will be pursued or the wetlands replacement requirements will be added to MDT's wetland ledger. MDT intends to secure use of the site for 25 years, after which time the Tribes would assume management; however, site management details currently are under development.

The Confederated Salish and Kootenai Tribes and the Montana Department of Transportation are completing a conceptual design for the Dixon-West wetland mitigation site.¹² The conceptual design for the mitigation site provides for the restoration, enhancement, and creation of emergent, scrub-shrub, and (eventual) forested wetlands within the historic Flathead River floodplain. Under the current conceptual plan, approximately 3.2 ha (8.1 ac) of wetlands would be created/restored on the site, while an additional 2.1 ha (5.17 ac) of wetlands severely impacted by grazing would be enhanced. Additionally, upland vegetation at the site would be enhanced via planting of shrubs of cultural significance to Native Americans, including common chokecherry and American plum. Grazing would also be removed from the site. Wetland areas (and functional units) lost to construction along the Dixon and Paradise sections will be replaced at this mitigation area.

The most prominent functions at wetlands likely to be impacted along both projects include wildlife habitat; sediment/nutrient/toxicant removal; and production export and food chain support. Factors considered in replicating/replacing these functions at the mitigation site include wildlife use, vegetative/structural diversity, landscape position, wetland morphology, connectivity to other waters/wetlands, permanence of surface water, and wetland size.

The following additional general measures will be implemented to avoid, minimize, and compensate for disturbance of wetlands during construction of any of the Build Alternatives:

- Clearing and grubbing for construction will not be allowed outside of construction limits under any of the Build Alternatives. Temporary impacts associated with clearing for relocation of utilities may occur along the edge of the ROW (Section 3.3.2).
- Temporary impacts to wetlands within the ROW and construction easement areas will be mitigated by restoring wetlands to original contours and revegetating immediately following construction. Temporarily disturbed wetland and stream side areas will be revegetated with native plant material.
- The design process will incorporate appropriate measures to preserve wetlands and other waters of the United States, while providing a highway that meets MDT's geometric

¹²Confederated Salish and Kootenai Tribes and Montana Department of Transportation, Conceptual Design for the Dixon-West Wetland Mitigation Site, Project No. STPP 45(29), Control No. 4144, May 19, 2000.

design standards. Typical measures that apply to various wetlands along the Dixon and Paradise sections include projecting the alignment away from the Flathead River, wetlands, and other waters of the United States; maintaining the existing alignment at locations with wetlands adjacent to the right-of-way; where it is possible to meet geometric design standards and provide conditions for desired safety, adjust embankment slopes to a minimum 4:1 ratio instead of 6:1 and consider use of guardrail; consider embankment slopes in the vicinity of wetlands on a case-by-case basis; and minimize excavation of existing borrow ditches.

- For the Paradise Minimum Build Alternative, fill slopes north of RP (MP) 88.9 to 89.0 will be adjusted to eliminate encroachment into the spring outlet (Wetland P15) immediately adjacent to the Flathead River. For the Dixon Build and Paradise Minimum Build alternatives, impacts to the Flathead River and associated fringe wetlands generally will be avoided as design progresses. For the Paradise Minimum Build Alternative, MDT and the Tribes will coordinate mitigation of impacts in the Robertson Creek area, where the alignment would be between a rock face and Flathead River fringe wetlands. Where fill slopes may encroach on Flathead River fringe wetlands, wetlands will be staked to ensure impacts are minimized.
- All Clean Water Act Section 404 permit conditions, as well as Section 401 water quality certification, Montana Stream Protection Act (124) conditions, and any additional state, federal or tribal water quality requirements/conditions, will be implemented.
- Removed culverts, guardrail, and other construction materials will not be stockpiled in or adjacent to wetland or stream areas.
- Construction equipment operating in wetlands will be limited to what is needed to perform the necessary work.
- Measures specified in Section 3.16.3 under *Noxious Weeds* will be taken to prevent the introduction/spread of noxious weeds.
- Wide-track or balloon-tire construction equipment will be used in saturated/inundated areas. Timber pads, prefabricated equipment pads or geotextile fabric overlain with gravel fill will be used with normal equipment in such areas. All such materials will be removed following construction.
- Hazardous materials, including fuels and lubricating oils, will not be stored and construction equipment will not be refueled within 30 m (100 ft) of wetlands or streams.

3.16 Terrestrial Biological Resources

3.16.1 Affected Environment

Vegetation. Plant communities are described below for general reference. Vegetation inventories identified nine primary types of plant communities, with totals of 195 plant species along the Paradise Section and 200 species along the Dixon Section.

Major plant communities occurring adjacent to the existing highway in the project area include black cottonwood/red-osier dogwood, ponderosa pine/red-osier dogwood, ponderosa pine/antelope bitterbrush, ponderosa pine/Idaho fescue, Idaho fescue/bluebunch wheatgrass, rough fescue/Idaho fescue, wetland, and seeded active or fallow agricultural fields. Brief

descriptions of these plant communities are included in the plant species of special concern report prepared for the projects, as are lists of plant species recorded during field surveys (Schassberger Roe 1998, Schassberger 1999). Another major community type, 'disturbed/weedy', occurs within and adjacent to the existing ROW along both sections and is dominated by seedy or weedy herbaceous species. Section 3.15 provides information about wetland communities.

Generally, black cottonwood/red-osier dogwood communities along both projects were classified as riparian vegetation, exclusive of wetland communities within these areas. According to CSKT, healthy reproducing black cottonwood communities are under stress and in decline along the lower Flathead River. Riparian communities generally occur uplandward of wetlands; particularly in areas associated with running water or seepage. Along the Paradise Section, ponderosa pine/red-osier dogwood communities were also generally mapped as riparian areas; primarily due to their close association with the Flathead River. Along the Dixon Section, ponderosa pine/red-osier dogwood communities occur on drier high terraces and steep slopes and were generally not classified as riparian areas.

Along the Dixon Section, the existing highway primarily traverses nonforested herbaceous vegetation communities; mainly seeded agricultural, weedy, and Idaho fescue-dominated communities. Approximately 86.5 percent of the vegetation within the proposed ROW along this section is comprised of nonforested communities. Primary adjacent forested areas occur north and south of the highway in association with Revais and Magpie creeks, and mainly south of the highway east of Magpie Creek between RP (MP) 102 and 103.

Forested communities are much more prevalent along the Paradise Section. Approximately 65 percent (Build Alternative) to 75 percent (Minimum Build Alternative) of the vegetation within the proposed ROW along this section is comprised of nonforested, seeded agricultural communities. However, forest communities are interspersed with or border these agricultural fields between approximate RP (MP) 87 and 90.

Sensitive Plants. Of the plants identified during the September 1998 rare plant survey, there were no Montana Natural Heritage Program (MNHP) plant species of special concern observed (Schassberger-Roe 1998). The field survey dates were not optimal to locate early flowering plants such as *Allium acuminatum*, *Allium columbianum*, and *Claytonia arenicola*. Consequently, a supplementary survey was conducted in June 1999; again, no plant species of special concern were observed (Schassberger 1999). Spalding's catchfly (*Silene spaldingii*) was proposed for listing as a threatened species by USFWS on December 3, 1999 and is known to occur in Sanders, Lincoln, Lake, and Flathead counties. This species is discussed in Section 3.18.

The Wetlands Conservation Plan For The Flathead Indian Reservation (CSKT 1999a) lists plant species of concern on the Reservation, based on biological and cultural significance. Several of these tribal species of concern occur commonly along the Dixon and Paradise sections, particularly in association with riparian and wetland areas. These include wild onion, western serviceberry, hawthorn, biscuitroot, willow, sweetgrass, and northern arrowhead.

Noxious Weeds/Invasive Species. Executive Order 13112, signed on February 3, 1999, addresses federal agency responsibilities with respect to invasive species (noxious weeds). As a federally-funded action, the projects are subject to the provisions of EO 13112. Of the 23 plants designated as noxious weeds in Montana, six were observed in the projects' corridor during vegetation surveys.

Spotted knapweed was the most common weed encountered along both projects. Spotted knapweed has very high cover within 30 to 60 m (100 to 200 ft) of the roadway throughout the Dixon and Paradise sections. The only areas where cover of this species is low are a few hay pastures and several native communities that have been sprayed for noxious weeds. Other noxious weeds encountered during the survey include Canada thistle, common in mesic and moist sites along both projects, especially at the east end of the Dixon Section. Dalmation toadflax has low cover near the east end of the Paradise Section, and has moderate cover along much of the Dixon Section. Sulfur cinquefoil is scattered along both projects. Leafy spurge was only observed in one moist riparian community east of Magpie Creek. St. John'swort is scattered along the Dixon Section.

These weeds are Category 1 noxious weeds as defined by the State of Montana. The Montana Department of Agriculture (1991) defines Category 1 noxious weeds as 'weeds that are currently established and generally widespread in many counties of the state. Management criteria include awareness and education, containment and suppression of existing infestations, and prevention of new infestations. These weeds are capable of rapid spread and render land unfit or greatly limit beneficial uses.'

Wildlife. Numerous wildlife species inhabit the general project area; particularly along the Paradise Section, much of which occurs adjacent to forested communities and is within a few hundred meters of the Flathead River for most of its length. The Flathead River and associated wetlands and riparian vegetation contribute to increased species richness in the general area of both projects. CSKT prepared a comprehensive list of wildlife species known or suspected to occur on the Flathead Indian Reservation, along with indications as to seasonal occurrence and habitat associations (CSKT undated). This list, which is included in the Biological Resources Report, is considered to include all species that could occur in the project area.

Mammals. According to Thompson (1982), 60 mammalian species are known or suspected to occur in the latilong (an approximate 8288 kilometers squared (km²), 3200 square mile (mi²), block of land measuring one degree longitude by one degree latitude) which contains the projects. The CSKT list includes 67 mammalian species that occur on the Reservation. The area extending north from MT200 in the project area occurs within a tribal elk conservation area of the Ferry Basin Wildlife Management Unit. Big game species in the project area include mule deer, white-tailed deer, elk, bighorn sheep, black bear, and mountain lion. Mule deer and white-tailed deer are common year-round residents in the project area. Elk occur occasionally in the area; primarily in association with seasonal movements relating to winter range in the McDonald Basin just north of the river (Becker pers. comm.). Bighorn sheep primarily occur north of the Flathead River, but occasionally cross the valley floor between Perma and the western reservation boundary. Relatively high black bear density occurs in the project area; particularly

in association with dense riparian vegetation along the Flathead River. Porcupine, raccoon, striped skunk, badger, red squirrel, long-tailed weasel, coyote, red fox, deer mouse, and meadow vole are other common mammals occupying habitats in the general area.

Mammals observed during the reconnaissance surveys included red squirrel (common in forested habitats), mule deer (scattered in open hayfields and pastures), white-tailed deer (scattered in open hayfields and riparian areas east of Magpie Creek), black bear (Wilson Creek and riparian area east of Magpie Creek), beaver (Wetland D-2); striped skunk (common throughout), coyote (hayfield), long-tailed weasel (Wetland D-31), and meadow vole (abundant in grassland habitats). Additionally, deer, black bear, and raccoon tracks and scat were commonly observed at wetlands throughout the project area; particularly along the Flathead River.

Herptiles. According to distribution maps presented in Reichel and Flath (1995) and an amphibian study conducted on the Reservation (Werner and Plummer 1995), amphibians likely to occur in the project area include the long-toed salamander, western toad, Pacific chorus frog, bull frog, and spotted frog near wetland and riverine habitats. Amphibians observed during the reconnaissance surveys included spotted frog (along the Flathead River) and bull frog (Wetland D-2 ['Magpie Spring']). A western toad was observed crossing the highway west of Perma, in an area between the Dixon and Paradise sections. The Tribal Wildlife Management Program considers all native amphibians species at risk due to documented declines in populations (CSKT 1999a).

The northern leopard frog likely occurred in the project area historically, but is now thought to be largely extirpated from the Reservation (Werner and Plummer 1995; Becker pers. comm.). However, a single juvenile leopard frog was found at the northeastern edge of the Reservation near Yellow Bay, approximately 80 km (50 mi), north of Dixon during autumn 1999 (Werner 1999). The Couer d'Alene salamander could not be confirmed on the Reservation (Werner and Plummer 1995), but may occur in suitable habitats. A western toad breeding site was discovered in the MT200 corridor in 1998 near Perma, between the Dixon and Paradise sections. These species are further discussed under *Sensitive Wildlife Species*.

Northern alligator lizard, western skink, painted turtle, rubber boa, racer, gopher snake, western rattlesnake, western terrestrial garter snake, and common garter snake are reptiles likely to inhabit the project area (Reichel and Flath 1995). Reptiles observed during the survey included gopher snake (Magpie Creek), common garter snake (hayfield), and painted turtle (Wetland P-1).

Birds. The Montana Natural Heritage Program maintains a database of bird species observations by latilong for the period between 1992 and 1997. According to the database, over 100 bird species have been reported within each of the quarter latilongs containing the Dixon and Paradise sections during this period. The CSKT reservation-wide wildlife list (CSKT no date) lists 177 species for which breeding records exist on the Reservation, many of which occur along the projects. Common breeders in the project area include waterfowl and shorebirds at ponded emergent wetlands and along the Flathead River; woodpeckers, flycatchers, warblers, raptors, finches, grouse and thrushes in forested and riparian areas; and sparrows, crows, magpies, pheasants, and blackbirds in pasture and hayland areas.

Birds observed during the 1998 field reconnaissance of the project area included great blue heron, Canada goose, wood duck, mallard, turkey vulture, osprey, bald eagle, red-tailed hawk, ring-necked pheasant, ruffed grouse, killdeer, spotted sandpiper, common snipe, mourning dove, Vaux's swift, belted kingfisher, northern flicker, pileated woodpecker, western wood pewee, eastern kingbird, gray jay, black-billed magpie, American crow, raven, black-capped chickadee, red-breasted nuthatch, marsh wren, ruby-crowned kinglet, American robin, cedar waxwing, loggerhead shrike, European starling, yellow warbler, song sparrow, Oregon junco, red-winged blackbird, western meadowlark, house finch and house sparrow.

Two osprey nests were observed adjacent to the existing and proposed ROW. These occur along the Dixon Section on power poles north of Stations 46 and 65+70. At Station 46, the nest occurs between the highway and the railroad tracks; it is approximately 60 m (197 ft) from the highway. At Station 65+70, the nest occurs north of the railroad tracks, approximately 100 m (328 ft) north of the highway. A third observed nest occurs in a snag along the north side of the Flathead River, approximately 245 m (800 ft) north of the highway on the Paradise Section. The CSKT Wildlife Management Program has mapped an additional nine osprey nests within 0.8 km (0.5 mi) of the Dixon Section (CSKT 2000). Eight of these occur between 305 and 610 m (1000 to 2000 ft) from the highway, while one occurs approximately 200 m (650 ft) north of approximate Station 68+20. All of these nests were active in 1999 (CSKT 2000).

No additional raptor nests are known; however, based on the frequent observations of red-tailed hawks during reconnaissance surveys, this species likely nests in the project area. Other raptors likely to nest in the general lower Flathead River corridor include turkey vulture, golden eagle, prairie falcon (cliffs, rocky outcrops, ledges); northern harrier, short-eared owl (marshes, grasslands); sharp-shinned hawk, Cooper's hawk, northern goshawk, American kestrel, western screech owl, great horned owl, northern pygmy owl, long-eared owl, and northern saw-whet owl (coniferous/deciduous forest). Rough-legged hawks winter in the general Mission Valley, including the project area.

With the possible exception of kestrels, which occur commonly in roadside habitats, none of these species are expected to nest within existing or proposed ROW due to proximity to the highway and other sources of human disturbance. The nearest known prairie falcon eyrie occurs north of the Flathead River, over 10 km (6.4 mi) northwest of the Dixon Section (Becker pers. comm.). The nearest known golden eagle nest occurs southwest of Perma, over 10 km (6.4 mi) west of the Dixon Section (CSKT 2000). Peregrine falcons and bald eagles also nest in the project area and are discussed separately under Sensitive Wildlife Species and Threatened and Endangered Species, respectively.

Waterfowl species likely to occur at times in the project area in association with the Flathead River include Canada goose, wood duck, mallard, gadwall, American wigeon, northern pintail, northern shoveler, redhead, and common merganser. Waterfowl nesting likely occurs in the project area at large emergent wetlands along the Flathead River including P-1, P-5, P-11, P-15; at Wetland D-2 (spring-fed pond); and possibly at Wetland D-24 (excavated stock ponds). According to a local resident (Beech pers. comm.), a great blue heron rookery occurs on the north side of the 'island' immediately north of Wetland P-1 on the Paradise Section.

Wildlife/Motor Vehicle Collisions. Data regarding wildlife movement and highway-related mortality in the project area were compiled from several sources, including: MDT/Montana Highway Patrol-reported wild animal collisions; CSKT game warden records for highway wildlife mortality; MDT maintenance records for highway wildlife mortality; observations of wildlife mortality recorded during biological inventories; interviews with CSKT biologists, MDT maintenance staff, and local residents; and review of tribal and public comments on the EA.

Records for wildlife mortality resulting from vehicle collisions along each project are summarized in Addendum Table 3-7. Approximate recorded mortality locations are depicted in Addendum Figure 3-1. A total of 25 collisions, primarily involving white-tailed deer, were reported between 1995 and 1999 along both projects. Accidents involving one elk and three black bears were also reported.

However, it is likely that more individual animals are being killed than are currently observed and reported by users of MT200, since the larger species are often crossing the roadway in considerable haste when struck. This can result in fatally struck animals coming to rest in heavily foliated locations where they are less visible to motorists. A number of larger animals may survive such glancing blows to sustain lingering injuries that result in further undetected (additive) mortality. Further, collisions with smaller species such as birds, herptiles, and small mammals likely go virtually unreported.

Researchers conducting a wildlife mortality study on U.S. Highway 95 (US95) in Idaho have observed that the majority of road-killed animals were not visible from the highway, but actually came to rest beyond the road edge (Jacobson 2000). It should be noted, however, that extensive walking of dense riparian and wetland foliage, conducted during wetland inventories in 1998 within and well beyond the ROW along both the Dixon and Paradise sections, revealed only one road-killed large animal; that being a black bear east of Magpie Creek (Addendum Table 3-7).

Although the currently 'observed' mortality level pales in comparison to the several hundred deer killed annually on Montana's portions of US93, the issue needs to be recognized not just for the threat it poses to wildlife, but to the lives of motorists as well.

According to CSKT, the relatively low level of development and the extensive amount of agricultural land throughout the area causes it to function as an important wildlife habitat linkage area (CSKT 1999). The valley floor provides potential linkage between the larger historic Flathead River floodplain area and largely undeveloped habitat north and south of the river for big game, carnivores, birds and other species.

Based on land ownership and highway features, Ruediger et al. (1999) identified the Dixon to Paradise segment of MT200 as a potential 'key linkage area' across public lands north and south of the river for mid-sized to large carnivores. These potential linkage areas are defined as 'critical areas where carnivore habitat connectivity is diminished, eliminated, or at risk over time.'

Year	Paradise: RP (MP) 85 - MP 90.5				Dixon: RP (MP) 98.7 - MP 109			
	Deer	Elk	Black Bear	Total	Deer	Elk	Black Bear	Total
1995	1	0	0	1	1	0	0	1
1996	0	0	0	0	4	0	0	4
1997	1	0	0	1	1	0	0	1
1998	6	0	2	8	4	1	1	6
1999	0	0	0	0	3	0	0	3
Totals	8	0	2	10	13	1	1	15

Source(s). MDT/Montana Highway Patrol reported wild animal collisions 1/1/90 - 9/30/99 (none reported prior to 1995); CSKT game warden-reported wild animal collisions 1995 - 1999; MDT maintenance staff-reported wild animal collisions 3/7/97 - 4/7/99; and, Roadkilled wildlife observed during September 1998 field reconnaissance.

MT200 between Dixon and Paradise, which includes both projects, was proposed by the authors as a 'high priority' highway segment due to its high potential for upgrading, proximity to a paralleling railroad, and traversal of 'critical private lands.' 'High traffic volumes' were also cited as a reason for potential designation as a high priority segment. The authors cite studies indicating an approximate threshold of 2,000 to 3,000 vehicles per day at which highways can have adverse impacts on wildlife. At 1,120 to 1,320 vehicles per day, the current (1999) ADTs on the projects are below that approximate threshold (Addendum Table 1-2).

Dixon West. This 15.7 km (9.8 mi) section bisects gently rolling, north-facing foothills and several smaller tributaries connecting to the Flathead River. Those creeks relevant to the vehicle mortality issue include Revais, Magpie, Gunderson, and Magpie Spring, all of which support deciduous riparian habitat attractive to wildlife. The nearby Flathead River paralleling the project lends its own sizeable riparian component that typically links with those of tributaries. As such, several wildlife species depend heavily upon these densely vegetated mosaics at one time or another for access to the main river and points beyond. Though a great number of species seek cover and forage within riparian thickets, this discussion focuses on the larger ungulates and carnivores that account for the more severe vehicle-related accidents.

As shown in Addendum Table 3-7 and Addendum Figure 3-1, a total of 15 wild animal collisions have been reported by various sources between 1995 and 1999. A search of highway patrol records was conducted back to 1990; however, the database contained no records prior to 1995.

These collisions involved 13 deer, one elk, and one black bear. Six of these collisions, including those involving the elk and black bears, occurred in 1998. Accident locations were generally spread over the length of the project; no substantial cluster areas were identified (Addendum Figure 3-1). About half of these reported collisions (six deer and one elk) occurred where the highway traverses nonforested or thinly forested habitat. Two collisions (one deer and one black

bear) occurred in forested habitat east of Magpie Creek, three (deer) occurred just west of Magpie Creek, two (deer) were reported at Gunderson Creek, and one (deer) was reported just west of Revais Creek.

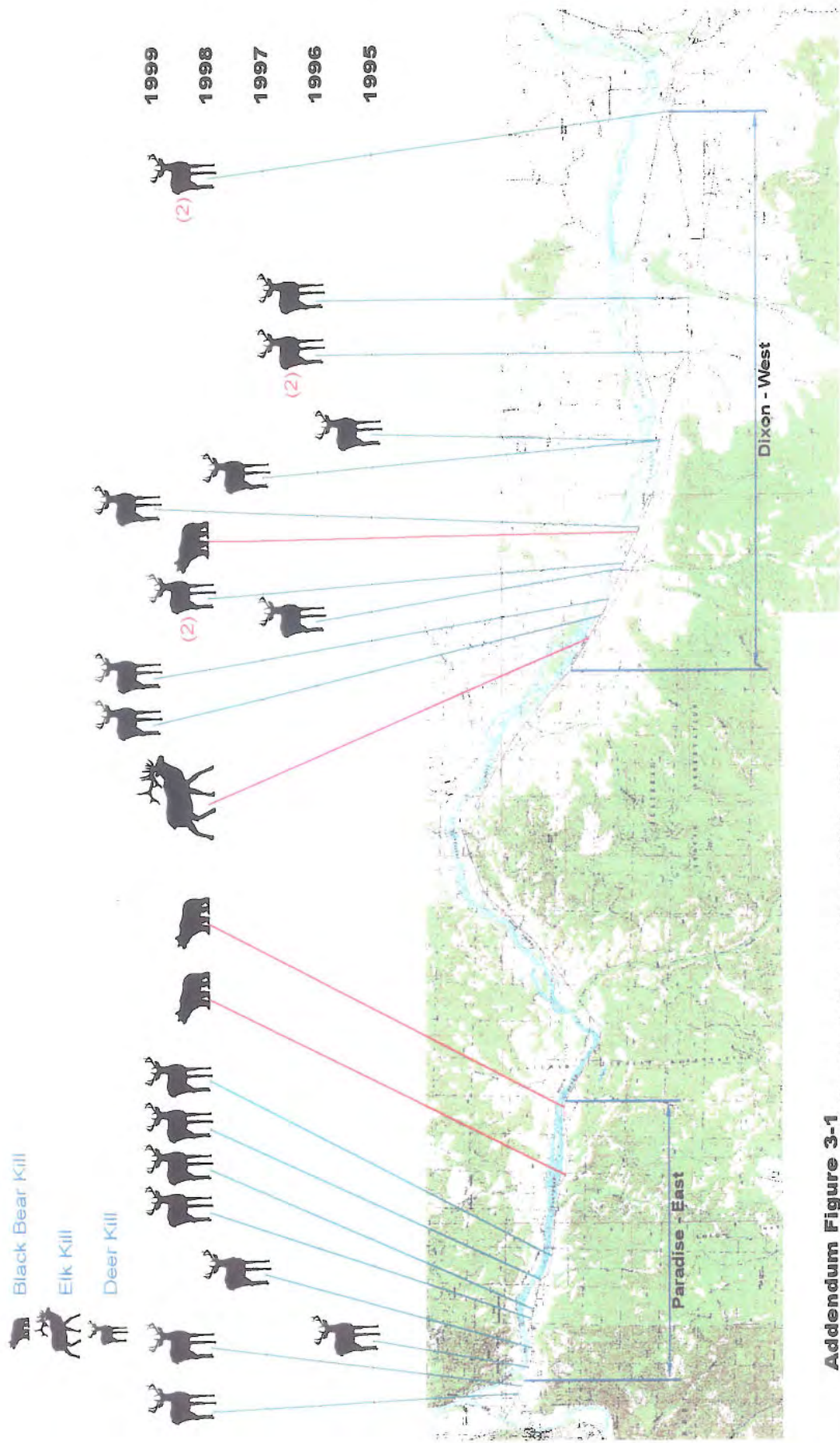
Although not comprehensive, these data seem to support the local MDT maintenance personnel estimate of six to eight deer that are struck annually on the Dixon Section and one to two elk struck annually within the combined Dixon and Perma sections (Johnston, Larsen pers. comms.). The data also, to some extent, support general Tribal Wildlife Management Program observations of highest big game (ungulates) use in the project area between Revais and Magpie creeks (CSKT 1999) and recognition of the general area west of Revais Creek as part of a larger migration corridor for the 500-some elk that utilize winter range in the McDonald Basin just north of the river (Becker pers. comm.).

The data also reflect the MDT maintenance staff assertion that black bear do not add substantially to wildlife mortality in spite of their summer presence along the river. As with all species, not all accidents with black bears are reported or observed. For example, although not reported or observed by the Montana Highway Patrol, CSKT game wardens, or MDT maintenance staff, a road-killed juvenile black bear was found during 1998 reconnaissance surveys east of Magpie Creek, RP (MP) 101.7. Nonetheless, if substantial mortality was occurring in the project area, it is likely that at least some of these accidents would be reported or observed by these agencies over a five-year period.

Based on the available data, which reflect low reported / observed wildlife mortality levels along the project, substantial impediment to cross-highway wildlife movement, at least with respect to larger mammals, does not appear to be occurring along the Dixon Section.

Based on the above-cited data, as well as consultation with the CSKT Wildlife Management Program, it appears that ungulates occasionally cross the highway throughout the Dixon Section. No concentrated crossing locations are depicted by the available mortality data, although, as stated above, observations of highest big game (ungulates) use in the project area occur between Revais and Magpie creeks (CSKT 1999). Ungulates, particularly white-tailed deer, often associate with streamside riparian areas, as do a wide variety of species including black bears, rare carnivores, and numerous bird and herptile species. For this reason, as well as the apparent absence of nonriparian concentrated wildlife movement corridors, the following discussion focuses on riparian corridors traversed by the project in terms of wildlife movement.

Revais and Magpie creeks at RP (MP) 106.0 and RP (MP) 101.4, respectively, provide the best opportunities for cross-highway movement. Broad riparian thickets just east of both creeks provide cover for all species, while the large-cobbled stream courses may receive limited use from hoofed ungulates. Both creeks are spanned by bridges that allow the passage of species up through the size of bears and other mid- to large-sized carnivores, which appear to use them when foraging along the two streams. Fresh black bear and deer sign was observed along the stream channels and throughout these two riparian areas during reconnaissance surveys.



Addendum Figure 3-1
 Approximate Reported Wildlife Mortality Locations, 1995 - 1999

The existing Revais Creek bridge provides a 7.6 m (25 ft) wide by 2 m (6 ft) tall subhighway passage, while the existing Magpie Creek bridge provides a 6.7 m (22 ft) wide by 2 m (6 ft) tall subhighway passage. Both spans are inclusive of actual stream channel bottoms, which are virtually dewatered during much of the summer months due to irrigation. The ROW is fenced for cattle immediately upstream of both bridges and downstream of the Magpie Creek bridge. Clevenger (1998) cites several studies indicating that ungulates are wary of underpasses less than 7 m (23 ft) wide or lower than 2.4 m (7.9 ft) tall. In Florida, Land and Lotz (1996) found that box culverts 2.4 m (7.9 ft) high by 7.3 m (24 ft) wide were used by black bear, white-tailed deer, bobcat, panther, and other species. Similarly, Roof and Wooding (1996) also found that black bears and 11 other species safely traveled beneath a two-lane highway through a 7.3 m (24 ft) wide by 2.4 m (7.9 ft) tall structure. In Canada, large carnivores cross high speed highways, not through the best designed underpasses, but rather through the underpasses best aligned with major drainages (Clevenger 1998).

Based on these studies and observed wildlife sign, both bridges are likely used, at least occasionally, by various species for subhighway movement. Although not the ideal height for ungulate use, the bridges are likely used by species up through the size of bears. Cross-creek stock fencing in the immediate vicinity of both bridges likely impedes wildlife movement through the stream corridors.

The portion of forested wetland habitat immediately east of Magpie Creek, RP (MP) 101.7 to 101.8 was found to be particularly well used judging from the plentiful tracks and scat of both deer and black bear. Also, a road-killed black bear was discovered at this location during reconnaissance surveys, at which time a white-tailed deer was observed crossing the highway at this site. A local resident, who is a wildlife biologist, reports that this area receives frequent black bear use during summer and fall months (Kiser 2000).

In comparison to these two well-used riparian expanses, Gunderson Creek at RP (MP) 104.9 is certain to attract fewer individuals of all species. This is primarily due to its limiting riparian width of less than 10 m (30 ft) that lines its small channel. Gunderson Creek likely facilitates the movement of white-tailed deer, over that of elk or black bear, due to its minimal amount of hiding cover. Another crossing of similarly small magnitude exists at Magpie Spring Creek, RP (MP) 100.0, which supports a narrow riparian strip on the south side of the highway only.

Small mammals and herptiles likely cross the highway both over the surface and via Magpie and Revais Creek bridges and other existing culverts that provide cross-highway hydrological connections. No substantial crossing concentration / migration areas have been identified for these species.

Paradise East. Terrain traversed by this 8.2 km. (5.1 mi) section is markedly different from the Dixon Section in that it is more properly considered a river gorge. The presently sinuous highway occurs between the Flathead River on the north and rugged cliffs and agricultural land to the immediate south.

As shown in Addendum Table 3-7 and Addendum Figure 3-1, a total of 10 wild animal collisions have been reported by various sources between 1995 and 1999. These collisions involved eight

deer and two black bears. Eight of these collisions occurred in 1998, which may be an indication of an increasing trend or may simply be the result of increased reporting. As with the Dixon Section, accident locations were generally spread over the length of the project; no substantial cluster areas were identified (Addendum Figure 3-1). Most of these reported collisions (seven deer and one black bear) occurred where the highway traverses nonforested agricultural land. One collision (black bear) occurred near riparian habitat east of Robertson Creek, while one (deer) occurred in forested habitat between Robertson and Wilson creeks.

Based on interviews with CSKT wildlife staff and MDT maintenance staff, use by larger wildlife along this section is primarily comprised of white-tailed deer and black bear (Becker, Larsen pers. comms.). The mortality data, although limited, seem to support this position. Elk occur much less frequently on this section than along the Dixon Section while bighorn sheep, although occasionally occurring south of the river, tend to congregate primarily north of the river. No highway-related elk or sheep kills have been recorded within the project area during the past several years (Becker, Larsen pers. comms.).

MDT maintenance staff report that, while roughly a dozen deer might be picked up annually within the adjoining Perma Section to the east, RP (MP) 90 to 99, very few are killed in the same period within the Paradise Section (Larsen pers. comm.). Six deer were killed along this section in 1998. Although not entirely reflected by mortality records, maintenance staff further related that black bears are occasionally struck on this section, particularly in the vicinity of Robertson Creek, and that two such kills had occurred in 1997-98 within 0.8 km (0.5 mi) of the crossing; one black bear kill was reported approximately 0.8 km (0.5 mi) east of Robertson Creek in 1998 (Addendum Figure 3-1).

Based on the available data, which reflect low reported / observed wildlife mortality levels along the project, substantial impediment to cross-highway wildlife movement, at least with respect to larger mammals, does not appear to be occurring along the Paradise Section.

Based on these limited data, it appears that ungulates (mainly white-tailed deer) occasionally cross the highway throughout the Paradise Section. No concentrated crossing locations are depicted by the available mortality data, although most recorded mortality has occurred along the west half of the project where the highway crosses large hayfields that are bordered by the river to the north (Addendum Figure 3-1). Because the project parallels the Flathead River and its dense adjacent riparian area with which several species associate, black bears and other species may leave the river corridor at any point and attempt to cross the highway at unpredictable locations. This is exemplified by the black bear mortality that occurred in 1998 at the east end of the project where the highway crosses hayfields bordered by the river to the north.

As stated above, ungulates, black bears, rare carnivores, and numerous bird and herptile species often associate with streamside riparian areas. For this reason, as well as the apparent absence of nonriparian concentrated wildlife movement corridors, the following discussion focuses on primary riparian corridors traversed by the project that are likely to be used as crossing points.

Based on the above data and discussion, Robertson Creek, with its wide riparian area, appears to provide a likely highway crossing location for black bears and other forest carnivores, ungulates,

and several smaller wildlife species. Another point of favored use appears to occur within the Wilson Creek corridor, where a subadult black bear was observed only 75 m (250 ft) from the highway during the 1998 field reconnaissance. More thorough inspection of each drainage revealed an abundance of black bear spoor in addition to moderate deer sign. A study of the gorge's southern topography also indicates that these two drainages provide natural travel corridors leading down to the main floodplain from the steep slopes immediately above.

Burgess Creek, although probably used by small mammals and herptiles and occasional bears and ungulates, provides limited opportunity in terms of habitat connectivity to the south. Approximately 200 m (650 ft) south (upstream) of the highway, the riparian area associated with the creek abruptly terminates, providing no contiguous cover between this point and forested slopes several hundred meters to the south.

Small mammals and herptiles likely cross the highway both over the surface and via existing culverts that provide cross-highway hydrological connections. No substantial crossing concentration or migration areas have been identified for these species.

Sensitive Wildlife Species. A search of the MNHP database revealed several known occurrences of animal species of concern within 3.2 km (2 mi) of the project (MNHP 1998a). Several of these occurrences consist of bald eagle nests and are discussed separately under *Threatened and Endangered Species*, as are gray wolves, grizzly bears, and Canada lynx. Records for peregrine falcons, wolverines, Coeur d'Alene salamanders, and western toads exist in the general project area. These four species are discussed below. These and additional animals listed as species of special concern by MNHP (1999), for which no records exist in the project area, but for which potential exists for occurrence within local suitable habitat, are presented in the table for animal species of special concern in Addendum Appendix A. For each of these species, Addendum Appendix A provides the MNHP ranking (status), potential habitat and expected occurrence in the project area, and known distribution in the project area.

A peregrine falcon eyrie occurs in cliffs above the north side of the Flathead River along the Paradise Section across the river from Wilson Creek (Becker, O'Connor pers. comms.). At its closest point, the Paradise Section occurs approximately 790 m (2600 ft) south of the eyrie. Discovered in 1997, the eyrie fledged an unknown number of young in 1997 and three young in 1998 (O'Connor pers. comm.). One of the adults appears to be banded, and may be one of the peregrines released from a hack site north of Perma approximately three years ago. Birds from this nest typically forage along the river approximately 3.2 to 4.8 km (2 to 3 mi) upstream and downstream from the eyrie (Becker pers. comm.). No activity has been observed at the Perma hack site since the birds were released (Becker pers. comm.). In addition to this breeding pair, peregrines may occur along the Flathead River in the project area as spring and fall migrants. A wolverine was captured in the Seigel Mountain area (the upper Robertson Creek area) a few miles south of the Paradise Section in 1994. Trappers have regularly observed tracks during winter in the Seigel drainage system. Wolverines are generally restricted to boreal forests, tundra, and western mountains in large areas of sparse human habitation. Hornocker and Hash (1981) indicated that wolverines showed a preference for mature to intermediate forest in northwestern Montana. Large parks, meadows, and clearcuts are generally avoided except for an occasional direct crossing (Hash 1989). Due to relatively high amounts of human activity near

the highway, wolverines are not expected to reside in the immediate project area. CSKT biologists have conducted surveys for wolverines adjacent to the project area, and no wolverines or sign have been detected (CSKT 1999). This species is expected, however, as an occasional transient during dispersal or foraging movements. Wolverines use rivers and streams as travel routes; probably because prey species also use these routes. Thus, it is these areas that wolverines are expected to occasionally use in the project area.

A population of Coeur d'Alene salamanders is known to occur at a roadside seep on the Lolo National Forest southwest of Paradise; approximately 6.4 km (4 mi) northwest of the Paradise Section. This species primarily occurs in springs or seeps, waterfall spray zones, and edges of streams in association with coniferous forest and sharply fractured rock formations (MNHP 1998b). Montana populations have been found primarily in talus areas along creek splash zones, or with seeps running through (MNHP 1998b).

Primary potential Couer d'Alene salamander habitat occurs in the project area along the splash zones of Magpie, Revais, and Robertson creeks. Each of these streams are functionally intermittent (Magpie and Revais as a result of irrigation); however, this species occurs in association with both perennial and intermittent surface water (MNHP 1998b). Wetted and dry reaches of Robertson Creek splash zones in the immediate project area were examined during the 1998 reconnaissance survey by frequently overturning rocks, logs, and other debris and searching for salamanders. None were discovered; however, the potential exists for this species to occupy this habitat in any given year. According to the Salish Kootenai College herpetologist, Burgess Creek also may provide habitat for this species (Werner 1999).

A western toad breeding site was discovered in the MT200 corridor in 1998 near Perma, between the Dixon and Paradise sections (Werner 1999). During the 1998 reconnaissance survey, a western toad was captured crossing the highway west of Perma between the two projects. No western toads were observed at project area wetlands during extensive wetland delineation surveys conducted during September 1998; that was a period during which toads were not breeding, but were active.

3.16.2 Impacts

Under the No Action Alternatives, disturbances to terrestrial resources associated with the use and maintenance of the existing highway would continue in conjunction with projected traffic volume increases. The 1999-levels of approximately 1,120 and 1,320, for the Dixon and Paradise sections, respectively, are expected to increase to a 2020-level of approximately 1,380 for the Dixon Section and a 2023-level of approximately 1,680 for the Paradise Section, with or without the projects (Addendum Table 1-2). Truck traffic, which presents more of a danger to wildlife than automobiles due to decreased maneuverability, also is projected to increase commensurate with overall traffic regardless of project implementation (Section 3.4).

No vegetation or habitat loss would occur under this alternative, and wildlife would continue to move across the highway. Substantial wildlife mortality has not been reported along either section; however, current wildlife mortality levels would increase incrementally in response to increasing traffic. Periodic accidents and potential for spills of fuel and other contaminants into

area waters and upland habitats would continue and may also increase in conjunction with projected increases in traffic volume.

Vegetation. Table 3-8 in the EA presents approximate areas of various vegetation communities within ROWs under each alternative. These represent maximum areas that could be disturbed under implementation of each alternative in the absence of clearing restrictions. Subsequent to publication of the EA, MDT has committed to the prohibition of clearing and grubbing within the ROW beyond construction limits (cut and fill limits). Assuming a minimum average 3 m (10 ft) strip of vegetation between the construction limits and the ROW border along each side of the road (B. Squires pers. comm.), this would reduce estimated maximum vegetation impacts by 5 ha (12.6 ac) on the Paradise Build Alternatives and 9.6 ha (23.8 ac) on the Dixon Build Alternative. Estimated vegetation community impacts are summarized in Addendum Table 3-8. Temporary impacts associated with clearing for relocation of utilities may occur along the edge of the ROW (Section 3.3.2).

Addendum Table 3-8			
Estimated Areas of General Vegetation Communities			
Within Proposed Construction Limits			
Hectares (Acres)			
Vegetation	Dixon Build Alternative	Paradise Build Alternative	Paradise Minimum Build Alternative
Riparian	0.89 (2.2)	0.97 (2.4)	1.81 (4.47)
Forested, Nonriparian	1.94 (4.78)	9.2 (22.7)	3.67 (9.07)
Nonforested	37.3 (92)	19.8 (49)	18.52 (46)
Total	40 hectares (99 acres)	30 hectares (75 acres)	24 hectares (60 acres)
<u>Source.</u> Morrison-Maierle, Inc.			

Riparian impacts are greatest under the Paradise Minimum Build Alternative because the alignment closely follows the existing alignment along the Flathead River.

Discussion above regarding losses of riparian and nonriparian forest pertains to the construction limits only. No clearing or grubbing would be allowed by the construction contractor beyond these construction limits. Temporary impacts associated with clearing for relocation of utilities may occur along the edge of the ROW (Section 3.3.2). For example, clearing up to approximately 6 m (20 ft) wide on either side of an overhead utility line may be performed by Mission Valley Power adjacent to the construction limits. Additional minor clearing may occur with respect to relocation of fiberoptic lines and other utilities. Utility companies are responsible for obtaining applicable permits and clearances prior to clearing and installation.

Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with the Montana Department of Environmental Quality (MDEQ) and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

Sensitive Plants. No MNHP sensitive plants have been identified within the construction limits of any alternatives. No impacts to such species are anticipated. Spalding's catchfly is discussed in Section 3.18. Impacts to additional tribal species of concern would occur, primarily in association with impacts to wetland and riparian areas. Tribal salvage of these species prior to construction would minimize these impacts.

Noxious Weeds. Construction through the Dixon and Paradise sections under all Build Alternatives would disturb existing noxious weed communities and would create additional habitat suitable for noxious weed establishment within newly disturbed areas. Exposed soils, particularly adjacent to highways, are extremely vulnerable to weed establishment. Offsite movement from highway corridors onto adjacent land can result in reduced land values and productivity and the potential for environmental degradation through improper herbicide use.

Spotted knapweed is common along both projects within 30 to 60 m (100 to 200 ft) of the existing road, and would likely colonize any newly disturbed areas. As they would be largely constructed along existing alignments, the Dixon Build and Paradise Minimum Build alternatives would have the least potential to result in introduction of noxious weeds into currently non-infested areas. The Paradise Build Alternative, however, deviates substantially from the existing alignment in several locations and would provide the highest potential for the spread of noxious weeds into areas with low or no current infestations.

Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

Wildlife and Sensitive Wildlife Species. Most construction would occur in areas that are immediately adjacent to the existing road or are currently subjected to other sources of human disturbance including agricultural (farming, grazing) and residential activities. These areas are generally judged to be of low to moderate overall habitat quality. Similarly, ponderosa pine and riparian communities along the existing highway are judged to be of moderate habitat quality, with potential for wildlife use increasing with distance from the highway.

Due to its vegetative structure and proximity to water, wildlife species diversity is likely greater in the cottonwood / red-osier dogwood riparian habitat types and in wetlands than in ponderosa pine, grassland, and seeded agricultural/weedy communities adjacent to the highway. Many species use riparian areas and riparian wetlands as movement corridors (impacts to wildlife movement are discussed below under Wildlife/Motor Vehicle Collisions and Habitat Fragmentation). With the general exception of 'roadside ditch' wetlands, most riparian wetlands delineated within the projects' corridor rated as 'moderate' to 'high' in terms of wildlife habitat value using the MDT wetland evaluation method. Impacts to wetlands and riparian areas were discussed in Section 3.15.2 and above under Vegetation, respectively.

Construction of the projects would result in direct wildlife mortality; primarily to those species with limited mobility and/or those that could conceivably be occupying their burrows or nests at the time of construction (e.g., mice, voles, young birds/eggs, frogs, salamanders, snakes, badgers, ground squirrels). More mobile species, such as adult deer, coyotes, and most adult birds, would be able to avoid direct mortality by moving into adjacent habitat.

Generally, indirect disturbance to wildlife communities in the project area that road construction activities would cause is considered minor, as the disturbance would be temporary and alternative habitat similar to that which would be affected is abundant in the general area. The survival of displaced species which resided exclusively within the construction area (e.g., species with very limited home ranges, such as mice and voles), however, would depend on the carrying capacity of adjacent undeveloped habitat.

Osprey. Construction during the osprey nesting season in the vicinity of the osprey nests along the Dixon Section on power poles 61 m, 100 m, and 200 m (200 ft, 328 ft, and 656 ft) north of Stations 46, 65+70, and 68+20, respectively, could cause adults to abandon their nesting attempt, or flush from the nest, exposing eggs and young to overheating and predation. Activities associated with direct disturbance or adjustments to the power poles containing the nests would be especially disruptive. Ospreys are probably most sensitive to human activities during nest building (April through late-May), egg laying (mid-May through early-June), and incubation (late-May through early-July; Call 1978; Flath pers. comm.), as is the case with bald eagles (Montana Bald Eagle Working Group 1991). Rodrick and Milner (1991) state that human activities initiated during incubation and early nesting are probably most disturbing to ospreys.

Breeding osprey populations in Montana are prospering (Flath pers. comm.) and are classified by MNHP as 'demonstrably secure' (MNHP 1997). Ospreys generally exhibit strong nest site fidelity (breeding pairs usually return to the same site every year to breed [Rodrick and Milner 1991] and are known to habituate to man's activity patterns (Henny and Anthony 1987). With respect to human activities, ospreys are thought to be one of the two most tolerant raptor species in Montana (Flath pers. comm.). Tolerance to human activities depends on the timing and frequency of the activities and on the degree of habituation that individual pairs develop to them (Rodrick and Milner 1991). The pairs nesting along the project have likely habituated to noise, traffic, and human activity associated with the highway, railroad, and agricultural fields and would likely be tolerant to general construction activities; especially those conducted outside of particularly sensitive periods. Pole-moving or adjusting activities, however, would likely result in substantial disturbance to nesting if conducted while the birds are still present. Minimal disturbance-related impacts are anticipated at other osprey nests in the general area ranging between 300 and 600 m (984 and 1968 ft) from the highway due to distance and visual isolation.

Peregrine Falcon. Blasting during the peregrine falcon nesting season in the vicinity of the peregrine falcon eyrie along the Paradise Section could cause adults to abandon their nesting attempt or flush from the nest. Even brief absence by parent birds can lead to missed feedings, predation on eggs or young, or to overheating, chilling, or desiccation of eggs or young (Richardson and Miller 1997).

The peregrine falcon is particularly sensitive to disturbance near the nest cliff during the breeding season. During early spring courtship, disturbed birds are particularly liable to desert an area. Part of the male's courtship ritual involves ledge displays to attract a female to a particular ledge for use as a nest site. If disturbance occurs near the ledge, the female may reject it, and the pair may not nest (Pacific Coast American Peregrine Recovery Team [PCAPRT] 1982). When the eggs are laid, the parents are less likely to abandon the nest. After the eggs hatch but before the young fledge, the parents are most likely to defend the nest vigorously rather than abandon it. Disturbance at the nest site just prior to fledging may cause nestlings to fledge prematurely, which may result in injury or death (PCAPRT 1981).

In western states, peregrine egg laying and incubation range from late-March through mid-May; hatching occurs from late-April through mid-May, and fledging occurs between early- and late-June (Call 1979). Peregrines in Montana generally have begun breeding activities by early-May (MNHP 1999b). At the project area eyrie, incubation was observed at the end of May in 1997; fledging had occurred by July 10 (O'Connor pers. comm.). In 1998, food exchange was observed in late-April, young birds close to fledging were observed in early-June, and fledging had occurred by July 5th (O'Connor pers. comm.).

Richardson and Miller (1997) list several spacial and temporal buffer zones for nesting peregrine falcons that have been recommended by various authors; many of which pertain to climbing disturbance. With respect to noise and human disturbance, spacial restrictions range between 800 and 1600 m (2625 and 5250 ft), and temporal restrictions range between February 1 and August 31. The Peregrine Fund (Cade and Enderson 1996) recommends that logging, mining, road construction, and blasting activities that are potentially disruptive be restricted within 800 m (2625 ft) of occupied eyries during the period from courtship through the dispersal of young, depending on the activity. Generally, activities below large cliffs, such as would occur along the project, are less disruptive at close distances than activities above or behind a nesting cliff (Cade and Enderson 1996).

The portion of the Paradise Section within 800 m (2625 ft) of the eyrie occurs between approximate Stations 240 and 256. Through this stretch, the existing alignment ranges between approximately 790 and 800 m (2590 and 2625 ft) from the eyrie, and is bordered to the north by a rocky bench that obscures the river and the cliffs containing the eyrie. Thus, lighter construction activities (minor grading, paving, striping, etc.) through this section would not be likely to adversely affect nesting activities. Deep ripping, blasting, timber clearing, and other intensive construction activities, however, may cause birds to flush from the nest or young to fledge prematurely. These activities would likely be required discontinuously between Stations 246 and 287.

Based on the studies, recommendations, and site-specific information cited above, it is judged that if blasting and heavy construction activities between Stations 240 and 287 were restricted between courtship initiation (typically early-April) and fledging (typically early-July), substantial disruption to nesting activities would not be anticipated.

Some rocky cliffs would be altered by construction along the Paradise Section; however, these cliffs are not considered desirable peregrine habitat due to their immediate proximity to the

existing highway. Much more desirable habitat, which would not be disturbed, occurs on the north side of the river through portions of the project area. Consequently, this habitat loss would not substantially affect peregrines in the area.

Construction activities may temporarily disturb resident and migrant foraging activities in the immediate project area during spring through fall. Along the Dixon Section, the river is over 1.6 km (1 mi) north of the highway for the majority of its length, and a railroad grade occurs between the river and the highway, effectively buffering the effects of construction-related disturbance. Although potential foraging areas near the eyrie along the Paradise Section may be temporarily disturbed by human activities, the areas and duration of disturbance would be relatively confined, and undisturbed similar habitat for displaced birds is abundant in the surrounding area. Further, timing restrictions discussed above would serve to minimize disturbance during critical periods. No disturbance would occur at the river along either the Dixon or Paradise sections. Consequently these temporary impacts are considered to be less than substantial.

Several additional wildlife species of concern may occur in the general area of both projects. Any of these species which are present in the projects' corridor, but for which no records or observations exist, would be subject to the impacts discussed above and those discussed below under *Wildlife/Motor Vehicle Collisions and Habitat Fragmentation*. Anticipated impacts to animal species of special concern are presented in Addendum Appendix A.

Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

Wildlife/Motor Vehicle Collisions and Habitat Fragmentation. Based on available data, substantial highway-related wildlife mortality does not appear to be occurring along either the Dixon or Paradise sections, nor do large numbers of wildlife appear to be moving across the highway. A combined total of 25 wild animals, primarily white-tailed deer, are known to have been killed on the highway along both projects from 1995 through 1999. Cross-highway movement, especially with respect to ungulates, appears to occur throughout both projects. Areas with higher potential for use as movement corridors by a variety of species include the general Magpie and Revais Creek corridors on the Dixon Section and the Wilson and Robertson creek corridors on the Paradise Section. These areas contain adequate forested or shrub cover, provide more or less contiguous links between the Flathead River and the Ninemile Divide area, and exhibit signs of wildlife use. In the case of Revais and Magpie creeks, existing bridges facilitate wildlife movement beneath the highway.

Habitat fragmentation can be defined as the separation of previously contiguous blocks of habitat into one or more disconnected pieces (Waller and Servheen 1999). Habitat fragmentation can result in impediments to wildlife dispersal and corresponding genetic exchange among populations. The existing highway, in association with the railroad and agricultural and light residential development, is a contributor to habitat fragmentation in the project area. Based on available data, however, substantial impediment to wildlife movement, as exemplified by high mortality rates and concentrated mortality areas, is not apparent in the project area.

Implementation of the Build Alternatives would add to habitat fragmentation in the project area by: Further reducing the amount of physical cover adjacent to the highway; incrementally increasing separation between cross-highway habitats; creation of high, steep cut slopes adjacent to the highway where none currently exist; and, increasing traffic speeds and the chance for wildlife/vehicle collisions.

Traffic volumes also are likely to increase over time, increasing the chance for wildlife/vehicle collisions. However, 1999-levels of approximately 1,120 and 1,320, for the Dixon and Paradise sections, respectively, are expected to increase to a 2020-level of approximately 1,380 for the Dixon Section and a 2023-level of approximately 1,680 for the Paradise Section, with or without the projects (Addendum Table 1-2). The interagency lynx biology team (ILBT 2000) cites highway/carnivore research in Canada that suggests highway traffic volumes of 2,000 to 3,000 vehicles per day are problematic with respect to wildlife habitat fragmentation and mortality. Traffic volumes exceeding 4,000 vehicles per day may result in serious habitat fragmentation and mortality impacts. Projected traffic volumes would contribute to increased habitat fragmentation and mortality over time, but are not expected to reach critical impedance levels over the projects' 20-year design period.

Truck traffic, which presents more of a danger to wildlife than automobiles due to decreased maneuverability, also is projected to increase commensurate with overall traffic regardless of project implementation. According to previous analysis, project implementation is unlikely to result in substantial increased truck traffic through the project area; neither in the immediate project area nor on adjacent routes. Truckers already use the route because of its substantial savings in time and distance. Minor increases in truck traffic would be expected due to improved operation and safety under wet, snowy, or icy pavement conditions (Section 3.4).

Discussion below regarding losses of riparian and nonriparian forest and increases in cross-highway separation of forested habitat pertain to the construction limits only. No clearing or grubbing would be allowed by the construction contractor beyond these construction limits. Temporary impacts associated with clearing for relocation of utilities may occur along the edge of the ROW (Section 3.3.2). Clearing up to approximately 6 m (20 ft) wide on either side of an overhead utility line may be performed by Mission Valley Power adjacent to the construction limits. Additional minor clearing may occur with respect to relocation of fiberoptic lines and other utilities. Utility companies are responsible for obtaining applicable permits and clearances prior to clearing and installation.

Approximately 2.83 ha (7.2 ac) of combined riparian and nonriparian forest would be permanently lost within construction limits along the Dixon Section. Through the Revais Creek area, cross-highway separation of forested habitat east of the creek would virtually remain at existing conditions, 45 m (150 ft), with a slight 10 m (30 ft) increase near the intersection at Station 114. For 180 m (590 ft) west of the creek, separation would also remain at existing conditions; separation would increase by about 20 m (60 ft) west of Station 108. The existing Revais Creek bridge, which provides a 7.6 m (25 ft) wide by 2 m (6 ft) tall subhighway passage, would be perpetuated.

Through the Magpie Creek area, cross-highway separation of forested habitat would remain at existing conditions, 40 to 60 m (130 to 200 ft) for approximately 210 m (690 ft) east of the bridge. Separation would increase over a 500 m (1640 ft) distance east of this point by an approximate average of 10 m (30 ft). The existing Magpie Creek bridge, which provides a 6.7 m (22 ft) wide by 2 m (6 ft) tall subhighway passage, would be perpetuated.

The new road surface would be within less than 1 m (3 ft) below or above the existing road surface through the Revais Creek area, and from 1 to 2 m (3 to 6.6 ft) above the existing road surface through the Magpie Creek area. Fill slopes would range between slopes of 6:1 to 4:1 through both areas. Consequently, no physical barriers to wildlife movement would result in these areas. A livestock underpass proposed at Gunderson Creek would facilitate movement of small to medium-sized animals along this corridor.

Steep cuts (1/4:1) of heights sufficient to preclude wildlife movement are proposed at various locations along the Dixon Section. Many of these (stations 44+20-45+60, 63+80-64+80, 66+40-66+80, 71+80-72+20, 72+80-73+20) would occur in areas that currently exhibit these characteristics. However, some (stations 5+00-5+80, 69+00-70+80, 72+20-72+80, 73+40-76+40, 83+60-86+40) would occur in areas where topography is currently conducive to cross-highway wildlife movement.

Approximately 700 m (2300 ft) of these new cuts up to 15 m (49 ft) in height would occur in the 7.4 km (4.6 mi) section between Revais and Magpie creeks, comprising an estimated 9.5 percent of this segment and 4.7 percent of the Dixon Section as a whole. These cuts, although broken into three sections, would reduce available cross-highway movement areas for elk and mule deer through a general seasonal migration area.

Over 10 ha (25.3 ac) of combined riparian and nonriparian forest would be permanently lost along the Paradise Section within construction limits under the Build Alternative. Through the Wilson Creek area, cross-highway separation of scrub-shrub habitat would increase from the existing 20 m (60 ft) to a projected 71 m (233 ft). Through the Robertson Creek area, cross-highway separation of forested habitat would increase from the existing average of 18 m (59 ft) to a projected 71 m (233 ft). Further, approximate fill heights of 12.8 m (42 ft) and at least 6.1 m (20 ft) are proposed across Wilson and Robertson creeks, respectively. The new road surface would be 8 m (26 ft) above the existing road surface at Wilson Creek, and 6.1 m (20 ft) above the existing surface at Robertson Creek.

Steep cuts (1/4:1) of heights sufficient to preclude wildlife movement are proposed at various locations along the Paradise Section under the Build Alternative. Most of these (stations 266-270+50, 274-279+50, 285+50-286, 295-300, 303-318+50) would occur in steep cliff areas that currently exhibit these characteristics. However, some (stations 248+50-256 [west of Wilson Creek], 327+50-332+50 [east of Robertson Creek], 367-369, 379+50-380) would occur in areas where topography is currently conducive to cross-highway wildlife movement. Approximately 457 m (1500 ft) of these new cuts up to 24 m (80 ft) in height would occur along the project, reducing the length of reasonably traversable highway through this segment by five percent.

Approximately 5.5 ha (13.9 ac) of combined riparian and nonriparian forest would be permanently lost along the Paradise Section within construction limits under the Minimum Build Alternative. Through the Wilson Creek area, cross-highway separation of scrub-shrub habitat would increase from the existing 20 m (60 ft) to a projected 30 m (100 ft). Through the Robertson Creek area, cross-highway separation of forested habitat would increase from the existing average of 18 m (59 ft) to a projected 30 m (100 ft). The new road surface would be 1 m (3 ft) above the existing road surface at Wilson Creek, and less than 1 m (3 ft) above the existing surface at Robertson Creek.

Steep cuts (1/4:1, some 1:2) of heights sufficient to preclude wildlife movement are proposed at various locations along the Paradise Section under the Minimum Build Alternative. Most of these (stations 77+40-78, 81-82+40, 83+40-83+60, 84+20-85+20, 87-87+40, 90-91+40, 92+60-97, 99+20-101+20, 111+80-112+40) would occur in steep cliff areas that currently exhibit these characteristics. However, some (stations 75+60-77+20 [west of Wilson Creek], 82+40-82+60, 83+60-84, 87+40-87+60, 91+60-92+40, 112+60-113+20) would occur in areas where topography is currently conducive to cross-highway wildlife movement. Approximately 380 m (1246 ft) of these new cuts up to 11 m (36 ft) in height would occur along the project, reducing the length of reasonably traversable highway through this segment by 4.5 percent.

Gunther et al. (1998) analyzed the frequency of roadkills in relation to adjacent roadside cover types, posted speed limits, and actual speed in Yellowstone National Park. The study determined that vehicle speed was the primary factor contributing to vehicle-wildlife collisions. Road design appeared to influence vehicle speed more than the posted speed limit; on average, vehicles traveled 8 kilometers per hour (km/h), 5 miles per hour (mph), faster on a newly constructed road. Actual speeds averaged 26 km/h (16 mph) higher than posted speed limits on roads where design and condition did not act to slow vehicle speeds. Bertwistle (1999) found that reducing speed zones from 90 to 70 km/h (55 to 45 mph) substantially reduced the rate of elk / vehicle collisions in Jasper National Park.

Although some curves would remain following construction, particularly under the Paradise Minimum Build Alternative, local traffic speeds are likely to increase as a result of the projects. These increased speeds, in conjunction with projected traffic increases, would likely result in increased wildlife mortality. Increases in cross-highway separation of forested and other habitat would result in increased driver sight distance, which, along with slight lane widening and shoulder paving, would offset this projected increase to some extent by affording drivers increased opportunities to identify and avoid wildlife on the highway. However, reduction of roadside cover would, for more secretive species, incrementally increase the difficulty associated with cross-highway movement.

As described above, steep cut sections would reduce the availability of traversable highway sections on both projects for all Build Alternatives. Such cuts are proposed between Magpie and Revais creeks on the Dixon Section. No such cuts or substantial fills are proposed at high potential wildlife movement areas associated with Magpie, Revais, Wilson, and Robertson creeks under the Dixon Build or Paradise Minimum Build alternatives. Substantial cuts and fills would occur in the Wilson and Robertson creek vicinities under the Paradise Build Alternative.

Although the above discussion has focused on large and medium-sized mammals, the impacts of increased habitat fragmentation and increased mortality also apply to smaller mammals and herptiles. Successful cross-highway movement would necessitate negotiation of wider cleared areas, a slightly wider road surface, longer pipes, and increased traffic speeds. It should be noted, however, that no concentrated mortality or movement areas for these species have been identified along either project. Maintenance of existing bridges and installation of pipes of sufficient size to provide fish passage at stream crossings would assist in mitigating effects to these species.

The impacts of habitat fragmentation and increased mortality also apply to local bird populations. The nearby Flathead River and associated diverse habitats in the general area provide habitat for numerous species; however, no specific concentration areas (e.g., roost sites, confined migration corridors, concentrated foraging or loafing areas) are known adjacent to either project, and no mortality concentration areas are known. Attractive nesting habitat for generally sensitive species, such as many raptors, is not expected (or known) within construction limits immediately adjacent to the highway, and expansion of the highway corridor width is not expected to substantially increase the travel time for birds to cross the highway. Increased traffic speeds and volumes, however, would likely increase bird mortality in the project area; including that of foraging raptors, passerines, and other species.

Cumulative and other indirect effects are discussed in Section 3.24.

3.16.3 Mitigation

Vegetation. With the exception of temporary clearing that may be required for culvert placement and relocation of utilities, clearing and grubbing will be confined to the construction limits along both projects (e.g., within the cut/fill limits). Clearing within the ROW beyond construction limits will be prohibited. No forested or shrub vegetation will be cleared for placement of temporary facilities, including staging and batch plant areas. Any temporary clearing outside the construction limits, but within the ROW necessary for culvert placement, will be kept to the smallest area possible and reclaimed immediately following construction with similar native vegetation. Revegetation will include planting of trees and shrubs. CSKT will develop and submit to MDT a revegetation plan to include planting of pine trees.

Impacts to cottonwood communities and other riparian vegetation on the Reservation will be addressed at the Yatchek property near Post Creek in the Mission Valley. Section 3 of the August 5, 1997 *Memorandum of Agreement for Riparian and Wetland Mitigation for Highway 200: Dixon-Ravalli Project*, between CSKT and MDT, specifies that non-wetland riparian impacts will be mitigated at the Yatchek property.

Following construction, disturbed areas will be seeded with native species.

Sensitive Plants. No sensitive plants were identified during September 1998 and June 1999 rare plant surveys. No mitigation is proposed. A pre-construction survey for Spalding's catchfly will be conducted in suitable habitat during mid- to late-July. Prior to construction, the Confederated Salish and Kootenai Tribes will salvage plant species of cultural significance

within the construction limits. These include tribal plant species of concern listed in the Wetlands Conservation Plan for the Flathead Indian Reservation (CSKT 1999a).

Noxious Weeds. Noxious weeds in the highway ROW are controlled by the Sanders County Weed Management District through a cooperative agreement with MDT, as provided by Montana Code Annotated [MCA] 7-22-2151. The agreement includes a six-year integrated noxious weed management plan that is updated biennially. Funding requirements to implement the plan are determined by the weed district board, which submits the budgetary information to MDT. MDT in turn submits appropriations for noxious weed control within the ROW to the county.

As owner of the property within the ROW, MDT is responsible for preparing and submitting a written plan to the weed district board specifying the time and method of seeding, fertilization practices, recommended plant species, use of weed-free seed, and the weed management procedures to be used (MCA 7-22-2152). The plan is subject to the approval of the board.

All areas disturbed by construction will be reseeded as described in the seeding provisions (Appendix C in the EA and EA Addendum).

Wildlife and Sensitive Wildlife Species. In addition to the provisions discussed above under *Vegetation*, the following measures are proposed:

To facilitate wildlife movement across the highway, structures (box culverts or bridges) with minimum clearance dimensions of 3 m (10 ft) rise by 7.3 m (24 ft) span will be installed at Wilson and Robertson creeks under either the Paradise Build or Minimum Build alternatives. These areas are largely undeveloped, and public lands occur immediately west and south of Robertson and less than 0.4 km (0.25 mi) south of the highway at Wilson Creek. Topography associated with these drainages will facilitate 'funneling' of animals to the structures. Drift fencing is not feasible at Wilson Creek due to the presence of private approaches in the immediate vicinity both north and south of the highway. Similarly, drift fencing is not feasible at Robertson Creek due to the presence of a boat launch and associated approaches on the north side of the highway that the Tribes and the Montana Department of Fish, Wildlife, and Parks have requested be maintained. To minimize impacts to cover in these areas, 4:1 fill slopes are proposed.

MDT will continue to participate in ongoing regional interagency planning efforts relative to wildlife habitat linkage areas.

Existing bridges at Revais and Magpie creeks, both of which facilitate subhighway animal movement, will be perpetuated. Cross-stream ROW stock fencing up and downstream of bridges will be removed, if permitted by landowners and/or lease terms. If such fencing is required, then three-strand barbless or other 'wildlife friendly' fence will be used to reduce existing impediments to wildlife movement. Appropriate wildlife movement considerations will be incorporated in future upgrades of these bridges.

A larger wildlife crossing structure was considered in association with a forested wetland east of Magpie Creek RP (MP) 101.7 to 101.8, but is not proposed. At the request of both the Tribes and the landowner, the proposed grade height was minimized in order to minimize impacts to wetlands north and south of the highway, and an associated spring south of the highway, and would not accommodate a 3 m (10 ft) high structure. In lieu of this, a 1.5 m (5 ft) high by 2.1 m (6.7 ft) wide arch pipe is proposed to facilitate animal movement; primarily up through mid-sized species. Additionally, 4:1 fill slopes are proposed through this area to minimize impacts to roadside cover and wetlands while still providing wildlife-negotiable slopes. Wildlife crossing signs will be installed east of this area and west of Magpie Creek. Additional options for attracting attention to the signs, including warning lights, will be considered based on future accident levels.

An oversized culvert up to 1.5 m (5 ft) in width containing a narrow, elevated shelf will be installed at an ephemeral drainage (Station 106+56) east of Robertson Creek to facilitate herptile and small-moderate sized animal movement.

To the extent possible, the contractor will lay back (and seed) slopes to a minimum 2:1 pitch in non-rock areas encountered within steep cut sections between Revais and Magpie creeks. The locations of such opportunities, if any, are currently unknown, and will not be known until construction is undertaken. Cut edges will be graduated into adjacent low areas, where possible, to maximize wildlife permeability of these areas.

Heavy construction activities (clearing, grubbing, grading, road obliteration, blasting etc.) within 180 m (600 ft) of the osprey nests along the Dixon Section on power poles 61 m (200 ft), 100 m (328 ft), and 200 m (656 ft) north of Stations 46, 65+70, and 68+20, respectively, if occupied, will be conducted prior to April (or prior to the birds' known arrival) or after June (or after hatching has occurred), where feasible. If such measures result in substantial construction hardship or costs, then construction later, rather than earlier in the year will be implemented where feasible in the vicinity of these nests. Any direct manipulation of the nest poles will occur prior to April or after the birds have left for the year. Appropriate permits from USFWS under the auspices of the federal Migratory Bird Treaty Act will be acquired as necessary.

Under the Paradise Build and Minimum Build alternatives, no blasting, ripping, timber clearing, or other heavy construction activities will occur between Stations 240 and 260 between the period of April 1 and July 15, or until fledging has been verified at the peregrine falcon eyrie. No blasting will occur between Stations 260 and 287 between the period of April 1 and July 15, or until fledging has been verified at the peregrine falcon eyrie.

Prior to construction, MDT will perform a records check with the CSKT Wildlife Program to ascertain the current status of raptor nests and other biological resources in the project area. The records check will also encompass the location of contractor-proposed borrow/gravel sources. Where appropriate and feasible, construction activity timing restrictions will be required.

Overhead power lines to be relocated will be raptor-proofed in accordance with *Suggested Practices for Raptor Protection on Power Lines* (Olendorff et al. 1981).

The following pre-construction surveys will be conducted. Surveys for the Couer d'Alene salamander will be conducted at Robertson and Burgess creeks. Surveys for western toad and northern leopard frog breeding areas will be conducted at ponded wetlands within the ROW that will be affected by construction. These include D1-D3, D7, D9-D11, D13, D19, D23, D24, and P6. Site-specific mitigation measures will be developed should breeding areas be discovered. Such measures may include fill slope minimization or transplanting.

3.17 Aquatic Resources

3.17.1 Affected Environment

Section 3.17.1 in the EA describes the affected environment for aquatic resources.

Sensitive Fish Species. Sensitive fish species that may occur in the project area are listed in Addendum Appendix A and include westslope cutthroat trout and bull trout. As mentioned above, westslope cutthroat trout occur as common residents in the Flathead River, as resident and fluvial stocks in Magpie and Revais creeks, and possibly occur as migrants and spring residents at Gunderson, Magpie Spring, Burgess, Robertson, and Wilson creeks. Pure-strain westslope cutthroat populations occur in Gunderson Creek upstream of an irrigation diversion located upstream of the highway, as well as in upper Magpie and Revais creeks.

Bull trout, a federally-listed threatened species, is discussed in Section 3.18.

3.17.2 Impacts

Under the No Action Alternatives, existing impacts to project area streams, including any impediments to fish passage, would continue. Accidents and potential for spills of fuel and other contaminants into area waters would continue at existing levels, and, given current substandard road conditions, may increase commensurate with projected increasing traffic levels.

The Dixon and Paradise sections would not be constructed concurrently. As such, the temporary impacts described below would not be additive. The Dixon Section would most likely be constructed during the year 2000, while the earliest projected construction year for the Paradise Section is 2003.

Impacts to project area streams would primarily result from direct disturbance associated with culvert replacement, fill/riprap placement, and channel realignment at smaller streams in the project area. Indirect temporary water quality impacts would likely result from erosion and stormwater runoff at streams and other areas during construction and road obliteration. No blasting is proposed at any project area streams. Generally, no direct impacts to the Flathead River would result from construction of the Dixon or Paradise sections under any of the Build Alternatives. For the Paradise Minimum Build Alternative, MDT and the Tribes will coordinate mitigation of impacts in the Robertson Creek area, where the alignment would be between a rock face and Flathead River fringe wetlands.

Under the Paradise Build Alternative (and, to a lesser extent, the Paradise Minimum Build Alternative), extensive rock blasting and excavation would be required at a number of upland outcrop locations upslope (south) of the existing highway within approximately 15 m (50 ft) to 91 m (300 ft) of the Flathead River. These include areas between RP (MP) 87.1 and 87.8, RP (MP) 88.2 and 89.1, and RP (MP) 89.4 and 89.8. Blasting would also be required upslope (south) of the existing highway and railroad grade at various rock cut locations within approximately 91m (300 ft) to 366 m (1,200 ft) of the Flathead River along the Dixon Section, occurring over a total cumulative distance of approximately 1.5 km (0.9 mi). No blasting is proposed at or within project area streams or between the highway and the Flathead River under any alternative. Minor nitrogen residue from blasting may temporarily affect surface and ground water quality downstream of these areas.

Construction activities would result in temporary increased erosion potential, reduced slope stability, and could increase turbidity in streams and the river downstream of the projects, particularly during precipitation events. Water quality would be indirectly affected over the short term by the influx of fuel and other pollutants from unpaved surfaces during storm events, which could temporarily affect stream productivity in the immediate project area. Construction of the livestock underpass adjacent to Gunderson Creek may result in a longer-term increase in suspended sediment resulting from concentrated trampling of the streambed during stock movements. However, stock use of this drainage currently occurs on both sides of the highway.

Increases in turbidity and suspended sediment could result in temporary reductions of stream productivity, reduction of feeding opportunities for sight-feeding species, avoidance by fish of important habitat, and sedimentation of spawning habitat or eggs. Deposited sediments reduce habitat volume by filling pools and intergravel spaces which are critical to young fish. Fine sediments in stream gravels affect developing embryos by inhibiting dissipation of metabolic wastes in intergravel spaces.

Temporary water quality impacts described above would be reduced by implementing standard best management practices (BMPs) for pollutant/sediment/erosion control during construction and through compliance with project-specific conditions to be specified in CSKT Aquatic Lands Conservation Ordinance (ALCO), FWP Stream Protection Act, and federal Section 404/401 Clean Water Act permits and certifications required for the projects. Work windows designed to avoid important periods for fish species of concern, such as westslope cutthroat and bull trout, would serve to reduce potential impacts to spawning for other species.

Discussion above regarding water quality impacts pertains to highway construction. However, additional temporary impacts may result during relocation of utilities across streambeds. Utility companies are responsible for obtaining applicable permits and clearances prior to clearing and installation.

Direct habitat (channel) losses would result from expanded fill slopes near most project area streams. No such loss would occur at Magpie or Revais creeks as existing bridges would be used in place. Minor loss, 3 to 5 m (10 to 16 ft) would occur at Gunderson Creek; approximately 20 m (60 ft) would be lost at Magpie Spring Creek. Approximately 76, 128, and 61 m (250, 420, and 200 ft) of channel would be lost at Burgess, Robertson, and Wilson creeks, respectively,

under the Paradise Build Alternative. Approximately 67, 10, and 35 m (220, 33, and 115 ft) would be lost at Burgess, Robertson, and Wilson creeks, respectively, under the Paradise Minimum Build Alternative. As no critical spawning areas adjacent to or downstream of the highway are known at streams that would be affected by the projects, substantial impacts to spawning habitat are not anticipated to result from construction. As stated earlier, work windows designed to avoid important periods for fish would serve to reduce potential impacts to spawning.

Replacement of existing culverts with longer, and in some cases narrower, pipes would generally reduce or eliminate fish passage beneath the highway and act as barriers to upstream use. This is the desired effect at Gunderson Creek, where CSKT requested that blockage be maintained in order to maintain the genetic integrity of a westslope cutthroat population occurring upstream of the highway. Fish are able to negotiate short culverts with relatively high flow velocities, but for passage through longer culverts, the allowable flow is much less (Tillinger and Stein 1996). Pipes designed to accommodate fish passage when flows are adequate at project area stream crossings would minimize impacts to fish movement and would likely benefit fish over existing conditions. Many of these streams, however, may not achieve flow adequate to pass fish during mid- to late- summer, regardless of culvert conditions. Additionally, the level of the Flathead River, which is controlled by Kerr Dam, may not be sufficiently high to provide a usable connection between stream outlets and the river during some periods.

Potential for accidents and related spills of fuel and other contaminants into area waters would be reduced through reduction of horizontal and vertical curves and modifications to the superelevation along both sections. According to previous analysis, project implementation is unlikely to result in substantial increased truck traffic through the project area; neither in the immediate project area nor on adjacent routes. Truckers already use the route because of its substantial savings in time and distance. Minor increases in truck traffic would be expected due to improved operation and safety under wet, snowy, or icy pavement conditions. If the Build Alternatives are constructed, the resulting improvements in operation and safety would serve to adequately accommodate projected truck traffic (Section 3.4).

Cumulative and other indirect effects are discussed in Section 3.24. Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

Sensitive Fish Species. Westslope cutthroat trout occur as common residents in the Flathead River, as resident and fluvial stocks in Magpie and Revais creeks, and possibly occur as migrants and spring residents at Gunderson, Magpie Spring, Burgess, Robertson, and Wilson creeks. Pure-strain westslope cutthroat populations occur in Gunderson Creek upstream of an irrigation diversion located upstream of the highway, as well as in upper Magpie and Revais creeks. Westslope cutthroat trout would be subject to the same impacts involving temporary turbidity/sedimentation, direct habitat (channel) loss, and impediments to fish passage associated with fill slope expansion, culvert replacement, and utility relocation as were described above.

Implementation of standard best management practices and compliance with applicable water quality permits and certifications required for the projects would minimize potential impacts for project area streams and the Flathead River. If construction activities at these streams were prohibited during the potential westslope cutthroat spawning period in this area (between mid-March and late-April [DosSantos, Saffel pers. comms.]), the potential for water quality-related impacts to westslope cutthroat trout at these streams would be further reduced.

Additionally, substantial flows at the Flathead River during the potential spawning period would serve to dilute construction-related sediment or minor blasting residue resulting from construction of either project (the Dixon and Paradise sections would not be constructed concurrently), should the flows escape erosion and sediment control measures. The mean April (primary spawning period) flow in the lower Flathead River between 1984 and 1998 was 10740 cubic feet per second (cfs), 352 meters cubed (m³).

Adverse impacts to potential westslope cutthroat trout movement are not expected to result from culvert replacement at Magpie Spring, Burgess, Robertson, and Wilson creeks provided culverts are designed such that upstream fish passage is provided during adequate flow periods. The critical movement period for this species occurs approximately between mid-March and late-April, when fish could conceivably be spawning in these tributaries. Implementation of such passage design measures are likely to benefit westslope cutthroat trout over existing conditions.

Substantial impacts to westslope cutthroat trout are not expected to result from channel losses at Gunderson, Magpie Spring, Burgess, Robertson, and Wilson creeks associated with the widened road due to the perceived low potential for year-round use at these streams in the highway vicinity, provided previously discussed work windows and sedimentation controls are applied.

Highway construction would not promote contamination of genetically pure westslope cutthroat populations upstream of the highway at Revais, Magpie, and Gunderson creeks. Blockage to fish passage at Gunderson Creek will be maintained as requested by the CSKT Fisheries Program.

Cumulative and other indirect effects are discussed in Section 3.24. Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

3.17.3 Mitigation

For the Build Alternatives, culverts at Magpie Spring, Burgess, Robertson, and Wilson creeks will be installed at existing grades (not perched) and will be designed to allow upstream fish passage during periods of adequate flow. This will minimize effects to fish movement and may benefit fish over existing conditions. The existing bridges at Revais and Magpie creeks will be used in place. MDT will coordinate design of stream crossings with the Tribes and biologists. At these crossings and at Gunderson Creek, instream work will be completed during a construction window from July 15 to October 1 to minimize potential effects to westslope cutthroat trout and bull trout.

Stream channel losses predicted at Gunderson, Burgess, and Wilson creeks were included in wetland impact acreage totals and will be mitigated as such at a compensatory mitigation site along the Flathead River north of Dixon. Non-wetland riparian losses at Magpie Spring and Robertson creeks will be mitigated in compliance with Section 3 of the August 5, 1997 *Memorandum of Agreement for Riparian and Wetland Mitigation for Highway 200: Dixon-Ravalli Project* between CSKT and MDT. The MOA specifies that non-wetland riparian impacts will be mitigated at the Yatchek property near Post Creek.

For the Paradise Minimum Build Alternative, fill slopes north of RP (MP) 88.9 to 89.0 will be adjusted to eliminate encroachment into the spring outlet immediately adjacent to the Flathead River. Impacts to the river will be avoided as this design progresses.

Temporarily disturbed wetland and streamside areas will be revegetated with native plant material obtained from local sources as quickly as possible following construction.

Hazardous materials, including fuels and lubricating oils, will not be stored within 30 m (100 ft) of wetlands or streams. Additionally, construction equipment will not be refueled within 30 m (100 ft) of such areas.

3.18 Threatened and Endangered Species

3.18.1 Affected Environment

Threatened and endangered species include those species listed or proposed for listing by USFWS as threatened or endangered. Under Section 7 of the Endangered Species Act, as amended, activities conducted, sponsored, or funded by federal agencies must be reviewed for their effects on species federally listed or proposed for listing as threatened or endangered. According to USFWS (McMaster 1998; USFWS 1999), the following proposed or listed species may occur in the project area:

- Bull trout (*Salvelinus confluentus*: threatened)
- Bald eagle (*Haliaeetus leucocephalus*: threatened, but USFWS proposed on July 6, 1999 to remove this species from the list of threatened and endangered species)
- Gray wolf (*Canis lupus*: endangered)
- Grizzly bear (*Ursus arctos horribilis*: threatened)
- Canada lynx (*Felis lynx*: threatened)
- Spalding's catchfly (*Silene spaldingii*: proposed threatened)

An assessment of effects to threatened and endangered species was prepared within the BRR and submitted to USFWS for concurrence in July 1999. USFWS has concurred with the determination of effects made for these species (McMaster 1999). This assessment, however, did not include Spalding's catchfly, which was proposed for listing as a threatened species in December 1999.

Bull Trout. Both projects occur within the general Middle Clark Fork River (MCFR) drainage. The MCFR drainage includes the Clark Fork River and its tributaries from Thompson

Falls Dam upstream to Milltown Dam and the Flathead River drainage from the confluence with the Clark Fork River upstream to Kerr Dam (Montana Bull Trout Scientific Group [MBTSG] 1996). No core areas (drainages containing the strongest remaining populations of bull trout in a restoration area) occur in the project area (MBTSG 1996). The Flathead River through the project area is considered nodal habitat (waters which provide migratory corridors, overwintering areas, or other critical life history requirements; MBTSG 1996).

Flow in the lower Flathead River is regulated by Kerr dam, located 6.4 km (4 mi) downstream of the original Flathead lake outlet. Kerr dam is a top-release dam; consequently, temperatures in the lower Flathead are regulated by the temperature of shallow South Bay in Flathead Lake (DosSantos pers. comm.). Temperatures in excess of 59 degrees F are thought to limit bull trout distribution in many systems, and temperature appears to limit bull trout distribution in several tributaries and in the mainstem Flathead River below Flathead Lake (MBTSG 1996). In the lower Flathead River, summer water temperatures are near 68 degrees F (MBTSG 1996). Temperatures at project area tributaries are unknown.

In reaches of the Flathead River through the project area, bull trout are listed in the 'rare' and 'spawns elsewhere' categories used by the MRIS (1999). Through these reaches, bull trout are known to occur as adult and subadult residents and adult migrants; no use by juveniles has been observed (DosSantos pers. comm.). Although spawning by either bull or brown trout was observed in the Flathead, from its confluence with the Clark Fork to approximately 3.2 km (2 mi) upstream (near the west end of the Paradise Section), no bull trout spawning has been documented in project area reaches of the Flathead River (DosSantos pers. comm.); possibly due to high late-summer water temperatures.

No critical spawning habitat for any species, including bull trout, has been identified or is suspected at project area tributary streams in the vicinity of the highway. None of these streams are considered core areas or nodal habitat (MBTSG 1996). Adult and subadult bull trout could conceivably occur at times within small tributaries that would be affected by the projects including Gunderson, Magpie Spring, Burgess, Wilson, and Robertson creeks.

These streams, however, all experience low or intermittent summer flows and have been and continue to be disturbed by a variety of sources including grazing, irrigation, channelization, and dike construction. Based on these low / intermittent summer flows, there is some question as to whether bull trout even used these streams historically (DosSantos pers. comm.). All of these streams either have or would likely be classified as Class IV streams (provide low subsistence or recreational fishing potential, contain low fish species diversity, have moderate to poor water quality, and are ephemeral streams or segments thereof [CSKT 1993]) by CSKT (DosSantos pers. comm.).

Bull trout use of these tributary streams is unlikely, particularly during low or no flow summer months. Fifteen years of fish surveys have produced no observations of bull trout in project area streams, including Magpie, Revais, Gunderson, Magpie Spring, and Burgess creeks (DosSantos pers. comm.). Wilson and Robertson creeks have not been surveyed, but bull trout use is generally not expected at these streams (DosSantos, Saffel pers. comms.) due to low or absent summer flows and lack of substantial stream length upstream of their confluences with the

Flathead River (resulting from an upstream dike at Wilson Creek and an upstream natural high gradient at Robertson Creek). None of these streams are considered critical habitat for bull trout (DosSantos, Saffel pers. comm.). Consequently, bull trout use of these tributaries is considered possible, but unlikely and infrequent.

During their river residency, bull trout commonly make long distance annual or seasonal movements among various riverine habitats, apparently in search of foraging opportunities and refuge from warm, low-water conditions in summer and ice in winter (MBTSG 1998). Along these lines, in order to avoid high summer temperatures in the Flathead River, bull trout typically move upstream and out of the project area system by mid-July and return when temperatures again recede, typically after early-October (DosSantos pers. comm.). Although bull trout are known to use cold tributary plumes as thermal refuges during warm summer days (MBTSG 1998), they are thought to be absent from project area streams during this summer period due to the absence of flows or lack of appreciable flows in these tributaries during this period (DosSantos pers. comm.).

A possible exception to this may occur along the Paradise Section between Stations 345 and 350 (L), where the highway crosses a spring outlet with a slough-like appearance that discharges to the Flathead River, joining the river approximately 107 m to 122 m (350 to 400 ft) north of the highway. The spring was flowing during the September 1998 reconnaissance survey, and the slough-like outlet could conceivably provide thermal refuge for bull trout during warm summer months.

Bald Eagle. The projects occur within the Montana portion of the Upper Columbia Basin Recovery Zone (Montana Bald Eagle Working Group [MBEWG] 1991). Bald eagle nest sites known from the general Dixon Section area occur on the Flathead River approximately 670 m (2200 ft) north (Ferry Island); 1.6 km (1 mi) north (Revais Creek); 2.4 km (1.5 mi) northeast (Agency); and 6.4 km (4 mi) northeast (Faust Slough) of the projects (MNHP 1998a; Becker pers. comm.). Given their respective nest locations relative to the highway, the Ferry Island and Revais Creek pairs are probably the most likely of local nesting pairs to forage along the river in the immediate project area. As the Ferry Island nest occurs nearest the highway, this pair would be the most likely to be affected by project-related activities. A new nest, considered by the CSKT Wildlife Program as an alternate nest for the Ferry Island pair, was discovered in 1999 at Heron Island approximately 365 m (1200 ft) north of the highway along the Dixon Section.

Nest sites within the Paradise Section vicinity occur 4 km (2.5 mi) east (Seepay Creek) and 8 km (5 mi) northwest (Rocky Point) of the project along the Flathead River (MNHP 1998a; Becker pers. comm.). No nesting within the immediate Paradise area is known or suspected (Becker pers. comm.); however, the Seepay Creek pair likely forages occasionally along the Flathead River adjacent to the Paradise Section.

Bald eagles also occur along the Flathead River through both projects as spring and fall migrants and as winter residents, feeding on both fish and waterfowl (Becker pers. comm.).

Gray Wolf. Gray wolf populations in Montana have been increasing in recent years and were reintroduced to Yellowstone National Park and central Idaho in 1994.

No active wolf dens are known to occur in the project area (Becker, Fontaine pers. comms.). The nearest known pack to the project area is the Ninemile pack, whose primary territory occurs several miles south of the project area on the south side of the Ninemile Divide, although individuals do wander over the divide on occasion (Fontaine pers. comm.). The Ninemile pack presently consists of four adults and four pups, and primary dispersal from the pack occurs out of the Ninemile area to the northwest; generally closer to Plains than to Paradise (Fontaine pers. comm.). According to USFWS, wolf use in the project area is generally thought to be limited to occasional individual wanderings (Fontaine pers. comm.).

Pack use in the project area has not been verified by the CSKT Wildlife Program; however, semi-regular sightings are reported in the general Dixon area along the south border of the Reservation (Becker pers. comm.). Other locally reported sightings were in 1998 and 1999 near Ravalli, on the National Bison Range, east of Revais Creek, and near the North Fork of Valley Creek.

Grizzly Bear. Neither of the projects occur within or adjacent to any designated grizzly bear recovery zones. At its closest point, the Dixon Section occurs approximately 26 km (16 mi) west of the Northern Continental Divide (NCD) Grizzly Bear Recovery Zone (the Paradise Section occurs approximately 52 km (32 mi) west of the NCD Recovery Zone). The Paradise Section occurs approximately 24 km (15 mi) southeast of the Cabinet/Yaak Recovery Zone (the Dixon Section occurs approximately 32 km (20 mi) southeast of the Cabinet/Yaak Recovery Zone); both sections occur approximately 48 km (30 mi) north of the Bitterroot Grizzly Bear Recovery Zone, which occurs on the south side of Interstate 90 (I90).

An estimated 516 grizzlies occur in the NCD ecosystem (USFWS 1997). The population in the Cabinet Mountains was estimated at 15 or fewer bears in 1988 and there is insufficient data to dramatically increase that estimate (USFWS 1999). The Cabinet population has since been augmented with four females and individual bears and females with young have been sighted since completion of the transplants (USFWS 1999). No verified tracks or sightings have been documented in more than 50 years in the Bitterroot ecosystem, and currently there is no evidence of grizzly bears within the ecosystem (USFWS 1997). USFWS is currently proposing to reintroduce grizzly bears into the Bitterroot ecosystem under an experimental population rule. A recovered population within the Bitterroot ecosystem would consist of approximately 280 bears (USFWS 1997).

Although the highest grizzly bear densities within several miles of the project occur in the Mission Mountains and adjacent lands in the Mission Valley, grizzlies have also been periodically reported near Evaro, Ninepipe, Post Creek, Dixon, Perma, and the National Bison Range (Morrison-Maierle Environmental Corporation 1995).

Records of grizzly observations are sparse in the project area. Camera surveys conducted over the last six to seven years south of MT200 on the Ninemile Divide have produced many black bear sightings, but no grizzly bear sightings (Becker pers. comm.). In 1989, a forestry crew reported an unverified sighting of a grizzly sow with cubs south of MT200 between the two projects near Perma Point (Becker pers. comm.). During summer of 1998, local residents

reported an unverified sighting of a grizzly sow with two or three cubs on a ridge top west of Ravalli (west of MT200; Becker pers. comm.).

Based on the above, grizzly bears are considered an infrequent resident in the general project area (e.g., Ninemile Divide, Buffalo Bill Divide, Salish Mountains areas within several miles of the project area), and an infrequent transient in the immediate project area.

Canada Lynx. The lynx was officially listed as a threatened species in March 2000. No recovery zones have been delineated. Based on their location, both projects would likely fall within a northwest Montana lynx recovery area (Vandehey pers. comm.). In Montana, spruce/subalpine fir forests as low as 1220 m (4000 ft) in elevation are considered lynx habitat by USFWS (Vandehey pers. comm.).

No lynx observations have been recorded in the project area, although lynx tracks have been observed several miles south of MT200 in the Ninemile Divide (upper Revais Creek) area (Becker pers. comm.). The projects occur between 762 and 792 m (2500 and 2600 ft) in elevation, and no spruce/subalpine fir communities occur within several miles of the projects. Consequently, lynx are expected to occur in the immediate project area as infrequent transients, and in surrounding high-elevation forest (possibly in the Ninemile Divide area) as infrequent residents.

Spalding's Catchfly. Spalding's catchfly is known to occur in Sanders, Lincoln, Lake, and Flathead counties. The nearest populations are located in northern Sanders County and adjacent Flathead and Lincoln counties, approximately 41 km (25.4 mi) north of MT200 in the project area. Extensive surveys for Spalding's catchfly were completed in July and August of 1988, from the Canadian border south to Arlee, Montana, including the National Bison Range and areas on the Flathead Indian Reservation along the Flathead River (Schassberger, 1988).

Of the plants identified during the September 1998 rare plant survey, there were no plant species of special concern observed (Schassberger-Roe 1998). The field survey dates were not optimal to locate early flowering plants, so a supplementary survey was conducted in June 1999; again, no plant species of special concern were observed (Schassberger 1999).

Spalding's catchfly, a plant the surveyor was familiar with through previous survey work as the Montana Natural Heritage Program Botanist, was not located within the ROW of either the Dixon or Paradise sections during the September 1998 surveys. However, the survey was not completed during the optimal time-period (last 2 weeks in July) to observe Spalding's catchfly while in full flower. Consequently, a preconstruction field survey for this species would be conducted to ensure that impacts to this species, if any, are minimized.

3.18.2 Impacts

Under the No Action Alternatives, disturbances to terrestrial and aquatic resources (including threatened and endangered species) associated with the use and maintenance of the existing highway would continue in conjunction with projected traffic volume increases. Current (1999) ADTs of approximately 1,120 and 1,320, for the Dixon and Paradise sections, respectively, are

expected to increase to a 2020-level of approximately 1,380 for the Dixon Section and a 2023-level of approximately 1,680 for the Paradise Section, with or without the projects (Addendum Table 1-2). Truck traffic, which presents more of a danger to wildlife than automobiles due to decreased maneuverability, also is projected to increase commensurate with overall traffic regardless of project implementation (Section 3.4).

Under this alternative, deteriorating road conditions and area wildlife would continue to be subject to motorists already driving faster than the 100 km/h (60 mph) design speed. Accidents and potential for spills of fuel and other contaminants into area waters would continue at existing levels, and, given current substandard road conditions, may increase commensurate with projected increasing traffic levels. Existing impacts to project area streams, including any impediments to fish passage, would continue.

With respect to the Build Alternatives, impact assessment and mitigation (coordination) measures regarding habitat fragmentation and mortality pertaining to gray wolves, grizzly bears, and Canada lynx were coordinated with the CSKT Wildlife Program Manager; the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, and Plains / Thompson Falls District Wildlife Biologist; and USFWS Ecological Services.

Bull Trout. Bull trout would be subject to the same impacts involving temporary turbidity/sedimentation, direct habitat (channel) loss, and impediments to fish passage associated with fill slope expansion, culvert replacement, and utility relocation as were described in Section 3.17.2. Utility companies are responsible for obtaining applicable permits and clearances prior to clearing and installation.

Increases in turbidity, suspended sediment, and other pollutants can reduce stream productivity, reduce feeding opportunities for bull trout, and result in avoidance by adult migrants and adult and subadult residents of important habitat. Deposited sediments reduce habitat volume by filling pools and intergravel spaces which are critical to young fish. As no bull trout spawning is known or suspected in the Flathead River or streams through or immediately downstream of the project area, no substantial impacts to spawning or embryonic development are anticipated from the projects.

Bull trout use of Gunderson, Revais, Magpie, Magpie Spring, Burgess, Wilson, and Robertson creeks is considered possible, but unlikely and infrequent. Use of these streams has not been confirmed, and none of these streams are considered critical habitat for bull trout (DosSantos, Saffel pers. comm.). Even potential use of these streams is thought to be confined to cooler, higher water periods (between October and mid-July); use is not expected during warmer, low or no flow periods (between mid-July and October)(DosSantos pers. comm.).

Implementation of standard best management practices and compliance with applicable water quality permits and certifications required for the projects would minimize potential impacts at project area streams and the Flathead River. Further, if construction activities at these streams were restricted to the period when bull trout are thought to be absent from the local system (between mid-July and October), the potential for water quality-related impacts to bull trout at these streams would be negligible.

Additionally, substantial flows at the Flathead River, even during low flow periods, would serve to dilute construction-related sediment and blasting residue should it escape erosion and sediment control measures.

The mean monthly flow in the lower Flathead River ranges between approximately 8300 and 22700 cfs (235 and 643 m³). Lowest flows typically occur during August and September, and it is primarily during this period that bull trout are thought to be absent from the project area, including adjacent reaches of the Flathead River. Even at low flows, flow in the Flathead River would serve to substantially dilute sediments or residues resulting from construction of either project (the Dixon and Paradise sections would not be constructed concurrently).

As currently (conceptually) designed under all alternatives, reduction or elimination of potential fish movement through culverts under the highway at Magpie Spring, Burgess, Robertson, and Wilson creeks would likely result from pipe replacements. The Magpie and Revais Creek bridges would not be replaced; consequently, fish passage would not be affected at these streams.

These impacts would not be expected if culverts are designed such that upstream fish passage is provided during adequate flow periods. Implementation of such passage design measures may benefit bull trout over existing conditions.

Substantial impacts to bull trout are not expected to result from channel losses at Gunderson, Magpie Spring, Burgess, Robertson, and Wilson creeks associated with the widened road due to the perceived low potential for year-round use at these streams in the highway vicinity, provided previously discussed work windows and sedimentation controls are applied.

Potential for accidents and related spills of fuel and other contaminants into area waters would be reduced through reduction of horizontal and vertical curves and modifications to the superelevation along both sections. According to previous analysis, project implementation is unlikely to result in substantial increased truck traffic through the project area; neither in the immediate project area nor on adjacent routes. Truckers already use the route because of its substantial savings in time and distance. Minor increases in truck traffic would be expected due to improved operation and safety under wet, snowy, or icy pavement conditions. If the Build Alternatives are constructed, the resulting improvements in operation and safety would serve to adequately accommodate projected truck traffic (Section 3.4).

Construction of the Dixon Section would likely result in the least potential impacts to bull trout of the three Build Alternatives. Magpie and Revais creeks would not be directly affected. The currently designed Magpie Spring Creek pipe is slightly longer than the existing pipe and would probably result in reduction of fish passage. Only minor channel modifications would occur at pipe inlets and outlets at Gunderson and Magpie Spring creeks. Further, this section generally occurs much farther from the Flathead River than does the Paradise Section, and a railroad grade occurs between the highway and the river for the entire length of the section. The railroad grade would act as a sediment barrier and would facilitate the reduction of any sediment that may reach the river during construction. No blasting is proposed at or within project area streams, and no blasting is proposed between the highway and the Flathead River.

Construction of the Paradise Build Alternative would likely result in the greatest potential impacts to bull trout of the Build Alternatives. Extremely long pipes proposed at Wilson and Robertson creeks would eliminate any current fish passage at these streams. Reduction and possibly elimination of fish passage is anticipated at Burgess Creek, although only a few hundred feet of stream channel occur upstream of the highway before a dike and pond system is encountered. Major channel losses at all project area streams would result from high fill placement. Substantial blasting, ripping, and other activities where the proposed alignment deviates from the existing alignment would likely result in more potential for indirect impacts (e.g., sediment) to the nearby Flathead River than would the Paradise Minimum Build Alternative.

Construction of the Paradise Minimum Build Alternative would likely result in potential impacts to bull trout of greater severity than the Dixon Build Alternative but of less severity than the Paradise Build Alternative. Longer pipes proposed at Wilson and Robertson creeks would reduce any current fish passage at these streams. Elimination of fish passage is anticipated at Burgess Creek. Channel losses at project area streams would result from fill placement, but losses would not be as severe as under the Paradise Build Alternative. At Robertson Creek, for example, little to no channel loss is expected. Some blasting, ripping, and other sediment generating activities would occur along the project; however, the proposed alignment generally follows the existing alignment and would likely result in less indirect impacts (e.g., sediment) to the nearby Flathead River than would the Paradise Build Alternative. As currently designed, fill would be placed within a slough-like spring outlet adjacent to the Flathead River between Stations 345 and 350.

Cumulative and other indirect effects are discussed in Section 3.24. Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

The BRR concluded that the projects may affect, but is not likely to adversely affect the bull trout. USFWS has concurred with this determination (McMaster 1999), based on implementation of the Dixon Build and Paradise Minimum Build alternatives and appropriate conservation measures.

Bald Eagle. Construction during the bald eagle nesting season in the vicinity of the Ferry Island and Heron Island nests along the Dixon Section could cause adults to abandon their nesting attempt or flush from the nest. Even brief absence by parent birds can lead to missed feedings, predation on eggs or young, or to overheating, chilling, or desiccation of eggs or young (Richardson and Miller 1997). Parents frightened from the nest may inadvertently break eggs or injure the young, or disturbances may disrupt feedings, weakening the nestlings' health (MBEWG 1991).

Nest building, courtship and egg-laying usually begin in early-February and last until mid-May, and incubation occurs from the first part of March through the end of April. During egg-laying and incubation, eagles are most vulnerable to disturbance. Human disturbances during this time may cause birds to temporarily leave or permanently abandon their nest. After the eggs have

hatched, adult eagles are less likely to abandon nest areas. Hatching and rearing of young generally takes place from early-May to mid-August. Fledging generally occurs from mid-June through mid-August. After fledging, human activity near nests is least likely to cause adverse impacts (MBEWG 1986).

Sensitivity to human activities varies greatly between individual birds (MBEWG 1991). Generally, eagles are most sensitive to disturbances coming from water rather than land, and disturbances in the open rather than those screened by vegetation (Stalmaster and Newman 1978). General construction activities and blasting would originate from land and would be somewhat attenuated, from both a visual and auditory perspective, by vegetation (ponderosa pine, aspen) occurring between the highway and the river in the immediate vicinity of both nests.

The Ferry Island nest would be directly visible however, from the proposed scenic turnout location south of the highway requested by the Tribes. Although a possibility, substantial long-term impacts to nesting are not expected to result at the Ferry Island nest from construction of the turnout because: the Ferry Island birds are considered as one of the more tolerant (to human activities) pairs in the area by the CSKT Wildlife Program; the turnout would be constructed south of the highway, over 600 m (2000 ft) away from the nest, and would not result in increased human activity closer to the nest than currently exists; the turnout has a very small vehicle capacity, only providing parking for six vehicles; and the turnout would not be permanently occupied.

Impacts to bald eagle nesting activities at the Revais Creek and Seepay Creek nests, which occur approximately 1.6 km (1 mi) north and 4 km (2.5 mi) east of the Dixon and Paradise sections, respectively, are not anticipated due to adequate separation from construction activities. No occupied or potential nesting habitat would be directly affected by the projects. Similarly, the projects are not likely to result in the loss of perch or roost trees along the Flathead River.

Construction activities may temporarily disturb foraging activities in the immediate project area during virtually all seasons. Along the Dixon Section, the river is over 1.6 km (1 mi) north of the highway for the majority of its length, and a railroad grade occurs between the river and the highway, effectively buffering the effects of most construction-related disturbance. Although potential foraging areas near the Ferry Island and Heron Island nests may be temporarily disturbed by human activities, the areas and duration of disturbance would be relatively confined, and undisturbed similar habitat for displaced birds is abundant in the surrounding area. Further, any timing restrictions implemented relative to nesting would serve to minimize disturbance during critical periods. No nest territories are known along the Paradise Section, and, similar to the Dixon Section, undisturbed similar habitat for displaced birds is abundant in the surrounding area. No disturbance would occur at the river along either the Dixon or Paradise sections.

Ground and stream channel disturbance associated with project activities may result in temporary increases in turbidity in the river downstream of the projects. Occupied nesting habitat occurs adjacent to and immediately downstream of the projects; however, due to the large flows and potential for dilution in the Flathead River, no substantial impacts to foraging opportunities are anticipated. The temporary impacts described above should be reduced to less-than-substantial

levels by implementing standard best management practices through compliance with project-specific water quality permit conditions.

Cumulative and other indirect effects are discussed in Section 3.24. Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

The BRR concluded the projects are not likely to adversely affect the bald eagle. USFWS has concurred with this determination (McMaster 1999), based on implementation of the Dixon Build and Paradise Minimum Build alternatives and appropriate conservation measures.

Gray Wolf. Wolves tend to avoid areas with high levels of human activity even though the areas may have high quality habitat and food resources (Singer 1979). Although wolves occasionally travel through the project area, high levels of human activity generally discourage wolf use of the area and prevent wolves from expanding their home ranges to habitat immediately adjacent to MT200. Due to the general lack of wolf pack activity and relatively high amounts of human activity in the immediate project area, breeding, denning, and other reproductive functions are not likely to be substantially affected by the projects.

Potential wolf habitat loss resulting from the projects is considered a less-than-substantial impact due to the high disturbance levels associated with existing roadside vegetation communities. The primary effects of road presence, under both the existing and 'improved' conditions, with respect to this species are the potential for direct mortality and slowing or discouraging north-south movement between suitable habitat areas. Impairment of such movement between populations contributes, in essence, to habitat fragmentation. Habitat fragmentation isolates populations and leads to losses of genetic diversity.

The impacts of wildlife mortality and habitat fragmentation discussed in Section 3.16.2 also apply to wolves. With respect to wolves, implementation of the Build Alternatives would add to habitat fragmentation in the project area primarily by: further reducing the amount of physical cover adjacent to the highway, incrementally increasing separation between cross-highway habitats; and, increasing traffic speeds and the chance for wildlife/vehicle collisions. Traffic volumes are expected to increase with or without the projects. Truck traffic, a danger to wildlife due to limited maneuverability, is not expected to increase substantially as a result of project implementation; neither in the project area nor on adjacent routes. Truckers already use the route because of its substantial savings in time and distance. Minor increases in truck traffic would be expected due to improved operation and safety under wet, snowy, or icy pavement conditions (Section 3.4).

Wolves may occasionally cross the highway at any point away from human development. Kohn et al. (1999) found that wolves in Wisconsin preferred to cross highways where they bisected large, homogeneous landscapes, especially lowland complexes, and that crossings were more likely to occur in areas providing greater visibility and ease of travel. Wolves avoided developed lands and did not cross highways in areas adjacent to human development, lakes, or large rivers.

Although only minor widening 0 to 3.7 m (0 to 12 ft) of the road is proposed, reduction of roadside cover would, for more secretive species such as wolves, incrementally increase the difficulty associated with cross-highway movement. Expansion of cross-highway distances between forested vegetation at major drainages is discussed for each alternative in Section 3.16.2. These expansions would be relatively minor 0 to 12 m (0 to 39 ft) under the Dixon Build and Paradise Minimum Build alternatives, and more severe, over 50 m (164 ft) under the Paradise Build Alternative. Additional clearing beyond construction limits may occur with respect to relocation of overhead power lines, fiberoptic lines, and other utilities (Section 3.16.2). Utility companies are responsible for obtaining applicable permits and clearances prior to clearing and installation.

As described in Section 3.16.2, steep cut sections would reduce the availability of traversable highway sections on the Dixon and Paradise sections for all Build Alternatives. No such cuts or substantial fills are proposed at high potential wildlife movement areas associated with Magpie, Revais, Wilson, and Robertson creeks under the Dixon Build or Paradise Minimum Build alternatives. Substantial cuts and fills would occur in the Wilson and Robertson Creek vicinities under the Paradise Build Alternative.

Whether or not a wolf would cross a highway or other obstacles, such as a large lake or river, depends on the disposition of that particular wolf; few obstacles can prevent their movement if the desire or need to move is strong enough (Fontaine pers. comm.). Wolves have been known to swim the entire Hungry Horse Reservoir, and to cross the Continental Divide in Glacier Park during winter (Fontaine pers. comm.).

Kohn et al. (1999) determined that, to date, widening of US53 in Wisconsin has not negatively impacted resident or dispersing wolves, despite an increased posted speed limit of 105 km/h (65 mph) from 90 km/h (55 mph). Thirteen of 20 radio-collared dispersing wolves encountered this highway in their travels and all but one crossed it; some several times. Design measures included allowing wooded cover to approach the highway as close as engineering design standards allowed and splitting selected four-lane sections into divided two-lane sections separated by 100 m (328 ft).

Frederick (1991) cites data that dispersing and lone wolves (i.e., wolves not affiliated closely with a pack) typically travel over larger areas than members of a stable pack and, therefore, are more likely to encounter roads. Kohn et al. (1999) found that dispersing wolves were much more cautious about crossing a highway than were resident wolves. According to USFWS, the projects do not occur within the primary dispersal corridor for the Ninemile Pack, which occurs primarily west of the project area, near Plains (Fontaine pers. comm.).

Due to their low populations and productivity, mortality of individuals would likely result in negative effects at the local population level. According to Ruediger (1996), carnivores are particularly susceptible to highway mortality because of their large home ranges, low biological productivity, and the large areas required to sustain populations and individuals.

Although some curves would remain following construction, particularly under the Paradise Minimum Build Alternative, local traffic speeds are likely to increase as a result of the projects.

These increased speeds, in conjunction with projected traffic increases, may result in increased potential for wolf mortality; particularly if wolf use increases in the project area. Increases in cross-highway separation of forested and other habitat would result in increased driver sight distance, which, along with slight lane widening and shoulder paving, would offset this potential increase to some extent by affording drivers increased opportunities to identify and avoid wildlife on the highway.

Confining vegetation clearing to the construction limits, perpetuation of the Revais and Magpie Creek bridges, removal or replacement of stock fence across these drainages with more 'wildlife friendly' fencing, placement of wildlife crossing signs near Revais Creek, and construction of structures (box culverts or bridges) with minimum clearance dimensions of 3 m (10 ft) rise by 7.3 m (24 ft) span at Wilson and Robertson creeks would facilitate occasional cross-highway wolf movement following construction.

Cumulative and other indirect effects are discussed in Section 3.24. Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

The BRR concluded that the projects are not likely to adversely affect the gray wolf. USFWS has concurred with this determination (McMaster 1999), based on implementation of the Dixon Build and Paradise Minimum Build alternatives and appropriate conservation measures.

Grizzly Bear. Potential grizzly bear habitat loss resulting from the projects is considered a less-than-substantial impact due to the high disturbance levels associated with existing roadside vegetation communities. The primary effects of road presence, under both the existing and 'improved' conditions, with respect to this species are the potential for direct mortality and slowing or discouraging north-south movement between suitable habitat areas. Impairment of such movement between populations contributes, in essence, to habitat fragmentation. Habitat fragmentation isolates populations and leads to losses of genetic diversity.

The impacts of wildlife mortality and habitat fragmentation discussed in Section 3.16.2 also apply to grizzly bears. With respect to grizzly bears, implementation of the Build Alternatives would add to habitat fragmentation in the project area primarily by: further reducing the amount of physical cover adjacent to the highway, incrementally increasing separation between cross-highway habitats; and, increasing traffic speeds and the chance for wildlife/vehicle collisions. Traffic volumes are expected to increase with or without the projects. Truck traffic, a danger to wildlife due to limited maneuverability, is not expected to increase substantially as a result of project implementation; neither in the project area nor on adjacent routes. Truckers already use the route because of its substantial savings in time and distance. Minor increases in truck traffic would be expected due to improved operation and safety under wet, snowy, or icy pavement conditions (Section 3.4).

It is important to consider habitat fragmentation within potential linkage areas between recovery zones. Since 1975, more than 500 grizzly bears have been radio-collared for monitoring in all Montana recovery areas except the Bitterroot (in which no grizzlies have been found). No bears

have been monitored moving between any of these recovery zones (USFWS 1999). Given the infrequent observations in the project area and low populations in the Cabinet-Yaak and Bitterroot recovery areas, little such movement is currently expected in the project area. Nonetheless, the potential for movement between recovery areas exists, particularly between the Cabinet-Yaak and the Bitterroot across the Paradise Section, and may increase if populations in these areas ever increase.

Based on land ownership and highway features, Ruediger et al. (1999) identified the Dixon to Paradise segment of MT200 as a potential linkage area across public lands north and south of the river for mid-sized to large carnivores, including grizzly bears. Waller and Servheen (in press) have developed a model for identifying potential grizzly bear habitat linkage areas based on road density, vegetative cover, presence of riparian areas, and human development. Preliminary results of the model applied to the Paradise Section suggest that, while the highway and associated development generally reduce the attractiveness of roadside habitat, potential for linkage to the highway from the south may exist in conjunction with some of the larger drainages, including Wilson and Robertson creeks. The Dixon Section was not evaluated in the study.

Grizzlies are known to use riparian areas as travel corridors, and it is in association with such riparian areas that cross-highway grizzly movement is most likely to occur in the project area. Primary riparian corridors crossed by the highway are Magpie and Revais creeks (Dixon Section) and Robertson and Wilson creeks (Paradise Section). It is likely that grizzly movement in the project area would be similar to black bear movement, in that bears follow these dense riparian areas to the highway, cross the highway to the river, then follow the river up or down stream until a suitable river crossing location is reached (or the reverse).

Although only minor widening 0 to 3.7 m (0 to 12 ft) of the road is proposed, reduction of roadside cover would, for more secretive species such as grizzly bears, incrementally increase the difficulty associated with cross-highway movement. Expansion of cross-highway distances between forested vegetation at major drainages is discussed for each alternative in Section 3.16.2. These expansions would be relatively minor 0 to 12 m (0 to 39 ft) under the Dixon Build and Paradise Minimum Build alternatives, and more severe, over 50 m (164 ft) under the Paradise Build Alternative. Additional clearing beyond construction limits may occur with respect to relocation of overhead power lines, fiberoptic lines, and other utilities (Section 3.16.2). Utility companies are responsible for obtaining applicable permits and clearances prior to clearing and installation.

As described in Section 3.16.2, steep cut sections would reduce the availability of traversable highway sections on both projects for all Build Alternatives. No such cuts or substantial fills are proposed at high potential wildlife movement areas associated with Magpie, Revais, Wilson, and Robertson creeks under the Dixon Build or Paradise Minimum Build alternatives. Substantial cuts and fills would occur in the Wilson and Robertson Creek vicinities under the Paradise Build Alternative.

Avoidance and displacement of grizzly bears from roads have been reported by various researchers. Grizzly bears are often displaced from 0.8 to 1.6 km (0.5 to 1 mi) from major roads,

but are known to cross highways. In 1998, Waller and Servheen (1999) documented 44 instances where grizzlies crossed U.S. Highway 2 (US2), a two-lane highway with a railroad line paralleling along its entire length. Consequently, grizzly bears in the project area may cross the highway infrequently, but are likely generally displaced from habitats within 0.8 to 1.6 km (0.5 to 1 mi) of the existing highway. Similar conditions are expected following project implementation, with incrementally reduced crossing opportunities due to increased traffic speeds and reduced roadside cover.

Due to their low populations and productivity, mortality of individuals would likely result in negative effects at the local population level. According to Ruediger (1996), carnivores are particularly susceptible to highway mortality because of their large home ranges, low biological productivity, and the large areas required to sustain populations and individuals.

Although some curves would remain following construction, particularly under the Paradise Minimum Build Alternative, local traffic speeds are likely to increase as a result of the projects. These increased speeds, in conjunction with projected traffic increases, may result in increased potential for grizzly mortality; particularly if grizzly use in the project area increases. Increases in cross-highway separation of forested and other habitat would result in increased driver sight distance, which, along with slight lane widening and shoulder paving, would offset this potential increase to some extent by affording drivers increased opportunities to identify and avoid wildlife on the highway.

Although grizzlies are expected as transients in the immediate project area, the presence of workers and associated bear attractants, such as food, petroleum products, etc., increases the potential for bear-human conflict to occur during construction. However, if proper measures regarding garbage disposal are implemented during construction, the potential for such conflict would be even further reduced.

Confining vegetation clearing to the construction limits, perpetuation of the Revais and Magpie Creek bridges, removal or replacement of stock fence across these drainages with more 'wildlife friendly' fencing, placement of wildlife crossing signs near Revais Creek, and construction of structures (box culverts or bridges) with minimum clearance dimensions of 3 m (10 ft) rise by 7.3 m (24 ft) span at Wilson and Robertson creeks would facilitate occasional cross-highway grizzly movement following construction. Such movement would, in turn, continue to facilitate genetic exchange between recovery areas.

Cumulative and other indirect effects are discussed in Section 3.24. Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

The BRR concluded that the projects are not likely to adversely affect the grizzly bear. USFWS has concurred with this determination (McMaster 1999), based on implementation of the Dixon Build and Paradise Minimum Build alternatives and appropriate conservation measures.

Canada Lynx. Potential lynx habitat loss resulting from the projects is considered a less-than-substantial impact due to the high disturbance levels associated with existing roadside vegetation communities and the general lack of suitable habitat (high elevation spruce/fir forest) in the project area. The primary effects of road presence, under both the existing and 'improved' conditions, with respect to this species are the potential for direct mortality and slowing or discouraging north-south movement between suitable habitat areas. Impairment of such movement between populations contributes, in essence, to habitat fragmentation. Habitat fragmentation isolates populations and leads to losses of genetic diversity.

The impacts of wildlife mortality and habitat fragmentation discussed in Section 3.16.2 also apply to lynx. With respect to lynx, implementation of the Build Alternatives would add to habitat fragmentation in the project area primarily by: further reducing the amount of physical cover adjacent to the highway, incrementally increasing separation between cross-highway habitats; and, increasing traffic speeds and the chance for wildlife/vehicle collisions. Traffic volumes are expected to increase with or without the projects. Truck traffic, a danger to wildlife due to limited maneuverability, is not expected to increase substantially as a result of project implementation; neither in the project area nor on adjacent routes. Truckers already use the route because of its substantial savings in time and distance. Minor increases in truck traffic would be expected due to improved operation and safety under wet, snowy, or icy pavement conditions (Section 3.4).

Based on land ownership and highway features, Ruediger et al. (1999) identified the Dixon to Paradise segment of MT200 as a potential linkage area across public lands north and south of the river for mid-sized to large carnivores, including lynx. Lynx movements of 103 to 1100 km (64 to 682 mi) have been recorded; however, presence of open areas greater than 100 m (328 ft) wide may create movement barriers (Koehler and Aubry 1994). These long range movements may serve to repopulate vacated areas or to augment low populations along the southern edge of the lynx's range (Koehler and Aubry 1994). Thus, maintaining travel corridors between populations may be important to ensure the long-term viability of peripheral or isolated populations in the western mountains (Koehler and Aubry 1994).

Lynx and other rare carnivores are known to use riparian areas as travel corridors, and it is in association with such riparian areas that cross-highway lynx movement is most likely to occur in the project area. Primary riparian corridors crossed by the highway are Magpie and Revais creeks (Dixon Section) and Robertson and Wilson creeks (Paradise Section). It is likely that lynx movement would be similar to other wildlife movement, in that animals follow these dense riparian areas to the highway, cross the highway to the river, then follow the river up or down stream until a suitable river crossing location is reached (or the reverse).

Although only minor widening 0 to 3.7 m (0 to 12 ft) of the road is proposed, reduction of roadside cover would, for more secretive species such as lynx, incrementally increase the difficulty associated with cross-highway movement. Expansion of cross-highway distances between forested vegetation at major drainages is discussed for each alternative in Section 3.16.2. These expansions would be relatively minor 0 to 12 m (0 to 39 ft) under the Dixon Build and Paradise Minimum Build alternatives, and more severe over 50 m (164 ft) under the Paradise Build Alternative. Additional clearing beyond construction limits may occur with respect to

relocation of overhead power lines, fiberoptic lines, and other utilities (Section 3.16.2). Utility companies are responsible for obtaining applicable permits and clearances prior to clearing and installation.

As described in Section 3.16.2, steep cut sections would reduce the availability of traversable highway sections on both projects for all Build Alternatives. No such cuts or substantial fills are proposed at high potential wildlife movement areas associated with Magpie, Revais, Wilson, and Robertson creeks under the Dixon Build or Paradise Minimum Build alternatives. Substantial cuts and fills would occur in the Wilson and Robertson Creek vicinities under the Paradise Build Alternative.

Roads have been known to hamper wildlife movements, including those of rare carnivores. In a winter study conducted by Gibeau and Heur (1996), seven of 15 attempted lynx road crossings were aborted before crossings were successful. After aborted attempts, lynx typically retreated into thick roadside vegetation to bed for a period before reattempting the crossing. Underpasses were purposefully avoided by lynx. It should be noted that the study was conducted on a two-lane ski area access road in Canada on which daily traffic volumes reach 4,000 vehicles, approximately 2.6 times the projected (approximately 1,500 vehicles per day by year 2020) daily volume on the projects.

Although the existing road and adjacent Flathead River may slow cross-valley movements, it is reasonable to assume that such movements do at least occasionally occur. In a radio collar study in progress in the south Canada Rocky Mountains, two adult males are known to have crossed the Trans-Canada Highway (Apps pers. comm.). No evidence of overpass or underpass use was observed; however, underpass use was documented in Banff National Park (Interagency Lynx Biology Team [ILBT] 2000). A female crossed the Bull River several times during summer and winter, and two others crossed the river during March (Apps pers. comm.). Similarly, a radio telemetry study in progress in the Seeley Lake area, Montana, recorded movements across MT200 and the Blackfoot River during summer, across Lindbergh Lake during winter, and across various forest roads, snow machine trails, and secondary highways in the Seeley area (Squires pers. comm.).

Ruediger (1996) cites examples of lynx mortality on highways in the U.S. and Canada. Due to their low populations and productivity, mortality of individuals would likely result in negative effects at the local population level. According to Ruediger (1996), carnivores are particularly susceptible to highway mortality because of their large home ranges, low biological productivity, and the large areas required to sustain populations and individuals.

Although some curves would remain following construction, particularly under the Paradise Minimum Build Alternative, local traffic speeds are likely to increase as a result of the projects. These increased speeds, in conjunction with projected traffic increases, may result in increased potential for lynx mortality; particularly if lynx use increases in the project area. Increases in cross-highway separation of forested and other habitat would result in increased driver sight distance, which, along with slight lane widening and shoulder paving, would offset this potential increase to some extent by affording drivers increased opportunities to identify and avoid wildlife on the highway. Additionally, the nocturnal habits of lynx may serve to reduce the

chance of vehicle-inflicted mortality because lowest traffic volumes are expected during evening hours. Lynx may be active during daylight hours, but are most active from shortly before dark to shortly after dawn (Nellis 1989).

Confining vegetation clearing to the construction limits, perpetuation of the Revais and Magpie Creek bridges, removal or replacement of stock fence across these drainages with more 'wildlife friendly' fencing, placement of wildlife crossing signs near Revais Creek, and construction of structures (box culverts or bridges) with minimum clearance dimensions of 3 m (10 ft) rise by 7.3 m (24 ft) span at Wilson and Robertson creeks would facilitate occasional cross-highway lynx movement following construction. Such movement would, in turn, continue to facilitate genetic exchange between populations. These measures also comply with the conservation measures recommended relative to highway construction projects in the draft *Canada Lynx Conservation Assessment and Strategy* (ILBT 2000).

Cumulative and other indirect effects are discussed in Section 3.24. Excavation of gravel pits may result in additional impacts; however, locations of such pits have not been identified. Pit excavation would require contractor coordination with MDEQ and/or CSKT (Section 3.20.1, Gravel Pits and Reclamation, in the EA and EA Addendum).

The BRR concluded the proposed projects are not likely to jeopardize the Canada lynx. At that time, the lynx was 'proposed' for listing. USFWS concurred with that determination (McMaster 1999), based on implementation of the Dixon Build and Paradise Minimum Build alternatives and appropriate conservation measures. After publication of the BRR, the lynx was listed as 'threatened,' and the determination of effect changed to conclude the projects are not likely to adversely affect the Canada lynx. MDT has coordinated this determination of effect with USFWS (Jackson pers. comm.).

Spalding's Catchfly. Based on the known distribution of this species and results of various rare plant surveys conducted in the project area, project implementation is not expected to jeopardize the continued existence of Spalding's catchfly. However, a preconstruction field survey for this species would be conducted to ensure that impacts to this species, if any, are minimized.

3.18.3 Mitigation

All Species. Prior to construction, MDT will perform a records check with the CSKT Wildlife Program, Montana Natural Heritage Program, and other resource agencies as necessary to ascertain the current status of raptor nests and other biological resources in the project area. The records check will also encompass the location of contractor-proposed borrow/gravel sources. The contractor will be responsible for obtaining Endangered Species Act clearance with respect to these sources. Where appropriate and feasible, construction activity timing restrictions will be required.

Bull Trout. Coordination measures that will be implemented to avoid or reduce potential effects to bull trout are the same as those listed in Sections 3.13.3 in the EA and 3.17.3 in the EA Addendum. These include measures to minimize impacts to water quality; provision of fish

passage at Magpie Spring, Burgess, Robertson, and Wilson creeks; confining instream work and any gabion wall work adjacent to the Flathead River to a July 15 to October 1 work window; elimination of encroachment into the spring outlet immediately adjacent to the Flathead River between RP (MP) 88.9 and 89.0; and avoidance of the Flathead River relative to any ongoing design.

Bald Eagle. Coordination measures that will be implemented to avoid or reduce potential effects to bald eagles are as follows:

- (Dixon) No blasting or ripping will occur, nor will temporary construction staging areas, crushers, plant mix facilities or similar facilities be sited between Stations 71 and 79 or between Stations 10 and 25 between the period of February 1 and June 15, or until fledging has been verified at the nearby Ferry Island or Heron Island bald eagle nests (if occupied). Construction of the scenic turnout south of Station 76+40 will comply with these same timing restrictions. As an alternative, these activities will be prohibited between February 1 and hatching, and allowed to commence daily after mid-morning while the eagles are monitored by an MDT, CSKT or other qualified biologist to discern whether substantial disturbance is resulting from construction. If so, shut down will be imposed until after fledging. If this alternative is approved and selected, eagle reactions may be documented for consideration relative to similar coordination measures on future MDT projects.
- (Dixon) No mature trees will be cleared north of the existing highway between Stations 67 and 79.
- (Dixon) In order to further reduce the potential for human-related disturbance at the Ferry Island nest, fencing across the two impromptu approaches on the north side of the highway between Stations 75+20 and 76+80 will be perpetuated to discourage access to this area.
- (Dixon, Paradise) Raptor-proofing of power lines and preconstruction record checks will be implemented as described in Section 3.16.3.

Gray Wolf, Grizzly Bear and Canada Lynx. Coordination measures that will be implemented to avoid or reduce potential effects to these species are included in those listed in Section 3.16.3. Measures include confining vegetation clearing to the construction limits; prohibition of forested or shrub vegetation clearing for placement of temporary facilities, including staging and batch plant areas; minimizing and immediately reclaiming, with similar native vegetation, any temporary clearing outside the construction limits but within the ROW necessary for culvert placement; perpetuation of the Revais and Magpie Creek bridges; commitment to incorporation of appropriate wildlife passage considerations into future bridge designs at these crossings; removal or replacement of stock fence across these drainages with more 'wildlife friendly' fencing; placement of wildlife crossing signs near Revais Creek; construction of structures (box culverts or bridges) with minimum clearance dimensions of 3 m (10 ft) rise by 7.3 m (24 ft) span at Wilson and Robertson creeks; and participation in ongoing regional interagency planning efforts relative to wildlife habitat linkage areas.

Spalding's Catchfly. MDT will conduct a pre-construction survey in mid- to late-July for Spalding's catchfly in suitable right-of-way habitat along the Dixon and Paradise sections.

3.20 Construction

3.20.1 Impacts and Mitigation

Vegetation

In order to mitigate for losses of plant species of importance to the Tribes, MDT will coordinate the timing of the preconstruction clearing and grubbing activities with the Tribes to allow for salvage and possible relocation of species of concern.

Gravel Pits and Reclamation

The Montana Department of Environmental Quality has a policy for requiring contractors to obtain permits for gravel pits on the Flathead Indian Reservation and other reservations in Montana. The policy has different requirements among sites on lands under ownership status as tribal, allotted individual trust, or private fee lands.

MDEQ does not regulate sites for gravel pits on lands under ownership status as either tribal or allotted individual trust. MDEQ also would not regulate a site for a gravel pit on private fee land owned by a tribal member. A contractor must comply with the Confederated Salish and Kootenai Tribes' regulations, ordinances and permits on these lands (Burke pers. comm.).

MDEQ does regulate sites for gravel pits on private fee lands owned by persons who are not members of the Tribes. On these lands, MDEQ prepares an environmental review of the site. MDEQ typically would coordinate with tribal staff regarding the Reservation's resources. MDEQ provides the Tribes with a copy of the environmental review.

Based on MDEQ's environmental review of sites on private fee lands not owned by tribal members, a contractor must obtain an open-cut mining permit. Bond must accompany the permit application. In addition, the contractor must submit a reclamation plan to the Board of Land Commissioners for review. Excavation cannot begin until a permit is obtained and the reclamation plan is approved.

3.23 Permits Required

All of the Build Alternatives may require the following permits, if applicable for relocation of utilities, from the Montana Department of Transportation's Missoula District:

- RW131 Permit for utilities located in the right-of-way
- RW20 Permit for encroachment in the right-of-way
- RW20S Permit for attachment of utilities to structures

3.24 Secondary and Cumulative

3.24.1 Affected Environment

Addendum Table 1-1 lists highway construction projects that have been completed in recent years on MT200 near the project area, as well as proposed highway construction projects for highways in the region. In addition to MDT's and FHWA's highway projects, other public and private agencies and groups have identified projects that could result in cumulative impacts with the proposed action:

- The Montana Department of Transportation has developed and is implementing TranPlan 21: Montana's Statewide Multimodal Transportation Plan. TranPlan 21 establishes MDT's priorities for managing highway systems, passenger transportation, bicycle and pedestrian transportation, freight mobility and economic development.
- A private recreational vehicle (RV) park and campground is being developed west of the project area, near the confluence of the Flathead and Clark Fork rivers.
- The Confederated Salish and Kootenai Tribes, along with individuals and organizations participating in public involvement for this proposed action, have indicated interest in determining if MT200 along the Flathead River would be eligible for the National Scenic Byways Program. FHWA requires routes to be designated as State Scenic Byways to be eligible for designation as National Scenic Byways or All-American Roads. In Idaho, Idaho Highway 200, between Sandpoint and the Idaho-Montana state line, is designated the Pend Oreille Scenic Byway.
- The U.S. Forest Service prepared an environmental analysis of a proposal by the Yellowstone Pipeline Company to construct a petroleum pipeline between pipeline shipping terminals in Missoula and Thompson Falls.

3.24.2 Impacts and Mitigation

Overview: Secondary and Cumulative Effects for Growth and Development

The agencies recognize that the issues of secondary and cumulative impacts are important. A substantial amount of time and effort went into trying to determine whether this project, in combination with other actions, might have some cumulative effect that would not be apparent from looking only at the projects being proposed. The issue of induced growth and development potentially caused by the proposed projects is particularly difficult to analyze because there are no quantifiable or predictable results which would by necessity occur simply by improving a two-lane highway under these circumstances. This is not to say, however, that some analysis cannot be done. It merely means that the tools of such analysis are fairly uncertain, and by no means are they a guarantee of accuracy.

It is not surprising that there are no accurate predictive models to answer the question of whether improving an existing two-lane highway in this rural situation would result in more development in the area. There are too many complex factors that can interact in unpredictable ways. This issue was addressed in the Hamilton-Lolo Environmental Impact Statement (EIS) in 1997, with the result that an accurate answer is not possible. It can be said that simply improving a highway

will not necessarily result in more population and development. After building the interstate highway in eastern Montana in the 1960s and 1970s, some areas actually lost population, due in part to a changing regional economy and growth of the city of Billings as a population and trade center. In addition, these projects, which are to improve an existing two-lane highway, are not expected to increase the highway's capacity to any substantial degree. It is recognized that growth and development is a much more complex phenomenon than improving a road. Each circumstance is unique, and probably unpredictable.

There are a multitude of factors that influence growth. Just to mention a few, there is scenery, availability of jobs, the cost of gasoline, and mortgage interest rates, which is influenced by federal monetary policy. Other factors can include property taxes, quality and availability of schools, availability of utilities and services, and land use policies of local governments. All of these can interact in unpredictable ways, which makes it difficult to predict how improving an existing two-lane highway would relate to growth and development.

In the present case, taking all of the information in this document into consideration, the proposed projects, or the other projects identified in Sections 1.3 in the EA and 3.24 in the EA Addendum, are not expected to cause cumulative effects not otherwise considered herein. To begin with, and as noted elsewhere, the projects each have "logical termini" and "independent utility." These concepts are to ensure that the geographic scope of projects being considered is appropriate. See 40 CFR 1508.7, 1508.8(a), and 1508.25. Also see 23 CFR 771.111(f). As a result, the concepts of connected actions, indirect effects, and cumulative effects merge, as all are attempts to define the proper geographic scope of the environmental document. Therefore, to some extent, cumulative analysis already is built into the notion of logical termini.

However, beyond that, there are other indications that the proposed projects would not result in other cumulative effects. First, the analysis of truck traffic (Section 3.4) indicates the proposed projects are not expected to result in substantial increases in truck traffic through the project area, including adjacent routes. The proposed projects would not substantially alter existing truck traffic patterns or routes. Truckers already use the MT200 route because of its substantial savings in time and distance. Truck traffic is projected to increase commensurate with overall traffic with or without the proposed projects. Minor increases in truck traffic would be expected due to improved operation and safety, especially under wet, snowy, or icy pavement conditions. Section 3.4.1 and a following part of this Section 3.24 provide more information about truck traffic through the Dixon and Paradise sections. It is reasonable to say the results of the analysis for truck traffic also would apply to other vehicles that comprise total traffic on the Dixon and Paradise sections.

Second, other projects, which are listed in Section 1.3, are to a great degree separated from the proposed projects by considerable distance, intersections with other highways, distinct geographic areas with communities, distinct watersheds, and timing requirements for funding (40 CFR 1508.25). In other words, they are not connected actions.

Third, the proposed projects would essentially maintain a wider two-lane highway on the existing alignment; the number of traffic lanes would not increase. Fourth, the proposed

projects, by themselves, are not expected to induce additional traffic above what would occur without highway improvement.

In conclusion, it is not anticipated that there would be secondary and cumulative impacts not already discussed. In this regard, it is important to note population growth is occurring and has occurred in western Montana in areas where there are inadequate roads, such as the Bitterroot Valley and in the Flathead Lake/Whitefish areas. This leads to the conclusion that population and traffic growth result from factors associated with employment opportunity, proximity to family, and scenic and aesthetic values associated with the rural area. The project would not trigger additional environmentally significant events.

Perhaps this is another way of saying that it is not appropriate to prepare a huge programmatic environmental impact statement for all of the transportation projects in western Montana. Such an undertaking would essentially be meaningless as well as time consuming and expensive. There is a statement in the Hamilton-Lolo EIS that is applicable.

“FHWA and MDT, both of which are charged by law to properly evaluate environmental impacts in the process of transportation planning, have both looked at US Highway 93 (US93) through western Montana and realized the same conclusion – that various areas are unique in many respects and as such require a finer level of detail in environmental analysis in order to properly identify adverse impacts. For example, conditions on the Hamilton-Lost Trail Pass portion of US93 are uniquely different from those in the area between Hamilton and Lolo.

“What may not be an environmental concern in one area of US93 may well be in another, and vice-versa. In order to provide a greater level of detail and attention to the environmental analysis process, the agencies have categorized the US93 route through western Montana down into subregions with similar conditions related to the natural, biologic, and human environments. At the same time, this allows environmental analysis work to be assembled into manageable portions, which helps improve applicability and reliability of the results for the same reasons stated above.”

The same is true in the present case.

Transportation

The cumulative effects of the proposed action, together with other projects to improve highways in northwestern Montana, would result in a more efficient transportation system that improves the convenience and desirability of travel. The network of improved highways would reduce travel time in rural areas and between larger communities that are regional population and trade centers. Greater access to intermodal transportation facilities would encourage use of rail and transit to complement the highway transportation system.

TranPlan 21 places high priority on preserving the transportation system—as it exists today—and maximizing the capacity of the current system. Based on the state’s extensive transportation system and small population base, TranPlan 21 seeks to ensure that operational

and physical conditions of the entire multimodal transportation system are preserved in the most cost-effective manner available. That involves preserving and maintaining highway pavement at today's levels or better.¹³

TranPlan 21 encourages preventing further loss of rail branch lines and use of existing truck/rail facilities. TranPlan 21 will develop an intermodal management system to monitor primary freight corridors, which are defined as current highway routes with over 500 commercial vehicles per day.¹⁴ Current and expected levels of truck traffic for MT135 and MT200 between St. Regis and US93 are less than the level necessary for being a primary freight corridor.

Other projects associated with transportation, recreation and tourism would result in increased human activity and development in the area served by MT200's Dixon and Paradise sections, as well as a broader region of Sanders County and northwestern Montana.

The proposed action to improve the Dixon and Paradise sections would result in a modern highway that is consistent with MDT's program to improve highways. The proposed projects would replace an existing two-lane highway with a new two-lane highway that has improved alignment and grades in the current highway corridor. Highway design, using appropriate widths for traffic lanes, shoulders, recovery areas and rights-of-way, along with actions to manage new approaches and realign, relocate, consolidate, eliminate or perpetuate existing approaches, would support tribal and county efforts for land use planning and regulation. Design would comply with guidelines and standards of the Montana Department of Transportation, the American Association of State and Highway Transportation Officials (AASHTO), and other national and state highway agencies and organizations. Where appropriate, highway design would apply design exceptions to minimize or avoid environmental impacts.

Truck Traffic

Montana Highway 200 in the project area is a direct route for truck traffic traveling east-west and north-south through the Missoula, Flathead, Libby-Thompson Falls, and St. Regis areas. Highways, including MT135, MT200, MT28, SR382, and SR212, carry traffic between I90 at St. Regis and US93 at locations spread between Ravalli in the south and Elmo in the north. MT200 and MT135, between US93 and I90 at St. Regis, is the shortest, direct route for truck traffic.

MDT's program to improve highways throughout northwestern Montana provides modern roads to accommodate current patterns of truck travel throughout the region. The broad scope of MDT's highway improvement program systematically considers factors of time, distance, cost and safety in providing a network of modern, efficient highways.

The highway improvement projects identified in Section 1.3 would respond to seasonal and episodic conditions that cause trucks to divert from direct highway routes to longer routes. In the area served by MT200's Dixon and Paradise sections, these conditions include severe weather affecting road conditions and spring thaw requiring weight restrictions. MDT's program to

¹³ Montana TranPlan 21, Volume I, Overview, Policy Goals and Actions, TranPlan 21. Page 33.

¹⁴ Montana TranPlan 21, Volume I, Overview, Policy Goals and Actions, TranPlan 21. Page 43.

improve highways throughout the region responds to weather and road conditions that cause trucks to divert from their usual route of travel. The proposed projects are not expected to result in substantial increases in truck traffic through the project area, including these projects and adjacent routes. The proposed projects would not substantially alter existing patterns or routes for truck traffic. Truckers already use the MT200 route because of its substantial savings in time and distance. Truck traffic is projected to increase commensurate with overall traffic with or without the proposed projects. Minor increases in truck traffic would be expected due to improved operation and safety, especially under wet, snowy, or icy pavement conditions. Section 3.4 provides more information about truck traffic through the Dixon and Paradise sections.

In 1996 and 1997 the Conoco and Exxon corporations used a fleet of 40 tanker trucks to transport petroleum products on MT200 in the project area between pipeline shipping terminals in Missoula and Thompson Falls. The tanker trucks temporarily replaced a fuel pipeline operated by Yellowstone Pipeline Company. Currently, Montana Rail Link transports the fuels on its rail line between Missoula and Thompson Falls for Conoco, Exxon-Mobil, and Yellowstone Pipeline Company. Rail transport of fuels is expected to continue in the absence of Yellowstone Pipeline Company constructing a pipeline; costs of shipping fuels by rail are lower than costs of shipping fuels by tanker truck. It is possible tanker trucks could resume transporting fuels on MT200 if rail transport is interrupted (Springer pers. comm.).

Land Use, Social and Economics

Cumulative impacts of the proposed action and other projects to improve the network of MT200, MT28, SR382, SR212 and US93 would result in a more efficient transportation system that improves the convenience and desirability of travel. The network of improved highways would reduce travel time and increase convenience for travel throughout the Flathead region and in the project area served by MT200's Dixon and Paradise sections.

Generally, factors associated with land use planning and regulation, population, the economy, and transportation combine to influence growth and development. Typical factors that are separate from the transportation system include local land use policies, regional patterns and rates of population growth, economic development, land development, aesthetic and scenic values of the rural area, availability of public and private facilities and services such as water, sewer, schools and emergency services, proximity to population and trade centers, costs of gasoline and other transportation needs, and property taxes and availability and cost of land in the local area. Highway improvement, with increased convenience for travel and ease of access, can change established patterns of travel and combine with the other factors to influence growth and development.

The project area has experienced less growth and development than nearby areas of Sanders and Lake counties. Currently, the Sanders County part of the Flathead Indian Reservation, which is the major portion of the area served by MT200's Dixon and Paradise sections, has maintained its rural character, with low population growth. Agriculture is the major economic activity and land use. Sanders County's Flathead Census County Subdivision had its population decrease from 1,890 in 1980 to 1,640 in 1990. The Flathead Census County Subdivision's 1990 population

(1,640) was approximately 19 percent of the 1990 population for Sanders County (8,670) and eight percent of the Reservation's 1990 population (21,260). The 2000 Census will provide current information about the population of the Sanders County part of the Reservation.¹⁵ Substantial growth has occurred in the part of Sanders County outside the Reservation and the Lake County part of the Reservation. The population of the Reservation increased by approximately eight percent between 1980 and 1990, growing from approximately 19,600 to 21,250.¹⁶ Table 3-3 on Page 27 in the EA shows the total population of Sanders County increased by 17 percent between 1990 and 1998, growing from approximately 8,670 to 10,190.

MT200's Dixon and Paradise sections serve sparsely settled areas of the Flathead Indian Reservation and Sanders County. The Reservation's overall population density (i.e., total persons divided by land area in square miles) was 11.0 in the 1990 Census. The Sanders County part of the Reservation had a population density of 2.3 in the 1990 Census. Sanders County's overall population density was 3.1 in the 1990 Census.¹⁷

Addendum Figure 3-2, prepared by the Confederated Salish and Kootenai Tribes, shows patterns of land ownership along the highway corridor. The Tribes own most land along the north side of the highway within the boundaries of the Reservation. Fee land in private ownership predominates the north side of the highway outside the Reservation. The south side of the highway has mostly fee lands, with some tribal and individual trust lands inside the Reservation. Fee land predominates along the south side of the highway outside the Reservation. Some national forest land also occurs along the highway outside the Reservation.

Information compiled by the Tribes identifies categories of land suitability for development. Major portions of the highway corridor have restricted opportunity for development and limited infrastructure to support development. Limitations include the project area's narrow valleys, which have small areas of land, restrictive terrain, and undeveloped infrastructure for facilities and services. There is an area with maximum opportunity for development around Dixon. Several other relatively small areas along the highway corridor have no known sensitive resources. Land along the highway primarily is grassland, with adjoining forest. There is limited infrastructure to support development throughout the project area.¹⁸

Recent patterns of growth and development in Sanders County have not changed the predominance of agriculture as the major form of land use in the areas served by the Dixon and Paradise sections. In 1999, all of Sanders County recorded a total of 281 permits to connect new residences and 29 permits to connect new businesses with electricity. Eight of the 281 residential permits were in the area of the county including the town of Paradise and MT200's Paradise

¹⁵Final Environmental Impact Statement and Section 4(f) Evaluation (FHWA-MT-EIS-95-01-F, F 5-1(9)6, Evaro to Polson. 1996. Pages 6.4-14 and 6.4-15. From U.S. Department of Commerce, Bureau of the Census, Census of Population, 1960-90.

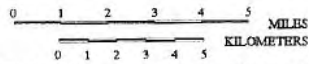
¹⁶U.S. Department of Commerce, Bureau of the Census, Census of Population, Population of Montana Reservations, 1980 and 1990.

¹⁷U.S. Department of Commerce, Bureau of the Census, Census of Population, Population, Population Density, Land Area and Water Area for Montana. 1990.

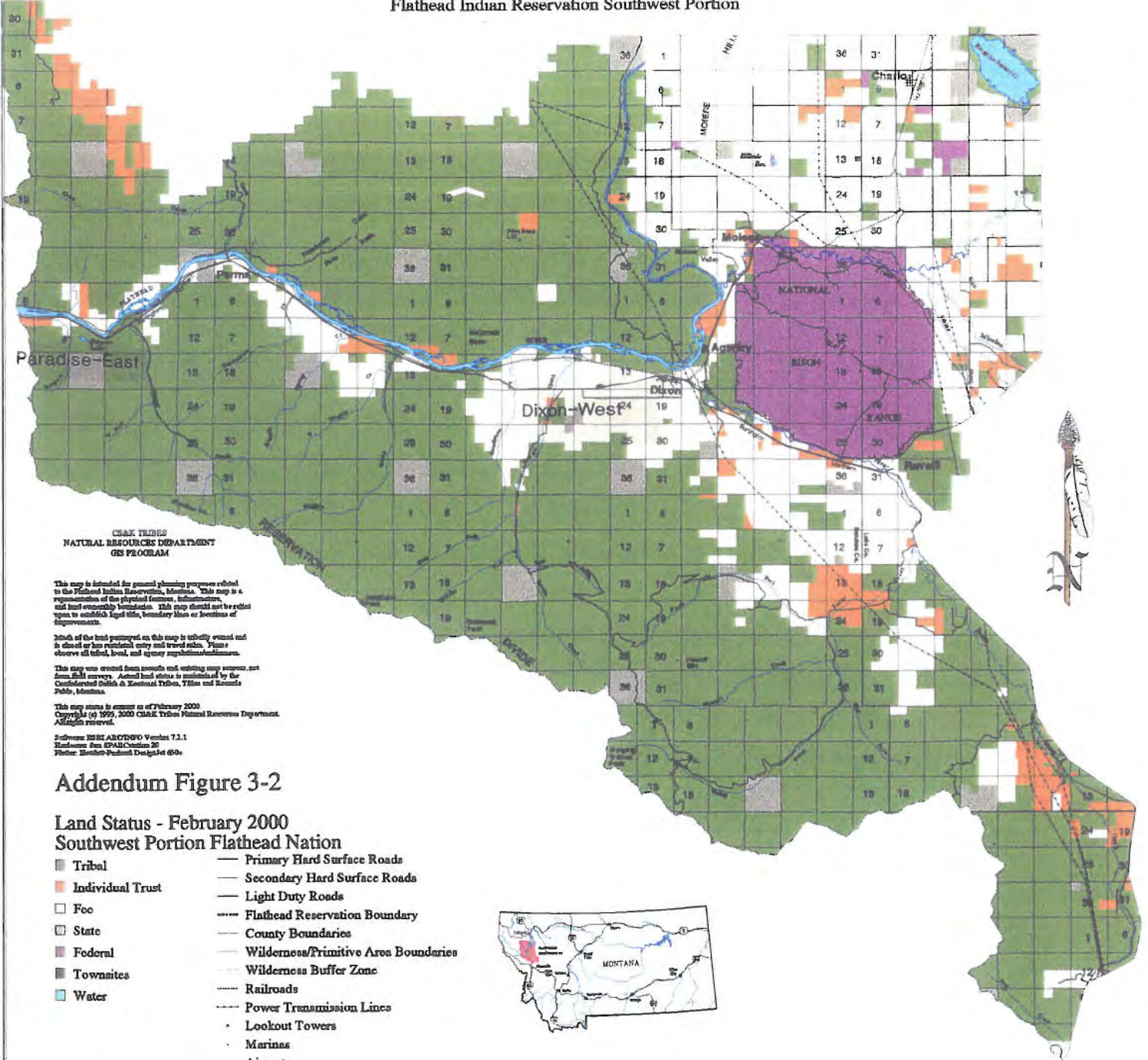
¹⁸Land Suitability, Flathead Reservation, Montana. Draft Map. U.S. Highway 93 Land Use and Growth Projection Study, 1996. Confederated Salish and Kootenai Tribes.



THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD NATION



Flathead Indian Reservation Southwest Portion



CLACK TRIBES
NATURAL RESOURCES DEPARTMENT
GIS PROGRAM

This map is intended for general planning purposes related to the Flathead Indian Reservation, Montana. This map is a representation of the physical features, infrastructure, and land ownership boundaries. This map should not be relied upon to establish legal title, boundary lines or locations of improvements.

Each of the land parcels on this map is color-coded and is shown in black outline. Entry and travel rules. Please observe all tribal, local, and agency regulations/ordinances.

This map was created from parcels and existing map sources, not from field surveys. Actual land status is maintained by the Confederated Salish & Kootenai Tribes, Flathead and Kootenai Tribes, Montana.

This map status is current as of February 2000
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Hardware from: HP/AC/Compaq 20
Printer: Brother-PictBridge DesignJet 650c

Addendum Figure 3-2

Land Status - February 2000 Southwest Portion Flathead Nation

- | | |
|--------------------|--|
| ■ Tribal | — Primary Hard Surface Roads |
| ■ Individual Trust | — Secondary Hard Surface Roads |
| □ Fee | — Light Duty Roads |
| ■ State | --- Flathead Reservation Boundary |
| ■ Federal | — County Boundaries |
| ■ Townsites | — Wilderness/Primitive Area Boundaries |
| ■ Water | --- Wilderness Buffer Zone |
| | — Railroads |
| | --- Power Transmission Lines |
| | • Lookout Towers |
| | • Marinas |
| | • Airports |



Section. The area of the county, including the town of Dixon and MT200's Dixon Section, did not have any new residential permits. The areas served by the Dixon and Paradise sections did not have any electrical permits for new businesses in 1999.¹⁹

Continued pressure for growth and development is expected to continue in counties throughout western Montana, regardless of whether MDT improves the highway transportation system. Population projections from the Montana Department of Commerce, Census and Economic Information Center expect Sanders County's population will increase from the 1998 level of 10,190 to 11,690 in 2010 and 13,140 in 2020. Based on the State's population projections, the current population of Sanders County is expected to increase by approximately 29 percent by 2020.²⁰

Projects to improve MT200, US93 and other highways throughout Missoula, Lake and Sanders counties would improve travel conditions for residents who live and travel to work in counties throughout western Montana (Addendum Table 1-1).

In the 1990 Census, Sanders County had a total of 3,003 residents who were workers age 16 and over; 343 (11 percent) of Sanders County's workers traveled to work in six other western Montana counties, other counties in Montana, and other states. There were 2,885 workers employed in Sanders County; 225 of the workers (eight percent) lived outside Sanders County and traveled to work in Sanders County. Sanders County had 2,660 workers who were residents of and worked in the county (Addendum Table 3-9).²¹

People living in the Sanders County part of the Flathead Indian Reservation travel for longer periods of time to work than residents of other parts of the Reservation and Sanders County. In the 1990 Census, workers from the Sanders County part of the Reservation had an average travel time to work of 20.6 minutes, compared with 16.1 minutes for all of the Reservation and 18.6 minutes for all of Sanders County. Approximately 31 percent of workers from the Sanders County part of the Reservation had travel times greater than 30 minutes, compared with 17 percent for all of the Reservation and 23.6 percent for all of Sanders County (Addendum Table 3-10).²²

Improved transportation and ease of access, when combined with other factors that influence growth and development, would make other parts of Sanders County west of the project area more attractive for commuters and attendant residential and commercial development.

As with the Sanders County part of the Reservation, commuters currently travel to work in Missoula from distances that include communities such as Plains (Addendum Tables 3-9 and 3-

¹⁹Montana Department of Revenue, Sanders County Property Assessment Division. New Electrical Connection Detail Report. 1999.

²⁰Montana Department of Commerce, Census and Economic Information Center. NPA Data Services, Inc.

²¹U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing. Transportation and Place of Work. 1990.

²²U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing. Transportation and Place of Work. 1990.

10). These areas, while farther from Missoula, have available land with less restricted opportunity and more infrastructure for development.

Addendum Table 3-9 Travel to Work (1990)		
County¹	Resident of Sanders County, Traveled to Work in Other County	Resident of Other County, Traveled to Work in Sanders County
Missoula	77 (2.5%)	14 (0.5%)
Lake	50 (1.6%)	118 (4%)
Mineral	27 (0.9%)	11 (0.4%)
Ravalli	2 (0.1%)	7 (0.2%)
Lincoln	44 (1.4%)	12 (0.4%)
Flathead	11 (0.4%)	18 (0.5%)
Other Montana Counties	5 (0.2%)	23 (0.9%)
Other States	124 (4.3%)	22 (0.9%)
<i>Workers from Sanders County</i>	<i>2,660 (88.6%)</i>	<i>2,660 (92.2%)</i>
<i>Base for Total Workers</i>	<i>3,003</i>	<i>2,885</i>
<p><u>Source.</u> U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing, Transportation and Place of Work. 1990.</p> <p>¹In the 1990 Census, there were a total 3,003 workers in Sanders County, of which 2,660 lived and worked in Sanders County.</p>		

MT200 in the Dixon and Paradise sections would continue to combine with US93 as a route for commuters who reside in the area and work in Lake and Missoula counties. Reduction in traffic congestion and improvement in traffic flow and efficiency would result in reduced travel time between the Sanders County part of the Flathead Indian Reservation and communities such as St. Ignatius, Ronan and Pablo in Lake County and the city of Missoula in Missoula County.

In the 1990 Census, approximately 510 people commuted to work in Missoula County from places on the Flathead Indian Reservation (Addendum Table 3-11). Approximately 35 (seven percent) of commuters from the Reservation to Missoula County lived in the areas served by MT200's Dixon and Paradise sections.

The 35 commuters from the Sanders County part of the Reservation were approximately 45 percent of all commuters from Sanders County to Missoula County (Addendum Table 3-9).²³

Addendum Table 3-10 Travel Time (1990)			
Census Category	Flathead Indian Reservation	Sanders County	Sanders County Part of Flathead Indian Reservation
Total Workers Age 16 and Over	8,044	3,003	518
Work Away From Home ¹	7,311	2,751	471
Time to Work Less Than 30 Minutes	6,060 (82.9%)	2098 (76.3%)	322 (68.4%)
Time to Work 30-59 Minutes	941 (12.9%)	440 (16%)	96 (20.4%)
Time to Work 60 Minutes or More	310 (4.2%)	213 (7.7%)	53 (11.2%)
Average Travel Time to Work (Minutes)	16.1	18.6	20.6
<i>Source.</i> U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing. Transportation and Place of Work. 1990.			
¹ Base for percentage of workers with various travel times to work.			

Addendum Table 3-11 Commuters to Missoula County from Flathead Indian Reservation (1990)		
1999 Census Area	Number of Commuters	Percent of Commuters
Total, Flathead Indian Reservation	510	--
Lake County part of Reservation	260	50%
Missoula County part of Reservation	210	41%
Sanders County part of Reservation	35	7%
Flathead County part of Reservation	5	2%
<i>Source.</i> Final Environmental Impact Statement and Section 4(f) Evaluation (FHWA-MT-EIS-95-01-F, F 5-1(9)6, Evaro to Polson. 1996. Pages 6.4-14 and 6.4-15. From U.S. Department of Commerce, Bureau of the Census, Census of Population, 1960-90.		

²³U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing. Transportation and Place of Work. 1990.

In the 1990 Census, approximately 65 percent of the commuters to Missoula County from the Reservation had trips 48 km (30 mi) or less; 14 and 21 percent of commuters had trips 48 to 96 km (30 to 60 mi) and over 96 km (60 mi), respectively. Improved transportation and ease of access would continue to place the project area outside a 30-minute commuting time from Missoula. The eastern end of the project area, which is the west edge of Dixon, is approximately 64 km (40 mi) from the city of Missoula. The western end of the project area, which is 0.6 km (0.4 mi) east of the junction MT200/135, is approximately 103 km (64 mi) from Missoula.

In the 1990 Census, all of Sanders County had approximately 77 commuters to Missoula. While 35 of these commuters were from the Sanders County part of the Reservation, the other 42 commuters were from parts of Sanders County west of the project area, at distances more than 100 km (60 mi) from Missoula (Addendum Tables 3-9, 3-10 and 3-11).

The number of commuters to Missoula from Sanders County, and the Sanders County part of the Reservation, is a relatively small part of the total number of commuters working in Missoula County (Addendum Table 3-9). The greater travel times and travel distances from this part of the Reservation, combined with the smaller population and limited land available for development, result in lower levels of commuting than in other parts of the Reservation. Improved transportation and ease of access, with reduced travel time and improved convenience for commuters to Missoula, would combine with other factors that influence growth and development, making the area more attractive for residential and commercial development.

The cumulative effects of improving MT200 and US93 would result in reduced travel time between Sanders County and the Missoula area. There would be improved transportation and ease of access, with reduced travel time and improved convenience. That would not change existing limitations for growth and development. Limitations include the project area's narrow valleys, which have small areas of land, restrictive terrain, and undeveloped infrastructure for facilities and services. Agriculture has remained the primary form of land use in the project area, while nearby areas of Sanders County and the Lake County part of the Flathead Indian Reservation have experienced substantial population growth and pressure for development of land. With the existing small number of commuters to Missoula from Sanders County, the relatively long distance for commuting to Missoula also is a limitation on growth and development in Sanders County.

The Sanders County part of the Reservation has a small population, restricted opportunity on land available for development, and limited infrastructure to support development. These factors would restrict the potential scope of development. However, any new development would occur in relatively undeveloped areas, currently used for agriculture, and would intensify effects of growth in the sparsely settled, rural area.

As discussed above, it is difficult to predict whether improved transportation and ease of access would combine with other factors that influence growth and development to convert agricultural lands to residential and commercial development. These actions would increase human activity, and pressure for growth and development, throughout this area of northwestern Montana. Changing patterns of land use would result from increased demand for development of recreational, residential and commercial facilities and services. Recent patterns of growth and

development in Lake County and the western part of Sanders County have not extended to the project area.

Other projects associated with transportation, recreation and tourism would result in increased human activity and development in the area served by MT200's Dixon and Paradise sections, as well as a broader region of Sanders County and northwestern Montana. The Federal Highway Administration (FHWA) has plans to improve the Thompson River Road, which connects MT200, east of Thompson Falls, with US2, between Kalispell and Libby. A private recreational vehicle (RV) park and campground is being developed west of the project area, near the confluence of the Flathead and Clark Fork rivers. The Confederated Salish and Kootenai Tribes, along with individuals and organizations participating in public involvement for this proposed action, have indicated interest in designating MT200 along the Flathead River, a national scenic byway. In Idaho, Idaho Highway 200, between Sandpoint and the Idaho-Montana state line, is designated the Pend Oreille Scenic Byway.

The cumulative effects of highway projects in the area would not conflict with policies of land use planning for the highway corridor. MDT would continue to administer driveway and approach regulations that apply road approach standards and permit requirements. Sight distance for safety is the primary factor used to determine if it is appropriate to issue a permit for an approach. Existing approaches would be realigned, relocated, consolidated, eliminated, or perpetuated where appropriate.

The Confederated Salish and Kootenai Tribes' current land use planning regulations and Sanders County's proposed growth management policy, combined with driveway and approach regulations associated with the proposed action, would manage patterns of land use along the highway corridor.

Mitigation measures should focus on policies to have compatible regulations for land use planning and regulation. Planning by the Confederated Salish and Kootenai Tribes and Sanders County to develop and implement land use planning and regulation policies should determine patterns and rates of growth and development for land use:

- Driveway and approach regulations, with combinations of permissive, restrictive and situational policies, should support land use and planning policies of the tribal and county governments.
- Design the highway to minimize need for additional right-of-way, while perpetuating access to existing developed areas and providing for orderly accommodation of access from areas proposed for development.
- Purchase needed right-of-way in advance to preserve the corridor and protect adjacent land.
- Perpetuate existing features of the existing highway, such as stock underpasses, to protect land use. Incorporate similar features in plans for highway improvement.

Biological Resources

The proposed projects' impacts to biological resources would occur in conjunction with impacts of other proposed or recently completed actions in the region. Preceding discussions regarding potential for increased traffic (i.e., average daily traffic and truck traffic) and induced growth and development have not identified substantial cumulative impacts relating to these issues.

As previously discussed, it is difficult to predict whether improved transportation and access would combine with other factors that influence growth and development to convert local agricultural lands to residential and commercial development. The proposed projects may increase pressure for growth and development. If not properly planned, growth and development may, in turn, result in loss or degradation of wetlands, wildlife and fish habitat, and other biological resources. However, several policies and regulations are in place to govern such potential development, including the Confederated Salish and Kootenai Tribe's land use planning regulations, Sanders County's proposed growth management policy, and the Montana Department of Transportation's driveway and approach regulations.

Impacts from project implementation to wetlands, wildlife, fisheries, and threatened and endangered species would add to impacts of past, present, and future highway projects in the region. Several highway improvement projects on MT200 recently have been completed in the vicinity of the Dixon and Paradise sections (Addendum Table 1-1):

- The Dixon-Ravalli project connects the east end of the Dixon Section with US93 at Ravalli. It was completed in 1998 and resulted in extensive clearing within the new ROW.
- The Paradise-East (West Section), completed in 1997, improved MT200 west of the proposed Paradise Section.
- The Perma East and West project, completed in 1993, improved the highway between the Dixon and Paradise sections.

Although no substantial biological impacts were identified relative to the projects already completed, local residents report changed patterns of wildlife movement in the Dixon-Ravalli project area. This likely is attributable to extensive ROW clearing. The Perma East and West and Paradise-East (West) projects resulted in relatively minor, but incremental vegetation loss adjacent to the highway.

Traffic speeds likely have increased on the Dixon-Ravalli, Perma East and West, and Paradise-East (West) sections. Traffic speeds also are likely to increase with the proposed projects, although some curves would remain following construction (particularly under the Paradise Minimum Build Alternative). Increased speed may increase the potential for wildlife mortality due to collisions with vehicles. This potential, however, would be offset somewhat by wildlife mitigation measures (Section 3.16.3) and increased vehicle maneuverability and sight distance afforded by increased clear zones.

Additional projects are planned on MT200 west of Plains, MT28 north of Hot Springs, and US93 between Evaro and Polson (Addendum Table 1-1). The proposed Evaro-Polson projects, which

would reconstruct and widen more than 80 km (50 mi) of US93, include a grizzly bear overpass and two wildlife underpasses to facilitate east-west wildlife movement across the highway. Gray wolves, Canada lynx, and other wildlife also may use the overpass and possibly the underpasses. This would facilitate the continued occasional movement of these species between the Evaro-Polson and Dixon-Paradise project areas.

Traffic volumes are likely to increase on the proposed projects and on adjacent highway sections over time, increasing the chance for wildlife mortality due to collisions with vehicles. However, increased traffic is expected with or without improvement of the Dixon and Paradise sections. Truck traffic, which presents more of a danger to wildlife than automobiles due to decreased maneuverability, also is projected to increase commensurately with overall traffic regardless of project implementation (Section 1.2.3 in the EA and EA Addendum). According to previous analysis, project implementation is unlikely to result in substantially increased truck traffic through the project area; this includes the Dixon and Paradise sections and adjacent routes. The previous analysis indicates the proposed projects would not substantially alter existing patterns or routes for truck traffic. Truckers already use the MT200 route because of its substantial savings in time and distance. Minor increases in truck traffic would be expected due to improved operation and safety under wet, snowy, or icy pavement conditions (Section 3.4).

The impacts of the Dixon and Paradise sections would cumulatively add to those of the proposed or already-constructed projects listed in Addendum Table 1-1, incrementally affecting wildlife in the region. Such impacts would be associated with decreased roadside habitat, increased traffic speeds, possible increased traffic volumes, and increased activities during construction. Unmitigated, the cumulative effects of projects throughout the region would incrementally reduce the opportunity for successful long-range movements of grizzly bears, gray wolves, Canada lynx, and other wildlife.

Primary concerns relate to eventually impeding wildlife movement, to the point of isolating wildlife populations and eliminating vital genetic exchange. Projects that involve construction of new roads or paving existing gravel roads (e.g., FHWA's proposed Thompson River Road project between MT200 and US 2) are of particular concern (Addendum Table 1-1).

Cumulative effects to wildlife movement, habitat, and mortality resulting from construction of the Dixon and Paradise sections would be reduced by the implementation of several mitigation measures (Sections 3.15.3, 3.16.3, 3.17.3, and 3.18.3). These include maintenance of existing bridges, construction of two wildlife underpasses for large mammals, construction of a livestock underpass and two underpasses for small to mid-sized animals, and minimization of vegetation clearing. These wildlife issues will be examined, and appropriate mitigation measures applied, relative to future projects as well. MDT currently is involved in regional interagency planning efforts involving wildlife movement and habitat linkage issues.

With respect to bull trout and other fish, the proposed projects could cumulatively add to temporary sediment increases in the Flathead River drainage. However, the projects would be constructed a minimum of three years apart, and such temporary water quality impacts would be reduced by implementing standard best management practices for pollutant/sediment/erosion control during construction. Compliance with project-specific conditions, to be specified in

CSKT ALCO, FWP Stream Protection Act, and federal Section 404 Clean Water Act permits required for the proposed projects, also would reduce temporary water quality impacts.

Substantial cumulative impacts with respect to fish mortality and fish movement through culverts are not anticipated as long as appropriate construction timing constraints and fish passage issues are considered and appropriately addressed on future projects, as they have been on the proposed projects (Section 3.17.3).

No substantial cumulative effects to use of the project area by bald eagles, peregrine falcons, or other raptors are expected to result from the proposed projects, as long as spacial and temporal construction restrictions are observed and applied on future projects where warranted. As discussed above, substantial cumulative effects to water quality in the Flathead River drainage are not expected as long as water quality permit conditions are applied and strictly enforced.

Development of new opportunities for recreation and tourism, such as the campground under development west of the project area, could result in habitat degradation or removal. This type of development also could increase mortality risk to threatened, endangered, and other species from illegal shooting, poisoning, or other potentially lethal activities. The impacts of such projects would add to those resulting from the Dixon and Paradise sections, as well as other highway projects. The potential for substantial cumulative impacts should be minimized by thorough review of any such proposed development and application of appropriate mitigation and conservation measures.

4 CONSULTATION, COORDINATION, AND ISSUES

4.2 Agencies with Jurisdiction and/or with Permits Required

The sponsors have coordinated planning and review activities to identify permits and regulatory coordination listed below:

Montana Department of Transportation, Missoula District

- RW131 Permit for utilities located in the right-of-way.
- RW20 Permit for encroachment in the right-of-way.
- RW20S Permit for attachment of utilities to structures.

Confederated Salish and Kootenai Tribes

- Water quality standards (CSKT Water Quality Standards and Antidegradation Policy, 1995)
- 401 Water Quality Certification
- Nonpoint source assessment (CSKT Nonpoint Source Assessment for Streams, Rivers, Lakes and Wetlands, Flathead Indian Reservation, Montana, January 2000)
- Nonpoint source management (CSKT Nonpoint Source Management Plan for Streams, Rivers, Lakes and Wetlands, February 2000)

4.3 Other Agencies, Groups, or Persons Contacted or Contributing Information

State of Montana

- University of Montana, (U.S. Fish and Wildlife Service) Grizzly Bear Recovery Office, Missoula, Montana

United States

- U.S. Fish and Wildlife Service, Ecological Services Program, Helena, Montana
- U.S. Army Corps of Engineers, Helena, Montana

Private Organizations

- Jocko River Conservation Society
- National Wildlife Federation
- Trout Unlimited, Montana Council
- Salish Kootenai College

4.4 Coordination and Public Involvement

MDT sponsored two public hearings in 1999 to receive comments about the Environmental Assessment:

- December 14, 1999, Dixon Senior Citizens Center
- December 15, 1999, Paradise Public School Gymnasium

Public written and oral comments were recorded at the hearings.

The following documents are enclosed with this EA Addendum:

- Comments, and responses to the comments, about the Environmental Assessment
- Summaries of the public hearings on the Environmental Assessment

Complete transcripts for the public hearings are available in the project files at the Montana Department of Transportation in Helena, Montana.

4.4.1 Consultation with The Confederated Salish and Kootenai Tribes

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes held a meeting on January 19, 2000 to discuss the Tribes' comments (i.e., letters dated December 21 and 27, 1999) on the EA. Copies of the Tribes' comments on the EA are in the set of agency comments. The EA Addendum contains new and revised information that responds to the Tribes' comments on the EA.

Representatives of MDT met with representatives of the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the U.S. Army Corps of Engineers on February 18, 2000 to conduct a field review for biological resources.

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes held a meeting on March 20, 2000 to review issues contained in the EA Addendum.

MDT met with the Confederated Salish and Kootenai Tribes' Tribal Council on April 6, 2000 to present information about the Dixon-West and Paradise-East projects.

Tribal staff reviewed the EA Addendum in May 2000. The Tribes' letters dated March 2 and May 23, 2000 clarified requirements for their concurrence with EA Addendum and the EA.

Addendum Appendix D presents copies of project correspondence with the Confederated Salish and Kootenai Tribes.

4.4.2 Consultation with Agencies for Issues Related to Wildlife

MDT held a meeting on February 22, 2000 with representatives of the federal agencies and the Confederated Salish and Kootenai Tribes to discuss issues related to key connectivity areas and

habitat fragmentation for wildlife in northwestern Montana. The federal agencies included the U.S. Forest Service and U.S. Fish and Wildlife Service. Federal and state agencies are coordinating planning efforts to develop policy for wildlife connectivity and habitat. MDT is currently involved in regional interagency planning efforts involving wildlife movement and habitat linkage issues.

The U.S. Fish and Wildlife Service provided a letter dated October 5, 1999 to provide concurrence with the Biological Resource Report's determinations about the effects of the projects on threatened and endangered species:

- Not likely to adversely affect the bald eagle, peregrine falcon, gray wolf, and grizzly bear.
- Not likely to jeopardize the Canada lynx.
- May affect, not likely to adversely affect the bull trout.

The U.S. Fish and Wildlife Service qualified their concurrence to require mitigation measures, which are in the Biological Resources Report, be specifically included as environmental commitments for the projects. The EA Addendum presents the mitigation measures related to concurrence by the U.S. Fish and Wildlife Service.

After publication of the EA, the status of two species changed under the Endangered Species Act. The U.S. Fish and Wildlife Service listed Spalding's Catchfly as proposed threatened. USFWS also changed Canada lynx's listing from proposed threatened to threatened.

During January through May 2000, MDT coordinated with USFWS the changes in the BRR's determination of effect for the two species (Section 3.18.2):

- Spalding's Catchfly—not likely to jeopardize, pending results of a pre-construction field survey
- Canada Lynx—not likely to adversely affect

The coordination also included results of environmental analysis for wildlife crossing structures and a new bald eagle nest.

Appendix D in the EA and EA Addendum have copies of the October 15, 1999 letter of concurrence from the U.S. Fish and Wildlife Service.

4.6 Distribution List

The following agencies, groups, and persons received a copy of the addendum to the environmental assessment:

Confederated Salish and Kootenai Tribes
D. Fred Matt, Chairman, Tribal Council
Box 278
Pablo, MT 59855

Montana Department of Transportation
2701 Prospect Avenue, Box 201001
Helena, MT 59620-1001

Montana Department of Transportation
2500 West Broadway
Box 7039
Missoula, MT 59807-7039

Montana Department of Environmental Quality Box 200901 Helena, MT 59620-0901	U.S. Dept. of Agriculture Lolo National Forest, District Ranger P.O. Box 429 Plains, MT 59859	Flathead Resource Organization Box 541 St. Ignatius, MT 59865
Montana Department of Fish, Wildlife and Parks Box 201001 Helena, MT 59620-1001	U.S. Dept. of Agriculture Lolo National Forest William Ruediger, En. Sp Pr Ldr Box 7669 200 East Broadway Missoula, MT 59807	Dixon Senior Citizens Center Dixon, MT 59831
Montana State Library 1515 East 6th Avenue Box 201800 Helena, MT 59620-1800	U.S. Department of the Army Corps of Engineers, Helena Regional Office Allan Steinle, MT Program Manager Drawer 10014 Helena, MT 59626-0014	Paul Uken Montana Logging Association 2224 Montana Highway 35 Kalispell, MT 59901
Montana Environmental Quality Council Capitol Station, Box 201704 Helena, MT 59620	Sanders County Commission Box 519 Thompson Falls, MT 59873	Cliff Linsten 624 Hilltop Drive Stevensville, MT 59870-6665
National Bison Range David Wiseman, Refuge Manager 132 Bison Range Road Moiese, MT 59824	Missoula County Board of County Commissioners 200 W. Broadway St Missoula, MT 59802-4292	Jerry McGahan Box 71 Arlee, MT 59821
Bureau of Indian Affairs, Portland Area Office Stanley Speaks, Area Director 911 NE 11 th Avenue Portland, OR 97232	Plains Public Library Box 399, Highway 200 Plains, MT 59859	Deborah Tomas 10556 Coyote Tr. Moiese, MT 59824
U.S. Department of Transportation Federal Highway Administration 2880 Skyway Drive Helena, MT 59602	Missoula Public Library 1700 West Broadway Missoula, MT 59802	David Rockwell P.O. Box 94 Dixon, MT 59831
U.S. Environmental Protection Agency Region VIII, Montana Office 301 South Park, Drawer 10096 Helena, MT 59626	Salish Kootenai College Box 117 Pablo, MT 59855	Mary Herak-Sand Rob Sand 6101 Marsh Creek Road Charlo, MT 59824
U.S. Department of the Interior Fish and Wildlife Service Montana Field Office Kemper McMaster/Scott Jackson 100 N. Park, Suite 320 Helena, MT 59601	Salish Kootenai College J. Kirwin Werner Box 117 Pablo, MT 59855	Bud Cheff Mountain Shadow Ranch 2390 Mollman Pass Trail Ronan, MT 59864
U.S. Dept. of Agriculture 200 East Broadway Missoula, MT 59807	Jocko River Conservation Society P.O. Box 630005 Ravalli, MT 59863	Ann Morley Morley Canoes P.O. Box 147 Swan Lake, MT 59911-0514
U.S. Dept. of Agriculture Lolo National Forest, Forest Supervisor Building 24 Fort Missoula Missoula, MT 59804	MT Council of Trout Unlimited P.O. Box 7186 Missoula, MT 59807	Jay Sumner Sumner Consulting P.O. Box 317 Arlee, MT 59821
	Tom France National Wildlife Federation 240 North Higgins, Suite 2 Missoula, MT 59802	Mimi Werner John Dohrendorf 900 S. Finley Point Road Polson, MT 59860
		Roy Lacock Box 61 Paradise, MT 59856
		Gary LeDeau 2750 Schley Creek Road Route 1 Arlee, MT 59821

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Ronan, MT 59864

Carol and Bill Rode-Eggert
Dixon, MT 59831

Thompson Smith
Charlo, MT 59824

Jerry Hamel
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Jack Athearn
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Nancy Beech
Paradise, MT 59856

Gene and Faye Pitts
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Dixon, MT 59831

Pat Hurley
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Ravalli, MT 59865

Ann Brady
Dixon, MT 59831

Boone Cole
Dixon, MT 59831

Jim Murphy
Dixon, MT 59831

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ADDENDUM APPENDICES

Addendum Appendix A	Animal Species of Special Concern that May Occur in the Dixon-Paradise Project Area
Addendum Appendix C	Seeding Provisions
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Addendum Appendix A
Animal Species of Special Concern
that May Occur in the
Dixon-Paradise Project Area

Addendum Appendix A - Animal Species of Special Concern That May Occur In The Dixon-Paradise Project Area

Species	1999 MNHP Ranking(s)	Potential Habitat and Expected Occurrence in the Project Area	Known Distribution in Project Area	Possible Impacts	Mitigation Measures	Determination of Effects
westslope cutthroat trout <i>Oncorhynchus clarkii lewisi</i>	G4, T3 USFS Sensitive	Expected spring (mid-March - late-April) resident and transient at Maggie and Revais creeks; resident upstream of highway at Gunderson Creek; possible spring resident and transient at Maggie Spring, Burgess, Wilson, and Robertson creeks.	Resident and fluvial stocks known to occur in Maggie and Revais creeks (DosSantos pers. comm.) and upper Gunderson Creek.	Temporary water quality impacts resulting from runoff and fill placement during construction; potential habitat loss (e.g., minor channel losses) and possible passage impairment resulting from culvert replacement at Gunderson, Maggie Spring, Burgess, Wilson, and Robertson creeks.	Implementation of erosion and stormwater runoff control measures and implementation of best management practices during construction. Installation of new culverts at Maggie Spring, Burgess, Wilson, and Robertson creeks at existing grades and designed such that fish passage is provided when flows are adequate. Avoid instream work at these streams between March 15 and May 1 to avoid impacts to movement and spawning.	Not likely to adversely affect
bull trout <i>Salvelinus confluentus</i>	G3, S3 Threatened USFS Sensitive	Expected adult and subadult residents and adult migrants in the Flathead River. Possibly seek thermal refuge in all project area streams if substantial flows are present during mid- to late-summer. Species is generally out of project area system by mid-July due to excessive temperatures in Flathead River and intermittent nature of project area streams (DosSantos pers. comm.)	Known to occur as adult and subadult residents and adult migrants in the Flathead River; no known spawning in project area; extensive surveys have produced no records for Gunderson, Maggie, Maggie Spring, Revais, and Burgess creeks (DosSantos pers. comm.)	Temporary water quality impacts resulting from runoff and fill placement during construction; potential habitat loss (e.g., minor channel losses) and possible passage impairment resulting from culvert replacement at Gunderson, Maggie Spring, Burgess, Wilson, and Robertson creeks. Possible habitat loss where fill encroaches into spring outlet (Paradise Min. Build Alt.) adjacent to the Flathead River near Station 350.	Implementation of erosion and stormwater runoff control measures and implementation of Best management practices during construction. Installation of new culverts at Maggie Spring, Burgess, Wilson, and Robertson creeks at existing grades and designed such that fish passage is provided when flows are adequate. Avoid instream work at these streams prior to mid-July and after October 1; bull trout are presumed to be out of the project area reaches of the Flathead River and associated intermittent tributaries during this period. Avoid encroachment into spring outlet (Paradise Min. Build Alt.) adjacent to the Flathead River near Station 350.	May effect, not likely to adversely affect
Coeur d'Alene salamander <i>Plethodon idahoensis</i>	G3, S2 USFS Sensitive	Possible spring resident in splash/soep zones of Revais, Maggie, Burgess, and Robertson creeks. Not observed during late-summer wetland surveys. This species could not be confirmed in the SW portion of the Reservation during 1995 amphibian surveys.	No records from project area; closest known population occurs at roadside seep on Lolo National Forest southwest of Paradise (MNHP 1998a).	Possible impacts to any currently unknown populations potentially occurring along the banks of Robertson Creek resulting from riprap or other fill placement; however, little chance of impact currently anticipated do to poor habitat quality.	Survey splash zone of Robertson Creek and Burgess Creek within construction limits prior to construction when the species is known to be active. Site-specific measures to be developed should a population be discovered. Minimize impacts to riparian vegetation and wetlands.	Unknown. Site-specific measures to be developed should a population be discovered.

Addendum Appendix A - Animal Species of Special Concern That May Occur In The Dixon-Paradise Project Area

Species	1999 MNHP Ranking(s)	Potential Habitat and Expected Occurrence in the Project Area	Known Distribution in Project Area	Possible Impacts	Mitigation Measures	Determination of Effects
western toad <i>Bufo boreas</i>	G4, S3S4	Possible breeder along streams and wetlands with standing water. Not observed during extensive late-summer wetland surveys.	No records from immediate project area; however, a breeding site was discovered in the MT200 corridor in 1998 near Perma (between the Dixon and Paradise sections) (Werner 1999). During the 1998 reconnaissance survey, a western toad was captured crossing the highway west of Perma between the two projects.	Possible impacts to any currently unknown populations occurring along streams or wetlands resulting from riprap or other fill placement.	Survey suitable breeding habitat within construction limits prior to construction when the species is known to be active. Site-specific measures to be developed should a population be discovered. Minimize impacts to riparian vegetation and wetlands.	Unknown. Site-specific measures to be developed should a population be discovered.
northern leopard frog <i>Rana pipiens</i>	G5, S3S4	Possible resident at densely vegetated emergent wetlands with standing water; however, appears to be largely extirpated from western part of range. Species was not observed during extensive 1998 project area wetland surveys and 1995 amphibian surveys on the Reservation.	No records from project area; projects fall within general historic distribution. Species is assumed to be largely extirpated from Reservation (Becker pers. comm.). A single juvenile leopard frog was found at the northeastern edge of the Reservation near Yellow Bay (approximately 80 km [50 mi] north of Dixon) during fall 1999 (Werner 1999).	Possible impacts to any currently unknown populations occurring along streams or wetlands resulting from riprap or other fill placement.	Survey suitable breeding habitat within construction limits prior to construction when the species is known to be active. Site-specific measures to be developed should a population be discovered. Minimize impacts to riparian vegetation and wetlands.	Unknown. Site-specific measures to be developed should a population be discovered.
common loon <i>Gavia immer</i>	G5, S1S2B, SZN USFS Sensitive	Slow, backwater sloughs of the Flathead River. Possible breeder, but expected as transient and winter resident.	No records from project area (Becker pers. comm.); direct breeding evidence recorded in latilong (MDBC 1996)	Temporary disturbance to transients on the Flathead River during construction.	None proposed.	Not likely to adversely affect
American white pelican <i>Pelecanus erythrorhynchos</i>	G5, S2B, SZN	Expected as transient on Flathead River.	No records from project area (Becker pers. comm.); transitory observations recorded in latilong (MDBC 1996)	Temporary disturbance to transients on the Flathead River during construction.	None proposed.	Not likely to adversely affect
black-crowned night heron <i>Nycticorax nycticorax</i>	G5, S2S3B, SZN	Possible breeder at wooded and scrub-shrub - dominated islands in the Flathead River.	No records from project area (Becker pers. comm.); transitory observations recorded in latilong (MDBC 1996)	No breeding habitat to be affected. Temporary disturbance to transients on the Flathead River during construction.	None proposed.	Not likely to adversely affect

Addendum Appendix A - Animal Species of Special Concern That May Occur In The Dixon-Paradise Project Area

Species	1999 MNHP Ranking(s)	Potential Habitat and Expected Occurrence in the Project Area	Known Distribution in Project Area	Possible Impacts	Mitigation Measures	Determination of Effects
white-faced ibis <i>Plegadis chiliti</i>	G5, S1B, SZN	Possible transient at sloughs along Flathead River.	No records from project area (Becker pers. comm.); transitory observations recorded in latilong in 1901 (MDBC 1996).	Temporary disturbance to transients on the Flathead River during construction.	None proposed.	Not likely to adversely affect
trumpeter swan <i>Cygnus buccinator</i>	G4, S2B, SZN USFS Sensitive	Possible transient during spring and fall along Flathead River.	No records from project area (Becker pers. comm.); transitory observations recorded in latilong (MDBC 1996; breed at Pablo NWR (Becker pers. comm.))	Temporary disturbance to transients on the Flathead River during construction.	None proposed.	Not likely to adversely affect
harlequin duck <i>Histrionicus histrionicus</i>	G4, S2B, SZN USFS Sensitive	Shallow, swift, isolated mountain streams free from human disturbance. Possible breeder at upper Revais, Magpie, and Robertson creeks, but not expected in project area due to intermittent nature of streams and proximity to the highway and other sources of human disturbance.	No records from project area (Becker pers. comm.); direct breeding evidence recorded in latilong in 1988 (MDBC 1996).	Temporary disturbance to transients on the Flathead River during construction. No disturbance to nesting activities anticipated do to poor habitat quality in the project area.	If observed nesting in immediate project area prior to construction, site-specific measures are to be developed.	Not likely to adversely affect
bald eagle <i>Haliaeetus leucocephalus</i>	G4, S3B, S3N Threatened USFS Sensitive	Nester, summer and winter resident, and spring and fall migrant along Flathead River. Active nest located near Dixon Section on Ferry Island; alternate nest on Heron Island.	Several active nests located along Flathead River in general project area (MNHP 1998, Becker pers. comm.). Many eagles known to winter throughout projects' corridor along river (Becker pers. comm.).	No habitat loss. Possible disturbance to nesting activities (disruption of nest building, flushing birds during incubation and brood rearing) resulting from adjacent heavy construction activities.	No ripping, blasting, crushing, or staging within 0.8 km (0.5 mi) of nests between January 15 and the fledge date [approximately June 15] as confirmed by a biologist. Raptor-proof any relocated overhead power lines. Prompt roadkill (big game) removal. Records check in project area prior to construction to ascertain any new known nest sites on the Flathead River. Site-specific measures to be developed and implemented should additional nesting occur in the project area.	Not likely to adversely affect

Addendum Appendix A - Animal Species of Special Concern That May Occur In The Dixon-Paradise Project Area

Species	1999 MNHP Ranking(s)	Potential Habitat and Expected Occurrence in the Project Area	Known Distribution in Project Area	Possible Impacts	Mitigation Measures	Determination of Effects
northern goshawk <i>Accipiter gentilis</i>	G4G5, S3S4	Possible breeder in mixed hardwood and coniferous forest interspersed with fields, although not expected to nest in immediate project area due to proximity to sources of disturbance. Likely forager in project area.	No records from project area (Becker pers. comm.); indirect breeding evidence recorded in latilong.	Temporary disturbance to foraging residents during construction. Minor habitat loss within ROW.	Raptor-proof any relocated overhead power lines. No clearing allowed in ROW beyond construction limits.	Not likely to adversely affect
Ferruginous hawk <i>Buteo regalis</i>	G4, S3B, SZN	Rare west of continental divide in open prairie areas; considered transitory in project area.	No records from project area. Transitory observations near Elmo (Becker pers. comm.).	None anticipated.	None proposed.	No effect
peregrine falcon <i>Falco peregrinus</i>	G4, S1S2B, SZN USFS Sensitive	Rocky cliffs overlooking the Flathead River. Expected as nester at active eyrie along river north of Wilson Creek.	Active eyrie along the Flathead River north of Wilson Creek (O'Connor pers. comm.).	No habitat loss. Possible disturbance to nesting activities (disruption of nest building, flushing birds during incubation and brood rearing) resulting from adjacent heavy construction activities.	No heavy construction activities within 0.8 km (0.5 mi) or blasting within 1.6 km (1 mi) of nest between April 1 and the fledge date [approximately July 15] as confirmed by a biologist. Raptor-proof any relocated overhead power lines. Records check in project area prior to construction to ascertain any new known nest sites on the Flathead River. Site-specific measures to be developed and implemented should additional nesting occur in the project area.	Not likely to adversely affect
yellow rail <i>Coturnicops noveboracensis</i>	G4, S1B, SZN	Expected as transient at emergent wetlands in the project area.	No records from project area (Becker pers. comm.); transitory observations recorded in latilong (MBDC 1996)	Temporary disturbance to foraging residents during construction. Minor habitat loss within ROW.	Minimize wetland impacts.	Not likely to adversely affect
black-necked stilt <i>Himantopus mexicanus</i>	G5, S2B, SZN	Expected as transient at emergent wetlands in the project area.	No records from project area (Becker pers. comm.); transitory observations recorded in latilong (MBDC 1996)	Temporary disturbance to foraging residents during construction. Minor habitat loss within ROW.	Minimize wetland impacts.	Not likely to adversely affect
Franklin's gull <i>Larus pipixcan</i>	G5, S3B, SZN	Expected as transient at sloughs along the Flathead River with sparse emergent vegetation.	No records from project area (Becker pers. comm.); transitory observations recorded in latilong (MBDC 1996).	Temporary disturbance to foraging transients during construction.	None proposed.	Not likely to adversely affect

Addendum Appendix A - Animal Species of Special Concern That May Occur In The Dixon-Paradise Project Area

Species	1999 MNHP Ranking(s)	Potential Habitat and Expected Occurrence in the Project Area	Known Distribution in Project Area	Possible Impacts	Mitigation Measures	Determination of Effects
common tern <i>Sterna hirundo</i>	G5, S3B, SZN	Possible breeder at small rocky islands in Flathead River.	No records from project area (Becker pers. comm.); breeding observations recorded in latilong (MDBC 1996)	No breeding habitat to be affected. Temporary disturbance to foraging residents on the Flathead River during construction.	None proposed.	Not likely to adversely affect
Forster's tern <i>Sterna forsteri</i>	G5, S2B, SZN	Possible breeder at extensive emergent wetlands along the Flathead River.	No records from project area (Becker pers. comm.); breeding observations recorded in latilong (MDBC 1996)	No breeding habitat to be affected. Temporary disturbance to residents on the Flathead River during construction.	None proposed.	Not likely to adversely affect
black tern <i>Chlidonias niger</i>	G4, S3B, SZN	Possible breeder at extensive emergent wetlands along the Flathead River.	No records from project area (Becker pers. comm.); breeding observations recorded in latilong (MDBC 1996)	No breeding habitat to be affected. Temporary disturbance to residents on the Flathead River during construction.	None proposed.	Not likely to adversely affect
yellow-billed cuckoo <i>Coccyzus americanus</i>	G5, S3B, SZN	Possible breeder at dense scrub-shrub wetlands and riparian thickets.	No records from project area (Becker pers. comm.); transitory observations recorded in latilong (MDBC 1996)	Temporary disturbance to residents within riparian areas during construction. Possible impacts to nesting if occurring in the project area. Minor habitat loss within ROW.	Minimize impacts to riparian vegetation and wetlands. No clearing allowed in ROW beyond construction limits.	Not likely to adversely affect
flamulated owl <i>Otus flammeolus</i>	G4, S2S3B, SZN USFS Sensitive	Possible transient in small, remnant patches of Ponderosa pine along the Paradise Section; possible breeder upslope from project area.	No records from project area (Becker pers. comm.); breeding observations recorded at Selow Creek, far upslope from the river between Dixon and Ravalli (Becker pers. comm.).	No breeding habitat to be affected. Temporary disturbance to transients within ponderosa pine forest during construction.	Raptor-proof any relocated overhead power lines. No clearing allowed in ROW beyond construction limits.	Not likely to adversely affect
great gray owl <i>Strix nebulosa</i>	G5, S3	Possible transient in coniferous patches along the Paradise Section; possible breeder upslope from project area in montane pine and fir forest.	No records from project area (Becker pers. comm.); indirect breeding evidence recorded in latilong (MDBC 1996).	Temporary disturbance to foraging transients during construction. Minor habitat loss within ROW.	Raptor-proof any relocated overhead power lines. No clearing allowed in ROW beyond construction limits.	Not likely to adversely affect
black-backed woodpecker <i>Picoides arcticus</i>	G5, S3 USFS Sensitive	Expected as transient in immediate project area; likely breeder in burned coniferous forest upslope (south) from Paradise Section.	No records from project area; breeding observations recorded in latilong (MDBC 1996); observed in burned area near Perma (Becker pers. comm.).	Temporary disturbance to foraging transients during construction. No habitat loss anticipated.	None proposed.	Not likely to adversely affect

Addendum Appendix A - Animal Species of Special Concern That May Occur In The Dixon-Paradise Project Area

Species	1999 MNHP Ranking(s)	Potential Habitat and Expected Occurrence in the Project Area	Known Distribution in Project Area	Possible Impacts	Mitigation Measures	Determination of Effects
boreal owl <i>Aegolius funereus</i>	G5, S3S4 USFS Sensitive	Possible transient in coniferous forest along the Paradise Section; possible breeder upslope from project area in high-elevation subalpine fir and Engelmann spruce forest.	No records from project area. Known to occur in Mission Mountains (Becker pers. comm.).	Temporary disturbance to foraging transients during construction. No habitat loss anticipated.	Raptor-proof any relocated overhead power lines. No clearing allowed in ROW beyond construction limits.	Not likely to adversely affect
Merriam shrew <i>Sorex merriami</i>	G5, S3	Possible resident in arid bunchgrass areas along the Dixon Section	No records from project area (Becker pers. comm.); project area falls within general distribution.	Impacts to individuals (mortality) during construction if occur in project area. Potential habitat loss along Dixon Section.	None proposed.	Unknown
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	G4, S2S3 USFS Sensitive	Possible transient and occasional forager over fields, wetlands, and the Flathead River; possible colonies upslope from project area in abandoned mine shafts.	No records from project area; colony present on National Bison Range in old mine adit (Becker pers. comm.).	Temporary disturbance to foragers over fields, wetlands, and the Flathead River during construction (would only apply if construction occurs at night). Minor habitat loss (all vegetated types) within ROW. No effects to known nurseries or hibernacula; no effects to caves or mine tunnels.	Minimize impacts to riparian and wetland habitats. No clearing allowed in ROW beyond construction limits.	Not likely to adversely affect
gray wolf <i>Canis lupus</i>	G4, S1 Endangered USFS Sensitive	Expected as transient in most habitats along both projects.	No active dens known from project area; occasionally observed as transients in the project area (Becker pers. comm.); closest known pack is Ninemile pack whose primary territory occurs several miles south of the project area (Fontaine pers. comm.).	Possible increase in vehicle speeds increases chances for animal-vehicle collisions relative to transient individuals. Minor roadside habitat loss (travel cover) associated with construction.	No clearing allowed in ROW beyond construction limits. Prompt roadkill (big game) removal. Maintain existing bridges at Magpie and Revais creeks. Minimize fill slopes and associated clearing and install wildlife crossing signs E of Magpie Creek. Install minimum 3 m by 7.3 m structures at Wilson and Robertson creeks to facilitate passage.	Not likely to adversely affect
grizzly bear <i>Ursus arctos horribilis</i>	G4T3, S1S2 Threatened USFS Sensitive	Expected as transient, primarily in forested and scrub-shrub habitats, along both projects.	Camera surveys for last six to seven years on Ninemile divide have captured no grizzlies; no verified sightings in project area, although several residents claim to have seen sow with cubs on top of ridge west of Ravalli in summer 1998 and forestry crew claimed sighting of sow with cubs near Perma Point in 1989 (Becker pers. comm.).	Possible increase in vehicle speeds increases chances for animal-vehicle collisions relative to transient individuals. Minor roadside habitat loss (travel cover) associated with construction.	No clearing allowed in ROW beyond construction limits. Prompt roadkill (big game) removal. Maintain existing bridges at Magpie and Revais creeks. Minimize fill slopes and associated clearing and install wildlife crossing signs E of Magpie Creek. Install minimum 3 m by 7.3 m structures at Wilson and Robertson creeks to facilitate passage. Proper trash storage and disposal during construction	Not likely to adversely affect

Addendum Appendix A - Animal Species of Special Concern That May Occur In The Dixon-Paradise Project Area						
Species	1999 MNHP Ranking(s)	Potential Habitat and Expected Occurrence in the Project Area	Known Distribution in Project Area	Possible Impacts	Mitigation Measures	Determination of Effects
fisher <i>Martes pennanti</i>	G5, S2 USFS Sensitive	Possible resident or transient at creeks with dense riparian vegetation in the project area, including upper Revaus, upper Magpie, Gunderson, Magpie Springs, Wilson, and Robertson creeks, as well as the Flathead River.	No records from project area; project area falls within general distribution; a fisher was observed during a remote camera survey on Clear Creek north of Perma (north of the Flathead River)(Becker pers. comm.).	Possible increase in vehicle speeds increases chances for animal-vehicle collisions relative to transient individuals. Minor roadside habitat loss (travel cover) associated with construction.	No clearing allowed in ROW beyond construction limits. Maintain existing bridges at Magpie and Revaus creeks. Minimize fill slopes and associated clearing and install wildlife crossing signs E of Magpie Creek. Install minimum 3 m by 7.3 m structures at Wilson and Robertson creeks and 1.5 m by 2.1 m arch pipe east of Magpie Creek to facilitate passage.	Not likely to adversely affect
wolverine <i>Gulo gulo luscus</i>	G4T4, S2 USFS Sensitive	Generally restricted to boreal forests in western mountains in areas of sparse human habitation. Expected as transient in the project area; primarily in coniferous forest. CSKT conducted surveys in project area and detected no wolverines or sign (CSKT 2000).	Single adult male was trapped in Siegel drainage south of the Paradise Section in 1994. Trappers have observed tracks every winter in Siegel drainage system. Adult was sighted in this general area in 1981 (MNHP 1998).	Possible increase in vehicle speeds increases chances for animal-vehicle collisions relative to transient individuals. Minor roadside habitat loss (travel cover) associated with construction.	No clearing allowed in ROW beyond construction limits. Maintain existing bridges at Magpie and Revaus creeks. Minimize fill slopes and associated clearing and install wildlife crossing signs E of Magpie Creek. Install minimum 3 m by 7.3 m structures at Wilson and Robertson creeks and 1.5 m by 2.1 m arch pipe east of Magpie Creek to facilitate passage.	Not likely to adversely affect
Canada lynx <i>Felis lynx</i>	G5, S2 Proposed Threatened USFS Sensitive	Expected as transient in the project area in forested habitats; possible resident upslope from project area in dense coniferous forest.	No records from project area; few lynx tracks have been observed several miles south (upslope) of the project area in Ninemile Divide area at upper elevations of Magpie and Revaus creeks (Becker pers. comm., CSKT 2000).	Possible increase in vehicle speeds increases chances for animal-vehicle collisions relative to transient individuals. Minor roadside habitat loss (travel cover) associated with construction.	No clearing allowed in ROW beyond construction limits. Maintain existing bridges at Magpie and Revaus creeks. Minimize fill slopes and associated clearing and install wildlife crossing signs E of Magpie Creek. Install minimum 3 m by 7.3 m structures at Wilson and Robertson creeks to facilitate passage.	Not likely to adversely affect

Addendum Appendix C

Seeding Provisions

ADDENDUM APPENDIX C - Seeding Provisions

The Montana Department of Transportation's agronomist, in consultation with staff of the Confederated Salish and Kootenai Tribes, prepared seeding provisions for disturbed areas. The seed mixtures, which consist of species native to the area, are designed for specific slope conditions. Revegetation will include planting of trees and shrubs. CSKT will develop and submit to MDT a revegetation plan to include planting of pine trees.

Addendum Appendix D
Project Correspondence

List of Correspondence

<u>Date</u>	<u>From</u>	<u>To</u>
1. 10-5-99	Kemper McMaster, U.S. Fish and Wildlife Service	Gordon Stockstad, Montana Department of Transportation
2. 2-18-00	Marcia Cross, Confederated Salish and Kootenai Tribes	Joel Marshik, Montana Department of Transportation
3. 3-2-00	D. Fred Matt, Confederated Salish and Kootenai Tribes	Joel Marshik, Montana Department of Transportation
4. 5-23-00	D. Fred Matt, Confederated Salish and Kootenai Tribes	Joel Marshik, Montana Department of Transportation



United States Department of the Interior

FISH AND WILDLIFE SERVICE
MONTANA FIELD OFFICE
100 N. PARK, SUITE 320
HELENA MT 59601
PHONE (406) 449-5225, FAX (406) 449-5339



M.44 MDT (I)

Mr. Gordon J. Stockstad
Resources Bureau Chief
Environmental Section
Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena, Montana 59620-1001



October 5, 1999

MSLA DISTRICT
CONSTRUCTION
BRIDGE
PRECONSTRUCTION
KARL HELVIK
OCT 07 1999 DALE PAULSON
Mark Traxler

Subject: STPP 6-1(30)99 Dixon - West; Control #c891, and
STPP 6-1(36)85 Paradise - East; Control #1011

Dear Mr. Stockstad:

This is in response to your August 2, 1999, letter requesting that the Fish and Wildlife Service (Service) concur with the determinations of effect on the threatened bull trout (*Salvelinus confluentus*), bald eagle (*Haliaeetus leucocephalus*), and grizzly bear (*Ursus arctos horribilis*), the endangered peregrine falcon (*Falco peregrinus*) and gray wolf (*Canis lupus*), and the proposed Canada lynx (*Lynx canadensis*) and mountain plover (*Charadrius montanus*) for the subject highway reconstruction projects proposed by the Montana Department of Transportation (Department) in Sanders County, Montana. The Service received your request on August 3, 1999.

The Biological Resources Report (BRR), dated July 14, 1999, that was attached to your letter was well written and complete. However, it assessed effects to threatened and endangered (T/E) species from more than one construction alternative without indicating which was the preferred alternative. This made it difficult to ascertain the actual project related impacts that will likely affect T/E species once construction occurs. In recent telephone conversations with the Service, the Department indicated that the alternatives that will be constructed are the "Dixon Build" and "Paradise Minimum Build" alternatives described in the BRR. That information has been helpful in the Service's review of these projects. In addition, the determinations of effect for listed species reached for this project were based on the implementation of coordination measures

recommended in the BRR, as well as on analyses displayed in the BRR. However, no assurances were given that the specified coordination measures would be implemented as parts of these projects. Therefore, in order for the Service to be in a position to concur with the determinations of effect rendered in the BRR, the concurrences provided for these projects are contingent upon the implementation of the coordination measures outlined in the BRR, and upon the construction of the "Dixon Build" and "Paradise Minimum Build" alternatives as described.

The Service believes that the activities of the proposed highway reconstruction projects as described in the BRR attached to your letter, along with their attendant coordination measures, do not have the potential to cause an adverse effect to bull trout, impair suitable seasonal or permanent habitat, or degrade unoccupied habitat that is necessary for the survival of the local population of bull trout. Therefore, we concur with your determination of "may affect, not likely to adversely affect," and formal consultation is not required. The Service bases its concurrence on information displayed in the BRR, particularly the coordination measures that will be implemented as a part of these projects to assure that bull trout are not adversely affected by highway reconstruction activities.

These projects parallel the Flathead River and cross a total of eight tributary streams. The BRR describes the replacement culverts that may be utilized at many of these stream crossings. The Service is concerned about the replacement of existing culverts with much longer culverts that may act as barriers to upstream use by fish, and about the accompanying loss of stream channel length associated with many of the proposed stream crossings. The Service is also concerned that at least one of the proposed culverts (Robertson Creek) may lack the ability to allow the passage of bedload. Because final designs for these stream crossing structures have yet to be decided upon and haven't undergone the required permitting process, it is difficult to assess how effective they may be in passing bedload and allowing fish passage. These issues affect habitat conditions for bull trout and other salmonids that utilize these streams. The Service's concurrence that these proposed projects "will not likely adversely affect" bull trout is contingent upon the construction of stream crossings that adequately allow fish and bedload passage. If the final designs of these crossings result in structures that do not facilitate the passage of fish and bedload, the Department should reinitiate consultation with the Service.

The Service believes that the activities related to the proposed subject highway reconstruction projects, as described in the BRR, do not have the potential to cause an adverse effect to bald eagles, peregrine falcons, grizzly bears or gray wolves. Therefore, we concur with your "not likely to adversely affect" for these species and formal consultation is not required. The Service bases its concurrence on information presented in the BRR and is contingent on the

implementation of the coordination measures described in the BRR that are designed to reduce project related impacts to bald eagles, peregrine falcons and grizzly bears. These coordination measures are displayed on pages 39-40, 42-43 and 47 of the BRR for these projects.

Additionally, as stated in the BRR, a conclusion has been reached that the proposed highway reconstruction projects would have "no effect" on the proposed mountain plover and "would not likely jeopardize the continued existence" of the proposed Canada lynx. We concur with these findings as well, and therefore, a conference is not required for these species.

This concludes informal consultation pursuant to regulations in 50 CFR § 402.13 implementing the Endangered Species Act of 1973, as amended (Act). These projects should be re-analyzed if new information reveals effects of the action that may affect threatened or endangered species, if the projects are modified in a manner that causes an effect not considered in this consultation, or if the coordination measures displayed in the BRR are not fully implemented.

If you have further questions about this letter or your responsibilities under the Act, please contact Scott Jackson, of my staff, at (406)449-5225 ext. 201.

Sincerely,



Kemper M. McMaster
Field Supervisor
Montana Field Office

- cc: Kalispell Suboffice, FWS-ES
Les Evarts, Acting Fisheries Program Mgr., Confederated Salish and Kootenai Tribes, PO
Box 278, Pablo, MT 59855
Lloyd Jackson, Shoreline Protection Office, Confederated Salish and Kootenai Tribes, PO
Box 278, Pablo, MT 59855
Jeff Berglund, Western EcoTech, 1280 Lariat Rd., Helena, MT 59602

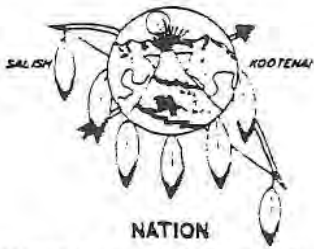
FLATHEAD

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION

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FEB 23 2000

MORRISON-MAERLE, INC.



NATION

Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
Frederick Cordier - Sergeant-at-Arms

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ENVIRONMENTAL

February 18, 2000

TRIBAL COUNCIL MEMBERS:

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- D. Fred Matt - Vice Chairman
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- Wm. Joseph Moran - Treasurer
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- Jami Hamel
- Mary Lefthand
- Elmer "Sonny" Morgeau
- Lloyd D. Irvine

Joel Marshik
Montana Department of Transportation
P.O. Box 201001
2701 Prospect Avenue
Helena, MT. 59620-1001

RE: East of Paradise-East, Cultural Resource Survey

MASTER FILE
COPY

Dear Mr. Marshik:

I am writing concerning the status of cultural resources compliance on the above-cited highway project. Historical Research Associates (HRA) conducted cultural resource compliance survey for the highway 200 reconstruction in 1986. At the time of the cultural resource compliance review by MDOT, the Confederated Salish and Kootenai Tribes (CS&KT) had an opportunity to review the Section 106 findings but did not participate in the identification and evaluation effort. Subsequent revisions in the implementing guidelines for Section 106 (36CFR800) established in 1992 and 1999 have clarified that the CS&KT should have an active role in all stages of Section 106 compliance for undertakings on Tribal lands. That includes direct review of the information gathering effort, review of inventory methods, and a commenting role on eligibility and treatment on equal status with the Montana SHPO. While MDOT has made an substantial effort to involve the Tribes more directly in the cultural resource review effort for the highway 200 reconstruction work, it has come late in the planning effort and problems have surfaced at the 11th hour in the planning work.

We have worked with Steve Platt, Archaeologist, of your staff concerning upcoming spring construction work on the Dixon to Perma highway segment. During our reviews it became clear that significant cultural resources were missed during the 13 year-old survey by HRA, including traditional cultural properties that are of cultural significance to the CSKT. We understand that no cultural resource field survey is perfect, and we do not expect archaeologists to locate every conceivable cultural resource. At the same time we feel that active participation of the CS&KT in the cultural resource survey and identification effort at the outset would have brought these resources to light sooner, thereby avoiding unanticipated expenditures of staff time and resources from both of our programs to correct these deficiencies.

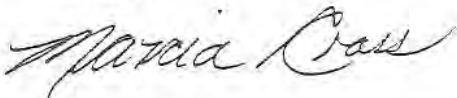
cc: Barry Brosten
Susan Kilerase - Missou
Steve Platt
~~John Hedrick - Missou~~

† In honor of the years of dedicated service to the Tribes by the late Michael T. Pablo, the position of Chairman will remain vacant until January 2000, with the Vice Chairman assuming the duties as provided by the CSKT constitution.

Marshik
February 18, 2000
Page 2

Because the project will not be actively constructed for another year, and since the Section 106 compliance relies at this point on the same potentially incomplete survey report by HRA in 1986, we believe a supplementary cultural resource study for this segment of the highway 200 project is warranted before construction begins. The proposed study should rely upon oral history, culture committee historical records, Salish and Kootenai Place Names, the ethnographic record, and field reconnaissance to ensure that all potentially significant cultural resources are identified and evaluated so as to avoid future problems prior to construction on the Paradise East segment of highway 200. It is clear that the logical entity to conduct such a study would be the CSKT including the Preservation Office, Culture Committees, and Elders Advisory Committees. We have already discussed some of these issues with you and would like to discuss this matter further at your earliest convenience.

Sincerely,

A handwritten signature in cursive script that reads "Marcia Cross". The signature is written in dark ink and is positioned above the typed name and title.

Marcia Cross
Historic Preservation Officer

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MORRISON-MAIERLE, INC.



Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
Leon Bourdon - Sergeant-at-Arms

Thursday, March 2, 2000

TRIBAL COUNCIL MEMBERS:

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Mary Lefthand
Elmer "Sonny" Morigeau
Ron Trahan

Mr. Joel Marshik
Environmental Services Manager
2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001

RE: Paradise-East (East Section), STPP 6-1 (36) 85, CN 1011
Dixon-West, STPP 6-1 (30)99, CN C891

Dear Mr Marshik,

The Confederated Salish and Kootenai Tribes submit the following comments summarizing the Tribal-MDT meeting held on January 19, and the field trip held on February 2, 2000. I stress that these are not new issues, but issues that have been previously identified by the Tribes and discussed with MDT. These issues are important and to the Tribes and we expect to be addressed in the environmental assessment for the proposed project. If they can not be addressed and included in the design, then this decision also needs to be incorporated into the text of the NEPA document.

Fisheries and Water Quality

The Tribal Fisheries concerns involve the Flathead River and the many small tributaries along this 18.4 mile reconstruction project. The streams of most importance are; Robertson Creek, Wilson Creek, Burgess Creek, Seepay Creek, Vanderburg Creek, Magpie Spring Creek, Magpie Creek, Gunderson Creek, and Revais Creek. These streams are important Flathead River tributaries for various reasons. Several of these streams contain populations of native westslope cutthroat trout, thus we are concerned with fish barriers being created where they presently do not exist and existing barriers being breached. All designs of new stream crossings should be made with the intent to maintain fish passage, if that passage presently exists and maintain the barriers that currently exist.

Extreme care should be taken when working in and around these streams. An example of such permit conditions include repairing/replacing any bridge, CMP (corrugated metal pipe), irrigation ditch, headgate, spring, or any spring fed concrete stock watering structure. Any new bridge or CMP should be of proper length to maintain fish passage, width, and diameter so as

not to constrict flows during extremely high run-off periods. Stream crossing design should also accommodate the travel and conveyance of small mammals and amphibians. Installation should be made to retain original slope of the streambed, and banks should be returned to natural slope and grade, thus maintaining adequate drainage of precipitation runoff.

Wetlands

Many wetland issues were discussed during previous meetings and field trips. The following is a list of the agreed upon measures that will be implemented to avoid, minimize or compensate for impacts to wetlands:

- The EA provides an inadequate description of the abundance and diversity of wetland resources that will be impacted by the Dixon-West and Paradise-East (East) projects. The Tribes recommend that the wetlands description and impact assessment provided in the *Final Biological Resources* report be included in the EA.
- The highway design for Dixon West and Paradise -East (East) will not include clearing or grubbing of vegetation outside of the construction limits.
- A design exception for wetland D2 provides for 4:1 slopes on the north side, 1.5:1 slopes on the south side and guardrail.
- A design exception for wetlands D10, D11 and D12 provides for 4:1 slopes on both sides of the highway.
- A design exception for wetland P12 provides for 4: 1 slopes and gabion.
- A design exception for wetlands P14, P15, and P16 provides for 4: 1 slopes on both sides of the highway.
- The estimated loss in wetland functional units will be reevaluated to include the loss of function for those wetlands that extend outside of the construction limits.
- The construction contract would require measures for preventing the unintentional introduction of exotic species into wetlands.

Scenery

The Tribes Lower Flathead River Management plan set an objective to include Highway 200 along the Flathead River into the National Scenic Byway Program. Include an explanation about the current status of the National Scenic Byway Program within Montana in the EA.

Economic impacts to Sanders County from recreational tourism should be expanded to say a

designated scenic highway is one of the first steps to achieve higher tourism economic returns for the County. Additional information could be obtained from the State of Idaho which has designated this highway a scenic route west of the State line. Also, the U of M Institute for Tourism and Recreation Research has identified the majority of out of state tourism travel originating from the northwestern States, with the State of Washington being the highest visitor source. This area is prime for an opportunity to benefit economically with a designated scenic highway 200 route enhanced and recognized for tourism travel.

Dixon-West Project:

Mitigation to screen any road cuts not contoured with the surrounding landscape should require planting of pine trees directly across from the road cuts and as close to the construction (clear) zone as possible. This will soften the long term visual impact to the river viewshed.

Pullouts - we recommended two designated highway pullouts for this section and one scenic rest area south of the Dixon dump (MDT has draft plans). The other would be located at a river access parking area at the McDonald railroad siding access. The State needs to draft up some plans for the river access site and both sites and designs should be included in the E.A. We can identify the sign needs at both sites at a later date.

The Tribes request to have the signs at stream crossings and at the turnouts written in tri-lingual text (Salish, Kootenai, and English). This, we feel would present the importance of this area to the Salish and Kootenai peoples.

To prevent impromptu pullouts in the future, the northern right-of-way along the highway must be fenced and all fencing in this area should have the top and bottom wire of the fence as barbless wire (wildlife friendly fence).

Paradise-East Project:

Scenery - in order to accurately predict the impacts of the two build alternatives, a 3-D landscape model should be produced for both build alternatives. This would depict the massive road cuts on each and the impact to the canyon view as seen from the river. As we discussed, utilizing gabion walls to widen the highway surface in the Robertson Creek area instead of cutting into the mountain side, would have a lessor impact to the river corridor view and should be considered in the minimum build alternative.

The Tribes would like to be part of the planning process for this section when that time comes.

Cultural Preservation

The whole of the Flathead River corridor that Highway 200 runs through is a very important cultural resource to the Flathead Tribes. All proposed activities should be designed and

implemented to be of least impact to the land to protect not only the physical site and features but also the cultural environment as a whole. While the existing human habitation and transportation activity has had a great impact on this river corridor, but we feel that this river corridor remains an important resource and there should be extra consideration to minimize any more impacts.

Dixon-West:

- *Dixon dump site turnout*

This area will need to be surveyed prior to any manipulation of the landscape and a Tribal staff member present to monitor construction activities.

- *McDonald railroad siding*

The railroad and other activities have impacted this area. Due to the present impacts to this site we feel it would be an enhancement to install a designated pullout and fishing access. As long as the proposed activity does not impact the non-disturbed ground under and around this area we feel comfortable with this plan.

Paradise-East (east):

It is important to note that comments on this section of the project are not final, until the Tribal Preservation Office completes the field survey and research is complete.

The Robertson Creek pullout area is off the reservation but feel that our input would help to protect known cultural features and the cultural environment in this area. There is also proposed highway widening. We would like to see the highway widened into the river and not cut into the rock cliffs in this area.

The Tribes feel that any impact in this river corridor are detrimental to the integrity of this cultural resource. But we understand the need to develop areas that has controlled public access to protect other resources.

Wildlife

The Tribal wildlife program conducted a field review the proposed Dixon-West project. We still have unresolved issues with the degree of cut and fill in the Revais curves area. We feel that this may pose a barrier to wildlife movement. Dale Becker, CS&KT Wildlife Program Manager has been discussing and trying to address this issue with Jeff Bergland of MDT.

We look forward to continuing work with the Montana Department of Transportation on this project.

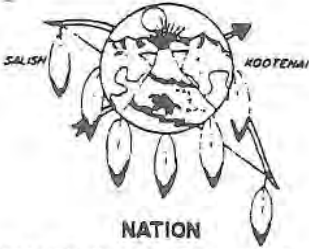
Sincerely,



D. Fred Matt
Chairman, Tribal Council
Confederated Salish and Kootenai Tribes

cc: James Weaver, MDT
Janice Brown, FHA
Brad Peterson, Morrison-Maierle, Inc.

• FLATHEAD



Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
Leon Bourdon - Sergeant-at-Arms

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION

P.O. Box 278
Pablo, Montana 59855
(406) 675-2700
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Tuesday, May 23, 2000

TRIBAL COUNCIL MEMBERS:

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Jami Hamel - Vice Chair
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Darryl A. Dupuis
Margaret Goode
S. Kevin Howlett
Mary Lefthand
Elmer "Sonny" Morigeau
Ron Trahan

Mr. Joel Marshik
Environmental Services Manager
2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001

RE: Paradise-East (East Section), STPP 6-1 (36) 85, CN 1011
Dixon-West, STPP 6-1 (30)99, CN C891

Dear Mr Marshik,

The Confederated Salish and Kootenai Tribes submit the following comments on the Addendum to the Environmental Assessment for STPP-6-1(36)85 Paradise-East Section (East Section) P.M.S. Control No. 1011 & STPP 6-1 (30)99 Dixon-West P.M.S. Control No. C891 in Sanders County, Montana.

◆ Addendum Table 1-1- past and proposed projects in the vicinity of the project area. The table omits the following projects: Highway 200 Dixon-Ravalli; U.S. Highway 93 Evaro - Polson; U.S. Highway 93 Post Creek Climbing Lane; U.S. Highway 93 Truck Scale at Arlee; U.S. Highway 93 turn Lane 6.4 km S of Ronan; Montana Highway 35; Montana Highway 354. Abbreviations are used that are not defined (e.g. G, GS, PMS).

◆ Alternative Design. It is the Tribes understanding that MDT will develop a minimum build alternative for the Paradise East project that avoids cutting into the rock walls in the Robertson Creek area by moving the highway toward the river and utilizing gabion walls (letter from CSKT to MDT, March 2, 2000). This minimum build alternative was omitted in the Addendum.

◆ Environmental effects of relocating utilities. Relocating utilities is a component of the proposed action; the impacts resulting from utility relocates contribute to the cumulative effects of the proposed action. The EA/Addendum do not identify environmental effects or mitigation measures for utility relocates. Addendum Sec 3.3.2. states: "Environmental effects of relocating utilities would occur in areas also to be cleared and graded by other construction." It is the Tribes understanding that utilities will be relocated outside of the construction limits. MDT has committed to the prohibition of clearing or grubbing within the ROW beyond construction limits

(Addendum p. 46) thus environmental effects would result from utility relocation. Mission Valley Power may clear up to 40 feet of vegetation on either side of an overhead utility line relocate (total width of 80 feet) plus additional clearing for fiberoptic and other utilities (Addendum p. 47) however mitigation measures are not provided. The EA/Addendum implies environmental effects will be mitigated through a permitting process but does not identify the necessary permits if any.

◆ Environmental effects of gravel pits. Gravel pits are a component of the proposed action; the impacts resulting from gravel pits contribute to the cumulative effects of the proposed action. The EA and Addendum do not identify environmental effects or mitigation measures for gravel pits. The EA states that contractors will be required to coordinate with the Tribes for permission to excavate aggregate sources on the Reservation (EA p. 62). What is the basis of this requirement? Gravel pits for the Dixon-Ravalli project were located on fee lands and did not trigger any Tribal permits or water quality certification. Those gravel pits were regulated by the Montana Department of Environmental Quality. Is Montana DEQ required to seek comment from the Tribes during the permitting process?

◆ Addendum 3.15 Wetlands The wetlands compensation discussion contains several omissions and errors. The following changes are needed: (1) Include in the first sentence "Compensatory mitigation..... is being developed in compliance with the *Memorandum of Agreement Between the MDT and the CSKT of the Flathead Indian Reservation for Mitigation of Unavoidable Impacts to Wetlands by Highway Construction (June, 1993)*,.....; (2) The Hoskin's Landing mitigation site is 48.23 acres. (3) Change "MDT intends to lease the site as a mitigation area for 25 years...." to "MDT intends to secure the use of the site for 25 years." (4) Subsequent to publication of the EA, the Tribes and MDT completed a detailed restoration plan for the Hoskin's Landing wetland mitigation site. Please include an accurate summation and incorporate by reference the updated restoration plan (*CSKT and MDT Draft Conceptual Design for the Highway 200 Dixon-West Wetland Mitigation Site, Project No. STPP 45(29), Control No. 4144, May, 2000* - Attached) in the Addendum. (5) It is the Tribes understanding that revegetation of temporarily disturbed wetlands and streamside areas will include trees and shrubs wherever they occurred prior to disturbance (CSKT - MDT meeting of January 19, 2000). Appendix C of the EA, seeding provisions for disturbed soils in the ROW, omits trees and shrubs.

◆ Addendum 3.16.3 Mitigation - Vegetation It is the Tribes understanding that revegetation of temporary construction areas will include trees and shrubs wherever they occurred prior to disturbance (CSKT-MDT meeting of January 19, 2000). Appendix C of the EA, seeding provisions for disturbed soils in the ROW, omits trees and shrubs.

◆ The Tribes understand that we would develop and submit a revegetation plan to include planting of pine trees.

◆ The Tribes recommend that reseedling would occur with those plant species listed and agreed upon by the Tribes and MDT. These are also identified in the Hoskins Landing Restoration Proposal, Section D - Seed Required for Direct Seeding.

◆ Magpie Creek bed and banks. It is the Tribes understanding that MDT will develop restoration alternatives for the bed and banks of Magpie Creek pursuant to the Transportation Equity Act's aquatic resource restoration provisions (CSKT - MDT meeting, March 20, 2000; comments by Loran Frazier, MDT to Tribal Council, April 6, 2000). The Addendum omits this issue.

◆ EA 3.13 Water Quality The EA and Addendum omit any and all reference to sections of the EPA approved authority of the Confederated Salish and Kootenai Tribes to implement the Clean Water Act on the Flathead Indian Reservation. This authority includes establishing water quality standards (*CSKT Water Quality Standards and Antidegradation Policy, 1995*); 401 Water Quality Certification; and nonpoint source assessment (*CSKT Nonpoint Source Assessment for Streams, Rivers, Lakes and Wetlands, Flathead Indian Reservation, Montana, January, 2000*) and nonpoint source management (*CSKT Nonpoint Source Management Plan for Streams, Rivers, Lakes and Wetlands, February, 2000*).

The EA and Addendum analyzed temporary construction related impacts to water quality and aquatic resources but neglected to assess the long term effects to or provide mitigation measures for long term effects on water quality. For example, the proposed action will result in a significant increase in impervious surface area and subsequent increase in pollutant laden stormwater runoff which will continue over the life of the project. The Dixon build alternative will expand the road surface from an average total width of 27 feet to an average total wide of 43 feet resulting in a 63% increase of impervious surface above existing conditions. The Paradise minimum build alternative will expand the road surface from an average total width of 20 feet to an average total width of 44.8 feet resulting in an increase in impervious surface area of 45% above existing conditions.

◆ The Addendum cites the following ongoing coordination between the Tribes and MDT:

- (1) Design and placement of scenic turnouts and interpretive signs..
- (2) Development of a conceptual, unified them for interpretive signs throughout the Reservation.
- (3) Mitigation measures to preserve and enhance scenic values.
- (4) Cooperatively evaluating design plans for cut and fill in sensitive areas.
- (5) Salvage of plant species of cultural/biological concern within the construction limits and ROW.
- (6) Development of seed mix for reseedling disturbed areas.
- (7) For the Paradise Minimum Build Alternative - coordinate mitigation of impacts in the

Robertson Creek area, where the alignment will be between a rock face and Flathead River fringe wetlands.

- (8) Gravel pit development.
- (9) Coordinate research between the Tribes, MDT, and Montana Rail Link for the Magpie Creek channel restoration.

We look forward to continuing work with the Montana Department of Transportation on this project.

Sincerely,



D. Fred Matt
Chairman, Tribal Council
Confederated Salish and Kootenai Tribes

attch:

cc: Loran Frazier, MDT
Janice Brown, FHA
Brad Peterson, Morrison-Maierle, Inc.

**Comments and Responses to Comments on
the Environmental Assessment
for
STPP 6-1(36)85
Paradise - East (East Section)
P.M.S. Control No. 1011
and
STPP 6-1(30)99
Dixon - West
P.M.S. Control No. C891**

List of Comments

Agencies

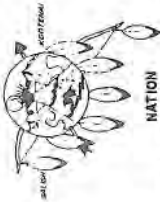
		<u>Date</u>
1	Confederated Salish and Kootenai Tribes	December 21, 1999
2	Confederated Salish and Kootenai Tribes	December 27, 1999
3	U.S. Department of Agriculture, Forest Service	December 15, 1999
4	U.S. Department of Agriculture, Forest Service	January 6, 2000
5	Sanders County, Board of County Commissioners	January 3, 2000
6	Missoula County, Board of County Commissioners	January 26, 2000
7	U.S. Department of the Army, Corps of Engineers	January 31, 2000

Organizations

8	Salish Kootenai College	December 24, 1999
9	National Wildlife Federation	December 28, 1999
10	Jocko River Conservation Society	January 17, 2000
11	Flathead Resource Organization	January 28, 2000
12	Trout Unlimited, Montana Council	January 24, 2000

Individuals

13	Cliff Linsten	November 21, 1999
14	Jerry McGahan	December 20, 1999
15	Deborah Tomas	December 21, 1999
16	David Rockwell	December 22, 1999
17	Mary Herak-Sand	December 22, 1999
18	Carol and Bill Rode-Eggart	December 22, 1999
19	Bud Cheff	December 23, 1999
20	Anne Morley	December 24, 1999
21	Jay Sumner	December 24, 1999
22	Caralinda and Philip Roullier	December 26, 1999
23	Mimi Werner and John Dohrendorf	December 27, 1999
24	Roy G. Lacock	December 27, 1999
25	Gary LeDeau	December 27, 1999
26	Harold W. Young	December 27, 1999
27	Stacy Kiser	December 28, 1999
28	Roger C. and Marion I. Lund	December 28, 1999
29	Thomas Trosper	December 28, 1999
30	Renee Roullier	December 29, 1999
31	Ken Light	January 10, 1999
32	Tricia O'Connor	January 20, 2000
33	Clara Likens	January 24, 2000
34	Jeff Morrow	January 24, 2000
35	Barbara D. Rentschler	January 25, 2000
36	Douglas Baty	No Date
37	Ron and Darlene Jolly	No Date



Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
Friedrick Corlier - Sergeant-at-Arms

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TRIBAL COUNCIL MEMBERS:
* Michael T. Pablo - Chairman
D. Fred Matt - Vice Chairman
Carole J. Lankford - Secretary
Wm. Joseph Moran - Treasurer
† Donald "Donny" Dupuis
Michael Durgio, Jr.
Jami Harmel
Mary Leifhard
Elmer "Sonny" Mongeau
Lloyd D. Irvine

December 21, 1999

RECEIVED
DEC 23 1999
ENVIRONMENTAL

Mr. Joel Marshik
Environmental Services Manager
2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001

RE: Highway 200, Dixon-West and Paradise-East Projects

Dear Mr. Marshik,

The Confederated Salish and Kootenai Tribal Natural Resources Staff has briefly reviewed the draft environmental assessment for the proposed STPP 6-1(36)85 Paradise-East (East Section) P.M.S. Control No.1011 and STPP 6-1 (30)99 Dixon-West P.M.S. Control No. C891 projects. We respectfully request that you extend the comment period from December 29, 1999 for thirty (30) days. This would better accommodate our involvement in the planning process.

In our brief review, we have identified issues that have been submitted to MDT through a letter dated November 18, 1998 which is located in the EA appendix. The Tribal staff is concerned that these issues were not addressed adequately in the body of the text. We are fully aware of the progress of ROW easements and wetland mitigation efforts for the Dixon-West Project. We feel that issues identified by Tribal Staff need to be addressed before we proceed with finalizing the easement.

Please take this recommendation into consideration. We look forward to continuing work with the Montana Department of Transportation on this project.

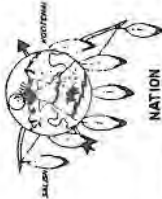
Sincerely,

D. Fred Matt
Vice Chairman, Tribal Council
Confederated Salish and Kootenai Tribes

* In honor of five years of dedicated service to the Tribes by the late Michael T. Pablo, the position of Chairman will remain vacant until January 2000, with the Vice Chairman assuming the duties as provided by the CSKT constitution. With the untimely passing of Donald D. "Donny" Dupuis, CSKT also provide this remembrance.

The requested 30-day extension was granted.

MDT has coordinated preparation of the EA Addendum closely with the Confederated Salish and Kootenai Tribes. With this coordination, including additional information provided in the EA Addendum and additional updates to the plans, it is understood by MDT that the items in the November 18, 1998 letter are adequately addressed.



Joseph E. Dupuis - Executive Secretary
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MASTER FILE
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TRIBAL COUNCIL MEMBERS:

† Michael T. Pablo - Chairman
D. Fred Mitt - Vice Chairman
Carole J. Lankford - Secretary
Wm. Joseph Moran - Treasurer
† Donald "Donny" Dupuis
Michael Durgio, Jr.
Jami Harrel
Mary Lefthand
Elmer "Sonny" Morigneau
Lloyd D. Irvine

December 27, 1999

RECEIVED

DEC 29 1999

ENVIRONMENTAL

Mr. Joel Marshik
Environmental Services Manager
2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001

RE: Comments on the proposed Dixon-West and Paradise-East project environmental assessment.

Dear Mr. Marshik,

The Confederated Salish and Kootenai Tribes have the following comments on the environmental assessment for the proposed Paradise-East (east section) and the Dixon- West road reconstruction project.

- As stated in the November 18, 1998 letter to James Weaver, The lower Flathead River corridor is an important cultural, subsistence and recreational area for the Tribes. The Tribes want to preserve and/or restore natural conditions in the corridor where possible. Therefore, the Tribes are looking for MDT to design and construct a project that will not diminish the aesthetic quality of the corridor and which, over time, will improve environmental conditions presently impacted by the presence of the highway. The Tribes currently understand that the design, as presented in the EA does very little to address this issue.
- The Confederated Salish and Kootenai Tribes Interim Forest Management Plan and the Lower Flathead River Corridor Management Plan discuss Highway 200 as being considered as a "Scenic Highway". The EA for the highway should also discuss the possible designation of Highway 200 as a "Scenic Highway".
- The Dixon-West project is not described specifically enough. There are no comparative maps to show existing alignment to the proposed build alternative.
- The Tribes request for scenic turnouts and interpretive signs has little discussion and only states that this would be considered. The Tribes would like to see a design with these included.
- The YPL pipeline no longer crosses the Flathead River as stated on p 22.

Wetlands

- Mitigation Measures (p42): add -no clearing or grubbing of wetlands will be allowed within the project right-of-way.

† In honor of the years of dedicated service to the Tribes by the late Michael T. Pablo, the position of Chairman will remain vacant until January 2000, with the Vice Chairman assuming the duties as provided by the CSR Constitution. With the untimely passing of Donald D. "Donny" Dupuis, CSR also provide this remembrance.

MDT has coordinated preparation of the EA Addendum closely with the Confederated Salish and Kootenai Tribes. It is understood that the items in the November 18, 1998 letter are adequately addressed. For the Dixon Build Alternative, preliminary construction plans are now in final stages of completion, and this issue is now adequately reflected in the design. The preliminary construction plans for the Paradise Minimum Build Alternative are in earlier stages of completion. In response to Tribal comments, the plans have been revised and updated to more adequately address this issue. MDT will continue to coordinate the design with Tribal staff.

Sections 3.5, Economics, and 3.24, Secondary and Cumulative Environmental Consequences, in the EA Addendum presents information about the National Scenic Byway Program and Montana's Scenic-Historic Byways Program.

Addendum Figure 2-1a, which compares the horizontal alignment of the Dixon Build Alternative with the existing roadway alignment, is included in the EA Addendum.

Substantial coordination has occurred with Tribal staff regarding scenic turnouts and interpretive signs, as noted in Section 3.6.3 of the EA Addendum.

An appropriate correction is made in Section 3.1.1 of the EA Addendum.

A clarification regarding clearing and grubbing in wetlands is included in Section 3.1.5.3 of the EA Addendum.

Montana Department of Transportation
Montana 200

- Mitigation Measures (p45): Change the third bullet to- Disturbed wetland and streamside areas will be revegetated with native plant material (drop "where practicable").

Wildlife

- The floodplain through which this project will occur within is a very important area for wildlife, including diverse habitats that host a wide variety of birds, mammals, amphibians, and reptiles. The document seems to largely ignore consideration of the floodplain impacts of the existing and proposed highway options. More thorough discussion of potential floodplain encroachment needs to be added.
- Healthy, reproducing black cottonwood communities are under stress and in decline along the lower Flathead River due to a combination of factors. The proposed project, whatever the option selected, should attempt to limit damage or loss of this habitat type if at all possible, especially along riparian areas to be bisected.
- On page 47 of the document, reference is made to three osprey nests in the project area. Several other nests occur annually within one-half mile of the existing or proposed rights-of-way. The potential for abandonment of nesting attempts exists with each of these, depending upon timing and types of disturbance within the area near the nests. In addition, the April through June "critical period" may not be adequate to mitigate for the possibility of abandonment when nests are subjected to disturbance. The Tribal Wildlife Management Program can provide additional and annually updated information on these nests, their activity and chronology and mitigation recommendations upon request, pending Tribal Council approval of release of such information. The importance of updating such information just prior to or during construction cannot be stressed too much in the face of potential taking of the nest by construction activities.
- The relatively low level of development and the extensive amount of agriculture land throughout the area causes it to be an important wildlife habitat linkage area. It serves as a travel corridor for big game, carnivora, and birds. Current observations by the Tribal Wildlife Management Program indicates that the highest area of use exists between Magpie and Revais Creeks by big game during the period of fall through summer, although year-round use occurs. Additional crossing of the floodplain by bighorn sheep and other big game species also occurs between Perma and the Reservation boundary.
- Although no discussion of construction of bridges over Magpie and Revais Creeks with reference to wildlife passage is included, it would be advisable to do so. Within the probable life of this project, areas near those drainages may become more important as wildlife travel corridors. To deal with that, construction of bridges with at least 8 feet of vertical height under the structure are recommended. In addition, re-seeding of and planting of native vegetation, especially native riparian vegetation in adjacent construction zones is recommended.

This has been done in Section 3.15.3 of the EA Addendum.

The 13 bullet items on Pages 2, 3 and 4 have been coordinated extensively with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service.

Section 3.15 in the EA Addendum has additional information about floodplains.

Section 3.15 in the EA Addendum has additional information about riparian areas.

Section 3.16 in the EA Addendum has additional information about osprey nests.

Refer to Sections 3.16 and 3.18 in the EA Addendum.

Refer to Sections 3.16, 3.17 and 3.18 in the EA Addendum.

Along the entire route, the need exists to consider the impact of the highway and any increase in traffic upon wildlife and vice versa. Currently, wildlife (especially large mammal) crossing is widely dispersed throughout the route, with a few concentration areas, such as those mentioned above. Care must be taken not to make highways along the route, as these will become barriers to wildlife migration, thus further concentrating animals into ever-smaller travel corridors. The design of clear zones may well reduce an area's use by wildlife due to a lack of cover. As a result, it will be advisable to revegetate disturbed areas not only with a herbaceous layer but also a shrub and tree layer. Such areas can be landscaped to both provide for motorist visibility of animals, as well as cover that will allow wildlife to utilize a wider area of the highway corridor for crossing.

Refer to Sections 3.16, 3.18 and 3.24 in the EA Addendum.

The potential for increased truck traffic discussed in the document is a cause for concern due to a likely increase in wildlife mortality. Signing, lower speed limits for trucks, and increased enforcement patrols may be required to attempt to limit this problem.

Refer to Sections 3.4 and 3.24 in the EA Addendum.

Under the discussion of bald eagle nests, the document either ignores or leaves out any reference to an active nest located within one-fourth of a mile of the highway right-of-way. Although it is near the end of the Paradise section of the project, it has the highest potential for disturbance by construction activities. Consideration needs to extend to this site with regard to disturbance reduction, timing of impacts, gravel mining, blasting, etc. Although the nest site near the Ferry Island area is discussed, the potential for disturbance of the site due to blasting definitely exists, and mitigation plans for this impact are not very well-detailed. The Tribal Wildlife Management Program does not concur with the document's No Effect conclusion with regard to bald eagles.

MDT coordinated mitigation measures for bald eagles with the Tribal Wildlife Program Manager, who has provided concurrence with the determinations of effect in the BRR. Sections 3.16 and 3.18 in the EA Addendum have additional information about bald eagles.

Past highway reconstruction projects by MDT have sometimes failed to revisit the project areas just prior to the onset of construction activities, thus sometimes failing to update wildlife information. The need to do so cannot be stressed too much to avoid adverse impacts to nesting ospreys, bald eagles, peregrine falcons, and other species.

MDT and the Tribes will conduct ongoing coordination through design and construction. The coordination includes monitoring activities for wildlife discussed in Sections 3.16 and 3.18 of the EA Addendum.

With reference to grizzly bears, page 55 of the document discussed the Mission Mountains grizzly bear sub-population, but it makes no mention of the Cabinet-Yaak population. If bear numbers in either of these areas increase in the future, the Dixon-to-Paradise corridor may serve as an important travel corridor to allow bears to cross the Flathead River. The need to consider the potential for such use is important, and the project planners need to consider that use and attempt to leave the door open to it.

Refer to Sections 3.16, 3.18 and 3.24 in the EA Addendum.

The document discusses the use of the project area by gray wolves. While the nearest location of documented regular activity is the Ninemile Valley to the south, the Tribal Wildlife Management Program receives regular reports of observations of wolves along the south end of the Reservation. Additionally, wolf use of the Flathead floodplain has been verified in the recent past. The potential for vehicle collision is not given much attention in the document, but it should be.

Refer to Sections 3.16, 3.18 and 3.24 in the EA Addendum.

Montana Department of Transportation
Montana 200

- Overall, the conclusion of the Biological Resources Report that the proposed project is not likely to affect the bald eagle, peregrine falcon, gray wolf and grizzly bear is hard to accept, given the potential for nest disturbance, travel corridor disruption, and direct highway mortality.
- Tribal Wildlife Management Program personnel have conducted surveys for lynx, fisher and wolverines adjacent to the project area. No wolverines or wolverine sign have been detected, and only one fisher has been documented north of the Flathead River and northwest of Perma. Lynx have been detected in the upper elevations of both the Revais and Magpie Creek drainages. While the Dixon to Perma corridor of the proposed project will probably not be used regularly as a crossing area for these species, the Paradise to Perma corridor does have somewhat higher potential for use.

The Tribes feel that the issues mentioned are very important. We would like to see a designed alternative that would incorporate our requests. The issues identified by Tribal Staff need to be addressed before we proceed with finalizing the easement for right-of-way.

Again, thank you for your time and efforts. We look forward to continuing work with the MDT on this project.

Sincerely,



D. Fred Matt
Vice Chairman, Tribal Council
Confederated Salish and Kootenai Tribes

cc: Janice Brown, FHWA
James Weaver, MDT

MDT coordinated mitigation measures for threatened and endangered species with the Tribal Wildlife Program Manager, who has provided concurrence with the determinations of effect in the BRR. Refer to Sections 3.16, 3.18 and 3.24 in the EA Addendum.

Sections 3.16 and 3.18 in the EA Addendum include this information.

Since publication of the EA, extensive additional discussion and coordination have been conducted with Tribal staff. Preliminary construction plans for the Preferred Alternatives have been updated and revised to reflect these discussions and to incorporate information in comments from the Tribes.

RECEIVED

Forest Service

200 East Broadway
P. O. Box 7669
Missoula, MT 59807

JAN 04 2000

ENVIRONMENTAL Date: 12/15/99

File Code: 2670
Route To: *

Subject: Carnivore Habitat Connectivity and Proposed Hwy 200 Reconstruction (EA)

To: Mr. Marvin Dye, Director
Montana Department of Transportation
Helena, MT

cc: Reconstruction
Missoula District
Joel Marshibe

F-STPP 6-1 (30) 91
DIXON - W E T

The effects of highways on wildlife is a growing concern. Of particular concern in Western Montana is the effects on rare carnivores such as grizzly bears, wolves, lynx, wolverine and fisher. Based on this concern, I have recently provided a number of professional papers and presentations at the International Conference on Wildlife Ecology and Transportation - the most recent was held in September in Missoula. In a paper entitled "Restoration of Carnivore Habitat Connectivity in the Northern Rocky Mountains" (see enclosed) the authors reviewed "key linkage areas" to maintain habitat and population connectivity. The basis for the analysis we did is explained in the paper - as are a highway by highway assessment of specific highway segments (Tables 1-4) and a subset of "High Priority Key Linkage Areas." Maps are also provided of Montana, Idaho and Wyoming (Figures 2, 3 and 4) and High Priority Key Linkage Areas (Figure 5).

Several sections of Highway 200 are considered Key Linkage Areas, and the Section from Dixon to the Idaho border is considered "High Priority." The proposed sections being considered for reconstruction should consider the importance of carnivore habitat connectivity in the Environmental Assessment or Statement. I have not been able to review a draft copy of the EA at this time. This portion of Highway 200 provides both a serious habitat fragmentation for rare carnivores and an opportunity to correct or mitigate the problem. Highway 200 transects the Flathead and Clark Fork River valleys that separate the Cabinet Mountains to the North and the Bitterroot Mountains and Nine Mile Divide to the south. Connectivity is possible with the Northern Continental Divide is possible via Ravalli Canyon and Evaro Hill, two important segments on Highway 93.

The Key Linkage Area concept we developed was based on using National Forest, and other Federal and State lands as much as possible. This was to minimize the impacts on private lands. However, where Federal and State lands did not provide habitat connectivity, some "critical private lands" were included. The criteria used to assess the importance of a particular highway or segment where: 1. Whether or not there were 4-lanes. 2. Whether or not there was a high volume of traffic. 3. Whether or not there was a high potential for upgrading. 4. The existence of a railroad paralleling. 5. Whether or not critical private lands are involved.

In the Dixon to Idaho Border portions of Highway 200 (3 segments) there were 1. High and increasing traffic density. 2. High potential for upgrading. 3. Railroad paralleling and 4. Critical private lands. Meeting these criteria resulted in Highway 200 rating as a "High Priority Key

These comments and information regarding habitat connectivity and other wildlife issues are appreciated. They, along with the referenced paper, have been thoroughly reviewed and incorporated in project design. In addition and as a result of these comments, a coordination meeting was held involving Mr. Ruediger, other representatives of the US Forest Service, representatives of the US Fish and Wildlife Service, representatives of MDT and a representative of the Confederated Salish and Kootenai Tribes. Appropriate mitigation measures were discussed, including appropriate wildlife crossing sites and structures. These are discussed in Sections 3.17 and 3.18 of the EA Addendum.

Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. MDT coordinated analysis of wildlife crossing areas with the CSKT Wildlife and Fisheries Program managers; the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, Plams / Thompson Falls District Wildlife Biologist, and USFWS Ecological Services. Sections 3.15.3, 3.16.3, 3.17.3, and 3.18.3 present mitigation measures for impacts on wildlife movement, habitat, and mortality. The mitigation measures include maintenance of existing bridges, construction of two wildlife underpasses for large mammals, and minimization of vegetation clearing.



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Linkage Area." Only about 29% of the key linkage areas in the Montana, Idaho and Wyoming area rated as "High Priority."

The analysis that Jim Claar, Jay Gore and I did was for the Northern Rocky Mountains. We explain why it is important to have a geographic area perspective on looking at highways and other "large scale" impacts. The importance of looking at the geographic area is that it provides a perspective on what is important over a broad area.

The next scale that is important is the entire highway. Not the segments, but the entire highway. This scale is important so that land managers and highway departments can find the best locations over the entire highway to provide habitat connectivity. Dr. Chris Servheen has developed an excellent model for looking at entire highways and has already done work on highway 200. I consider Dr. Servheen's approach a critical piece of the puzzle (habitat connectivity). Dr. Servheen's habitat model will help determine areas that have a higher potential to provide connectivity. I would suggest that the entire Highway 200 from Dixon to the Idaho border be assessed by Dr. Servheen, with help from biologists from the Salish-Kootenai Tribe, National Forest biologists, Montana DOT, Fish and Wildlife Service and Montana FWP's. Most of the land to the north and south, or east, are either National Forest or tribal. This group would provide a sound technical basis for the importance of various segments of Highway 200. I suggest a meeting between these agency biologist should be coordinated by MDOT or the Salish-Kootenai Tribe.

Last, site specific information needs to be collected on road kills (not only rare carnivores, but deer, elk, black bears and other species), species habitats, riparian corridors, vegetation type and density, topography and locations where wildlife is presently crossing, or trying to cross the highway. This provides site specific locations for wildlife crossing facilities. The specific design of crossing structures would need to be designed by MDOT engineers. The 4x6 meter underpasses used on the Trans-Canada Highway seem to be the minimal starting point if, bears, wolves, elk and deer are expected to use them.

Another factor that should be considered is acquisition or easements across private lands that are critical for habitat connectivity. This could be part of the mitigation for the impacts the present and proposed highway.

Another point that may be important is that in the recent Draft Lynx Conservation Assessment and Strategy (DLCAS), highways are considered an important risk factor to lynx, affecting both habitat fragmentation (dispersal and use of home ranges) and mortality. Coordination standards are provided, and would be used if the highway were crossing National Forest lands. Whether or not we (USFS) meet these standards would influence the determination of affect in the Biological Assessment for projects. The DLCAS was developed by the US Forest Service, Bureau of Land Management, US Fish and Wildlife Service and National Park Service to coordinate projects on these lands with lynx. The DLCAS uses the recently developed "Lynx Science Reports" as its basis. These reports can be found on the Internet under US Fish and Wildlife Service.

I look forward to working with MDOT on the issues of habitat connectivity and wildlife crossing structures.

Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. MDT coordinated analysis of wildlife crossing areas with the CSKT Wildlife and Fisheries Program managers; the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, Platts / Thompson Falls District Wildlife Biologist; and USFWS Ecological Services. Sections 3.15.3, 3.16.3, 3.17.3, and 3.18.3 present mitigation measures for impacts on wildlife movement, habitat, and mortality. The mitigation measures include maintenance of existing bridges, construction of two wildlife underpasses for large mammals, and minimization of vegetation clearing.

Refer to Sections 3.16 and 3.18 in the EA Addendum.

The Montana Department of Transportation is participating in ongoing regional interagency planning efforts relative to wildlife habitat linkage areas.

The Montana Department of Transportation is participating in ongoing regional interagency planning efforts relative to wildlife habitat linkage areas.



William C. Ruediger, Endangered Species Program Leader

RESPONSE TO COMMENT NO. 3

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File Code: 2750

Date: January 6, 2000

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JAN 11 2000

ENVIRONMENTAL

Joel M. Marshik, P.E., Manager
Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik

In response to your November 23, 1999 letter requesting comments on the Environmental Assessment for STPP6-1(36)85 Paradise-East and STPP6-1(30)99 Dixon-West, the following comment is provided:

Page 34, Section 4(f) of the U.S. Department of Transportation Act item d. Please refer to our letter in response to your original solicitation of comments, both letters in the Appendix section. We identified the small segment of Lolo National Forest land in the Paradise-East project as Section 4(f) lands from the description you provided. The statement in the EA on page 34 that "the proposed action would not affect any publicly owned...or publicly administered multiple use lands, except the traditional cultural property in the Dixon Section." appears to be in error in that it does not recognize or identify impacts to the small National Forest land segment in the project.

Thank you for the opportunity to comment on this environmental assessment.


DEBORAH L. R. AUSTIN
Forest Supervisor

cc: Jim Weaver - Missoula
Susan Kilwein - Missoula
Barry Brooker
Morrison Macale

The provisions of Section 4(f) of the 1966 U.S. Department of Transportation Act (49 U.S.C. 303) apply to any FHWA-funded action when it affects the following:

- a. Publicly-owned parks and/or recreation areas;
- b. Publicly-owned wildlife/waterfowl refuges;
- c. Sites in- or eligible-for-listing in the National Register of Historic Places under Section 106 of the National Historic Preservation Act (16 U.S.C. 470);
- d. Public lands managed for multiple-use with specifically-designated recreational or wildlife/waterfowl management site(s), and under statute(s) providing for same. This applies only to the same specific site(s).

None of the criteria above apply to this land. Publicly owned land is considered to be a park, recreation area or wildlife and waterfowl refuge when the land has been officially designated as such or when it is determined that one of its major purposes or functions is for park, recreation or refuge purposes. No such designations or determinations have been made for this parcel. Incidental, secondary, occasional or dispersed recreational activities do not constitute a major purpose.





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JAN MONTANA DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL

Comment Form

Project: Paradise - E. (East Section) & Dixon - West
Project Number: STPP 6-1(36) and STPP 6-1(30)99
Control Number: 1011 & C891

You are invited to make your comments on this form and leave it with the meeting officials or take it with you and mail it to Jim Weaver, District Administrator, PO Box 7039, Missoula, MT 59807-7039 by December 29, 1999.

Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS:

*Jim Patton Sanders Co. Commissioner
Eastern District, Box 579 Court House Thompson Falls 59873*

COMMENTS:

The Dixon West turnoff has been studied and commented on long enough. Lets start getting rid of those terrible narrow curves in the year 2000. If the Perma turnoff to Hwy 382 was widened and the signs improved, more truck traffic would use this route to Hwy 93 and north summing the traffic Hwy 212. The past few years we have had an increase in traffic along Hwy 28 avoiding the congestion through Ronan, Polen and the Getch Lake road belt.

Section 3.4 in the EA Addendum has additional information regarding patterns of truck traffic. The proposed project would replace an existing two-lane highway with a new two-lane highway with improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements.

Cumulative impacts of the proposed action and other projects to improve the network of MT200, MT28, SR382, SR212 and US93 would result in a more efficient transportation system that improves convenience and desirability of travel. The network of improved highways would reduce travel time throughout the Flathead region and in the project area served by MT200's Dixon and Paradise sections.





BOARD OF COUNTY COMMISSIONERS
200 W BROADWAY ST
MISSOULA MT 59802-4292

PHONE: (406) 523-4877
FAX: (406) 721-4043

BCC-2000-030

January 26, 2000

Joel Marshik
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, Montana 59602-1001

RECEIVED
JAN 27 2000
ENVIRONMENTAL

Subject: Highway 200 Environmental Assessment(EA)

Dear Mr. Marshik:

While reviewing the EA for the Highway 200 project, it became apparent to me that that level of environmental review is inadequate given the scope of the proposed work. Proposed improvements would increase capacities and travel speeds to the extent that in my opinion, truck and automobile traffic would be induced to levels not adequately discussed in the EA.

When the route was used as an I-90 bypass during the chlorine spill in Alberton a few years ago, we became aware of the traffic conflicts which arose due to the increase in truck traffic. This proposal will invite conflicts because of probable increases in truck traffic. Since this is not a limited access highway, those conflicts are likely to result in a higher level of injury and possibly fatal accidents. The EA is not the review vehicle for discussion of that kind of impact.

Highway 200 has a unique character which is threatened by this proposal. Those threats are inadequately discussed in the EA. Discussion of those "character" issues would only occur within an Environmental Impact Statement process including a scoping process which would indicate the proper issues of concern and study. The EA is deficient in this regard and prevents analysis of legitimate issues.

The proposal seems to support the notion that the improvements are needed to facilitate and promote Origin/Destination traffic where the origins and destinations are beyond the bounds of the project boundaries without consideration to the effects within the boundaries. The EA appears biased in that direction and therefore cannot be read as an objective document. The purpose of the EA is to allow an environmental review on a proposal with minor effects such as some maintenance projects. It was not intended to address substantive issues on substantive projects where major impacts are probable. I believe this project demands an Environmental Impact Statement and I respectfully request that one be conducted.

Sincerely,  Michael Kennedy, Commissioner

The proposed projects would replace an existing two-lane highway with an improved two-lane highway having improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that substantial increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements. Additional information is included in Section 3.4 of the EA Addendum.

The safety features that are integral with the Preferred Alternatives will help reduce highway accidents of all types, including those involving hazardous materials.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

The decision as to the proper scope of an environmental document requires a balance of concerns. The scope of analysis needs to be sufficiently broad and comprehensive to avoid segmentation, where analysis of small projects does not disclose potential for environmental consequences affecting larger areas. Conversely, a scope of analysis that attempts to include a broad region could lack the focus necessary to adequately evaluate relevant and unique characteristics and conditions in smaller, cohesive areas of effect.

MDT has completed environmental analyses for other projects on MT200, US93, and other highways throughout western Montana. For example, MDT completed environmental impact statements and FHWA approved records of decision, for projects on US93 between Evaro and Polson in 1996 and Hamilton and Lolo in 1997. It is appropriate that these other projects, as well as the proposed projects, have been analyzed in separate environmental documents. Given what is said herein concerning the need to balance various considerations as to the geographic scope of the analysis, the scope of the present document, and of the other documents mentioned, is appropriate. It also is appropriate because each of such documents considers projects that neither are dependent on the other actions, nor are they independent parts of a larger action (40 CFR 1.508.25) "



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4878

REPLY TO
ATTENTION OF

January 31, 2000

US Army Corps of Engineers
Helena Regulatory Office
301 South Park Avenue, Drawer 10014
Helena, Montana 59626-0014
Phone: (406) 441-1375
Fax: (406) 441-1380

Subject: Action ID Number 2000-90-011
Paradise - East & Dixon - West
MDT Control Numbers 1011 & C891
Comments on Environmental Assessment

Montana Department of Transportation
Environmental Services
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Attention: Joel M. Marsliik, Manager

Dear Mr. Marsliik:

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ENVIRONMENTAL

This letter provides comments on the Environmental Assessment (EA) for the subject projects. The identification number listed to the left of each comment corresponds to the pertinent section of the EA.

Section 1.1:

After reading the final paragraph of this section, it was unclear if alternate designs with lower design speeds have been or will be considered. Would (or could) a roadway with a lower design speed meet design guidelines and standards, etc.? A similar comment was made by the Flathead Resource Organization on November 30, 1998 and is included in Appendix D of the EA.

Section 2.5:

Please clarify whether the Paradise Minimum Build and the Dixon Build alternatives are the MDT FHWA preferred alternatives or the preferred alternatives with respect to environmental impacts and tribal concerns.

Section 3.15.3:

In agreement with the November 18, 1998 comments submitted by the Confederated Salish and Kootenai Tribes and included in Appendix D of the EA, it is recommended that the use of steeper fill slopes (i.e., 2H:1V) with guardrail be investigated where wetland fills are proposed.



The Paradise Minimum Build Alternative includes several design exceptions for horizontal curves with design speeds lower than 100 km/h (60 mph). Chapter 2 in the EA discusses alternatives. Section 2.6 in the EA Addendum discusses the proposal from the Flathead Resource Organization (letter dated November 30, 1998). The proposal presents a number of suggested design features and mitigation measures. The letter is included in the EA, Appendix D.

The Dixon Build and Paradise Minimum Build alternatives are the preferred alternatives of the Montana Department of Transportation and the Federal Highway Administration.

This has been done, in coordination with Confederated Salish and Kootenai Tribes.

Section 3.17.2: Impacts of the Dixon Build alternative on the aquatic resources need to be discussed.

Sections 3.17 & 3.18: The Corps is concerned about the cumulative impacts to the aquatic environment and threatened and endangered species. Because the roadway closely parallels the river on both projects, the proposed work will impact most of the left bank tributaries of the Flathead River for a total of 15.0 miles (5.2 + 9.8 miles). Any work proposed for these tributaries involves potential habitat for bull trout, a federally listed (threatened) species. While there may be little or no documentation on the presence of this species in the creeks themselves, the proposed work must not present migration barriers or undesirable habitat conditions for bull trout.

Sections 3.17.3 & 3.18.3: It is recommended that all of the creek crossings be designed in such a way that fish passage is accommodated. This can be done with the use of bridges, open bottom structures, or oversized culverts set below the stream inverts to allow for streambed fill (with backfill retainers) inside the culvert. Culverts set at the stream thalweg elevations may provide unacceptable flow conditions during periods of low water. If culverts are allowed for use, it is also recommended that fill slopes be steepened in the vicinity of culvert stream crossings designed for fish passage. This will shorten the length of culvert required.

Section 3.18.2: Channel losses at stream crossings resulting from the placement of fill will be evaluated on a case by case basis. It is possible that bridges or open bottom structures may be required due to the combination of fish passage concerns and habitat loss/modification that would occur as a direct result of using culverts at stream crossings.

The US Army Corps of Engineers appreciated the opportunity to comment on the E.A. Please feel free to call me at (406) 441-1375 if you have any questions or would like to discuss these matters further.

Sincerely,



Todd N. Tilling, P.E.
Helena Regulatory Office

Cc: Scott Jackson - US Fish & Wildlife Service, Helena, MT

This is done in Section 3.17.2 of the EA Addendum.

Additional information is provided in Section 3.18 of the EA Addendum. The proposed project has been coordinated with and evaluated by the US Fish and Wildlife Service, the Montana Department of Fish, Wildlife and Parks and the Confederated Salish and Kootenai Tribes. A determination of may affect, not likely to adversely affect has been rendered with regard to the bull trout.

As indicated in Sections 3.17.3 and 3.18.3 of the EA Addendum, this will be done. For the Build Alternatives, culverts at Maggie Spring, Burgess, Robertson, and Wilson creeks will be installed at existing grades (not perched) and will be designed to allow upstream fish passage during periods of adequate flow. This will minimize effects to fish movement and may benefit fish over existing conditions. The existing bridges at Ravais and Maggie creeks will be used in place. At Gundersen Creek, the Tribes have requested that blockage be maintained in order to maintain the genetic integrity of a westslope cutthroat population occurring upstream of the highway.

Sections 3.17.3 and 3.18.3 of the EA Addendum provide information about structures for fish passage and wildlife crossing.



Salish Kootenai College

Box 117
 Pablo, Montana 59835
 (406) 675-4800

24 December 1999

Joel Marschik
 Manager, Environmental Services,
 Montana Department of Transportation
 2701 Prospect
 Box 201001
 Helena, MT 59620-1001

Dear Mr. Marschik:

I am writing to express my concern regards the EA for the proposed reconstruction of Highway 200 from Dixon to Paradise. Specifically, I would like to address several issues related to amphibians and their associated habitat along the highway corridor.

Between 1993-1995, several students from Salish Kootenai College and myself undertook a general herpetological survey of the area, referred to in your EA. I would like to underscore that this was a general survey of the entire Flathead Reservation and not a detailed investigation of any one particular area. Several problems surfaced during that study which pertain to the highway corridor and warrant further investigation. I would like to update you on those issues.

1. *Bufo boreas* (Western toad): The Western toad is distributed throughout the western U.S. and Canadian provinces and is the only toad species in Montana west of the continental divide. This species is currently undergoing major declines throughout much of its range. In the southern portion (New Mexico, Colorado and Wyoming), where more data is currently available, it has been petitioned to be listed under the Federal Endangered Species Act as a protected species. In Colorado, it is on the state's endangered species list. In Montana and Idaho, it has been placed in the U.S. Forest Region One sensitive species category. On the Reservation, our 1993-97 surveys showed only 7 reproductive sites among a total of 19 sightings. The investigations included re-surveys of 9 historical sites dating back to the early 1900's; only five of which showed toads present. Two additional breeding sites were found in 1998, one of which is in the Highway 200 Corridor near Perma. Concerned about these results, myself

The substantial information provided in this letter is appreciated and has been incorporated in the EA Addendum. Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. Relevant sections in the EA Addendum discuss wildlife mortality, wildlife crossing the highway, and wildlife corridors. MDT has coordinated mitigation of impacts on wildlife with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service, which have jurisdiction in the project area.

and another SKC student re-surveyed all of the known toad breeding areas during the summer of 1999 under contract with the Salish and Kootenai Tribal Wildlife Division*. Breeding (eggs/tadpoles) occurred at only 4 sites and no new breeding areas were found. At this point, we are extremely concerned about the future of the Western toad on the Reservation (and in western Montana). Consequently, I believe there should be a thorough survey of all the wetlands along the highway corridor before any disturbance is undertaken. The toad is a highly terrestrial species. It is associated with ponds/wetlands primarily during the breeding season but also spends considerable time feeding in forested regions, often a mile or two from breeding ponds. As the breeding population dwindles, the necessity of maintaining wetland corridors and undisturbed areas becomes tantamount to its survival.

2. *Rana pipiens* (Northern Leopard Frog). As pointed out in the 1993-97 surveys, we were unable to locate a single leopard frog on the Reservation even though it was known to be present from a half dozen historical records. The last sighting was the early 1980's near Ninepipes Reservoir. Despite the survey results, I have been reluctant to say the species is extirpated because of its' secretive nature and given the fact that detailed surveys have not been done in many areas. Additional surveys in 1998-99 failed to find Leopard frogs. Nevertheless, in the Fall of 1999, a juvenile leopard frog was found by a local high school student at the northeastern edge of the Reservation near Yellow Bay. Like the Western toad, the Leopard frog has undergone severe declines throughout its range, including in western Montana, and has been placed in the sensitive species category for Region One of the U.S. Forest Service. Given this information, I would emphasize again the need for a thorough survey of the highway corridor before undertaking highway construction. It is possible small populations of the species may be surviving in some of the wetlands and hence would represent one of the few populations left in the area. It would be a tragedy if the last known population of the reservation was exterminated without even bothering to assess it's current status.

3. *Plethodon idahoensis* (Coeur d'Alene salamander). This species has not been found on the Flathead Reservation, however, it was our contention based on the 1993-97 surveys, that populations could be occupying the Seepay-Burgess-Robinson Creek drainages along the extreme southwestern edge of the Reservation in the Highway 200 Corridor. This contention was based on the proximity of the area to known populations along Hwy 135

Section 3.16.3 in the EA Addendum discusses pre-construction surveys that will be conducted for the western toad.

Section 3.16.3 in the EA Addendum discusses pre-construction surveys that will be conducted for the northern leopard frog.

near Siegel Creek and the similarity of habitat among the drainages. The Coeur d'Alene salamander was recently removed from the U.S. Forest Region One sensitive species list but it remains uncommon within its range. The prior listing was based both on its uncommon occurrence and specific habitat requirements, i.e. it is found only in rocky seeps and waterfall spray areas associated with steep mountain terrain. The species was found in seep areas associated with steep rock cuts resulting from highway construction, on U.S. 2 west of Libby and the FS Highway along the west side of Lake Koocanusa. In the case of the U.S. 2 reconstruction west of Libby, many of the salamanders were collected and translocated prior to blasting and reconstruction. It is difficult to say exactly what impact the translocation had on existing populations, but it took place only because prior surveys had established its presence in the area. Hence, a more thorough analysis of the situation along the Seepay/Robinson Creek drainages would be highly desirable.

I hope this information will be of help to you. I am not personally opposed to the Highway 200 improvement project but I feel there is ample reason for a more thorough assessment of the projects' impact, particularly on these amphibian species.

Sincerely,



J. Kirwin Werner Ph.D.
Research Associate
Salish Kootenai College

*I don't have authority to distribute this report, but I'm quite certain a copy can be obtained from Dale Becker, Program Manager, Salish and Kootenai Tribal Wildlife, P.O. Box 278, Pablo, MT. Tel 406-675-2700

✓ cc: Janice Brown
Administrator, Montana Division Federal Highway Administration
2880 Skyway Drive
Helena, MT 59620

Section 3.16.3 in the EA Addendum discusses pre-construction surveys that will be conducted for the Coeur d'Alene salamander.



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Northern Rockies Office

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RESPONSE TO COMMENT NO. 9

December 28, 1999

Mr. Joel M. Marshik
Montana Dept. of Transportation
Environmental Services
2701 Prospect Avenue
Helena, MT 59620-1001

RECEIVED
DEC 30 1999
ENVIRONMENTAL

RE: Comments on STPP 6-1(30)85 Paradise-east (PMS Control # 1011) and STPP 6-1(30)99 Dixon-west (PMS Control No. C891)

Dear Mr. Marshik:

This letter offers our comments on the proposed improvements for the Dixon-west and Paradise-east sections of Highway 200 in Sanders County, Montana. In preparing these comments we have read the Environmental Assessment (EA) approved for distribution on 11/9/99 and the Biological Resources Report (BRR) dated July 14, 1999. These comments are being faxed to you today, as well as mailed.

Our comments are further based on our personal knowledge of the area. Based on this experience, we believe the project area bisects an important transportation corridor for numerous species of wildlife. We recognize that our personal experience is no substitute for systematically-collected information, but since such data are not presented in the EA, it must form the basis of our comments on impacts of the project on wildlife movements. We believe the BRR and the EA are inadequate in its analysis of the impacts of the proposed projects on movements of numerous wildlife species including deer, elk, grizzly bears, black bears, fish, lynx, wolves, wolverine, small mammals, falcons and other raptors, herptiles, and others. Available expert information on wolf and grizzly bear movements in the area and the importance of the area for numerous species of falcons have not been incorporated into the analysis of project impacts.

With reference to listed species, Section 7(n)(1) of the Endangered Species Act requires agencies to do more than avoid jeopardy to listed species in their actions. This section specifies that agencies must be proactive in helping listed species recover. The project in question is in an area identified by the US Fish and Wildlife Service as a linkage zone for grizzly bears, classified as threatened, between the Cabinet-Yaak Ecosystem and the proposed recovery zone in the Bitterroots. The area is also in the linkage zone between the Cabinet-Yaak recovery area and grizzly populations in the Mission Mountains. The area is also used by wolves, classified as endangered, in movements to the area occupied by the Ninemile pack. The existing EA is

Comment noted.

Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for wildlife. Relevant sections in the EA Addendum discuss wildlife mortality, wildlife crossing the highway, and wildlife corridors. MDT has coordinated mitigation of impacts on wildlife with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service, which have jurisdiction in the project area.

Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for wildlife. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species. Section 2.5 in the EA discusses the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build). Appendix D, Project Correspondence, in the EA Addendum has a copy of the U.S. Fish and Wildlife Service's letter of concurrence with determinations of effect in the Biological Resources Report.

inadequate in identifying impacts the project would have on inhibiting movements and vital connectivity for populations of these listed species. Appropriate recognition of the importance of the Highway 200 corridor to wildlife movement would require installation of wildlife underpasses capable of accommodating large animals like elk, deer, and bears in areas such as Revals Creek. It would also require consideration of tunnels under ridges and acquiring easements adjacent to important wildlife crossing sites, especially the man-made ones, to avoid development of barriers to wildlife using the crossing site.

The EA is further deficient in the absence of any analysis of the cumulative effects of highway improvement projects on wildlife movements. Use of a narrow focus on numerous individual projects results in loss of the big picture of the cumulative effects of these projects on wildlife habitat, especially in critically important linkage zones. Absent a cumulative effects analysis, the available habitat in linkage zones gets progressively fragmented into ever smaller pieces until, ultimately, former linkage zones become barriers to wildlife movements. Previous and proposed improvements on Highway 200, as well as on Highways 212, 135, and 93, all contribute or will contribute to this fragmentation of wildlife habitat.

Further, although not explicitly stated, it is clear that the design specification for the proposed improvements were developed to facilitate and encourage increased use of Highway 200 by large trucks. These specifications for the Build Alternative result in wider shoulders and higher perches than would be needed to enhance safety for local automotive traffic. However, the EA is notably deficient in any analysis of the social, safety, biological, or aesthetic implications of encouraging increased use of Highway 200 by large trucks. It is our view that it is inappropriate to convert Highways 200, 135, and 212 into preferred routes for large trucks just because it may be a shorter and quicker route preferred by freight haulers. If the Montana DOT wants to convert rural highways in this state into truck arterials, then this objective should be clearly stated and debated by Montana citizens rather than hidden in obscure specifications. If only minimal improvements are needed to enhance safety for existing traffic, our preference is to encourage freight traffic to use the I-90 and Highway 93 route, rather than providing shortcuts through rural agrarian areas that are more important for wildlife, rural residents, visitors, and recreationists.

For the Build Alternative for Paradise, page 16 of the BRR "strongly" recommends installation of six-meter, day-lit box culverts to convey Wilson Creek and Robertson Creek. These culverts are recommended to facilitate movements of bears, as well as fish, deer, smaller mammals, and herptiles. This recommendation was not included in the EA (page 53). We recommend that these provisions for wildlife passage be included for the build and minimum build alternatives in, at least, these two important sites. Table 5 of the BRR indicates the Proposed Build Alternative would virtually eliminate fish passage over existing conditions. Although it is unclear how much fish passage is currently occurring, the proposed project should occur in a way that does not preclude fish passage.

Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. MDT coordinated analysis of wildlife crossing areas with the CSKT Wildlife and Fisheries Program managers, the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, Plains / Thompson Falls District Wildlife Biologist, and USFWS Ecological Services. Sections 3.15.3, 3.16.3, 3.17.3, and 3.18.3 present mitigation measures for impacts on wildlife movement, habitat, and mortality. The mitigation measures include maintenance of existing bridges, construction of two wildlife underpasses for large mammals, and minimization of vegetation clearing.

Section 3.24, Secondary and Cumulative, in the EA Addendum has new information about other projects and cumulative effects.

As indicated in Section 1.2.1 of the Environmental Assessment (EA), MT 200 in this area is functionally classified as a rural minor arterial. No changes in this classification are expected. As indicated in Section 1.2 of the EA, a design speed of 100 km/h (60 mph) is considered appropriate, based on this classification and on existing and projected traffic volumes and characteristics, existing terrain, and historic highway speeds. The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of long-standing, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

Section 3.4 in the EA Addendum has additional information regarding patterns of truck traffic. The proposed project would replace an existing two-lane highway with a new two-lane highway with improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements.

Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for fish and wildlife. MDT will design structures to allow wildlife crossing and fish passage at stream crossings, including Robertson, Wilson, Burgess, and Magpie Spring creeks. The proposed project would not replace existing bridges crossing Revals and Magpie creeks.

RESPONSE TO COMMENT NO. 9


Mr. Joel M. Marshik
December 28, 1999
Page 3


The BRR identifies mid-March and late April as key periods when west-slope cutthroat may spawn in tributary creeks affected by the project and recommends implementation of passage design measures designed to benefit this species at this time (page 23). No such passage design measures are identified in the EA beyond installation at existing grades and consideration of bottomless culverts (p. 52). We recommend use of bottomless culverts at all culvert replacements at Gunderson, Maggie Spring, Burgess, Robertson, and Wilson Creeks. Because west-slope cutthroat are a depleted species currently being reviewed for listing under the ESA, every effort should be made to avoid adverse impacts. Use of bottomless culverts will also facilitate passage of other fish species during periods of low flow.

In addition to the comments made above, the National Wildlife Federation asks to be recognized as agreeing with the comments made by the Flathead Resource Organization (dated Oct. 4 and Nov. 30, 1999) and by the Jocko River Conservation Society (dated Dec. 27, 1999).

Thank you for the opportunity to comment on this project.

Regards,


Thomas France, Esq.
Senior Counsel


Sterling Miller, Ph.D.
Senior Wildlife Biologist

As recommended in the BRR, as indicated in Section 3.17.3 (Page 53) of the EA, and as clarified in the EA Addendum, no construction would occur at these important tributaries during potential spawning periods for westslope cutthroat and bull trout. Bottomless culverts or open-bottomed arch culverts have not been used successfully in Montana – installation requires substantial excavation and extended curing periods for the required concrete footings. Construction impacts, particularly for smaller installations, are often greater than for conventional culverts. Culverts will be designed and installed to allow fish passage at stream crossings identified above. It may be appropriate in some areas to install oversized culverts (instead of open-bottom arch culverts) to provide fish passage.

Comment noted.

Jocko River Conservation Society

P.O. Box 630005, Ravalli, MT 59863
 protecting habitat and resources of the Jocko Drainage since 1987

Joel M. Maishnik
 Environmental Services
 Montana Department of Transportation
 Box 201001
 Helena, MT 59620-1001

Re: Comment on Environmental Assessment--Hwy 200 (Dixon-West and Paradise East)

This replaces the comment of December 12, 1999

RECEIVED

JAN 25 2000

January 17, 2000

ENVIRONMENTAL

Mr. Maishnik:

After a careful review of the Paradise-East and Dixon-West environmental assessment for Highway 200, we have identified several areas of concern as to the accuracy, scope and intent of the document. Our first and basic concern is that this leg of Highway 200 is classified in the Purpose and Need (1.3.1) as a "rural minor arterial" and serves "Sanders County and the southwest portion of the Reservation." If it is true that this road is primarily a rural residential road, why does it require a \$12 to \$14 million rebuild justified by truck safety? A less costly and disruptive project would serve the identified classification while correcting flaws and retaining the rural and wild character of the land.

On the other hand, it appears from justifications throughout the E.A. that the actual purpose of the project is to transform this rural route into a truck bypass between St. Regis and Ronan. If this is the case, why didn't the E.A. identify that goal and provide the level of impact information (full Environmental Impact Statement) that would allow communities and resource managers to anticipate and mitigate or cope with the inevitable impacts?

Central to the question of road classification and the attendant NEPA review is understanding that truck use of Highway 200 (and connectors 135 and 212) will increase with the recommended project. It is clear that the proposed project would vastly swell truck volume and speed, and more study is necessary to predict the impacts. Here are some areas that should be included in an appropriate study:

1. An origin-destination study starting on I-90 at St. Regis and Missoula to determine how much eastbound truck traffic has a destination of Ravalli and north. Most, if not all, of this traffic can be expected to use a shorter, faster 135-200 route.
2. Although the E.A. does include a distance and speed analysis (Sec. 3-4), our calculations differ from those provided. We found an approximately 50 mile difference by the 135-200-212 route over I-90 to Hwy 93, and a time savings of about one hour taking into account hills (Evaro, Ravalli, Post Creek) and

Prior comments are in the project files at the Montana Department of Transportation, Helena, Montana.

Section 1.2 of the EA documents the purpose and need for the proposed action including: importance of the highway; current and projected future use of the highway; geometric deficiencies; pavement conditions; maintenance requirements; accident history; driver expectancy; and compatibility with other nearby and area highways. MT200 is functionally classified as a rural minor arterial, in accordance with FHWA's "Highway Functional Classification Concepts, Criteria and Procedures."

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. Section 3.4, Social, in the EA has information about distance for travel. Section 3.4 in the EA Addendum has additional information about distance for travel and information about patterns of truck traffic.

As indicated in Section 3.4 of the EA and the EA Addendum, the savings in distance and time, the absence of any long, sustained grades, and the relatively high percentage of trucks (for a two-lane highway) already using this route indicate that most trucks traveling between St. Regis and the Flathead or Libby-Thompson Falls areas already use MT200.

Proposed improvements would improve safety and reduce travel time. MT200 would remain a two-lane highway, and no factors or conditions have been identified to indicate the proposed improvements would substantially increase truck traffic. No factors have been identified that indicated that speeds or volumes would increase significantly as a result of the proposed build alternatives.

The distances used in Section 3.4 in the EA are based on information in the Montana Road Log. These distances are based on actual surveys and design, which are usually more accurate than odometer readings or distance calculations from maps.

slow speeds and traffic conditions in towns (Arlee, Ravalli, St. Ignatius). Further study is required because these calculations will affect the volume and size of trucks using Highway 200 alternatives.

Safety: In the E.A.'s analysis (Sec 1.2.3), truck accidents through the study area are shown to be about twice the statewide average (1.92 to 1.01). However, cause and location of these accidents are not discussed. To our knowledge, trucks accidents (and in fact all accidents) are rare on the Gunderson Creek curves east of Maggie Creek; the Dixon-Perma section had 1.68 accidents per million vehicle miles compared to a 2.20 state average between 1986 and 1996. It would therefore appear that speed and convenience to truckers rather than safety are the actual motive for the drastic "maximum build" alternative at Gunderson. We wonder why the 50 mph design speed alignment at Robertson Creek is acceptable (MDOT's "minimum build" preferred alternative), but a similar alternative was not even considered in the Gunderson stretch. It is possible that the lower speeds currently posted at Gunderson Creek are a contributing factor to the relative safety of this stretch.

We would like to note the safety irony of this project: the best transportation strategies devised during the past decade have sought ways of getting freight off the highways, where it is costly and dangerous, and onto rails. Studies, including the recently-completed EIS on the Yellowstone Pipeline through the Lolo National Forest, have demonstrated that railroad transport of freight, especially hazardous materials, is much safer. However the effect of this project, which would publicly fund a faster and shorter highway for trucks, would fit in the face of national safety interests and energy saving priorities by making truck shipping more attractive than rail.

If the design speed is increased to 60 mph with posted truck speeds of 65 mph, the canyon section (Revais to Wilson Creeks) will actually become more hazardous during the winter. This canyon section, which is most of the project area, is set into a steep, north-facing slope which receives little sunlight for five or six months. The result is dangerous patches of packed snow, ice and black ice. These conditions are at present mitigated by slower speeds required by alignment and roadbed conditions. There are currently, for example few accidents in the Gunderson Creek curves during the winter because traffic slows for the obvious risks in the curves.

The slope cutting required by the Maximum Build Alternative could actually exacerbate the re-occurrence of slick road conditions because the steep slopes would extend the period of shading on the roadbed below. A Minimum Build Alternative in this area could actually make the road safer, and therefore should be examined.

Geology: The underlying geology has not been appropriately evaluated in the E.A. Geologist Don Winston says that the floor of the valley between Dixon and Revais Creeks is composed of very fine Lake Missoula silts and clays. These bed materials are extremely ductile, as can be seen in the slump-folds uphill of the floor. One of these slumps is the old Hwy 200 roadbed which had to be abandoned about 50 years ago after it collapsed. These soils constantly creep

Safety: The EA identifies several accident cluster areas including one between MD (RD) 104.3 to 104.8, which is just west of Gunderson Creek (MP 104.9). The EA indicates that many of these accidents involved single-vehicle, off-road collisions - the type of accidents that may be reduced by improving the horizontal alignment.

At Robertson Creek, for the Paradise Minimum Build Alternative, the existing roadway and proposed new roadway lie between high rock cliffs on the south and the Flathead River on the north. Constructing horizontal curves with a design speed of 60 mph is not practical and would have substantial additional environmental effects in the Robertson Creek area. In the Gunderson Creek area, terrain is gentle and rolling and the roadway is not adjacent to the river. Meeting the 60 mph design speed is not difficult in this area.

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

Representatives of the Yellowstone Pipeline Company indicate that product currently is shipped by rail because it is substantially more economical than shipment by truck. They expect these conditions to continue in the foreseeable future with or without the construction of the proposed build alternatives.

It is recognized that the existing Paradise Section and the proposed Paradise Minimum Build Alternative lie just north of substantial rock cuts. They are and would continue to be shaded during much of the day in the winter. Ice currently does and would continue to remain on the roadway in shaded areas. The proposed new roadway would have wider shoulders, better sight distance, better super-elevation and wider curves to help offset these safety concerns. Refer to comments above regarding accidents on the Gunderson Creek curves.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum.

Geology: MDT has completed geotechnical engineering evaluation for this project. The evaluation determined the proposed design is appropriate for existing geotechnical conditions. The evaluation did not identify any unusual conditions that would adversely affect highway construction or maintenance.

downhill, according to Winston, and will eventually slip beneath the fill of the roadbed. Therefore, building up the bed to create a flat vertical alignment west of Dixon is inevitably doomed. The bed will collapse into a series of dips and rolls.

Wildlife and Fish: The treatment of wildlife and threatened/endangered species in the E.A. is inaccurate, inept and short-sighted. Section 3.18 gives short shrift to a long list of threatened, endangered and sensitive species which it acknowledges are "present in the area" by issuing a finding that the project "may effect, not likely to adversely effect" these species. All of the fish and animals on the list, which should also include Coeur d'Alene Salamander and the wolverine, could and probably will be effected if not by direct impact of roadkill, then by the indirect effect of habitat fragmentation.

U.S. F.S. Northern Region Biologists, Bill Ruediger, Jim Claar and Jay Gore have identified virtually the entire span of this project as a key linkage area. They define key linkages as "critical areas where carnivore habitat connectivity is diminished, eliminated or at risk over time." The loss of these linkage areas, they explain, greatly reduces the possibility of recovery of adjacent population of these species by habitat fragmentation and genetic isolation.

The populations of these species acknowledged to be in the area should be studied intensively as to their year-round food, breeding and migratory habits, and plans should also be devised for a mitigation strategy. Such a strategy should include wildlife bridges, dedicated wildlife easements and protection/restoration of shrub-vegetated right-of-way. An innovative solution which could solve several problems in the Robertson Creek curves would be to tunnel through high, rock ribs rather than cutting through them. This would provide a level roadbed and wildlife passage on the rim of the rib.

There are a number of **outright errors** in the assessment of wildlife and fish, including:

1. The E.A. errs in its assessment of the value of this area to cutthroat trout. In fact, Revais, Maapie and Seepay Creeks all have been identified as habitats for rare and valuable genetically pure West Slope Cutthroat, and will be involved in a recovery strategy (according to Confederated Salish and Kootenai Tribal Fisheries Director Les Evert.
2. Instead of 2 osprey nests, there are actually 12-14 nests within the impact zone (as identified by E.A.'s examination of eagle nests). All of these nests, which have been active within the last 3 years, could be adversely affected by direct, indirect, and cumulative impacts of the highway and gravel pit construction.
3. There are at least two bald eagle nests near the right-of-way which could be affected.
4. Gray wolves have frequented the Ravalli-Perma area over the past six years, and it is possible that some dens exist in the Revais Creek drainage.
5. A wolverine was trapped recently in the Seigel Peak area which is the upper watershed of Robertson Creek. Others are known to inhabit the area.
6. The acknowledged grizzly presence in the area could be an essential link between the island population in the Cabinet-Yaak and the Mission

Wildlife and Fish: Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFWS linkage area proposal, was incorporated into the EA Addendum. The EA Addendum contains information regarding the presence of proposed and listed threatened and endangered species summarized from the BRR. This information was gathered from the CSKT Wildlife Program, CSKT Fisheries Program, the USFWS, MDFWP, the USFS, and other sources. Updates to this information have been incorporated in the EA Addendum. With respect to the build alternatives, impact assessment and mitigation (coordination) measures incorporated in the EA Addendum regarding these species were coordinated with the CSKT Wildlife and Fisheries Program managers: the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, and Plans / Thompson Falls District Wildlife Biologist, and USFWS Ecological Services.

An assessment of effects to threatened and endangered species was prepared within the BRR and submitted to the USFWS for concurrence in July 1999. The USFWS has concurred with the determination of effects made for these species. This assessment, however, did not include Spalding's catchfly, which was proposed for listing as a threatened species in December 1999. This species is addressed in the EA Addendum. The wolverine and Coeur d'Alene salamander, although not proposed or listed threatened or endangered species, are addressed in the BRR and in the EA Addendum.

A cost estimate indicates building a tunnel through the Robertson curves area would require a facility extending approximately 0.8 km (0.5 mi) and costing approximately \$40 million. Such a tunnel would have special requirements for lighting, ventilation and security. The cost of a tunnel would be difficult to justify on this highway. Table 3-9 in the EA indicates expected construction costs for the Preferred Alternatives would be between approximately \$800,000 and \$900,000 per mile. Based on results of ongoing coordination between MDT and the Tribes, it is expected the highway design will minimize effects from rock cuts and steep slopes. MDT and the Tribes plan to coordinate the design in this area to mitigate impacts to the rock face, wetlands, and the Flathead River.

The EA states that Revais and Maapie creeks "contain ... resident and fluvial stocks of westslope cutthroat trout". Seepay Creek is well outside the project limits. Mitigation measures have been coordinated with the CSKT Fisheries Program. Information regarding osprey nest locations in the immediate project area was gathered during field reconnaissance and interviews with the CSKT Wildlife Program. In January 2000, the CSKT Wildlife Program provided MDT with additional osprey nest information that was incorporated in the EA Addendum. The Ferry Island nest was extensively discussed in the BRR; this discussion has been incorporated in the EA Addendum. In January 2000, subsequent to publication of the BRR and the draft EA, the CSKT Wildlife Program informed MDT of a new eagle nest along the Dixon-West project. This nest, referred to as the Heron Island nest, is considered by the CSKT as an alternate nest within the Ferry Island territory. The new nest is addressed in the EA Addendum.

According to the CSKT Wildlife Program and the USFWS, no wolf dens are known in the Revais Creek drainage. No such denning activity has been reported to the CSKT Tribal Wildlife Program. The information provided by the Montana Natural Heritage Program contained an incorrect legal description. This has been corrected in the EA Addendum. The CSKT Wildlife Program has conducted surveys for wolverines adjacent to the project area. No wolverines or wolverine sign have been detected. Habitat linkage is discussed in the EA Addendum.

Population. This area could also be a significant linkage area for the recovery of grizzly in the Bitterroot-Selway.

7. A peregrine falcon hawk was established near Perma recently. It has produced at least one successful nest. The entire canyon is believed to have been an active peregrine nesting area in the past, and, as such, is entirely too valuable to risk with poorly-conceived road construction and management.
 8. Six documented occurrences of Spaldings catch fly are located in the general area of this project and it is likely that other sites exist in the direct or indirect affected area. This plant is currently being considered for inclusion under the Endangered Species Act.
 9. Also currently being considered for listing under ESA is the Western toad (*Bufo boreas*) which is definitely a breeding resident of the project area and was also not reviewed in the Biological Resource Report. A competent review of impacts on this species would require appropriate seasonal field study which was not provided in the BRR. This study would also facilitate a better understanding of the impacts of other sensitive amphibians.]
 10. A clearer understanding of the impacts of roads on carnivores and state of the art mitigation of those impacts are easily available from Bill Ruediger, Jim Clair and Jay Gore of the Northern Region Forest Service in Missoula. Although Ruediger was cited in the BRR, this valuable resource of information was not consulted by its authors.
- The area which would be affected by this project—the lower Clark Fork Canyon along Highway 135 and Revals to Wilson Creek Canyon along Highway 200, is a unique and valuable range for large animals. On the south side of the two rivers, the canyon walls are integral and blend with the wildlife-rich Ninemile area. To the north are a succession of lightly inhabited mountain ranges leading to the Canadian border. Any project that has the potential of separating these valuable wildlife components should be considered only with the greatest understanding and caution. The E.A. doesn't even scratch the surface of the understanding required and the project would a reckless waste of an irreplaceable resource.

Indirect and Cumulative Impacts: The E.A. maintains no indirect or cumulative impacts accruing to this project (Sec. 3.24). However, the heavier truck traffic burden that can be reasonably foreseen from this project will result in several high-risk indirect and cumulative situations, not only on Highway 200, but on Highway 135 and Highway 212 which link the rebuild section to origins and destinations. These include:

1. Residences are separated from schools by a highway which would be supporting this heavier traffic. This situation occurs in St. Regis, Dixon and Charlo, all communities which are on a reasonably predictable truck route linking the rebuild area to origins and destinations.
2. The Youth Camp and Quimi's Hot Springs are both areas with high pedestrian and auto traffic. Both are located on Highway 135 near the intersection with 200, and both are situated on curves.

The peregrine hawk site near Perma is over 10 km (6+ miles) northwest of the Dixon Section and over 8 km (5 miles) northeast of the Paradise Section and would not be affected by project construction. According to the CSKT Wildlife Program, no falcon activity has been observed at the Perma hawk site since the birds were released in approximately 1997. An active eyrie across the river from Wilson Creek on the Paradise Section is extensively discussed in the BRR and in the EA Addendum.

Spalding's catchfly is discussed in the EA Addendum.

The western toad was listed as a sensitive species by the Montana Natural Heritage Program subsequent to the July 1999 publication of the BRR. The western toad has not been petitioned nor proposed for listing as a threatened or endangered species in Montana. Discussion regarding this species has been incorporated in the EA Addendum.

Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. MDT coordinated analysis of wildlife crossing areas with the CSKT Wildlife and Fisheries Program managers; the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, Plans / Thompson Falls District Wildlife Biologist; and USFWS Ecological Services Sections 3.15.3, 3.16.3, 3.17.3, and 3.18.3 present mitigation measures for impacts on wildlife movement, habitat, and mortality. The mitigation measures include maintenance of existing bridges, construction of two wildlife underpasses for large mammals, and minimization of vegetation clearing.

Indirect and Cumulative Impacts: The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system. The proposed improvements would improve safety and operation on the area's highway system and address the concerns listed in numbers 1 through 11 of the list, at left, of indirect and cumulative effects.

Section 3.24, Secondary and Cumulative, in the EA Addendum has additional information for cumulative effects. Section 3.4, Social, in the EA has information about distance for travel. Section 3.4 in the EA Addendum has additional information about distance for travel and information about patterns of truck traffic.

Sections 3.4 and 3.24 in the EA Addendum provide additional information for truck traffic. Section 1.3, Project History, in the EA and EA Addendum, Section 3.24, Secondary and Cumulative, in the EA Addendum, and responses to other comments, discuss highway projects and cumulative effects. These include information about the National Scenic Byway Program, Yellowstone Pipeline Company's shipment of fuels, and growth and development for land use, social, and economics.

3. The 100,000 visitor vehicles entering and leaving the National Bison Range at Moose on Highway 242 would be at greater risk to high-speed truck traffic due to the steep hill to the north and sharp curves to the south.
4. Currently, most refined Yellowstone Pipeline Oil is shipped from Missoula to Thompson Falls via rail. However, the proposed improvements to Highway 200 Dixon-Paradise and ongoing improvements to the Eddy area between Plains and Thompson Falls, the bridge reconstruction east of Thompson Falls and reconstruction of several miles through the Badrock trail area, could result in increased truck shipment to the reconnection at Thompson Falls. This would greatly amplify risks to motorists and would introduce a high probability of accidental contamination of the Flathead and Clark Fork Rivers. These two rivers are central to the economy, social fabric and ecosystems of the Northwest, and have the focus of considerable local, state and federal concern over the past few decades. Risks to these resources should be carefully considered before any project is approved.

5. What effect would this project and the resulting increase in truck traffic have on the candidacy of the Highway 200 as a National Scenic Highway? The adjacent Flathead River has also been considered for status as either a Wild and Scenic River or Scenic River.

6. The 61 miles between St. Regis and Roman have no truck or rest facilities. What would be the effect of truck-related strip development on community sites such as Paradise or Permi?

7. A grave, ongoing concern in Sanders County is the burgeoning subdivision between Highway 135 and Plains. What effect will high-speed access between Plains and Ravalli have on residential development and the consequent impacts on the environment and county services. Increased development is so predictable a result of increasing speed and volume designs that Council on Environmental Quality uses it as a standard example of cumulative impacts of highway projects.

8. Related to residential growth is the significant safety problem of added accesses. It is reasonable to assume that increased development resulting from the speed design will have a snow-ball effect on access numbers, which is recognized by MDT in other projects as a significant contributor to lowered safety and service.

9. This project calls for considerable amounts of gravel and fill. Excavation sites will have impacts similar to direct impacts of the road. These sites should be identified prior to approval of the project and their impacts carefully assessed

10. Ranchers in the Dixon-Perma area estimate that there are 1000 cows per mile. Most ranchers have pasture or other facilities on both side of the road, which means frequent crossing with cattle and equipment. Higher speeds and heavier volume will not only pose a significant burden on ranchers, but present a major safety issue to both ranchers and motorists. Crossing facilities such as underpasses should be delineated and analyzed. The width of easements designated through valuable farming and ranching areas should be condensed to avoid creating a hardship on ranchers. Instead, MDT really

Projects to improve other highways in the region are dispersed throughout a sparsely populated region, with distinct geographic areas and watersheds, and considerable distance between population and trade centers. Because of this, and the other matters discussed herein, it is the opinion of the agencies that these projects, and the other projects, would not cause significant impacts. Using appropriate widths for traffic lanes, shoulders, recovery areas and rights-of-way, along with actions to manage new approaches and realign, relocate, consolidate, eliminate or perpetuate existing approaches, the proposed projects would support tribal and county efforts for land use planning and regulation. MDT and the Tribes have ongoing coordination for design and construction of the proposed projects.

FHWA has designated over 60 highways as National Scenic Byways or All-American Roads, including 190 in the state of Washington. Truck volumes are not a factor in FHWA's criteria for designation under the National Scenic Byways Program.

As indicated in Section 3.4 of the EA and the EA Addendum, the savings in distance and time, the absence of any long, sustained grades, and the relatively high percentage of trucks (for a two-lane highway) already using this route indicate that most trucks traveling between St. Regis and the Flathead or Libby-Thompson Falls areas already use MT200. Proposed improvements would improve safety and reduce travel time. MT200 would remain a two-lane highway, and no factors or conditions have been identified to indicate the proposed improvements would substantially increase truck traffic.

No factors have been identified that indicate the proposed projects would cause truck-related strip development in these communities or substantially increase speeds or traffic volumes. The proposed build alternatives would serve to eliminate unnecessary or unsafe accesses and would, where feasible, consolidate many other accesses. The proposed build alternatives would assist in the control of future accesses.

Throughout the public involvement process, project design and discussions with landowners, there have been no indications that crossings for cattle are unusually voluminous or difficult on this roadway. Where appropriate, provisions for cattle crossings, including underpasses, have been incorporated. The proposed build alternatives would improve conditions for needed cattle crossings by providing wider shoulders, flatter slopes, improved signing, increased sight distance and improved safety.

It is not practical or feasible to identify specific borrow sites in the environmental document. Different contractors may have different sources for gravel and fill. Construction contractors will be required to comply with all mitigation measures in the EA and EA Addendum, to comply with local, state, federal and tribal regulations, and to obtain appropriate permits.

MDT administers permits for stock underpasses, based on applications by landowners for specific locations (MCA 60-7-101 through 103). MDT and landowners identify need for stock underpasses during preparation of the right-of-way plan.

agents have coerced ranchers by threatening to take more land (Jerry Hamel, Gene Pitts) if they do not comply with right of way demands.

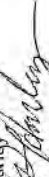
11. When more trucks begin using this bypass route because of improvements, there will be a need to bring other highways (135 and 212) up to the same speed design. In fact, the very nature of a highway is to promote connectivity for traffic from one area to another; yet this project is being viewed without examining the necessary and inevitable upgrading of connecting highways. We suggest that the only effective way to examine the impacts of highway improvement is through a system-wide EIS from which individual projects could be tiered.

Ultimately, any level of NEPA study on a project of this size is going to result in more questions than answers because of the complexity of natural and social systems. A more satisfactory way of approaching the problem of impacts would be to examine them on a landscape scale. The Highway 200 project shares landscape and ecosystem features with Highway 93 north of Missoula (which has a dated, six-year-old Environmental Impact Statement) and Highway 135 Paradise to St. Regis. So why not combine the study into a programmatic EIS which would more accurately address the common patterns which exist within the shared landscape.

We hope these comments on the Highway 200 Environmental Assessment will lead to a better understanding of the impacts, risks and costs of this project. We also hope that the additional information provided by an Environmental Impact Statement will lead to a more judiciously-considered project. We would note that many of the flaws in this document could have been avoided if community planning participation, such as a focus group or technical advisory committee had been appointed to help guide the process. We would be happy to participate in helping with an Environmental Impact Statement.

Sincerely,

Pat Hurley



Richard Eggert



Cc: Janice Brown, FHWA

Kemper McMaster, Field Supervisor USFWS

Rhonda Swaney, CS&KT Natural Resources

Sanders County Commission

Wm. Ruediger, USFS Region One Endangered Species Specialist

Tom France, American Wildlife Federation

Section 1.3, Project History, Section 2.24, Secondary and Cumulative, in the EA and EA Addendum, and responses to other comments, have information about highway projects and cumulative effects. Addendum Table 1-1 identifies other regional projects for which MDT either has plans to improve or has completed improvements. MDT also has established these projects with communities and geographical boundaries as logical termini. The projects are located across a region encompassing the Jocko, Mission, Lower Flathead, and Clark Fork valleys. These projects are separated from the proposed action by considerable distance, intersections with other highways, distinct geographic areas with communities, distinct watersheds, and timing requirements for funding (40 CFR 1508.25).

The projects begin and end at locations logically corresponding with patterns of travel, termini of adjacent projects already completed, and topographic factors through the area. Section 1.1 in the EA Addendum presents details about reasons for establishing the logical termini for the proposed projects.

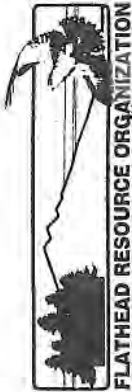
The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

The decision as to the proper scope of an environmental document requires a balance of concerns. The scope of analysis needs to be sufficiently broad and comprehensive to avoid segmentation, where analysis of small projects does not disclose potential for environmental consequences affecting larger areas. Conversely, a scope of analysis that attempts to include a broad region could lack the focus necessary to adequately evaluate relevant and unique characteristics and conditions in smaller, cohesive areas of effect.

MDT has completed environmental analyses for other projects on MT200, US93, and other highways throughout western Montana. For example, MDT completed environmental impact statements, and FHWA prepared records of decision, for projects on US93 between Evaro and Polson in 1996 and Hamilton and Lolo in 1997. It is appropriate that these other projects, as well as the proposed projects, have been analyzed in separate environmental documents. Given what is said herein concerning the need to balance various considerations as to the geographic scope of the analysis, the scope of the present document, and of the other documents mentioned, is appropriate. It also is appropriate because each of such documents considers projects that neither are dependent on the other actions, nor are they independent parts of a larger action (40 CFR 1508.25).

MDT initially prepared the Environmental Assessment in November 1999, after holding public scoping meetings on September 29 and 30, 1998. MDT held public hearings on December 14 and 15, 1999 to take comments about the EA. There was an initial 30-day comment period ending December 29, 1999 and an extended 30-day comment period ending January 28, 2000. In response to oral and written comments from the public and governmental agencies, MDT has prepared an addendum to the environmental assessment. The EA Addendum has changes and additions to the information in the original EA.



FLATHEAD RESOURCE ORGANIZATION

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January 28, 2000

Mr. Joel Marshik
Montana Department of Transportation
2701 Prospect Avenue, PO Box 201001
Helena, MT 59620-1001

RECEIVED

JAN 28 2000

ENVIRONMENTAL

Dear Mr. Marshik:

Following is the **revised official comment of the Flathead Resource Organization** on the Environmental Assessment for the Paradise-east and Dixon-west projects on Highway 200 (STPP 6-1(36)85 -- Paradise-East (East Section) -- P.M.S. Control No. 1011 and STPP 6-1(30)99 -- Dixon-West -- P.M.S. Control No. C89) in Sanders County, Montana and the Flathead Indian Reservation) **Please note that this comment replaces our original comment under date of December 27, 1999.**

Although we have had little time to review it, we have also incorporated into our comments on the EA some critical review of the Biological Resources Report (BRR).

The Flathead Resource Organization (founded 1978) is a non-profit public interest organization dedicated to the protection and restoration of the environment of the lower Flathead River drainage system and surrounding area, and to the promotion of a sustainable and healthy human relationship with that environment. We have a lengthy record of correspondence on the MDT's planned reconstruction of Highway 200, including both this project and the Dixon-Ravalli Project. Our official correspondence has included letters of May 30, 1991; Nov. 15, 1991; Feb. 10, 1992; Feb. 13, 1992; Aug. 19, 1998; Nov. 30, 1998; Jan. 28, 1999; and Oct. 8, 1999. All of these letters are in the MDT files and have been previously published in other Highway 200 related documents.

Summary and Overall Comment:

Our position on Highway 200 has been consistent: we want a transportation design that provides improved safety for travelers, which supports, rather than undermines, the needs of the small ranching operations along the route, and which also preserves -- and in some cases enhances -- the existing environment and landscape to the maximum extent possible. Since the much more fundamental issue of lane configuration does not separate our position from that of the MDT, as it does on the ongoing issue of US Highway 93, we feel these objectives are eminently achievable on Highway 200.

It is precisely because of our hope of working constructively on this transportation project that we are so disappointed in the Environmental Assessment as it now stands. The NEPA-related problems in this EA may be categorized in six areas:

- 1) **Failure to identify the full scale and nature of the project under "Purpose and Need."**
- 2) **Inadequacy of research, information, and presentation in the study, including:**
 - a. Lack of necessary information and vagueness of information both in the Biological Resources Report and the EA itself.
 - b. Inaccuracy of information and internal contradictions.

FRO Board of Directors, 2000

Dr. Joseph McDonald, Roman (President) • Fabrice Harley, Ravalli (Vice President) • Douglas Ealy, Dixon (Treasurer) • Allen Filibard, Polson (Secretary) Thurman Trooper, Ronin • Richard Egert, Dixon • Margaret Harman, St. Ignace • Carwin Clairmont, Roman • Anita Dupuis, Polson • Tony Hoyt, Arlee
The Flathead Resource Organization (founded 1978) is a grassroots group dedicated to the protection & restoration of the environment of the lower Flathead River drainage system and surrounding area, and to the promotion of a sustainable and healthy human relationship with that environment.

Prior comments are in the project files at the Montana Department of Transportation, Helena, Montana. Specific responses to items in the cover letter are presented in the attached, detailed comments following the cover letter. Responses to items in the cover letter refer to specific sections and pages of the attached comments.

Two copies of the Biological Resources Report were sent to the Flathead Resource Organization on December 17, 1999.

Comment noted.

Refer to response to Comment 2.a.ii on Page 6 of FRO's comments.

Refer to responses to comments in the specific sections of FRO's comments. See FRO Table of Contents on Page 4 of FRO's comments.

- 3) **Indications of bias and predetermination**, including misleading or deceitful presentation of information, such as selective and argumentative misuse of statistics.
- 4) **Failure to consider all reasonable and feasible alternatives** that could avoid or reduce environmental damage while meeting the needs of the traveling public, particularly a third alternative for the Dixon-west segment, other alternatives for Paradise-east, wildlife crossing structures along the length of the project, and intermodal options for transport of freight.
- 5) **Failure to consider and analyze cumulative & indirect impacts**, including the full dimension of the proposed transportation projects in the area of which Highway 200 is a part, and the impact of effectively changing the role of Highway 200 from a minor arterial to a principal arterial. While these secondary impacts would not be as great as turning this into a multi-lane highway, they would still be significant.
- 6) **Need for an area-wide, programmatic transportation EIS to analyze the totality of proposed actions in the western Montana ecosystem as a whole.**

When reasonably examined, these problems are so pervasive, and, in some cases, so clearly prohibited by law, that we feel the existing EA must be considered a fatally flawed document that cannot provide decision-makers with a fair, balanced, and complete presentation of necessary information upon which the best decision can be made for this important area. These shortcomings in the EA, combined with clear indication of probable significant impact from this project, lead us to request a full Environmental Impact Statement for this project.

While there are some promising areas in the EA – for example, the willingness of the MDT to consider a third alternative for the Paradise-east section – this document reflects a continued refusal to seek the available means for reconstructing Highway 200 in a way that meets all our needs. The EA, rather than providing the objective look at the situation required by law, appears to serve a prearranged conclusion. The highway that would result from the current document would be unnecessarily destructive of an irreplaceable resource. Even the alternative proposed for the Paradise-east segment -- “minimum build,” as it is called -- could go much further in the effort to create a highway that will blend in with its surroundings.

The resource at stake is unquestionably worth the effort. The Flathead River corridor is of extraordinary value not only to this community, not only to Montana as a whole, but also to the nation. This stretch of road traverses one of the most ecologically intact and visually beautiful regions in the entire United States. It is a landscape relatively little changed from the time of Lewis and Clark. It is a place of great importance not only to non-Indians, but also as part of the cultural landscape of the Confederated Salish and Kootenai Tribes and their principal remaining homeland, the Flathead Indian Reservation. It is a place populated by a myriad of endangered species and other species of concerns, from Grizzly Bears to Bald Eagles to Peregrine Falcons to Bull Trout. It is a place of stunning visual quality, cherished by many, as amply documented in the many letters recently sent to the MDT by citizens concerned over the impact of the proposed action.

The ecological quality and importance of this landscape would be little understood or even guessed at even by a thorough reader of the EA, however. In this broad view, perhaps, the failure of the EA is most apparent, according to the rules of the Council on Environmental Quality under the National Environmental Policy Act. Decision makers cannot possibly gain an accurate, complete, or realistic sense of the environment of the project area, or the project's impact upon it, by reading this document.

Beyond the apparent violations of NEPA, this EA, and the preferred alternatives that it describes (especially for the Dixon-west segment) are fundamentally at odds with federal policy as laid out in the Intermodal Surface Transportation Policy Act (ISTEA), in its successor the Transportation Efficiency Act (TEA-21), and in the Federal Highway Admin. publication that emerged from those guiding pieces of legislation, *Flexibility in*

Refer to responses to comments in the specific sections of FRO's comments. See FRO Table of Contents on Page 4 of FRO's comments.

Refer to response to Comment 6 on Page 22 of FRO's comments.

Refer to response to Comment 4 on Page 18 of FRO's comments.

Refer to responses to comments in the specific sections of FRO's comments. See FRO Table of Contents on Page 4 of FRO's comments.

Refer to responses to comments in the specific sections of FRO's comments. See FRO Table of Contents on Page 4 of FRO's comments.

Refer to response to Comment 2.a.iii on Page 8 of FRO's comments.

Highway Design (1997). That important book, developed by FHWA in partnership with the American Association of State Highway and Transportation Officials (AASHTO) and other interested groups, was designed as a companion and supplement to the "bible" of highway engineering, the AASHTO Green Book. *Flexibility in Highway Design* exhorted state DOT's "to become partners" with a wide variety of groups, including community and environmental organizations, "in improving transportation decision-making and preserving the character of this nation's communities." The book describes both better processes for transportation design and decision-making, and also better options for design itself whereby safety can be improved and transportation needs met without reckless and unnecessary destruction of the nation's heritage and its environmental and cultural assets.

It is difficult to imagine a highway, or an environment, more perfectly suited and more eminently qualified for the recommendations set forth in *Flexibility in Highway Design* and countless other recent federal transportation laws and policy documents and articles (see, for example, "Building Roads in Sync with Community Values," *Public Roads*, vol. 62, no. 5 (Jan.-Feb. 1999), by FHWA's Harold E. Peaks & Sandra Hayes). Yet the existing EA for Highway 200 stands in contrast to those goals and policies, failing to inventory adequately the environmental, cultural, and community resources of the area; failing to analyze fully the project's impact upon them; and failing to consider the kind of creative alternatives advocated by FHWA to protect those resources.

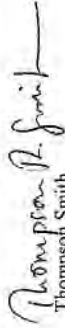
Nevertheless, relatively minor changes in the design for this highway – changes that would still result in a much safer road – could transform this project from a symbol of the past into an example for the future. These changes would not involve such major areas of disagreement as lane configuration. Instead, relatively modest changes could make an enormous difference for this invaluable area. The difference between a devastating reconstruction of Highway 200, and a reconstruction that would preserve the area, would involve modest design features such as modified alignment, greater flexibility in right-of-way and clear zone width, and the emplacement of well-designed animal crossing structures.

We would note that many of these problems could likely have been avoided had the MDT seen fit to accept our request, at the hearings in Dixon in Aug. and Sep., 1998, that a "technical" or community advisory committee be formed to help develop a transportation system appropriate for the area's needs. Although similar committees had already been formed in the Bitterroot Valley, Jim Weaver told us he was unfamiliar with such a concept, saying, "I don't even know what such a committee would do." We heard nothing more about it.

That is why we are particularly disappointed, but perhaps not surprised, by the EA's inadequacies at this point. Yet we also still sincerely hope the MDT will show the openness, the willingness, the courage, and the vision to make these relatively modest changes, and produce both an acceptable environmental document, and a transportation design that meets the needs of both of this exceptional area and the travelers that will traverse it.

On the following pages, we provide detailed discussion and examples of each of the six above-mentioned shortcomings in the EA. We look forward to a thorough response to our comments from the MDT.

Sincerely,
Joseph F. McDonald
Dr. Joseph McDonald
President, Board of Directors


Thompson R. Smith
Executive Director

cc: D. Fred Matt, CSKT Acting Chair
Janice Brown, FHWA

Jim Durglo, CSKT NEPA Coord.
David Wiseman, USF&WS

Tom France, NWF
Jack Tuholske, Esq.

Refer to response to Comment 1 on Page 5 of FRO's comments.

Refer to response to Comment 1 on Page 5 of FRO's comments.

Refer to response to Comment 4 on Page 18 of FRO's comments.

Refer to response to Comment 1 on Page 5 of FRO's comments.

Refer to response to Comment 1 on Page 5 of FRO's comments.

Comment noted.

Flathead Resource Organization -- comment on Highway 200 EA (Dixon-west & Paradise-east)

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1. Failure to identify the full scale & nature of the project under “Purpose & Need.”

In the section on “Purpose and Need for Action,” the Environmental Assessment defines the project simply as the reconstruction and realignment of two segments of Highway 200. This definition of the project gives the impression that nothing more is involved, and no other impact may be anticipated, beyond this very limited scope.

Yet simply by reading the rest of the EA, it is clear that the MDT both expects and wants this project to transform the character and nature of Highway 200, changing it from a rural minor arterial (section 1.2.1) to a principal arterial – from a “blue highway” into a major truck route designed to carry an every-mounting volume of trucks from Interstate 90 to US Highway 93.

This difference between the stated purpose and the actual purpose is significant in several respects. First, it means that the real reach of the impacts involves far more than the Highway 200 corridor, but rather extends to the entire region, to Highway 212, to Highway 93, to Highway 135, and to the surrounding environment. Second, it means that there could be both quantitative and qualitative changes in traffic on Highway 200 that could have more extensive impacts in virtually every area of environment and community resources.

The real dimensions of this project strongly suggest that the impact of what is planned for Highway 200 simply cannot be adequately understood or analyzed in a document as limited as an EA, but rather requires a full Environmental Impact Statement. Readers must question whether the dimensions of the project are intentionally understated in the EA in order to avoid the clear requirement of an EIS.

And additional problem in this purpose and need is that it seems out of kilter with the prevailing concerns and desires of the community. Most people are concerned mainly with improving safety on Highway 200. The primary goal of this project, by contrast, is to increase the serviceability of Highway 200 for truck traffic.

This is another problem that stems from the project not evolving through the kind of community process for identifying and designing good transportation facilities as urged in *Flexibility in Highway Design* and other federal policies and documents, including “Community Impact Assessment” (FHWA-PD-96-036 HEP-30/8-96(10MJP)). Instead, the MDT continues to design and implement projects through a variety of backroom deals and arrangements largely out of view of the public. This project, like many others that continue to emerge from the MDT, seem more reflective of the clout and desires of the trucking industry than the broad priorities, desires, and goals of the Montana public, nor of the national public whose resources this road could profoundly affect.

The proposed action and alternatives under consideration are described in detail in Section 1.1, 1.2.2 and Chapter 2 of the EA.

Chapters 1, Purpose and Need, in the EA and EA Addendum, do not have as an objective changing MT200 into a major truck route. The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana’s highway system.

As indicated in Section 1.2.1 of the Environmental Assessment (EA), MT 200 in this area is functionally classified as a rural minor arterial, in accordance with FHWA’s “Highway Functional Classification Concepts, Criteria and Procedures.” No changes in this classification are expected. As indicated in Section 1.2 of the EA, a design speed of 100 km/h (60 mph) is considered appropriate, based on this classification and on existing and projected traffic volumes and characteristics, existing terrain, and historic highway speeds.

The projects begin and end at locations logically corresponding with patterns of travel, termini of adjacent projects already completed, and topographic factors through the area. Section 1.1 in the EA Addendum presents details about reasons for establishing the logical termini for the proposed projects. Preparing an environmental assessment for these segments of MT200 is reasonable and justifiable.

Section 1.2, Purpose and Need, in the EA and EA Addendum, discuss the range of objectives for the proposed action.

The referenced publication (*Flexibility in Highway Design*) is a guide to help provide “... safe, efficient transportation service that conserves, and even enhances the environmental, scenic, historic, and community resources that are so vital to our way of life.” The guidelines and standards of the Montana Department of Transportation do comply with the intent of the referenced publication. Public scoping meetings and public hearings provided public involvement consistent with elements of the document, Community Impact Assessment. Section 4.4 in the EA and EA Addendum has information about the public scoping meetings and public hearings.

2. Inadequacy of research, information, and presentation in the study.

a. Lack of necessary information and vagueness of information.

i. Traffic analysis and the need for an origin-destination study.

On p. 27 (section 3.4.1), it is stated that there would be a "potential increase in truck traffic if the highway is improved." Similarly, on p. 29 (section 3.4.2), the EA states that "a few truckers may be using the Southern Route" because of availability of truck stops and other amenities, therefore, the EA says, "minor increases in the percentage of trucks using the Northern Route versus the Southern Route are expected."

Yet in each of these statements, it is clear the authors of the EA have no good or specific data on which to base their assertions -- no data on how many trucks are now taking the I-90 to Highway 93 route which would switch to the Highway 200 route if the road is upgraded. We don't know why they are going that way. We don't know how many and what kinds of trucks are not using Highway 200 and why. We don't know if it is in fact larger trucks, multiple-trailer semis, which might flood onto Highway 200 after improvement. We don't know if trucks carrying hazardous cargo might switch to Highway 200 with the MDT plan.

Obviously, this kind of impact would be very significant. For example, if most hazardous load trucks now take the longer route, but would switch to Highway 200 if it were made ruler-straight, this could have a considerable secondary impact on the environment. The existing EA, however, can't even begin to ask these questions because the information simply doesn't exist.

The only way this information can be gotten is through a thorough origin-destination study, one of the most rudimentary tools in transportation planning.

ii. Extreme design elements, claims of need for safety, and lack of evidence or study basis

Extreme aspects of the design of the road, which bear heavily on the radical reconfiguration of the Dixon-west landscape proposed in the EA, are claimed as being necessary for safety. Yet the EA presents no evidence for why these extreme designs are necessary or even preferable.

This is particularly true of the grade and width of clear zones or recovery zones. On p. 5, it is stated that the AASHTO standards for off-road grades is a 4:1 horizontal to vertical ratio, but that in Montana, the standard is a minimum of 6:1. Yet no evidence is presented to support this standard, which requires a much wider swath of cleared land and right-of-way along the roadside. In fact, long stretches of our interstate system have far sharper drop-offs, though this is usually combined with a wider shoulder and a guardrail.

Similarly, AASHTO recommends clear zones of 30 feet on each side of the road (though they stress that this is a general guideline that should be regarded with flexibility). For a 32-foot wide road, this would translate into a cleared right-of-way of about 90 to 100 feet, maximum. Yet on the Dixon-west segment of Highway 200, the MDT is planning a right-of-way ranging from 170 ft. to 210 ft. in the Dixon-west section, with one spot just west of Dixon ranging to 341 ft. This would be a leveled, cleared zone similar to that between Ravalli and Dixon -- cleared of wetlands and presenting a formidable barrier to animal migration.

The EA allows the MDT to state the need for such extreme designs without justifying them, even though they drive a great portion of the visual and environmental impact of the proposed action. Is there really any statistically proven need for such an immense width of low-

Section 3.4 in the EA Addendum has additional information regarding patterns of truck traffic. The proposed project would replace an existing two-lane highway with a new two-lane highway with improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements.

The proposed project is being designed in accordance with the following guidelines:

1. A Policy on Geometric Design of Highways and Streets, 1994, American Association of State Highway and Transportation Officials (AASHTO). This manual represents the experience of state highway and transportation officials and engineers throughout the United States. The guidelines have been developed and refined since the beginning of highway construction in this country and represent the current state-of-the-art for highway design and construction in this country and throughout many other parts of the world.
2. Roadside Design Guide, 1996, AASHTO. This document defines safety clear zones and provides guidelines for designing safe road-sides, while taking into account environmental impacts and construction costs.
3. Montana Road Design Manual. This document, prepared by the Montana Department of Transportation (MDT), is based on the above two AASHTO documents. It is a compilation of the experience and recommendations of highway designers and engineers throughout Montana, beginning with the early days of highway construction in the state. It is continually updated and revised to address current conditions and needs.

gradient slope, or that this is any safer, or even as safe, as a wider shoulder – say six or eight feet – with a guardrail on the outside. In such a configuration, sharp cuts off the sides could significantly reduce impacts on the surrounding landscape. A number of the latest studies from the Turner-Fairbank Highway Safety Research Center on safety confirm that shoulder width is clearly a major factor in accident rates on similar roads.

Alignment of the road is another area where the EA claims that extreme designs are justified by safety needs, yet presents little or no evidence for that claim, nor considers evidence that would argue for an alternative design. The proposed alignment would be made almost ruler-straight. Yet nowhere does the EA consider that numerous studies have shown that boring road designs often produce drowsiness and inattentiveness in drivers, nor that straightening the road will lead to significantly higher actual driving speeds, a powerful factor in accident rates and accident severity, especially on the icy conditions that often prevail on this road in the winter months. Neither does the EA consider that during the winter months over the 1988-1997 period, there were zero accidents in the curves east of Maggie Creek, where some of the most radical realignment is proposed in the EA. This statistic would suggest that drivers slow down there, producing a safety benefit.

We think an even-handed analysis would examine these extreme designs with skepticism, and in the light of less radical alternatives. We think it is at least worth asking if there are in fact other reasons for the MDT's insistence upon these extraordinary clear zones and slopes. During the public hearings, FRO asked what information the MDT relied upon for their claims that these design elements were necessary. District Administrator Jim Weaver claimed that there were "many studies" supporting those positions. Yet the studies that the MDT mailed two days later to our technical consultant were general, provided no direct or statistically valid support for these design elements, and in some ways proved instead that the alternatives we have proposed meet or exceed all the proven design elements for improving safety. If it is not necessary for safety, the question must be asked: why is the MDT demanding such a wide swath? The elimination of all wetlands, of many environmental concerns, and the securing of a right-of-way approaching and sometimes exceeding 200 feet could possibly be a tool to ensure that any road expansion in the future – for instance, and expansion to four or five lanes – could be accomplished with little or no viable opposition.

iii. Mitigation of impacts is left far too vague and unspecified

In general, mitigation of impacts is left at far too vague a level throughout the EA. Specific examples:

⇒ Wetlands mitigation. The EA states (p. 45) "measures will be taken" to prevent spread of noxious weeds; use of big-tired equipment to reduce damage to wetlands "will be considered"; timber pads, prefab equipment pads, and geotextile fabric "will be considered." This is all far too vague.

The whole purpose of the NEPA process is to give decision-makers and the public a clear idea of the impact of projects. We need to know what will be done. The EA fails to tell us, so it's impossible to tell if this is good or bad. That's the very definition of an inadequate document.

⇒ Land use mitigation (p. 23). This section is completely devoid of specifics. We are told that "measures... would mitigate impacts." This is even worse than the wetlands section, in that we are not even told what potential action might be taken.

See response on previous page.

These guidelines are applied uniformly throughout Montana. The AASHTO and FHWA guidelines are used by states and transportation agencies throughout the United States.

Safety for the traveling public is the utmost concern of the Montana Department of Transportation. The above guidelines are applied on a consistent, uniform, and objective basis throughout the state to ensure that highway facilities are consistently and uniformly safe, within the limits of available resources and in the absence of personal bias.

MDT has coordinated mitigation of impacts on wetlands with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the U.S. Department of the Army, Corps of Engineers. Refer to Section 3.15 in the EA and EA Addendum.

Section 3.24 in the EA Addendum discusses growth and development. Using appropriate widths for traffic lanes, shoulders, recovery areas and rights-of-way, along with actions to manage new approaches and realign, relocate, consolidate, eliminate or perpetuate existing approaches, the proposed projects would support tribal and county efforts for land use planning and regulation.

As we also comment under section 5 of our comments (“Failure to consider and analyze cumulative and indirect impacts”), this section fails to consider the Sanders County Final Growth Policy. The policy contains numerous provisions that are starkly at odds with the MDT’s preferred alternative, particularly for the Dixon-west segment.

In addition, this section of the EA talks of transportation planning in an astonishingly limited fashion, mentioning only “access management [and] highway billboard and signing policies.” beyond this the EA mentions only “other appropriate transportation planning activities.” Again, this is so vague that we have no idea what this includes, or at what level. Does it include a proactive, pre-construction effort with local planning agencies, with real funding? Does it include the serious exploration of intermodal transportation? Does it include any of the extensive realm of activities included under transportation planning in more progressive departments across the nation or in FHWA policy documents? The Highway 200 corridor and Montana as a whole would be extremely ill-served by such a backward, limited notion of transportation planning.

⇒ Stock underpasses (p. 22). These should be considered as part of land use impact mitigation (section 3.1.3) but are instead mentioned only in passing under section 3.1.1 (Land Use - Affected Environment). Again, the proposed action is left so vague that we cannot tell if anything would be mitigated at all or at what effectiveness, we therefore cannot tell the impact of the proposed action on the ranching economy of the area, since stock underpasses can make a significant difference. The EA states that stock underpasses “could be considered, where justified and reasonable.” That is useless. It is also worrisome, considering the difficulties experienced by many ranchers in extracting needed design elements along Highway 200 between Dixon and Ravalli.

⇒ Weeds. The BRR mentions the need to restore the disturbed right-of-way with native species as soon as possible, but this mitigation measure is not described in any specificity in the BRR, and it is not even mentioned in the EA. This concern was repeatedly raised over the Dixon-Ravalli segment, and was ignored. What was a lush, seven-mile wetland of predominantly native species only a few years ago is now a barren weedpatch. The EA contains no guarantee this needless destruction, with far-reaching impacts on the environment, won’t be repeated west of Dixon.

⇒ Fish passages. Although the BRR notes that impacts to fish may be avoided through proper design of culverts, the EA offers no recommendations in this area.

iv. **Inadequate information on wildlife and plant resources**

Much of the information on wildlife resources is unacceptably vague or lacking. Examples:

⇒ There is **no study of road kill patterns** or numbers in the EA, a major concern for direct impacts in this project.

⇒ There is **no serious study of wildlife road crossing patterns or locations** in either the BRR or the EA, even though the road’s impact on the connectivity of habitat is one of the principal potential impacts of the project. Location of elk crossings, for example, appears to be drawn solely from the casual observations of section foreman, even though it is acknowledged that while the foremen were unaware of any bears being killed by vehicles, one was found on a two-day fieldwork session in September 1998 (p. 48). This is simply unacceptable. The EA fails to mention that the US Forest Service

Sanders County has a proposed ‘Final Growth Policy’ that would guide and control development in areas under the jurisdiction of the county government. The county expects to adopt the document by August 2000.

Section 3.24 in the EA Addendum discusses transportation planning. The Montana Department of Transportation has developed and is implementing TranPlan 21. Montana Statewide Multimodal Transportation Plan. It establishes MDT’s priorities for managing highway systems, passenger transportation, bicycle and pedestrian transportation, freight mobility, and economic development. TranPlan 21 places high priority on preserving and maximizing the capacity of the current system in the most cost-effective manner available. TranPlan 21 encourages preventing further loss of rail branch lines and use of existing truck/rail facilities. The proposed action complies with the goals and objectives of TranPlan 21.

Throughout the public involvement process, project design and discussions with landowners, there have been no indications that crossings for cattle are unusually voluminous or difficult on this roadway. Where appropriate, provisions for cattle crossings, including underpasses, have been incorporated. The proposed build alternatives would improve conditions for needed cattle crossings by providing wider shoulders, flatter slopes, improved signing, increased sight distance and improved safety. A landowner has requested a livestock underpass at Gunderson Creek.

MDT has coordinated mitigation of impacts on vegetation with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the U.S. Department of the Army, Corps of Engineers. Refer to Sections 3.15, 3.16 and 3.18 in the EA and EA Addendum.

Mitigation measures for fish passage have been coordinated with the CSKT Fisheries Program. Information regarding Section 3.17 in the EA Addendum identifies mitigation measures for fish passage.

Discussion regarding roadkill patterns was provided in the Biological Resources Report (BRR) prepared for this project. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR is included in Section 3.16 of the EA Addendum.

Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the Section 3.16 of the EA Addendum.

has identified this stretch of road as one of a very limited number of roads in western Montana that are "high priority key linkage areas." In addition, the Flathead Resource Organization wrote repeatedly to the MDT (1991-1992, 1998, etc.) on this issue. The EA and the BRR contain virtually no serious analysis of the barrier effect for animal migration and how the proposed action would impede the movement of animals and damage the connectivity of habitat (pp. 48 and 50). Numerous studies published under the International Conferences on Wildlife Ecology and Transportation have shown significant decreases in roadkill with slower traffic speeds. Two of those studies were conducted locally -- in Yellowstone National Park and on the Yellowstone Highway in Canada.

- ⇒ EA only lists amphibians and reptiles that are "likely to inhabit the project area" (p. 47). The need for more complete information is clearly indicated by the presence of numerous sensitive species in the area, including **Coeur d'Alene salamanders** and the **Western toad**, which is being considered for listing under the Endangered Species. Neither the BRR nor the EA considers these species. The BRR also fails to consider Burgess, Robertson, and Wilson creeks as habitat for amphibians.
- ⇒ EA states that Gunderson Creek "likely contains" **westslope cutthroat** (p. 51). This a species petitioned for listing under the Endangered Species Act and we simply cannot accept this haphazard level of knowledge of the resource. Similarly, the EA states that westslope cutthroats are "possibly" in Maegie Spring Creek, Burgess Creek, Robertson Creek, and Wilson Creek (p. 52). There is no mention of Seepay Creek.
- ⇒ The EA states that construction of the Dixon Build Alternative would result in the "least potential effect to **bull trout**" (p. 56). "Least" compared to what? The only other option on Dixon-west considered by the EA is the No Build option, and that cannot have greater impacts on bull trout than the build option. The EA fails to propose or consider a Minimum Build alternative for this section.
- ⇒ In both the EA and the Biological Resource Report (BRR), **many federally protected birds of prey are omitted** from consideration, including golden eagles, sharp-shinned hawks, Cooper's hawks, kestrels, northern hammers, prairie falcons, great-horned owls and other owls, and rough-legged hawks (though the Mission Valley is home to the largest roosts of rough-legged hawks in the world). Both documents also fail to consider ducks, wrens, and woodpeckers that also exist in the area and are protected under international treaty.
- ⇒ The Biological Resource Report (BRR) only examined plants and animals in two short field periods (June and September), although many plants only bloom or bear fruit in July or August. Therefore, it seems **highly likely that a number of plants were missed in the field surveys**. This could have serious implications for some species. The **Spalding catch-fly**, for example, has been found at numerous sites in areas near the project. Both the EA and the BRR fail to mention that this plant is now being considered for listing under the Endangered Species Act. Some spring-nesting birds or birds oriented toward emergent ponds, such as black terns, would also have been fledged by the time of the survey of wetlands (September 1999).
- ⇒ In general, the BRR makes it difficult to assess total losses of wetlands, or appropriate mitigation measures.

Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. MDT coordinated analysis of wildlife crossing areas with the CSKT Wildlife and Fisheries Program managers; the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, Plans / Thompson Falls District Wildlife Biologist; and USFWS Ecological Services. Refer to Sections 3.16 and 3.18 in the EA and EA Addendum and Section 3.24 in the EA Addendum.

The BRR contained lengthy discussion with respect to Coeur d'Alene salamanders, and in fact recommended pre-construction surveys for this species. The western toad was listed as a sensitive species by the Montana Natural Heritage Program subsequent to the July 1999 publication of the BRR. The western toad has not been petitioned nor proposed for listing as a threatened or endangered species in Montana. Discussion regarding both species has been incorporated in the EA Addendum. The BRR does consider all "riverine" habitats, including Burgess, Robertson, Wilson, and other project area streams, as habitat for amphibians.

The assessment that Gunderson Creek likely contains westslope cutthroat trout was based on the best information available at the time. In February 2000, the CSKT Fisheries Program confirmed that this species occurs in the stream upstream of an irrigation diversion upstream of the highway and has subsequently requested that fish passage be blocked at the highway to protect the genetic integrity of this population. This information has been incorporated in the EA Addendum. Based on interviews with the CSKT Fisheries Program and MDFWP, westslope cutthroat trout possibly occur in Maegie Spring, Burgess, Robertson, and Wilson Creeks. In the absence of site-specific data, presence is assumed in order to facilitate minimization of possible impacts. The CSKT Fisheries Program is planning to survey the project area streams on the reservation this spring. Seepay Creek occurs well outside the project limits.

The Dixon Build Alternative would have least impacts to bull trout of the three Build Alternatives. The EA Addendum discusses bull trout in Section 3.18.

The intent of the BRR and the EA was not to assess all conceivable impacts to all migratory bird species conceivably occurring in the general area, but rather to focus upon "indicator species" including listed sensitive or proposed or listed threatened or endangered species. Additional raptor species known to nest in the immediate project area were also addressed in the BRR. A CSKT list of all species potentially occurring in the project area, along with associated habitats, was included in the BRR. Raptors specifically addressed in the BRR included bald eagle, northern goshawk, peregrine falcon, flammulated owl, great gray owl, boreal owl, and osprey. Waterfowl and the black-backed woodpecker were also addressed. Potential impacts to these and other wildlife species were discussed in the BRR, either by species or in general terms of disturbance and mortality. This expanded discussion has been added to the EA Addendum.

The field surveys were conducted such that target sensitive plant species were identifiable. Spalding's catchfly, which is known to occur several miles from the project, was proposed for listing as a threatened species subsequent to publication of the BRR and EA. A pre-construction survey is proposed for this species. The fact that some birds may have fledged prior to the wetland survey has no bearing on the outcome of that survey.

Presenting wetland losses in terms of area, community type, wetland category, and functional units is standard practice for impact assessment and has been requested by CSKT.

v. **Failure to quantify or seriously analyze economic impact of project.**

The EA admits (p. 30) that "the scenic beauty of the area" makes it possible that "economic activity related to recreation could develop services to promote tourism." In essence, the EA acknowledges that the scenic quality of this landscape is the area's most valuable undeveloped economic asset, yet makes no effort whatsoever to analyze the economic impact of destroying significant portions of the existing landscape. In fact, nowhere in this document does the MDT even acknowledge that significant portions of that landscape will be obliterated by the preferred alternative – for example, the distinctive knobby grass hills tumbling down toward the river from the mountains at Gunderson Creek, which would be completely bulldozed by the Dixon-west "Build" option. So even though the EA acknowledges scenic assets as the region' makes no effort at all to analyze the impacts on the area's economy due to the destruction of the existing landscape.

In addition, there is no serious effort to examine whether the road, and its transformation into a high speed truck route, would impact the continuing presence of family ranching operations in the area, and whether a redesign could benefit rather than detract from those operations.

vi. **Failure to adequately examine suitability of project for bicycles, pedestrians, and other non-automotive transportation.**

On page 35, the EA claims that the "Build Alternatives... would increase comfort and safety for pedestrians, bicyclists and other non-vehicular uses of the roadway." Yet no real analysis was conducted of the road design, traffic characteristics, and other factors to arrive at some basis for gauging the suitability of the design for pedestrians and bicycles. The FHWA, for example, has recently published work by David Harkey of Chapel Hill on determining "bicycle level of service" based on speed, volume, width, and an array of secondary factors including truck volumes that gives, in effect, a "stress rating" for roads. This more sophisticated formula also helps show what factors, such as providing extra shoulder space, would produce significant improvements in bicycle level of service. The EA attempts nothing on this level for Highway 200.

To the contrary, the EA's claim that the preferred alternative would be adequate for bicycles is deserving of reexamination. The EA recommends 4-foot shoulders with rumble strips, but until recently, the MDT itself had a policy not to put rumbles on shoulders less than 6 feet wide. Putting them on four-foot shoulders can be dangerous for bikes since the rumbles take up a certain amount of space (1 foot to 18"), and with such narrow shoulders bicyclists have very little "wobble room" with the rumble on one side and the gravel on the other.

vii. **Failure to analyze adequately air quality impacts.**

The EA states (p. 37) that "Long term air quality impacts, with any of the proposed alternatives, including No-Action, may include increases in emissions due to increases in traffic volumes." This is obviously far too vague to assess, provides no quantitative figures, and offers no comparison of alternatives. If the preferred alternative increases truck traffic as the EA predicts, it will likely also increase air pollution. This would affect the Flathead Reservation's Class 1 Air Quality designation. This is another likely impact that clearly suggests the need for a full Environmental Impact Statement.

Changes to the view of the highway that may occur with the proposed Build Alternatives, including the fact that the roadway will be larger and more visually imposing, are discussed in Section 3.6.2 of the EA. Potential beneficial changes that may occur to the view from the proposed Build Alternatives are also discussed in these sections. Proposed scenic turnouts and signing are discussed in Section 3.6.3 of the EA Addendum. No factors have been identified, related to visual impacts that will adversely affect economic conditions in the area.

As indicated in Section 3.10.3 of the EA, the Build Alternatives would provide a wider roadway with better horizontal and vertical alignments, which should increase comfort and safety for pedestrians, bicyclists and other non-vehicular uses of the roadway. In addition, the 0.5 m (1 ft) rumble strip would, in effect, provide an additional barrier between vehicles and bicyclists, which would further improve safety.

The EA acknowledges, in Section 3.12.2, that with any of the proposed alternatives, including No-Action, traffic volumes will continue to increase and, as a result, vehicle emissions will increase. The EA also indicates that, with the Build Alternatives, vehicle operation will be more efficient which will result in a reduction in vehicle emissions. As indicated in the EA, all construction activities, including the operation of asphalt plants, will be required to comply with all tribal, state and federal air quality regulations.

In addition, the EA fails to consider the likelihood of moveable asphalt plants being located in the area to produce asphalt for the project. These plants produce toxic emissions, including known carcinogens, yet the EA fails to even mention them as an almost certain part of the project activities.

viii. **Failure to provide information on how waste rock and soil will be disposed.**
There is no specification in the EA of where massive waste from the project will be deposited, including potentially hazardous materials such as asphalt and “fluids from vehicle maintenance activities.” The EA says it will go to “an approved location,” but there is no indication of where this might be or how the wastes will be transported to the location (p. 60). The public and decision-makers must have this information in advance, as this significant potential impact would shape decisions of the suitability of the project.

ix. **Failure to identify sources of aggregate for the project**
There is no specified source of aggregate source for this project, despite the fact that this would be enormous considering the proposed vertical fill along the project. Given that many gravel pits remain open eye-sores in the area from the Dixon-Kavalli project over two years ago, this is far too vague to judge the impact of the project.

x. **Failure to address problems of geology in project area.**
Don Winston, Professor of Geology at the University of Montana, has pointed out the area west of Dixon contains immense deposits of alluvial, silty ground that could lead to severe problems of slumping and road collapse, as has already occurred near Pitts’ land. When members of the Flathead Resource Organization questioned MDT official Jim Weaver about this problem at the public hearing in Paradise in Dec. 1999, Weaver stated that the MDT was aware of this problem and that it “had been taken care of.” He provided no specifics, however, and did not explain why the EA made no mention of the problem if the MDT was indeed aware of it. We cannot judge the potential environmental impacts of actions slated to address the problem if they are not spelled out in the public document.

With the Dixon Build Alternative, as currently designed, all excavated soil and rock will be used to construct roadway fills – in general, no excess material will be generated. The Paradise Minimum Build Alternative will also be designed to approximately balance the volume of excavation with the volume of fill so that major disposal is not required. As indicated in the EA, existing asphalt pavement that is removed will be placed in the new roadway fills and covered with an appropriate layer of soil – this is considered the preferred method of disposal for this material.

Because of the many variables faced by construction contractors, specification of borrow sources at this stage of a project is not standard practice and is generally not practical. Section 3.20.1 in the EA and EA Addendum discusses the permits that must be obtained and requirements that must be met for borrow sites.

MDT has completed geotechnical engineering evaluation for this project. The evaluation determined the proposed design is appropriate for existing geotechnical conditions. The evaluation did not identify any unusual conditions that would adversely affect highway construction or maintenance.

2. Inadequacy of research, information, and presentation in the study.

b. Inaccuracy of information and internal contradictions.

In addition to having problems of incomplete, vague, or omitted information or analysis, the EA unfortunately is also beset with numerous examples of inaccurate or false information, as well as internal contradictions. Examples:

- i. **Claim that curves on Dixon-west must be eliminated because of driver expectation.**
 The EA claims that the elimination of curves in Dixon-west section is justified because, since all other sections between I-90 and U.S. Highway 93 have already been improved, driver expectation is supposedly accustomed to a 60 mph design speed (p. 12). This paragraph is baseless and illogical.
 - First, driver expectation can be shaped by signs and other visual clues. There is an enormous literature on this, and many real working examples from across the nation. It is not an uncontrollable factor that the MDT can only accommodate. If this were true, we would have to eliminate speed zones in communities, including Dixon itself.
 - Second, this ignores the numerous drivers entering the Dixon west section from Highway 212, from Highway 135, or even the planned Paradise-east segment west on Highway 200 itself – all of which have design speeds below what the MDT is planning for the Dixon-west section.
 - Third, the EA itself completely contradicts this argument by naming the Paradise-east Minimum Build option the preferred alternative for that section. The Minimum Build option includes four curves with design speeds below 60.
 - Fourth, the argument of driver expectation, combined with the preferred alternative of maintaining the Paradise-east curves, leads to the logical conclusion that it would actually be more dangerous if the Paradise-east curves are the only slow curves on the entire stretch of highway, and that conversely, it would be safer if numerous sections on Dixon-west are engineered with 50-mph curves. If drivers realize that there are curves below the 60-mph design speed spread throughout the Dixon-Paradise stretch of Highway 200, they will drive accordingly. (The MDT's Jim Weaver asserted in the public hearing at Paradise (Dec. 15, 1999) that the speed limit on those curves will be set at 70 mph, even though their design speed will be only 50 and 55 mph.)

ii. **Claim that project complies with Lower Flathead River Corridor Management Plan.**

The EA asserts (p. 23) that the proposed action is in compliance with the Lower Flathead River Corridor Management Plan. We would encourage the MDT to check again with the Tribes to ensure that this is in fact true. The management plan states on p. 1 that "resource uses in the corridor [shall be] managed to be compatible with the restoration and maintenance of the river's outstanding natural and aesthetic qualities" (CS&KT Tribal Council 1992). In addition, the plan seeks to "protect the natural scenic integrity of the river corridor and viewshed by developing and implementing a scenic viewshed plan which will preserve the scenic beauty of the Core Area and other important landscapes" (p. 3). Finally, the plan aims to "Preserve the wild and scenic character of the river corridor and its viewshed for future generations to enjoy" (p. 56).

Each one of these objectives and goals would be undermined in significant ways by the unnecessary demolition of entire hills along the Highway 200 route and the

As indicated in Section 1.2 of the EA, a design speed of 100 km/h (60 mph) is considered appropriate, based on this classification and on existing and projected traffic volumes and characteristics, existing terrain, and historic highway speeds. The proposed highway improvements are in response to existing traffic demand, which has been increasing, and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of long-standing, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.

The proposed action and the preparation of the EA and the EA Addendum have been and continue to be coordinated closely with the Confederated Salish and Kootenai Tribes.

encouragement of use of the road by more, larger, and noisier trucks. Furthermore, the likely secondary and cumulative impacts of the preferred alternative, including development of truck stops and other strip development, and the accelerated displacement of the local ranching community, would seriously harm the objectives of this tribal plan. Since the EA does analyze these impacts, it of course also fails to propose any specific measures to mitigate these impacts.

iii. **Claim that the proposed action will comply with all county plans and ordinances.**

The EA claims (p. 23) that "the proposed action will comply with all county plans and ordinances." Yet there is no analysis of the Sanders County Final Growth Policy, which contains numerous provisions that are obviously relevant to the probable impacts of the proposed action, and also contains numerous goals and policies that appear to be at odds with the likely impact of the project.

○ Under "Natural Resource Goals," the policy states as goal no. 3, "Conserve & protect the natural scenic character of the county." Goal no. 6 is to "inventory and conserve wildlife, fish, & vegetation special resources & habitat. Maintain the natural character-istics of Sanders County and consider habitat requirements of wildlife, fish and vegeta-tion resources in all development proposals." Goal no. 7 is to "encourage continued use of these [agricultural] lands for agricultural and renewable resources production."

○ Under "Natural Resource Policies", policy number 2 states that Sanders County will protect its air quality. Policy 3 is to "foster the continued viability of agriculture in Sanders County by helping to protect agriculture land and irrigation systems and supporting agricultural practices." It is specifically stated that "new development should not negatively affect or encroach on farms and ranches." Policy 5 states that "wildlife populations should be enhanced, conserved, and perpetuated for this and future generations." Under policy 10, which addresses highway corridors, it states that "Highway Corridor Plans can enhance community character, stimulate economic activity, promote alternatives to 'strip development,' and maintain safe highways. Strip development detracts from the rural lifestyle specified as the guiding principle for Sanders County through its Growth Management Plan."

Each of these points needs to be seriously addressed in the EA.

iv. **Inaccuracies and errors in wildlife-related information.**

The EA contains so many errors, inaccuracies in its information on wildlife that one can only conclude that this was a hasty, sloppily conducted study with a predetermined conclusion, rather than an evenhanded consideration of the resources and impacts that would help us arrive at the best possible solution. Examples of wildlife-related errors:

- ⇒ The EA says that the leopard frog is extirpated from the area (p. 47), when in fact at least one positive ID has occurred within the Flathead Reservation in the past year.
- ⇒ The EA and the BRR both say there are only three osprey nests in the project area (p. 47 in EA), when SKC environmental science students have observed an average of 14 active nests within the project area over the past seven or eight years.

Sections 3.4 and 3.24 in the EA Addendum provide additional information for truck traffic. Cumulative impacts of the proposed action and other projects to improve the network of MT200, MT26, SR382, SR212 and US93 would result in a more efficient transportation system that improves convenience and desirability of travel. The network of improved highways would reduce travel time throughout the Flathead region and in the project area served by MT200's Dixon and Paradise sections. Although it isn't possible to predict with certainty, using all the information gathered, the proposed action is not expected to induce significant growth and development.

Sanders County has a proposed "Final Growth Policy" that would guide and control development in areas under the jurisdiction of the county government. The county expects to adopt the document by August 2000. Using appropriate widths for traffic lanes, shoulders, recovery areas and rights-of-way, along with actions to manage new approaches and realign, relocate, consolidate, eliminate or perpetuate existing approaches, the proposed projects would support tribal and county efforts for land use planning and regulation. MDT and the Tribes have ongoing coordination for design and construction of the proposed projects.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.

The EA stated, based on interviews with the CSKT Wildlife Program conducted during preparation of the BRR, that the northern leopard frog is thought to be extirpated from the reservation. Subsequent to the 1999 publication of the BRR, a single juvenile leopard frog was found at the northeastern edge of the reservation near Yellow Bay (approximately 80 km [50 miles] north of Dixon) during fall 1999. This new information is in the EA Addendum.

Information regarding osprey nest locations in the immediate project area was gathered during field reconnaissance and interviews with the CSKT Wildlife Program. In January 2000, the CSKT Wildlife Program provided MDT with additional osprey nest information that was incorporated in the addendum. The information provided by the Montana Natural Heritage Program contained an incorrect legal description.

⇒ The EA reports just one encounter with a wolverine in the area (trapped on north side of Flathead River in 1994) (p. 48), but one was recently trapped on Siegel Peak, which is immediately adjacent to the project area at the head of Robertson Creek.

⇒ Neither the EA nor the BRR acknowledge that Revais, Magpie, & Seepay creeks have been identified by CSKT as containing genetically pure strains of westslope cutthroats.

The BRR fails to mention that the westslope cutthroat is a candidate for listing under the Endangered Species Act.

⇒ The claims that there are no "core areas" for bull trout in the project area (p. 54), but both the Clark's Fork and Flathead Rivers are acknowledged as important linking areas between core areas.

⇒ The EA contains seriously deficient information on grizzly bears and gray wolves (p. 55). In fact, area residents have reported far more frequent sightings of both these animals. Moreover, this discussion omits any mention of the issue of habitat connectivity for these animals and the role played by the Reservation Divide ecosystem within the larger context of western Montana as a whole.

v. **Claim that farmland impacts would be so low as to permit "minimal consideration."**

On p. 24 of the EA and in Appendix A, it is determined that the project would have no significant impact on farmland. This needs reexamination. The cutoff for "minimal consideration" of this impact is a Farmland Conversion Impact Rating of below 160. In the EA, all farmland scores are in 150's (Paradise Build 154, Paradise Minimum Build 158, Dixon-west 152), which seems convenient. Problems with the scoring include:

- Under the issue of whether the new road would be compatible with existing use, the farmland on Dixon-west scores a 1 out of possible 10 in terms of concerns over this issue. But does this allow for real consideration of the new road leading to more, larger, and faster moving trucks and their impact on moving cattle along or across the highway? How can this even be measured if we don't know how many cattle underpasses will be constructed, or where? What about the splitting of the Weed pasture, or the encroachment on 2/3 of the irrigated alfalfa pasture lands developed for many years by the Pitts family?

- In "percent of site being farmed," the Dixon-west area receives 1 out of 20 possible points. Is this fully accurate? Does this include tribal land leased out for grazing? In addition, it must be remembered that the experience of many ranchers in the Dixon-Ravalli section of Highway 200 was considerably more negative than we would have expected from the rosy picture of the project painted by the MDT in advance of actual construction. Don Feist, the Sanders County NRCS Conservationist, has remarked that the increased speed of traffic due to improvements at the 135-200 intersection has changed the character of the area and made it less amenable to small ranching.

In fact, it should be noted that it was not the NRCS that rated the impact of the proposed highway expansion. All the NRCS did was provide acreages to the Federal Highway Administration, which then carried out the ratings.

Given the questionable ratings in these forms, the seemingly convenient scoring of these areas at just under the 160-point cutoff, and the permanent effects of the proposed actions on this exceptional ranching district and ranch community, **we think there needs to be careful reexamination of the farmland conversion impact ratings for both sections of**

This has been corrected in the EA Addendum: The CSKT Wildlife Program has conducted surveys for wolverines adjacent to the project area. No wolverines or wolverine sign have been detected.

Both the EA and BRR state that Revais and Magpie creeks "contain ... resident and fluvial stocks of westslope cutthroat trout". Seepay Creek is well outside the project limits. The BRR refers to this species as "westslope cutthroat trout, a species currently under review by the USFWS for consideration as a listed threatened species". USFWS subsequently has determined that listing this species as threatened is not warranted.

The EA and BRR state that, based on the Middle Clark Fork Drainage Bull Trout Status Report prepared by the Montana Bull Trout Scientific Group, no core areas (drainages containing the strongest remaining populations of bull trout in a restoration area) occur in the project area. The BRR goes on to say that the Flathead River through the project area is considered nodal habitat (waters which provide migratory corridors, overwintering areas, or other critical life history requirements). This has been added to the EA Addendum.

Information with respect to gray wolves and grizzly bears was gathered from the CSKT Wildlife Program and the USFWS during preparation of the BRR. Information from the BRR, as well as any supplemental information, has been incorporated in the EA Addendum, as has expanded discussion regarding habitat connectivity.

Comments on farmlands noted.

the project. The FHWA should consult closely with area ranchers and farmers, and the Sanders County NRCS office, to ensure that the ratings for farmland conversion are in fact reasonable for the foreseeable impacts of the proposed action.

vi. **Claims of limited noise impacts from the proposed action.**

The EA classifies "noise receptors" as "locations where human activities normally occur" (p. 36), and therefore confines consideration to residences near MP 88.0 and 89.0 in the Paradise-east section. Yet on p. 32, the EA acknowledges that "present day traditional cultural uses of the lower Flathead River corridor include spiritual activities, hunting and fishing, food and medicinal plant harvesting, meat drying, camping, and simply spending time by the river alone or with family and friends." The same is clearly true of the hills on the south side of the highway. In sum, all these places, encompassing virtually the entire project, should be classified as noise receptor locations. The impact of noise on traditional use of these areas is clearly suggested in the EIS for Highway 93, in which the Flathead Culture Committee was quoted as saying that "It is not just the rural character of our area that we seek to preserve. It is also what we call the cultural environment. For our culture to survive, our people must live in a place that continues to hold a powerful sense of tribal identity, of community, of familiarity. The open spaces need to be kept open, the pristine places that nurture our bodies and soul need to be kept pristine..." The EIS went on to say that "the continued use of these areas is dependent upon the site being isolated and unchanged." (p. 6.14-3, DEIS, 1995)

Since origin-destination study not done, among other things, there is no basis upon which the EA can offer decision makers a clear, accurate estimate of the increase in truck traffic and therefore the increase in noise over existing levels.

vii. **Inaccuracies regarding aquatic resources.**

⇒ On p. 38, the EA says that the Flathead River has been assessed as having "probable impaired use" and is of limited importance as a fishery. There is no acknowledgment in this section of the enormous and expensive Kerr Dam mitigation plan by which the river and its fisheries are being restored.

⇒ BRR classifies Revais & Magpie creeks as Class IV (p. 28); CSKT says they are Class III.

⇒ The BRR conducted its evaluations of wetlands during a drought year. These should be reevaluated or balanced with wetter years for a more accurate estimation of their value.

viii. **Claim that the project will not disproportionately affect any minority group or low-income population.**

The Flathead Resource Organization does not speak in any way for the CSKT, although we do have tribal members in our membership and on our Board. We would nevertheless respectfully suggest that on an Indian reservation – on the sole remaining homeland of a people for whom cultural genocide is a very real and imminent threat – a highway project inherently has a disproportionate impact on tribal members. In particular, the decimation of this landscape would be a deep wound in the hearts and psyches of tribal elders, who have seen their reservation and their landscape taken from them, ripped up, destroyed. To claim no disproportionate impact is baseless, and no evidence is offered in the EA to support the claim.

ix. **Other omissions and inaccuracies**

⇒ On p. 29, Charlo is omitted from the list of communities with slower speed zones.

MDT prepared the noise analysis based on accepted, national standards for highway projects. MDT has coordinated mitigation of effects on cultural resources with the Confederated Salish and Kootenai Tribes, Historical Preservation Office.

The BRR correctly identifies Revais and Magpie creeks as Class III streams under Aquatic Resources (p. 17), as does the EA (p.51). The typographical error on page 28 of the BRR was corrected in the EA Addendum.

The wetland delineation was conducted in compliance with the Corps of Engineers 1987 wetland delineation manual and has been approved by the CSKT. In compliance with the functional assessment methodology, perceived "wettest conditions" were applied with respect to functional assessment, regardless of conditions during the field investigation.

MDT has coordinated mitigation of effects and revision of the EA, as indicated in Section 4.4 of the EA Addendum, with the Confederated Salish and Kootenai Tribes, the Tribal Historic Preservation Office, and other tribal offices.

This information has been added in Section 3.4 of the EA Addendum.

3. Indications of bias and predetermination, including misleading or deceitful presentation of information, such as selective and argumentative misuse of statistics.

There are numerous instances in the EA that suggest bias, in violation of NEPA's requirement of even-handed consideration of relevant information. This project bears all the signs of having been arranged and concluded by the MDT in advance of any real study. Examples:

a. Editing of accident data to support MDT's preferred alternative.

The accident data is heavily edited to support only the predetermined conclusion of this project. On p. 5, the EA states that "the overall accident rate and the truck accident rate...are higher than the statewide average for two-lane highways." Yet a more careful search through the EA reveals that the accident rate on the Dixon-west section – the section proposed for most radical transformation, is 1.20, lower than the statewide average on two-lane highways of 1.32.

In addition, a more even-handed presentation of the information would note that there were zero fatalities on the Dixon-west section of Highway 200 in last ten years, and indeed, that even on the curves between Gunderson and Magpie creeks, there were zero accidents during the winter months in the last ten years.

The MDT can certainly not argue that it was unaware of this information. Not only does it come from their own statistics, but it was information we brought to their attention in the letter we wrote under date of November 30, 1998, which is printed at the back of the EA itself. Clearly, this kind of information, which makes it clear that Highway 200's safety picture is more complicated and mixed, was omitted because it did not forward the EA as an argument for the MDT preferred alternative, rather than what it is supposed to be – a fair, objective evaluation of all feasible alternatives.

b. Biased presentation / obfuscation of scenic & aesthetic impacts of project.

Although the EA acknowledges that this is a "high quality scenic route," all that is mentioned in the way of impacts on "view from the existing roadway" is that because the road would be straighter, drivers could apparently pay less attention to their driving "and views of the surrounding terrain can be better enjoyed by passengers and drivers" (pp. 31-32).

This obviously heavily biased take on the visual & aesthetic impacts stands in stark contrast to the AASHTO Green Book, which states, simply and clearly, "alteration may not only remove individual items or areas of environmental importance, it also tends to smooth out the natural terrain, creating a less interesting and less aesthetic environment through which to drive" (as quoted in Harold E. Peaks and Sandra Hayes, "Building Roads in Sync with Community Values," *Public Roads*, vol. 62, no. 5 (Jan.-Feb. 1999)).

Nothing whatever is mentioned or even suggested in the way of the dramatic bulldozing of many of the hills and undulating landscape that for many people define the very quality and character of this place.

Indeed, few readers of the EA would have any clear impression, and certainly no visual impression, of the tremendous alteration of the landscape being proposed by the project. Nowhere in the EA is there clear information of the extent of cut and fill proposed along the route. Indeed, when FRO members went before the Tribal Council on December 21, 1999, to discuss concerns over the EA, the Council was genuinely surprised to learn of the extent of alteration of the land being proposed by the MDT. This is a compelling indication of the EA failing to provide necessary and even-handed information.

Table 1-2 in Section 1.2.3 of the EA presents information to compare accident rates for the proposed projects with statewide accident rates.

The EA identifies several accident cluster areas including one between MP (RP) 104.3 to 104.8, which is just west of Gunderson Creek (MP 104.9). The EA indicates that many of these accidents involved single-vehicle, off-road collisions – the type of accidents that may be reduced by improving the horizontal alignment.

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.

Section 3.16.2 in the EA Addendum, in the discussion of wildlife/motor vehicle collisions and habitat fragmentation, identifies areas with cuts that would result in slopes. Section 3.16.3 discusses mitigation measures for visual impacts. The designs of the proposed Build Alternatives have been and will continue to be coordinated closely with the Confederated Salish and Kootenai Tribes. Based on results of ongoing coordination between MDT and the Tribes, it is expected the highway design will minimize effects from rock cuts and steep slopes.

c. **Possible biased consideration of project's impact on ranching**

On p. 22, the EA states, "The new roadway also would improve safety for herding cattle along or across the highway." The EA makes it clear that with the MDT's preferred alternative, sight distances would increase, but speed, volume, and size of trucks would also increase -- and all of these factors would in fact make it more dangerous for cattle and cattle-herders on the highway. Slickness and black ice on the road could possibly become even worse if steep cuts on the south side keep the road in shadows for more of the day. In fact, Don Feist, the Sanders County NRCS Conservationist, has remarked that the increased speed of traffic due to improvements at the 135-200 intersection has changed the character of the area and made it less amenable to small ranching.

This is again a selective and argumentative presentation of the information.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.

4. **Failure to consider all reasonable and feasible alternatives that could avoid or reduce environmental damage while meeting the needs of the traveling public.**

- a. **Failure to consider alternatives other than "Full Build" or "No Action" on Dixon-west.**
 In the section on "Purpose and Need for Action," the EA states that "It may be appropriate, where substantial environmental effects may occur, where construction costs may be excessive, or where otherwise impractical, to consider highway designs that do not meet the desired design speed." Yet the EA utterly contradicts this by not even considering or analyzing any alternative for the Dixon-west segment other than the version favored by the MDT, despite repeated appeals for such consideration by the Flathead Resource Organization for a very long time.
 The fact that a "minimum build" alternative was not only considered but selected as the preferred alternative on Paradise-east reveals the lack of alternatives on Dixon-west to be arbitrary and capricious. This is particularly true since the conditions on the Dixon-west segment lend themselves just as easily to a minimum build alternative - that is, a significant improvement of the road's safety while preserving as much of the landscape and environment as possible.
 Such an alternative would clearly be feasible, and it would also make a tremendous difference in the impact of this project on the Flathead River corridor. It could also possibly reduce the secondary and cumulative impacts of the project, by making the route less attractive to larger trucks than a ruler-straight design would be. By preserving more of the scenic character of the area, such an alternative could also protect more of what attracts tourists to the area, its principal potential economic resource as identified by the EA itself.
- b. **Need to consider more alternatives on Paradise-east.**
 We are pleased that the MDT has made an effort to develop a "minimum-build" alternative on Paradise-east, but we are much less impressed by the details of the plan.
 This is a big improvement, but it's still a long way from the work that was done, for example, in Colorado's cherished Glenwood Canyon, where an interstate was built recently that resulted in a *reduction* of environmental impacts compared to the preexisting highway. Engineers proceeded in a true partnership with environmentalists and community groups, beginning from the premise that people wanted the project completed with a minimum of concrete and a maximum of preservation. Individual sensitive plants were monitored to ensure they wouldn't be disturbed.
 Even if it is as yet less nationally famous, the Flathead River corridor is certainly no less environmentally important. Yet this project would still severely impact it. Significant portions of the rock cliffs along the Flathead River would be blasted away, with potential long-lasting impacts both to the scenic character of the area and to wildlife, including peregrine falcons. On pp.56-57, the EA acknowledges that the blasting of the rock face and heavy construction activities would disrupt the birds during courtship initiation and fledging. The EA admits that full Build Alternative would have only "slightly more potential for disruption."
 We would request that the MDT examine the possibility of building tunnels through the rock ridges, which could actually result in a road both less damaging to the environment and with a straighter, safer alignment. In other places, cantilevered design or pylons may help reduce impacts and the need for construction of a massive road base.
- c. **Failure to consider wildlife crossing structures.**
 In Missoula, at the close of the Sept. 1999 3rd International Conference on Wildlife Ecology and Transportation (ICOWET), we hoped that the MDT was beginning to take seriously the relationship between wildlife and transportation. Numerous MDT personnel attended large

Section 2.6 in the EA Addendum discusses the proposal from the Flathead Resource Organization (letter dated November 30, 1998). The proposal presents a number of suggested design features and mitigation measures. The letter is included in the EA, Appendix D.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum.

A cost estimate indicates building a tunnel through the Robertson curves area would require a facility extending approximately 0.8 km (0.5 mi) and costing approximately \$40 million. Such a tunnel would have special requirements for lighting, ventilation and security. The cost of a tunnel would be difficult to justify on this highway. Table 3-9 in the EA indicates expected construction costs for the Preferred Alternatives would be between approximately \$800,000 and \$900,000 per mile. Based on results of ongoing coordination between MDT and the Tribes, it is expected the highway design will minimize effects from rock cuts and steep slopes. MDT and the Tribes plan to coordinate the design in this area to mitigate impacts to the rock face, wetlands, and the Flathead River.

Wildlife crossing structures were recommended at Robertson and Wilson Creeks in the BRR. Drift fencing is impractical at these drainages due to site-specific land use conditions discussed in the EA Addendum.

segments of the conference, and even moderated some sessions. That is why we are so disappointed to see no consideration of wildlife crossing structures in this EA.

The EA fails to consider such structures in spite of its acknowledgment (p. 48) that collisions with deer and other animals "generally occur in the proximity of the riparian (creek) corridors."

The omission of such structures also flies in the face of the letter attached to the EA, from the Tribal Council of the Confederated Salish and Kootenai Tribes, which specifically lists the Robertson Creek area as being "a dense riparian forest extend(ing) north and south of the highway. This area serves as a wildlife travel corridor." Even though the BRR recommends reducing the cleared zone to five feet at Revais, Maggie, Wilson, and Robertson creeks, the EA makes no mention of such reasonable mitigation, let alone construction of a wildlife underpass.

Crossing structures were not considered even in the discussion of culverts for fish passage (p. 53), nor in the discussion of impacts on gray wolves (p. 57), in which it is acknowledged that "stream crossings...are potential gray wolf crossing corridors."

In the BRR, wildlife structures were considered, but from a woefully misinformed basis. The BRR states that the Maggie and Revais bridges, as they now exist, can function as wildlife underpasses. However, the limited height of these structures makes it clear that they cannot function in that way, particularly for larger animals, according to the overwhelming weight of scientific evidence (see proceedings of all three ICOWET conferences). Furthermore, the BRR suggests that the planned wildlife overpass and underpasses on Hwy 93 will provide adequate connectivity to Ninemile. That may be partly true for animals moving on an east-west axis. But the connectivity issues relating to Highway 200, particularly in relation to Ninemile, have to do also with north-south movement across an excellent, sprawling habitat area that in its entirety reaches from Canada down to the Ninemile, and if crossing Interstate 90 is improved in the future, beyond Ninemile to the Clark's Fork and into the Bitterroots. North-south connectivity – across Highway 200 – is of critical importance to the function of this large ecosystem.

The EA's failure to consider such remedies becomes even more stunning when we consider that the US Forest Service has identified as "key linkage areas" those stretches of highway in the Northern Rockies that bisect important habitat areas and so have the potential to exert a considerable impact on habitat connectivity, and therefore, the long-term health of wildlife populations. Of the small percentage of road segments designated as "key linkage areas" by USFS, an even smaller percentage are demarked "high priority." This segment of Highway 200 is one of very few stretches of road designated as a "high priority key linkage areas."

When we consider these various factors, it becomes clear that the failure to consider these simple and relatively inexpensive structures is unacceptable. The MDT should consult with experts on the proper dimension of such structures. The structure also must be complemented by a fencing regime to keep animals off the road and funnel them toward the structure.

d. Failure to examine intermodal transport options for freight

Although the EA predicts significant increases in the shipment of freight, and although primary rail lines parallel the entire route and most of the connecting adjoining routes, the EA does not consider any strategies to shift more of the freight load onto rails. This should be considered as a long term strategy, such intermodal transportation planning is mandated by TEA-21. Obviously, if we are to only plan for an ever-increasing shipment of freight by truck, in time that would force another expansion of the road, something the MDT already knows is deeply opposed by the Confederated Salish and Kootenai Tribes. This option must be at least considered and analyzed in the EA or EIS.

These and other measures have been incorporated in the EA Addendum, as has substantially expanded discussion regarding wildlife movement, mortality, and habitat fragmentation and connectivity. The existing bridges across Revais and Maggie creeks, although not ideally designed for wildlife movement, can and are functioning in that respect to some extent, particularly when stream courses are dry. Black bear sign, for example, was observed beneath the Revais Creek bridge during September 1998 reconnaissance surveys. Measures for improving access to these bridges, including removal or modification of stock fencing, are proposed in the EA Addendum. USFS-proposed "key linkage zones", published subsequent to publication of the BRR and draft EA, are incorporated in EA Addendum discussion.

Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. MDT coordinated analysis of wildlife crossing areas with the CSKT Wildlife and Fisheries Program manager; the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, Plains /Thompson Falls District Wildlife Biologist, and USFWS Ecological Services. Refer to Sections 3.16 and 3.18 in the EA and EA Addendum and Section 3.24 in the EA Addendum.

The Montana Department of Transportation has developed and is implementing TranPlan 21: Montana Statewide Multimodal Transportation Plan. TranPlan 21 establishes MDT's priorities for managing highway systems, passenger transportation, bicycle and pedestrian transportation, freight mobility, and economic development. Based on the document, Montana TranPlan 21, Volume I, Overview, Policy Goals and Actions, TranPlan 21 places high priority on preserving the transportation system, as it exists today, and maximizing the capacity of the current system. Based on the state's extensive transportation system and small population base, TranPlan 21 seeks to ensure the operational and physical conditions of the entire multimodal transportation system is preserved in the most cost-effective manner available. TranPlan 21 encourages preventing further loss of rail branch lines and use of existing truck/rail facilities. The proposed action complies with the goals and objectives of TranPlan 21.

Sections 3.4 and 3.24 in the EA Addendum provide additional information for truck traffic. Section 3.24 in the Addendum provides information about how MDT has developed and is implementing TranPlan 21: Montana's Statewide Multimodal Transportation Plan. Cumulative impacts of the proposed action and other projects to improve the network of MT200, MT28, SR382, SR212 and US93 would result in a more efficient transportation system that improves convenience and desirability of travel. The network of improved highways would reduce travel time throughout the Flathead region and in the project area served by MT200's Dixon and Paradise sections. Although it isn't possible to predict with certainty, using all the information gathered, the proposed action is not expected to induce significant growth and development.

5. Failure to consider and analyze cumulative and indirect impacts.

In violation of NEPA's requirements, the EA as it now stands offers little or no analysis of the likely secondary and cumulative impacts of the project. The BRR even admits that "it is not possible to quantify such impacts at this time." This suggests a lack of information that needs to be remedied by a full EIS.

Indeed, in the only direct discussion of secondary & cumulative impacts (p. 65), the EA actually denies that any other expansion of Highway 200 is planned. In fact, the MDT is engaged, and will be engaged, in reconstruction activities along considerable stretches of Highway 200, including immediately west of the project. A recent article in the *Missoulian*, for example, (12/11/99) detailed plans to "obliterate" sections of Bad Rock Trail "about 10 miles west of Plains," with construction planned as early as 2003.

The EA also denies that any expansion of Highway 93 is planned. Although a final decision is stalled pending negotiations between CSKT and MDT, the EA cannot offer a credible analysis of this issue without considering the MDT's desire to expand US 93 into a multi-lane highway throughout almost the entire length of western Montana, including the Bitterroot, Missoula, Jocko, Mission, and Flathead Valleys.

So the EA's discussion of the issue begins from a point of misinformation, and it only seems to get worse from there. As described above under our critique of the EA's lack of necessary information (section 2-a of our comments), the EA has no clear fix on the extent or kind of increase in truck traffic that would occur with the proposed action. On p. 22, the EA states, "the Build Alternatives could improve access and increase human activity." This is a vague and cavalier dismissal of an enormous probable impact.

The EA simply fails to provide us with the information needed to know what the secondary and cumulative impacts of this proposed action would be for many easily anticipated areas, including:

- strip development;
- the pressure to expand other highways in the area, including Highway 212 and Highway 135;
- the expansion of hazardous waste shipments and other truck traffic;
- the decline of ranching and its replacement by residential and commercial development;
- degradation and fragmentation of habitat of importance to a large number of species;
- increase in noise from both direct & secondary factors associated with road expansion.

Let's consider more closely the implication of the EA's failure to analyze secondary and cumulative impacts in relation to three issues: threatened and endangered species, hazardous waste, and the Sanders County Growth Policy.

⇒ **Threatened and Endangered Species.** Because the EA virtually ignores secondary and cumulative impacts, it also does not thoroughly examine the project's impact on these protected species. In combination with the EA's pervasive inaccuracies in reporting the presence and condition of listed and sensitive species, this in turn allows the EA to avoid entering in to formal consultation with the U.S. Fish & Wildlife Service, which is legally required if the project may be reasonably anticipated to have significant impacts on listed species. We feel that determination should be reversed and that the MDT should in fact enter into formal consultation over those species, in respectful coordination with the Confederated Salish & Kootenai Tribes. We would point out that at the public hearing in Paradise, Montana on December 15, 1999, David Wiseman, head of the USF&WS complex based at the National Bison Range, raised a number of concerns over the project's secondary impacts on listed species, including grizzly bears.

⇒ **Hazardous Waste.** On p. 58, the EA claims no adverse effects would result in the area of Hazardous Waste. Yet it is hard to say what the basis for this claim is in the absence of an origin-destination study. We simply can't know how many of the trucks shipping hazardous waste now take the I-90 to

The cumulative effects of improving MT200 and US93 would be reduced travel time between Sanders County and the Missoula area. Parts of Sanders County include MT200's Dixon and Paradise sections and areas further west, around the community of Plains. There would be improved transportation and ease of access, with reduced travel time and improved conveniences. That would not change existing limitations for growth and development. Limitations include the project area's narrow valleys, which have small areas of land, restrictive terrain, and undeveloped infrastructure for facilities and services. Agriculture has remained the primary form of land use in the project area, while nearby areas of Sanders County and the Lake County part of the Flathead Indian Reservation have experienced substantial population growth and pressure for development of land. With the existing small number of commuters to Missoula from Sanders County, the relatively long distance for commuting to Missoula also is a limitation on growth and development in Sanders County. Projects to improve older highways in this part of western Montana are dispersed throughout a sparsely populated region, with distinct geographic areas and considerable distance between population and trade centers.

Using appropriate widths for traffic lanes, shoulders, recovery areas and rights-of-way, along with actions to manage new approaches and realign, relocate, consolidate, eliminate or perpetuate existing approaches, the proposed projects would support tribal and county efforts for land use planning and regulation. MDT and the Tribes have ongoing coordination for design and construction of the proposed projects.

Section 1.3, Project History, in the EA and EA Addendum, Section 3.24, Secondary and Cumulative, in the EA Addendum, and responses to other comments, discuss highway projects and cumulative effects. These include information about the National Scenic Byway Program, Yellowstone Pipeline Company's shipment of fuels, and growth and development for land use, social, and economics.

The EA Addendum contains information regarding the presence of proposed and listed threatened and endangered species summarized from the BRR. This information was gathered from the CSKT Wildlife Program, CSKT Fisheries Program, the USFWS, MDFWP, the USFES, and other sources. Updates to this information have been incorporated in the EA Addendum. With respect to the build alternatives, impact assessment and mitigation (coordination) measures incorporated in the EA Addendum regarding these species were coordinated with the CSKT Wildlife and Fisheries Program managers, the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, and Plains / Thompson Falls District Wildlife Biologist, and USFWS Ecological Services.

An assessment of effects to threatened and endangered species was prepared within the Biological Resources Report and submitted to the U.S. Fish and Wildlife Service for concurrence in July 1999. The USFWS has concurred with the determinations of effect in the BRR. The Federal Highway Administration is responsible for initiating formal consultation when a biological resources report determines a project "may affect" a threatened or endangered species. The BRR concludes the proposed action would not result in a "may affect" determination for any threatened or endangered species. Therefore, formal consultation is not required.

Section 3.4 in the EA Addendum has additional information regarding patterns of truck traffic. The proposed project would replace an existing two-lane highway with a new two-lane highway with improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that substantial increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements. As indicated in the EA, beneficial effects may occur

Highway 93 route, and without further study, we cannot know how many of them would opt for the Highway 200 route with the improvements in place.

In addition, the EA gives no consideration to the volatile issue of shipment of fuel via the Yellowstone Pipeline. This fuel was shipped through the project area by truck on Highway 200 in 1996-97, following shutdown of the pipeline by the Confederated Salish & Kootenai Tribes. It is now moving by rail, which while more hazardous than pipeline shipment, is statistically much safer than truck shipment, as indicated in the EIS conducted by Lolo National Forest on the YPL matter. YPL's efforts to gain permission to build a new pipeline, either over Siegel Pass or up the I-90 corridor, are now stalled in the EIS process amid widespread opposition. We must wonder whether an improved Highway 200 would not compel YPL to again ship fuel by truck between Missoula and Thompson Falls. This must be considered and analyzed as a possible serious secondary impact of the improvement of Highway 200, with impacts (among others) on water quality and the health of fish populations, including bull trout and westslope cutthroat.

⇒ **Sanders County Final Growth Policy.** The policy contains numerous provisions that are obviously relevant to the probable impacts of the proposed action:

- Under "Natural Resource Goals," goal 3 is to "conserve & protect the natural scenic character of the county." Goal 6 is to "inventory and conserve wildlife, fish, & vegetation special resources & habitat. Maintain the natural characteristics of Sanders County and consider habitat requirements of wildlife, fish and vegetation resources in all development proposals." Goal 7 is to "encourage continued use of these [ag] lands for ag and renewable resources production."
- Under "Natural Resource Policies", policy no. 2 states that Sanders County will protect its air quality. Policy 3 is to "foster the continued viability of agriculture in Sanders County by helping to protect agriculture land and irrigation systems and supporting agricultural practices." It is specifically stated that "new development should not negatively affect or encroach on farms and ranches." Policy 5 states that "wildlife populations should be enhanced, conserved, and perpetuated for this and future generations." Policy 10 addresses highway corridors: it states that "Highway Corridor Plans can enhance community character, stimulate economic activity, promote alternatives to 'strip development,' and maintain safe highways... Strip development detracts from the rural lifestyle specified as the guiding principle for Sanders County through its Growth Management Plan."

Each of these points needs to be seriously addressed in the EA.

There are **numerous other examples in the EA** where the lack of consideration of secondary and cumulative impacts undermines the document.

- ⇒ The increase in trucks could negatively impact the tourist economy, which the EA identifies as the most promising economic resource of the area. This point was raised by David Wiseman of the US Fish & Wildlife Service at the public hearing in Paradise, MT (12/15/1999).
 - ⇒ In the discussion of farmland conversion, there appears to be no consideration of the project leading to more, larger, faster moving trucks and their impact on moving cattle along or across the highway.
 - ⇒ In the discussion of aggregate for asphalt (p. 62), there is no discussion or information on asphalt plants, anticipated emissions, mitigation of such impacts, etc.
- The EA should also be considering the effect of this proposed action in its "cumulative effect" combination with the known or reasonably anticipated actions of public and private actors in the project area. There appears to be no effort to analyze this project in light of anticipated actions of other Tribal programs, of the USFS, of the USFWS through the National Bison Range, of the state of Montana, or of the many private landowners of the area.

With the Build Alternatives due to improved alignment, pavement width, safety slopes and other improved design features. Accidents involving vehicles carrying hazardous substances should be reduced along with the likelihood of spills.

As indicated in Sections of the 3.1, 3.2, 3.4, 3.5, 3.6, 3.9, 3.12, 3.15, 3.16, 3.17, 3.18, 3.19, 3.22 and 3.24 of the EA and the EA Addendum, the proposed highway improvements would be in conformance with the goals and policies of the referenced growth policy.

Sanders County has a proposed 'Final Growth Policy' that would guide and control development in areas under the jurisdiction of the county government. The county expects to adopt the document by August 2000. Using appropriate widths for traffic lanes, shoulders, recovery areas and right-of-way, along with actions to manage new approaches and realign, relocate, consolidate, eliminate or perpetuate existing approaches, the proposed projects would support tribal and county efforts for land use planning and regulation. MDT and the Tribes have ongoing coordination for design and construction of the proposed projects.

Section 1.3, Project History, Section 3.24, Secondary and Cumulative, in the EA and EA Addendum, and responses to other comments, have information about highway projects and cumulative effects.

6. Need for a programmatic Transportation EIS for the region.

The problems in this EA must be looked at in a larger context. The MDT continues to examine these projects in an unacceptably fragmented fashion, even though it is in reality engaged in a program of expanding highways and roads on a far larger scale. Highway 93 through the length of western Montana, Highway 200 through much of the Jocko, Flathead, Clark's Fork, and Blackfoot corridors, and numerous other roads. The cumulative effect is that the automotive infrastructure of western Montana as a whole is being massively expanded. Yet no overall analysis has been done of the environmental or socio-economic impacts of this massive enterprise, which would transform the character of the region.

There is clearly a need to analyze these projects in more systematic relation to one another. This could not only help protect our environmental assets more systematically, but also help develop a more integrated, intermodal, and efficient transportation system, less completely dependent on cars and trucks. This is an unavoidable long-term need, and the sooner we begin working on it, the better.

Addendum Table 1-1 identifies other regional projects for which MDT either has plans to improve or has completed improvements. MDT also has established these projects with communities and geographical boundaries as logical termini. The projects are located across a region encompassing the Jocko, Mission, Lower Flathead, and Clark Fork valleys. These projects are separated from the proposed action by considerable distance, intersections with other highways, distinct geographic areas with communities, distinct watersheds, and timing requirements for funding (40 CFR 1508.25).

The projects begin and end at locations logically corresponding with patterns of travel, termini of adjacent projects already completed, and topographic factors through the area. Section 1.1 in the EA Addendum presents details about reasons for establishing the logical termini for the proposed projects.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

The decision as to the proper scope of an environmental document requires a balance of concerns. The scope of analysis needs to be sufficiently broad and comprehensive to avoid segmentation, where analysis of small projects does not disclose potential for environmental consequences affecting larger areas. Conversely, a scope of analysis that attempts to include a broad region could lack the focus necessary to adequately evaluate relevant and unique characteristics and conditions in smaller, cohesive areas of effect.

MDT has completed environmental analyses for other projects on MT200, US93, and other highways throughout western Montana. For example, MDT completed environmental impact statements, and FHWA prepared records of decision, for projects on US93 between Evaro and Polson in 1996 and Hamilton and Lolo in 1997. It is appropriate that these other projects, as well as the proposed projects, have been analyzed in separate environmental documents. Given what is said herein concerning the need to balance various considerations as to the geographic scope of the analysis, the scope of the present document, and of the other documents mentioned, is appropriate. It also is appropriate because each of such documents considers projects that neither are dependent on the other actions, nor are they independent parts of a larger action (40 CFR 1508.25).



Montana Council

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24 January 2000

JAN 24 2000
ENVIRONMENTAL

re: comments on EA for proposed Dixon West/Paradise East Hwy 200 project

Dear Joel:

Montana Trout Unlimited is concerned that the EA for potential improvements on Highway 200 between Dixon and Paradise underestimates or ignores the impacts new highway configurations could have on aquatic resources. We therefore ask that you give serious consideration to the following points:

1. The scope of "improvement" considered for this stretch of highway - merging an inordinate investment of some \$12-14 million - will serve to make this section of rural highway a bypass for truck traffic between I-90 at St. Regis and Roman. That will lead to an increase in truck-related accidents and spills of hazardous materials, which in turn could harm the Flathead and Jocko Rivers as well as several important tributaries and wetlands. In fact, this project could affect water quality and aquatic resources beyond the zone of road improvement. For example, it could promote increased truck traffic and development east of Dixon to Ravalli, as well as north up Highway 212. In addition, as is the case in other areas of Montana, new high-speed access will accelerate residential development in this rural area, adding additional harm to area streams and wetlands. The potential of these connected impacts have not been sufficiently analyzed in the EA.
2. The Confederated Salish and Kootenai Tribes, with our support, are increasing their commitment to fishery restoration in the lower Flathead, Jocko Rivers, as well as in nearby tributaries. This restoration objective is exemplified in the tribes' and the public's recent success in getting more fish-friendly operations at Kerr Dam. It's also demonstrated in the investments in tributary enhancement, occurring now and in the near future, using mitigation funds from federal licensing of the dam. Ill-considered highway projects could jeopardize improvements in fisheries in this area. The EA ignores how highway improvements could affect these important fishery restoration efforts. It's important for MDT to understand that the fishery of today is not the fishery contemplated for tomorrow.

3. The EA ignores several important points regarding local fisheries: 1.) the westslope cutthroat fisheries in Revels, Magpie and Seepay Creeks appear to be 100 percent genetically pure. Because most westslope populations in the state are genetically introgressed, protection of these local populations from highway-induced impacts is important. 2.) The EA contains no specifics on how fish passage will be accommodated, let alone explain how fish passage measures will protect the genetic integrity of pure-strain fish (by, say, preventing upstream migration of rainbow trout), promote reconnection of important but fragmented populations and ensure downstream recruitment into the Flathead. For example, the EA includes no discussion on culvert or bridge design at crossings on Flathead tributaries that currently have bedload problems. If culverts or bridges are inadequately designed for passing bedload, they will compound existing problems with streambank stability and

Section 3.4 in the EA Addendum has additional information regarding patterns of truck traffic. The proposed project would replace an existing two-lane highway with a new two-lane highway with improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements. Sections 3.4 and 3.24 in the EA Addendum provide additional information for truck traffic and cumulative effects. The proposed build alternatives would improve safety on the highway for all vehicle types, including trucks, and should therefore decrease the likelihood of accidents involving hazardous materials.

As indicated in Section 1.2.1 of the Environmental Assessment (EA), MT 200 in this area is functionally classified as a rural minor arterial. No changes in this classification are expected. As indicated in Section 1.2 of the EA, a design speed of 100 km/h (60 mph) is considered appropriate, based on this classification and on existing and projected traffic volumes and characteristics, existing terrain, and historic highway speeds. The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

Sections 3.13, 3.14, 3.15, 16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. Relevant sections in the EA Addendum discuss wildlife mortality, wildlife crossing the highway, wildlife corridors and habitat connectivity. MDT has coordinated mitigation of impacts on wildlife with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service, which have jurisdiction in the project area. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species. Section 2.5 in the EA discusses the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build).

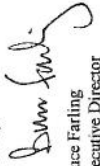
RESPONSE TO COMMENT NO. 12

aggraded bed conditions. Aggradation in turn compounds channel dewatering. MDT and other road construction agencies such as the Forest Service have for decades contributed to the loss of native fish by isolating subpopulations at highway crossings with poorly conceived passage (when passage is even considered). This EA indicates MDT may be heading down the same path again.

4. The EA is unclear on how and where existing wetlands will be protected; it is equally vague on how wetland mitigation will occur and whether it will incorporate contemporary scientific thinking on replacement.
5. The EA is deficient in that it includes no specifics on how harm to federally listed bull trout will be avoided. The Flathead River is a key migratory corridor for bull trout. The Jocko is an important core (spawning and rearing) habitat for this native fish. The EA includes no special considerations for this native fish, outside of standard language regarding vague references to stream crossings. The EA should discuss in detail how bull trout will be protected from water quality degradation occurring from construction, spills and foreseeable development associated with highway improvement. The EA should also detail how bull trout migration will be accommodated (and, we hope, improved).

Thanks for the opportunity to comment.

Sincerely,


Bruce Farling
Executive Director

Section 3.15 in the EA Addendum has additional information for wetlands and mitigation measures. The analysis presents wetland losses in terms of area, community type, wetland category, and functional units. This method is standard practice for impact assessment and has been requested by the Confederated Salish and Kootenai Tribes.

The EA and BRR state that, based on the Middle Clark Fork Drainage Bull Trout Status Report prepared by the Montana Bull Trout Scientific Group, no core areas (drainages containing the strongest remaining populations of bull trout in a restoration area) occur in the project area. The BRR goes on to say that the Flathead River through the project area is considered nodal habitat (waters which provide migratory corridors, overwintering areas, or other critical life history requirements). This has been added to the EA Addendum in Section 3.18. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species.

R. [unclear] 1985

Dear MOT

NOV 29 1985

ENVIRONMENTAL

Please send us a copy of the environmental assessment for the proposed action in Sanders County, i.e. Minton 200 between Prichard & Flynn.

We are in 100% support of this project - but would like to request the EA.

Thank you,

Cliff Linster
624 Hilltop Drive
Stevensville MT
59870-6665

MASTER FILE COPY

[Signature]

Comment noted.

Box 71
Arlee, Montana 59821
December 20, 1999

RECEIVED

DEC 23 1999

ENVIRONMENTAL

Mr. Joe Marshik, Manager
Environmental Services
Department of Transportation
Box 201001
Helena, MT 59620

Dear Mr. Marshik:

I wish to state my concern about the environmental assessment work done on the projected changes for Highway 200 in the Perma area.

I'd like to see an EIS done that defines the impacts of increased truck traffic in that area on raptors. What will be the projected increase in traffic, especially truck traffic, for that area with the improvements proposed? How will these changes affect the great horned owl, the osprey, bald eagles, peregrine and prairie falcons that breed in that area?

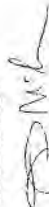
All of ^{the} species will, I'm sure, be affected by the construction in that area, even if work is scheduled for periods when the birds aren't nesting. But the increase in high-profile truck traffic may end up being the major factor that militates against such large-scale improvements.

Please examine the potential losses for us all. My vote goes for minimal changes. This is one of my favorite areas on earth. There is no other river like the Flathead. Let's keep what's precious and protect what is incomparable.

I am a beekeeper who has kept bees in that area. I travel that road year around. My training is biology. I have a Ph.D. in Zoology from the University of Wisconsin in Madison.

Thank you for considering my comments.

Sincerely,


Jerry McGahan

cc: Janice Brown

Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. These sections discuss wildlife mortality, wildlife crossing the highway, wildlife corridors and habitat connectivity. MDT has coordinated mitigation of impacts on wildlife with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service, which have jurisdiction in the project area. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species. Section 2.5 in the EA discusses the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build).

Section 3.24 in the EA Addendum has additional information for truck traffic and cumulative effects.

Ms. Deborah Tomas
10556 Coyote Tr.
Moiese MT. 59824-6403



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RESPONSE TO COMMENT NO. 15

December 21, 1999

Joel Marshik, Manager
Environmental Services
Montana Department of
Transportation
Box 21001
Helena, MT 59820

The proposed expansion of Highway 200 west of Dixon is of considerable concern to me. I'm worried that not enough is known about the effects on the communities affected, both directly and indirectly, by so significant a change in the highway. To make a road so much more attractive to long distance travellers, particularly drivers of large trucks, would seem to me to make quite an impact on areas from St. Regis to Dixon and beyond, areas such as I travel often with my young grandchildren, along Highway 212, for example.

A full environmental impact review seems likely to reveal much more than is now known about what would happen to delicate wildlife corridors. I lived for four years near Magpie Creek and know something of how dependent many animals are on crossing the present highway to get to the river from their habitat up the bluffs and in the trees. Wouldn't a major change in the road make their movement restrictive? Wouldn't that impact them significantly? What about their movement for mating? What about other creeks along the highway? Let's really find out. Maybe the advantages to out-of-state travellers to have a nice wide road with high standard visibility isn't worth it.

Deborah Tomas

Deborah Tomas
10556 Coyote Tr.
Moiese, MT 59824

cc: *Janice Brown*

Sections 3.4 and 3.24 in the EA Addendum provide additional information for truck traffic and cumulative effects.

Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. These sections discuss wildlife mortality, wildlife crossing the highway, wildlife corridors and habitat connectivity. MDI has coordinated mitigation of impacts on wildlife with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service, which have jurisdiction in the project area. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species. Section 2.5 in the EA discusses the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build).

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DEC 27 1999

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David Rockwell
PO Box 94
Dixon, MT 59831

December 22, 1999

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DEC 28 1999
ENVIRONMENTAL

Joel Marshik
MDT
2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik:

I am writing to comment on the Environmental Assessment (EA) for the Paradise—E. (East Section) and Dixon—West (Project Number: STPP 6-1 (36) and STPP 6-1 (30) 99) [Control Number:1011 & C891].

Your EA does not comply with NEPA. CEQ regulations (1502.14) state that an EA and an EIS must rigorously explore and objectively evaluate all reasonable alternatives, and for the alternatives that were eliminated from detailed study, briefly discuss the reasons for their having been eliminated. Clearly, you have not done this. For the Dixon-West project, your EA considers only the proposed action and a No Action alternative. CEQ regulations state that the reason for including a No Action alternative is "to provide a benchmark upon which to measure and compare the environmental effects of the action alternatives." Hence, a No Action Alternative cannot be used to substitute for a full range of action alternatives. CEQ regulations also say that the EA must devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits. Because you lack action alternatives to the proposed action, you have failed here, too. The regulations state further that the EA must include reasonable alternatives not within the jurisdiction of the lead agency, and include appropriate mitigation measures not already included in the proposed action or alternatives. Here again you failed. The CEQ regulations state that this section of the EA (meaning the section that deals with the alternatives) constitutes the heart of the EA; your EA has no heart and so is dead on arrival. Clearly, to comply with the law you must, at a minimum, rewrite it so that it encompasses a reasonable range of detailed alternatives.

Your EA is inadequate in a number of other areas as well. For example, the analysis of wildlife and fish resources in the project area and the assessment of the project's impacts on these resources is full of inaccurate and false information. The EA also fails to consider secondary and cumulative impacts, such as the impacts on agricultural producers along the road and impacts resulting from increased truck traffic that will inevitably

Chapter 2 in the EA and EA Addendum discuss the alternatives considered and the Preferred Alternatives. MDT developed the alternatives to determine whether the proposed action would result in significant impacts. This EA complies with guidance for preparing environmental assessments in FHWA Technical Advisory T 6640.8A (October 30, 1987). The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

The proposed project would replace an existing two-lane highway with a new two-lane highway with improved alignment and grades in essentially the same highway corridor.

The Montana Department of Transportation has coordinated the analysis and mitigation measures for biological resources with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service, which have jurisdiction in the area. Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. Sections 3.4 and 3.24 in the EA Addendum have additional information about truck traffic and cumulative effects.

result from the changes you propose. I refer you to the lists of the EA's deficiencies in letters submitted by the Flathead Resource Organization and the Jocko River Conservation Society (a letter signed by Pat Hurley and Richard Eggert).

I believe the proposed action will have significant adverse impacts on this rural area and that these impacts are entirely unnecessary. This highway's safety can be improved to the same level as you have proposed without damaging the integrity of the environment and local community. But it will require a more flexible design approach, an approach suggested in the 1998 Federal Highway Administration publication, *Flexibility in Highway Design*, which encourages state DOTs to be more creative in highway design in such a manner that provides for safe transportation while protecting the environment and unique culture of areas. I ask that you consider alternatives that will minimize impacts and that these alternatives be analyzed in an Environmental Impact Statement (EIS) as opposed to an EA. I also ask that you include local people in some meaningful capacity in the process, perhaps as an advisory committee. After all, it is our community that is being impacted.

Sincerely,



David Rockwell

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum.

The referenced publication (*Flexibility in Highway Design*) is a guide to help provide "... safe, efficient transportation services that conserve, and even enhance the environmental, scenic, historic, and community resources that are so vital to our way of life." The guidelines and standards of the Montana Department of Transportation do comply with the intent of the referenced publication.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

6101 Marsh Creek Road
Charlo, Montana 59824
December 22, 1999



Joe Marshik
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik,

We live in the Mission Valley and often drive Highway 200. Your department recently released its Environmental Assessment for the proposed work on Highway 200 west of Dixon. We are concerned that the EA is inadequate and inaccurate, and that it underestimates and/or dismisses the many adverse impacts the proposed construction would have on wildlife, speed, increased traffic volume, and on our varied cultural ways.

We request that the department conduct a full and fair Environmental Impact Statement. It is our understanding that the Federal Highway Administration (Flexibility in Highway Design, 1998) advocates approaches such as those proposed by the Flathead Resource Organization, of which we are long time members. FRO is suggesting ways to improve safety while protecting the fragile and unique environment.

We would appreciate being informed of your decision on this matter.

Sincerely,

Rob Sand

Mary Herak-Sand

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The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

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The referenced publication (Flexibility in Highway Design) is a guide to help provide "... safe, efficient transportation service that conserves, and even enhances the environmental, scenic, historic, and community resources that are so vital to our way of life." The guidelines and standards of the Montana Department of Transportation do comply with the intent of the referenced publication.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

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ENVIRONMENTAL

December 22

Jo W from Mt. My Concern (Mr. Joel Marwick)

We are writing as concerned residents of Montana, who travel extensively on Highway 200.

Although we realize that improvement cannot be made to the existing highway, we strongly urge you to conduct a full environmental impact statement before proceeding further. It is important to keep in mind that simply allowing maximum traffic flow sets off an inevitable chain of events which causes harm to both human and non-human communities. We've witnessed this all over North America.

We still have the opportunity to pursue other options, & on the sake of us all, please try.

Sincerely,
Carol Roth-Eggert
Bill Roth-Eggert

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

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The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.



MOUNTAIN SHADOW RANCH

2390 Mollman Pass Trail
Ronan, Montana 59864

(406) 644-2765 • (406) 644-2736

Registered Landforms
Roping Stock

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Joel Marshik
Montana Dept of Transportation
P.O. Box 201001
Helena, Mt 59620-1001

12/23/99

Dear Sir,

I am writing in regard to the M.D.T. proposed rebuilding of Highway 200 from Dixon to Paradise.

Both myself and my wife believe this drive is one of the most beautiful stretches of road in Montana. I never drive it without being thankful that I grew up, and still live in this magnificent area. These pristine valleys are our history and future, and should never be sacrificed for more and faster traffic. I am very much against your proposed construction. This unique highway should be left as close as possible to what exists at this time.

Thank you for your consideration.

Bud Cheff
Bud Cheff

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The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

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Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

RED CEDAR-FIBERGLASS
Canoes

Post Office Box 147
Swan Lake, Montana 59911-514

Morley

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COPY



December 24, 1999

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DEC 28 1999

ENVIRONMENTAL

Joel Marschik
Mont. Dept. of Transportation
Helena MT.

Mr Marschik,
We are writing to you about proposed reconstruction of Hwy 200 from Dixon to Paradise. We travel this route several times each year. The proposal in your EA is so extreme and goes beyond safety needs that it appears that Hwy 200 is going to be a major truck route. This is undesirable and will greatly damage wildlife habitat serving as a major barrier to animal movement; it will also destroy the rural economy in the area. Too many changes are involved and your department (MDOT) must order an Environmental Impact Statement (EIS)

Sincerely
Anne Morley
-ing M.L.-

C: to Sen. Max Baucus

Canoes and Paddles of Outstanding Design and Quality

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum. Section 3.24 in the EA Addendum provides additional information for cumulative effects.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.



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Summer Consulting

Box 317 • Arlee, Montana 59621 • (406) 726-3591 • peregrine@montana.com

December 24, 1999

Joel Marshik
Manager of Environmental Service of Dept. of Transportation
Box 201001
Helena, MT, 59620

Dear Joel,

I have been surveying peregrine falcons for the State of Montana for the past 30 years. I am very concerned about how the proposed wider highway between Perma and Plains Montana might affect the active Peregrine Falcon Eyrie near Wilson Cr. on the lower Flathead River. I have additional information that indicates another nest may be active in the area directly adjacent to or around the town of Plains. Peregrine falcons can tolerate considerable disturbances below the nesting eyries. However, the primary prey base for the Peregrine, (shorebirds, waterfowl, and small passerines) are more sensitive to disturbances and could be adversely affected by widening the highway. I would encourage you to seek an Environmental Impact Study before continuing on with the proposed plan to widen the highway. This might prevent severe impact to this valuable bird species.

Thank you in advance for the considering this request.

Kindest regards,

Jay Sumner
Peregrine Raptor Biologist

cc: Janice Brown

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DEC 28 1999
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RESPONSE TO COMMENT NO. 21

The Montana Department of Transportation has coordinated the analysis and mitigation measures for biological resources with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service, which have jurisdiction in the area Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. The species identified in this comment are subject to the effects for species in the EA Addendum and the EA. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species. Section 2.5 in the EA discusses the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build). Appendix D, Project Correspondence, in the EA Addendum has a copy of the U.S. Fish and Wildlife Service's letter of concurrence with determinations of effect in the Biological Resources Report.

RESPONSE TO COMMENT NO. 22

Subject: EIS/Highway 200
Date: Sun, 26 Dec 1999 13:36:33 -0700
From: Phil and Caralinda <croulier@ronan.net>
To: frommontana@aol.com

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To Whom It May Concern,

We are requesting a full EIS for Highway 200 to correct inaccuracies in the EA, study the full impacts of this proposal, and research more flexible design options, especially for the Dixon-west section of the road. These studies need to be formal and thorough as this is one of the most beautiful places on God's earth. Hope this reaches you before December 25.

Thank you.

Caralinda and Phillip Roullier

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum. Section 3.24 in the EA Addendum provides additional information for cumulative effects.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

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12/26/99 1:52 PM

FASTER FILE COPY

December 27th, 1999

Montana Department of Transportation
Joel Marshik
2701 Prospect Ave
P.O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik,

It has come to our attention that the Montana Department of Transportation has plans to expand the beautiful and scenic highway 200 between St. Regis and Ronan and including highway 212 between Dixon and Charo. As Montana residents we travel highway 200 between these proposed improved stretches of highway several times a year. We often, proudly tell our friends and families of this often overlooked scenic corridor that connects interstate 90 at St. Regis to the beautiful landscape through the Flathead Valley onto Glacier National Park.

There are many stunningly beautiful areas along the river that would be permanently lost to the grossly widened plan that MDT is proposing. Most recently we have noticed an increase of large semi trucks on this route and fear that a larger road will permanently encourage this area as a major trucking route. Why can't we have a few small roadways left which afford us with the natural, scenic beauty, moves our local traffic efficiently and says no to large, fast moving trucks?

We understand that there are many areas where the road could be improved for safer auto travel and encourage your department to review the suggestions of our local Flathead Resource Organization who speaks intelligently and conservatively for our local communities that use this particular stretch of roadway most often. The EA that your department has released fails to review the safer and more modest alternatives that our community would like to see replaced by the mega -roadway that the state has planned. Please take into consideration the valuable farmland that lies along the riverbanks which supports a local economy of agriculture. This along with valuable wildlife habitat will be threatened if not lost by the MDT's plan.

Please Mr. Marshik, as our representative for the Department of Transportation, don't allow this widened roadway to become a reality. Please help our community protect this beautiful river area, farming community, historical landscape that we are so proud to travel. We implore you to order a full Environmental Impact Statement so that we can better understand all the risks this new highway threatens to bring to our wildlife and communities.

Mimi Werner
John Doherty

Mimi Werner
John Doherty
900 S. Finley Point Road
Polson, MT 59860

c. Flathead Resource Organization

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DEC 28 1999

ENVIRONMENTAL

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum. Section 3.24 in the EA Addendum provides additional information for cumulative effects.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

Paradise, not 5-7856
Box 61

MAILED 27, 1999
COPY

Comment noted.

In regards to the road project
sent of Paradise, I as a Paradise
resident for 34 yrs and altogether
66 yrs and traveling the road all
the time feel strongly that a
new road is in order. The road
needs to be moved ⁱⁿ a safer road.

Willis is a good thing but not to
be compared to a human life.
Animals do not have souls.
We surely need the road moved back
from the river. For the benefit of

All. Fish & people. Sincerely,
Roy D. Lovick
a Tax payer.

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DEC 29 1999
ENVIRONMENTAL

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MASTER FILE

Hi Joel Marshik

It is so pretty between Paradise and Dixon dare I say therapeutic. Even if you are a little pressed for time you can make pretty fast with it is a special place, but I much to offer the soul and there are few places like that. Please consider leaving it as it is. There are other routes for people with a big hurry, trucks? Well why should trucks get first roads through they are vital and dangerous. To many areas are already cluttered with traffic, sub-divisions, and all the road side business that comes with it.

People need a soft route to Paradise what's the big hurry. So Joe with all that I am requesting do a full EIS for Highway 200 and examine some values beyond safety, speed and

Thankyou Gary LeBeau

2750 Schley creek road
Route 1
Arlee, Mt. 59821

Gary A. LeBeau
2750 Schley Creek Rd
RR 1
Arlee MT 59821-9801

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum. Section 3.24 in the EA Addendum provides additional information for cumulative effects.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

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DEC 27 1999
ENVIRONMENTAL

Harold W. Young
HC 77 Box 75
Dixon, MT 59831

RECEIVED

DEC 29 1999

ENVIRONMENTAL

Dec. 27, 1999

Dave Dreher/Joel Marshuk, MDT

2701 Prospect Avenue
PO Box 201001, Helena, MT 59620-1001

Dear Mr. Dreher,

I am combining this submission of my computer files and other comments on the proposed Dixon West and Paradise East projects.

Enclosed is a ZIP drive with the files I developed relating to the Dixon West project. You can read these files with the enclosed copy of VOLO View Express. With VOLO you cannot view the cross sections. In order to read the cross section files it will be necessary to have a copy of AutoCAD Land Development Desktop 2000 and AutoCAD Civil 2000. I may be able to get you a 30 day use copy. Let me know if you wish me to check on it. Also included is a Power Point file which I did not show at the meeting in Paradise. You should note that in my files I simplified the road template and in some cases generalized slope data, but maintained the alignment and daylight line information.

This project design is badly obsolete and should be completely redone. There are three categories of design problems, at least two of which were not likely to have been taken into consideration when this project was initially designed two or more decades ago.

The first category is that of **safety**. Much has been learned about highway safety since this project was conceived. This design is far from optimal. Problems with the design are as follows:

- The proposed shoulder is much too narrow for a road which has a history of off-road accidents (Zegeer, et al 1988 and 1995).
- Extreme disparity between the existing surface and the proposed vertical alignment requires deep cuts, fills and near vertical embankments all of which contribute to traffic hazards.
- The radical elimination of horizontal and vertical curves is likely to encourage higher volumes of traffic and much faster speeds. The EA and the MDOT representatives at the public hearings insisted that this straightening was in the interest of safety, but the accident record does not support the thesis that these curve contribute to accidents. Increasing the speed and volume of traffic would no doubt contribute to more and more serious accidents. Note that in the two mile section which I modeled in the computer files there is only one vertical curve which has a radius of nearly 1,000 ft. There are large radii horizontal curves at each end of this section and only two curves of extremely large radii in-between.
- No data has been provided as to the hazard to traffic posed by wildlife and domestic cattle. The information should be provided and the hazard mitigated.

A more serious look needs to be taken at the issue of **traffic volumes**, which by all accounts is the greatest contributor to accidents after speed, both truck and passenger car. By using 1997 traffic data a very distorted image of the situation is presented in the EA. 1997 data was distorted by the traffic which was rerouted to Hwy 200 during the Alberton train wreck incident and the additional volume of trucks from the closure of the Yellowstone Pipeline. Nineteen Ninety Eight figures show a 20% decrease in total traffic at the intersection with MT382 and a 21% drop in truck traffic. The percentage of truck traffic was at that time only 8.3% of total traffic. The projections in the EA show a more than doubling of traffic by 2012 and truck traffic two and a half times current volumes, but doesn't provide any justification for these figures.

Pages 27-29 of the EA goes through a discussion of a supposed "northern route" and "southern route". The northern route supposedly being the Hwy 135/Hwy200 route from St Regis to Ravalli, an alternative to I-90/Hwy93 the "southern route." The EA says "The savings in travel distance and time, and the resulting cost savings, suggests that a high percentage of truckers traveling I-90 from/to the west and going to/from northwestern

The proposed project is being designed in accordance with the following guidelines:

1. A Policy on Geometric Design of Highways and Streets, 1994, American Association of State Highway and Transportation Officials (AASHTO). This manual represents the experience of state highway and transportation officials and engineers throughout the United States. The guidelines have been developed and refined since the beginning of highway construction in this country and represent the current state-of-the-art for highway design and construction in this country and throughout many other parts of the world.
2. Roadside Design Guide, 1996, AASHTO. This document defines safety clear zones and provides guidelines for designing safe roadides, while taking into account environmental impacts and construction costs.
3. Montana Road Design Manual. This document, prepared by the Montana Department of Transportation (MDT), is based on the above two AASHTO documents. It is a compilation of the experience and recommendations of highway designers and engineers throughout Montana, beginning with the early days of highway construction in the state. It is continually updated and revised to address current conditions and needs.

These guidelines are applied uniformly throughout Montana. The AASHTO and FHWA guidelines are used by states and transportation agencies throughout the United States.

Safety for the traveling public is the utmost concern of the Montana Department of Transportation. The above guidelines are applied on a consistent, uniform, and objective basis throughout the state to ensure that highway facilities are consistently and uniformly safe, within the limits of available resources and in the absence of personal bias.

At the time MDT began preparation of the EA, 1997 was the year for which the most current traffic data was available. Regarding the decrease in traffic between 1997 and 1998, Addendum Table 3-1 shows that while the overall trend has been for total traffic and truck traffic to increase, annual and periodic fluctuations have resulted in levels of traffic varying from year to year. The EA Addendum presents traffic data for 1999, which is the most current year for available traffic data. Sections 1.2.3, 3.4 and 3.24 in the EA Addendum present additional information for average daily traffic (ADT) and truck traffic.

As indicated in Section 1.2.1 of the Environmental Assessment (EA), MT 200 in this area is functionally classified as a rural minor arterial. No changes in this classification are expected. As indicated in Section 1.2 of the EA, a design speed of 100 km/h (60 mph) is considered appropriate, based on this classification and on existing and projected traffic volumes and characteristics, existing terrain, and historic highway speeds. The proposed highway improvements are in response to existing traffic demand, which has been increasing and is

RESPONSE TO COMMENT NO. 26

projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

Section 3.4 in the EA Addendum has additional information regarding patterns of truck traffic. The proposed project would replace an existing two-lane highway with a new two-lane highway with improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum.

The referenced publication (Flexibility in Highway Design) is a guide to help provide "... safe, efficient transportation service that conserves, and even enhances the environmental, scenic, historic, and community resources that are so vital to our way of life." The guidelines and standards of the Montana Department of Transportation do comply with the intent of the referenced publication.

Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. Relevant sections in the EA Addendum discuss wildlife mortality, wildlife crossing the highway, and wildlife corridors. MDT has coordinated mitigation of impacts on wildlife with the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, and the U.S. Forest Service, which have jurisdiction in the project area. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build). Appendix D, Project Correspondence, in the EA Addendum has a copy of the U.S. Fish and Wildlife Service's letter of concurrence with determinations of effect in the Biological Resources Report. The Montana Department of Transportation has coordinated revision of the EA, as indicated in the EA Addendum, with the Confederated Salish and Kootenai Tribes.

Montana are probably using the Northern Route. As indicated on Table 1-1, truck traffic on MT 200 is currently 15 to 16 percentage of the total traffic." Data available indicates this (both the choice and the volume) isn't true. The volumes of traffic on Hwy 135 and Hwy 200 east and west of Paradise; and the volume of traffic on Hwy 28 indicates the preferred alternative route is on Hwy 28 rather than Hwy 200. The combined volume of traffic west of the MT 135/MT 200 intersection is approximately twice the volume on MT 200 east of the Perma intersection. The percentage of traffic which could be using the Hwy 135/Hwy 200 route between St Regis and Ravalli is unknown. The amount of traffic which would opt for using MT 200 which is now using I-90/US 93 or MT 28 if the speed of MT 200 is increased is also unknown. Origin/destination studies need to be done.

The second category is that of **aesthetics**. The EA states that "this area is considered by many to be a high quality scenic route." In fact, it is a world class beauty, and cutting this scar through it will do great damage to the masterpiece.

The third category is that of **wildlife migration**. This section of road has been listed by the Forest Service as a Key Linkage Area for mid-size and large carnivores. Increasing the volume and speed of traffic without providing protection to wildlife crossing the road would seriously add to this problem. The letter attached to the EA, from the Tribal Council of the Confederated Salish and Kootenai Tribes specifically lists the Robertson Creek area as being "a dense riparian forest extending north and south of the highway. This area serves as a wildlife travel corridor." This is also the area in which the proposed alignment would do the most violence to the existing terrain.

I have also enclosed a copy of an article from the FHWA's own Public Works. This article spells out the process and considerations which should have taken place and certainly will in the future. To quote from that document: The Flexibility in Highway Design project is "to train design engineers in this new approach to highway improvements.

The training and education programs must re-emphasize three critical areas. First, planners and designers must actively seek public involvement at the earliest possible time and throughout the process. Second, they must develop designs that meet the needs of specific sites rather than attempting to use centralized, standardized solutions, recognizing that different communities may have different values and priorities. Third, to meet specific site needs, they must consider using the flexibility contained in the current design guidelines -- or seek a design exception -- instead of automatically opting for the high-end solution by giving priority to capacity over environmental, historic preservation, and neighborhood-protection concerns."

Sincerely,



Harold W. Young

Cc: Janice Brown, Administrator, Montana Division, FHWA

12/17

December 28, 1999

To Whom it May Concern:

My name is Stacy Kiser and I am writing my comments to you regarding the proposed highway improvements for Highway 200. Specifically I will be focusing on the sections east and west of Magpie Creek which I consider to be a unique forested wetlands worthy of minimal disturbance.

By way of introduction, from July of 1997 to the fall of 1987, I was a full time resident & home-owner on 5 acres of land just east of CSKT lands that encompass Magpie Creek and are located South of Hwy 200. During this time (and preceding), my profession was as a wildlife biologist. In the mid '80's I worked for 2 years on the Lower Flathead River Canada Goose Study for the CSKT's. As part of that project, the study team inventoried all wetlands and riparian zones beginning north on the Tribal lands on Flathead Lake, following the Lower Flathead River to its confluence with the Clark Fork. This, in combination with being a resident during the above mentioned time, hopefully will increase the value of my comments in your esteem.

Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species. Section 2.5 in the EA discusses the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build). Appendix D, Project Correspondence, in the EA Addendum has a copy of the U.S. Fish and Wildlife Service's letter of concurrence with determinations of effect in the Biological Resources Report. The Montana Department of Transportation has coordinated revision of the EA, as indicated in the EA Addendum, with the Confederated Salish and Kootenai Tribes. The Tribes concurred with the revisions in the EA Addendum. Appendix D, Project Correspondence, in the EA Addendum has a copy of the Confederated Salish and Kootenai Tribes' letter of concurrence.

Comment noted.

3 of 7

During 1988, '89, & '90, I was a seasonal resident. I developed and implemented an outdoor summer recreation program for the CSKT that increased opportunities for Tribal youth to discover and experience the rich natural environment and wildlife resources of the Flathead Indian Reservation. I have continued to be a seasonal resident for some time now and share for the last 5-6 years been renting my home as I am now living in Boulder, Colorado. My interest is not purely to preserve my home in the Maggie Creek area as rental property but to preserve what I consider to be a magnificent wetland/riparian zone unique and critical to wildlife in that area.

This protected wetlands has functioned during my time of observation as a well utilized travel corridor for black bears coming down from the Maggie drainage to forage areas located south of the highway and has provided, for the most part, easy access to the north side of the highway where bears forage in lush habitat throughout summer and fall months - critical feeding times for hibernating bears. Though I do not have formal documentation, during my time as resident (and according to neighbors), not a season went by that a family of black bears

Comment noted

Sections 3.16 and 3.18 in the EA Addendum discuss wildlife crossing areas and wildlife crossing structures

RESPONSE TO COMMENT NO. 27

4 of 7

was not noticed, as well as individual adult bears. In the summer of 1996 when I was at my home for breaks, 8 black bears continually passed through and foraged on my property. This included 2 different family groups of a female with 2 cubs of the year.

During the Canada Goose study, after one aerial survey of the river to do a census and document brooding areas, the wildlife biologist conducting the census reported seeing a large bull moose at the confluence of Maggie Creek and the Flathead River. As well, bald eagles frequent that area as was mentioned in the E.A.

When I learned of the proposed construction plans which would appropriate .7 acres of my property above, I began speaking to CSKT resource people wanting to bring their attention to this unique area. Mary Rice, their wetlands specialist surveyed the area and commented that this area was indeed unique in the degree to which it was a well established forested wetlands fed by many springs south of the highway which have moths and provide for the extensive wetlands north of the highway as well.

In the E.A., it is unclear to me which areas are rated as Class II (i.e. highway) I can only surmise that this area is within

Refer to Sections 3.16 and 3.18 in the EA Addendum.

MDT has coordinated impacts and mitigation measures related to wetlands with the Confederated Salish and Kootenai Tribes' Wetland Program Manager. Refer to Section 3.15 in the EA Addendum.

Wetland D-11 is a Category II wetland. Wetlands D-10 and D-12 are Category III wetlands. This information is from the Biological Resources Report.

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 that classification. MDT proposes a minimum of a 4:1 ratio for adjustment to embankment slopes (instead of the 6:1 ratio) in environmentally sensitive areas, and the consideration of using guardrails which would minimize areas in need of fill, minimizing disruptions to natural water flows, and decrease the taking of valuable forested right-of-way. I strongly state that this unique area warrants that sort of adjustment and will take it further to strongly support the CSKT recommendation that the embankment slope be reduced to a 2:1 ratio as referenced in the late Mickey Pablo's letter of November 15, 1998. This includes the use of guardrail. I also quote Mr. Pablo: "Functionally this wetland/riparian complex is a single ecosystem. It is the largest and one of the highest quality within the proposed area."

During the summer of 1996, after repeated attempts to get an engineer to explain the specific proposed ROW adjustments that would affect my 5 acres, Steve Larison, Jim Weaver, and another engineer whose name I cannot recall came out and spoke with me. At that time, I showed them the spring from which I get my water. The proposed ROW ends virtually within a few feet of it. This onsite could easily be due to the thick riparian forest that obscured this active spring which also flows currently under the highway and to the north. They agreed to reduce the encroachment onto my land by 30 feet, taking it back from 60' to 40' on the west end and from 40' to 20' towards the east. They also spoke

RESPONSE TO COMMENT NO. 27

MDT has coordinated the design of the highway and the slopes in this area with the Confederated Salish and Kootenai Tribes' Wildlife and Wetlands Programs. Refer to Sections 3.16.2 and 3.16.3 in the EA Addendum for a discussion of slopes in this area.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.

MDT has ongoing coordination with the landowner regarding matters raised in this letter.

RESPONSE TO COMMENT NO. 27

687
 of reducing the embankment slope ratio from 6:1 to 3:1. Unfortunately, I never got that in writing. I have only corresponded with Mr. Harrison since that time who claims no recollection, even though his parting words were, "We'll have to reduce the offer price." At that time I also asked why an 80' ROW was necessary through such a sensitive and sensitive area. Along with the safety concerns and wanting to make it a 60mph thoroughfare, it was finally stated that with an 80' ROW, MDT would have ROW to do whatever future expansions might be desired in the future.

I strongly protest the destruction of an irreplaceable wildlife travel corridor for future speculations that may well go beyond the already current proposed improvement. Though wetlands mitigation exists, topographical features such as Maggie Creek and Maggie Spring Creek that function as travel corridors, by virtue of their rich cover cannot be mitigated; be irreplaceable; and have to be protected and preserved in order to maintain the integrity of current and historic and future wildlife utilization of this land. This can be accomplished by adopting the least disruptive construction methods (i.e. a 2:1 embankment slope ratio and the use of guardrails) as proposed by the USFT.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.

MDT has coordinated the design of the highway and the slopes in this area with the Confederated Salish and Kootenai Tribes' Wildlife and Wetlands Programs. Refer to Sections 3.16.2 and 3.16.3 in the EA Addendum for a discussion of slopes in this area.

RESPONSE TO COMMENT NO. 27

707

This would increase the safety of the highway which is a valid MDT objective without compromising the existing wildlife travel corridor.

Thank you for your consideration.

Sincerely,

Stacy Keed

8725 Steamcrest

Boulder, Colorado 80302

303-473-0213

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.

MASTER FILE COPY

December 28, 1999

Joel M Marshiki
Montana Department of Transportation
2710 Prospect Avenue
Box 201001
Helena, MT 59620-1001

Re: Road Reconstruction-Paradise East and Dixon West

Alternative 2 appears to best suit both these sections. Paradise East passes through very picturesque Montana scenery - really what is Montana to us - the reason we live here on the river outside of Paradise. Reconstruction should be to make the road safer while maintaining the scenic nature of the road. Montana Route 200 East from the Idaho line, and especially from the Thompson River through Parma, is described by the U.S. Forest Service as some of the most scenic areas on the Lolo National Forest.

We enjoy the changing scene around every bend and over every hill along both sections. We wish you to maintain the present nature, the ambience, of these beautiful sections of road. Make the curves safe, but don't eliminate them. Improve the sight distance, widen the shoulders, but move as little dirt and rock as possible. Don't make either section as straight and uninteresting as Dixon to Ravalli.

Lay down a good deep rock base so that the surface may stay smooth and trouble free. Outlaw double bottom trucks - one truck or one semi trailer, and no pup, (or whatever it is called.) A law to eliminate those excessively long vehicles would make passing a truck or semi lots safer, and such a law may even result in reducing the total truck numbers on the road.

Roger C. Lund

Roger C. Lund and Marion I. Lund
P.O.Box 250
Paradise, MT 59856

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum.

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DEC 30 1999

ENVIRONMENTAL

Electrical Resources Engineering
7. Morgan
2152 Canyon Mill Rd
Kenner, NJ 08864

12-28-99

MASTER FILE
COPY

Mr. Joel Marshak
Montana Department of Transportation
3701 Progress Ave PO Box 201001
Helena, MT 59620-1001

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DEC 29 1999

ENVIRONMENTAL

Dear Mr. Marshak:

I have just finished an analysis of the (EA) Environmental Assessment for the proposed reconstruction of Highway 200 from Dixon to Paradise mt. It should be obvious to the lay reader that the EA fails to address the major impacts of the proposed Highway. First of all the Highway standards proposed far exceed that necessary to meet safety requirements and provide a safe passage through this primitive, beautiful scenic valley.

At this stage in the planning process there is nothing to be gained by responding to this flawed proposal and the EA. The Federal Resources organization (FERA) will insist the entire process be started over beginning with establishing proper road design standards for the project and preparing a full environmental impact statement that identifies and analyzes all impacts.

To prevent further delay and low bid you would do well advised to seek qualified citizen input from the outset.

Sincerely,
Theresa, former FERA Board Member

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum. Section 3.24 in the EA Addendum provides additional information for cumulative effects.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

Mrs. Maudie Postcard
 Please consider the design
 wood designs along the
 they are. We do not
 Need, you do use wood
 a large amount of wood
 to
 of

Joel Marshall
 Mt. Dept of Hwy
 771 Prospect Ave
 P.O. Box 201001
 7111

DEC 29 1999

ENVIRONMENTAL

516-22-1621
 PRINTED IN CANADA

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum.

Ken Light Dixon West
/ 300 OLORN FLUTE
402 LEMAMA LANE
ARLEE, MT 59621
406-726-3353

Jan 10, '99

Dear Mr. Marslike,

I am much opposed to
the proposal to build
a superhighway along the
Flatland (highway 200). The
thing you did from Parole
The Dixon is bad enough. We
do not like this overkill
highway development.

Robert S. Light

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum.

P.O. Box 1134
Plains, MT, 59859
January 20, 2000

Joel Marshnik
Montana Dept. of Transportation
Box 201001
Helena, MT 59620-1001

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JAN 31 2000

ENVIRONMENTAL

Dear Mr. Marshnik:

I would like to comment on the proposed highway improvement projects along Highway 200 between Dixon and Paradise. Although designed for primarily for public safety, I do not believe that wildlife and other resources have been fully considered in design of this highway project and ask that more consideration be given to the potential barrier this highway could eventually become. While traffic volumes are currently not excessive, speeds on this road are. Proposed highway reconstruction would allow increased traffic speed in some stretches and the draft EA argues that this would decrease wildlife mortality because sight distance for motorists would increase. I disagree with this argument. Many deer killed on highways are killed because they jump out in front of motorists and increasing sight distance is not going to improve this. In my experience, the faster drivers go, the less their reaction time is to stop for sudden events like a deer or other wildlife jumping in front of them.

Wildlife may be affected by this project in many ways. The EA talks about potential impacts to wildlife and offers some mitigation (primarily signing) to reduce these risks. I would like to see more consideration of the cumulative effects of highways on wildlife, in particular the effects of increased mortality due to highway reconstruction and the potential of Highway 200 eventually becoming a barrier to wildlife. There is a relationship between highway permeability for wildlife and traffic volume and speed. As traffic volume and speed increases, highways become more and more of a barrier to wildlife movement. The EA does not consider the effects to wildlife of projected traffic volumes and speeds as a result of highway reconstruction in this context. Several areas in western Montana, including areas along Highway 200, are considered key linkage areas for carnivores such as lynx and wolverine. Although these species do not reside in the valleys where the highway is, individuals of these species must be able to cross the valley to keep an intact population.

Key wildlife crossings that have been identified in the EA (for example, Magpie Creek). Alternatives to consider at these crossings (besides just signing) include:

1. wildlife culverts. These are dry culverts large enough to allow passage for ungulates and potentially wide ranging carnivores.
2. bottomless culverts or oversized culverts along smaller streams, for example Robertson and Wilson Creeks. These would be designed to include adjacent dry habitat to allow small mammals, amphibians and reptiles to safely cross.

Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. These sections discuss wildlife mortality, wildlife crossing the highway, wildlife corridors and habitat connectivity. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. MDT coordinated analysis of wildlife crossing areas with the CSKT Wildlife and Fisheries Program managers; the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, Plains / Thompson Falls District Wildlife Biologist; and USFWS Ecological Services. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species. Section 2.5 in the EA discusses the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build).

Section 3.4 in the EA Addendum has additional information about truck traffic. Section 3.24 in the EA Addendum has additional information about cumulative effects.

RESPONSE TO COMMENT NO. 32

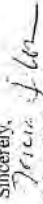
The proposed projects would replace an existing two-lane highway with an improved two-lane highway having improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that substantial increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety while keeping construction costs and impacts to a minimum.

It is crucial that highway design take into account wildlife permeability and include consideration of all species, not only ungulates. There are many designs that can be easily incorporated in this reconstruction that should be used. As traffic volume and speeds continue to increase due to wider, safer highways, connectivity of our rarest species will continue to be compromised.

Montana is the last stronghold for many of these species in the lower 48 states. It is crucial that we think of our future and design highways not just for people but also for the wildlife that is so unique to our area. Thank you for considering my comments.

Sincerely,



Tricia O'Connor

Reprinted

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JAN 24 2000

ENVIRONMENTAL

Hi Joel M. Martin

I got your letter saying you
extended written comments so heres
mine.

I live 3 miles east of Dixon and
I sure like the 6 miles you put
in last year.

I think where the ditches are clean
of trees and brush. There's a lot
less wild animals along the highway.
And driving at night you can see
long sides of the road better.

Them curves west of Dixon would
~~sure~~ sure use some straightening out
I think, and make the hi way
safer a long the river and
it needs to be wider down
that way.

Clara Likens
Box 73 A

Dixon
MT. 59831

Comment noted.

January 24, 2000

Joe Mar shik
Mt. Dept. of Transportation
2701 Prospect Ave.
Helena, MT. 59620-1001

RECEIVED

JAN 25 2000

ENVIRONMENTAL

Highway 200 Plans for Dixon to Paradise

Dear sirs,

I'm writing to voice my concern over the proposed widening and straightening of Hwy.200 west of Dixon. I feel this is totally unnecessary given the small amount of traffic along this stretch to Paradise. In fact, I feel the curves give one an opportunity to pass any semis once the straights are reached, before the truck can get up to speed. This has only been necessary about twice since I've been using this road starting in 1993! This stretch is so "fonesome" I can't imagine why it should be widened and straightened. I'm requesting that an Environmental Impact Statement be prepared for this section of Hwy. 200 from Dixon to Paradise. Thank you.

Sincerely, Jeff Morrow

The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of long-standing, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum. Section 3.24 in the EA Addendum provides additional information for cumulative effects.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FIIWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

Barbara Rentschler
6454 St. Mary's Lk. Rd.
St. Ignatius, MT. 59865

Joel Marshik
Montana Dept. of Transportation
P.O. Box 201001
Helena, MT. 59620

RECEIVED

JAN 28 2000

1-25-00

Dear Mr. Marshik, ENVIRONMENTAL

I am writing concerning the proposed construction-destruction your Department is suggesting for Highway 200. I am deeply concerned about the effects of your proposal on the integrity and health of the environment, wildlife, and the human communities in the area.

The Environmental Assessment done on the proposed project is inadequate at best, and fails miserably at addressing the important and vital issues of damage to wildlife, the environment, historical and cultural values, as well as the certain degradation of prime ranch land, and the impact this will have on small family ranchers that are already struggling.

The Flathead River is a gem beyond words, and it's importance to wildlife not debatable. This area is crucial to habit and is considered a HIGH PRIORITY KEY LINKAGE AREA for wildlife movements across much of western Montana. It is vital that ANY changes to this area be sensitive to all of these considerations, and be as non-invasive as possible.

In order to do this, it is essential that a FULL EIS be done, to study ALL of the potential impacts of all suggested changes brought about through the re- construction process. Also, more research is needed to find more flexible, and LESS DEGRADING options than the one offered by your department.

Mr. Marshik, we Montanans have a CHOICE as to the decisions made that so deeply and irrevocable change our true Treasure of a state. I am not willing to forfeit the priceless values of the area surrounding highway 200, for heavy truck traffic, pollution, and strip development. Please show that you also value what we have, here in Montana. INSIST ON A FULL EIS!!

WE WILL FACE THE CHOICES WE MAKE TODAY, FOREVER.

Thank you,

Barbara D. Rentschler Ms.T.

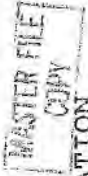
Discussion regarding wildlife road crossing patterns and impacts to wildlife movement was provided in the BRR. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. Sections 3.13, 3.14, 3.15, 3.16, 3.17, and 3.18 in the EA Addendum have additional information for biological resources. These sections discuss wildlife mortality, wildlife crossing the highway, wildlife corridors and habitat connectivity. This discussion and supplemental information received subsequent to the July 1999 publication of the BRR, including the December 1999 USFS linkage area proposal, was incorporated in the EA Addendum. MDT coordinated analysis of wildlife crossing areas with the CSKT Wildlife and Fisheries Program managers; the USFS Endangered Species Program Leader, National Grizzly Bear Habitat Coordinator, Plains / Thompson Falls District Wildlife Biologist; and USFWS Ecological Services. The U.S. Fish and Wildlife Service has concurred with the Biological Resources Report's determinations of effect for the Preferred Alternatives on threatened and endangered species. Section 2.5 in the EA discusses the Preferred Alternatives (i.e., Paradise Minimum Build and Dixon Build).

Section 3.4 in the EA Addendum has additional information about truck traffic. Section 3.24 in the EA Addendum has additional information about cumulative effects.

The proposed projects would replace an existing two-lane highway with an improved two-lane highway having improved alignment and grades in essentially the same highway corridor. No factors have been identified indicating that substantial increases in truck and automobile traffic volumes, above normal historic growth rates, would be induced by the proposed improvements.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.



MONTANA DEPARTMENT OF TRANSPORTATION

Comment Form

Project: Paradise - E. (East Section) & Dixon - West
 Project Number: STPP 6-1(36) and STPP 6-1(30)99
 Control Number: 1011 & C891

You are invited to make your comments on this form and leave it with the meeting officials or take it with you and mail it to Jim Weaver, District Administrator, PO Box 7039, Missoula, MT 59807-7039 by December 29, 1999.

Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Douglas Baty - Box 26,
Dixon, MT 59831

COMMENTS: Hello: As a local resident for
30 years, I am writing to strongly oppose
the decision of M DOT to rebuild highway 200
from Dixon-West in a manner which totally
obscures the natural landscape. I believe
this project, as proposed will degrade the
valley, diminish critical wildlife use and
increase high speed truck traffic.

The feature in the EA to consider any possibility
other than the MDOT plan and doing nothing shows
that it is only a rubber stamp for a pre-designed
highway. This is contrary to the spirit of national and
state environmental laws and prevents any meaningful
involvement by citizens.

Some years ago I participated in a series
of meetings in the MDOT Helene office designed
to make the Department more accountable to its
stakeholders. IT was shocking to me at the time



The proposed highway improvements are in response to existing traffic demand, which has been increasing and is projected to continue to increase, with or without the proposed highway improvements. The proposed improvements are part of longstanding, state and federal programs for maintaining the safety, operation and viability of Montana's highway system.

Sections 3.4 and 3.24 in the EA Addendum provide additional information for truck traffic and cumulative effects.

The proposed project would replace an existing two-lane highway with a new two-lane highway with improved alignment and grades in essentially the same highway corridor.

The appropriate widths of traffic lanes, shoulders and slopes have been determined specifically for these projects using universally accepted national and state guidelines. Traffic volumes, traffic characteristics, terrain, climatic conditions, roadway classification, accident statistics and other factors have been evaluated based on American Association of State and Highway Transportation Officials (AASHTO), MDT, and other national and state highway design guidelines. These guidelines have been developed to maximize highway safety, while keeping construction costs and impacts to a minimum. Section 3.24 in the EA Addendum provides additional information for cumulative effects.

what a low level of confidence The general public had in the Department - given C and D grades on a statewide poll - but better watching The Department's behavior with land owners and other residents concerned with highway 200, I understand and increasingly share that negative attitude toward The Department.

I believe that if a 'minimum build' alternative had been offered for the Dixon West section it would have met with broad support, but the present plan should be rejected. A full EIS should be developed.

Sincerely,

Douglas B. Belsky

Chapter 2 in the EA and EA Addendum discuss the alternatives considered and the Preferred Alternatives. MDT developed the alternatives to determine whether the proposed action would result in significant impacts. Chapter 2 in the EA and EA Addendum discuss the alternatives considered and the Preferred Alternatives. MDT developed the alternatives to determine whether the proposed action would result in significant impacts. This EA complies with guidance for preparing environmental assessments in FHWA Technical Advisory T 6640.8A (October 30, 1987). The EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

The purpose of the environmental assessment is to determine whether the proposed action would result in significant impacts. FHWA, based on the findings of the EA, then determines whether it is necessary to prepare an environmental impact statement. This EA and EA Addendum consider all of the issues identified by public scoping meetings, agency scoping, and the public hearings and comments on the EA.

Based on the intent of the environmental assessment to determine whether there would be significant impacts and whether it would be necessary to prepare an environmental impact statement, preparing an EA for the Dixon and Paradise sections is reasonable and justifiable.

RECEIVED

DEC 28 1989

ENVIRONMENTAL

MONTANA DEPARTMENT OF TRANSPORTATION

Comment Form

Project: Paradise - E. (East Section) & Dixon - West
Project Number: STPP 6-1(36) and STPP 6-1(30)99
Control Number: 1011 & C891

You are invited to make your comments on this form and leave it with the meeting officials or take it with you and mail it to Jim Weaver, District Administrator, PO Box 7039, Missoula, MT 59807-7039 by December 29, 1999.

Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS:

Roy & Barbara Kelly
8996 Shury 200 - Plains, MT. 59819

COMMENTS:

Even tho we would be impacted the truck we
think the Parkway build on the section from 88 -
to 95 - How the curves would be the best
build. We do however wish the spring saved

Comment noted.



**Summary of Public Hearings
on the Environmental Assessment
for
STPP 6-1(36)85
Paradise - East (East Section)
P.M.S. Control No. 1011
and
STPP 6-1(30)99
Dixon - West
P.M.S. Control No. C891**

**SUMMARY OF
PUBLIC HEARING**

**ENVIRONMENTAL ASSESSMENT FOR
PARADISE-EAST (EAST SECTION), STPP 6-1(36)85, CN 1011
DIXON-WEST, STPP 6-1(30)99, CN C891**

December 14, 1999
Dixon, Montana

The Montana Department of Transportation (MDT) held a public hearing on December 14, 1999 in the Senior Citizens Center at Dixon, Montana. The public hearing was to take public comments about the environmental assessment (EA) for the referenced projects.

Dave Dreher from the MDT Office of Public Involvement opened the meeting at 7:00 P.M.. He explained the purpose of the hearing and discussed the availability of comment sheets. He discussed the format of the meeting would include a presentation to describe the projects, followed by sessions for question-and-answer and public comments.

Jim Weaver, MDT Missoula District Administrator, presented a review of the Paradise and Dixon Projects. The presentation described the location, purpose and need, project history, alternatives, preferred alternatives, schedule, and cost.

Questions and Answers

Jim Weaver answered questions from the audience:

Q: Extension of the comment period.

A: The comment period ends December 28, 1999. MDT will accept comments after that date.

Q: Whether the Paradise Minimum Build Alternative meets basic standards for safety.

A: The 'minimum build' has lower standards than the 'build' alternative for safety in certain locations.

Q: (Two Questions) Comparative cost of Paradise alternatives.

A: The cost of 'minimum build' would be \$6.5 million. Mr. Weaver didn't know the cost of the 'build' alternative; he offered to provide that information the next day.

Q: Reasoning for constructing 'minimum build' alternative.

A: Referred to opportunity audience's opportunity to make comment after question and answer session.

- Q: Meaning of 'build' alternative being safer than 'minimum build'.
A: 'Minimum build' would have sharper curves.
- Q: Grade.
A: Described the grade through the two projects.
- Q: (Inaudible)
A: Described process with either a finding of no significant impact (FONSI) or an environmental impact statement (EIS) following the EA.
- Q: Criteria for considering the 'build' alternative'.
A: Described criteria for considering alternatives.
- Q: Accident rates, Dixon-West's accident rate is lower than Paradise-East's, and why is MDT scheduling Dixon-West before Paradise-East.
A: Dixon West's accident rate is slightly below the statewide average. Paradise-East's accident rate is much higher. Dixon-West's timing, including purchase of right-of-way and funding, is ahead of Paradise-East's.
- Q: Location to start construction for Dixon-West.
A: Construction would begin at the west edge of Dixon. The contractor would be able to work on both ends of the project simultaneously in one construction season.
- Q: Snow covers lines on the highway; need a sign to indicate edge of road on curve near Junction MT200/SR212.
A: 'Thermal plastic' is material for marking intersections. It is duller at night and during rain. Snow covers all markings.
- Q: Learning from experience of last project.
A: Always like to learn.

Public Comment

Transcripts of public comments are in the project files at the Montana Department of Transportation, Helena, Montana.

Jerry Hermel: Lives west of Dixon. Commented on need for more maintenance in the right-of-way from fence row to fence row. Described boulders, tree stumps, and steel posts. Recommended rolling and mowing the right-of-way. Suggested allowing adjacent land owners to grow and harvest hay in the right-of-way.

Richard Eggert: Resident of Dixon. Commented on potential for trucks traveling between Spokane, Washington and northwestern Montana to increase use of MT135, MT200, and SR212 if MT 200 is reconstructed with a 60 mph design speed. Identified trucks hauling freight from Spokane and trucks hauling petroleum from Missoula to

Plains as sources for increased traffic. Discussed potential for effects on safety, including spills, movement of livestock, slow-moving vehicles and equipment, and development adjacent to the highway. Identified other projects to include in analysis of cumulative effects. Discussed lack of wildlife crossings as mitigation measures in the EA. Recommended preparation of an EIS, instead of a FONSI.

Paul Uken: Speaking as a Field Safety Representative for the Montana Logging Association and the Professional Log Haulers Committee, supported improvement of MT200. Discussed past improvements and need to continue to improve safety. Requested MDT not forget the rural nature of the area and the need for good roads.

Jack Aether: Resident of Dixon. Speaking as a member fo the Dixon Rural Fire Department and Haz-Mat Response Team, discussed potential for a major accident involving trucks and spills. Identified four recent accidents between Dixon and Perma. Supported an improved highway that would improve safety for off-road accidents.

Nancy Beech: Resident of Paradise. Discussed the Sanders County Growth Policy Plan. Requested the planning process for the highway projects consider the plan's goals and objectives, including developing memorandums of agreement and understanding among governmental agencies. . Identified unique character of the county, public health, and safety as issues.

Faye Pitts: Lives west of Dixon. Discussed effects of MDT obtaining her land for right-of-way, including parts of important hay and alfalfa fields. Discussed the beauty of the area. Opposed building a highway with faster speeds that would be a truck route. Identified examples of livestock on the highway.

Pat Hurley: Instructor of environmental science at Salish Kootenai Collee. Discussed concern about inadequate analysis in the EA. Identified effects on ranchers and the highway changing from a rural farm-to-market or scenic highway to a truck bypass. Discussed need for analysis of cumulative effects with improving other connected highways. Discussed inaccuracies in the EA for biological resources. Recommended preparation of an EIS, instead of a FONSI.

Ann Brady: Resident of Dixon. Supported improvement of the highway.

Tom Smith: Resident of Charlo. Representing the Flathead Resource Organization, supported safety improvements on MT200. Discussed possibility of making the highway safer while taking care of the place. Discussed lack of information and incorrect information in the EA, including the purpose and need not saying the design is for a truck route. Presented an illustration comparing visual and aesthetic effects of alternatives. Criticized the process the EA used to consider effects on farmlands. Discussed need for analysis of effects on scenic beauty and economic development. Discussed need for more information about effects on noise. Discussed analysis of accident rates and lack of fatalities on the Dixon-West segment in the last 10 years. Recommended redoing the EA.

Boone Cole: Ranches between Dixon and Ravalli. Discussed improvement of safety with the new highway between Dixon and Ravalli, including better sight distance.

Jim Murphy: Resident of Dixon. As an over-the-road salesman, supported new highway and discussed need to improve safety for cars and trucks. Discussed drivers, including trucks, using the route because it is the shorter route to their destination.

Gail Patton: Sanders County Commissioner. As the county commissioner for this district, discussed need for safety with cars, trucks and bicycles. Discussed increase in truck traffic between St. Regis and Elmo, using MT 135, MT200, MT28, or SR382.

Harold Young: Lives five miles east of Dixon. Discussed need to improve the highway, but with a different design. Proposed design for safety, with banking curves, wider trafficlanes and wider sholders. Referred to iterature about types and causes of accidents. Discussed design with smaller cut and fill. Identified need to identify origin and destination for truck traffic and potential for increase of truck traffic.

Emmalou Baty: Discussed a white fence along the highway between Dixon and Paradise. Identified a desire to place importance of scenic values ahead of other factors.

Conclusion

Dave Dreher concluded the meeting after the public comments.

**SUMMARY OF
PUBLIC HEARING**

**ENVIRONMENTAL ASSESSMENT FOR
PARADISE-EAST (EAST SECTION), STPP 6-1(36)85, CN 1011
DIXON-WEST, STPP 6-1(30)99, CN C891**

December 15, 1999
Paradise, Montana

The Montana Department of Transportation (MDT) held a public hearing on December 15, 1999 in the gymnasium at the school in Paradise, Montana. The public hearing was to take public comments about the environmental assessment (EA) for the referenced projects.

Dave Dreher from the MDT Office of Public Involvement opened the meeting at 7:00 P.M.. He explained the purpose of the hearing and discussed the availability of comment sheets. He discussed the format of the meeting would include a presentation to describe the projects, followed by sessions for question-and-answer and public comments.

Jim Weaver, MDT Missoula District Administrator, presented a review of the Paradise and Dixon Projects. The presentation described the location, purpose and need, project history, alternatives, preferred alternatives, schedule, and cost.

Questions and Answers

Jim Weaver answered questions from the audience:

Q: Cost of alternatives.

A: The costs are \$8 million for Dixon Build, \$6 million for Paradise Build, and \$4.4 million for Paradise Minimum Build.

Q: Reason for not having a Dixon Minimum Build Alternative.

A: The Dixon Build Alternative follows the existing alignment and is relatively straight. A 'minimum build' would not provide advantage to the Dixon Build Alternative.

Q: Speed limits for smaller communities.

A: The Legislature sets the overall speed limit. The Legislature gave authority to the State Transportation commission to create special speed zones, based on special investigation.

Q: The reason the Paradise alignment is safe.

A: Straightening curves is a factor to increase safety.

- Q: How much safer is the Paradise alignment.
A: The new segment of highway between these projects is up to the proposed standards.
- Q: Regarding speed limit... (inaudible).
A: The speed limit there would be 50 mph. More curves will be sharper. The speed limit would be 70 mph.
- Q: Regarding soils.
A: The design phases in some soils...(inaudible).
- Q: Regarding scenic byway designation.
A: Montana doesn't have a scenic byway program. The U.S. Forest Service designates national forest scenic byways.
- Q: Meaning of term FONSI.
A: A finding of no significant impact (FONSI) is the decision document.
- Q: Regarding Dixon-West...(inaudible).
A: (Inaudible).
- Q: (Inaudible).
A: An alternative until start of construction.
- Q: Width of driving lanes, gradient area away from curves, and width of the right-of-way.
A: Width and grades vary. They are available in the plans for specific locations.
- Q: Shoulders and clear zone for the new highway between Dixon and Ravalli.
A: That roadway is very close to the proposal for these projects.
- Q: Regarding studies for eight-foot shoulders and steeper slope; basis for safety in this design.
A: The design has recovery zones, which are flat shoulders, 6:1 or 4:1 slopes, and a clear zone for vehicles to recover without hitting some obstacle. The distance is a minimum of 30 feet with four-foot shoulders.
- Q: Regarding Dixon-West...(inaudible).
A: A biological assessment and a biological resources report addresses wildlife crossings. MDT uses a set of criteria for locations of stock underpasses. One land owner has requested a stock underpass on these projects.
- Q: Regarding the biological resources report.
A: (Inaudible).

Q: (Inaudible).

A: (Inaudible).

Q: Regarding the EA and fish...(inaudible).

A: Public comment will follow questions and answers. Bridges over Magpie and Revais creeks were built a few years ago...(inaudible).

Q: (Inaudible).

A: A difference of opinion between the biologist that prepared our assessment and the tribal council's...(Inaudible).

Q: Regarding safety and the clear zone...(inaudible).

A: Research papers on highway safety show relationship between safety and clear zones.

Q: Regarding the segment of road that would be resurfaced...(inaudible).

A: A road that was built in the early-1970s and meets our safety standards. It had width, was a relatively good segment of roadway, and just needed to be paved.

Public Comment

Transcripts of public comments are in the project files at the Montana Department of Transportation, Helena, Montana.

Nancy Beech: Resident of Paradise. Discussed the Sanders County Growth Policy Plan. Requested the planning process for the highway projects consider the plan's goals and objectives, including developing memorandums of agreement and understanding among governmental agencies. Identified natural scenic character, wildlife, vegetation, special resources and habitat, health and safety as issues.

Tom Smith: Resident of Charlo. Representing the Flathead Resource Organization, supported safety improvements on MT200, while not radically changing the character of the landscape and contributing to the difficulty of small family farms and ranches. Discussed lack of information and incorrect information in the EA. Requested more information about patterns of truck traffic. Stated need to study if trucks might currently avoid MT135 and MT200 to take a longer route on I90; then would these trucks use MT135 and MT200 because of these projects, bringing more double trailers and transport of hazardous waste. Discussed need for analysis of reasonable alternatives. Presented an illustration comparing visual and aesthetic effects of alternatives. Discussed need for wildlife crossings.

Tom Gody: Resident of Plains. Supported MDT's plan for straightening curves. Supported the Dixon Build Alternative and either the Paradise Build or Minimum build alternatives.

Robert French: Resident of Plains. Supported the preferred alternatives. Discussed straightening curves increases speed, improving the highway increases truck traffic, and providing the straightest, safest road possible. Stated the safest road would be away from the river. Stated Magpie and Revais creeks are dry sometimes.

David Wiseman: Resident of Moiese. Project leader for the National Wildlife Refuge System Lands in Northwest Montana, including the Bison Range and Nine Pipes. Supported the Paradise Minimum Build Alternative. Requested additional consultation if there is new information about wildlife. Discussed other highway projects in the area and expectation SR212 would have more truck traffic. Discussed need for the EA to discuss grizzly bears using the Nine Pipes area.

Richard Eggert: Discussed need for the EA to evaluate more alternatives, including a 'minimum build' to address whether to straighten curves for Dixon-West. Discussed the U.S. Forest Service's designation of the area as a key connectivity area and effects of the highway on wildlife, including providing wildlife crossings and fragmentation of habitat. Identified possibility of tunneling, rather than cutting, through rock faces. Discussed possibility of more truck traffic. Recommended preparation of an EIS.

Harold Young: Lives between Dixon and Ravalli. Referred to literature about traffic and listed volume of traffic, speed of traffic, width of lanes, width of shoulder, and obstructions in the roadway as the major factors in traffic hazards. Presented a computer analysis for a section of the Magpie curves. Criticized the plans to straighten the highway and stated the other side of the speed issue is curves slow down traffic. Discussed accident statistics for curves between Magpie and Revais creeks, stating there were no accidents on that segment in winter months over a 10-year period. Discussed four locations with clusters of accidents, including one segment of curves, one segment mixing curves and straight road, and two existing straight segments. Submitted a packet of information with copies of a written article about the Federal Highway Administration promoting design that is compatible with communities, the natural environment, and the visual environment.

Conclusion

Dave Dreher concluded the meeting after the public comments.

**Environmental Assessment
for
STPP 6-1(36)85
Paradise - East (East Section)
P.M.S. Control No. 1011
and
STPP 6-1(30)99
Dixon - West
P.M.S. Control No. C891**

Environmental Assessment
For
STPP 6-1(36)85
PARADISE - EAST (EAST SECTION)
P.M.S. CONTROL NO. 1011
&
STPP 6-1(30)99
DIXON - WEST
P.M.S. CONTROL NO. C891

IN
SANDERS COUNTY, MONTANA

MONTANA DEPARTMENT OF TRANSPORTATION

AND

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Environmental Assessment
For
STPP 6-1(36)85
PARADISE - EAST (EAST SECTION)
P.M.S. CONTROL NO. 1011
&
STPP 6-1(30)99
DIXON - WEST
P.M.S. CONTROL NO. C891
IN
SANDERS COUNTY, MONTANA

This document is prepared in conformance with requirements of the National Environmental Policy Act (NEPA) and contains information necessary for an environmental assessment (EA) under 23 CFR 771.119 and 40 CFR 1500 to 1508. It also is prepared in conformance with requirements of the Montana Environmental Policy Act (MEPA) for an EA under the provisions of ARM 18.2.237(2) and 18.2.239.

Submitted pursuant to 42 U.S.C. 4332(2)(c),
and Sections 75-1-201 & 2-3-104, M.C.A.

by the
Montana Department of Transportation
and
U.S. Department of Transportation, Federal Highway Administration

Submitted by:

November 5, 1999
Date

Karl M Helvik
for Montana Department of Transportation
Environmental Services

Reviewed and Approved for Distribution:

11-9-99
Date

[Signature]
for Federal Highway Administration

The following persons may be contacted for additional information concerning this document:

Joel M. Marshik, Manager
Environmental Services
Montana Department of Transportation
Box 201001
Helena, MT 59620-1001

Janice Brown, Administrator
Montana Division
Federal Highway Administration
2880 Skyway Drive
Helena, MT 59602

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1 PURPOSE AND NEED FOR ACTION

This chapter of the environmental assessment (EA) describes the proposed action, its purpose and need, and the history of projects associated with the proposed action. The purpose and need discusses deficiencies of the existing roadway, improvements that correct the deficiencies, and traffic and safety.

1.1 Proposed Action

The Montana Department of Transportation (MDT), in conjunction with the Federal Highway Administration (FHWA), proposes to reconstruct two sections of Montana Highway 200¹ with two projects between Paradise and Dixon in Sanders County, Montana (see Figures 1-1, 1-2, and 1-3):

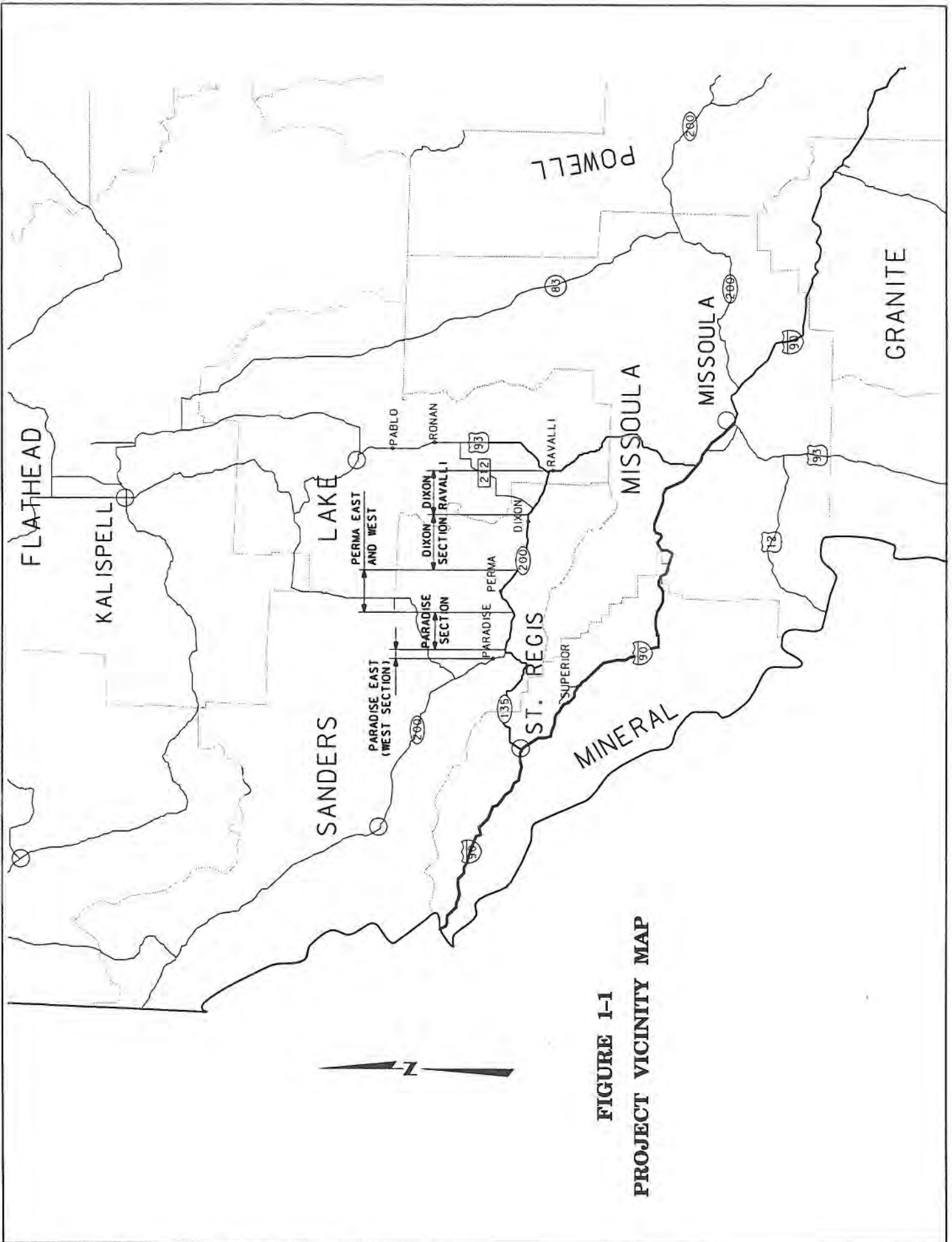
- Paradise-East (East Section), 8.4 kilometers (km), or 5.2 miles (mi) long; beginning 0.6 km (0.4 mi) east of the junction MT 200/135, at approximately Reference Post (Milepost) 85.4, and extending eastward to RP (MP) 90.6. This EA refers to this section as the Paradise Section.
- Dixon-West, 15.8 km (9.8 mi) long; beginning at approximately RP (MP) 99.1 and extending eastward to RP (MP) 108.9 at the west edge of Dixon. This EA refers to this section as the Dixon Section.

The total length of the proposed action is 24.2 km (15.0 mi). The two sections are separated by 13.7 km (8.5 mi). The Paradise Section crosses the boundary of the Flathead Indian Reservation at RP (MP) 88.9. The eastern 2.7 km (1.7 mi) of the Paradise Section and the entire Dixon Section, 15.8 km (9.8 mi), are within the Reservation.

The project area is in a sparsely populated part of Sanders County and the Reservation. Paradise and Dixon are two small, unincorporated communities with populations less than 200. Plains (population 1,000) is approximately 12.9 km (8 mi) northwest of the Paradise Section. Missoula (population 51,000) is approximately 64 km (40 mi) southeast of the Dixon Section.

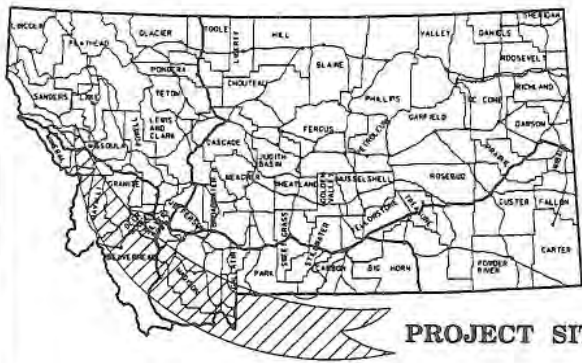
It may be appropriate, where substantial environmental effects may occur, where construction costs may be excessive, or where otherwise impractical, to consider highway designs that do not meet the desired design speed. It is intended the proposed roadway meet design guidelines and standards to provide needed improvements in safety and operation for the traveling public.

¹Montana Highway 200 is designated Primary Route 6 by MDT.

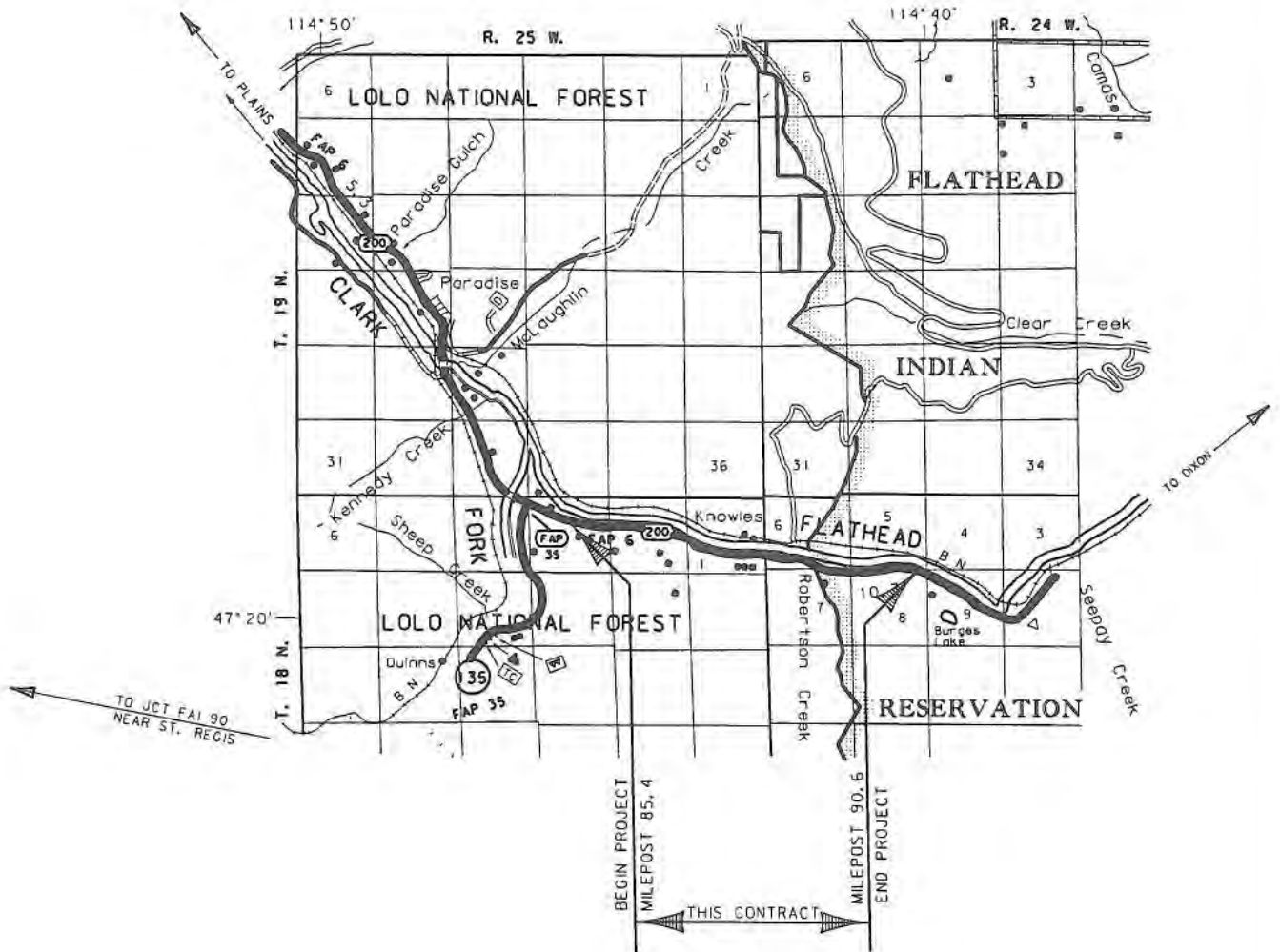


**FIGURE 1-1
PROJECT VICINITY MAP**

**FIGURE 1-2
PROJECT LOCATION MAP**

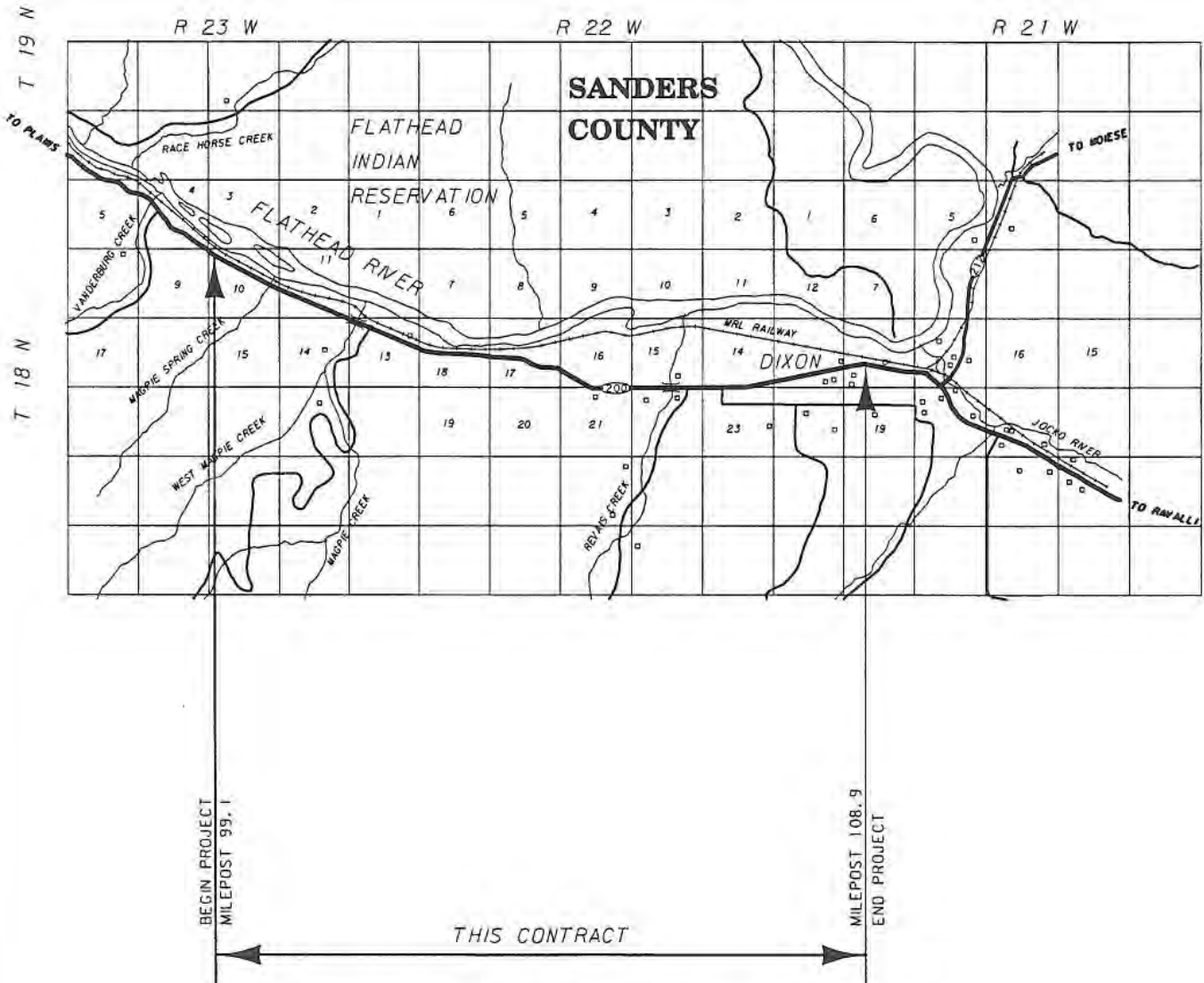
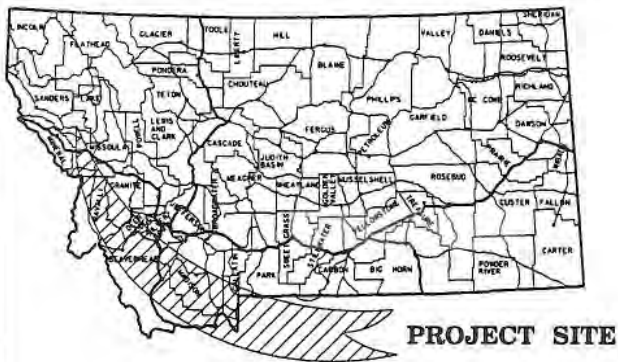


PROJECT SITE



**FEDERAL AID PROJECT NO. F6-1(36)85
PARADISE - EAST
SANDERS COUNTY**

**FIGURE 1-3
PROJECT LOCATION MAP**



**FEDERAL AID PROJECT NO. STPP 6-1(30)99
DIXON WEST
SANDERS COUNTY**

1.2 Purpose and Need

The proposed action would reconstruct and realign the existing roadway, which has been determined inadequate for existing and projected future traffic volumes and characteristics. The intent is to provide a roadway that meets MDT's geometric design standards to provide needed improvements in safety and operation for the traveling public.² A design speed of 100 kilometers per hour (km/h)—60 miles per hour (mph) is considered appropriate for this roadway, based on geometric design standards, functional classification, traffic volumes and characteristics, and terrain.

The proposed action has specific elements of purpose and need, as follows:

- Provide a highway to meet current and future transportation needs;
- Reconstruct or realign the roadway to improve safety and correct deficiencies in the pavement structure and paved surface;
- Provide paved shoulders and flatter slopes on embankments to increase recovery zones for vehicles that leave the roadway;
- Correct deficiencies of substandard horizontal and vertical alignments;
- Upgrade the highway to reduce the overall accident rate and the truck accident rate, which are higher than the statewide average for two-lane highways;

The following sections provide additional detail and explain the need for improvement of the highway.

1.2.1 Existing Roadway

MT 200 in the project area is functionally classified a rural minor arterial.^{3,4} It is the primary east-west transportation and community route for residents living in Sanders County and the southwest portion of the Reservation. It provides access to private residences, transportation for agriculture, commerce, recreation and tourism, and other highway uses. MT 200 also crosses the Lolo National Forest and private lands in the project area.

² *Montana Road Design Manual April 1994*, Montana Department of Transportation.

³ MDT identifies six functional classes of roadway: Interstate, principal arterial, minor arterial, major collector, minor collector, and local. The classification is based on character of service to provide two basic functions—access to property and travel mobility. *Montana Road Design Manual*. Montana Department of Transportation. 1994.

⁴ Geometric design tables in the *Montana Road Design Manual* present design values for six functional classes of roadway: Interstate, principal arterial, minor arterial, major collector, minor collector, and local. Design values, which vary for functional classes of roadway, include design speed, width, safety elements, amenities, and other values.

MDT analyses determined the roadway's subgrade, base layer, and plant mix layer are weak to marginal. These conditions result in broken, rough pavement and indicate need to reconstruct the roadway for current and projected traffic volumes and characteristics.⁵ The current roadway requires more maintenance (i.e., equipment, materials, and labor) than a roadway with adequate structure, surface, and geometric alignment.⁶ Existing embankment slopes are steep and don't meet MDT's safety standards for allowing drivers to recover when vehicles leave the roadway.⁷ MDT's geometric design standards generally require flatter slopes (i.e., 6:1—horizontal to vertical) to improve safety and reduce erosion.

Paradise Section

The Paradise Section was constructed in 1924 to provide access to local ranches, farms, and residences. It was improved in 1938. It has an existing paved surface width of 6 m (20 ft), which is less than the 9.6 m (32 ft) width required by current MDT geometric design standards.

Fourteen horizontal curves on this section have a radius of curvature less than 395 m (1300 ft). This results in a design speed less than the desired 100 km/h (60 mph), including:

- Five curves have radii less than 175 m (575 ft), with a resulting design speed less than 70 km/h (45 mph).
- Five curves have radii less than 230 m (755 ft), with a resulting design speed less than 80 km/h (50 mph).

The vertical alignment features mostly flat grades—the steepest grade is 3.83% at RP (MP) 89.1. Nearly all the vertical curves that connect these grades have lengths of only 61 m (200 ft). Nine crest and 10 sag vertical curves do not provide desirable stopping sight distance (SSD) at 100 km/h (60 mph) along the segment from RP (MP) 87.0 to 90.5:

- Four crests and four sags provide desirable SSD at less than 70 km/h (45 mph)
- Two crests and one sag provide desirable SSD at less than 80 km/h (50 mph)

Dixon Section

The Dixon Section was constructed between 1920 and 1923 to provide access to local ranches, farms, and residences. It was improved in 1943, 1956, and 1967. It has an existing paved

⁵Montana Department of Transportation, Non-Destructive Testing, "Road Rater" Analysis. 1999.

⁶Montana Department of Transportation, Maintenance Management System.

⁷Roadside Design Guide, American Association of State and Highway and Transportation Officials (AASHTO). AASHTO identifies recoverable slopes as embankment slopes 4:1 or flatter. (Horizontal:Vertical)

surface width of 6.7 to 9.6 m (22-32 ft), as compared with the 9.6 m (32 ft) width required by current MDT geometric design standards.

Fifteen horizontal curves have a radius of curvature less than 395 m (1000 ft). This results in a design speed less than the desired 100 km/h (60 mph), including:

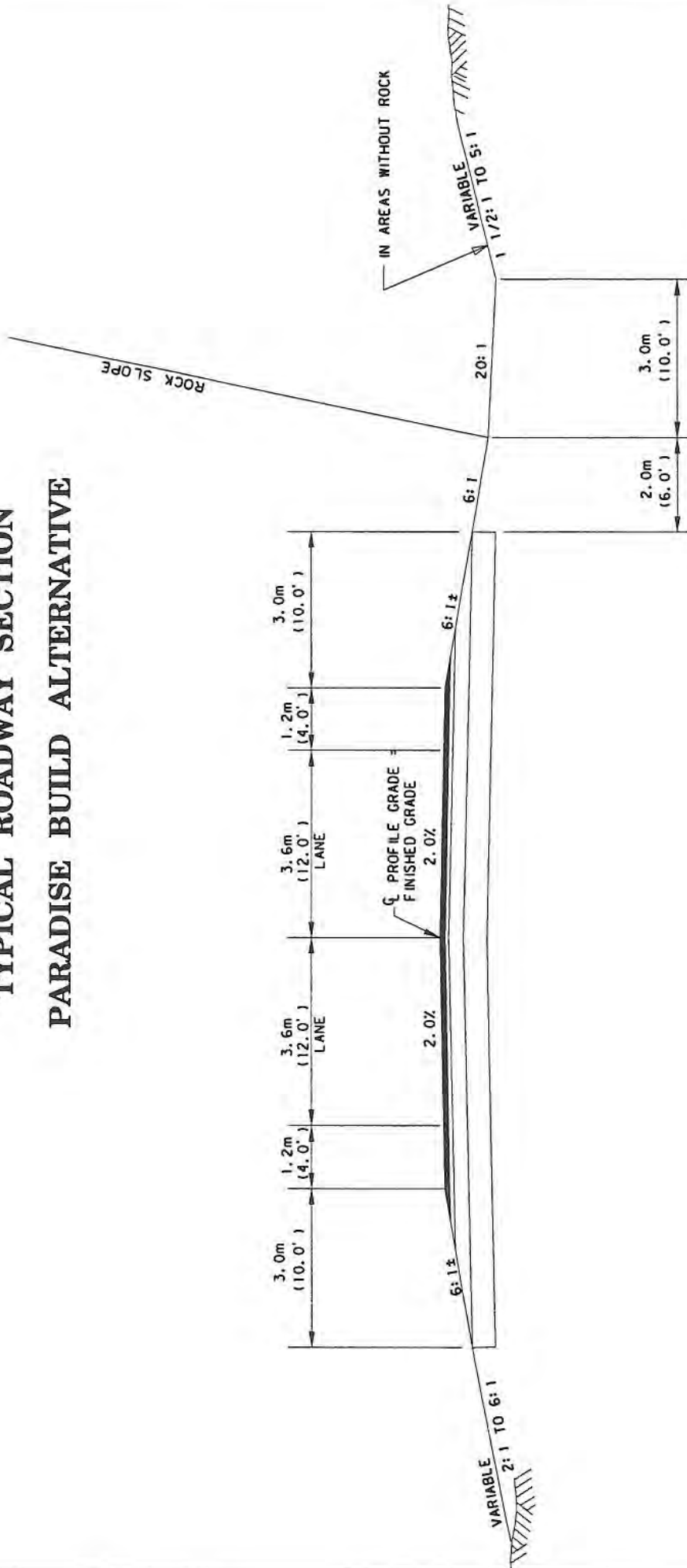
- Twelve curves have radii less than 175 m (575 ft), with a resulting design speed less than 70 km/h (45 mph).
- One curve has a radius less than 230 m (755 ft), with a resulting design speed less than 80 km/h (50 mph).
- Two curves have radii less than 305 m (1000 ft), with a resulting design speed less than 90 km/h (50-55 mph).

Several areas of the Dixon Section have substandard vertical curves resulting in inadequate stopping and passing sight distances. Grades in excess of 3% are common and as high as 6.5%.

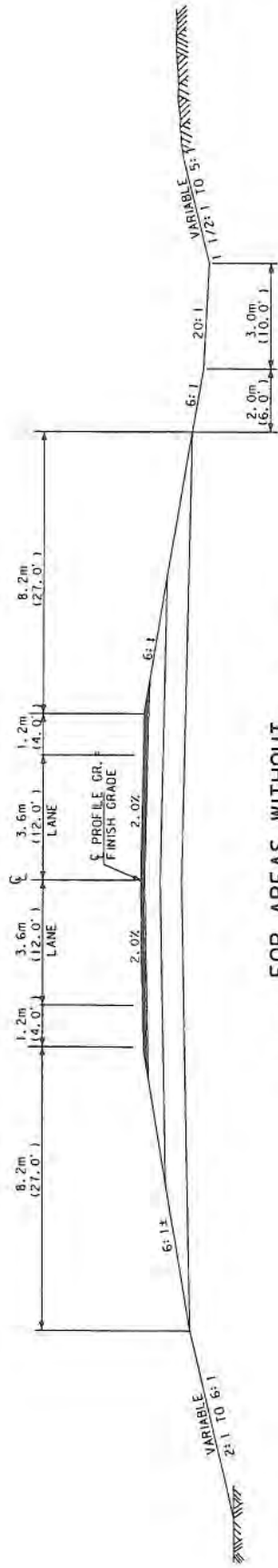
1.2.2 Proposed Roadway

Based on geometric design standards for MT 200, existing terrain, existing and projected traffic volumes, and desired design speed, the design features shown on sheets of Figure 1-4 are proposed for each alternative.

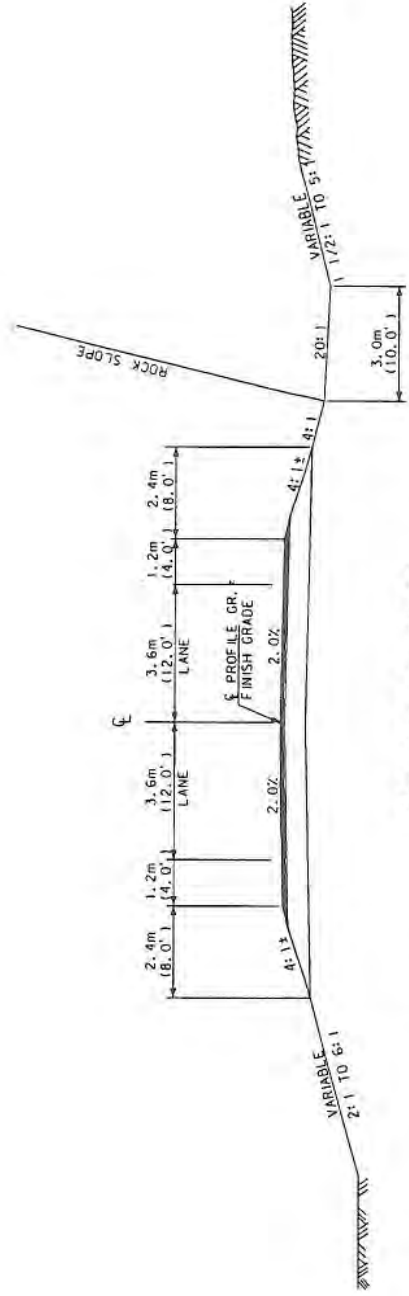
FIGURE 1-4
SHEET 1
TYPICAL ROADWAY SECTION
PARADISE BUILD ALTERNATIVE



**FIGURE 1-4
SHEET 2
TYPICAL ROADWAY SECTION
PARADISE MINIMUM BUILD ALTERNATIVE**

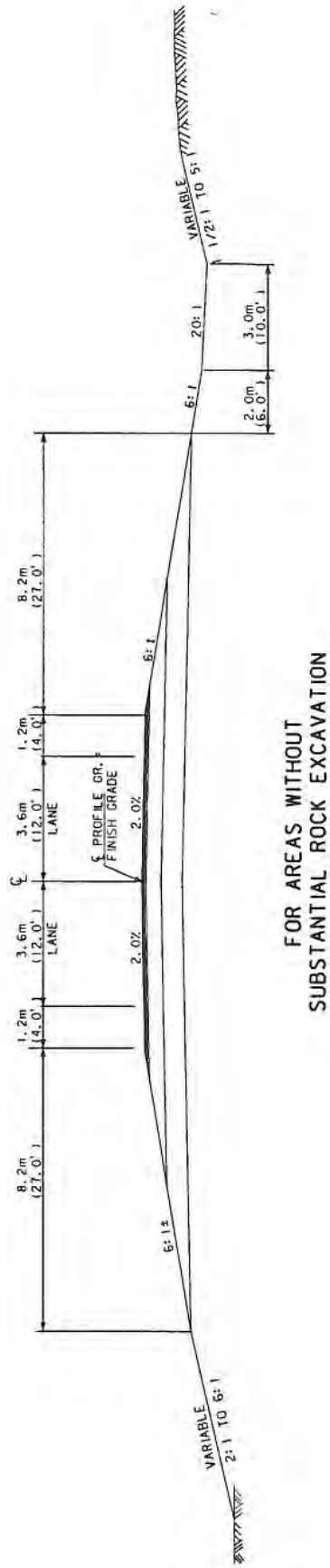


**FOR AREAS WITHOUT
SUBSTANTIAL ROCK EXCAVATION**

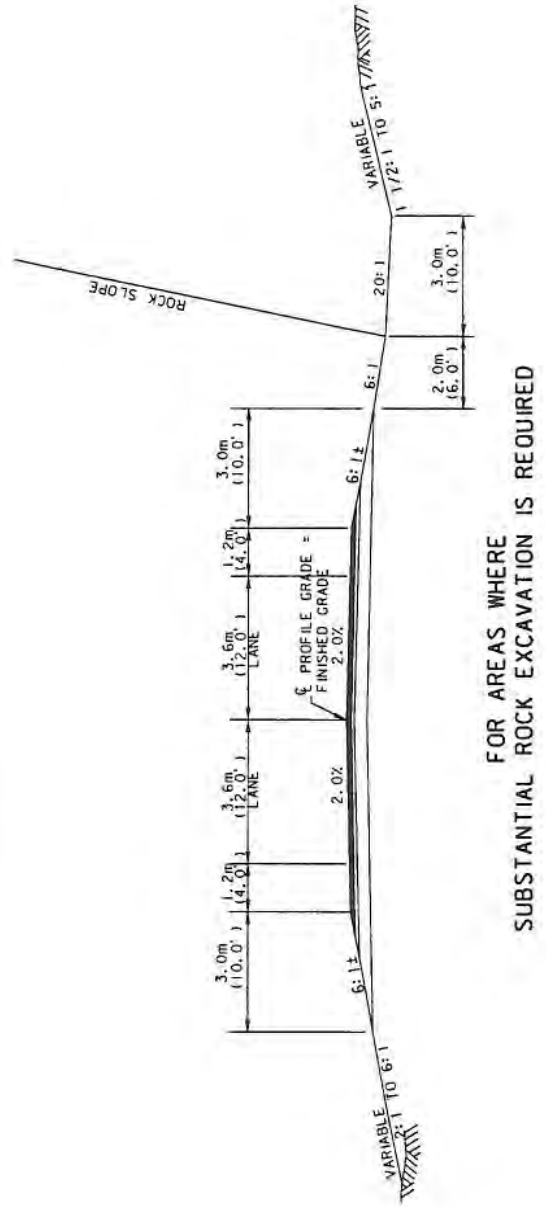


**FOR AREAS WHERE
SUBSTANTIAL ROCK EXCAVATION IS REQUIRED**

**FIGURE 1-4
SHEET 3
TYPICAL ROADWAY SECTION
DIXON BUILD ALTERNATIVE**



FOR AREAS WITHOUT
SUBSTANTIAL ROCK EXCAVATION



FOR AREAS WHERE
SUBSTANTIAL ROCK EXCAVATION IS REQUIRED

Additional design features include:

- Reconstruct and realign the existing roadway to a standard paved surface 9.6 m (32 ft) wide. This includes two shoulders, each 1.2 m (4 ft), and two traffic lanes, each 3.6 m (12 ft).
- Cut slopes, except in rock cuts, ranging from a minimum of 5:1 for depth of cut less than 1.5 m (5 ft) to a maximum of 1.5:1 for depth of cut greater than 6.0 m (40 ft).
- Appropriate guardrail would be installed where warranted.

Depending on the alternative, the proposed roadway would eliminate or improve existing substandard horizontal and vertical curves (See Chapter 2).

1.2.3 Traffic and Safety

The Paradise and Dixon sections had average daily traffic (ADT) volumes 1,310 and 1,480, respectively, in 1997. Table 1-1 shows recent and projected traffic volumes and characteristics.

Item	Paradise Section	Dixon Section	Description
Letting Date	2003	1999	--
1999 ADT	1310	1480	Current Traffic
2019 ADT	2410	2570	Design Year Traffic
DHV	350	380	Design Hourly Volume
D	55-45	55-45	% Directional Distribution ¹
T	15.8	14.8	% Trucks, Medium and Heavy
Montana Department of Transportation ¹ Directional distribution represents a typical peak hour. Directional distribution could be either direction.			

The Paradise Section's accident rate was 3.48 in 1997, nearly 2.5 times higher than the statewide accident rate for the rural primary system.⁸ The Dixon Section's accident rate in 1997 was 1.20, 10 percent lower than the statewide rate.

⁸Accident rates are defined as the number of accidents per million vehicle-miles driven.

The Paradise and Dixon sections have a comparatively high number of truck and off-road accidents; their truck accident rates in 1997 were 1.92 accidents per million vehicle miles, compared with a statewide rate 1.01. Similarly, the Paradise and Dixon sections have comparatively high percentages of off-road accidents—approximately 60 percent versus 38.8 percent statewide.

The roadway's narrow paved surface, unpaved shoulders, steep approaches, and sharp curves are factors contributing to high accident rates. No paved shoulders and steep slopes on embankments provide inadequate recovery zones for off-road accidents.

These Paradise and Dixon sections of MT 200 are the only parts of MT 200 remaining to be reconstructed between I-90 and U.S. Highway 93. Other sections of MT 200 meet MDT's geometric design standards and the desired design speed 100 km/h (60 mph). Drivers entering the Paradise and Dixon sections have become accustomed to the wider, safer roadway and do not expect to encounter highway conditions with inadequate alignment and sight distance. The proposed action would improve the Paradise and Dixon sections to the geometric design standards of MT 200's adjacent sections.

Table 1-2 is a summary of accident data compiled from information provided by the computer database of the Safety Management System of the Montana Department of Transportation for the years 1988 through 1997. The table compares the accident history on the Paradise and Dixon sections with statewide averages for rural primary highways.

As indicated on the table, accident rates for trucks and the percent of off-road accidents are substantially higher on MT 200 in the project area than on the statewide rural primary system. Information from the database identifies the following accident cluster areas on the Paradise Section: RP (MP) 87.3 to 87.7 and RP (MP) 89.3 to 89.5. On the Paradise Section, approximately one-third of the recorded accidents involved tractor/trailer combinations, and most of these involved failure to negotiate a curve.

Information from the database identifies the following accident cluster areas on the Dixon Section: RP (MP) 101.4 to 101.8; RP (MP) 104.3 to 104.8; and RP (MP) 105.7 to 106.1. Many of the accidents on the Dixon Section involved single-vehicle, off-road collisions. Improving existing substandard horizontal and vertical curves would increase sight distance, eliminate unexpected turns, and help reduce the number and severity of accidents.

Table 1-2 Vehicular Accident Data (1997)		
Project% Accident Classification	Statewide Rural Primary System	Study Area
Paradise-East (East): 51 Recorded Accidents		
Accident Rate (All Vehicles) ¹	1.33	3.48
Severity Index (All Vehicles) ²	2.55	3.06
Truck Accident Rate	1.01	1.92
Percent Off-Road	38.8	59.6
Dixon-West: 48 Recorded Accidents		
Accident Rate (All Vehicles) ¹	1.33	1.20
Severity Index (All Vehicles) ²	2.55	2.56
Truck Accident Rate	1.01	1.92
Percent Off-Road	38.8	60.4
Montana Department of Transportation ¹ Accident rates are defined as the number of accidents per million vehicle-miles driven. ² Severity index is defined as the ratio of the number of fatal and incapacitating injury accidents times 8 plus the number of other injury accidents times 3 plus the number of property damage accidents to the total number of accidents.		

1.3 Project History

MDT initially planned two construction projects on MT 200 between Paradise and Ravalli:

- Paradise to Dixon—not initiated due to insufficient funds; became four smaller projects.

-- Paradise-East (West Section)	-- Perma-East and West
-- Paradise-East (East Section)	-- Dixon-West

Paradise-East (West Section) and Perma-East and West were completed in 1997 and 1993, respectively. Environmental documents for these two projects are in the public record. This EA evaluates the remaining two projects, Paradise-East (East Section) and Dixon-West, which are tentatively scheduled for construction in 2003 and 2000, respectively.

- Dixon to Ravalli — construction completed in 1998 under one construction contract.

This EA incorporates information from the following environmental documents or reports prepared by MDT for previous projects between Paradise and Ravalli:

- Categorical Exclusion for Perma-Dixon, July 10, 1986;
- Cultural Resource Survey of Paradise-East (East and West Sections), April 18, 1988;
- Categorical Exclusion for Perma-East and West, April 30, 1992;
- Environmental Assessment for Dixon-Ravalli, April 1994;
- Finding of No Significant Impact for Dixon-Ravalli, October 1995;
- Biological Resources Report for Paradise-East (West Section), April 7, 1995; and
- Re-evaluated Categorical Exclusion for Paradise-East (West Section), June 22, 1995.

2 DESCRIPTION OF ALTERNATIVES

This chapter identifies four alternatives for evaluation of the Paradise and Dixon sections: (1) No-Action; (2) Paradise Build; (3) Paradise Minimum Build; and (4) Dixon Build. The alternatives respond to issues identified by public and agency scoping (see Section 4.5).

2.1 No-Action Alternative

This alternative is included as required by Paragraph 1502.14(d) of the CEQ Regulations (1986). It consists of leaving the existing roadway in its current location and condition. It would not reconstruct or realign the roadway to improve safety and correct deficiencies in the pavement structure, paved surface, and horizontal and vertical alignments. Many of the substandard crest and sag vertical curves are adjacent to one another. The resulting “rolling profile” can hide objects (e.g., rocks and small animals) from view of drivers. This reduces drivers’ available response time to take appropriate evasive action.

No-Action would not provide paved shoulders and flatter slopes on embankments, which increase recovery zones for vehicles that leave the roadway. It would not meet the proposed design speed of 100 km/h (60 mph), and it does not meet the purpose and need for the proposed action (see Section 1.1). There would be no cost for construction and right-of-way (ROW) for this alternative.

2.2 Paradise Build Alternative

This alternative would construct much of the Paradise Section on a new alignment that meets 100 km/h (60 mph) design speed. The alignment is described as follows (see Figures 2-1 and 2-2):

- From RP (MP) 85.4—beginning of the Paradise Section—to 87.1, the horizontal alignment would be mostly parallel with and approximately 12 m (40 ft) south of the centerline of the existing roadway. The vertical alignment would be 1.2 m (4 ft) to 2.4 m (8 ft) higher than the existing roadway.
- From RP (MP) 87.1 to 87.8, the horizontal alignment diverges as much as 52 m (170 ft) south of the centerline of the existing roadway to replace four substandard horizontal curves with two 100 km/h (60 mph) curves. The vertical alignment would be up to 12 m (40 ft) higher than the existing roadway.
- From RP (MP) 87.8 to 88.2, the horizontal alignment of the new roadway would be roughly parallel with and up to 10.5 m (35 ft) south of the centerline of the existing roadway. The vertical alignment would be up to 3 m (10 ft) above the existing roadway.
- From RP (MP) 88.2 to 89.1, the horizontal alignment diverges as much as 125 m (410 ft) south of the centerline of the existing roadway to replace six substandard horizontal curves with four curves with design speeds greater than 100 km/h (60 mph). The vertical alignment would be up to 12 m (40 ft) higher than the existing roadway.

TO JCT. 200/135

SEE CROSS SECTION FIG. 2-2

RP (MP) 88

RP (MP) 89





RP (MP) 89

RP (MP) 90

SCALE 1:8000



LEGEND

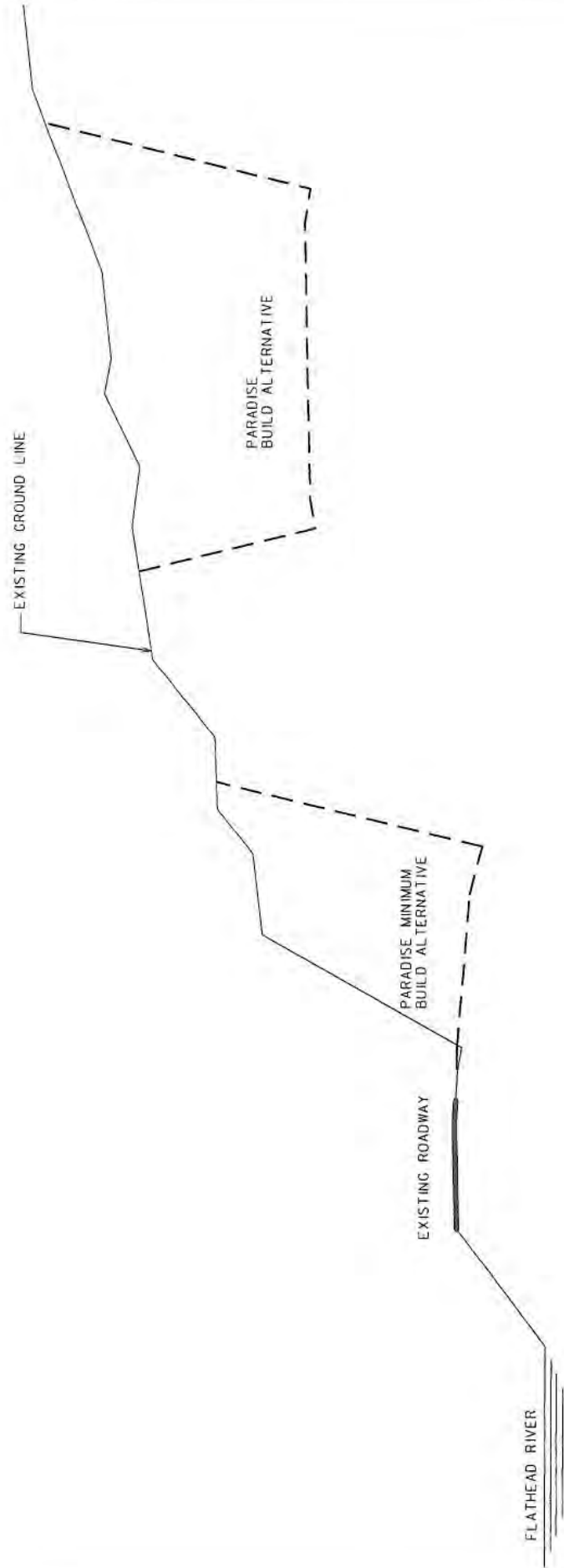
-  SOUTH BANK FLATHEAD RIVER
-  EXISTING ROADWAY - MT. 200
-  PARADISE BUILD ALTERNATIVE
-  PARADISE MINIMUM BUILD ALTERNATIVE

TO PERMA

FIGURE 2-1
COMPARISON OF PARADISE
BUILD ALTERNATIVE AND PARADISE
MINIMUM BUILD ALTERNATIVE

FIGURE 2-2
CROSS SECTION COMPARISON
PARADISE ALTERNATIVES
RP (MP) 87.5

SCALE 1:400



- From RP (MP) 89.1 to 90.6—end of the Paradise Section, the horizontal alignment roughly follows the centerline of the existing roadway, but diverges as much as 35 m (110 ft) to the south between RP (MP) 89.4 and 89.8, where three substandard curves are replaced by one curve with a design speed greater than 100 km/h (60 mph). The vertical alignment would be 1.2 m (4 ft) to 4 m (12 ft) higher than the existing roadway.

All vertical curves would meet or exceed requirements for the desired design speed. Figure 2-2 presents a cross section for the Paradise Build and Minimum Build alternatives.

A maximum vertical grade of 3.2%, from approximately RP (MP) 88.3 to 88.6, is proposed with this alternative. All other vertical grades would be less than 2% with the Paradise Build Alternative.

This alternative would provide a roadway that satisfies all design guidelines and standards for the desired design speed.

2.3 Paradise Minimum Build Alternative

This alternative would construct much of the Paradise Section on a new alignment that closely follows the existing alignment. This alternative was developed in response to comments by the Confederated Salish and Kootenai Tribes and citizens who attended public meetings. The alignment is described as follows (see Figures 2-1 and 2-2):

- From RP (MP) 85.4—beginning of the Paradise Section—to 87.0, the horizontal alignment of the new roadway would be roughly parallel with and approximately 12 m (40 ft) south of the centerline of the existing roadway. The vertical alignment would be 0.6 m (6 ft) to 1.5 m (5 ft) above the existing roadway.
- From RP (MP) 87.0 to 87.8, the horizontal alignment diverges as much as 10 m (30 ft) south of the centerline of the existing roadway to replace four substandard horizontal curves, having design speeds of 69 km/h (43 mph) to 92 km/h (57 mph), with five curves with design speeds of 100 km/h (60 mph), 90 km/h (55 mph), 80 km/h (50 mph), 80 km/h (50 mph) and, 90 km/h (55 mph). The vertical alignment would be up to 1.2 m (4 ft) higher than the existing roadway.
- From RP (MP) 87.8 to 88.2, the horizontal alignment roughly follows the centerline of the existing roadway. The vertical alignment would be up to 0.6 m (2 ft) higher than the existing roadway.
- From RP (MP) 88.2 to 89.1, the horizontal alignment roughly follows the centerline of the existing roadway, but diverges as much as 35 m (110 ft) to replace seven curves with design speeds of 63 km/h (39 mph) to 100 km/h (60 mph) with seven curves with design speeds of 100 km/h (60 mph), 90 km/h (55 mph), 80 km/h (50 mph), 80 km/h (50 mph), 80 km/h (50 mph), 90 km/h (55 mph), 90 km/h (55 mph). The vertical alignment would be up to 2.4 m (8 ft) higher than the existing roadway.

- From RP (MP) 89.1 to 90.6—end of the Paradise Section, the horizontal alignment of the new roadway would be roughly parallel with and approximately 6 m (20 ft) to 8 m (24 ft) south of the centerline of the existing roadway to replace an existing 76 km/h (47 mph) horizontal curve with a 100 km/h (60 mph) curve. The vertical alignment would be up to 1.5 m (5 ft) higher than the existing roadway.

All vertical curves would meet or exceed requirements for the desired design speed.

All vertical grades would be less than 1.0% with this alternative.

This alternative would provide a roadway that generally satisfies design guidelines and standards for the desired design speed. Five horizontal curves with design speeds of 90 km/h (55 mph), five horizontal curves with design speeds of 80 km/h (50 mph), and several steep slopes at sites of wetlands would not meet design guidelines and standards for the desired design speed with the Paradise Minimum Build Alternative.

MDT will request design exceptions for the ten substandard horizontal curves, steep slopes, and any other substandard design elements.

2.4 Dixon Build Alternative

The alignment for this alternative would generally follow the existing highway corridor with minor adjustments to eliminate substandard horizontal curves and provide an improved, smooth flowing alignment. The alignment is described as follows:

- From RP (MP) 98.8—the beginning of the Dixon Section—to 102.3, the horizontal alignment roughly follows the centerline of the existing roadway, but diverges as much as 15 m (50 ft) to the south for a short distance. The construction limits of the new roadway would encompass the existing roadway throughout this section. The vertical alignment would range from 1 m (3 ft) below to up to 2 m (6 ft) above the existing roadway.
- From RP (MP) 102.3 to 102.9, the horizontal and vertical alignments and the existing pavement width meet requirements for the desired 100 km/h (60 mph) design speed. It is proposed this section be overlaid with asphalt pavement only.
- From RP (MP) 102.9 to 103.6, the horizontal alignment roughly follows the centerline of the existing roadway but diverges as much as 15 m (50 ft) to the south for a short distance. The construction limits of the new roadway would encompass the existing roadway throughout this section. Four horizontal curves are replaced with a single straight section of roadway. The vertical alignment would range from 3 m (10 ft) below to up to 5 m (16 ft) above the existing roadway.
- From RP (MP) 103.6 to 104.8, the horizontal alignment would shift up to 60 m (200 ft) south of the existing centerline to replace two existing horizontal curves with a single

curve. The vertical alignment would range from 5 m (16 ft) below to up to 15 m (5 ft) above the existing roadway.

- From RP (MP) 104.8 to 108.1, the horizontal alignment roughly follows the centerline of the existing roadway. The vertical alignment would change substantially, ranging from 4 m (13 ft) below to up to 5 m (16 ft) above the existing roadway.
- From RP (MP) 108.1 to 108.9—end of the Dixon Section, the horizontal alignment would shift up to 25 m (82 ft) south of the existing centerline and replace approximately eight horizontal curves with a single long straight section. The vertical alignment would range from 1 m (3 ft) below to up to 4 m (13 ft) above the existing roadway.

All horizontal curves, except one, would have radii that exceed requirements for the desired design speed. A curve at the west edge of Dixon would have a radius of 388 m (1275 ft), which is slightly less than the 395 m (1300 ft) required for the 100 km/h (60 mph) desired design speed. This is not considered a negative factor because the posted speed in this area, at the west edge of a residential community, is 64 km/h (40 mph).

All vertical curves would meet or exceed requirements for the desired design speed.

A vertical grade of 4.0%, from RP (MP) 106.2 to 106.7, is proposed with this alternative. All other vertical grades would be less than 3% with the Dixon Build Alternative.

This alternative would provide a roadway that satisfies all design guidelines and standards for the desired design speed.

2.5 The Preferred Alternative

The Paradise Minimum Build Alternative is the Preferred Alternative for the Paradise Section. The Dixon Build Alternative is the Preferred Alternative for the Dixon Section.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter evaluates current conditions of the human environment. It evaluates environmental consequences of the alternatives, and it identifies mitigation measures to minimize effects of the proposed action.

3.1 Land Use

3.1.1 Affected Environment

The project area has topography typical of western Montana. Land is mountainous and forested, with agricultural valley bottom lands. In the Paradise Section, steep rock cuts and embankments frequently are adjacent to the highway. In the Dixon Section, there is more open agricultural land with rolling hills. There is scattered residential development, with few approaches to the highway. The Paradise Section is located south of and generally parallel to the Flathead River.

The mountainous terrain and river valleys create high quality of scenic beauty. Residents of and visitors to the area travel MT 200 for access to outdoor recreation.

Land use centers on agricultural production. Irrigated land produces hay, while cattle, horses, and sheep graze non-irrigated land.

The Confederated Salish and Kootenai Tribes and Sanders County share jurisdiction for land use. The Tribes adopted a Comprehensive Resources Plan in 1996 for the Flathead Indian Reservation. Sanders County is in the initial stages of developing a comprehensive plan that would help manage future development. The goals and objectives of the two plans are not expected to conflict with one another. Floodplain and septic restrictions have been the county's only regulatory tool in managing development (personal communication, Mr. Pat Bowden, Sanders County Planner).

Land use is predominantly agricultural, with intermittent residential, commercial, and industrial development along MT 200:

- Most agricultural land is rangeland, with a smaller amount of irrigated crop land (mostly hay). Irrigated crop land is on both sides of MT 200 on the west end of the Paradise Section and the east end of the Dixon Section. Irrigated crop land occurs intermittently along MT 200 between Magpie Creek—RP (MP) 101.3 and Wilson Creek — RP (MP) 88.5. Farmers and ranchers use the highway and approaches to the highway to move farm equipment and livestock among pastures.
- Twenty-six residential units are located along MT 200. Most of the homes are full-time owner-occupied. A limited number are occupied only seasonally, and a small number of others are rental units with short-term occupancy. Over half the units are associated with

local farming or ranching operations. Four abandoned homesteads are located along the route, with latest occupancy estimated to be during the early- to mid-1900s.

- A meat processing facility near Revais Creek at RP (MP) 105.9, an implement dealer near the west end of the Paradise Section, and a small retail establishment in Perma are the only known commercial sites (non-farm).
- Industrial land use along the corridor includes two sand and gravel operations — one is just east of Revais Creek (pit and stockpiles), and the other is west of Magpie Creek (stockpiles only).
- The Burlington Northern-Santa Fe Railroad track is parallel to MT 200 west of Dixon until crossing the Flathead River just west of Seepay Creek. Then the track continues on the north side of the river until joining the mainline in Paradise.
- The Yellowstone Pipeline enters the project area about 3.2 km (2 mi) west of Dixon. The pipeline generally is parallel to MT 200 until it crosses the river about 2.4 km (1.5 mi) west of the Dixon Section. The pipeline is south of the highway and does not enter the ROW of either the existing roadway or the Dixon Build Alternative. Although it is closed through this section, the pipeline retains its infrastructure.

MDT currently controls access to the highway with driveway and approach regulations that apply road approach standards and permit requirements. Land owners desiring to construct a driveway approach may obtain a permit from MDT's Missoula District. Land owners need to demonstrate the approach will be constructed properly and not create a particular safety hazard. Sight distance for safety is the primary factor used to determine if it is appropriate to issue a permit for an approach.

Existing approaches would be realigned, relocated, consolidated, eliminated, or perpetuated where appropriate. A stock underpass would be constructed near the Gunderson Creek stream crossing. Other new stock underpasses could be considered, where justified and reasonable.⁹ The new roadway would improve sight distance and flatten slopes adjacent to the highway. This would reduce potential for conflict between highway traffic on the highway and vehicles at approaches. The new roadway also would improve safety for herding cattle along or across the highway.

3.1.2 Impacts

The No-Action Alternative would have no impact on land use.

Implementation of the Build Alternatives could improve access and increase human activity. Patterns of land use could change with more demand for recreation and residential or commercial development.

⁹MDT administers permits for stock underpasses, based on applications by landowners for specific locations. MCA 60-7-101 through 103.

3.1.3 Mitigation

The proposed action will comply with tribal and county plans and ordinances. Applicable Tribal plans include:

- Forest Management Plan
- Weed Management Plan
- Lower Flathead River Corridor Management Plan
- Comprehensive Resources Plan

Measures for enhancement, conservation and coordination would mitigate impacts on resources, including threatened and endangered or sensitive species. Spatial and temporal construction restrictions, which would apply Best Management Practices (BMPs), would protect aquatic resources, water quality and quantity, and visual resources. The Montana Department of Transportation, Confederated Salish and Kootenai Tribes, and Sanders County will coordinate access control on MT 200 with land use ordinances and regulations.

MDT obtained an easement for land where ROW needs infringe on the railroad's property.

MDT will coordinate its efforts with tribal and county planning efforts to manage the transportation system's access to land abutting highway right-of way. Coordination of transportation planning with land use planning and regulation should include access management, highway billboard and signing policies, and other appropriate transportation planning activities. MDT and the Tribes will coordinate design and placement of an interpretive sign where MT 200 crosses the boundary of the Flathead Indian Reservation.¹⁰

3.2 **Farmland**

3.2.1 Affected Environment

Farmland that is prime or unique or farmland of statewide or local importance has been designated by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS).

3.2.2 Impacts

The No-Action Alternative would have no direct impact on farmland.

¹⁰Reference Post (Milepost) 88.9.

Table 3-1 summarizes the approximate area of farmland that would be affected by each of the Build Alternatives.

Appendix A has the Farmland Conversion Impact Rating Form (AD-1006) for the Build Alternatives, in accordance with the Farmland Protection Policy Act (FPPA - 7 U.S.C. 4201, et seq). The total farmland evaluation score (Part VII of AD-1006) is less than 160 points with all Build Alternatives.

Table 3-1 Farmland Converted to Right-of-Way hectares (acres)				
	Alternative			
	No- Action	Paradise Build ha (ac)	Paradise Minimum Build ha (ac)	Dixon Build ha (ac)
Prime or Unique Farmland	--	8.1 (20.5)	7.8 (19.8)	1.5 (3.7)
Farmland of Statewide or Local Importance	--	--	--	--
Totals	--	8.1 (20.5)	7.8 (19.8)	1.5(3.7)
U.S. Department of Agriculture’s Natural Resources Conservation Service (NRCS), Sanders County				

3.2.3 Mitigation

Based on 7 CFR 658.4(C),(2), alternatives with farmland evaluation scores less than 160 points need only minimal consideration for protection of farmland. There is no need to evaluate additional alternatives.

3.3 **Right-of-Way, Relocation and Utilities**

3.3.1 Affected Environment

Mission Valley Power, Sprint, Blackfoot Telephone, and Dixon Sewer have utilities in the Dixon ROW. Montana Power, Sprint, and Clark Fork Telephone have utilities in the Paradise ROW . Natural gas is not available, but propane and oil distributors serve the area. Table 3-2 summarizes existing ROW for the Paradise and Dixon sections.

3.3.2 Impacts

The No-Action Alternative would require no new ROW, easements, construction permits or relocations. Table 3-2 summarizes new ROW that would be required to construct each of the proposed Build Alternatives.

Table 3-2 Right-of-Way hectares (acres)			
	Alternative		
	Paradise Build ha (ac)	Paradise Minimum Build ha (ac)	Dixon Build ha (ac)
Existing Right-of-Way	20 (50)	20 (50)	36.6 (92.61)
Existing Right-of-Way No Longer Needed	6 (16)	0 (0)	0 (0)
New Right-of-Way	26 (64)	15 (36)	38 (93)
Net Increase	20 (48)	15 (36)	38 (93)
Montana Department of Transportation, Right of Way Bureau.			

The Paradise Build Alternative would require the relocation of one residence and the removal of the house and related outbuildings at RP (MP) 89.0. No relocations would be required for the No-Action Alternative, the Paradise Minimum Build Alternative, or the Dixon Build Alternative.

3.3.3 Mitigation

The acquisition of land or improvements for highway construction are governed by state and federal laws and regulations designed to protect both the landowners and the tax paying public. Landowners affected are entitled to receive fair market value for any land or buildings acquired and any damages to remaining land due to the effects of highway construction. This action will be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646 as amended), (42 U.S.C. 4601, et. seq.) and the Uniform Relocations Act Amendments of 1987 (P.L. 100-17). The accepted method of determining these payments is through the appraisal process. Once an appraisal is completed, reviewed, and approved, a monetary offer is made for land and improvements needed to be acquired for construction. This offer is discussed with the landowner and the necessary negotiations are conducted before completing the agreement to transfer the land to highway ROW.

Authorized utility representatives will relocate underground and overhead utilities, where necessary, before highway construction begins. Brief interruption of services is expected during re-connection of utilities and may result in minor inconvenience to local residents. Utility customers will receive notification well in advance of interruption in service.

3.4 Social

3.4.1 Affected Environment

Social Setting

The project area is similar to other rural areas of western Montana. People reside in small communities and rural areas outside communities. The town of Dixon is the only population center located along the Paradise and Dixon sections. Perma is located between the Paradise and Dixon sections, and the town of Paradise is northwest of the Paradise Section.

Paradise and Dixon have elementary schools. Native American students are 85-90% of enrollment at Dixon and a small percentage at Paradise. School buses use MT 200 in the Paradise and Dixon sections to transport students to high schools in Plains and Hot Springs. School buses stop on MT 200 adjacent to rural residences.

Post offices are in Paradise and Dixon. Postal carriers deliver mail to mail boxes located along MT 200. Emergency, police and ambulance services are in Plains, Hot Springs and St. Ignatius. The Sanders County Sheriff's office, Montana Highway Patrol, and Confederated Salish and Kootenai Police patrol the project area. Volunteer fire departments are in Paradise, Dixon and other towns in the vicinity.

Population and Demographics

The population of Sanders County increased from 8,670 to 10,180 (17%) between 1990 and 1998. This growth is similar to other counties in western Montana. Paradise and Dixon had populations of 160 and 170, respectively, in 1990. The U.S. Bureau of the Census defines larger areas around the two highway sections as census county divisions (CCDs). Paradise is in the Plains CCD, which had a population of 2,530 in 1990. Dixon is in the Flathead CCD, which is within the Reservation and had a population of 1,640 in 1990. Native Americans were five percent of Sanders County's population, two percent of the Plains CCD, and 23 percent of the Flathead CCD in 1990 (see Table 3-3).

Current estimates by NPA Data Services Inc. indicate Sanders County will have 10,570 people by 2000. The county is expected to grow at a rate slightly more than one percent annually for the next 25 years.

Table 3-3 Population					
Area	Population				Population Projections
	1980	1990	1995	1998	2000
Sanders County-Total	8,680	8,670	10,070	10,190	10,570
Sanders County-Native Americans	390	470	NA	NA	NA
Sanders County, Plains Census County Subdivision-Total	2,550	2,530	NA	NA	NA
Sanders County, Plains Census County Subdivision-Native Americans	20	40	NA	NA	NA
Town of Paradise- Total	NA	160	NA	NA	NA
Sanders County, Flathead Census County Subdivision-Total	1,890	1,640	NA	NA	NA
Sanders County, Flathead Census County Subdivision-Native Americans	340	370	NA	NA	NA
Town of Dixon-Total	NA	170	NA	NA	NA
U.S. Department of Commerce, Bureau of the Census, Census of Population and Housing, 1990. NPA Data Services, Inc. Population Projections. NA is Not Available Numbers are rounded to nearest ten.					

Volume of Truck Traffic

An issue of concern is the potential increase in truck traffic if the highway is improved. Of particular interest is truck traffic to/from the west on I-90 traveling to/from the Polson/Kalispell areas.

The following two routes are currently available for this traffic (see Figure 1-1):

- Northern Route.** This route includes I-90 to St. Regis; then MT 135 from St. Regis to MT 200 near Paradise; then MT 200 from MT 135 to United States Highway (US) 93 at Ravalli; then US 93 north toward Polson and Kalispell (an alternative route that is used by a substantial number of trucks is to travel Montana Secondary Highway 212 from Dixon to US 93 south of Ronan).

- **Southern Route.** This route includes I-90 to US 93 near Missoula; then US 93 north toward Polson and Kalispell.

Table 3-4 summarizes travel distances and estimated travel times for each route. As shown on the table, taking the Northern Route currently saves drivers approximately 50 km (38 mi) or approximately 32 percent of the travel distance and 28 minutes of travel time.

Route	Average Travel Speed km/h (mph)	Distance km (mi)	Estimated Travel Time (min)
Northern, Existing Conditions or No-Action Alternative	90 (55)	84 (52)	56
Northern, with Build Alternatives	100 (60) ¹	84 (52)	50
Southern	105 (65) - Interstate	101 (63)	-
	100 (60) - US 93	43 (27)	-
	Total	144 (90)	84

Morrison-Maierle, Inc., 1999.
¹Conversion of 100 km/h average travel speed is rounded to 60 mph. Rounding reduces the estimated travel time from 52 to 50 minutes, based on speed of 100 km/h (60 mph) and distance of 84 km (52 mi).

An additional consideration is that trucks using the Northern Route can avoid Evaro Hill on US 93 which consists of a 6.5% grade for approximately 1.6 km (1 mi). Trucks on the Northern Route also can avoid Ravalli Hill, which is a 6% grade for approximately 2.1 km (1.3 mi), by using Montana Secondary 212. On the Northern Route, there are no sustained grades that substantially slow trucks on the Northern Route, but several substandard horizontal curves on the existing highway slow traffic (see Section 1.1.1).

The savings in travel distance and time, and the resulting cost savings, suggests that a high percentage of truckers traveling I-90 from/to the west and going to/from northwestern Montana are probably using the Northern Route. As indicated on Table 1-1, truck traffic on MT 200 is currently 15 to 16 percent of the total traffic.

On the Northern and Southern routes, legal posted speed zones slow traffic in communities:

<u>Route</u>	<u>Community</u>	<u>Legal Posted Speed Zone</u>
Northern	Dixon	64 km/h (40 mph)
Southern	Arlee	55 km/h (35 mph)
Southern	Ravalli	72km/h (45 mph)

Although services are available for trucks on each route, their availability is very limited on the Northern Route. A few truckers may be using the Southern Route when they have a need for the truck services (truck stops, truck repair shops) currently provided in the Missoula area.

3.4.2 Impacts

The No-Action Alternative would not improve highway safety and ease of travel. All Build Alternatives would provide safer, more efficient and convenient travel for groups and individuals traveling to schools, recreation areas, churches, businesses, police, fire protection, and social activities.

With the proposed Build Alternatives, safety and reliability of the Northern Route would improve substantially. As shown on Table 3-4, travel distance would not be reduced substantially, but travel times would be reduced by an estimated 6 minutes or 11 percent. Truckers already use the route because of its substantial savings in time and distance. Minor increases in the percentage of trucks using the Northern Route versus the Southern Route are expected.

3.4.3 Mitigation

If the proposed Build Alternatives are constructed, the resulting improvements in operation and safety will serve to adequately accommodate any minor increases in truck traffic.

3.5 **Economics**

3.5.1 Affected Environment

Agriculture is the major economic activity. Production of hay is the most common use of irrigated land, while non-irrigated land is mostly committed to grazing cattle, horses, and sheep. Much of the retail trade for local residents and highway travelers occurs in Ravalli, Dixon, Paradise, Plains, and to a larger extent Missoula. The economy of Sanders County is changing from natural resources to service and trades. The number of farms in the county declined from 379 in 1982 to 348 in 1992. Services such as health care provide the largest source of local employment (28 percent), followed by government (18%), retail trade (15%), manufacturing

(12%), farming (10%), transportation and public utilities (7%), construction (6%), and natural resource extraction (4%) (Harden Political Information Systems, Internet, 1998).

Sanders County had an average per capita personal income of \$13,499 in 1995, 27 percent below the state's average of \$18,450. Nearly 20 percent of residents in Sanders County were below the poverty level in 1990 (Internet: Government Information Sharing Project, Information Services, University of Oregon, 1998). Due to the scenic beauty of the area, economic activity related to recreation could develop services to promote tourism.

3.5.2 Impacts

The No-Action Alternative would not change economic conditions. All Build Alternatives would convert some agricultural land to highway ROW and reduce the amount of land in production along MT 200. Purchase of construction materials with all Build Alternatives would increase commerce for businesses in the local and regional economies. Construction would provide job opportunities for local construction services and labor.

3.5.3 Mitigation

Reclamation of abandoned sections of roadway and ROW will reduce loss of agricultural lands for the Paradise Build Alternative; the Paradise Minimum Build and Dixon Build alternatives will not abandon existing roadway or right-of-way (see Table 3-2).

Any irrigation ditches affected by construction will be realigned and reconstructed. Existing irrigation culverts will be perpetuated and additional culverts installed where necessary. Access will remain to irrigated fields.

3.6 **Visual**

3.6.1 Affected Environment

View of the Existing Roadway

The existing view of the roadway occurs from the various residences located along the route, from the various farm fields, rolling hills and recreational sites in the area and from the Flathead River. The view consists of the rural, two-lane highway with low to moderate excavation and embankment. The road was constructed several decades ago and, at that time, little attempt was made to blend the contours of cut/fill slopes with the existing terrain or to improve their visual quality. As a result, cut and fill sections are sharp as they connect with undisturbed terrain and are not uniform and horizontal. Vertical alignments are abrupt and do not have a smooth-flowing appearance.

View from the Existing Roadway

The existing highway in this area is considered by many to be a high quality scenic route. From the highway, people use pullouts and overlooks to view the mountains and rivers. The view from the existing roadway consists of farmland and pasture land, timbered areas, wetlands and marshes, various creek crossings, rolling hills and distant mountains to the north and south and, the Flathead River and the Northern Pacific Railroad to the north.

3.6.2 Impacts

View of the Existing Roadway

The No-Action Alternative would have no impact on the view of the existing roadway.

With any of the Build Alternatives, the view of the roadway would change as follows:

- The asphalt pavement would be wider and striping and signing would be newer and, for the first few years, more vivid.
- Shoulder slopes would be flatter and wider.
- Cut slopes would be flatter and would be rounded to blend with the existing terrain.
- Areas disturbed by construction would be reseeded and reclaimed with vegetation suitable to the area.
- Horizontal and vertical alignments would be smooth and flowing.
- The new roadway generally would be constructed higher than the existing roadway.
- The roadway, in general, would be larger, and more visually imposing than the existing roadway.

In the Paradise Section, the Paradise Build Alternative would have a greater visual impact than the Paradise Minimum Build Alternative. Cut and fill slopes would be deeper and higher and areas disturbed by construction would be greater.

View from the Existing Roadway

The No-Action Alternative would have no effect on the view from the existing roadway.

The view from the roadway would not change substantially but may be improved, with the Build Alternatives, in the following ways:

- The roadway would be constructed generally higher than the existing roadway with wider cleared areas for safety slopes – there would be more opportunities to view the surrounding terrain. This type of impact would be greater for the Paradise Build

Alternative than for the Paradise Minimum Build Alternative because the roadway would be higher.

- The roadway would be more convenient and comfortable to drive. The alignments would consist of smooth flowing curves with adequate sight distance – unexpected changes in roadway alignment would not be a concern and views of the surrounding terrain can be better enjoyed by passengers and drivers. This visual impact would be greater for the Paradise Build Alternative than for the Paradise Minimum Build Alternative because the Paradise Build Alternative has no substandard horizontal curves.

3.6.3 Mitigation

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes will coordinate mitigation measures to preserve and enhance scenic values. Measures such as scenic turnouts, seeding, and reclamation will be considered.

3.7 **Historical and Cultural Resources**

3.7.1 Affected Environment

Present day traditional cultural uses of the lower Flathead River corridor include spiritual activities, hunting and fishing, food and medicinal plant harvesting, meat drying, camping, and simply spending time by the river alone or with family and friends. The entire river holds specific elements that are significant to the tribal cultures (Confederated Salish and Kootenai Tribes, Comprehensive Resources Plan, 1996).

A cultural resource survey and report was completed in 1988. It has been determined the mainline of the Northern Pacific Railroad (24SA199), which runs parallel with and north of the Paradise and Dixon sections, is eligible for the National Register of Historic Places (NRHP). The survey did not identify any other sites outside the Reservation (HRA, 1988).

The Confederated Salish and Kootenai Tribes' Historic Preservation Office (THPO) conducted a field review for cultural resources in 1999. The review identified a traditional cultural property in the Dixon Section.

3.7.2 Impacts

The No-Action Alternative would have no impact on historical and cultural resources.

It has been determined that the Paradise Build Alternative and the Paradise Minimum Build Alternative would have no impact on the Northern Pacific Railroad (24SA199) because the proposed construction is separated from the railroad by the Flathead River.

The Dixon Build Alternative would have no impact on the Northern Pacific Railroad because the relationship between the railroad and the highway would not change. Fill slopes of the new roadway would encroach on small amounts of the ROW of the railroad, but the existing railroad bed would not be affected.

The Montana Historical Preservation Officer (SHPO) concurred (June 1, 1988) there would be no effect on the railroad.

The Tribal Historic Preservation Office issued a determination of “no adverse effect” on September 24, 1999 for the traditional cultural property in the Dixon Section. THPO (September 24, 1999) concurred the proposed action for the Paradise and Dixon sections would not affect other historical and cultural resources on the Flathead Indian Reservation.

MDT prepared a Nationwide Programmatic Section 4(f) Evaluation for Minor Impacts on Historic Sites (Excluding Historic Bridge Replacements) for the traditional cultural property in the Dixon Section (Appendix B).

3.7.3 Mitigation

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes will coordinate identification and preservation of historical and cultural resources. MDT will notify the Salish and Kootenai Preservation Office or the Montana State Historic Preservation Office if ground-disturbing activities uncover cultural resources. The Tribal Preservation Office has jurisdiction for the Paradise and Dixon sections on the Reservation, and SHPO has jurisdiction for the Paradise Section outside the Reservation in Sanders County.

3.8 **Section 4(f) of the U.S. Department of Transportation Act**

The provisions of Section 4(f) of the 1966 U.S. Department of Transportation Act (49 U.S.C. 303) apply to any FHWA-funded action when it affects the following:

- a. Publicly-owned parks and/or recreation areas;
- b. Publicly-owned wildlife/waterfowl refuges;
- c. Sites on- or eligible-for-listing in the National Register of Historic Places under Section 106 of the National Historic Preservation Act (16 U.S.C. 470)
- d. Public lands managed for multiple-use with specifically-designated recreational or wildlife/waterfowl management site(s), and under statute(s) providing for same. This applies only to the same specific site(s).

Section 4(f) prohibits use of public land in a park, recreation area, significant waterfowl or wildlife refuge, or significant historic site, unless:

- 1) There is no feasible or prudent alternative to the use of such land, and
- 2) The project includes all possible planning to minimize harm.

According to the regulations in 23 CFR 771.135(a), a Section 4(f) evaluation must be prepared for use of the Section 4(f) property. Two types of use constitute impact to a Section 4(f) property:

- Direct conversion of use of a Section 4(f) property results from the purchase, lease, easement, or agreement to change the use of all or a portion of the property.
- Constructive use results from an action that would “substantially impair” current use of a Section 4(f) property. Constructive use can occur from impacts related to noise, visual intrusion, major access restrictions, vibration, or ecological intrusion. For historic properties, a constructive use occurs when there is an impact that would substantially impair the historic integrity of the property.

Implementation of the Preferred Alternative for the Dixon Section would result in an impact to the traditional cultural property, which is covered by a programmatic Section 4(f) evaluation for minor impacts on historic sites (Appendix B).

MDT prepared a Nationwide Programmatic Section 4(f) Evaluation for Minor Impacts on Historic Sites (Excluding Historic Bridge Replacements) for the traditional cultural property (Appendix B). The site is subject to THPO’s determination of “no adverse effect” (September 24, 1999) from the proposed action.

No other Section 4(f) properties have been identified that would be affected by any of the alternatives. The proposed action would not affect any publicly-owned parks or recreation areas, public wildlife/waterfowl refuges, or publicly-administered, multiple-use lands, except the traditional cultural property in the Dixon Section.

3.9 Parks and Recreation/Section 6(f)

The provisions of Section 6(f) of the Land and Water Conservation Fund Act 16 U.S.C. 460 (LWCF) apply to any FHWA-funded action when it affects publicly-owned parks and recreation areas that were purchased and/or administered for recreational purposes under Section 6(f).

No Section 6(f) properties have been identified that would be affected by any of the proposed alternatives. The proposed action would not affect any publicly-owned parks or recreation areas. There are no sites with LWCF funds.

3.10 Pedestrians and Bicyclists

3.10.1 Affected Environment

Pedestrians and bicyclists use the roadway in close proximity to Dixon, Perma, and other places with access to MT 200. Native Americans use areas adjacent to the highway for cultural, subsistence, and recreational activities. Residents of the area ride horses and move cattle and sheep between pastures adjacent to the highway. School buses stop for children along the highway, and residents approach and walk along the highway to reach mail boxes and for other purposes. Touring bicyclists ride on MT 200 to tour this area of western Montana. The scenic beauty promotes outdoor recreation in the vicinity of the roadway.

3.10.2 Impacts

The No-Action Alternative would not improve the roadway for travel by pedestrians and bicyclists. It would perpetuate narrow shoulders and deteriorating paved surface that create safety hazards for non-vehicular travel. No-Action also would not improve curves with inadequate horizontal and vertical alignments; this would perpetuate conditions that increase likelihood of conflict between motorized and non-motorized traffic.

The Build Alternatives would provide a wider roadway with better horizontal and vertical alignments. These factors would increase comfort and safety for pedestrians, bicyclists and other non-vehicular uses of the roadway.

3.10.3 Mitigation

The Build Alternatives will comply with the Americans with Disabilities Act (P.L. 101-336).

The 1.2 m (3.9 ft) shoulder with a 0.3 m (1 ft) rumble strip adjacent to the shoulder stripe would provide about 0.75 m (2.5 ft) of usable shoulder for pedestrians and bicyclists.¹¹ MDT has approved deletion of rumble strips along long segments of guardrail for the Dixon Section. MDT will consider deletion of rumble strips along long segments of guardrail for the Paradise Section.

All alternatives will perpetuate the practice of a school bus stopping in its directional lane of traffic and using its warning signals to stop other traffic in both directions. Design will not include designated school bus turnouts. The school bus's warning signals, with all traffic

¹¹Rumble strips consist of deep grooves, cut perpendicular to the highway into the asphalt or concrete paved shoulders. They are designed to create a loud noise and vibration when a vehicle, traveling at highway speeds, passes over them. This system has been effective in reducing accidents because it alerts a sleepy or inattentive driver that the vehicle is leaving the roadway.

stopped in both directions, provide better protection than school bus turnouts for children crossing the highway. School bus turnouts do not provide control of traffic to protect children.

3.11 Noise

Under 23 CFR 772, noise impacts occur when noise levels increase by more than 10 A-weighted decibels (dBA) or when the Noise Abatement Criteria (NAC) threshold level is approached within one dBA or exceeded.

Noise receptors are structures and locations where human activities typically occur.

3.11.1 Affected Environment

With the Paradise Build Alternative and the Paradise Minimum Build Alternative, the following noise receptors have been identified:

- Residences located near RP (MP) 88.0 and RP (MP) 89.0.

With the Dixon Section, no existing homes, businesses or other noise receptors are located near the existing highway or the proposed alignment for the Dixon Build Alternative.

3.11.2 Impacts

A noise impact assessment conducted by MDT indicates that the design year noise levels would neither increase substantially over existing levels, nor exceed the NAC with the No-Action Alternative or any of the proposed Build Alternatives except at the residential property located near RP (MP) 89.0 (Big Sky Acoustics, 1999). At this location, with the Paradise Minimum Build Alternative or the No-Action Alternative, noise impacts would occur because noise levels would increase by more than 3 dBA and would exceed the NAC by the year 2015. With the Paradise Build Alternative, the residences at this location would be removed (see Section 3.3).

The proposed projects comply with provisions of MDT's noise policy, as amended.

3.11.3 Mitigation

The following noise abatement measures have been considered but none are considered reasonable:

- The construction cost of noise barriers or berms would exceed the \$25,000 limit per residence in the MDT document, Traffic Noise Analysis and Abatement: Policy and Guidance, 1996. In addition, this measure would substantially limit access to the residence.

- Restricting certain vehicle types (trucks, buses, or other large vehicles) to travel during certain periods of the day is not considered reasonable because of current uses and needs and inability to enforce restrictions.
- Reducing the speed limit to 64 km/h (40 mph) would reduce the noise level by 1 to 2 dBA. Noise impacts would still occur because noise levels would still exceed the NAC by the year 2015.

3.12 Air Quality

3.12.1 Affected Environment

The Flathead Indian Reservation is designated as a Class I Airshed under 40 CFR 52.1382(c)(3). However, the proposed action is excluded from incremental consumption under 40 CFR 51.166(f)(1)(iii).

The proposed action is in a carbon monoxide (CO) and particulate matter (PM₁₀) attainment area of the Flathead Indian Reservation and Montana for air quality under 40 CFR 81.327, as amended. As such, it is not covered under the U.S. Environmental Protection Agency's Final Rule of November 24, 1993 on Air Quality conformity. Therefore, the proposed action complies with Section 176(c) of the Clean Air Act as amended (42 U.S.C. 7521(a)).

3.12.2 Impacts

Short term effects from construction operations would occur due to vehicle and equipment emissions and dust.

Long term air quality impacts, with any of the proposed alternatives, including No-Action, may include increases in emissions due to increases in traffic volumes. This may be offset with the proposed Build Alternatives because vehicle operation would be more efficient – fewer deceleration/acceleration cycles would be required due to the removal of substandard horizontal curves -- resulting in reduced emissions.

3.12.3 Mitigation

Short-term impacts to air quality from construction equipment on gravel roads will be mitigated as required by permit limitations and conditions covering operational requirements and emission limitations. In addition, the Standard Specifications for Road and Bridge Construction (MDT, 1995) will be implemented as applicable. It presents guidelines for earthwork operations and other construction activities to help minimize effect on air quality.

The Tribal Air Quality Program has oversight for operation of crushers, plant mixers, drum dryers, and other construction equipment. Construction activities must comply with all tribal, state and federal air quality regulations. The contractor will be required to obtain these permits.

3.13 Water Quality, Erosion Control, and Seeding

3.13.1 Affected Environment

The Paradise and Dixon sections follow the Lower Flathead River, which is comprised of six major drainage basins - the North, Middle and South Fork Flathead rivers, Flathead Lake, Stillwater River, and Swan River. Major tributaries to the Flathead River in the Paradise and Dixon sections include:

Paradise Section:	Reference Post (Milepost)
• Wilson Creek	87.3
• Robertson Creek	88.5
• Burgess Creek	89.7

Dixon Section:	Reference Post (Milepost)
• Magpie Spring Creek	100.0
• Magpie Creek	101.3
• Gunderson Creek	104.9
• Revais Creek	105.9

Ponds, springs, seeps and unnamed creeks are also present along the two sections. These surface water resources are used for stock watering and some domestic purposes, but the predominant use of surface water resources is irrigation of agricultural fields.

The Montana Department of Environmental Quality (MDEQ) has authority to identify impaired or threatened bodies of water and set limits on pollutants entering waters that are not within the boundary of the Flathead Indian Reservation. MDEQ is developing limits for pollutants, which it identifies as total maximum daily load (TMDL).

The Flathead River, which is adjacent to MT 200 in the project area, flows through the Reservation; a portion of the river is in the project area and outside the Reservation. MDEQ designates this stretch of the river as a low priority for developing TMDL.

MDEQ designates the Flathead River as low priority for development of TMDL. The river is considered to have probable impaired use for its cold water trout fishery and aquatic life support. Alteration of flow and habitat are the probable causes of impairment. Kerr Dam and other upstream impoundments are probable sources of impairment (MDEQ, 1998).

3.13.2 Impacts

The No-Action Alternative would have no impact on water quality.

It is anticipated that construction of any of the Build Alternatives may temporarily affect surface and ground water quality and quantity. Construction may temporarily affect water quality in wetlands and tributary streams of the Flathead River, including the stream crossings listed previously.

Temporary impacts would include short-term increases in turbidity from streambed disturbance due to stream channel modifications, construction of fills and installation of culverts. This would be especially true at Gunderson and Magpie Spring Creeks in the Dixon Section, the three creeks named above in the Paradise Section, and at unnamed springs and seeps along both sections. In areas where the alignment has changed substantially, local drainage patterns may be changed and increased runoff observed until vegetation is reestablished.

In the case of the Paradise Build Alternative, extensive rock blasting and excavation would be required at a number of locations. Rock outcrops are prevalent between RP (MP) 87.1 to 87.8, 88.2 to 89.1 and 89.4 to 89.8. Residue from blasting to remove bedrock may temporarily affect surface and ground water quality. Long term degradation of surface and ground water quality as a result of construction are not anticipated. These impacts would be somewhat less with the Paradise Minimum Build Alternative.

3.13.3 Mitigation

All Build Alternatives will comply with Clean Water Act Section 404 permit conditions, as well as Section 401 water quality certification and Montana Stream Protection Act (124) conditions and any additional state, federal or tribal water quality requirements/conditions.

All Build Alternatives will require an erosion control plan. For areas on the Flathead Indian Reservation, MDT will submit the Erosion Control Plan and a Notice of Intent (NOI) for Storm Water Discharges under the National Pollutant Discharge Elimination System (NPDES) to the U.S. Environmental Protection Agency. For areas outside the Reservation, the plan will be submitted to the Montana Department of Environmental Quality's Permitting and Compliance Division in compliance with their Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314). Best Management Practices (BMPs) will be included in the design of this plan using guidelines as established in MDT's Highway Construction Standard Erosion Control Workplan. The objective is to minimize erosion of disturbed areas during and following construction.

In accordance with 7-22-2152, and 60-2-208 M.C.A., MDT will re-establish a permanent desirable vegetation community along all areas disturbed by the proposed construction. A set of

revegetation guidelines will be developed by MDT that must be followed by the construction contractor. These specifications will include instructions on seeding methods, seeding dates, types and amounts of mulch and fertilizer, along with seed mix components. Seed mixes include a variety of species to assure that areas disturbed by construction are immediately stabilized by vegetative cover. MDT will coordinate development of the seed mix with the Confederated Salish and Kootenai Tribes Preservation Office. MDT will forward the Seeding Special Provisions to the Tribal Preservation Office, Tribal Natural Resources Department, and the responsible County Weed Board for approval.

All other needed water quality permits will be obtained and conditions will be met, as described in Section 3.23.

3.14 Floodplains

3.14.1 Affected Environment

Executive Order #11988 and FHWA's floodplain regulations (23 CFR 650, Subpart A) require an evaluation of this proposed action to determine if any of its alternatives encroach on the "base" floodplain. The "base" floodplain is defined as the area covered by water from a "100-year" flood. The "100-year" flood represents a flood event with a one percent chance of being equaled or exceeded in any year.

Formal delineation of floodplains has been completed in the part of Sanders County that is outside the Flathead Indian Reservation.

3.14.2 Impacts

The No-Action Alternative would not affect floodplains.

A floodplain delineated under Federal Emergency Management Administration (FEMA) criteria along the Flathead River is encroached by the Paradise Build Alternative and the Paradise Minimum Build Alternative. Sanders County administers this floodplain for FEMA.

The floodplain encroachments from the Paradise Build Alternative and the Paradise Minimum Build Alternative occur on the north side of the existing roadway from near the beginning of the Paradise Section at approximately RP (MP) 85.4 to approximately 86.2 and from RP (MP) 87.4 to the boundary of the Reservation at approximately RP (MP) 88.9. Floodplain encroachments from the Paradise Build Alternative and the Paradise Minimum Build Alternative occur on the south side of the existing roadway from approximately RP (MP) 86.2 to approximately 87.5.

The implementation of the Build Alternatives would not promote or encourage development within the delineated floodplain nor increase flood liability hazards from its construction. All Build Alternatives are considered to be in compliance with E.O. #11988.

3.14.3 Mitigation

A Floodplain Development Permit will be required from Sanders County for the floodplain encroachment of the Paradise Build Alternative or the Paradise Minimum Build Alternative.

3.15 Wetlands

3.15.1 Affected Environment

Fifty-three primary wetland areas were identified within the proposed ROW and in areas used for temporary construction easements—20 of these occur along the Paradise Section and 33 occur along the Dixon Section.

Legal descriptions, approximate station locations, wetland classes, wetland ratings, representative species, narrative descriptions, and field evaluation ratings are detailed in the Biological Resources Report (BRR).¹²

Wetlands along the Paradise Section predominantly occur in association with the Flathead River or springs and streams. Few sites along this section occur in association with agricultural areas and roadside borrow ditches.

Wetlands along the Dixon Section range from emergent-dominated sites associated with agricultural areas and roadside borrow areas to forested and scrub-shrub sites associated with springs and streams.

3.15.2 Impacts

The No-Action Alternative would have no impact on wetlands. With the Build Alternatives, vegetation clearing and grubbing and fill placement would be the primary effects. Additional temporary and permanent impacts may occur within the proposed ROW but outside of construction limits.

¹²Morrison-Maierle Environmental Corporation. March 1999. Biological Resources Report for Paradise East and Dixon West Environmental Assessment, Sanders County, Montana. Prepared for Montana Department of Transportation. Helena, MT. The report is available for review at MDT's offices in Helena and Missoula.

With any of the Build Alternatives, potential for accidents and related spills of fuel and other contaminants into area wetlands would be reduced through improvement of horizontal and vertical curves, more appropriate pavement width and improved safety slopes.

Tables 3-5 and 3-6 summarize effects on wetlands for each of the Build Alternatives. Four categories rank wetlands based on functions and values. They range from Category I, the highest quality and overall ranking, to Category IV, the lowest.

Table 3-7 compares total wetland functional units for each alternative. Wetland functional units are computed by multiplying the acreage of affected wetlands by the functional points. The functional unit losses can then be used as a target for functional unit replacement as wetland replacement sites are developed. Evaluation of wetlands identifies values for 12 categories of functional points. The functional points are used with other criteria to develop an overall wetland ranking across four categories: I-exceptional; II-high; III-moderate; and IV-low (Morrison-Maierle Environmental Corporation, 1999).

3.15.3 Mitigation

The following general measures will be implemented to avoid, minimize, and compensate for disturbance of wetlands during construction of any of the Build Alternatives:

- The design process will use appropriate measures to preserve wetlands and other waters of the United States, while providing a highway that meets MDT's geometric design standards. Typical measures apply to various wetlands along the Paradise and Dixon sections—
 - Project the alignment away from the Flathead River, wetlands, and other waters of the United States.
 - Maintain the existing alignment at locations with wetlands adjacent to the right-of-way.
 - Where it is possible to meet geometric design standards and provide conditions for desired safety, adjust embankment slopes to a minimum 4:1 ratio instead of 6:1; consider use of guardrail—steeper slopes would reduce areas of fill for foundation material; MDT will consider slope of embankments in the vicinity of wetlands on a case-by-case basis.
 - Minimize excavation of existing borrow ditches.
- Comply with all Clean Water Act Section 404 permit conditions as well as Section 401 water quality certification and Montana Stream Protection Act (124) conditions and any additional state, federal or tribal water quality requirements/conditions.

Table 3-5 Estimated Wetland Loss, hectares (acres), within Project Construction Limits			
Community Type	Paradise Build Alternative	Paradise Minimum Build Alternative	Dixon Build Alternative
Emergent	0.04 (0.11)	0.02 (0.05)	1.13 (2.80)
Emergent/Scrub Shrub	0.19 (0.46)	0.21 (0.52)	0.37 (0.92)
Emergent/Forested	--	--	0.06 (0.16)
Scrub Shrub	0.04 (0.09)	0.04 (0.09)	0.08 (0.19)
Scrub Shrub/Forested	--	--	0.10 (0.24)
Forested	0.06 (0.16)	0.01 (0.04)	
Totals	0.33 (0.82)	0.28 (0.70)	1.74 (4.31)
Wetland Category	Paradise Build Alternative	Paradise Minimum Build Alternative	Dixon Build Alternative
I (exceptional)	--	--	--
II (high)	0.18 (0.45)	0.20 (0.51)	0.32 (0.80)
III (moderate)	0.14 (0.35)	0.06 (0.16)	1.06 (2.62)
IV (low)	0.00 (0.02)	0.01 (0.03)	0.36 (0.89)
Totals	0.33 (0.82)	0.28 (0.70)	1.74 (4.31)

Table 3-6 Estimated Wetland Loss, hectares (acres), within Project Right-of-Way			
Community Type	Paradise Build Alternative	Paradise Minimum Build Alternative	Dixon Build Alternative
Emergent	0.05 (0.13)	0.02 (0.06)	2.22 (5.48)
Emergent/Scrub Shrub	0.23 (0.58)	0.32 (0.79)	1.0 (2.46)
Emergent/Forested	--	--	0.11 (0.26)
Scrub Shrub	0.04 (0.10)	0.04 (0.09)	0.14 (0.34)
Scrub Shrub/Forested	--	--	0.20 (0.50)
Forested	0.07 (0.17)	0.03 (0.07)	--
Totals	0.40 (0.98)	0.41 (1.01)	3.66 (9.04)
Wetland Category	Paradise Build Alternative	Paradise Minimum Build Alternative	Dixon Build Alternative
I (exceptional)	--	0.04 (0.11)	--
II (high)	0.23 (0.57)	0.26 (0.65)	0.75 (1.86)
III (moderate)	0.15 (0.38)	0.09 (0.22)	2.27 (5.60)
IV (low)	0.01 (0.03)	0.01 (0.03)	0.64 (1.58)
Totals	0.40 (0.98)	0.41 (1.01)	3.66 (9.04)

Table 3-7 Estimated Wetland Loss, in Wetland Functional Units¹			
Impact Scenario	Paradise Build Alternative	Paradise Minimum Build Alternative	Dixon Build Alternative
Impacts within Construction Limits, Only	4.31	4.02	16.28
Impacts within Right-of-Way	5.24	6.08	34.59
¹ Wetland functional units are computed by multiplying the acreage of affected wetlands by the functional points. The functional unit losses can then be used as a target for functional unit replacement at the designated wetland replacement sites.			

- Removed culverts, guardrail, and other construction materials will not be stockpiled in or adjacent to wetland or stream areas.
- Construction equipment operating in wetlands will be limited to what is needed to perform the necessary work.
- Disturbed wetland and stream side areas will be revegetated with native plant material, where practical. Measures will be taken to prevent the introduction/spread of noxious weeds.
- Wide-track or balloon-tire construction equipment will be considered in saturated/inundated areas. Timber pads, prefabricated equipment pads or geotextile fabric overlain with gravel fill will be considered with normal equipment in such areas. All such materials will be removed following construction.
- Hazardous materials, including fuels and lubricating oils will not be stored and construction equipment will not be refueled within 30 m (100 ft) of wetlands or streams.

A potential wetland replacement site is being evaluated at Hoskins Landing north of Dixon along the Flathead River. This site has been and is being coordinated with the Interagency Wetlands Group and the Confederated Salish and Kootenai Tribes. In the event that mitigation is not possible at this site, MDT will consider other sites or add these replacement requirements to its wetland ledger.

3.16 Terrestrial Biological Resources

3.16.1 Affected Environment

Vegetation. Major plant communities encountered during the field survey for the Biological Resources Report include black cottonwood/red-osier dogwood (*Populus trichocarpa*/*Cornus stolonifera*), ponderosa pine/red-osier dogwood (*Pinus ponderosa*/*Cornus stolonifera*), ponderosa pine/antelope bitterbrush (*Pinus ponderosa*/*Purshia tridentata*), ponderosa pine/Idaho fescue (*Pinus ponderosa*/*Festuca Idahoensis*), Idaho fescue/bluebunch wheatgrass (*Festuca Idahoensis*/*Agropyron spicatum*), rough fescue/Idaho fescue (*Festuca scabrella*/*Festuca Idahoensis*), wetland, and seeded active or fallow agricultural fields. Another major community type, “disturbed/weedy”, occurs within and adjacent to existing ROW along both sections and is dominated by herbaceous species such as smooth brome (*Bromus inermis*), spotted knapweed, dalmation toadflax (*Linaria dalmatica*), timothy (*Phleum pratense*), Canada thistle (*Cirsium arvense*), common mullein (*Verbascum thapsus*), and reed canarygrass (*Phalaris arundinacea*).

Generally, black cottonwood/red-osier dogwood communities along both sections were classified as riparian vegetation, exclusive of wetland communities within these areas. Riparian communities generally occurred uplandward of wetlands; particularly in areas associated with running water or seepage. Along the Paradise Section, ponderosa pine/red-osier communities were also generally mapped as riparian areas; primarily due to their close association with the Flathead River. Along the Dixon Section, ponderosa pine/red-osier dogwood communities

occurred on dryer high terraces and steep slopes and were generally not classified as riparian areas.

The field survey for the BRR identified 195 plant species within the Paradise Section and 200 species in the Dixon Section.

Sensitive Plants. A field survey in June 1999 identified no sensitive plant species or habitat in the project area (Schassberger, 1999).

Noxious Weeds. Of the 15 plants designated as noxious weeds in Montana, six were observed in along the highway.

By far the most common weed encountered in the project area was spotted knapweed (*Centaurea maculosa*). Spotted knapweed has very high cover within 30 to 60 m (100-200 ft) of MT 200 for the entire length of the Paradise and Dixon sections. Other noxious weeds encountered during the survey include Canada thistle, dalmation toadflax, sulfur cinquefoil (*Potentilla recta*), leafy spurge (*Euphorbia esula*), and St. John'swort (*Hypericum perforatum*).

These weeds are Category 1 noxious weeds as defined by the State of Montana. The Montana Department of Agriculture (1991) defines Category 1 noxious weeds as "weeds that are currently established and generally widespread in many counties of the state. Management criteria include awareness and education, containment and suppression of existing infestations, and prevention of new infestations. These weeds are capable of rapid spread and render land unfit or greatly limit beneficial uses."

Wildlife. A number of wildlife species inhabit the general project area, particularly along the Paradise Section, which contains more forested communities and is within a few hundred meters of the Flathead River for most of its length. The Flathead River and associated wetlands and riparian vegetation contribute to increased species richness in the general area of both sections. The Tribes have prepared a comprehensive list of wildlife species known or suspected to occur on the Flathead Indian Reservation, along with indications as to seasonal occurrence and habitat associations (Confederated Salish and Kootenai Tribes, undated).

The Tribes' list includes 67 mammalian species that occur on the Reservation. Mule deer (*Odocoileus hemionus*), white-tailed deer (*Odocoileus virginianus*), black bear (*Ursus americanus*), porcupine (*Erethizon dorsatum*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), badger (*Taxidea taxus*), red squirrel (*Tamiasciurus hudsonicus*), long-tailed weasel (*Mustela frenata*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), deer mouse (*Peromyscus maniculatus*), and meadow vole (*Microtus pennsylvanicus*) are common mammals occupying habitats in the general area.

According to distribution maps presented in Reichel and Flath (1995) and an amphibian study conducted on the Reservation (Werner and Plummer, 1995), amphibians likely to occur in the project area include the long-toed salamander (*Ambystoma macrodactylum*), western toad (*Bufo boreas*), Pacific chorus frog (*Pseudacris regilla*), bull frog (*Rana catesbeiana*), and spotted frog (*Rana pretiosa*) near wetland and riverine habitats. The northern leopard frog (*Rana pipiens*) likely occurred along the in the project area historically, but is now thought to be extirpated from the Reservation (Werner and Plummer, 1995; Becker pers. comm). The Couer d'Alene salamander (*Plethodon idahoensis*) could not be confirmed on the Reservation (Werner and Plummer, 1995) but may occur in suitable habitats.

Northern alligator lizard (*Elgaria coerulea*), western skink (*Eumeces skiltonianus*), painted turtle (*Chrysemys picta*), rubber boa (*Charina bottae*), racer (*Coluber constrictor*), gopher snake (*Pituophis melanoleucus*), western rattlesnake (*Crotalus viridis*), western terrestrial garter snake (*Thamnophis elegans*), and common garter snake (*Thamnophis sirtalis*) are reptiles likely to inhabit the project area (Reichel and Flath, 1995).

The Montana Natural Heritage Program maintains a database of bird species observations by latilong for the period between 1992 and 1997. According to the database, over 100 bird species have been reported within each of the quarter latilongs containing the Paradise and Dixon sections during this period. The Tribes' reservation-wide wildlife lists 177 species for which breeding records exist on the Reservation, many of which occur in the project area. Common breeders in the project area include waterfowl and shorebirds at ponded emergent wetlands and along the Flathead River; woodpeckers, flycatchers, warblers, raptors, finches, grouse and thrushes in forested and riparian areas; and sparrows, crows, magpies, pheasants, and blackbirds in pasture and hayland areas.

Three osprey nests were observed in the project area. Two of these occur along the Dixon Section on power poles north of RP (MP) 101.9 and 103.2. The third observed nest occurs in a snag along the north side of the Flathead River, approximately 245 m (800 ft) north of the highway on the Paradise Section.

No additional raptor nests were observed during the survey; however, red-tailed hawk nesting is very likely occurring in the project area. Bald eagles and peregrine falcons also nest in the project area and are discussed separately under Section 3.18 Threatened and Endangered Species.

Wildlife/Motor Vehicle Collisions. An evaluation has been completed of animal/vehicle collisions on the Dixon Section. Though a great number of species seek cover and forage within riparian thickets near the highway, the evaluation focused on the larger ungulates and carnivores that account for the more severe vehicle-related accidents. Specifically these include white-tailed and occasional mule deer, Rocky Mountain elk (*Cervus elaphus nelsoni*), and black bear.

Based on information available, it is estimated that six to eight deer are struck annually on the Dixon Section and subsequently removed by MDT maintenance personnel. These collisions generally occur in the proximity of the riparian (creek) corridors.

At RP (MP) 101.2 and 102.0 of the Dixon Section, wildlife crossings are frequent.

Elk crossings are more localized in the Dixon Section according to MDT's section foremen, Earl Johnston and Leonard Larsen, who report only 1 to 2 fatalities annually within the combined Dixon and Perma sections. These have generally happened between RP (MP) 98 to 101 where coniferous forests closely approach the highway on the south.

Black bear also were reported to not add substantially to wildlife mortality in spite of their summer presence along the river. Neither foreman was aware of any vehicle-struck bears within the Dixon Section over the past year, yet one instance of recent mortality was discovered at RP (MP) 101.7 during fieldwork of 29-30 September, 1998.

More individual animals are being killed than are currently observed by users of MT 200, since the larger species are often crossing the roadway in considerable haste when struck. This can result in struck animals coming to rest in heavily foliated locations where they are less visible to motorists. A few animals also survive some collisions and move away from the highway.

Although the currently 'observed' mortality level pales in comparison to the several hundred deer killed annually on Montana portions of US 93, the issue needs to be recognized not just for the threat it poses to wildlife, but to the lives of motorists as well.

Sensitive Wildlife Species. A search of the MNHP database revealed several known occurrences of animal species of concern within 3.2 km (2mi) of the proposed projects (MNHP, 1998a). Three of these occurrences consist of bald eagle nests and are discussed separately under Threatened and Endangered Species. The fourth consists of a wolverine captured in a trap on the north side of the Flathead River in 1994, north of the Paradise Section.

Due to relatively high amounts of human activity near the highway, wolverines are not expected to reside in the immediate project area. This species is expected, however, as an occasional transient during dispersal or foraging movements.

3.16.2 Impacts

With the No-Action Alternative, disturbances to terrestrial resources associated with the use and maintenance of the existing highway would continue at existing levels. Automobile/wildlife collisions would continue to occur at existing levels and the potential for accident related spills of fuel and other contaminants into area waters would continue at existing levels.

Vegetation. Table 3-8 is a summary of vegetation communities that would be within the new ROW of each of the proposed alternatives. These areas would constitute the maximum area of disturbance if construction clears the entire ROW.

Plant Community	Dixon Build Alternative	Paradise Build Alternative	Paradise Minimum Build Alternative
Black Cottonwood/red-osier Dogwood	1.62 (4.0)	1.13 (2.8)	0.65 (1.6)
Ponderosa Pine/red-osier Dogwood	1.01 (2.5)	0.65 (1.6)	0.04 (0.1)
Ponderosa Pine/antelope Bitterbrush/Idaho Fescue	4.05 (10.0)	10.68 (26.4)	4.05 (10.0)
Rough Fescue/Idaho Fescue	5.79 (14.3)	0.0	0.0
Idaho Fescue/bluebunch Wheatgrass	4.05 (10.0)	0.0	0.0
Seeded Agricultural/seeded Weedy	29.54 (73.0)	22.5 (55.6)	24.2 (59.8)
Wetland	3.66 (9.04)	0.40 (1.0)	0.40 (1.0)
Highway Surface (No Plants)	12.63 (31.2)	4.25 (10.5)	5.06 (12.5)
Row Totals	62.32 (154.0)	39.62 (97.9)	34.40 (85.0)
Total Riparian within right-of-way	1.62 (4.0)	1.78 (4.4)	0.69 (1.7)
Total Riparian Within Construction Limits	0.89 (2.2)	0.97 (2.4)	0.36 (0.9)

Sensitive Plants. No sensitive plant species or their habitat have been found in the project area; no impacts to sensitive plants have been identified with any of the Build Alternatives.

Noxious Weeds. Construction would disturb existing noxious weed communities and expose areas disturbed by construction to the establishment of noxious weeds. The Dixon Build Alternative and the Paradise Minimum Build Alternative, because they would more closely follow the existing alignment and would disturb less area, would have a lesser effect than the Paradise Build Alternative.

Wildlife and Sensitive Wildlife Species. Most construction would occur in areas that are immediately adjacent to the existing roadway in areas that are considered to be of low to moderate overall habitat quality.

Construction during the osprey nesting season in the vicinity of the osprey nests along the Dixon Section on power poles north of RP (MP) 101.8 and 103.2 could cause adults to abandon nesting, flush from the nest and expose young to overheating and predation.

Wildlife/Motor Vehicle Collisions. The No-Action Alternative would have no effect on existing occurrences of wildlife/motor vehicle collisions.

The Build Alternatives would provide wider roadways with better sight distance. Timber and brush would be removed from the clear zone adjacent to the roadway. These factors should result in reduced collision rates.

3.16.3 Mitigation

Vegetation. Any temporary clearing outside the construction limits will be kept to the smallest area practical. Disturbed areas will be reclaimed immediately following construction.

Prior to construction, the Confederated Salish and Kootenai Tribes will salvage plant species of cultural significance within the proposed construction limits.

Sensitive Plants. A field survey in June 1999 did not identify any sensitive plants, including *Allium acuminatum*, *Allium columbianum*, and *Claytonia arenicola* (Schassberger, 1999).

Noxious Weeds. Noxious weeds in the highway ROW are controlled by the Sanders County Weed Management District through a cooperative agreement with MDT as provided by Montana Code Annotated [MCA] 7-22-2151. The agreement includes a six-year integrated noxious weed management plan that is updated biennially. Funding requirements to implement the plan are determined by the weed district board who submits the budgetary information to MDT. MDT in turn submits appropriations for noxious weed control within the ROW to the county.

As owner of the property within the ROW, MDT is responsible for preparing and submitting a written plan to the weed district board specifying the time and method of seeding, fertilization practices, recommended plant species, use of weed-free seed, and the weed management procedures to be used (MCA 7-22-2152). The plan is subject to the approval of the board.

All areas disturbed by construction will be reseeded as described in the seeding provisions (Appendix C).

Wildlife and Sensitive Wildlife Species. The construction contractor will be required to notify an MDT biologist of any occupied large raptor nest observed within 800 m (0.5 mi) of the highway. Where appropriate and feasible, adjustment of the timing of construction activities will be required.

Heavy construction activities near known osprey nests will, where practical and feasible, be conducted outside the critical period of April through June.

Overhead power lines that are relocated will be raptor-proofed in accordance with current guidelines.

With the Dixon Build Alternative, appropriate warning signs will be considered at known high-use wildlife crossing sites near Magpie Creek—RP (MP) 101.2 and 102.0.

No specific mitigation measures have been identified for the Paradise Build and Paradise Minimum Build alternatives. Specific mitigation measures will be evaluated during development of project design.

3.17 Aquatic Resources

3.17.1 Affected Environment

Streams traversed by the existing and proposed alignment are listed in Section 3.13. In addition, a small, intermittent drainage exists referred to as “Seapee Creek” on the Paradise Section plans. No critical spawning habitat for any fish species has been identified or is suspected at streams in the vicinity of the highway. Many of the fish species present within the mainstem Flathead could at times occur within the area’s tributaries (DosSantos pers. comm.).

Revais and Magpie creeks are traversed on the Dixon Section near RP (MP) 105.9 and 101.3, respectively. These streams are approximately 6 to 8 m (20-26 ft) wide, and both flow under the highway via clear span bridges. Summer flows in these streams are apparently largely intercepted by upstream irrigation diversions. Revais and Magpie creeks contain brook trout (*Salvelinus fontinalis*), as well as resident and fluvial stocks of westslope cutthroat trout (*Oncorhynchus clarki lewisi*) (DosSantos pers. comm.). These streams are rated as Class III streams, which provide moderate subsistence or recreational fishing potential, have high to moderate water quality, have moderate conflicting uses, and provide important resident fish spawning habitat (CSKT, 1993).

Gunderson Creek is crossed on the Dixon Section near RP (MP) 104.9. This stream is approximately 2.4 m (8 ft) wide north of the highway, and 1 m (3 ft) wide on the south (upstream) side, both of which contain dense riparian vegetation. The stream passes under the highway via a 1524 mm (5 ft) diameter corrugated steel pipe, and likely contains resident brook trout and occasional westslope cutthroat trout (DosSantos pers. comm.). Gunderson Creek would likely rate as a Class IV stream (DosSantos pers. comm.), which provide low subsistence or recreational fishing potential, contain low fish species diversity, have moderate to poor water quality, and are ephemeral streams or segments thereof (CSKT, 1993).

Magpie Spring Creek is traversed on the Dixon Section near RP (MP) 100. This stream is approximately 1 m (3 ft) wide and is bordered by dense riparian vegetation on the south side of the highway. This stream likely contains resident brook trout and possibly occasional westslope cutthroat trout, and would likely be classified as a Class IV stream (DosSantos pers. comm.).

Burgess Creek crosses the Paradise Section at about RP (MP) 84.7. The main channel is approximately 1 m (3 ft) wide and is primarily bordered by emergent wetland vegetation within its immediate floodplain. This stream likely contains resident brook trout and possibly occasional westslope cutthroat trout, and would likely be classified as a Class IV stream (DosSantos pers. comm.).

Robertson Creek crosses the Paradise Section at about RP (MP) 88.5. Bordered by dense riparian vegetation, this stream flows under the highway through a double 2 m by 2 m (6 by 6 ft) concrete box. This stream likely contains resident brook trout and possibly occasional westslope cutthroat trout, and would likely be classified as a Class IV stream (DosSantos pers. comm.).

Wilson Creek is crossed by the highway near RP (MP) 87.3. South of the highway, the active channel is approximately 1 to 2 m (3-6 ft) wide and is situated within a wider, incised floodplain containing dense emergent and scrub-shrub wetland vegetation. This stream likely contains resident brook trout and possibly occasional westslope cutthroat trout, and would likely be classified as a Class IV stream (DosSantos pers. comm.).

“Seapee” Creek crosses the highway at RP (MP) 86.1, and consists of a 1 to 2 m (3-6 ft) wide, excavated intermittent channel. No fish are suspected in this drainage (DosSantos pers. comm.).

Although not traversed by the alignment, the Flathead River occurs adjacent to the Paradise Section for most of its length. According to the MRIS (1999), fish species present within the reaches of the Flathead adjacent to this section include bull trout (*Salvelinus confluentus*; rare; spawns elsewhere), westslope cutthroat trout (common resident), largemouth bass (*Micropterus salmoides*; rare; spawns elsewhere), yellow perch (*Perca flavescens*; uncommon; spawns elsewhere); northern pike (*Esox lucius*; uncommon resident), peamouth (*Mylocheilus caurinus*; common resident), northern pike minnow (*Ptychocheilus oregonensis*; common resident), reidside shiner (*Richardsonius balteatus*; common resident), largescale sucker (*Catostomus macrocheilus*; common resident), and slimy sculpin (*Cottus cognatus*; uncommon resident).

Sensitive Fish Species. Sensitive fish species that may occur in the project area include westslope cutthroat trout and bull trout. As mentioned above, westslope cutthroat trout occur as common residents in the Flathead River, as resident and fluvial stocks in Magpie and Revais Creeks, and possibly occur as migrants and spring residents at Gunderson, Magpie Spring, Burgess, Robertson, and Wilson Creeks. Bull trout, a federally-listed threatened species, are discussed under Threatened and Endangered Species (see Section 3.18).

3.17.2 Impacts

With the No-Action Alternative, disturbances to aquatic resources associated with the use and maintenance of the existing highway would continue at existing levels. The potential for accident related spills of fuel and other contaminants into area waters would continue at existing levels. Existing impacts to the area's streams, including any impediments to fish passage, would continue.

On the Paradise Section, the Paradise Build Alternative is expected to have a greater effect on fish passage than the Paradise Minimum Build Alternative because of its higher fills and resulting longer culverts.

No direct effects are expected in the Flathead River with any of the proposed alternatives.

Potential turbidity, suspended sediment and other impacts to streams are discussed in Section 3.13.

Increases in turbidity and suspended sediment could result in temporary reductions of stream productivity, reduction of feeding opportunities for sight-feeding species, avoidance by fish of important habitat, and sedimentation of spawning habitat or eggs. As no critical spawning areas adjacent to or downstream of the highway are known at streams that would be affected by the proposed projects, substantial impacts to spawning activities or habitat are not anticipated.

3.17.3 Mitigation

Mitigation measures for streams are discussed in Section 3.13.

Pipes designed to accommodate fish passage when flows are adequate at streams will be installed where appropriate.

For the Build Alternatives, culverts at Burgess, Robertson, Wilson, Gunderson, and Magpie Spring creeks will be installed at existing grades (not perched) and will be designed to allow upstream fish passage during periods of adequate flow. This will minimize effects to fish movement and may benefit fish over existing conditions. The design process may identify need for use of bottomless culverts to provide fish passage at stream crossings. The existing bridge at Magpie Creek will not be replaced. MDT will coordinate design of stream crossings with the Tribes and biologists. At these crossings, instream work will be completed, as much as practical, during a construction window from July 15 to October 1 to minimize effects to westslope cutthroat trout and bull trout.

For the Paradise Minimum Build Alternative, fill slopes north of RP (MP) 88.9 to 89.0 will be adjusted and, if appropriate, guardrail will be used to eliminate encroachment into the spring outlet immediately adjacent to the Flathead River.

3.18 Threatened and Endangered Species

3.18.1 Affected Environment

The following Threatened/Endangered Species were indicated by the U.S. Fish and Wildlife Service (McMaster, 1998) and by MDT's Biological Resources Report of 15 July 14, 1999, in accordance with the US Fish and Wildlife Service's letter of November 19, 1996 (and January 23, 1997 supplement), as being in the vicinity of the Paradise and Dixon sections:

- Bull trout (*Salvelinus confluentus*: threatened)
- Bald eagle (*Haliaeetus leucocephalus*: threatened)
- Peregrine falcon (*Falco peregrinus*: endangered, but USFWS reviewing public comments regarding their proposal to remove this species from the list of threatened and endangered species)
- Gray wolf (*Canis lupus*: endangered)
- Grizzly bear (*Ursus arctos horribilis*: threatened)
- Canada lynx (*Felis lynx*: proposed threatened)

Bull Trout. The Paradise and Dixon sections are within the general Middle Clark Fork River (MCFR) drainage that includes the Clark Fork River and its tributaries from Thompson Falls Dam upstream to Milltown Dam and the Flathead River drainage from the confluence with the Clark Fork River upstream to Kerr Dam (Montana Bull Trout Scientific Group (MBTSG), 1996). No core areas (drainages containing the strongest remaining populations of bull trout in a restoration area) occur in the project area (MBTSG, 1996).

In reaches of the Flathead River through the project area, bull trout are listed in the "rare" and "spawns elsewhere" categories used by the MRIS (1999). Through these reaches, bull trout are known to occur as adult and subadult residents and adult migrants

Fifteen years of fish surveys have produced no observations of bull trout in area streams, including Magpie, Revais, Gunderson, Magpie Spring, and Burgess Creeks (DosSantos pers. comm.).

Bald Eagle. The Paradise and Dixon sections are within the Montana portion of the Upper Columbia Basin Recovery Zone (Montana Bald Eagle Working Group (MBEWG), 1991). Bald eagle nest sites are known to occur at several sites in the project area. Most are located at a sufficient distance to not be affected by the proposed projects, except for one nest close to the

Dixon Section on the Flathead River approximately 670 m (2200 ft) north of RP (MP) 103.8 on Ferry Island.

Bald eagles also occur along the Flathead River through both sections as spring and fall migrants and as winter residents, feeding on both fish and waterfowl (Becker pers. comm.).

The proposed action is thought to occur outside the primary use area, but within the home range.

Peregrine Falcon. A peregrine falcon eyrie occurs in cliffs above the north side of the Flathead River across the river from Wilson Creek (Becker, O'Connor pers. comms.). At its closest point, RP (MP) 87.3 of the Paradise Section occurs approximately 790 m (2600 ft) south of the eyrie. Discovered in 1997, the eyrie fledged an unknown number of young in 1997 and three young in 1998 (O'Connor pers. comm.).

In addition to this breeding pair, peregrines may occur along the Flathead River in the project area as spring and fall migrants.

Gray Wolf. No active wolf dens are known to occur in the project area. The nearest known pack to the project area is the Ninemile pack, who's primary territory occurs several miles south of the Paradise and Dixon sections, on the south side of the Ninemile Divide, although individuals do wander over the divide on occasion (Fontaine pers. comm.). Wolf use in the project area is generally thought to be limited to occasional individual wanderings (Fontaine pers. comm.).

Grizzly Bear. Neither of the sections occur within or adjacent to any designated grizzly bear recovery zones. The highest grizzly bear densities within several miles of the Paradise and Dixon sections occur in the Mission Mountains and adjacent lands in the Mission Valley, grizzlies have also been periodically reported near Evaro, Ninepipe, Post Creek, Dixon, Perma, and the National Bison Range (Morrison-Maierle Environmental Corporation, 1999).

Grizzly bears are considered an infrequent resident in the general vicinity (e.g., Ninemile Divide, Buffalo Bill Divide, Salish Mountains areas within several miles of the proposed projects), and an infrequent transient in the immediate project area.

Canada Lynx. No lynx observations have been recorded in the project area, although lynx tracks have been observed several miles south of MT 200 in the Ninemile Divide area (Becker pers. comm.). The Paradise and Dixon sections are between 762 and 792m (2500 and 2600 ft) in elevation, and no spruce/subalpine fir communities occur within several miles of the proposed projects. Consequently, lynx are expected to occur in the project area as infrequent transients, and in surrounding high-elevation forest (possibly in the Ninemile Divide area) as infrequent residents.

3.18.2 Impacts

With the No-Action Alternative, disturbances to threatened and endangered species associated with the use and maintenance of the existing highway would continue at existing levels. The potential for accident related spills of fuel and other contaminants into area waters would continue at existing levels. Existing impacts to area streams, including any impediments to fish passage, would continue.

Bull Trout. Construction of the Dixon Build Alternative would result in the least potential effect to bull trout. Magpie and Revais Creeks would not be directly affected and the proposed Gunderson Creek culvert is shorter than the existing pipe. The Magpie Spring Creek pipe is slightly longer than the existing pipe and would probably result in reduction of fish passage. Only minor channel modifications would occur at pipe inlets and outlets. Further, this section is generally located a substantial distance from the river and is separated from the river by the railroad grade. The railroad grade would act as a sediment barrier.

The Biological Resources Report indicates that, unless properly designed, the long culverts proposed at Wilson and Robertson Creeks on the Paradise Build Alternative would eliminate any current fish passage at these streams. Reduction, with possible elimination, of fish passage is anticipated at Burgess Creek. Properly designed, these culverts would provide fish passage, except during periods where sufficient flow is not available. Major channel losses at area streams would result from high fill placement. Substantial blasting, ripping and other activities where the proposed alignment deviates from the existing alignment would likely result in more indirect impacts (i.e., sediment) to the nearby Flathead River than with the Paradise Minimum Build Alternative.

Construction of the Paradise Minimum Build Alternative would have less effect for bull trout than the Paradise Build Alternative. With this alternative, reduction or elimination of fish passage at Wilson, Robertson and Burgess Creeks would also occur unless culverts are properly designed for fish passage. Channel losses at stream crossings would result from placement of fill but would not be as severe as with the Paradise Build Alternative.

Bald Eagle. Construction of the Dixon Build Alternative has a potential to affect bald eagles due to the presence of the bald eagle nest in the immediate vicinity. The proposed alignment would be located approximately 35 m (115 ft) south of the existing alignment and therefore further away from the nest.

No effect to the bald eagle has been identified with the Paradise Build Alternative and the Paradise Minimum Build Alternative.

Peregrine Falcon. On the Paradise Section between RP (MP) 87.0 and 87.9, blasting and heavy construction activities occurring from early-April (courtship initiation) to early-July (fledging)

would disrupt nesting activities. The Paradise Build Alternative would have more blasting and heavy construction, with slightly more potential for disruption, than the Paradise Minimum Build Alternative.

Gray Wolf. The Biological Resources Report indicates that clearing for highway construction has the potential to affect the gray wolf because of the resulting removal of potential habitat. The Dixon Build Alternative would result in negligible habitat removal because most adjacent land is range and pasture land. The Paradise Build Alternative and, to a lesser extent, the Paradise Minimum Build Alternative would remove potential habitat and create higher construction fills near stream crossings which are potential gray wolf crossing corridors.

Grizzly Bear. The Biological Resources Report indicates the Build Alternatives would not substantially affect grizzly bear habitat, movements, or mortality.

Canada Lynx. The Build Alternatives would not have substantial effects on the Canada lynx due to the high disturbance levels associated with existing roadside vegetation communities and the general lack of suitable habitat (high elevation spruce/fir forest) in the project area.

Conclusions. The conclusion of the Biological Resources Report is that the proposed action is not likely to adversely affect the bald eagle, peregrine falcon, gray wolf, and grizzly; it is not likely to jeopardize the Canada lynx.

The Biological Resources Report renders a may affect, not likely to adversely affect determination relative to the bull trout. MDT has requested concurrence from the Montana Department of Fish, Wildlife and Parks (MFWP) and the US Fish and Wildlife Service (USFWS).

3.18.3 Mitigation

Bull Trout. The following measures will be implemented to avoid or reduce potential effects to bull trout:

- Culverts at Gunderson, Magpie Spring, Burgess, Robertson, and Wilson creeks will be installed at existing grades (no perched culverts) to allow fish passage during periods of adequate flow. The culverts will be designed to allow for fish passage. In-stream work will be avoided between October 1 and July 15 to minimize effects to bull trout.
- Fill slopes between RP (MP) 88.9 to 89.0 will be adjusted through the use of guardrail or other means to eliminate encroachment into the spring outlet immediately adjacent to the Flathead River.

Should a “may affect, likely to adversely affect” determination ultimately be rendered for the bull trout, formal consultation with the USFWS will be required (USFWS, 1998).

Bald Eagle. With the Dixon Build Alternative, screening vegetation between the highway and the nest north of RP (MP) 103.8 in the form of mature trees will be preserved, where practical, and staging, crusher plant or similar activities will not be located in the vicinity. Disruptive activities, such as blasting and ripping, will be avoided in this area during sensitive nesting periods.

In order to further reduce the potential for human-related disturbance at the two impromptu approaches on the north side of the highway in this area, a ditch or berm will be constructed to prevent their use.

Peregrine Falcon. With the Paradise Build Alternative and the Paradise Minimum Build Alternative, blasting and heavy construction activities between RP (MP) 87.0 and 87.9 will be restricted between courtship initiation (early-April) and fledging (early-July), to avoid disruption to nesting activities. Overhead power lines that are relocated will be raptor-proofed in accordance with current guidelines.

Gray Wolf, Grizzly Bear and Canada Lynx. Any temporary clearing outside of construction limits but inside new ROW limits will be kept to a minimum and disturbed areas will be reclaimed immediately following construction.

3.19 Hazardous Waste

3.19.1 Affected Environment

A hazardous materials/substances assessment was completed in March 1999 for both the Paradise Section and the Dixon Section. No hazardous materials/substances were identified in either section.

3.19.2 Impacts

No adverse effects related to hazardous materials or substances have been identified for any of the proposed alternatives.

Beneficial effects may occur with the Build Alternatives due to improved alignment, pavement width, safety slopes and other improved design features. Accidents involving vehicles carrying hazardous substances should be reduced along with the likelihood of resulting spills.

3.19.3 Mitigation

Hazardous materials, including fuels and lubricating oils will not be stored and construction equipment will not be refueled within 30 m (100 ft) of wetlands or streams.

3.20 Construction

3.20.1 Impacts and Mitigation

The No-Action Alternative would have no construction impacts.

Traffic Control

Traffic control will be maintained for the duration of the construction. A traffic control plan will be developed to maximize safety and minimize inconvenience to local road and river traffic. The plan will include details of how traffic will be maintained through construction areas. For example, at locations where culverts are installed it may be necessary to install temporary culverts at stream crossings until the old culvert can be removed and the new one installed. Another example is to shift traffic to either side of the roadway while a portion of the old culvert is removed and replaced. During construction, safe passage of traffic will be through controlled corridors within the construction zone. The contractor will be required to work with ranchers to coordinate and accommodate cattle and sheep drives through the construction area.

It is anticipated that most delays and inconvenience would occur during one construction season for the Dixon Section, and two construction seasons for the Paradise Section (a total of three construction seasons). Delays of up to fifteen minutes through the Dixon Section would occur frequently during the first year to allow one-way traffic through narrow construction areas and to allow clearance and passage of trucks and other construction equipment. Few longer delays are anticipated and will not be allowed except where necessary and only when requested several days in advance by the construction contractor. When extended delays are anticipated they will be advertised in advance using the local news media. Delays will be scheduled to avoid high peak traffic periods such as morning and evening periods when people are traveling to and from work and school.

Longer traffic delays would be expected through the Paradise Section during the first construction season due to blasting and extensive earth moving activities. Delays would be longer with the Paradise Minimum Build Alternative because most of this construction would occur very near or over the existing roadway.

The Paradise Build Alternative would require substantially more excavation than the Paradise Minimum Build Alternative. Table 3-9 presents information about construction quantities and cost.

Table 3-9 Construction Quantities and Cost				
Quantity and Cost	Alternative			
	No-Action	Paradise Build	Paradise Minimum Build	Dixon Build
Excavation Quantity cubic meters (m ³)—cubic yards (y ³)	—	424,000 (555,000)	153,000 (200,000)	410,000 (536,000)
Excavation to Dispose cubic meters (m ³)—cubic yards (y ³)	--	153,000 (200,000)	--	—
Borrow Quantity cubic meters (m ³)—cubic yards (y ³)	--	—	—	37, 000 (49,000)
Right-of-Way Cost, \$	—	548,000	416,000	135,000
Construction cost, \$	--	6,510,000	4,540,000	7,958,000
Montana Department of Transportation. Numbers are rounded to nearest thousand. NA is Not Available.				

In order to mitigate for losses of plant species of importance to the Tribes, MDT will coordinate the timing of the preconstruction ROW clearing and grubbing activities with the Tribes to allow for salvage and possible relocation of species of concern.

Waste Disposal

Wastes generated during construction will include waste rock and soil; asphalt pavement, guardrails, and culverts from obliteration of the old highway; and wastes associated with contractor equipment such as fluids from vehicle maintenance activities.

Heavy equipment and machinery commonly employed in large construction projects are fueled and lubricated by petroleum products whose storage, handling, and disposal are regulated by the Montana Department of Environmental Quality and the U.S. Environmental Protection Agency. Best Management Practices require that contractors follow maintenance guidelines and standards on all equipment to prevent accidental release of toxic or hazardous substances into the environment. The BMPs will restrict equipment fueling to a distance greater than 30 m (100 ft) from all designated wetlands and the Flathead River. These restrictions will be specified as conditions in permits issued by the Montana Department of Fish, Wildlife and Parks and the U.S. Army Corps of Engineers.

Guardrails, culverts, signs, and other materials will be recycled by the contractor when appropriate or disposed of at an approved landfill facility. The existing asphalt pavement will be recovered and reused to construct the new highway embankment.

The Paradise Build Alternative will result in the excavation of excess soil and rock which must be disposed of at an approved location (see Table 3-9).

Disposal of Existing Pavement

Disposal of existing asphalt and Portland cement concrete will comply with applicable laws, rules, and regulations, including the Montana Solid Waste Management Act.

Disposal may include measures for utilization:

- Process, handle, and transport materials for use in embankments
- Crush, screen, mix, and otherwise process for use as base or traffic gravel

Existing pavement used as embankment or base gravel must meet requirements of specifications for the particular item. Pieces used as embankment must not exceed 150 millimeters (mm), or 6-inch (in) size.

Disposal or utilization will not place removed bituminous pavement in areas exposed to extended periods of water flow, in or near standing water, or close to groundwater wells.

Dust Abatement

A temporary increase in air pollution due to dust and fumes is expected as a result of construction operations. The contractor will be required to adhere to all tribal, federal, state, and local regulations to minimize this pollution. The contractor will obtain air quality permits from the Confederated Salish and Kootenai Tribes and the Montana Department of Environmental Quality's Air and Waste Management Bureau for asphalt plants and crushers. Dust will be controlled by watering or other acceptable methods.

Stockpiles

Topsoil, aggregate, and recovered asphalt pavement may be stockpiled during construction. Stockpile locations have not been identified for these materials, however, the contractor will be required to implement BMPs to ensure these materials do not deleteriously affect the environment.

Gravel Pits & Reclamation

An aggregate source has not been identified. It is anticipated that the aggregate source(s) for construction of road bases and preparation of asphalt mixes will be within the general vicinity of the proposed projects.

Development of an aggregate source site requires that the contractor obtain an opencut mining permit from the Department of Environmental Quality. Bond must accompany the permit application. In addition, the contractor must submit a reclamation plan to the Board of Land Commissioners for review. Excavation cannot begin until a permit is obtained and the reclamation plan is approved.

Development of an aggregate source site on the Reservation will require the contractor to comply with applicable Tribal ordinances; it may require the contractor to obtain a permit(s) from the Tribes. The contractor will be required to coordinate with the Tribes for permission to excavate aggregate sources on the Reservation.

Reclamation, as defined in MCA 82-4-403, is the “reconditioning of the area of land affected by opencut-mining operations to make the area suitable for productive use, including but not limited to forestry, agriculture, grazing, wildlife, recreation, or residential and industrial sites.” A reclamation plan includes “the description of current land use, topographical data, water data, soils data, leased areas, and intended mine areas and an explanation of proposed reclamation of the land, including appropriate maps.”

Regulatory Compliance

Activities during all phases of construction must comply with all applicable tribal, county, state and federal regulations.

Coordination of Construction with Plant Salvage Operations

Prior to construction, the Confederated Salish and Kootenai Tribes will salvage plant species of cultural significance within the proposed construction limits.

Economic Effects of Construction

Construction would create employment and earnings for residents of the area. MDT and the Tribes have a memorandum of agreement (MOA) that specifies requirements for tribal employment with construction projects on the Flathead Indian Reservation. Most workers from outside the area are expected to commute from Sanders, Lake, Missoula, and Flathead counties.

3.21 Commitment of Resources

With the No-Action Alternative, commitment of resources for maintenance and repairs would continue and would likely increase as the pavement section, culverts, guardrail and other existing features, which have exceeded their intended design life, continue to deteriorate.

Implementation of the Paradise Build Alternative, the Paradise Minimum Build Alternative or the Dixon Build Alternative involves a commitment of natural, physical, human and fiscal resources. Land used in construction would be considered an irreversible commitment during the time period that the land is used for a roadway facility. However, if a greater need should arise for use of the land, or if the roadway facility no longer serves the purpose and need identified, the land could be converted to another use. At present, there is no reason to believe that such a conversion would ever be necessary or desirable.

Considerable amounts of fossil fuels, labor and construction materials such as cement and aggregate would be expended by the construction of the Paradise Build Alternative, the Paradise Minimum Build Alternative or the Dixon Build Alternative. In addition, considerable amounts of labor and natural resources would be used in the fabrication and preparation of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use would not have an adverse effect upon continued availability of these resources.

The commitment of these resources will be based on the concept that residents in the immediate area, state and region would benefit by the improved quality of the transportation system. Benefits would include improved accessibility and safety, savings in time and greater availability of quality services which are anticipated to outweigh the commitment of these resources.

3.22 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations, has been observed for the proposed action. Implementation of the No-Action Alternative, the Paradise Build Alternative, the Paradise Minimum Build Alternative or the Dixon Build Alternative would not create disproportionately high and/or adverse effects in the health or environment of minority and/or low-income populations. The proposed action also complies with the provisions of Title VI of the Civil Rights Act (42 U.S.C. 2000) under the FHWA's regulations (23 CFR 200).

3.23 Permits Required

The following permits will be acquired prior to any relevant disturbance (see also the FEMA floodplain development permit in Section 3.14):

- All of the Build Alternatives will be in compliance with the provisions for both Water Quality under 75-5-401(2) M.C.A. for Section 3(a) authorizations and Stream Protection under 87-5-501 through 509 M.C.A., inclusive. A 124SPA Stream Protection Permit will be required by the Montana Department of Fish, Wildlife and Parks.
- For the Dixon Section and areas of the Paradise within the Reservation, a Notice of Intent (NOI) for Storm Water Discharges under the National Pollutant Discharge Elimination System (NPDES) and a General Permit (P.L. 92-500) will be required with the U.S. Environmental Protection Agency for the control of water pollution for both specific and non-point sources.

All of the Build Alternatives will require the following permits under the Clean Water Act (33 U.S.C. 1251 - 1376):

- A Section 402/Montana Pollutant Discharge Elimination permit from the Montana Department of Environmental Quality's Permitting and Compliance Division will be required for areas of the Paradise Section outside the Reservation.
- A Section 404 permit from the U.S. Army - Corps of Engineers (COE). The COE will be notified that the proposed action qualifies for a "Nationwide Permit under the provisions of 33 CFR 330.
- All work will be in accordance with the Water Quality Act of 1987 (P.L. 100-4), as amended.

An application and plan for a Tribal Aquatic Lands Conservation Ordinance 87A Permit must be filed with and approved by the Shoreline Protection Office prior to commencing any project which may affect reservation waters.

All of the Build Alternatives will require the following permits for air quality from the Montana Department of Environmental Quality:

- Air and Waste Management Bureau, asphalt plant and crusher permit
- Industrial and Energy Minerals Bureau, opencut mining permit

Because much of the proposed action is within the Flathead Indian Reservation, the following additional permits and regulatory coordination may be needed:

- Tribal Forest Product Use Ordinance 61B. A permit may be required from the Tribal Forestry Department prior to harvesting any trees within any proposed ROW corridor.
- Tribal Water Planning (Use) Ordinance 76A. A declaration of intention of future water use must be filed and approved by the agency prior to withdrawal of any Tribal waters.
- Tribal Water Quality Management Ordinance 89B. As provided under federal law the Tribes administer the NPDES permits for activities within the Reservation. A complete

and accurate application for all discharges must be filed and approved by the Tribal Natural Resources Department prior to commencing activities.

- Tribal Land Ordinance 45 B. Required by Tribal Land Office prior to development activity on the Reservation.
- Tribal Shoreline Protection Ordinance 64A and Tribal Aquatic Lands Conservation Ordinance 87A. Required by Tribal Shoreline Protection Office prior to development.
- Cultural Resources Protection Ordinance 73A. The Tribal Preservation Office issues Cultural Resources Permit 95 to protect cultural resources.
- The Tribal Indian Preference Office must accept contractors' Tribal Employment Rights Plan.
- The Tribal Air Quality Management Program has authority to verify compliance with the Tribal Air Quality Program.
- Tribal Resolution 5846. The Tribal Recreation Office reviews development affecting recreational resources.
- Tribal Ordinance 90.

3.24 Secondary and Cumulative

3.24.1 Affected Environment

Section 1.2 lists several highway construction projects that have been completed in recent years on MT 200 in the project area.

MDT currently has no other active or proposed projects in this part of its District 1, not including the proposed action. Cooperating agencies have identified no ongoing or proposed projects that would be affected by or have effects on the proposed action.

3.24.2 Impacts and Mitigation

Construction of the Paradise Section and the Dixon Section will complete MDT's overall long range plan to upgrade MT 200 from Paradise to Ravalli – these are the last remaining sections to be reconstructed.

No other cumulative impacts have been identified for the Paradise and Dixon sections.

4 CONSULTATION, COORDINATION, AND ISSUES

This chapter identifies agencies participating in preparation of the EA: Agencies with jurisdiction in the project area and other agencies contacted as part of the study. This chapter discusses agency scoping and public involvement, which guided development of issues and alternatives. It identifies agencies, groups, and persons that received a copy of the EA. Appendix D presents project correspondence.

4.1 Cooperating Agencies

Cooperating Agencies, under the provisions of 23 CFR 771.111(d), include:

- Confederated Salish and Kootenai Tribes
- U.S. Department of the Interior, Bureau of Indian Affairs, Portland Area Office
- U.S. Department of the Interior, Fish and Wildlife Service
- U.S. Department of Agriculture, Forest Service, Lolo National Forest
- U.S. Environmental Protection Agency

4.2 Agencies with Jurisdiction and/or with Permits Required

The sponsors have coordinated their planning and review activities with the regulatory agencies listed below. The list also identifies permits and regulatory coordination required by agencies.

Confederated Salish and Kootenai Tribes

- Shoreline Protection Office
Tribal Aquatic Lands Conservation Ordinance 87A Permit
Tribal Shoreline Protection Ordinance 64A Permit
- Tribal Forestry Department
Tribal Forest Product Use Ordinance 61B Permit
- Natural Resources Department
Tribal Water Planning (Use) Ordinance 76A Declaration of Intention
Tribal Water Quality Management Ordinance 89B NPDES Permits
- Tribal Land Office
Tribal Land Use Ordinance 64A Permit
- Tribal Air Quality Management Office
Tribal Air Quality Management Program
- Tribal Preservation Office
Cultural Resources Protection Ordinance 73A and Cultural Resources Permit 95
- Tribal Indian Preference Office
Tribal Employment Rights Plan
- *Tribal Ordinance 90*

Environmental Assessment for Paradise - East (East Section) and Dixon - West

- Tribal Transportation Planning
- Tribal Fisheries Program
- Tribal Recreation Office
- *Tribal Resolution 5846*

State of Montana

- Department of Environmental Quality
Water Quality under 75-5-401(2) M.C.A. for Section 3(a) authorizations
Stream Protection under 87-5-501 through 509 M.C.A., inclusive
Section 402/Montana Pollutant Discharge Elimination Permit
Air and Waste Management Bureau, asphalt plant and crusher permit
Industrial and Energy Minerals Bureau, opencut mining permit
- Department of Fish, Wildlife and Parks
124SPA Stream Protection Permit
Section 6(f) of Land and Water Conservation Fund Act
- State Historical Preservation Office
Concurrence with Finding of No Effect for Cultural Resources
- Department of Natural Resources and Conservation
Right of Way Easement in State Lands

United States

- U.S. Environmental Protection Agency
Notice of Intent (NOI) for Storm Water Discharges and General Permit (P.L. 92-500)
- Federal Emergency Management Agency
Floodplain Development Permit
- U.S. Fish and Wildlife Service
Concurrence with Finding of No Effect for Biological Resources Report
- Department of Agriculture, U.S. Forest Service
Section 4(f)
- U.S. Army Corps of Engineers
Section 404 permit for a "Nationwide Permit under the provisions of 33 CFR 330
- Department of Agriculture, Natural Resources Conservation Service
Farmland Conversion Impact Rating

4.3 Other Agencies, Groups, or Persons Contacted or Contributing Information

State of Montana

- Natural Heritage Program and Montana Rivers Information System

Private Organizations

- Flathead Resource Organization

4.4 Coordination and Public Involvement

MDT sponsored five public informational meetings beginning in 1987, including three at the Paradise School for the Paradise sections on July 21, 1987 (including the Clark Fork Bridges), October 11, 1990, and September 30, 1998. Meetings for the Dixon sections were held at the Dixon School on November 24, 1987, and the Senior Citizen's Center on September 29, 1998. A notice of opportunity was published in November 1988 for one of the Dixon sections, but MDT did not receive a request for a public meeting.

Public written and oral comments were recorded at the meetings held on September 29 and 30, 1998 in Dixon and Paradise. The meetings were held to discuss the proposed action as described herein.

This EA evaluates environmental effects of the proposed action in compliance with the National Environmental Policy Act (NEPA) and the Montana Environmental Policy Act (MEPA). In accordance with state and federal regulations for public involvement (ARM 18.2.240 and 23 CFR 771.111, respectively), this EA will be available for review by the public and responsible agencies. There will be a public hearing during the 30-day review period. MDT will review all written and oral comments received at the hearing or written comments received during the review period. MDT will prepare responses to all substantive comments. If no significant impacts are found, then MDT will prepare a Finding of No Significant Impact (FONSI). If significant impacts are identified, MDT and FHWA will prepare an environmental impact statement (EIS).

4.4.1 Consultation with The Confederated Salish and Kootenai Tribes

The Montana Department of Transportation and the Confederated Salish and Kootenai Tribes held four meetings to discuss coordination for public involvement and preparation of the EA:

- August 6, 1998
- September 30, 1998
- October 30, 1998
- December 14, 1998

MDT and the Tribes conducted a field review on October 13, 1998 for the Paradise and Dixon sections. Resource specialists from the agencies evaluated conditions that could change with the No-Action and Build alternatives.

4.5 Coordination and Public Involvement Issues

The EA addresses issues identified during coordination and public involvement, as follows:

- Area required for right-of-way (Section 3.3)
- Accident rates and increased speed (Section 1.1.3)
- Heavy truck traffic (Section 3.4)
- Effects on vegetation, wildlife and wetlands (Sections 3.14, 3.15, 3.16, 3.17, and 3.18)
- Effects on cultural resources (Section 3.7)
- Large rock cuts required for the Paradise Build Alternative (Sections 3.6 and 3.13)
- Access and safety for pedestrians, bicyclists, school buses, and farm access (Sections 1.1.3 and 3.10)
- Utilities located in the ROW (Section 3.3)
- Rest areas and turnouts are facilities to consider as design options (Sections 3.6 and 3.10)
- Effects on traditional cultural and spiritual activities in and near the ROW (Sections 3.6, 3.7, 3.8, and 3.9)
- Plants of cultural importance (Sections 3.6, 3.7, 3.8, and 3.9)
- Visual effects on the view of the highway and from the highway (Section 3.6)
- Land use and local and regional growth (Sections 3.1 and 3.5)
- Reduction of land for agriculture (Section 3.2)
- Tribal air quality standards (Section 3.12)
- Soil erosion and sedimentation of streams and wetlands (Sections 3.13, 3.14, and 3.15)
- Restoration of vegetative cover and control of noxious weeds (Section 3.13)

4.6 Distribution List

The following agencies, groups, and persons received a copy of the environmental assessment.

Confederated Salish and Kootenai Tribes
Box 278
Pablo, MT 59855

Montana Department of Transportation
2701 Prospect Avenue
Box 201001
Helena, MT 59620-1001

Montana Department of Transportation
2500 West Broadway
Box 7039
Missoula, MT 59807-7039

Montana Department of Environmental Quality
Box 200901
Helena, MT 59620-0901

Montana Department of Fish, Wildlife and Parks
Box 201001
Helena, MT 59620-1001

Montana State Library
1515 East 6th Avenue
Box 201800
Helena, MT 59620-1800

Environmental Assessment for Paradise - East (East Section) and Dixon - West

Environmental Quality Council
Capitol Station, Box 201704
Helena, MT 59620

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The Montana Department of Transportation, Environmental Services, in cooperation with the Federal Highway Administration, is responsible for preparation of this environmental assessment. Morrison-Maierle Environmental, a consulting firm in Helena, Montana, prepared the document under a contract with MDT.

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APPENDICES

- Appendix A NRCS Farmland Conversion Impact Rating Form (AD-1006)
- Appendix B Nationwide Programmatic Section 4(f) Evaluation for Minor Impacts on Historic Sites (Excluding Historic Bridge Replacements)
- Appendix C Seeding Provisions
- Appendix D Project Correspondence

Appendix A

Farmland Conversion Impact Rating Form (AD-1006)

- A. 1 Paradise Section
- A. 2 Dixon Section

APPENDIX A - Farmland Conversion Impact Rating Form (AD 1006)

A.1 Paradise Section

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date of Land Evaluation Request 3/1/0			
Name of Project: Paradise-East (East Section)		Federal Agency Involved USDOT - Federal Highway Administration			
Proposed Land Use Highway Right-of-Way		Sanders County, Montana			
PART II (To be completed by SCS)		Date Request Received by SCS			
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this farm.)					Yes <input type="checkbox"/> No <input type="checkbox"/>
Major Crop(s)		Farmable Land in Govt. Jurisdiction Acres: %		Acres Irrigated	Average Farm Size
Name of Land Evaluation System Used		Name of Local Site Assessment System		Date Land Evaluation Returned by SCS	
PART III (To be completed by Federal Agency)		Alternate Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres to be converted directly		64	36		
B. Total Acres to be converted indirectly		0	0		
C. Total Acres in Site		64	36		
PART IV (To be completed by SCS) Land Evaluation Information					
A. Total Acres Prime and Unique Farmland					
B. Total Acres Statewide and Local Important Farmland					
C. Percentage of Farmland in County or Local Govt., unit to be converted					
D. Percentage of farmland in Govt. Jurisdiction with same or higher relative value.					
PART V (To be completed by SCS) Land Evaluation Criterion Relative Value of Farmland to be converted (Scale of 0 to 100 Points)					
PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.8(b))		Max. Pts.			
1. Area Nonurban Use		15	15	15	
2. Perimeter in Nonurban Use		10	10	10	
3. Percent of Site Being Farmed		20	8	12	
4. Protection Provided by State and Local Govt.		20	0	0	
5. Distance from Urban Builtup Area		N/A	NA	NA	
6. Distance to Urban Support Services		N/A	NA	NA	
7. Size of present farm unit compared to average		10	10	10	
8. Creation of nonfarmable farmland		25	0	0	
9. Availability of farm support services		5	5	5	
10. On-farm investments		20	5	5	
11. Effects of conversion on farm support services		25	0	0	
12. Compatibility with existing agricultural use		10	1	1	
TOTAL SITE ASSESSMENT POINTS		160	54	58	
PART VII (To be completed by Federal Agency)					
Relative value of farmland (From Part V)		100	100	100	
Total Site Assessment (From Part VI above or a local site assessment)		160	54	58	
TOTAL POINTS (Total of above 2 lines)		260	154	158	
Site Selected: Site B		Date of Selection 11-5-99		Was a Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Site A: Paradise Build Alternative Site B: Paradise Minimum Build Alternative					
Reason for Selection: Preferred Alternative					

APPENDIX A - Farmland Conversion Impact Rating Form (AD 1006)

A. 2 Dixon Section

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date of Land Evaluation Request 3/1/0			
Name of Project: Dixon-West		Federal Agency Involved USDOT - Federal Highway Administration			
Proposed Land Use Highway Right-of-Way		Sanders County, Montana			
PART II (To be completed by SCS)		Date Request Received by SCS			
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this farm.)					Yes <input type="checkbox"/> No <input type="checkbox"/>
Major Crop(s)		Farmable Land in Govt. Jurisdiction Acres: %		Acres Irrigated	Average Farm Size
Name of Land Evaluation System Used		Name of Local Site Assessment System		Date Land Evaluation Returned by SCS	
PART III (To be completed by Federal Agency)		Alternate Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres to be converted directly		93			
B. Total Acres to be converted indirectly		0			
C. Total Acres in Site		93			
PART IV (To be completed by SCS) Land Evaluation Information					
A. Total Acres Prime and Unique Farmland					
B. Total Acres Statewide and Local Important Farmland					
C. Percentage of Farmland in County or Local Govt., unit to be converted					
D. Percentage of farmland in Govt. Jurisdiction with same or higher relative value.					
PART V (To be completed by SCS) Land Evaluation Criterion Relative Value of Farmland to be converted (Scale of 0 to 100 Points)					
PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.8(b))		Max. Pts.			
1. Area Nonurban Use		15	15		
2. Perimeter in Nonurban Use		10	10		
3. Percent of Site Being Farmed		20	1		
4. Protection Provided by State and Local Govt.		20	0		
5. Distance from Urban Builtup Area		N/A	NA		
6. Distance to Urban Support Services		N/A	NA		
7. Size of present farm unit compared to average		10	10		
8. Creation of nonfarmable farmland		25	0		
9. Availability of farm support services		5	5		
10. On-farm investments		20	10		
11. Effects of conversion on farm support services		25	0		
12. Compatibility with existing agricultural use		10	1		
TOTAL SITE ASSESSMENT POINTS		160	52		
PART VII (To be completed by Federal Agency)					
Relative value of farmland (From Part V)		100	100		
Total Site Assessment (From Part VI above or a local site assessment)		160	52		
TOTAL POINTS (Total of above 2 lines)		260	152		
Site Selected: Site A		Date of Selection 11-5-99		Was a Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Site A: Dixon Build Alternative					
Reason for Selection: Preferred Alternative					

Appendix B

Nationwide Programmatic Section 4(f) Evaluation for Minor Impacts on Historic Sites (Excluding Historic Bridge Replacements)

MONTANA DIVISION

"NATIONWIDE" SECTION 4(f) EVALUATION FOR MINOR IMPACTS
ON
HISTORIC SITES
EXCLUDING HISTORIC BRIDGE REPLACEMENTS

Traditional Cultural Property

Project # STPP 6-1(30)99, (P.M.S. C# C891)

Date: October 19, 1999

Project Name: Dixon-West

Location: West End of Dixon-West Section

The Confederated Salish and Kootenai Tribes' Historic Preservation Office (THPO) issued a determination of "no adverse effect" on September 24, 1999 for a historic site that is on, or eligible for listing on, the NATIONAL REGISTER OF HISTORIC PLACES.

*NOTE: Any response in a box requires additional information.
Consult the "Nationwide" Section 4(f) Evaluation criteria.*

- | | <u>YES</u> | <u>NO</u> |
|--|-------------------------------------|-------------------------------------|
| 1. Is the 4(f) site adjacent to the existing highway? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Does the proposed project require the removal or alteration of historic structures, and/or objects? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <i>The Montana Department of Transportation (MDT) and THPO will relocate the resources to a location(s) specified by THPO.</i> | | |
| 3. Does the proposed project disturb or remove archaeological resources which are important to preserve in-place rather than to recover? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Is the impact on the 4(f) site considered minor (i.e.: no effect; or no adverse effect)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Has the STATE HISTORIC PRESERVATION OFFICE (SHPO) agreed in writing with the assessment of impacts, and the proposed mitigation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>The Tribal Historic Preservation Office has authority for assessment of impact and mitigation for projects on the Flathead Indian Reservation. THPO has agreed in writing with the assessment of impacts and the proposed mitigation.</i> | | |
| 6. Is the proposed action under an <u>Environmental Impact Statement</u> (EIS)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Is the proposed project on a new location? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

YES NO

NOTE: Any response in a box requires additional information.
Consult the "Nationwide" Section 4(f) Evaluation criteria.

8. The Scope-of-Work for the proposed project is one of the following:
- a) Improved traffic operation;
 - b) Safety improvements;
 - c) 3R;
 - d) Bridge replacement on essentially the same alignment; or
 - e) Addition of lanes.

ALTERNATIVES CONSIDERED

1. The "do-nothing" **ALTERNATIVE** has been evaluated, and is not considered to be feasible and prudent.
2. An **ALTERNATIVE** has been evaluated on the existing alignment which improves the highway without any 4(f) impacts, and is also not considered to be feasible and prudent.

An alignment was considered closer to the railroad. That alignment would encroach on the railroad's right-of-way.

3. An **ALTERNATIVE** on a new location avoiding the 4(f) site has been evaluated, and is not considered to be feasible and prudent.

An alignment was considered closer to the Flathead River. MT 200 in the project area is functionally classified a rural minor arterial. Relocating a segment of this highway would increase environmental effects for biological resources. Topography, with high hills and steep slopes in the area of the existing alignment and the Flathead River, prevents relocation of the alignment.

Descriptions of **ALTERNATIVES 2.** and **3.** are presented above.

MINIMIZATION OF HARM

1. The proposed project includes all possible planning to minimize harm.
2. Measures to minimize harm include the following:

Relocation of the traditional cultural property.

Reduction of side slopes in the area to 1.5 to 1.

Location of the alignment as close to the railroad as allowable.

Location of the alignment as far from resources as possible.

COORDINATION

1. The proposed project has been **COORDINATED** with the following:

THPO (date: July through September 1999)

The Tribal Historic Preservation Office has authority for assessment of impact and mitigation for projects on the Flathead Indian Reservation. THPO has agreed in writing with the assessment of impacts and the proposed Mitigation for the traditional cultural property. MDT coordinated analysis of impact and mitigation for the traditional cultural property exclusively with THPO. Other federal, state, and local agencies do not have authority for the property.

a) SHPO (date: 1988-1991)

b) ADVISORY COUNCIL ON HISTORIC PRESERVATION (ACHP, date: 10/15/91)

c) Property owner/s (date(s): 11/24/87; 9/29/98)

d) Local/State/Federal agencies

List:

Confederated Salish and Kootenai Tribes (date(s): 5/4/88; 8/6/98; 9/30/98; 10/30/98; 12/14/98; 9/24/99)

Sanders County (date(s): 11/24/87; 9/29/98)

U.S. Forest Service (date(s): 11/24/87; 9/29/98)

U.S. Fish and Wildlife Service (date(s): 11/24/87; 9/29/98)

2. One of the preceding had the following comment(s) regarding this proposed project, and/or the mitigation:
Meetings with property owners and tribal/local/state/federal agencies identified issues to incorporate in design and construction. Key issues were maintaining the existing alignment and using design options appropriate for both a 60 mile per hour design speed and aesthetic quality of the area.

SUMMARY

All required **ALTERNATIVES** have been evaluated and the proposed project meets all the criteria included in the "Nationwide Programmatic" *Section 4(f)* evaluation approved on December 23, 1986. This Programmatic Evaluation includes all possible planning to minimize harm which will be incorporated in this proposed project.

APPROVAL

This document is submitted pursuant to 49 U.S.C. 303 and in accordance with the provisions of 16 U.S.C. 470f.

Karl M Helvik

Karl M. Helvik, P.E.
Engineering Bureau Chief
Environmental Services

Date: November 5, 1999

Approved:


Federal Highway Administration

Date: 11-9-99

Appendix C

Seeding Provisions

APPENDIX C - Seeding Provisions

C.1 Paradise Section Seeding Provisions

MDT's agronomist prepared seeding provisions for disturbed areas. The seed mixtures consist of species native to the area and are designed for specific slope conditions. Tables C-1 and C-2 present seeding provisions for the Paradise and Dixon sections, respectively.

**Table C-1
Paradise Section
Seeding Provisions for Disturbed Soils in the Right-of-Way**

Area Descriptions: Area 1: Areas with slopes 3:1 and flatter. Area 2: Areas with slopes steeper than 3:1. Area 3: A 15-foot wide strip adjacent and parallel to the finished pavement along both roadsides.			
Seedbed Preparation Requirements: Condition all drill seeded areas immediately prior to seeding.			
Seedbed Application:			
	Method	Seeding Depth	Season of Seeding*
Area 1:	Drill seed	0.5-1.2 cm (0.25-0.5 in)	10/15 - 05/15
Area 2:	Broadcast seed	n.a.	10/15 - 05/15
Area 3:	Drill seed	0.5-1.2 cm (0.25-0.5 in)	10/15 - 05/15
*Seeding outside the designated seeding period is allowed only with prior approval by the MDT agronomist.			
Mulch Requirements: Area 1 & 3: None Area 2: 3400 kg/ha (3000 lb/ac) weed free straw, plus 1100 kg/ha (1000 lb/ac) compost, with suitable tackifier; or: 2200 kg/ha (2000 lb/ac) wood cellulose fiber, plus 1100 kg/ha (1000 lb/ac) compost, with suitable tackifier; or: 2200 kg/ha (2000 lb/ac) recycled paper fiber, plus 1100 kg/ha (1000 lb/ac) compost, with suitable tackifier.			
Fertilizer Application: At Year of seeding. Areas 1& 2: 11-17 kg/ha (10-15 lb/ac) Nitrogen 34-39 kg/ha (30-35 lb/ac) P ₂ O ₅ , Area 3: None			
Seed Mixture:			
	Species	kg/ha (lb/ac)	Substitute Species*
			kg/ha (lb/ac)
Area 1:			
(a)	Revenue slender wheatgrass		(a) Pryor slender wheatgrass
(b)	Critana thickspike WG.	1.0 (1.0)	(b) Sodar streambank WG.
(c)	Rosana western wheatgrass	5.5 (5.0)	(c) Sodar streambank WG.
(d)	Secar bluebunch wheatgrass	4.5 (4.0)	(d) Lodorm green needlegrass
(e)	Covar sheep fescue	3.5 (3.0)	(e) Joseph Idaho fescue
(f)	Candada wildrye	2.0 (2.0)	(f) Shoshone creeping wildrye
(g)	Appar wild blue flax	2.0 (2.0)	(g) Blanketflower
(h)	Rocky Mountain beplant	1.0 (1.0)	(h) Blanketflower
		2.0 (2.0)	
Area 2:	Double the seeding rate as recommended for Area 1.		
Area 3:			
(a)	Sodar streambank WG.	6.5 (6.0)	(a) Critana thickspike WG.
(b)	Rosana western wheatgrass	6.5 (6.0)	(b) Critana thickspike WG.
(c)	Covar sheep fescue	3.5 (3.0)	(c) Joseph Idaho fescue
(d)	Fults alkaligrass	2.0 (2.0)	(d) Sand dropseed
			1.0 (1.0)
*Use individual substitute species only if the recommended species is not available and substitution is approved by the MDT agronomist. Substitute (a) for (a), (b) for (b), etc. <u>Additional Notes:</u> The contractor is reminded to comply with Section 107.11.5 of the MDT Standard Specifications for Road and Bridge Construction, which states the following: 107.11.5 Noxious Weed Management - Follow the requirements of the County Noxious Weed Management Act, Title 7, Chapter 22, Part 21, and all county and contract noxious weed control requirements. Determine the specific noxious weed control requirements not specified in the Contract of each county where the project is located before submitting a bid.			

**Table C-2
Dixon Section
Seeding Provisions for Disturbed Soils in the Right-of-Way**

Area Descriptions:				
Area 1:	Areas with slopes 3:1 and flatter.			
Area 2:	Areas with slopes steeper than 3:1.			
Area 3:	A 15-foot wide strip adjacent and parallel to the finished pavement along both roadsides.			
Seedbed Preparation Requirements: Condition all drill seeded areas immediately prior to seeding.				
Seedbed Application:				
	Method	Seeding Depth	Season of Seeding*	
Area 1:	Drill seed	0.5-1.2 cm (0.25-0.5 in)	10/15 - 05/15	
Area 2:	Broadcast seed	n.a.	10/15 - 05/15	
Area 3:	Drill seed	0.5-1.2 cm (0.25-0.5 in)	10/15 - 05/15	
*Seeding outside the designated seeding period is allowed only with prior approval by the MDT agronomist.				
Mulch Requirements:				
Area 1:	None			
Area 2:	3400 kg/ha (3000 lb/ac) weed free straw with suitable tackifier; or: 2200 kg/ha (2000 lb/ac) wood cellulose fiber with suitable tackifier; or: 2200 kg/ha (2000 lb/ac) recycled paper fiber with suitable tackifier.			
Area 3:	None			
Fertilizer Application: At Year of seeding.				
Areas 1 & 2:	11-17 kg/ha (10-15 lb/ac) Nitrogen, 34-39 kg/ha (30-35 lb/ac) P ₂ O ₅ , Area 3: None			
Seed Mixture:				
	Species	kg/ha (lb/ac)	Substitute Species*	kg/ha (lb/ac)
Area 1:				
(a)	Revenue slender wheatgrass	1.0 (1.0)	(a) Pryor slender wheatgrass	1.0 (1.0)
(b)	Sherman big bluegrass	2.0 (2.0)	(b) Canbar canby bluegrass	2.0 (2.0)
(c)	Bannock thickspike WG.	6.5 (6.0)	(c) Critana thickspike WG.	6.5 (6.0)
(d)	Blue wildrye	3.5 (3.0)	(d) Shoshone creeping wildrye	3.5 (3.0)
(e)	Whitmar beardless WG.	2.0 (2.0)	(e) Secar bluebunch WG.	3.5 (3.0)
(f)	Covar sheep fescue	2.0 (2.0)	(f) Canbar canby bluegrass	2.0 (2.0)
(g)	Rocky Mtn beelplant	1.0 (1.0)	(g) Blanketflower	2.0 (2.0)
(h)	Appar wild blue flax	1.0 (1.0)	(h) Western (white) yarrow	1.0 (1.0)
Area 2:	Double the seeding rate as recommended for Area 1.			
Area 3:				
(a)	Sodar streambank WG.	6.5 (6.0)	(a) Rosana western wheatgrass	6.5 (6.0)
(b)	Reubens Canada bluegrass	3.5 (3.0)	(b) Canbar canby bluegrass	3.5 (3.0)
(c)	Redtop	2.0 (2.0)	(c) Covar sheep fescue	3.5 (3.0)
*Use individual substitute species only if the recommended species is not available and substitution is approved by the MDT agronomist. Substitute (a) for (a), (b) for (b), etc.				

Appendix D

Project Correspondence

List of Correspondence

	<u>Date</u>	<u>From</u>	<u>To</u>
1.	6-1-88	Katherine Huppe, State Historic Preservation Office	Mitzi Rossillon, Montana Department of Highways
2.	7-28-98	Jeff Berglund, Morrison-Maierle Environmental	Margaret Beer, Montana Natural Heritage Program
3.	7-31-98	Jeff Berglund, Morrison-Maierle Environmental	Kemper McMaster, U.S. Fish and Wildlife Service
4.	7-31-98	Jeff Berglund, Morrison-Maierle Environmental	Dan Vincent, Montana Dept. of Fish, Wildlife & Parks
5.	9-4-98	Mike Fillinger, Morrison-Maierle Environmental	Charles C. Wildes, Lolo National Forest
6.	9-11-98	Michael Pablo, Confederated Salish and Kootenai Tribes	Marvin Dye, Montana Department of Transportation
7.	10-29-98	Kemper McMaster, U.S. Fish and Wildlife Service	Jeff Berglund, Morrison-Maierle Environmental
8.	11-19-98	Michael Pablo, Confederated Salish and Kootenai Tribes	James Weaver, Montana Department of Transportation
9.	11-30-98	Thompson Smith, Flathead Resource Organization	Marvin Dye, Montana Department of Transportation
10.	12-22-98	Patrick Saffel, Montana Dept. of Fish, Wildlife & Parks	Jeff Berglund, Morrison-Maierle Environmental
11.	1-8-99	Richard Smith, U.S. Forest Service	Mike Fillinger, Morrison-Maierle Environmental
12.	5-3-99	Ken Soderberg, Montana Dept. of Fish, Wildlife & Parks	Karl Helvik, Montana Department of Transportation



State Historic Preservation Office Montana Historical Society

Mailing Address: 225 North Roberts • Helena, MT 59620-9990

Office Address: 102 Broadway • Helena, MT • (406) 444-7715

June 1, 1988

Ms. Mitzi Rossillon, Archaeologist
Environmental Unit
Montana Department of Highways
2701 Prospect Avenue
Helena, MT 59620

Re: Paradise-East
F 6-1(36) 83

Dear Mitzi:

Thank you for the opportunity to review HRA's inventory report for the project referenced above. For the most part, we concur with their methodology, results and recommendations. The lone exception has to do with the Hermes Farm, currently recorded as 24SA241. The farm appears to be representative of the sort of subsistence agricultural operation so common to Montana, and we believe that more intensive looking for the kinds of information necessary to make a strong case for Register eligibility would substantiate its significance. Since that would entail more work than the present project justifies, although the data is admittedly thin we believe a case can be made for the eligibility of the farmstead under Criterion A. We concur with both HRA and MDOH that the barn and silo are additionally eligible under Criterion C. We recommend the inclusion of Structure 5 as eligible under C as well. If the original building was, indeed, constructed of log, it represents a rare use of that medium to express Gothic Revival architecture.

We agree that Structure 12 and Feature 4 appear intrusive, and therefore recommend that the farm be recorded once again in a District format with contributing and non-contributing elements. The entire District, excluding the non-contributing structure and feature, would be eligible under A with the barn, silo and main house additionally eligible under C.

Prehistoric potential, although high in the project area, appears to have been adequately addressed by HRA's careful program of shovel testing for the present project. Although we leave the final decision up to you, Mitzi, we will not recommend that MDOH monitor construction.

Sincerely,

Katherine M. Huppe
Historical Survey Reviewer

File: Comp/MDOH Paradise East

cc: *Janene Caywood, HRA*

Date	Info	MAIL ROUTE	Amount
		30	
✓		30 Eng. Specialties	
✓		31 Contract Plans	
✓		32 Elec. Road Design	
✓		33 Environment	
		34 Hydraulic	
		35 Surfacing Design	
		36 Traffic	
		37 Pub. History	
		38 Photogrammetry	
		39 Consultant Design	
		<i>Borden</i>	
✓		File	



August 28, 1998

Ms. Margaret Beer
Montana Natural Heritage Program
1515 East Sixth Avenue
P.O. Box 201800
Helena, MT 59620-1800

Dear Margaret:

Morrison-Maierle Environmental Corporation (MME) has been contracted by the Montana Department of Transportation (MDT) to prepare an environmental assessment relative to two projects along Highway 200 on the Flathead Indian Reservation (see attached project maps). As part of the environmental assessment process, we are requesting a database search for known locations of plant and animal species of concern within two miles of the highway through each project area. Legal descriptions of the two projects are as follows:

Dixon West (STPP 6-1[30]99)

T18N, R21W, Section 18; T18N, R22W, Sections 13-18; T18N, R23W, Sections 10-13

Paradise - East (F6-1[36]85)

T18N, R24W, Sections 5-8; T18N, R25W, Sections 1-3

As usual, this is a rush job, so anything that you could do to expedite the database search would be greatly appreciated. If you want to Email the results to me, my address is "Jberglund@m-m.net". Thanks very much for your assistance.

Sincerely,

Jeff Berglund
Morrison-Maierle Environmental Corporation

enclosures (2)

cc: Susan Kilgore, MDT

COPY



August 31, 1998

Mr. Kemper McMaster - Field Supervisor
U.S. Fish & Wildlife Service
Ecological Services
100 N Park, Suite 320
Helena, MT 59601

Dear Mr. McMaster:

Morrison-Maierle Environmental Corporation (MME) has been contracted by the Montana Department of Transportation (MDT) to prepare a single environmental assessment that addresses two proposed projects along Highway 200 on and west of the Flathead Indian Reservation in Sanders County (see attached project maps). The projects, totaling approximately 23.9 kilometers (14.85 miles), occur immediately west of Dixon ("Dixon - West"; 15.7 km; 9.75 miles) and immediately east of Paradise ("Paradise - East"; 8.2 km; 5.1 miles) and generally parallel the Flathead River, which borders the project area to the north.

In accordance with Section 7(a) of the Endangered Species Act, we are requesting a list of listed or proposed threatened or endangered species that may occur in the project vicinity and should be considered in connection with this project. This information will be used during preparation of the environmental assessment and supporting documents, including the biological resources report. Any other pertinent comments you may have at this time would also be appreciated.

Both projects involve reconstruction of the existing highway to two 3.6 meter (12 feet)-wide travel lanes with 1.2 meter (4 feet)-wide shoulders. The existing alignment will generally be followed; however, some alignment shifts are proposed. Both projects will involve blasting and utility line relocation. The Paradise-East project includes new crossings of Wilson, Robertson, and Burgess Creeks. The Dixon-West project involves new crossings of Magpie Spring, Magpie, Gunderson, and Revais Creeks.

A response to this request at your earliest convenience would be greatly appreciated. Please contact me at 442-3050 or Susan Kilcrease of MDT's Environmental Services at 523-5800 with any questions or if you require additional information. Thank you for your assistance.

Sincerely,

Jeff Berglund
Morrison-Maierle Environmental Corporation

enclosures (2)

cc: Susan Kilcrease, MDT Environmental Services, Missoula



August 31, 1998

Mr. Dan Vincent - Regional Supervisor
Montana Dept. Of Fish, Wildlife & Parks
Region 1 Headquarters
490 North Meridian Road
Kalispell, MT 59901

Dear Mr. Vincent:

Morrison-Maierle Environmental Corporation (MME) has been contracted by the Montana Department of Transportation (MDT) to prepare a single environmental assessment that addresses two projects along Highway 200 on and west of the Flathead Indian Reservation (see attached project plans). The projects, totaling approximately 23.9 kilometers (14.85 miles), occur immediately west of Dixon ("Dixon - West"; 15.7 km; 9.75 miles) and immediately east of Paradise ("Paradise - East"; 8.2 km; 5.1 miles). As part of the environmental assessment process, we are soliciting information, concerns, and preliminary comments from Fish, Wildlife & Parks relative to wildlife and fisheries resources in the project area.

Both projects involve reconstruction of the existing highway to two 3.6 meter (12 feet)-wide travel lanes with 1.2 meter (4 feet)-wide shoulders. The existing alignment will generally be followed; however, some alignment shifts are proposed (see attached plans). Both projects will involve blasting and utility line relocation. The Paradise-East project includes new crossings of Wilson (Station 260), Robertson (Station 320), and Burgess (Station 386) Creeks. The Dixon-West project involves new crossings of Magpie Spring (Station 15), Magpie (Station 36), Gunderson (Station 92), and Revais (Station 110) Creeks.

A response to this request at your earliest convenience would be greatly appreciated. Please contact me at 442-3050 or Susan Kilcrease of MDT's Environmental Services at 523-5800 with any questions. Thanks very much for your assistance.

Sincerely,

Jeff Berglund
Morrison-Maierle Environmental Corporation

enclosures (2)

cc: Susan Kilcrease, MDT Environmental Services, Missoula

4 September 1998



Charles C. Wildes, Forest Supervisor
Lolo National Forest
Building 24, Fort Missoula
Missoula, MT 59801

Subject: Highway construction project Dixon West - Paradise East
F6-1(30)91 - F6-1(36)83
Control Nos. C891 - 1011

Dear Mr. Wildes:

The Montana Department of Transportation (MDT) has contracted Morrison-Maierle Environmental Corp. (MME) to prepare a single Environmental Assessment for the referenced highway project along Highway 200. In accordance with Part II.A.1 of the M.O.U. of January 27, 1993, between the U.S. Department of Transportation's Federal Highway Administration (FHWA), MDT, and the U.S.D.A. - Forest Service's Northern Region, this is a notice concerning the proposed highway construction project for Dixon West - Paradise East. The project consists of two highway lengths on and west of the Flathead Indian Reservation in Sanders County, 15.7 km (9.75 mi.) immediately west of Dixon, and 8.2 km (5.1 mi.) east of Paradise. The highway generally runs parallel and south of the Flathead River.

The proposed project consists of reconstruction of the existing highway to two 3.6 m (12 ft) - wide travel lanes with 1.2 m (4 ft) -wide shoulders. Existing alignment will generally be followed, however, some alignment shifts are proposed. The proposed realignment traverses about 366 m (1200 ft) of National Forest land on a designated forest highway route (Knowles Quadrangle, SW¼, SW¼, SW¼, Sec. 6, T. 18 N., R. 24 W.; see attached project plan map). Blasting and utility line relocation would be required as part of the project construction.

An preliminary project meeting is scheduled for September 9, 1998 at 2:30 p.m. at the KwaTaoNuc Resort in Polson. We apologize for the short notice and hope that a representative of the NFS is able to attend the meeting to discuss issues of concern to be addressed in the Environmental Assessment. Susan Kilcrease with MDT is the project manager.

In addition, information is being gathered for environmental documentation of the proposed project. Please furnish any information concerning Resource Management areas or sites that adjoin, or are near the project, including historic sites, wildlife or waterfowl, habitat, Threatened or Endangered Species, or timber harvesting areas.

The National Forest lands adjoining the proposed route may be classified as "Section 4(f) Lands" from the 1966 U.S. Department of Transportation Act (49 U.S.C. 303). This classification applies under any one of the following conditions:

Page 2 of 2
Mr. C. Wildes, Forest Supervisor
Lolo National Forest
4 September 1998



- 1) Parks and/or Recreation Areas
- 2) Wildlife/Waterfowl Refuges
- 3) Sites eligible for inclusion, or in the National Register of Historic Places (under *Section 106 of the National Historic Preservation Act*)
- 4) Lands managed for multiple use for recreation, or wildlife/waterfowl management and under statute(s) providing for same.

We ask that the Department prepare and submit statements indicating the following:

- A. Whether the National Forest lands adjoining the proposed project may be classified as "*Section 4(f) Lands*" from the preceding description(s).
- B. Any concerns relative to the acquisition of new, or additional easements on National Forest Lands for the proposed project; and
- C. The name and mailing address for a designated Forest Service Coordinator for the development of the proposed project.

Our staff look forward to working with NFS specialists on the proposed highway construction project. Please feel free to contact me at (406)442-3050 with any questions concerning the highway construction project or preparation of the environmental document.

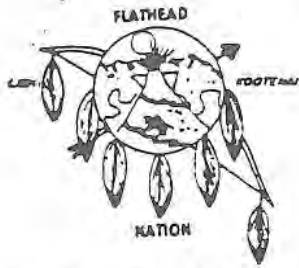
Sincerely,
Morrison-Maierle Environmental Corp.

Mike Fillinger, President

attachment

cc: Richard A. Smith, District Ranger, Plains/Thompson Falls
Susan Kilcrease, Project Manager, MDT
File

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THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION

P.O. Box 278
Pablo, Montana 59855
(406) 675-2700
FAX (406) 675-2806

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ENVIRONMENTAL

September 11, 1998



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Mary Lefthand
Elmer "Sonny" Morigeau
Gary Stevens

Marvin Dye, Director
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, Montana 59620-1001

Re: Tribal Participation in MDT's Proposed Highway 200, Dixon West Reconstruction Project

Dear Director Dye:

The Confederated Salish and Kootenai Tribes of the Flathead Nation support the Montana Department of Transportation's proposal to reconstruct portions of Montana Highway 200 between Dixon and the State Route 135 junction. The majority of the Project will take place on lands located within the boundaries of the Flathead Indian Reservation. More specifically, it is situated in the Lower Flathead River Valley, an important Tribal transportation corridor since prehistory. The Tribes hope to synthesize their trans-generational knowledge and cultural appreciation for this place with MDT's engineering capabilities to produce a highway uniquely suited to serve local needs here in the Tribes' Reservation homeland, as well as the greater regional and national needs.

To facilitate government to government coordination on the Project, the Tribal Council has appointed a five member team to represent the Tribes. Members of the Tribal team are: (1) Mike Durglo, Councilman; (2) Lewis Yellowrobe, Tribal Transportation Planner; (3) Marcia Cross, Tribal Cultural Preservation Officer; (4) Sam Morigeau, Head of the Tribal Natural Resources Department; and (5) Joe Hovenkotter, Tribal Staff Attorney. Lewis Yellowrobe is the Team leader and the Tribal Council's designated point of contact for this Project. Councilman Joe Moran may also participate on the Team as an alternate member in Councilman

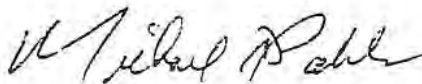
Honor us with your presence at the 100th Annual Arlee Celebration, July 1-5, 1998!

Durglo's absence.

The Tribal Team has four primary objectives: (1) work cooperatively with MDT to jointly develop the preliminary design plan and to define MDT's proposed action; (2) consult and coordinate with MDT as necessary in the NEPA process; (3) negotiate on behalf of the Tribes regarding the process and terms for exchanging interests in land to accommodate MDT right of way and environmental mitigation needs; and (4) coordinate as necessary with MDT to assist with wetlands mitigation actions consistent with our Memorandum of Agreement dated June 1, 1993. The Tribal Team is prepared to meet as necessary with MDT representatives to initiate preliminary design work and the drafting of a proposed action. Thereafter, we support performing NEPA analysis through the preparation of an environmental assessment document. Plans for completing land exchange and wetlands mitigation are already being jointly developed by MDT and Tribal staff members.

The Tribes look forward to working together with MDT to complete this Project. Please contact Lewis Yellowrobe at (406) 676-2600 with any questions or proposals on how to proceed.

Sincerely,



Michael T. Pablo
Chairman - Tribal Council

cc: Janice Brown, Division Administrator, Montana Division, FHWA
Joel Marshik, Environmental Services Manager, MDT
Jim Weaver, District Engineer, Missoula District, MDT



United States Department of the Interior

FISH AND WILDLIFE SERVICE

MONTANA FIELD OFFICE

100 N. PARK, SUITE 320

HELENA, MT 59601

PHONE (406) 449-5225, FAX (406) 449-5339

File: M. 44 - MT Dept. of Transportation

October 29, 1998

Jeff Berglund
Morrison-Maierle Environmental Corp.
910 Helena Ave.
Box 6147
Helena, Montana 59604-6147

Dear Mr. Berglund:

This is in response to your August 31 letter requesting Fish and Wildlife Service (Service) information regarding Federally listed endangered and threatened species that may occur on or near Highway 200 on and west of the Flathead Indian Reservation, Sanders County. Your request was related to two projects near Dixon and Paradise proposed by Montana Department of Transportation.

We have determined that the following listed, proposed, and candidate threatened or endangered species may be present in the area:

Listed Species

bald eagle (*Haliaeetus leucocephalus*), threatened

bull trout (*Salvelinus confluentus*), threatened

gray wolf (*Canis lupus*), endangered

grizzly bear (*Ursus arctos horribilis*), threatened

peregrine falcon (*Falco peregrinus*), endangered

Canada lynx (*Lynx canadensis*), proposed threatened

Expected Occurrence

Resident along major waterways, transient, or foraging

Resident

Infrequent, transient

Infrequent, resident

Resident where suitable nest habitat occurs, or transient

Infrequent, resident, or transient

Although not discussed in your letter, if Federal funding or permitting of the proposed projects is required, section 7 provisions of the Endangered Species Act of 1973, as amended, would apply. If so, the responsible Federal agency must determine if the proposed actions may affect these listed species and if so, initiate formal consultation with the Fish and Wildlife Service (Service). In order to determine if formal consultation is required, the Service recommends the responsible agency prepare a biological assessment for construction projects requiring an environmental impact statement (refer to section 402.12, 50 CFR Part 402, June 3, 1986), or an equivalent analysis for other projects, in accordance with section 402.14, 50 CFR, Part 402. We recommend that biological assessments include the following:

1. A description of the project.
2. A description of the specific area that may be affected by the action.
3. The current status, habitat use, and behavior of T/E species in the project area.
4. Discussion of the methods used to determine the information in Item 3.
5. An analysis of the affects of the action on listed species and proposed species and their habitats, including an analysis of any cumulative effects.
6. Coordination/mitigation measures that will reduce/eliminate adverse impacts to T/E species.

7. The expected status of T/E species in the future (short and long term) during and after project completion.
8. A determination of "is likely to adversely affect" or "is not likely to adversely affect" for listed species.
9. A determination of "is likely to jeopardize" or "is not likely to jeopardize" for proposed species.
10. Citation of literature and personal contacts used in developing the assessment.

If it is determined that the proposed project is likely to adversely affect any listed species, formal consultation should be initiated with this office. If it is concluded that the project "is not likely to adversely affect" listed species, we should be asked to review the assessment and concur with the determination of no adverse effect.

The Service has documentation of the following known bald eagle nest sites near your project area: Ferry Island - Sec. 17, T18N, R22W; Revais Creek - Sec. 11, T18N, R22W; Seepay Creek - Sec.2, T18N, R24W. Note that this list may not be complete and that field review should be conducted to ascertain whether additional nest sites occur within your project area. Section 9 of the Act prohibits knowingly taking listed species, which includes harm, harassment, capture, or collection activities, except when specifically permitted by the Service. Please also be apprised of the potential application of the Migratory Bird Treaty Act of 1918 (MBTA), as amended, 16 U.S.C. 703 et seq; and the Bald Eagle Protection Act of 1940 (BEPA), as amended, 16 U.S.C. 668 et seq; to your project. The MBTA does not require intent to "take" to be proven and does not allow for "take," except as permitted by regulations. Section 703 of the MBTA provides: "Unless and except as permitted by regulations...it shall be unlawful at any time, by any means or in any manner, to ... take, capture, kill, or attempt to take, capture, or kill, possess... any migratory bird, or any part, nest, or eggs of any such bird...." The BEPA prohibits knowingly taking, or taking with wanton disregard for the consequences of such an activity, any bald or golden eagles or their body parts, nest, or eggs, which includes collection, molestation, disturbance, or killing activities.

The information and maps accompanying your letter indicate there may be some stream crossings and/or other areas where wetlands might be impacted by the proposed projects. If so, Corps of Engineers Section 404 permits may eventually be required. In that event, depending on the permit type and other factors, the Service may be required to review permit applications and will recommend any protection or mitigation measures to the Corps of Engineers as may appear reasonable and prudent based on the information available at that time.

We appreciate your efforts to consider and conserve fish and wildlife resources, including threatened and endangered species. If you have questions regarding this letter, please contact Anne Vandehey (406) 449-5225 or Tim Bodurtha (Creston Fish Hatchery) (406) 758-6882.

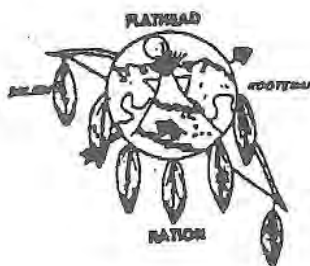
Sincerely,



Kemper M. McMaster
Field Supervisor

AV/av

cc: Tim Bodurtha, USFWS, Creston



THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION

P.O. Box 278
Pablo, Montana 59855
(406) 675-2700
FAX (406) 675-2806



Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
Frederick Cordier - Sergeant-at-Arms

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Donald "Donny" Dupuis
Michael Durglo, Jr.
Jami Hamel
Mary Lefthand
Elmer "Sonny" Morigeau
Lloyd D. Irvine

November 18, 1998

James T. Weaver, Missoula District Engineer
Montana Department of Transportation
P.O. Box 7039
Missoula, MT 59807-7039

Re: Highway 200 Dixon West and Paradise East Projects

Dear Mr. Weaver:

The Confederated Salish and Kootenai Tribes have received information from Montana Department of Transportation staff regarding MDT's proposal for reconstruction of Highway 200 in the Dixon West and Paradise East Projects. The Tribes have the following comments to this preliminary proposal:

Generally:

- The Lower Flathead River corridor is an important cultural, subsistence and recreational area for the Tribes. The Tribes want to preserve and/or restore natural conditions in the corridor where possible. Therefore, the Tribes are looking for MDT to design and construct a project that will not diminish the aesthetic quality of the corridor and which, over time, will improve environmental conditions presently impacted by the presence of the highway.
- For the Dixon West Project, the Tribes support analysis of the environmental impacts using an environmental assessment process limited to two alternatives, build v. no build, with the "build" alternative implementing a 60-mile/hour-design speed.
- For the Paradise East Project, the Tribes support analysis of the environmental impacts using an environmental assessment process including three alternatives. The alternatives which we propose are: (a) build; (b) minimal build following the existing alignment; and (c) no build. The Tribes believe that consideration of the third alternative is merited here because of the significant environmental impacts and significant expense of MDT's preliminary "build" alternative. A "minimal build" alternative reconstructed in or near the existing alignment would preserve the corridor's cultural, recreational, and scenic qualities. It may also provide

Montana Department of Transportation
Montana 200 - Page 2

significant safety improvements without requiring significant reductions in design speed. Such an alternative, if implementable, would be a more cost effective and sensible approach and therefore seems appropriate for consideration.

Community and Regional Growth:

- The Tribes are concerned about access management. The 1986 Categorical Exclusion mentioned a limited access control study for Highway 200 would be completed. Such a study is appropriate for this project to determine the number of accesses that can be reduced through closure or consolidation. The Environmental Assessment and Construction Plans should include language to close illegal accesses and consolidate clustered accesses.
- Extra truck traffic and excessive truck speed endangers traffic and pedestrian safety on this road. A MDT study could show the amount of displaced trucking traffic expected to move onto this road after construction. A weigh station and inspection site at the Route 135 junction removes overweight trucks. An acceleration lane at Magpie Creek in the eastbound lane assists logging trucks and woodcutters to merge safely into Highway 200.
- Ranchers derive their livelihood from cattle operations in this valley. They frequently move their herds across the roadway to graze their stock in fields on both sides of the highway. High-speed traffic endangers safe passage of ranchers and their stock. Cattle underpasses constructed near Dixon assist safe movement of cattle. If underpasses are not permissible, cross marks painted on the road surface assist in safer cattle crossings. Two designated areas, along with proper signage, may reduce serious personal and property damages for ranchers and motorists. Cattle crossing signs warn motorists of potential stock movement across the road.
- Farmers and ranchers in the area do not want their financial livelihood reduced after the road is constructed. From the minimal amount of irrigated, productive cropland taken for the highway area farmers and ranchers can negotiate hay production and grazing within the new right-of-way. The best and highest quality fencing materials and workmanship maintains aesthetic qualities and land values in the area.
- Designated school bus turnouts in this corridor ensures safety for school children and motorists. Turnouts allow buses to pull off the roadway to safely load students and merge into traffic.

Land Use Management

- CSKT ordinances, regulations, goals, objectives, and methods set in various Tribal management plans (Forest Management Plan, River Corridor Management Plan, Weed Management Plan, etc.) preserve the environmental balance integrity. Specific ordinances to consider are Ordinances 45B, 64A, 73A, 87A, 89B, 90. Other ordinances not mentioned are applicable and relevant. Growth provisions like conservation easements, development rights acquisition, transferable development rights, and scenic easements plan for unanticipated growth in the corridor.

Montana Department of Transportation
Montana 200 - Page 3

Air Quality

- The Flathead Indian Reservation is designated as Class I airshed. This classification adheres to the Prevention of Significant Deterioration air quality regulations. Environmental Protection Agency (EPA) and National Ambient Air Quality Standards apply and are supported by the Tribal Air Quality Program. The U.S. Government retains enforcement authority of Tribal Class I Air Quality redesignation. The Tribes' Air Quality program can familiarize the MDOT and its contractors with Tribal air quality compliance standards. During construction, consolidated gravel and dirt approaches fitted with an apron that meet the roadway lessens vehicle/dirt ground contact.

Biological

- The Tribes considered the biological effects during and after highway construction. Consultation with the CSKT Wildlife and Fisheries Programs and the U.S. Fish and Wildlife Service facilitates a complete and accurate listing of all wildlife within the corridor. During consultation, the MDOT and the U.S., Section 7 of the Endangered Species Act guides the listing process. Wildlife habitat affected by the road project included, but not limited to, gray wolves, peregrine falcon, bald eagles, grizzly bears, bull trout, westslope cutthroat trout, elk, and bears. A mortality rate study of animals crossing the roadway identifies heavy wildlife crossing areas.
- All abandoned right-of-way that is reclaimed and revegetated provides hospitable and inhabitable wildlife ranges. Fisheries concerns within the proposed project are within the streams of most importance: Robertson Wilson, Burgess, Seepay, Vanderburg, Magpie Spring, Magpie, Gunderson, and Revais Creeks. These streams are important Flathead River tributaries for upstream migration of spawning salmonoids. They provide habitat for rearing of emerging fry before their trip into the Flathead River as juveniles. These small and sometimes intermittent channels provide much-needed habitat when river temperatures become too warm to provide them with the colder mountainous waters needed for survival. Several of these streams contain populations of native westslope cutthroat trout providing recruitment to the Flathead River. Extreme care should be taken when working in and around these streams due to the high possibility of server sediment disturbance.
- Adherence to all Tribal, federal, and state laws should prevents unnecessary sediment deposition in either the streams or Flathead River. This especially applies when repairing or replacing any bridge corrugated metal pipe (CMP), irrigation ditch, headgate, spring, or any spring fed concrete stock watering structure. The Tribes recommend the CMP be bottomless arch. Proper length, width, and diameter of any new bridge or CMP do not constrict flows during extremely high run-off periods. After installation, banks returned to its natural slope and grade maintains adequate drainage of precipitation runoff. All bridge abatements should have energy absorbing approaches installed.
- A study that identifies trees, bushes, and shrubs that will be removed during construction is useful during post-construction revegetation. A plant inventory describes traditional plants used in cultural activities.

Montana Department of Transportation
Montana 200 - Page 4

Cultural

- Along with a detailed flora summary, an additional cultural survey is warranted. The 1986 cultural resource inventory catalogs eleven farm and ranch settlements. The Tribal Preservation Office can assist the MDOT locate potential cultural sites that may be impacted by the road alignment and construction process. All inadvertent discoveries that are mitigated early protects and preserves the cultural integrity of the found site.
- The Confederated Salish and Kootenai Preservation Office is the appropriate agency the MDT can work with to create a comprehensive cultural survey for this corridor. CSKT Ordinance 95, Resources Preservation, requires MDT contractors to apply for a Tribal Cultural Resources Protection Permit from the Tribal Preservation Office.

Recreation

- The recreational qualities of Highway 200 between Dixon and the Reservation boundary near Paradise should not be reduced after construction. This corridor is an important cultural, subsistence and recreational area for the Tribes. The Tribes want to preserve and/or restore the natural conditions found within Highway 200. Throughout the corridor, people view the fantastic foreground views of the river's emerald-blue waters and the roadless background view of the canyon's timbered slopes from numerous pullouts and overlooks. One impromptu riverboat access site is located within this section.
- To increase the recreational value of Highway 200, bicyclists must be able to safely and leisurely share the roadway with traffic. Sufficient shoulder space buffers bicyclists from the traffic for both users safety. Wide rumble strips crowd out bicyclists and reduce their recreational enjoyment of the corridor scenery.
- All pullouts or overlooks are not sited for safe access to the highway or developed for scenic, rest, or interpretive use. They cause environmental and health and safety problems for drivers and recreationalists alike. To maintain the recreational integrity, the Tribes recommend not less than six rest/scenic pullouts at Ferry Crossing, Burgess Lake Trailhead, at the southside of the highway near Robinson Creek and one near the reservation boundary with safe lines of sight for access and sanitation facilities. Rest area sites include Magpie Creek/McDonald Railroad Siding and the Route 135 Junction.
- At all sites, allow the Tribes to create interpretive signage information. The interpretive signage contains tri-lingual (Salish/Kootenai/English) with a distinct background color to enhance the wording. At the Reservation boundary, an erected boundary sign informs travelers they are driving through the Flathead Indian Reservation. This sign conforms to safety and aesthetic specifications that are mutually acceptable to the Tribes and the MDT with the CSKT logo upon all the signage. Road striping that is a different color or pattern reflects the uniqueness of the Reservation. Other features that present a recreational road are guardrails that use native materials instead of the standard metal rails.
- Finally, all impromptu pullouts for vehicles should be eliminated within the entire corridor. Utilization of the recommendations mentioned would drastically improve safety and somewhat improve level of service of the highway.

Montana Department of Transportation
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Water Quality & Wetlands

- Anticipated construction impacts include filling of wetlands and riparian areas and clearing and grubbing of vegetation adjacent to the roadbed. The clear zone that extends a minimum of five-feet from the roadbed will result in the loss of any wetlands and riparian areas.
- In Perma-Dixon project, the constructed road will affect as few as four wetland areas. Specific areas of concern include wetland D-2 and associated non-wetland riparian forest. These areas are located north and south of highway and are sourced by a prolific spring on the south side of the highway and a spring on the south side is ringed by aspen and dense riparian vegetation. This site appears to receive substantial wildlife use. Road construction will fill in the spring. The Tribes recommend that the spring not be filled, and the fill areas be kept to the minimum possible with nearly vertical slopes using gabion or other types of walls and guardrail.
- The following wetlands (D-10, D-11, and D-12), located immediately east of Magpie Creek, are jurisdictional wetlands within a continuous high quality riparian forest. The somewhat artificial nature of the wetland delineation resulted in each wetland being evaluated separately. Functionally, this wetland/riparian complex is a single ecosystem. It is the largest and one of the highest quality within the project area. Wetland D-11 and associated non-wetland riparian forest is a forested seep south of the highway sourced by groundwater discharge. It is rated as a Category II/High Quality wetland. The functional assessment ratings include high for general wildlife habitat; moderate for habitat for federally listed species (based on suspected occasional use as a travel corridor for grizzly); moderate for Montana Natural Heritage Program species of concern; high for uniqueness; and high for dynamic surface water storage. The Tribes recommend the fill area maintain a minimum possible 2:1 slope and a guardrail be erected. Wetland D-10 and associated non-wetland riparian forests are located across the highway from D-11. A large march area ringed by wetland shrubs characterizes the wetlands. It is bordered to the west by a large riparian-forested area. The site is sourced by a spring/seep on the south side of the highway. This area is rated as a Category III/Moderate Quality Wetland. Functional assessment rating include high for general wildlife habitat; low for federally listed habitat (based upon suspected incidental use a travel corridor for grizzly bears); and low for Montana Natural Heritage program species. The lower habitat ratings result from the lack of dense cover within the wetland. Only the wetland portion was considered in the functional assessment. However, the dense riparian forest would provide good cover for wildlife travel. The Tribes recommend the fill area have 2:1 slopes and a guardrail. Wetland D-12 and associated non-wetland riparian forest contain a small wetland depression within a large non-wetland riparian shrub community south of the highway. The Tribes recommend the fill area be a 2:1 slopes with a guardrail present.
- Wetlands within the Perma East project are rated generally higher with several as Category 1-Exceptional Quality. All wetlands fringing the south bank of the Flathead River show the presence of federally listed species and bull trout moved these wetlands into the highest category possible. Category 1 wetlands include P-5, P-7, P-10, P-11, P-13, and P-19. Changes in road alignment are the south away from the river may not cause any impacts.

Montana Department of Transportation
Montana 200 - Page 6

- Wetland P-1 and associated riparian area rate as Category II - High Quality. Waterfowl and other wildlife heavily use the wetland. A heron rookery is on the north side of the island immediately north of the slough. The road alignment will fill the riparian area on the south side of the slough. The Tribes recommend filling by moving the alignment to the south or minimize fill with nearly vertical slopes by using gabion or other types of walls and guardrail.
- In the Robertson Creek Riparian Area, a dense riparian forest extends north and south of the highway. This area serves as wildlife travel corridor.
- The Tribes recommend 2:1 slopes and a guardrail. Replacement ratios are defined as the acres of restored, created, enhanced, or preserved wetlands required to make up for each acre of wetland impacted by a project. A minimum wetland acreage replacement ratio of 1:1 will be required for all projects. Anything less will not meet the Tribal and national goal of "no net loss and may not achieve full replacement of all wetland functions. In some cases, the replacement ratios are greater than 1:1. The U.S. Fish and Wildlife Service determines preservation ratios on a case-by-case basis but recommends a 4:1 to 5:1 ratio, which depends upon the value of the impacted habitat compared to the preserved habitat. Specific language on avoidance and mitigation ensure the quality of water sources in an environmental document and/or construction contract.

Flood Plains & Stream Modifications

- The Dixon West project crosses four creeks: Revais, Gunderson, Magpie, and Vanderburg. The Tribal Preservation Office can monitor for cultural site impacts during stream bank excavation, if necessary. Ordinance 87A, the Tribal Aquatic Lands Conservation Ordinance mandates construction contractors to apply for an Aquatic Lands Conservation (ALCO) permit

Construction

- Before construction, a complete Tribal Employment Rights plan will assist MDT contractors to hire qualified Native American construction workers. The contractors can contact Sheila Matt at the Indian Preference Office at 406.675.2600x1044 to discuss and create a Tribal Employment Rights plan for the project.
- During construction, dust reduces air quality standards and compromises worker, traveler, and residential health. Dust abatement measures reduce airborne particulates that lower air quality and compromise human health. Sediment basins at confluence of roadside ditches and streams catch hazardous and toxic materials.
- After construction, reclaimed gravel pit developments restore the site to its original condition. To ensure reclamation, higher than normal reclamation bond amounts is appropriate language to include in the contract.
- High-quality material builds a superior and less costly roadway. Inferior aggregate disintegrates faster and causes an extraordinary number of chips on the roadway, which chip

Montana Department of Transportation
Montana 200 - Page 7

and crack windshields.

- Construction activities may cause some disruption to animal movements and vegetation re-growth. Silt fences left for an extended period of time can inhibit re-vegetation. The Tribal Preservation Office can review the seeding mix to assist in the reseeding of Native plants after construction.

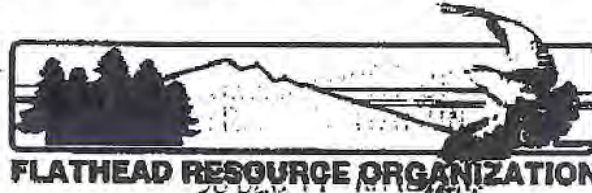
The Confederated Salish and Kootenai Tribes appreciate the opportunity to serve on the Inter-disciplinary Team to define construction impacts. The Tribes look forward to additional team meetings to facilitate productive conversations. Please contact Lewis M. YellowRobe, Team Leader, (406.676.2600) or Joe Hovenkotter, Staff Attorney, (406.675.2600x1169) if you have further questions or comments.

Sincerely,

CONFEDERATED SALISH AND KOOTENAI TRIBES



for Michael T. Pablo, Chairman
Tribal Council



Box 541 • St. Ignatius, Montana 59965 • e-mail: fro@montana.com
 phone (406) 644-2511 • fax (406) 644-2516

MASTER
 1998

November 4, 1998

Mr. Marvin Dye
 Montana Department of Transportation
 2701 Prospect Avenue
 P.O. Box 201001
 Helena, MT 59620-1001

RECEIVED
DEC 02 1998
 MT. DEPT. OF TRANSPORTATION
 DIRECTORS OFFICE

Subject: Errata in FRO's prior letter regarding EA for Highway 200 -- Dixon-west & Paradise-east

Dear Mr. Dye:

We recently discovered some relatively minor errors in our letter to you under date of November 4, 1998, regarding the Highway 200 project west of Dixon, Montana. Please accept the enclosed letter as a correction and replacement for that earlier communication.

The most prominent error was the omission of the word "not" from a sentence in the penultimate paragraph. Our November 4 letter read, "Our differences on this highway do involve such major issues as lane configurations." It should have read, "Our differences on this highway do not involve such major issues as lane configurations."

In addition, we have added lower design speed as one of the elements listed under item number 1 of our four-point proposed alternative.

Thank you for your consideration.

Sincerely,

Thompson R. Smith
 Thompson R. Smith
 Executive Director

cc: Mickey Pablo, CSKT
 Dale Paulson, FHWA

cc: *Jim Weaver*
Environmental

FRO Board of Directors, 1998

Dr. Joseph McDonald, Ronan (President) -- Patricia Hurley, Ravalli (Vice President) -- Douglas Baty, Dixon (Treasurer)
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Box 541 • St. Ignatius, Montana 59865 • e-mail: FROmontana@aol.com
 phone (406) 644-2511 • fax (406) 644-2516

November 30, 1998

Mr. Marvin Dye
 Montana Department of Transportation
 2701 Prospect Avenue
 P.O. Box 201001
 Helena, MT 59620-1001

Subject: Revised letter RE Environmental Assessment, Highway 200 Dixon-west and Paradise-east

Dear Mr. Dye:

We are writing today to offer our comments and to request certain actions in regard to the Environmental Assessment now being written for the Dixon-west and Paradise-east sections of Highway 200.

The Flathead Resource Organization is a long-standing grassroots group of citizens in the Flathead Reservation area. Our purpose is to protect and restore the environment of the lower Flathead drainage and the surrounding area, and to promote a sustainable and healthy human relationship with the environment.

The Highway 200 corridor along the Flathead River is one of the most historically significant and most spectacularly scenic areas in the entire state of Montana. It lies within the Flathead Indian Reservation, named one of the 11 Most Endangered Historic Places in America in 1997 by the National Trust for Historic Preservation. It is an area rich in tribal history and cultural significance. It is one of the earliest regions in Montana to have seen the establishment of the fur trade. It is a place of abundant and diverse wildlife, including numerous endangered species. It is a place still ordered by working small ranches and farms, a dwindling and defining aspect of Montana's culture. This short list only begins to suggest the importance and sensitivity of the unique landscape traversed by Highway 200.

We feel it is therefore crucial that the Montana Department of Transportation, in compiling its Environmental Assessment for these projects on Highway 200, analyze the feasibility of an alternative that would minimize alteration and/or destruction of this irreplaceable resource, while improving safety on the road. At the moment, such an alternative is not under consideration, as we understand it; only the No Build option and the MDT's preferred alternative are being evaluated.

FRO feels this present course would result in an unacceptable and indefensible EA. We feel the intent and spirit of Federal legislation and guidelines – from TEA-21 to the FHWA's *Flexibility in Highway Design* – compel the MDT to consider the third alternative we are suggesting, or one similar to it.

We would note that there is little basis in the objective evidence for a massive "improvement" of this section of Highway 200, since traffic volume is low, and the accident rate on Highway 200 is markedly lower than the statewide average: 1.68 vs. 2.20 accidents per million vehicle miles. There were no fatalities – zero -- on this

FRO Board of Directors, 1998

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 George Caffrey, St. Ignatius -- Corwin Clairmont, Ronan -- Anita Dupuis, Polson -- Tony Hoyt, Arlee

FRO to MDT, 11/30/1998, page 2

stretch of Highway 200 from 1986 to 1996. Even on the curves, there were not only no fatalities, but no accidents – again, zero – during winter months during that recent ten-year period.

Nevertheless, we agree that the existing road is too narrow, and that safety improvements should be made. The evidence, however, indicates that a more modest project would deliver a safety standard on Highway 200 far above any state or federal requirement or goal.

We therefore request that the EA consider an alternative that seeks significant improvements in safety while minimizing disturbance of the beautiful Flathead River corridor and its way of life. This alternative would include the following elements:

1. Smallest feasible right-of-way, while achieving safety improvements, with least possible cut and fill, and maximum retention of existing alignment.

- Seek maximum avoidance and reduction in impacts on wetlands and the landscape.
- Acceptance of lower design speeds for at least certain sections of the road.
- Analyze safety of widened shoulders and 12-foot traffic lanes on existing horizontal alignment, with some super elevation (banking on curves) as necessary.
- Analyze whether wider paved shoulder with steeper drop-off, with guardrails or other devices where appropriate, would have as good or better effect on safety as the MDT proposal (smaller shoulders with very gradual slope).
- Preserve necessity of reevaluation if a bigger highway is proposed in the future.

2. Agricultural considerations:

- Seek minimization of impacts on agricultural operations, including taking of irrigated pasture.
- Require the EA to analyze impact of various alternatives on ranching / farming in area.
- Require construction of stock underpasses where stockmen need them.
- Require features to provide for safer lateral movement of stock, such as lighted signs and pavement markings.
- Require written guarantees on quality of fencing and other materials.

3. Other environmental considerations:

- Analyze impacts on the Flathead River corridor, including noise impacts, of making Highway 200 significantly more attractive to truckers using the St. Regis cut-off.
- Analyze impact on Highway 93 of making Highway 200 significantly more attractive to truckers using the St. Regis cut-off.
- Analyze possible benefits of wildlife underpasses, particularly at Revais Creek.
- Coordination with CSKT wildlife to reduce poaching and harassment of wildlife.
- Require MDT to specify in the EA all gravel and fill sites, and management plan describing immediate rehabilitation. This should not be left to the sub-contractor.
- Require that all reseeding is done with native species and seed stock approved by Tribes.
- Provide safe bicycling facilities on shoulders and make funding available for local public transportation.

4. Establishment of Technical Advisory Committees to ensure community participation throughout the planning and design phase.

FRO to MDT, 11/30/1998, page 3

As you are no doubt aware, the FHWA, in *Flexibility in Highway Design*, notes that

“If highway designers are not aware of opportunities to use their creative abilities, the standard or conservative use of the Green Book criteria and related State standards, along with a lack of full consideration of community values, can cause a road to be out of context with its surroundings. It may also preclude designers from avoiding impacts on important natural and human resources.”

We think Highway 200 provides an outstanding opportunity to implement many of the innovative ideas described in *Flexibility in Highway Design*. Our differences on this highway do not involve such major issues as lane configurations. They involve essentially minor details, with the possible exception of a lower design speed on the road. We feel that if the MDT chooses a more open and creative approach on Highway 200, we can work together to develop a transportation system we can all support. FRO looks forward to an EA that provides decision makers with fair, even-handed consideration of all feasible and reasonable alternatives, as required under NEPA.

Thank you for your consideration.

Sincerely,



Thompson Smith
Executive Director

cc: Mickey Pablo, CSKT
Dale Paulson, FHWA

**Montana Department
of
Fish, Wildlife & Parks**



P.O. Box 1999
601 N. Columbia
Thompson Falls, MT 59873

December 22, 1998
Ref: PS017.99

Jeff Berglund
Morrison-Maierle Environmental Corp.
910 Helena Ave.
P.O. Box 6147
Helena, MT 59604-6147

R E C E I V E D

DEC 24 1998

MORRISON-MAIERLE
ENVIRONMENTAL CORP.

Dear Jeff:

I would like to provide some input concerning the proposed Paradise-East highway construction in Sanders County. Three issues will be pertinent to Fish, Wildlife & Parks in the development of all alternatives evaluated. First, we would like to maintain slough habitats in the Flathead River for fish and waterfowl. Construction of the highway too close to the river can result in filled back-water areas that are important seasonally or year-round for fish and wildlife. Second, we would like to, at the least, maintain the access site to the Flathead River near the reservation boundary in Section 7 18N 24W. We may wish to improve the access site. However, we would need to have an agreement with the landowner. If any of the alternatives propose improving or acquiring land near the access site, please inform us so we can be involved. Finally, the crossings at Wilson and Robertson Creeks need to be assessed for fish passage – either maintaining past or creating new passageways. We do not have any information about fish use of either creek, so I cannot comment at this time on their current or potential importance. It should also be noted that the U.S. Fish and Wildlife Service has taken a very conservative approach in determining bull trout habitat (listed as threatened under ESA). They maintain that all waters are considered bull trout habitat until proven otherwise. Proving otherwise is difficult because a bull trout can use habitats such as feeder streams or their mouths for very little time and be very difficult to sample.

I can be reached by phone at 406-827-9320, and you may want to consult with the Wildlife Biologist, Bruce Sterling, whose phone number is 406-827-4389. We appreciate the opportunity to comment and we will keep you apprised if we become aware of other issues.

Sincerely,

Patrick Saffel
Fisheries Biologist

Cc: Bruce Sterling
Jim Vashro

CC: Susan Klinease : MDT
Karl Helvik : MDT
Tom Monds : MME



File Code: 2750

Date: January 8, 1999

Mike Fillinger, President
Morrison-Maierle Environmental Corporation
910 Helena Ave.
POB 6147
Helena MT 59604-6147

Dear Mr. Fillinger

This is in response to your September 4, 1998, letter regarding Highway construction project Dixon-West - Paradise East F6-1(30)91 - F6-(36)83, control nos. C891 - 1011. Your letter requested response in the three areas as follows:

A. National Forest lands adjoining this proposed project may be classified as "Section 4(f) lands" from the description that you provided.

1. There are no parks and/or recreation areas on the National Forest parcel involved.
2. There are no wildlife/waterfowl refuges on the National Forest parcel involved.
3. Your section 106 (National Historic Preservation Act) review of the project area will be more comprehensive than any information we have available in determining if sites exist within or adjacent to the project area.
4. All National Forest lands adjoining this proposed project are managed for multiple use, including recreation and/or wildlife management. In the Lolo Forest Plan (1986) the subject parcel of National Forest land in the project area is classified as Management Area 1 - Scattered parcels of non-Forest or noncommercial forest land maintained in near natural conditions with roads allowed to cross to provide access...consistent with protection of basic soil and water resources.

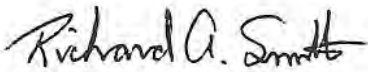
B. We will need to review specific proposals for acquisition of new or additional land use authorizations to cross National Forest lands in the project area in order to respond. In principal, it appears that any proposed needs can probably be accommodated with the consideration of possible mitigation measures.

C. Mark Childress will serve as the Forest Service coordinator for this project. You may contact him by telephone at 406/826-4320 at the Plains Ranger Station.



In addition, I wish to point out that the existing highway pull-off and river access site immediately east of the National Forest parcel receives considerable public recreation use for fishing access, boat launching and general river access use. You may wish to consider maintaining, in some way, public access and use at this site in your analysis and planning process.

Sincerely,

A handwritten signature in cursive script that reads "Richard A. Smith".

RICHARD A. SMITH
Acting Forest Supervisor

cc:

Plains/Thompson Falls District Ranger

Susan Kilchrese, Montana Dept. of Transportation, 2701 Prospect Ave, Helena, MT 59620

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MAY 06 1999

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Montana Fish, Wildlife & Parks

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1420 East Sixth Avenue
PO Box 200701
Helena MT 59620-0701
May 3, 1999

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JUN 11 1999

WILSON-WINERLE, INC.

Karl Helvig, P.E.
Engineering Bureau Chief, Environmental Services
Montana Department of Transportation
P O Box 201001
Helena MT 59620-1001

Subject: Dixon West
STPP 6-1(30) 99
Control No. C891

Paradise East (East Section)
STLPP 6-1(36) 85
Control No. 1011

Dear Karl:

In response to your inquiry of April 29, 1999, the Montana Department of Fish, Wildlife & Parks does not currently own property, nor is it in the process of acquiring any property within the project boundaries shown for the above projects. There could be other land classified as 4(f), but it is not managed by FWP.

No properties in the project vicinity have been purchased or are administered for recreational purposes as defined under Section 6(f) of the National Land & Water Conservation Fund Act.

Sincerely,

Ken Soderberg
Resource Program Manager, Parks Division

cc: Debby Dils

**ALTERNATIVE ACCESSIBLE FORMATS OF THIS
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