

**BUSSEL 484
FEIS**

APPENDIX D: COMPLIANCE WITH INFS

Appendix D: **Busset 484 EIS Compliance with the Inland Native Fish Strategy**

INFS Standards and Guidelines (USDA pages A7-13; 1995)

Only INFS standards and guidelines that apply to the alternatives for the Busset 484 Project are addressed here. These INFS standards and guidelines are presented followed by how the project addresses the standard and the expected effectiveness of the standard.

Timber Management (A-7)

TM-1. Prohibit timber harvest, including fuel wood cutting, in Riparian Habitat Conservation Areas, except as described below.

- a. **Where catastrophic events such as fire, flooding, volcanic, wind, or insect damage result in degraded riparian conditions, allow salvage and fuel wood cutting in Riparian Habitat Conservation Areas (RHCA) only where present and future woody debris needs are met, where cutting would not retard or prevent attainment of other Riparian Management Objectives, and where adverse effects can be avoided to inland native fish. For priority watersheds, complete watershed analysis prior to salvage cutting in RHCAs.**
- b. **Apply silvicultural practices for Riparian Habitat Conservation Areas to acquire desired vegetation characteristics where needed to attain Riparian Management Objectives. Apply silvicultural practices in a manner that does not retard attainment of Riparian Management Objectives and that avoid adverse effects on inland native fish.**

Project Proposal: This project will be using the "Standard Widths Defining Interim RHCAs," (INFS A-5, A-6). No timber harvest activities are proposed under the action alternative within RHCAs. Activity would not retard or prevent attainment of other Riparian Management Objectives and adverse effects to inland native fish would be avoided therefore this standard would be met.

Effectiveness: The effectiveness of prohibiting timber harvest within the RHCA is *High* due to the following monitoring efforts. Documentation of bufferstrip widths would be located in the Tracks files for this project. This type of monitoring has been accomplished on past timber sale projects including Lower Marble T.S., Charlie Brown T.S. and Charlie Flight. This monitoring has corrected errors in marking thus preventing harvest from occurring in the RHCA (project file).

Roads Management (A-7 A-8)

RF-1. Cooperate with Federal, Tribal, State, and county agencies, and cost-share partners to achieve consistency in road design, operation, and maintenance necessary to attain Riparian Management Objectives.

Project Proposal: The project does include partnership activity (See Chapter 1).

Effectiveness: High.

RF-2. For each existing or planned road, meet the Riparian Management objectives and avoid adverse effects to inland native fish by:

- a. Completing watershed analyses prior to construction of new roads or landings in Riparian Habitat Conservation Areas (RHCAs) within priority watersheds.**

Project Proposal: This project area is not within an INFS priority watershed.

Effectiveness: N/A

- b. Minimizing road and landing locations in Riparian Habitat Conservation Areas.**

Project Proposals: There are no new roads or landings proposed within RHCAs under the action alternative.

Effectiveness: High. The project would avoid placing landings in RHCAs and would minimize roads in the RHCAs.

- c. Initiating development and implementation of a Road Management Plan or a Transportation Management Plan. At a minimum, address the following items in the plan:**

- 1. Road design criteria, elements, and standards that govern construction and reconstruction.**
- 2. Road management objectives for each road.**
- 3. Criteria that govern road operation, maintenance, and management.**
- 4. Requirements for pre-, during-, and post-storm inspections and maintenance**
- 5. Regulation of traffic during wet periods to minimize erosion and sediment delivery and accomplish other objectives such as protection of the road surface.**
- 6. Implementation and effectiveness monitoring plans for road stability, drainage, and erosion control.**
- 7. Mitigation plans for road failures.**

Project Proposal: A Road Analysis was developed for this project area (see project file). Monitoring of the road system is in compliance with the National Deferred Maintenance Protocol.

Effectiveness: Moderate to High. The Road Analysis for Bussel 484 addresses the majority of these items and the National Deferred Maintenance Protocol addresses others.

- d. Avoiding sediment delivery to streams from the road surface.**

Project Proposal: See BMPs.

Effectiveness: High, Burroughs and King 1989.

- 1. Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is unfeasible or unsafe.**

Project Proposal: This standard would be implemented during design of roads.

Effectiveness: Moderate. See BMP 15.02 (f)

- 2. Route road drainage away from potentially unstable stream channels and hillslopes.**

Project Proposal: This standard would be implemented during design of roads.

Effectiveness: Moderate. See BMP 15.02 (c)

e. Avoiding disruption of natural hydrologic flow paths.

Project Proposal: Restoring slope hydrology would be accomplished through road decommissioning and storage.

Effectiveness: Moderate. See BMP 15.02 (e)

f. avoid sidecasting of soils or snow. Sidecasting of road material is prohibited on road segments within or abutting RHCAs in priority watersheds.

Project Proposal: The project area is not within priority watersheds.

Effectiveness: n/a

RF-3. Determine the influence of each road on the Riparian Management Objectives. Meet Riparian Management Objectives and avoid adverse effects on inland native fish by:

- a. Reconstructing road and drainage features that do not meet design criteria or operation and maintenance standards, or that have been shown to be less effective than designed for controlling sediment delivery, or that retard attainment of Riparian Management Objectives, or do not protect priority watersheds from increased sedimentation.
- b. Prioritizing reconstruction based on the current and potential damage to inland native fish and their priority watersheds, the ecological value of the riparian resources affected, and the feasibility of options such as helicopter logging and road relocation out of Riparian Habitat Conservation Areas.
- c. Closing and stabilizing; or obliterating and stabilizing; roads not needed for future management activities. Prioritize these actions based on the current and potential damage to inland native fish in priority watersheds, and the ecological value of the riparian resources affected.

Project Proposal: There is over 5.8 miles of road construction associated to this project which would be decommissioned/stored following the timber harvest.

Effectiveness: High.

RF-4. Construct new, and improve existing, culverts, bridges, and other stream crossings to accommodate a 100-year flood, including associated bed load and debris, where those improvements would/do pose a substantial risk to riparian conditions. Substantial risk improvements include those that do not meet design and operation maintenance criteria, or that have been shown to be less effective than designed for controlling erosion, or that retard attainment of Riparian Management Objectives, or that do not protect priority watersheds from increased sedimentation. Base priority for upgrading on risks in priority watersheds and the ecological value of the riparian resources affected. Construct and maintain crossings to prevent diversion of streamflow out of the channel and down the road in the event of crossing failure.

Project Proposal: Two culverts would be replaced to improve fish migration.

Effectiveness: High. Tracks reporting would monitor this standard.

RF-5. Provide and maintain fish passage at all road crossings of existing and potential fish-bearing streams.

Project Proposal: There are no proposals for new stream crossings of potential or existing fish-bearing streams. Two fish migration barrier culverts will be replaced to allow migration on road 1900.

Effectiveness: High.

Recreation Management (A-9)

RM-1 Design, construct, and operate recreation facilities, including trails and dispersed sites, in a manner that does not retard or prevent attainment of the Riparian Management Objectives and avoids adverse effects on inland native fish. Complete watershed analysis prior to construction of new recreation facilities in Riparian Habitat Conservation Areas within priority watersheds. For existing recreation facilities inside Riparian Habitat Conservation Areas, assure that the facilities or use of the facilities would not prevent attainment of Riparian Management Objectives or adversely affect inland native fish. Relocate or close recreation facilities where Riparian Management Objectives cannot be met or adverse effects on inland native fish can not be avoided.

Project Proposal: There are no proposals for new recreational facilities. Changes to existing OHV use and trail designation, will need to meet BMP guidelines and trails must be upgraded so that the facilities would not prevent attainment of Riparian Management Objectives or adversely affect inland native fish.

Effectiveness: Effectiveness is high because the trails won't be designated until upgrades are done (see design features and BMP's).

RM-2. Adjust dispersed and developed recreation practices that retard or prevent attainment of Riparian Management Objectives or adversely affect inland native fish. Where adjustment measures such as education, use limitations, traffic control devices, increased maintenance, relocation of facilities, and/or specific site closures are not effective in meeting Riparian Management Objectives and avoiding adverse effects on inland native fish, eliminate the practice or occupancy.

Project Proposal: There are a few dispersed campsites in RHCAs within the cumulative effects area, but it does not appear that they currently cause negative effects to RMOs.

Effectiveness: Moderate monitoring of site to ensure compliance with objective.

Fires/Fuels Management (A-11)

FM-1. Design fuel treatment and fire suppression strategies, practices, and actions so as not to prevent attainment of Riparian Management Objectives, and to minimize disturbance of riparian ground cover and vegetation. Strategies should recognize the role of fire in ecosystem function and identify those instances where fire suppression or fuel management actions could perpetuate detrimental conditions, or be damaging to, long-term ecosystem function or inland native fish.

Project Proposal: This project proposes a combination of broadcast burning, underburning and jackpot burning. Burning would not be initiated within the riparian buffer zones.

Effectiveness: Moderate. The St. Joe Ranger District has conducted monitoring of a fuel treatment burn in the North Fork of the St. Joe and a wildlife burn in the Big Creek drainage as regards to protection of riparian conditions. The monitoring of these projects has show that riparian conditions have been preserved.

FM-2. Locate incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities outside of Riparian Habitat Conservation Areas. If the only suitable location for such activities is within the Riparian Habitat Conservation Area, an exemption may be granted following a review and recommendation by a resource advisor. The advisor would prescribe the location, use conditions, and rehabilitation requirements, with avoidance of adverse effects to inland native fish a primary goal. Use an interdisciplinary team, including a fishery biologist, to predetermine incident base and helibase locations during presuppression planning.

Project Proposal: The need to utilize incident bases, camps, helibases, etc is not planned for in this project, however in the unlikelyhood of an occurrence the location of these activities would adhere to the INFS Standard.

Effectiveness: Not applicable

FM-3. Avoid delivery of chemical retardant, foam, or additives to surface waters. An exception may be warranted in situations where overriding immediate safety imperatives exist, or, following a review and recommendation by a resource advisor and a fishery biologist, when the action agency determines that an escape fire would cause more long-term damage to fish habitats than chemical delivery to surface waters.

Project Proposal: The need to utilize chemical retardant, foam or additives is not planned in this project, however in the unlikelyhood of an occurrence the use of these substances would adhere to the INFS Standard.

Effectiveness: Not applicable

FM-4. Design prescribed burn projects and prescriptions to contribute to the attainment of the Riparian Management Objectives.

Project Proposal: This project proposes a combination of broadcast burning, underburning and jackpot burning.

Effectiveness: Moderate. The St. Joe Ranger District has conducted monitoring of a fuel treatment burn in the North Fork of the St. Joe and a wildlife burn in the Big Creek drainage as regards to protection of riparian conditions. The monitoring of these projects has show that riparian conditions have been preserved.

FM-5. Immediately establish an emergency team to develop a rehabilitation treatment plan to attain Riparian Management Objectives and avoid adverse effects on inland native fish whenever a wildfire or a prescribed fire burning out of prescription significantly damages Riparian Habitat Conservation Areas.

Project Proposal: This project would not influence the attainment of this standard.

Effectiveness: Not applicable

Lands (A-11-12)

LH-3. Issue leases, permits, rights-of-way, and easements to avoid effects that would retard or prevent attainment of the Riparian Management Objectives and avoid adverse effects on inland native fish. Where the authority to do so was retained, adjust existing leases, permits, rights-of-way, and easements to eliminate effects that would retard or prevent attainment of the Riparian Management Objectives or adversely affect inland native fish. If adjustments are not effective, eliminate the activity. Where the authority to adjust as not retained, negotiate to make changes in existing leases, permits, rights-of-way, and easements to eliminate effects that would prevent attainment of the Riparian Management Objectives or adversely affect inland native fish. Priority for modifying existing leases, permits, rights-of-way, and easements would be based on the current and potential adverse effects on inland native fish and the ecological value of the riparian resources affected.

Project Proposal: N/A

Effectiveness: High. All agreements would comply with Forest Service standards on Forest Service administered lands.

General Riparian Area Management (A-12)

RA-1. Identify and cooperate with Federal, Tribal, State and local governments to secure instream flows needed to maintain riparian resources, channel conditions, and aquatic habitat.

Project Proposal:

This project would not adversely affect instream flows, therefore, this standard would be met.

Effectiveness: High. INFS Buffer would apply.

RA-2. Trees may be felled in Riparian Habitat Conservation Areas when they pose a safety risk. Keep felled trees on site when needed to meet woody debris objectives.

Project Proposal: The only time trees may be felled in a potential RHCA is in timber stand improvement areas (see Design Features). LWD would be left on site. No trees felled within 50 feet of channels.

Effectiveness: High.

RA-3. Apply herbicides, pesticides, and other toxicants, and other chemicals in a manner that does not retard or prevent attainment of Riparian Management Objectives and avoids adverse effects on inland native fish.

Project Proposal: The action alternative does not include the use of chemical treatments, however there is the potential for Noxious Weed herbicide treatment, authorized under the St. Joe Noxious Weed EIS, to occur within the cumulative effects area.

Effectiveness: High. Standards would be met as required by the chemical label directions, Biological Assessments and the St. Joe Noxious Weed EIS.

RA-4. Prohibit storage of fuels and other toxicants within Riparian Habitat Conservation Areas. Prohibit refueling with Riparian Habitat Conservation Areas unless there are no other alternatives. The Forest Service must approve refueling sites within a Riparian Habitat Conservation Area or Bureau of Land Management and have an approved spill containment plan.

Project Proposal: This is part of the standard timber sale contract.

Effectiveness: High.

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

Project Proposal: Water-drafting sites would likely be located at Forest Highway 50 and Marble Creek junction. The drafting nozzles have a very small sized mesh screen which would prevent entrainment of fish of any size. The prescribed burn plans would further specify the methods and means of drafting.

Effectiveness: Moderate. District fisheries biologist and hydrologist would review prescribed burn plans.

Watershed and Habitat Restoration (A-12)

WR-1. Design and implement watershed restoration projects in a manner that promotes the long-term ecological integrity of ecosystems, conserves the genetic integrity of native species, and contributes to attainment of Riparian Management Objectives.

Project Proposal: Native conifers and shrubs would be planted in some portions of the riparian areas along approximately 1.8 miles of Bear and Little Bear Creeks (see Map ??) and in portions of the riparian areas in other parts of the Bussel Creek Drainage (see Map ??). This would be accomplished over a period of 10 to 15 years. Riparian vegetation will enhance and restore riparian areas by increasing shade (thus reducing stream temperatures), stabilizing stream banks and ensuring

(Large Woody Debris Placement) A helicopter and hand crews would be used to place 100-200 cover logs in the stream channel of Bear Creek to restore and enhance fish habitat, increase stream cover and large woody debris with emphasis on meeting Inland Native Fish Strategy (INFS) objectives for large woody debris as defined in INFS p. A-4, Table A-1 (>12 inches in diameter and >35 feet in length).

Mechanical equipment would be used to place 100-200 cover logs (>12 inches in diameter and >35 feet in length; INFS p. A-4 Table A-1) in upper Bussel Creek to restore and enhance fish habitat, increase stream cover and large woody debris with emphasis on meeting Inland Native Fish Strategy (INFS) objectives for large woody debris as defined in INFS p. A-4, Table A-1 (>12 inches in diameter and >35 feet in length).

The overall effect of the aquatic habitat improvement to the fisheries population would be positive. Because the current condition of the habitat within these areas would be improved and more would be available it is likely the fish population densities would increase, survival rates would increase and higher seeding rates would occur in other reaches throughout the Larger Bussel Creek Watershed.

Effectiveness: High, Other similar projects such as the 2006 Gold Center Habitat Restoration project have shown great success.

Fisheries and Wildlife Restoration (A-13)

FW-1. Design and implement fish and wildlife habitat restoration and enhancement actions in a manner that contributes to attainment of the Riparian Management Objectives.

Project Proposal: See above

Effectiveness: High

FW-2. Design, construct, and operate fish, wildlife interpretive, and other user-enhancement facilities in a manner that does not retard or prevent attainment of the Riparian Management Objectives or adversely affect inland native fish. For existing fish and wildlife interpretive and other user-enhancement facilities

inside Riparian Habitat Conservation Areas, assure that Riparian Management Objectives are met and adverse effects on inland native fish are avoided. Where Riparian Management Objectives cannot be met or adverse effects on inland native fish avoided, relocate or close such facilities.

Project Proposal: No projects are included in this alternative.

Effectiveness: Not applicable.

FW-3. Cooperate with Federal, Tribal, and State wildlife management agencies to identify and eliminate wild ungulate impacts that prevent attainment of the Riparian Management Objectives or adversely affect inland native fish.

Project Proposal: No projects proposed

Effectiveness: Not applicable

FW-4. Cooperate with Federal, Tribal, and State fish management agencies to identify and eliminate adverse effects on native fish associated with habitat manipulation, fish stocking, fish harvest, and poaching.

Project Proposal: No projects proposed.

Effectiveness: Not applicable.