

Management Indicator Species Review
Smith River National Recreation Area (NRA) Restoration and Motorized
Travel Management Project (RMTP)
Smith River National Recreation Area
Six Rivers National Forest
November, 2013

Under the National Forest Management Act (NFMA), the Forest Service is directed to “provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives” (PL 94-588, Sec 6 (g) (3) (B)). The 1982 regulations implementing NFMA require that “Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.” (36 CFR 219.19) Management Indicator Species (MIS) is a concept used by the agency to serve as a barometer for species viability at the Forest level. Population changes of MIS are believed to indicate the effects of management activities.

The Forest Land Management and Resource Plan for the Six Rivers National Forest uses Management Indicator Species (MIS) to assess potential effects of project activities on the various habitats and habitat assemblages with which these species are associated. Forty-one fish and wildlife species have been selected as MIS or assemblages for a variety of habitats that are potentially affected by resource management activities on the Forest (LRMP IV-97). For the analysis associated with this project, specific MIS were addressed based on their potential to occur within the project area and the potential for suitable habitat to be affected by project activities.

Table 1 lists the MIS and assemblages occurring on the Six Rivers National Forest, and those known or thought to occur within the project area based on habitat suitability, survey results, or incidental sighting records. Habitat suitability evaluations were made using the California Wildlife Habitat Relationships System, Version 8.2 software, developed by the California Department of Fish and Wildlife. In addition habitat evaluations were made utilizing Six Rivers National Forest Wildlife Sighting Database, Six Rivers National Forest Vegetation Layer, field reviews, and Forest GIS Vegetation Layers.

Table 1. Management Indicator Species and Habitat Assemblages – Six Rivers NF

MIS Species and Habitat Assemblages	Habitat is Impacted by the Project	Habitat is in or adjacent to the project areas, but is not directly or indirectly impacted by the project	Habitat is not in or adjacent to the project area and is not directly impacted by the project
<i>Individual Species</i>			
Northern Spotted Owl*	Potential for minor habitat impacts (See BA)	Habitat is adjacent to the project area, but will not be directly or indirectly affected (See BA)	
Pileated woodpecker		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Black Bear		Habitat is adjacent to the project area, but will not be directly or indirectly affected	

MIS Species and Habitat Assemblages	Habitat is Impacted by the Project	Habitat is in or adjacent to the project areas, but is not directly or indirectly impacted by the project	Habitat is not in or adjacent to the project area and is not directly impacted by the project
American marten*		Habitat is adjacent to the project area, but will not be directly or indirectly affected (See BE)	
Fisher*		Habitat is adjacent to the project area, but will not be directly or indirectly affected (See BE)	
Black-tailed deer	Suitable habitat – no adverse impacts		
Southern torrent salamander*	Suitable habitat – Short term impacts to habitats (See BE)		
<i>Marsh/ Lake/ Pond/ Assemblage</i>			
California red-legged frog			No suitable habitat present in project area
Western pond turtle*		Habitat is adjacent to the project area, but will not be directly or indirectly affected (See BE)	
Wood duck		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
<i>River/Stream/Creek Assemblage</i>			
Cutthroat trout			
Steelhead/rainbow trout			
Tailed frog	Suitable habitat – Short term impacts to habitats		
Summer steelhead			
Common merganser	Suitable habitat – Short term impacts to habitats		
Ruffed grouse	Suitable habitat – Short term impacts to habitats		
Winter wren	Suitable habitat – Short term impacts to habitats		
American dipper	Suitable habitat – Short term impacts to habitats		
Yellow-breasted chat	Suitable habitat – Short term impacts to habitats		
<i>Tanoak/Madrone Assemblage</i>			
Hammond's Flycatcher		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Western Tanager		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Black-headed grosbeak		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
<i>Snag Assemblage</i>			
Flamulated Owl		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Western screech owl		Habitat is adjacent to the project area, but will not be directly or indirectly affected	

MIS Species and Habitat Assemblages	Habitat is Impacted by the Project	Habitat is in or adjacent to the project areas, but is not directly or indirectly impacted by the project	Habitat is not in or adjacent to the project area and is not directly impacted by the project
Red-breasted sapsucker		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Downy woodpecker		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Hairy woodpecker		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
White-headed woodpecker		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Vaux's swift		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Brown creeper		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Western bluebird		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Douglas squirrel		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
<i>Down Woody Debris Assemblage</i>			
Arboreal salamander			No suitable habitat present in project area
Clouded salamander		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Blue grouse		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Dusky-footed wood rat		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Western fence lizard		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
<i>Black Oak/White Oak Assemblage</i>			
Acorn woodpecker		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Scrub jay		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Lazuli bunting		Habitat is adjacent to the project area, but will not be directly or indirectly affected	
Western gray squirrel		Habitat is adjacent to the project area, but will not be directly or indirectly affected	

* Habitat impacts for this species have been analyzed and documented in the Smith River National Recreation Area (NRA) Restoration and Motorized Travel Management Project Biological Assessment/Evaluation.

The project area occurs in forested areas ranging in seral stage from shrub and pole to patches of late mature and old growth. All proposed actions would occur in the road prism on current National Forest Transportation System (NFTS) roads and unauthorized routes. No new construction or reconstruction would occur on previously undisturbed lands.

Proposed Action (Alternative 3)

This alternative was modified from the original Proposed Action (Alternative 2) which could not be carried forward for analysis because it included Traditional Cultural Properties that needed to be excluded from the action.

Alternative 3 will affect 214 miles of roads and will include the following:

- 1) The addition of 15 unauthorized routes as roads, totaling 7.14 miles, to the current NFTS;
- 2) The addition of 45 unauthorized routes as motorized trails to the NFTS, totaling 43.98 miles;
- 3) The seasonal gate closure on 2 roads and 5 motorized trails, totaling 13 miles;
- 4) The mixed-use of 1 road (17N49), totaling 4 miles;
- 5) The decommissioning of 112 NFTS roads, totaling 54.88 miles, and;
- 6) The restoration of 162 UARs totaling 79.43 miles.

Add to Road or Motorized Trail System: Desirable unauthorized routes will be added to the NFTS either as a road with an identified OML, or as a motorized trail with an Off-Highway Vehicle (OHV) designation.

Upgrade to OML2: Upgrading may involve road surface improvements, such as installing, repairing or replacing culverts, rolling dips or water bars.

Downgrade to OML1: Downgrading and managing as OML 1 may involve removing culverts and other drainage features and leaving the road in a hydrologically maintenance-free condition.

Resource Risk Mitigations: Resource risk mitigations apply to NFTS roads and trails to reduce risk and impacts to botanical, wildlife, aquatic, or Port Orford-cedar on system roads and trails. Actions in this category include: seasonal gate closures, installation of barricades and route delineators and gravelling.

Decommission Road / Restore Unauthorized Route: The suite of actions within this category is aimed at re-establishing vegetation and, if necessary, initiating restoration of ecological processes interrupted or adversely impacted by the unneeded road or route. Actions in this category include outslipping, removal of culverts and associated fill and installation of water bars and barricades (large boulders or berms).

Stormproofing: The suite of management actions that will be applied to NFTS roads and trails to reduce water quality and sedimentation risks through culvert and road surface improvements, including redesigning of culverts for fish passage. Actions in this category include installation of culverts and rolling dips, repair/replace culverts and removal of culverts and associated fill.

There are 3 other action alternatives. The difference between the alternatives involves adding or removing more roads/routes than Alternative 3.

Alternative 4

The addition of 21 unauthorized routes as roads, totaling 11.85 miles, to the current NFTS;
The addition of 91 unauthorized routes as motorized trails to the NFTS, totaling 60.23 miles;
The seasonal gate closure on 11 roads and 6 motorized trails, totaling 37 miles;
The mixed-use of 1 road (17N49), totaling 0.5 miles;
The decommissioning of 112 NFTS roads, totaling 54.43 miles, and;
The restoration of 192 UARs totaling 78.85 miles
The addition of 7 parking areas

Alternative 5

The addition of 11 unauthorized routes as roads, totaling 3 miles, to the current NFTS;
The addition of 16 unauthorized routes as motorized trails to the NFTS, totaling 12 miles;
The seasonal gate closure on 3 roads and 1 motorized trails, totaling 3 miles;
No mixed-use;
The decommissioning of 107 NFTS roads, totaling 53.29 miles, and;
The restoration of 411 UARs totaling 135 miles
The addition of 1 parking areas

Alternative 6 (Preferred Alternative)

The addition of 18 unauthorized routes as roads, totaling 4 miles, to the current NFTS;
The addition of 75 unauthorized routes as motorized trails to the NFTS, totaling 43 miles;
The seasonal gate closure on 13 roads and 7 motorized trails, totaling 34 miles;
The mixed-use of 1 road (17N49), totaling 0.5 miles;
The decommissioning of 110 NFTS roads, totaling 53.98 miles, and;
The restoration of 210 UARs totaling 101 miles
The addition of 4 parking areas

Summary: Impacts to MIS

All action alternatives will reduce road densities of OML 1, 2 roads and unauthorized routes across the NRA (Table 1). Reducing road density across the District will reduce fragmentation of habitat as the decommissioned roads revegetate, increase patch size, reduce sedimentation in stream channels, and reduce disturbance and direct mortality. In addition, cross-country travel is prohibited under the Smith River NRA Act of 1990. An overall reduction of road densities across the NRA will benefit wildlife in the short-term through elimination of noise disturbance on closed roads/routes and in the long-term through the reduction of fragmentation and habitat restoration. The project will benefit MIS.

Table 1. Road/route reductions and road density by Alternative

	Alternative 1 No Action	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Total percent restored/decommissioned	0	30%	29%	47%	36%
District-wide Road Density	1.59 mi/mi ²	1.34 mi/mi ²	1.34 mi/mi ²	1.17 mi/mi ²	1.32 mi/mi ²

During culvert repair, replacement and/or removal, there will be minor habitat degradation for stream and riparian habitat within the project area due to the removal of brush and small diameter trees sapling trees less than 11 inches dbh., over areas that are approximately one-tenth acre in size per worksite, and slight short-term degradation of water quality as areas where culverts are removed re-vegetate.

It is estimated that an average of 0.1 acres of vegetation may be affected at any one site where culverts are repaired, replaced or removed. The Alternative 3 would remove approximately 78 culverts for an estimated total of 8 acres affected across the District. This is an overestimate of the amount of vegetation to be removed in that not all culverts sites have been brushed in, the roads may occur in naturally open areas, or the amount of vegetation to be removed is less than one-tenth of an acre, which will be negligible in any one area. Disturbed areas would be re-vegetated with native grasses, shrubs and trees reflective of what was previously growing at the site. Due to different habitat requirements, not all culvert sites occur in suitable for all MIS, therefore 8 acres of habitat degraded under this alternative greatly overestimates the amount of habitat potentially affected for any one species. These effects are expected to be offset by the long term benefits of reducing road density across the District.

Alternative 4 would remove 82 culverts for 8 acres of habitat affected, Alternative 5 would remove 251 culverts (approximately 25 acres), and Alternative 6 would remove 170 culverts (17 acres affected). These effects are expected to be offset by the long term benefits of reducing road density across the District.

Potential impacts to MIS would be minimized through the adherence of LRMP Standards and Guidelines for snags/down woody debris, limited ground disturbance, re-vegetation of disturbed areas, and maintenance of existing live over-story canopy closure.

The project is designed to improve habitat conditions by restoring habitat through the decommissioning of roads and unauthorized routes. It will also prevent further habitat disturbance by delineating authorized routes and barricading vehicle use in unauthorized areas.

No Action

Under the No Action alternative, there would be no reduction in road density across the District, and no habitat restoration would occur for MIS from decommissioning roads and restoring unauthorized routes. Disturbance and direct mortality from on-going road use would not be eliminated on removed roads. Sedimentation into streams would not be reduced.

Cumulative Effects

The Six Rivers National Forest (SRNF) is currently implementing the following projects on the Smith River NRA:

1. Big Flat Vegetation & Fuels Management Project has completed 175 (of 581 planned) acres of Timber Stand Improvement (TSI) treatment as well as 408 acres (of 503 acres) of commercial thinning and has an ongoing fuels treatment over 548 acres (of 740 planned).
2. Station 3 Fuel Break is an ongoing fuels treatment of approximately 176 acres (25 completed) along 4.9 miles of roads.
3. Coon Mountain Restoration Project includes 750 acres of fuels treatments (500 completed) that will restore Jeffery pine-grassland habitat.
4. Gasquet Community Wildfire Protection is an ongoing fuels treatment of approximately 262 acres. This project was implemented in 2003 and retreated in 2009.
5. Hiouchi Community Protection Fuel Break Project is an ongoing fuels treatment of approximately 190 acres (42 acres completed).
6. Gasquet Shaded Fuel Break (Elk Camp Fuel Break Project) is an ongoing fuels treatment that was implemented in 1994 and then retreated in 2009 for 320 acres.
7. Mus-Yeh-Sait-Neh Understory Burn is an ongoing fuels treatment of 21 acres at the Mus-yeh-sait-neh site to restore the Oregon Oak Grove.

The Six Rivers National Forest (SRNF) is currently planning the following projects on the Smith River National Recreation Area:

1. Aquatic Riparian Restoration EA is planned to “identify the suite of instream restoration projects that can create habitat complexity in the short term through the addition of large wood and boulders in key stream reaches on the Forest, create off channel rearing habitat for over wintering survival, and in the long term, by speeding up the growth of conifers in the riparian areas”. This project is under development and does not have a site specific proposal therefore it is too early in the planning process to accurately assess what these impacts are to MIS, or how they might be cumulative with those of the MTMP.
2. Gordon Hill Vegetation and Fuels Management Project will treat vegetation to reduce hazardous fuel and restore habitat conditions on 2,788 acres through commercial thinning, TSI and fuels treatments.

Given the small of acreage the RMTP will impact (less than one-tenth acres in any one area), and that all other proposed actions will occur in the road prism, it is not likely that these projects will have a cumulative impact on MIS species when combined with the RMTP. It is expected that the trend for these species will be towards recovery as all past and planned federal actions in the watershed are restoration projects.

Two non-Forest Service projects are currently being implemented; the Hurdygurdy Bridge Replacement and the Steven Memorial Bridge Replacement both of which are scheduled to be completed in 2014, both of which occur at previously disturbed sites. A suite of non-Forest Service projects are planned for the future including two timber harvest projects (Morris THP, 54 acres; Green Diamond, 94 acres) and the following roads projects: Hiouchi Community Improvements Project, Major Bridge Seismic Retrofit on five bridges, maintenance project for a thin blanket overlay, three storm damage repair projects on US 199, Hamilton Road High Friction Surface Treatment, Smith River Canyon Safety Project, Dr. Fine Bridge Project and CalTrans STAA Hwy 199. These projects are not within the Smith River NRA boundary or immediately adjacent to Forest Service land.

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