

Appendices

Section 8

Mid-Klamath Public Comment:

This assemblage has been subjectively excerpted and transcribed from public comment taken during a series of informative meetings in Orleans, Happy Camp and Scott Bar (2000). Quotes are used in order to document the diverse individual perspectives involved within the contemporary land debate, they are subjectively sampled loosely grouped by similarity of topic: Sources of quotes are confidential, transcription integrity was attempted, errors are limited.

Geography and Natural Systems:

- Sub basin is too big, needs to be broken up into thirds or quarters, and very different interest groups between irongate and weitchpec.
- Need to look at whole system and specific components:
Threats to fish in particular areas, how severe are problems, and how do we fix or bring attention to them.
- “You have a daunting task, with so many tributaries to the klamath spread over a large geographical area, in order to create an action plan, CRMP must include all the stakeholders, not necessarily individually, but by group.

Fisheries, Rivers, & Water:

- What kind of information is needed for fish access and blockages, and how are the conditions at the creek mouths... What is a blockage or barrier, information about barriers (i.e. Fort Goff creek, side-channel refugia)
- Water Quality is the issue...How can we persuade the power company to change quality and quantity of water released. (Power supply, water diversion issues)
- Erosion from upslope roads is a problem, we need to control erosion from upslope roads.
- Mid-Klamath minor Tributaries, are the insurance / buffer against poor water quality from the upper basin. Positive Dilution, adding high quality cold water nearer to the mouth of the Klamath.
**(Water Quality improves downstream in the Klamath: Inverted relationship within the watershed, point sources of pollution, and water quality degradation occur most in the upper basin).
- *Topical Point: Unique nature of the watershed (purity downstream)*
- Spring Chinook Salmon are very important, and need more recognition and protection:
- The instinctual need to fish, and the love of fishing can actually unify people, if they don't have to compete with each other for the privilege.
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- Fish are on a cycle population numbers fluctuate over time, as do conditions in the streams.
- Hatcheries have caused a mix of wild stocks and hatchery fish.
- Fish are coming back, and it has no relationship to human involvement.
- If the klamath river natural process is allowed to function, it will take care of itself.

- Disturbance is needed. If not, hard pack will form. Hard pack is a sediment layer compacted with silty fines below river bars. (Inactive layer of the river)
- What is the influence of nitrogen, from agriculture sources, in the Klamath river, vs. natural causes.
- The river naturally flushed before dams were built.
- Commercial Fishing Takes Too Many Fish:
(Indiscriminate Take, close the ocean fishery to salmonids (at their peak at the river entrance). Can not absolutely guarantee the integrity of the take, i.e. wild stock).
- How many of the salmon are taken by foreign countries.
- If we get rid of the dredgers, are we really solving the problem.
- How about tracking fish with radio tags to collect information in the river and in the ocean.
- A wide distribution of salmon are important.
- The water quality in the Klamath River is poor. What can I do to improve the situation.
- Restoration in the upper basin should improve water quality downriver. Tributaries like Indian Creek add cold water to the Klamath and improve water quality.
- Herons, Osprey and Eagles, need healthy populations of fish.

Education:

- Schools need to be tied into activities, participation in fish surveys and other field activities is extremely important.

Individual & Group Participation:

- “Can we get lobby groups from different watersheds to promote their projects”
- “What do different landowners know, and how can this knowledge be incorporated into projects... Can a group of people who live on a stream organize so they may access information and be involved.”

Miscellaneous Land Management Comments:

- Need to improve communication between agencies and private land owner communities... Co-operative fire plan, need to map peoples property, and ID risks, as a first step in planning, fire suppression and fire planning is one of the most important activities. Fire suppression is causing problems we need to monitor.
- Sediments are part of the process, can't fight fire if roads are closed, do fuels reduction.
- Dredge holes really aren't the problem, dredgers are an easy target, aren't other uses such as fishing and harvest worse than dredging.
- If selective logging was used instead of clearcuts, forests would be more productive.
- Local Economics has to part of the equation when dealing with restoration. People who don't live in the area are trying to manage the land, but they don't know the ground. Local People know the ground.
- No timber sales, have allowed more fuels to build up in the woods.
- By taking away the availability of a resource use, this makes willing sellers
- How can you fight fires if the roads are closed.
Maintenance- no logging activity have resulted in no road maintenance
(*Falls into the same category as tax revenue as reason for resource extraction)
- Roads alter stream flow peaks and lows, higher peak flows can wash out salmon redds.
Roads are major impact on streams on the mid-Klamath.

- Fire is a major concern in this area, large brushfields near and around the town could burn out of control during a dry year.
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“Men now begin to realize what as wandering shepherds they had before dimly suspected, that man has a right to the use, not the abuse, of the products of nature; that consumption should everywhere compensate by increased production; and that it is a false economy to encroach upon a capital, the interest of which is sufficient for our lawful uses.”

-George Perkins Marsh (Man & Nature, 1847)

**Mid-Klamath
Watershed Restoration Implementation Strategy
For
Karuk Tribe Ancestral Territory and
Six Rivers and Klamath National Forest Service Lands**

Draft Version: August 1, 2000

Implementation Strategy Background

The Six Rivers and Klamath National Forests and the Karuk Tribe of California have developed a “Programmatic” approach to watershed restoration in the Mid-Klamath and Salmon River sub-basins which allows for the Forest Service to initially develop and prioritize the projects and prepare National Environmental Quality Act (NEPA) analysis documents. The Karuk Tribe participates by preparing project prescriptions and work specifications (“Design Planning”) for Forest Service approval. Design and the subsequent implementation of the decommissioning projects is the main focus of a Tribal Watershed Restoration Program leaving upgrade and road modifications and other decommissioning projects to Forest Service staff.

The Tribe and the two National Forests have entered into a Memorandum of Understanding (MOU) based upon the Government to Government relationship established between the Tribe and the Forest Service. This MOU establishes a framework upon which the Tribe and the Forest Service may jointly identify, plan and accomplish mutually beneficial projects and activities within Karuk Ancestral Territory that provide for watershed restoration, job training opportunities, and community economic development.

Many of the watersheds within these Klamath River sub-basins have been listed as sediment, temperature and/or nutrient impaired under 303 (d) of the Clean Water Act, or are classified as “Key Watersheds”, critical spawning and rearing habitat for endangered or threatened anadromous fish species. The purpose of this **Strategic Implementation Plan** is to identify the steps the Forest Service and Karuk Tribe are

taking to protect and restore watershed conditions consistent with the Northwest Forest Plan (NFP), including Standards and Guidelines for the Northwest Province.

Following the direction of The Klamath and Six Rivers National Forest's "Land and Resource Management Plans" (LRMP's) and the Karuk Tribe's "Nonpoint Source Management Plan" (NPSP), this **Strategic Implementation Plan** addresses the issue of large-scale watershed restoration by: (a) providing brief descriptions of existing Karuk Tribe and Forest Service programs; (b) identifying the current watershed restoration priorities; (c) establishing criteria that defines practical completion of restoration efforts; (d) establishing a watershed restoration program that will tactically implement a large scale effort for watershed restoration in a cost-effective and timely manner.

Existing Programs; Karuk Tribe of California

The Karuk Tribe of California has an inherent interest in the stewardship and management of lands within their ancestral territory located in the Mid-Klamath River province. Many important ceremonial, historic and contemporary use areas are located within the entire area. The Karuk are concerned about various environmental effects on water quality, forests, fisheries and historical sites important to their people. Anadromous fish species are culturally significant and the recovery of high quality water, healthy riparian and aquatic habitat for their survival is paramount. The maintenance and restoration of these important and tribally significant values are the charge of the Karuk Department of Natural Resources.

Ninety-six percent of the Karuk Ancestral Territory lies within the Klamath and Six Rivers National Forests. In 1979, the Karuk Tribe gained federal sovereign nation status and began Government-to-Government protocols with the USDA Forest Service. While in the past Tribal participation in Forest Service planning efforts have been limited, at best at an advisory level, new federal mandates and directions have fostered a more cooperative environment. The Tribe and Klamath and Six Rivers National Forests have since entered into Memorandums of Understanding (MOU's) based upon this Government-to-Government relationship. These MOU's establish a framework upon which the Tribe and the Forest Service may jointly identify, plan and accomplish mutually beneficial projects and activities.

The Karuk Tribe's Department of Natural Resources is located in Orleans, California. Department staff includes the Department Director, Natural Resources Manager, Environmental Protection Agency Coordinator, technicians and support Personnel. In addition, the Department has begun a process of staffing and building the capacity of a "Watershed Restoration Division". With the initiation of this Watershed Restoration Division, the Karuk Tribe has successfully implemented the first phase of a cooperative restoration project on the "Steinacher Road Decommissioning Project" in partnership with the USDA Forest Service; Klamath and Six Rivers National Forests.

Redefining and expanding the role of the Karuk Tribe in managing their traditional resources has brought about the development of this new watershed restoration partnership between the Karuk Tribe and the Forest Service. Building the Tribe's capacity to play an appropriate role in ecosystem management is the only means by which this partnership and an overall Watershed Restoration Program within the Mid-Klamath and Salmon River sub-basins will be achieved.

The Karuk Tribe of California has a vested interest in developing an overall **"Karuk Cultural and Ecosystem Restoration Program"** for management of their Ancestral Territory and for the creation of long-term employment for Tribal members. Due to the extremely rural population of the Mid-Klamath and Salmon River sub-basins and severe budget cuts of the Forest Service personnel the Forest Service lacks the necessary funding or staff time for an acceptable time frame for habitat recovery. Development of this Restoration Program serves as an important step toward a more cooperative partnership between the Karuk Tribe and the Forest Service within Karuk Ancestral Territory.

The “Non-Point Source Pollution (NPS) Assessment and NPS Management Plan”; Karuk Tribe of California 1996, identifies criteria, guidelines and best management practices (BMP’s) for the protection of waters within the Karuk Ancestral Territory. Watersheds with the most serious impacts, or potential impacts to spawning habitat were ranked highest and this ranking is supported by Forest Service watershed restoration prioritization rankings. Socioeconomic factors are also addressed by this prioritization given that much of the Karuk society gains its social, cultural and economic support from the fishery resources, and habitat associated with healthy fisheries. The Wooley Creek watershed, a tributary to the Salmon River, both “Key Watersheds”, was ranked as the highest priority according to habitat condition requirements for Salmonid fisheries.

In addition, the Karuk Tribe of California places a high priority on the stewardship and management of the Ishi Pishi and Happy Camp areas, as these are the centers of their ancestral territory. Important ceremonial, historic and contemporary use areas are located throughout the entire **Strategic Implementation Plan** area. The Karuk are concerned about various management related environmental affects on water quality, forests, erosion, anadromous fisheries, historical sites, and, upon their contemporary and ceremonial uses. This **Strategic Implementation Plan** will conduct work within the watersheds that lay on the Klamath River within this cultural and ecologically significant area.

Existing Programs; USDA Forest Service

Since the establishment of the Forest Service in 1905, the organization has aimed at balancing commodity production with beneficial uses of water. However, commodity production (principally timber) was the dominant management focus in the Klamath Province during the 1960’s and 1970’s. (Previous to this had been extensive in-river, hydraulic and lode mining). The timber emphasis resulted in considerable amounts of road building, timber harvest and broadcast burning in many watersheds. Some of this intense commodity production caused degradation of stream systems. Also during this time period, major floods disrupted both managed and unmanaged watersheds. As a result of both types of watershed disturbing events, many river systems were listed as impaired, primarily for sediment.

Since that time, the Forest Service has increased its emphasis on environmental concerns through the National Environmental Policy Act (NEPA) analysis and field operations with respect to water, fish and wildlife resources. In addition to the strengthened NEPA process and field operations, new water quality protection programs were added in the 1980’s and 1990’s. The first was the Water Quality Management for National Forest Systems Lands in California, also known as the Best Management Practice (BMP) program in 1981, followed by the Best Management Practices Effectiveness Program (BMPEP) in 1992, the Northwest Forest Plan in 1994/1996 and

the completion of the LRMP's for Six Rivers National Forest in 1995 and the Klamath National Forest in 1994.

Forest Plan Standards and Guidelines (S&G's), which incorporates the Northwest Forest Plan provides watershed and aquatic protection measures through the establishment of the Aquatic Conservation Strategy (ACS). There are four components of the strategy. The first is establishment of Riparian reserves along all intermittent and perennial streams. These areas maintain hydrologic, geomorphic and ecological processes that directly affect streams and fish habitats. Only activities that protect or enhance the ACS objectives are permissible in the riparian reserve.

The second component of the ACS is the establishment of Key Watersheds for protection of fish and water quality. Many of the watersheds in the North Coast drainages are Key Watersheds. These watersheds may have high quality habitat for aquatic species or degraded habitat that has a high restoration potential. Key watersheds are the cornerstones for maintaining or recovering habitat for anadromous and resident fish species. Directions for these watersheds include placing high priority on restoration and establish a policy of no net increase in road mileage.

Watershed Analysis is the third component of the ACS. Watershed Analysis provides a comprehensive understanding of the interactions between land use activities, the physical environment and the biological environment. With this knowledge, the ability to estimate direct, indirect or cumulative effects of management activities are improved. Watershed Analysis provides information to guide management decisions, refine boundaries of riparian reserves, develop restoration strategies and priorities, and determine indicators for monitoring. Watershed Analysis is completed for majority of the sub-watersheds within the scope of this Implementation Strategy.

Watershed and water quality problems that have been identified through a Watershed Analysis, or, more specific analytical filters such as the Klamath National Forest's "Westside Roads Analysis" and Ti and Irving Creeks Road Hazard inventories, provide information to the fourth "Watershed Restoration" component of the ACS. Restoration emphasis is on control and prevention of road runoff, sediment restoration of riparian vegetation, and restoration of instream habitat. Balancing these three elements varies by location within a watershed. Current emphasis is on road restoration, whether it be upgrading or decommissioning.

Further prioritization and direction is provided through the development of an Environmental Assessment (EA) which serves as the "Decision Document" for forest system roads proposed for decommissioning. For the scope of this **Strategic Implementation Plan**, at this time there is a completed EA for the Happy Camp Ranger District and an EA nearing completion for the "East Ishi Pishi Road Restoration Project" comprising of the impaired watersheds of Ti, Irving, Ukonom and Rogers Creeks. In addition, the USDA Forest Service, Klamath National Forest "*Environmental Assessment for Steinacher Rd. (Rd. 12NO1) Rehabilitation Project*", 1995 provides the authority committing the USDA Forest Service to the decommissioning of Steinacher Road in the Wooley Creek tributary of the Salmon River.

In Forest Service Chief Mike Dombeck's "Natural Resource Agenda for the 21st Century", an emphasis was placed on Watershed Health and Restoration, and Forest Roads. The newly developed long-term road policy is based on four primary objectives: 1) more carefully considered decisions to build new roads, 2) eliminate old, unneeded roads, 3) upgrade and maintain roads important to public access, and 4) develop new and dependable funding for forest road management. This **Strategic Implementation Plan** addresses two of these objectives; elimination of old, unneeded roads and the development of new funding resources to provide critical watershed restoration of these degraded drainages.

Management within the project area is guided by the two National Forest's LRMP's and the following Watershed Analysis; Ishi Pishi/Ukonom-1998, Elk Creek-1994, Indian Creek-1997, Thompson/Seiad/Grider-1999, Dillon Creek-1995 and the Main Salmon-1995. In addition, the 1997 Klamath National Forest **Westside Roads Analysis**, the 1999 **Happy Camp Ranger District Road Decommissioning EA** and the July 2000 draft of the **Ishi Pishi Road Restoration Project** are cited for specific roads identified and prioritized for decommissioning. These documents are available upon request at the Six Rivers and Klamath National Forest's Supervisors office in Eureka and Yreka, California.

Watershed Restoration Priorities (Decommissioning)

East Side Ishi Pishi Management Area; Approximately 64 miles of road have been identified as candidates for road decommissioning and roughly 8.5 miles would be converted to trail. This action will implement proven decommissioning methods to remove and / or stabilize unstable logging haul road - stream crossings and to reestablish the natural hillslope drainage pattern. Sub-watersheds within the Ishi Pishi Analysis Area that are identified as **critical concern**, and are considered "Impaired" as determined by the Northwest Forest Plan, include the Ti, Irving, Rogers and Ukonom Creeks as high potential sources of sediment contributing to the degradation of water quality within the Klamath River system. The pure cool water from the sub-watersheds of the Ishi Pishi area is important and may be critical in maintaining water quality in the Klamath River and providing thermal refugia for anadromous fish.

Happy Camp Ranger District; The proposed action is to decommission 74.5 miles of road, provide approximately 8 miles of all terrain vehicle trail and 4.3 miles of foot and equestrian trail on portions of decommissioned road surfaces. This action would treat 130 sites that were significantly damaged in the 1997 flood. Criteria used to determine decommissioning candidates include; sites that existed on active landslides, presence of alternative accesses routes, intermittent to non-existent human access, and the long-term benefit to the aquatic resources.

*East Side Ishi Pishi Management Area – Proposed Implementation Period - 2001***UNIT 1**

Road #	Road Name	Watershed	Length (mi.)	Remarks
12N08	Irving Gates	Irving	4.3	High Priority
12N08A	Irving Gates	Irving	.9	High Priority
12N08B	Irving Gates	Irving	.3	High Priority
12N26	Flatlander	Irving	.4	High Priority
12N26A	Flatlander	Irving	.5	High Priority
12N26B	Flatlander	Irving	.2	High Priority
12N29	Bald Butte	Irving	2.0	High Priority
12N29A	Bald Butte	Irving	1.3	High Priority
Total Miles			9.9	

*East Side Ishi Pishi Management Area – Potential Implementation Period - 2002***UNIT 2**

Road #	Road Name	Watershed	Length (mi.)	Remarks
12N09B	Merrill Mtn. Loop	Rogers	.1	
12N13N	Bull Pine	Rogers	.2	
12N13X	Bull Pine II	Rogers	2.0	Convert to Trial
12N13Y	East Bull Pine	Irving	.5	Convert to Trial
12N14	Leach	Katamin	.5	
12N24	Camp Out	Rogers/Irving	1.0	
12N24A	Camp Out	Rogers/Irving	.3	
12N32A	West Camp Three	Rogers/Irving	.2	
12N41	Merrill Mtn. Loop	Rogers/Wooley	1.0	
12N43	View-it	Rogers	1.1	High Priority
12N44	Roger Davis	Rogers	.7	High Priority
12N46 Spur	Merrill Off	Merrill	.2	
15N17N	Camp Three	Merrill	.1	
Total			7.9	

*East Side Ishi Pishi Management Area – Potential Implementation Period - 2003***UNIT 3**

Road #	Road Name	Watershed	Length (mi.)	Remarks
12N05	Haypress	Wooley	3.3	After silviculture treatment
12N07 & A	Merrill Creek.	Merrill	2.75	After silviculture treatment
12N47	Gates Creek	Wooley	1.1	
12N47A	Gates Creek	Wooley	1.8	
13N04	Bridge Creek	Wooley	2.09	
13N04A	Bridge Creek	Wooley	.2	
Total			11.24	

*East Side Ishi Pishi Management Area – Potential Implementation Period - 2003***UNIT 4**

Road #	Road Name	Watershed	Length (mi.)	Remarks
13N06	Ti Creek	Ti	.7	
13N06A	Ti Creek	Ti	1.3	
13N06B & Spur	Ti Creek	Sandy Bar	.5	After silviculture and fuels treatment
13N06E	Ti Creek	Ti	1.2	
13N07A	Karoo	Ti	.7	
13N10	Sandy Bar Loop	Sandy Bar	4.2	Convert to Trail, after silviculture treatment
13N11B	Sandy Bar	Stanshaw	.7	
13N11D	Sandy Bar	Ti	.4	
13N11F	Sandy Bar	Sandy Bar	.3	After silviculture treatment, arch. survey
13N12A	Stanshaw	Stanshaw	1.1	After silviculture treatment, arch. survey
13N12D	Stanshaw	Stanshaw	.6	
13N25	Ti Tie	Sandy Bar	1.0	Convert to Trail, after silviculture treatment
13N33	Cabbage Head	Ti	1.5	After silviculture treatment, arch. survey
13N43	Ti Loop	Ti	1.1	After silviculture treatment, arch. survey
13N51Y	Sandyshaw	Sandy Bar	1.1	After Sandollar
13N52	Potse	Eyese	.4	
15N17D	Camp Three	Irving	.9	After fuels treatment
Total			17.7	

*East Side Ishi Pishi Management Area – Potential Implementation Period - 2004***UNIT 5**

Road #	Road Name	Watershed	Length (mi.)	Remarks
13N01	Upper Cub	Ukonom	1.1	
13N03	Camp Four	Ti	2.5	After silviculture and fuels treatment
13N06Y	No. Ti Creek	Ti	1.3	
13N09	Middle Ti	Ti	3.0	After silviculture and fuels treatment
13N09A	Middle Ti	Ti	.3	After silviculture and fuels treatment
13N22	Poo Bear	Ukonom	1.0	
13N45	Ten Bear Trail	Ti, Ukonom	.8	Road to trail, after fuels treatment
13N45A	Ten Bear Trail	Ukonom	.5	
14N01A	Ten Bear	Ukonom	.5	
14N01B	Ten Bear	Ti	.7	
14N01F	Ten Bear	Ti	.8	
14N01N	Ten Bear	Ti	.2	Unnamed spur
14N12	Cub Creek	Ukonom	1.2	
14N63	Cub Poo	Ukonom	.3	After silviculture treatment, arch. survey
14N63A	Cub Poo	Ukonom	.3	After silviculture treatment, arch. survey
15N17H	Camp Three	Ukonom	.9	
Total			15.4	

*East Side Ishi Pishi Management Area – Potential Implementation Period - 2004***UNIT 6**

Road #	Road Name	Watershed	Length (mi.)	Remarks
13N08A	Ukonom Mtn.	Ti	.2	
13N08C	Ukonom Mtn.	Ukonom	.2	
13N08E	Ukonom Mtn.	Kennedy	.4	
13N08F	Ukonom Mtn.	Thomas	.3	
13N08H	Ukonom Mtn.	Ukonom	.3	
13N11J	Sandy Bar	Ti	.4	After silviculture treatment, arch. survey
13N15	Lower Ten Bear	Ti	2.8	After silviculture and fuels treatment
13N15A	Lower Ten Bear	Ti	.3	After silviculture and fuels treatment
14N01C	Ten Bear	Ti	.4	After silviculture and fuels treatment
14N01D	Ten Bear	Ti	.4	After silviculture and fuels treatment
14N01E	Ten Bear	Ti	.7	
14N01G	Ten Bear	Ti	.4	
14N08	Kennedy Flats	Burns	1.6	Maintain now, then silviculture and fuels treatment
14N08A	Kennedy Flats	Burns	.8	
14N15A	Delahaye	Burns	.2	
14N22 Spur	Grand Slam	Ukonom	.2	Unnamed spur
Total			9.6	

Happy Camp Ranger District –Roads for Decommissioning

Road #	Road Name	Length (mi.)	# Road /Stream Crossings	Remarks
14N06B	Kings Creek	.71	0	
15N06	Bear Creek	2.8	13	
15N06A	Bear Creek	3.76	29	
15N13	Malone	3.21	1	
17N07	Middle Thompson	3.54	23	
17N21	Clauson	.53	0	
17N30	Elk Lick	3.59	8	
17N32	SF Indian	4.38	38	
17N32C	SF Indian	.99	5	
17N40	Elk Lick	.65	0	
17N40A	Elk Lick	.45	1	
17N41	Elk Lick	2.14	3	
18N01	Thompson Creek	4.3	27	Proposed for 2001 implementation
18N07	E Thompson	5.44	17	
18N07A	E Thompson	1.27	3	
18N07B	E Thompson	.16	2	
18N17	EF Indian	1.78	2	
18N17A	EF Indian	.63	0	
18N27A	Tom Gray	1.06	6	
18N42	Little Grayback	.86	4	
19N01D	Thompson Ridge	.72	2	
40S07C	Grayback	.48	5	
45N78	Cliff Valley	2.34	0	
45N78B	Cliff Valley	.99	0	
45N81	Rancheria Creek	2.93	6	
46N28Y	Ridge Loop	1.53	5	
46N43Y	Middle Grider	1.1	0	
46N61	Maple Springs	.63	2	
46N61A	Maple Springs	2.8	6	
46N63	Blue Mtn.	3.21	0	
46N64	Walker Creek	3.36	25	
46N70Y	Middle Grider	.96	0	
46N71Y	Middle Grider	.75	0	
46N76	Joe Miles	1.87	12	
46N77	Grider Ridge	3.93	8	
46N78	Three Biscuit	2.11	14	
46N80X	Big Blue	2.09	0	
Total		74.05	267	

Community Based Fire Planning

Introduction

These goals, objectives and proposed actions have been developed partially by the Orleans/Somes Bar Fire Safe Council as well as other local fire safe councils and have been modified to include the entire subbasin.

Goal

The goal of community based fire planning is to re-establish desired fire regimes within the range of natural variability in this area while reducing the risk of uncharacteristically intense fires and protecting public and private resources.

Objectives

Address and prioritize fuels treatment opportunities in the Mid-Klamath River Subbasin using a locally led, community-based planning process with all stakeholders, and incorporating a landscape-level analysis of risk factors and desired conditions.

Restore desired natural fire regimes in order to maintain diverse fire-dependent ecosystems as well as reduce risk of uncharacteristically intense fires.

Focus efforts to prevent catastrophic fire adjacent to and on private property, protect cultural and biological diversity, and enhance ecosystem functions.

Priority Actions

- 1) Improve coordination and collaboration among tribal, local, state, and federal organizations for long-term planning, fire management, and emergency response.
 - Facilitate active communication among all parties engaged in planning and other fire management activities in the Mid-Klamath River Subbasin.
 - Develop means to identify and fully utilize local knowledge and capabilities in coordinated planning, fire response and rehabilitation.
- 2) Combine resources to produce GIS-based mapping of data important to fire management and risk assessment in the Mid-Klamath River Subbasin.
 - Mapping will include assets at risk, local fire history and response effectiveness, vegetation types, slope, aspect, roads, streams, fire breaks (planned, implemented, and maintained), prescribed burns, and emergency response initiatives.
 - Identify data gaps, prioritize data needs, and coordinate activities to obtain critical information.
 - Prioritize community projects based on analysis of fire risk hazard and desired condition.
- 3) Work cooperatively to develop and implement cost-effective projects including:
 - Fuels reduction

- Fuel breaks
 - Prescribed burning
 - Other appropriate projects
- 4) Convene community meetings to familiarize local community members with ongoing efforts and encourage their active involvement.
 - Follow-up outreach at the local level.
 - Educate landowners about natural fire regimes, the risk of fuels buildup and the need for appropriate treatment.
 - Conduct workshops and distribute newsletters.
 - Organize neighborhood groups and elect representatives.
 - 5) Develop means of active community participation in fire management activities including:
 - Collaborative planning and analysis
 - Project implementation
 - Wildland fire suppression
 - Suppression and burned area emergency rehabilitation
 - 6) Develop a monitoring program that will involve all interested parties, based on ecosystem principles, and take into account watershed, forest, and community assets and values.
 - Track progress and evaluate effectiveness of all activities undertaken pursuant to this agreement.
 - 7) Develop community planning and implementation proposals that support the goals, objectives and actions of community based fire planning.
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Description of ecological issues of the Klamath Basin: (reformatted)

Species Level Issues:

Anadromous salmonids: Interbasin-

Loss of commercial and recreational fisheries as well as endangerment (Ed. note: + extirpation) of certain stocks as a result of water diversion, mining, logging, grazing, and other human activities.

Northern Spotted owl and marbled murrelet: Interbasin- Endangerment of these two bird species because of depletion of old growth forest.

Shortnose and Lost River Suckers: Intrabasin - Endangerment of these two fish from agricultural water diversion, decline of water quality, and introduction of exotic fish species.

Endangered, Threatened, and sensitive vascular plant species: Watershed - At least 62 individual vascular plant species “at risk” within the Klamath Basin.

Non-salmonid anadromous species: Interbasin - Four non-salmonid native fish species (Pacific lamprey, green sturgeon, white sturgeon, eulachon) declining, presumably for same reasons as for anadromous salmonids.

Endangered, threatened, and sensitive resident fishes: Watershed - Seven out of twenty (35%) of the native resident fish species of the Klamath Basin are endangered or at risk.

Endangered, threatened, and sensitive amphibians and reptiles: Watershed - Ten out of fifty-two (20%) of the herps of the Klamath Basin are at risk.

Endangered, threatened and sensitive raptors: Interbasin - Eighteen out of twenty eight (64%) of the raptors of the basin are endangered, at risk, or of special concern.

Neotropical Migrants: Interbasin - Neotropical migrants are declining nationwide; 40% of species declining in Oregon; 50% of the species declining in California.

Migrant marsh and shorebirds: Intrabasin - Four Species within the Klamath Basin are declining (western least bittern, long-billed curlew, western snowy plover, and tricolored blackbird).

Colonial Waterbirds: Interbasin / Intrabasin - Colonial waterbirds are especially sensitive to disturbance or destruction of their nesting areas. Several are thought to be declining within the Klamath Basin

Upland game birds: Interbasin / Intrabasin - Three out of eight (38%) of native bird species of the Orders Galliformes (quail and grouse) and Columbiformes (pigeons and doves) in the Klamath basin, are declining and considered to be at risk.

Endangered, threatened, and sensitive mammalian carnivores: Intrabasin - Three out of 21 (14%) of native species of mammalian carnivores have been extirpated from the basin; another 3 (14%) are considered at risk.

Endangered, threatened, and sensitive bats: Intrabasin - At least four of the fourteen species (29%) of bats within the Klamath Basin are considered to be at risk.

Ungulates: Intrabasin - One of the four native ungulates of the Klamath Basin (bighorn sheep) has been extirpated from the basin, and two others have been eliminated from a large portion of their range within the basin.

Endangered, threatened, and sensitive invertebrates: Intrabasin / Watershed: One species of invertebrate (the Trinity Bristle Snail) is listed as endangered under state law. Knowledge of most invertebrates and their status is minimal.

Other endangered, threatened, and sensitive species: Interbasin / Intrabasin / Watershed - Knowledge of many species, their habitat requirements, their status, and threats to them is limited.

Traditional and Cultural Species: Intrabasin / Watershed - Species of traditional value are declining because inadequate protection of them and their habitat.

Extirpated Species: Interbasin / Intrabasin / Watershed - At least four species have been extirpated from the Klamath Basin, and the number is undoubtedly much higher. Even more species have been extirpated from large portions of their original range within the basin. Restoring these species to portions of their original range is desired by many people for ecological, economic, & ethical reasons.

Exotic Species: Interbasin / Intrabasin / Watershed - Many exotics including microorganisms, plants, insects, amphibians, birds, and mammals have been introduced into the Klamath Basin and are causing deleterious effects to native species.

Habitat Issues:

Late Successional Forest: Interbasin - Eighty to ninety percent of the late successional forest from the Klamath Basin has been logged with associated declines in species dependent upon such habitat.

Wetland Loss & Waterfowl Decline: Interbasin / Intrabasin - In the upper basin, 75-80% of the wetlands have been lost; waterfowl using the basin have declined by about 85%.

Industrial Forestlands: Interbasin / Watershed - Industrial forestlands have been heavily roaded and logged with concurrent decline in their value as wildlife or fish habitat.

Biodiversity Hotspots: Intrabasin / Watershed - Areas of high species richness are a high priority for protection.

Biodiversity of Small Standing Waters: Watershed - Small standing waters are critical habitats for many aquatic and terrestrial species, but are also in great demand for human uses, and often quite vulnerable to such uses.

Biodiversity of Caves: Watershed - Caves are critical areas for many species including endemic cave species.

Klamath River Estuary: Intrabasin - The Klamath River estuary is a critical area for many species of aquatic and terrestrial wildlife species.

Abandoned and Inactive Mine Lands: Intrabasin - Such mine lands have a high risk of causing serious pollution of air, land, and waters of the Klamath Basin.

Ecosystem / Process Issues:

Forest Health: Intrabasin - Decline in forest health from road building, overcutting, poor forestry practices, fragmentation of forest habitat, soil loss, siltation of waters, pesticide use, fire suppression, exotic species, overgrazing, and other causes.

Rangeland Health: Intrabasin - Decline in rangeland health from overgrazing and other causes, with resultant erosion, loss of late seral vegetation, invasion of exotics, and loss of native plants and animals.

Riparian Health: Intrabasin / Watershed - Decline in riparian health due to logging, grazing, water diversion, and other causes.

Riverine Health (Water quality, water quantity, riverine dynamics): Intrabasin - Decline in riverine health due to water diversion, contamination of waters, and alteration of hydrologic regimes.

Soil Degradation and Loss: Intrabasin / Watershed - Accelerated soil degradation and loss from road building, overcutting, poor forestry practices, overgrazing, and other causes.

Representation in Protected Areas: Intrabasin - Some ecosystem types and seral stages are not protected in a system of reserves; such protection is a key strategy to conserve biodiversity of a region.

Habitat Fragmentation: Interbasin / Intrabasin / Watershed - Habitat fragmentation of both terrestrial and aquatic habitat from roads, logging, dams, and other human activities is one of the most serious threats to many species.

Fire Regimes: Intrabasin - Natural fire regimes have been greatly altered by fire suppression practices of the last 50 or more years resulting in accumulation of high levels of fuels and causing fires that are more dangerous and damaging to humans and ecosystems alike.

Overharvest / Overexploitation: Intrabasin - Overharvest or overuse of certain types that are not regulated by any agency is causing decline in these species.

Pesticides: Interbasin / Intrabasin - Manufactured chemicals with estrogenic effects are in widespread use and can cause serious disruption of reproductive, endocrine, immune and nervous systems of many wildlife species and humans.

Air Quality: Intrabasin - Air quality in some areas of the basin with resultant effects on human and ecosystem health.

Synthesis & Lists Excerpted and Refined from:

Klamath Basin Ecosystem Restoration Strategy, U.S.F.S., Ecosystem Regional Office. Portland, Oregon, 1998.

Klamath Basin-Federal, State, & Tribal Agency Involvement:

Federal Agencies:

United States Forest Service:
 Natural Resource Conservation Service:
 National Marine Fisheries Service:
 Bureau of Indian Affairs:
 Bureau of Land Management:
 Bureau of Mines:
 Bureau of Reclamation:
 Fish and Wildlife Service:
 Geological Survey:
 National Biological Service:
 National Park Service:
 Environmental Protection Agency:
 Federal Energy Regulatory Commission:

State Agencies:

California Coastal Commission:
 California Department of Fish and Game:
 California Department of Forestry
 and Fire Protection:
 Oregon Department of Fish and Wildlife:

Tribal Governments:

Hoopa Tribal Council:
 Karuk Tribal Council:
 Klamath Tribal Council:
 Yurok Tribal Council:

Large Scale Programs and Plans for the ecosystem restoration of the Klamath Basin. (Partial)

President's Forest Plan
 Long Range Plan for the Klamath River Basin Conservation Area Fishery Restoration
 Program
 Oregon Biodiversity Project
 California Biodiversity Councils
 California / Oregon Gap Analysis Program

Laws & Regulations relevant to Ecosystem Restoration of the Klamath Basin (Partial)

American Indian Religious Freedom Act 78'
 Antiquities Act of 1906
 Archaeological Resource Protection Act 79'
 Archaeological & Historic Preservation Act 1974
 Bald Eagle Protection Act of 1940

Clean Air Act and Amendments of 1970
 Clean Water Act
 Coastal Zone Management Act of 1972
 Comprehensive Environmental Response, Compensation, and Liability Act of 1980
 Endangered Species Act of 1973
 Federal Insecticide, Fungicide & Rodenticide Act
 Federal Land Management and Policy Act 1976
 Federal Water Project Recreation Act 1965
 Fish and Wildlife Coordination Act 1958
 Food Security Act of 1985
 Intergovernmental Cooperation Act of 1968
 National Historic Preservation Act of 1966
 National Environmental Policy Act of 1969
 National Forest Management Act of 1976
 Rivers and Harbors Act of 1899
 Resource Conservation and Recovery Act
 Safe Drinking Water Act of '74
 Superfund Amendments and Reauthorization Acts of 1986
 Toxic Substances Control Act of 1986
 Wild And Scenic Rivers Act of 1968

Partial List of Extirpated Species:

Chum salmon -*Oncorhynchus keta*
 Pink Salmon -*Oncorhynchus gorbushca*
 California Condor-*Gymnogyps californiana*
 Grizzly Bear -*Ursus arctos*
 Gray Wolf -*Canis lupus*
 Wolverine -*Gulo gulo*
 Bighorn Sheep -*Ovis canadensis*
 Pronghorn Sheep-*Antilocapra americana*

Editors Note: Such a diversity of management agencies and guidelines, does not seem to be working successfully, and is not consistent with the discipline and efficiency as recommended by Occams Razor.

*Synthesis & Lists Excerpted and Refined from:
Klamath Basin Ecosystem Restoration Strategy:*

Key To Photo Monitoring Descriptions- Klamath Region Photo Project:

Twenty-Eight “representative” tributaries to the Main-Stem of the Mid-Klamath, have been selected & photographically documented. This effort represents the first phase of the Klamath Region Photo Project. Tributary confluence’s, and lower creek channels are photographed within this set, and have been established in order to facilitate repeat-photography. Each tributary is also described within the following categories: Heading, Theme, Watershed, Physiography, Vegetation, Management, Land Jurisdiction, Map Coverage, Photo Subject, and Site Marker & Relocation Information. (description key follows).

This application of photographic monitoring, in concert with our watershed documentation & description reports, is intended to facilitate the communication of the regional, and site-specific characteristics, inherent in each watershed. This description includes the biotic, and physical features, as well as the anthropogenic influences, specific to each. Our use of repeat-photography, allows us to document physical and biological changes over time. It is our intent that this initial set: “Representative Tributaries”, is complimented by future photographic “sets”. These may include: High-elevation landscape view; Restoration works; Timber, Road & Fire management documentation; Vegetation patterning; Fluvial Geo-morphologic processes, and others. Transformative landscape processes are occurring constantly over spatial and temporal scales. These dynamic events, are critical to the form and function of the ecosystem.

Photographic documentation in concert with site-description, is an excellent technique for landscape analysis. The Klamath River Photo Project, represents our initial effort at developing and utilizing these techniques and frameworks.

Heading:

Site number, starting at Jenny Creek #1, proceeding to Bluff Creek #28, in progression, down the Main-Stem Mid-Klamath corridor. Creek name and Sub-Watershed Region position are given.

Theme:

Short statement, summarizing watershed attributes and land management / use issues.

Watershed:

Physical description of the watershed drainage area; identifying the major defining ridges and topographic boundaries. Description of watershed related natural features, as well as specific land management & use alterations. Watersheds are catagorized along a “natural integrity” gradient, from: Impaired – Moderate- Functional..

Physiography:

Summary of the Geographic, Geologic, and Topographic features of the watershed Describing the drainage area and terrain, emphasizing total relief, and geologic parent material. (parenthesized abbreviations in italics refer to geologic parent material, and are fully described in the geology section). Specific geo-physical attributes are also given

Vegetation:

A generalized description of major vegetation patterns, and resultant habitat types, are provided. Descriptions emphasize the spatial composition of vegetation within each watershed, and as they relate to the larger patterns of the Mid-Klamath. The final statement describes the general climate: Pacific-Maritime, Interior, or Continental; Transitions between major climate patterns are also recognized.

Management:

Condensed summary of major land uses and impacts affecting the watershed; including historic and contemporary activities. Settlement, grazing, water diversion & impoundment's, timber harvest, road systems, fire, and in-stream management comments are given. Protected and roadless areas are described.

Land Jurisdiction:

Private, public and corporate land ownership is summarized. Land settlement and utilization patterns, as well as protected areas (wilderness, special interest areas) are listed.

Map Coverage:

Reference to National Forest maps, as well as USGS 1:100,000 & 1:62,500 are given.

Location:

Latitude & Longitude as well as Township & Range is provided, located at the confluence of each specific, with the Main-stem. Elevation is given for the Highest Point, and Lowest points (creek / river mouth) within the watershed.

Photo Subject:

Generalized description of the area photographed, as well as comments on site re-location and photo-specific details. Photograph numbers are given (corresponding to original slides). Each photograph description contains the specific documentative information, which is abbreviated in table form: Date (Month-Day-Year), Time, Camera Lens Focal Length, Aperture, Shutter Speed, Compass Bearing (corrected for magnetic declination), Azimuth Angle, Camera Height, and Repeatability (H-High, M-Medium, L-Low).

Site Marker & Relocation Information:

Two mechanisms for the site relocation (repeatability), of permanent photo points have been utilized. 1) Site marker cards, (plastic 3"x4" Red/White- waterproof) are used on non-road / bridge photo sites, and are "tagged" to a local tree. Specific directions are given to each card. 2) KRPP: A paint-stenciled mark, applied to paved road surfaces, and bridges. The photo-point tripod location is positioned directly above the KRPP, or directions are given from the KRPP to the correct photo point location. Each site has either a KRPP, or Site Marker Card, with corresponding location description, some sites utilize both techniques.

“Representative Tributaries: Mid-Klamath Main Stem”

- Jenny Creek
- Bogus Creek
- Willow Creek
- Cottonwood Creek
- Shasta River
- Humbug Creek
- Empire/Lumgrey
Ck
- Beaver Creek
- Horse Creek
- Scott River
- O’neill Creek
- Walker Creek
- Grider Creek
- Seiad Creek
- Ft. Goff Creek
- Thompson Creek
- Indian Creek
- Elk Creek
- Clear Creek
- King Creek
- Ukonom Creek
- Dillon Creek
- Rock Creek
- Salmon River
- Camp Creek
- Red Cap Creek
- Slate Creek
- Bluff Creek