WILD ROGUE WILDERNESS AND ROGUE RIVER CORRIDOR EDUCATION PLAN

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ABSTRACT

Per United States Forest Service (USFS) direction, education plans are drafted in order to help educate the public regarding wilderness area management issues and to help mitigate unwanted impacts to wilderness areas. This project outlines the purpose of wilderness education plans, introduces the issues resulting from recreational use along the Rogue River and in the Wild Rogue Wilderness Area, and presents a plan of action to help mitigate such issues and educate the general public. The main issues impacting the Wild Rogue Wilderness mostly consist of an overall failure to adhere to Leave No Trace principles and an overall lack of appreciation and understanding of wilderness values. The US Forest Service has historically assumed the public is aware of issues threatening wilderness areas and values. As a result, the agency has taken a passive approach regarding wilderness education. This education plan outlines a specific course of action meant to educate members of the public about specific impacts to the area and methods to help mitigate such issues.

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I. Introduction

Purpose and Objective

While increasing wilderness awareness and education is an admiral in and of itself, it would not be required per Forest Service policy were it not mandated by law. Among the most powerful legislative actions effecting our public lands to date is the Wilderness Act. First enacted in 1964, the Wilderness Act was created to ensure our nation's most intact and pristine lands would remain unadulterated by the likes of man for future generations to study and enjoy. Since it was signed into law, the act has expanded from an initial 54 areas (9.1 million acres) in 13 states to encompass an astounding 765 areas (109,129,657 acres) in 44 states and Puerto Rico (Wilderness Act, 1964). The Wilderness Act defines wilderness as follows:

(c) A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. (Wilderness Act, 1964)

In addition to providing a working definition of wilderness, the act also endows certain agencies administrative authority to manage such lands. Among the agencies tasked with safeguarding our wilderness areas is the United States Department of Agriculture. As a result, the United States Forest Service (USFS) has been entrusted with managing 445 wilderness areas across the nation, including Oregon's Wild Rogue Wilderness Area.

By law the USFS has an obligation to manage these lands in accordance with strict wilderness management guidelines set forth in the Wilderness Act. In response to this responsibility, the USFS has developed specific policies to address the many challenges of managing wilderness. Among these policies, education is a key component of USFS wilderness management guidance.

The Forest Service Manual provides specific objectives regarding wilderness management and identifies wilderness education as a key component. One of the key elements under agency wilderness management objectives is to "[P]rotect and perpetuate wilderness character and public values including, but not limited to, opportunities for scientific study, education, solitude, physical and mental challenge and stimulation, inspiration, and primitive recreation experiences" (Forest Service Manual, 2007, pg. 217). More specifically, the Forest Service Manual (2007) states the wilderness component of any forest plan at a minimum shall:

Display of the relationships and coordination between the wilderness resource and other resources and activities present in the wilderness, as well as activities outside of wilderness that affect the management of the wilderness. Resources and other elements to be addressed include: recreation (including visitor education), forest cover, forage, fish and wildlife, federally listed threatened or endangered flora or fauna, domestic livestock, soil and water (including weather

modification), minerals, historical and cultural resources, fire, land ownership, insect and diseases, air quality, other agency use, the trail system (including trailheads), signing, communication, and research. (p. 217)

In accordance with the Wilderness Act and Forest Service policy, forests are continually developing or modifying existing wilderness education plans in order to increase public awareness regarding wilderness management and specific issues pertinent to individual wildernesses such as the Wild Rogue Wilderness Area.

Background

The Wild Rogue Wilderness Area (WRWA) was designated in 1978 and encompasses 35,620 acres in southwestern Oregon. The area protects much of the Wild and Scenic designated Rogue River and its tributaries. Topography in the WRWA is rugged and characterized by steep canyons, jagged peaks, cascading creeks, and elevations ranging from just a few hundred feet where the western boundary meets the Rogue River to over 4,300ft atop Mt. Bolivar in the area's northwestern most reaches. The WRWA's unique soil composition and varying degrees of rainfall has resulted in abundant and diverse flora. Wildlife in the WRWA is abundant and includes robust salmon and steelhead runs, dense black bear populations, as well as healthy numbers of black tailed deer and Roosevelt elk. River otters, numerous birds, as well as the western pond turtle and green sturgeon also call the WRWA home.

The Wild Rogue Wilderness Area is somewhat unique in that it encompasses land administered by two separate agencies, the Bureau of Land Management (BLM) and the United States Forest Service. Although the area comprises land under both

BLM and USFS jurisdiction, the Gold Beach Ranger District (USFS) has been tasked with managing the wilderness area entirely.

Another unique facet of the WRWA is the Rogue River itself. The Rogue was one of the original 8 rivers first granted protection under the Wild and Scenic Rivers Act (WSRA) in 1968. When the Wild Rogue Wilderness Area was first designated, specific language in the bill ensured the Rogue River would be managed as a Wild and Scenic River per the WSRA (Oregon Omnibus Wilderness Act, 1978). As a result, a ½ mile corridor managed under the WSRA transects the Wild Rogue Wilderness Area. The section of the Rogue River within the WRWA is classified as "wild" per the Wild and Scenic Rivers Act. "Wild" rivers, much like wilderness areas, are defined as "(T)hose rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America" (Wild and Scenic Rivers Act, 1968).

Although the Rogue River is subject to distinct management guidelines separate than those set forth in the Wilderness Act, the Forest Service Manual (2007) states that "[D]isplay of the relationships and coordination between the wilderness resource and other resources and activities present in the wilderness, as well as activities outside of wilderness that affect the management of the wilderness" should be included in wilderness management policy" (p. 217). The Wild and Scenic Rogue River and the Wild Rogue Wilderness Area are inextricably connected with one another. Not only does the Rogue River comprise the heart of the wilderness area, it serves as the

busiest travel corridor through the wilderness and is the preferred means by which most people experience the Wild Rogue Wilderness Area.

Given the separate management guidelines specific to the Wild and Scenic Rivers Act and the Wilderness Act, the WRWA offers a surprising range of activities. In fact, many of the uses might not seem congruent with wilderness values at all. The Rogue River's long-standing history of motorized use and river lodges that pre-date both the Wilderness Act and the Wild and Scenic Rivers Act has resulted in an anomaly as far as wild river corridors are concerned; the Rogue is one of the few that allows both motorized use and that is dotted with a number of permanent river lodges along its course. As such, the Rogue River corridor is peppered with permanent structures, allows generators, and permits motorized watercraft-all of which are in conflict with traditional wilderness management values. As a result, recreational opportunities on the WRWA are more varied than what might be found in a more traditional wilderness setting. Primitive, semi-primitive non-motorized, and semi-primitive motorized recreational opportunities are all available on the WRWA.

By and large, most access to the WRWA is via boat, either motorized or non-motorized. The Rogue River Management Plan enables up to 120 people a day to float the section of the Rogue River that passes through the WRWA during the summer permit season (May 15th-October 15th) (Rogue River Management Plan, 1972). Permits to float the Rogue are administered via a lottery system. During the 2015 summer season, a total of 12,110 people floated the Rogue either on their own or with commercial rafting outfitters (Wild Rogue River Use Report, 2015). The largest commercial operator on the Rogue, Jerry's Jets, offers jet boat tours into the wild

section. In 2015 Jerry's Jets reported taking a total of 11,192 passengers up river to experience the WRWA from their base of operations in the coastal community of Gold Beach (B. Hemus, personal communication, April, 2016).

Figure A: Hanging Rock, Wild Rogue Wilderness Area, Oregon. Source: Author

In addition to boating, adjacent the Rogue River is the Rogue River National Recreation Trail-a popular multi-day backpacking and hiking trail that parallels the river from Grave Creek to Foster Bar. Hanging Rock (see figure A), is a popular spur trail in the WRWA. Although the Rogue River Trail is within the Wild and Scenic river corridor, it provides access to much of the WRWA via a number of spur and connecting trails. Precise numbers regarding trail use is difficult to estimate as visitors are not required to register before hiking area trails. The WRWA also hosts a number of trails separate

from the Rogue River Trail and hiking is indeed a popular recreational activity in the wilderness. Popular trails include Panther Ridge, Mule Creek, Clay Hill, Mt. Bolivar, and Hanging Rock.

One of the unique aspects of doing a multi-day backpacking or rafting trip on the Rogue River is that visitors are afforded the luxury of staying in one of the many lodges situated along the way. Paradise Lodge (see figure B) is one of the many lodges along the Rogue River. Given the combination of access to more difficult trails, challenging whitewater, as well the ability to stay at lodges or access the area via jet boat-the Rogue River corridor accommodates a wide range of user experience and skill levels.



Figure B: Paradise Lodge, Wild and Scenic Rogue River, Oregon Source: Author

In addition to hiking and boating, fishing is also a popular recreational activity on the Rogue. Steelhead, Chinook salmon, Coho salmon, rainbow trout, cutthroat trout, and sturgeon call the Rogue and its tributaries home. A number of outfitters offer a variety of fishing packages. Sportsmen can choose to do a four to five day fully outfitted fishing expedition down the river or choose to access the river just for the day via one of the jet boat based outfitters in Gold Beach. Other activities for the sportsman include recreational hunting for black bear, Roosevelt elk, black-tailed deer, and mountain lion.

Due to its climate and year-round runs of salmon (see figure C) and steelhead, the Rogue sees relatively extensive use throughout the year as compared with other western rivers that freeze or become unnavigable due to low flows come late fall. It is also not uncommon for people to visit the wilderness during winter months. Snow at times can limit access, but much of the wilderness remains snow-free a significant portion of the winter.

Figure C: Salmon Fishing on the Rogue River, Oregon Source: Robert Hemus (USFS)

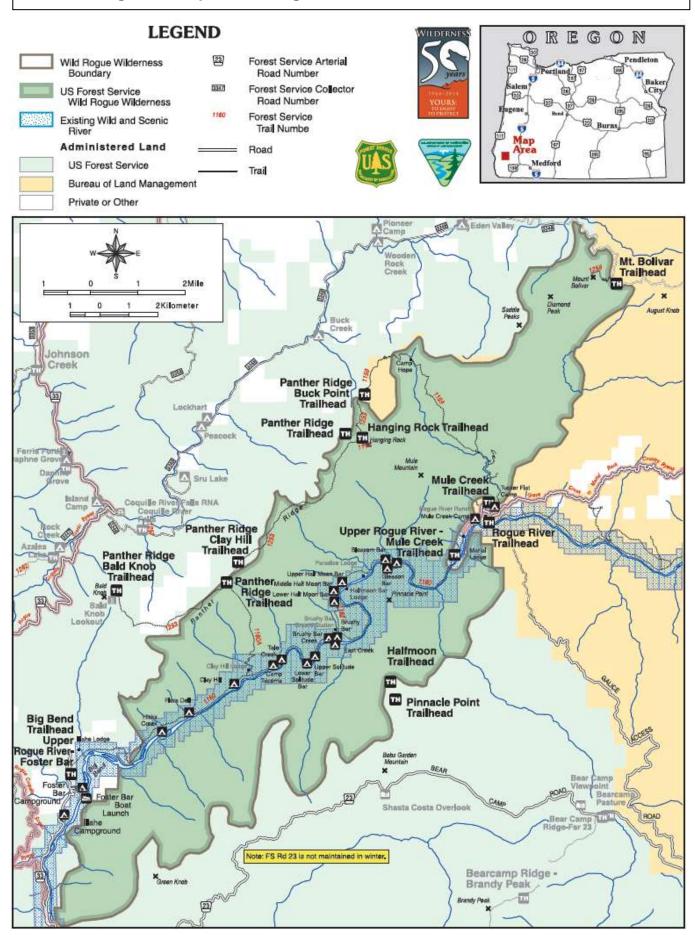


In addition to recreational activities, the WRWA and the Rogue River provide crucial spawning habitat for anadromous fish such as salmon and steelhead. The Southern Oregon and Northern California Coast Coho salmon population found in the Rogue River Basin is listed as threatened under the Endangered Species Act (Endangered and Threatened Species, 2011). Many tributaries in the WRWA provide crucial spawning habitat for not only the threatened Coho, but steelhead, Chinook salmon, and trout as well. Portions of the WRWA have also been identified as habitat for the endangered marbled murrelet (Endangered and Threatened Wildlife and Plants, 2015).

Beyond providing crucial wildlife habitat and outstanding recreational opportunities, the WRWA and the Rogue River are a repository for regional and cultural heritage. Human habitation along the Rogue River corridor dates back nearly 10,000 years. The Rogue's extensive human history includes the Rogue Indian Wars, a storied gold rush beginning in the 1850s, and a rich history of pioneering boatman such as Glen Wooldridge (who famously blasted nearly every named rapid between Grant's Pass and Agness) and authors like famed Western novelist Zane Grey (whose work largely contributed to the popularity of the Rogue).

As a result of the area's rich history, many archeological and sensitive sites exist throughout the WRWA and the Rogue River corridor.

Figure E: Map of Wild Rogue Wilderness Area Source: USFS/BLM



II. Management Issues

A. Human Waste

The Rogue River, like many other multi-day rivers, requires boaters to carry a portable toilet system in order to manage human waste along the river corridor. In addition, all boaters are required to set up their toilet system within 30 minutes of stopping at their intended camp for the night unless they are camped at a site with a government established pit toilet. Despite these regulations and the availability of many different easy-to-use waste management products and systems, human waste continues to be an issue (see figure D).

Figure D: Example of Human Waste on the Rogue River, Oregon Source: Author



Such an issue presents not only serious health concerns, but has a serious impact on user experience. Spending a beautiful day on the river only to arrive at camp to find someone has left anything more than foot prints behind, let alone feces, has a tremendous impact on one's wilderness experience and flies in the face of traditional wilderness values.

B. Campground Competition

Campground competition, especially among large groups, has become an issue on the Rogue River. Many groups have resorted to sending a boat ahead (a practice referred to as rabbit boating) in order to secure a suitable camp for the night. This is a common practice, especially among commercial outfitters and large groups that require larger camps. This has resulted in parties feeling the necessity to split up while on the river or risk not finding a suitable camp. Oftentimes groups are forced to continue on the river later than expected in order to find available camping. Groups feeling pressured to find a camp early or to split up can have a negative impact on user experience.

C. Pit Toilets

The Rogue River and the Rogue River National Recreation Trail are the only multi-day river/backpacking trails that provide pit toilets for boaters and hikers to use that are regularly stocked with toilet paper and cleaned by the government. Although the pit toilets are located within the Rogue River Wild and Scenic River corridor, they certainly have an impact on people seeking a wilderness experience and are by no

means "vestiges of primitive America" as outlined in the WSRA. Permanent structures are not compatible with wilderness management principles, jeopardize opportunities to experience solitude, and are not reminiscent of wilderness character. Furthermore, the Environmental Protection Agency has deemed them an ecological hazard.

In addition, maintaining the sites causes an unnecessary expenditure of limited government resources. To reach and properly maintain the sites requires sending river rangers on weekly multi-day floats. In order to dig a new pit requires an official review by a government archeologist, is labor intensive, and poses health and safety concerns. The Rogue River corridor has a rich cultural history and archeological sites are in threat of being compromised by continued pit relocation efforts. After nearly four decades of digging pits on the Rogue, space has also become extremely limited. Lastly, camps with government maintained facilities are highly sought after by boaters and contribute to campground competition along the river corridor.

D. User Conflict

Given the broad range of recreational opportunities along the Rogue River and in the WRWA, it is no surprise conflict between certain user groups has become an issue. Mainly, the most contentious conflict is between non-motorized raft and kayak users and the jet boat tours. In some places, certain channels are designated for motorized use only for safety concerns, yet many non-motorized boaters are unaware of such regulations. Motorized boat use is only permitted on the lower 12 miles of the Rogue River corridor that runs through the WRWA. Most complaints stem from rafters that do

not like encountering the jet boats on this section of river. Motorized boat users also complain about groups not using the designated channel at Brewery Hole. Failure of non-motorized groups to use the proper channel has the potential to be deadly.

There is also a rather new recreational activity being marketed on the Rogue River Trail. Commercial river outfitters are selling raft-supported multi-day/long-distance running expeditions along the Rogue River Trail. In fact, trail running on the Rogue River Trail has been the topic of articles in popular running magazines and websites. There is some concern conflict might arise between traditional backpackers and trail runners.

E. Lack of Wilderness Appreciation and Understanding of Land Designation

Frequently, those who choose to venture into the Rogue River corridor or the WRWA fail to grasp the significance of wilderness and land management practices. Many do not understand wilderness values and the importance of practicing Leave No Trace principles, which often results in unacceptable physical and social impacts to the area.

Furthermore, many people erroneously believe that the Rogue River and wilderness are the same and are managed as such. Many fail to understand the complexities in administering the wilderness and the wild and scenic river corridor as separate but similar entities. Many visitors are also unaware that the WRWA is managed entirely by the USFS even though some of the area is BLM land. Conversely, although the BLM administers private and commercial river permits for the Wild Rogue and manages

much of the river corridor, many river users are unaware that a significant portion of the Rogue is also managed by the USFS.

F. Social Trails and Barren Ground

Many popular campsites along the Rogue River have developed an intricate patchwork of barren ground areas and undesirable social trials. This has resulted in unsightly camps with areas devoid of greenery and vegetation. In addition to the barren areas, a multitude of social trails have evolved leading from kitchen sites to tent areas, between tent areas.

The pit toilet sites also contribute to the issue, as networks of social trails develop between tent/kitchen areas and the toilets. In addition, many people also enjoy taking a short hike on the Rogue River Trail once camp is made resulting in further unwanted trail building between camps and the trail. The opposite is also true, social trails between popular backpacking campgrounds along the Rogue River Trail down to the river occur, but to a lesser degree. This would most likely be exacerbated by an increase in raft supported trail running trips that encourage travel between the river and the trail.

Social trails and barren areas also occur on wilderness area trails where people choose to cut switch backs and in popular camping areas along the Rogue River Trail. Such activity can result in poor or damaging water drainage issues and resource degradation.

G. Alteration of Spawning Tributaries

One of the most popular activities in both the WRWA and along the Rogue River is taking a refreshing swim in one of the many tributaries of the main river. While swimming is not a problem in and of itself, people have a tendency to construct earthen and rock dams in order to raise water levels and create swimming holes. This has resulted in a negative impact on fish migrations and water temperatures.

Ambient air temperatures during the summer months can often exceed 100 degrees on the Rogue. The 2015 season saw record high heat and resultantly dangerously warm water temperatures. Salmonids such as trout, steelhead, and salmon cannot tolerate high water temperatures and can frequently be seen holding at the mouths of tributaries feeding the Rogue River during warm summer months.

A plethora of small creeks and streams feed the Rogue River that have their headwaters in the Wild Rogue Wilderness Area. Due to more favorable watershed conditions, these tributaries are much cooler than the main river and offer fish an opportunity to cool off on their migrations upriver. Furthermore, juvenile trout and salmon will migrate up these tributaries when water temperatures become unfavorable in the Rogue River.

The problem with human made dams and the pools of water they create is twofold. Stagnant or slow-moving water enables the sun the opportunity to create unfavorable water temperatures and the dams themselves present barriers to juvenile fish as they attempt to migrate up smaller tributaries in search of more favorable water temperatures.

H. Redd Disruption

Figure E: Spawning Redd, Wild Rogue Wilderness Area, Oregon Source: Author

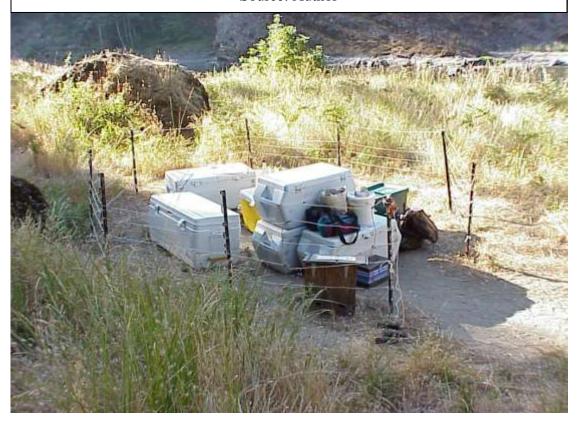
A redd (see figure E) is where fish have scoured the river bed (typically in shallow areas with small gravel) in order to successfully spawn. Female salmon and steelhead will deposit their eggs into these depressions while the male fertilizes them. Redds are distinguishable because they are often lighter in color than the surrounding river bed. Given the popularity of the Rogue, many people are unable to obtain a float permit via the lottery system. As a result, many wait until after permit season (October 15th) to float the Rogue. This time frame just so happens to coincide with peak Chinook salmon spawning season and generally the lowest river levels of the year. Many people are unaware of the salmon life cycle and as a result disrupt redds by wading or boating in shallow areas.

I. Problem Bears

The WRWA and the Rogue River host a bustling black bear population. As a result of such high bear concentrations, contending with problem bears has become a recurring theme on the Rogue (see appendix C). In an attempt to minimize bear-human conflict, managers agreed to install electric bear fences (see figure F) at many popular camp areas on the Rogue River. Bear boxes and hoists have also been installed at a number of river campsites and hiker's camps as well. Despite such efforts to mitigate bear issues in the WRWA and along the Rogue River, bears continue to be a problem.

Much of the problem stems from people simply not being "bear aware". In one incident during the 2015 season, a couple stated they had a bear come into camp and begin to raid their raft while they were enjoying their morning coffee. Both husband and wife reporting banging pots and pans and yelling at the bear before finally driving it off. However, it returned less than an hour later and immediately resumed its raid. The campers lost much of their food and had to cut their trip short as a result. These campers failed to store their food in the provided bear fence located not 50 yards from their raft. A large majority of people fail to recognize the importance of practicing proper bear preventative measures or, just as often, are completely unaware of safe food storage practices in bear country.

Figure F: Electric Bear Fence at Camp Tacoma, Rogue River, Oregon Source: Author



The Rogue River corridor is the only multi-day backpacking/rafting destination where the government maintains electric bear fences. Bear fences, although they do not constitute a permanent structure (they are removed each fall and installed again in the spring) do not reflect wilderness character nor are they representative of primitive America. They are often visible from the river and they compromise the untrammeled character of wilderness as set forth in the Wilderness Act (Wilderness Act, 1964).

J. Fire Rings & Illegal Fires

While most people are well informed regarding fire restrictions and proper fire practices, fire related issues continue to crop up from time to time on the Rogue River corridor. River management guidelines strictly prohibit the construction of fire pits within

the Wild and Scenic River boundary. Furthermore, all fires must be contained in a fire pan or campers must use an insulating fire blanket (see figure G)in order to prevent damaging and unsightly fire scars along the river. In addition, campers on the Rogue River and in the WRWA are subject to the same seasonal fire restrictions as the rest of the forest. Despite all this, illegal fires do occur from time to time on the Rogue. However, many people are especially cognizant of fire safety and such incidents have become less of an issue.

Figure G: Example of Proper Fire Etiquette Including Fire Pan and Ground Cloth Source: USFS

K. Leave No Trace

One of the most predominate issues on the Rogue River corridor and the WRWA is a failure to comply with Leave No Trace principles. In addition to human waste

related issues, micro trash such as bottle tops, fishing line, and candy wrappers are a common occurrence. Additionally, rather than strain dishwater or pack out items such as cornhusks, orange peels, and bones, many people either discard them into the river or on shore. People frequently leave behind fire ash and debris as well rather than pack it out. Such actions tend to have a cumulative effect and can greatly impact user experience as well as cause issues with wildlife.

L. Pets

Issues with pets, namely dogs, have been reported along the Rogue River. The main concern with bringing your dog on the river is that many people fail to pick up after them. More than one compliant was received regarding dog waste in and around camps during the 2015 summer season. While most likely an isolated incident, there was also at least one chicken left behind by boaters in 2015 as well.

III. Audience

Ideally, educational efforts would reach every individual visitor to the Wild Rogue Wilderness and Rogue River corridor. Such a feat is simply not possible given available resources. However, by targeting certain audiences, institutions, and venues you can maximize the number of people who receive your message.

Commercial Operators

Fishing guides, rafting outfitters, lodge managers, and shuttle service providers all operate under special use permits administered by the USFS. Such enterprises have a high degree of interaction with the public and are in a unique position to educate them regarding a variety of issues.

Educational Institutions

The Rogue River and the WRWA are most heavily visited by people who live in the immediate region and the Rogue Valley in particular (Wild Rogue Use Report, 2015). Southern Oregon University, multiple community college campuses, and a plethora of public schools provide a perfect venue to educate young people about wilderness management and general land management philosophies.

Private Float Permit Holders

Those lucky enough to win a space to float the Rogue River via the annual lottery system provide a perfect opportunity to reach one of our most important audiences.

Private Motorized Boat Permit Holders

The USFS allows up to 6 private jet boats a day to run the river to Blossom Bar subject to special regulations.

Hunters & Anglers

Fishing and hunting enthusiasts love the abundant fish and wildlife that call the WRWA and the Rogue River corridor home.

Local Non-Profits, Community Organizations, & Special Interest Groups

R.E.I., the Siskiyou Mountain Club, Curry Citizens for Public Access, Trash Dogs, Northwest Youth Corps, the International Mountain Biking Association, and a host of other organizations with outdoor recreation related missions call the region home. Watershed and fishing interest groups also abound in southern Oregon as do local birding, hiking, and outdoor clubs.

Hikers

Hikers comprise a large portion of visitors to the WRWA and the Rogue River corridor.

Local Government Entities

Many other government entities share common goals. Many people who also enjoy visiting wilderness areas also visit state parks, various county parks and campgrounds, and state forests. Reaching out to institutions such as Oregon State Parks, county parks and recreation departments, and Oregon Department of Forestry could aid educational efforts.

Internet Forums and Groups

Many forums exist on the internet with outdoor recreation as their primary emphasis.

For example, mountainbuzz.com is a popular internet forum among the whitewater rafting/paddling community and would provide access to one of our most important audiences.

IV. Message & Methodology

The aim of this project is to do more than merely present the issues impacting the WRWA and the Rogue River. In addition to indentifying issues, the main objective of this educational plan is to develop a means by which to remedy the many issues facing the area. As a result, each issue has been broken down into four separate parts; the educational message the agency would like to communicate to the public, current educational and mitigation efforts, proposed educational and mitigation strategies, and target audiences for each issue.

A. Human Waste

Message.

The message the agency would like to communicate to recreationist to the area is that human waste is unsightly, unsanitary, and has a significant negative impact on user experience. User groups should adhere to Leave No Trace Principles and pack waste out.

Current Methods.

Current educational efforts regarding human waste management are primarily focused at trailheads and at the BLM's Smullin Visitors Center where private boaters must stop to pick up their float permit. LNT signage is posted at many access points in the area (see appendix A) and visitor center staff require boaters to show they have an adequate waste disposal system before embarking on their trip. Both agencies also partnered to help develop a boater etiquette video that addresses many of the issues presented in this report, including human waste management. The video is available online and is on a continuous

play cycle at the visitor's center. LNT literature is also included with all private boater permits and visitor center staff and river rangers routinely provide information about human waste management.

Proposed Methods.

Recommended additional methods above and beyond current educational efforts are to include requiring permit holders watch the boater etiquette video before receiving their permit, ensure LNT information is provided at all area access points, and present LNT/waste management information at relevant conferences/community events.

Audience.

The main target audiences for human waste educational efforts should include hunters and anglers, private float permit holders, commercial operators, and hikers.

B. Campground Competition

Message.

The message both agencies would like to communicate to river user groups has several components. River users need to be aware campground competition can be an issue on the Rogue. Small groups need to understand that if they choose to occupy a larger site, they should be accommodating to other groups that might need to share a camp. Campsites able to accommodate large groups are limited on the river and should be left for bigger groups when possible. Large groups should also be informed of the campsite occupancy

board at the visitor's center and encouraged to use it. As of right now, there is not a formal reservation system for campsites on the Rogue and utilizing the occupancy board is not required. Users should also be made aware that the implementation of a mandatory reservation system may occur if competition continues to be an issue.

Current Methods.

Current methods for educating the public about campsite competition include the boater etiquette video, the voluntary campsite occupancy board, and is disseminated by river rangers and visitor center staff. In an effort to gain a better understanding of the issue, the BLM initiated a campsite monitoring program during the 2015 permit season and will continue to collect data during the 2016 season. An initial report on findings was presented for the first time at the annual Rogue River users meeting in the fall of 2015.

Proposed Methods.

Additional methods of educating the public about campsite competition should include requiring large groups to utilize the campsite occupancy board. This could help alleviate the issue and make a reservation system less likely to be implemented. The majority of campsite competition on the river stems from these larger groups. Requiring boaters watch the etiquette video would also help ensure the message is being communicating to users. Managers should determine the feasibility of developing an online boater exam based on content in the video and making it a required component of the permitting process. Visitor center staff could also require groups watch the video when they obtain their

permit the day of their float. The boater etiquette video should also be disseminated to relevant media outlets such as river sport specific websites and forums. Lastly, the Forest Service should determine the feasibility of carrying out their own monitoring program on USFS sections of the river. This would require securing funding for seasonal monitoring staff and to develop appropriate monitoring protocol.

Audience.

Target audiences for issues relating to campsite competition should include private float permit holders, anglers, and commercial operators.

C. Pit Toilets

Message.

The primary message the agencies should be communicating is that pit toilets in the Rogue River corridor have become an environmental hazard, jeopardize archeological integrity, are labor intensive, and are not congruent with traditional wilderness or wild and scenic river values. Visitors should be informed and continually updated of plans to phase out toilets. Both agencies need to emphasize the importance of users becoming more accustomed to packing out their own waste as opposed to relying on the pit toilets. Considering Rogue boaters have enjoyed they luxury of government provided pit toilets for nearly four decades, communicating agency reasoning for ending the pit toilet program is critical.

Current Methods.

Current methods for educating the public about pit toilets is minimal.

Visitor center staff and river rangers inform people of what pit toilets are currently closed, but both agencies lack a unified and consistent message.

Proposed Methods.

Additional methods for educating the public about pit toilets should first consist of making it widely known both agencies are phasing them out. Ideally, both the BLM and USFS should work together to develop an informational pamphlet regarding plans to phase out pit toilets, their justification for doing so, and a timeline for completion to be included with all private permits and available at the visitors center and agency media outlets. Information should be disseminated to relevant user groups, websites, and online forums.

Audience.

The desired audience for educational efforts regarding pit toilets is specific to river-based user groups. As such commercial operators, private float permit holders, and hunters and anglers should be primarily targeted.

D. User Conflict

Message.

Educational content regarding user conflict should first and foremost address the fact that public lands are for everyone to enjoy, not just one user group. Explaining how the Rogue River is uncommon compared to other wild or wilderness rivers would increase public awareness of why multiple and

sometimes conflicting uses are permissible on the Rogue. The Rogue River has a long history of motorized boat use and lodges that predate both the Wilderness Act and Wild & Scenic Rivers Act and are therefore permissible along the Rogue River corridor.

Proposed Methods

Educational messaging regarding user conflict must also address trail use, fishing, and proper channel use. Trail users need to be tolerant of one another and those wishing to run the trail as opposed to hike it. Non-fishing parties floating the river should also be courteous of those fishing while on the river. Those wishing to pass a group that is fishing should try and do so with as little disruption as possible and yield as much room as the river permits. Furthermore, ensuring river users are aware of proper channel use at Brewery Hole would help alleviate motorized/non-motorized boating conflict and should be a key component of educational efforts.

Many of the user conflict related complaints on the Rogue stem from tour boat operations on the USFS administered section of the river. Tour boat operators often perform spins and stunts along the wild section of the River and in proximity to non-motorized river campsites. Specific messaging should be developed and included in tour boat permits administered by the USFS prohibiting spins and stunts be performed on the wild section of the river and agency reasoning. Other sections of the river are more appropriate for such activities.

Current Methods.

Current educational efforts regarding user conflict is disseminated several ways. Information regarding non-motorized/motorized boating and fishing is addressed in the boater etiquette video. In addition, information regarding designated channels is provided with all float permits. River rangers and visitor center staff also educate river users of the multiple uses that take place on the Rogue River corridor while on duty.

Proposed Methods.

Additional educational efforts should include ensuring all river users watch the boater etiquette video. Specific messaging should be developed and included in tour boat permits administered by the USFS prohibiting spins and stunts be performed on the wild section of the river and agency reasoning. Furthermore, a concerted effort to increase public awareness regarding the multiple uses permitted on the Rogue and agency reasoning would help increase awareness and understanding on behalf of the multiple user groups that utilize the area. Finally, a diagram of channel designations should be provided to all boaters (see appendix B).

Audience.

Target audiences for user conflict oriented educational messaging should include all river and trail users including private motorized boat permit holders, commercial operators, anglers, and hikers.

E. Lack of Wilderness Appreciation and Understanding of Land Designation Message.

In addition to specific issues relating to the Rogue River corridor outlined in this educational plan, overall wilderness appreciation and a basic understanding of land designation and management policy is lacking among many members of the general public. Basic information regarding wilderness values and land management should be promoted whenever possible.

Such basic information should include what wilderness is and how it is designated. People should understand that wilderness is designated by congress to be preserved in its wild state for the use and enjoyment of future and present generations. The public should also be aware that wilderness provides unparalleled opportunities for solitude and primitive recreation, physical challenge, mental stimulation and inspiration as well as open space, wildlife habitat, undisturbed landscapes/ecosystems, opportunities for scientific study, and escape from the modern world. Furthermore, visiting wilderness also requires a great deal of self-sufficiency and Leave No Trace principles are especially important in wilderness areas.

Basic information about land management agencies and relevant policy should also be presented to the public. At a minimum, people should at least be aware of the key federal land management agencies (USFS, NPS, & BLM) and that land management also occurs on state, county, and municipal levels as well.

Current Methods.

Current methodology for increasing wilderness appreciation and land management are relatively limited. LNT informative signage (Appendix A) is located at many wilderness and river access areas. Information regarding wilderness management is available on the forest website and river rangers/visitor center staff provide information while on duty. Basic information regarding land management agencies is not addressed or provided to Rogue visitors.

Proposed Methods.

Additional methods for increasing overall wilderness appreciation and basic understanding of land designation should encompass several strategies. Agency personnel should ensure LNT/wilderness signage is visible at all trail heads and river access points and engage in more community outreach and opportunities to spread awareness. River rangers and visitor center staff should inform visitors of wilderness management principles and how they differ from other lands. Lastly, and arguably most importantly, agency personnel should determine a strategy to secure funding for a seasonal wilderness/interpretive ranger tasked with implementing not only wilderness/land management educational efforts, but other Rogue specific issues outlined in this educational plan.

Audience

Target audiences for increasing overall wilderness appreciation and a basic understanding of land designation should include commercial operators, educational institutions, private float permit holders, private motorized boat permit

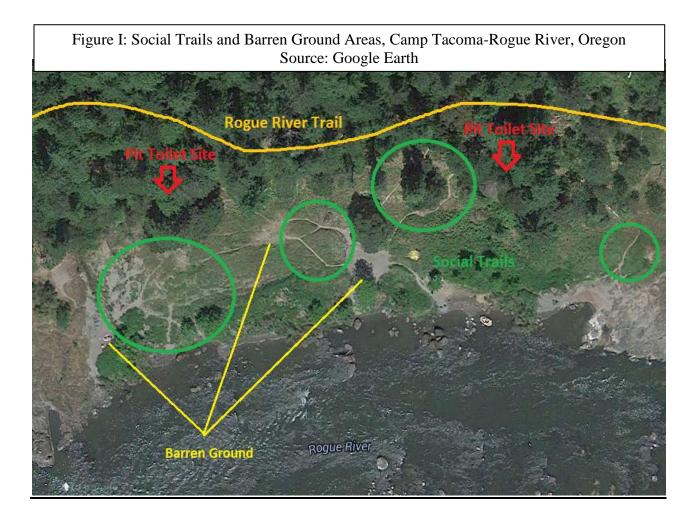
holders, hunters/anglers, local non-profits, community organizations, special interest groups, hikers, local government entities, and internet forums and groups. Unlike other Rogue corridor specific issues outlined in this plan, building wilderness appreciation and increasing awareness of basic land management principles has implications far beyond the Rogue River and can be targeted to a much broader audience.

F. Social Trails and Barren Ground

Message.

Educational messaging concerning social trails and barren ground issues should include many key components. Users should be made aware of how actions contribute to or help mitigate social trail or barren ground problems. User groups should be instructed not to venture off designated trails and to not cut switch backs. Hikers and river users should be encouraged to camp in designated or established camp sites along the river and trails so as to mitigate ground disturbance (see figure I). Boaters should set up waste management systems near the river and on hardened areas so as to minimize further ground disturbance related to pit toilet sites. Additionally, hikers should be encouraged to use established trails between the trail and the river when seeking access to the water as opposed to blazing trails. Conversely, boaters should take the time to find an existing trail connecting river campsites to the Rogue River Trail as opposed to making their own. Trail users should also be encouraged to inform management agencies of downed trees, slide outs, or other trail obstructions so

they can take corrective measures and help prevent further trail disturbance generated from user-created trail re-routes. Areas visitors should also be encouraged to avoid cross-country travel during wet or snowy times when the soil is most susceptible to damage.



Current Metods.

Current education efforts are rather limited concerning social trails and barren ground related issues. Very few trailheads have information regarding social trails. Obstructions are commonly placed over social trails and barren areas to discourage further use and mitigate resource damage.

Proposed Methods.

Additional efforts should entail developing an inventory and monitoring program pertaining to current social trails and barren areas so as to increase agency understanding of what areas and practices are most problematic. Both agencies should develop and implement a social trail and barren ground rehabilitation program so as to discourage continued use. River rangers should also be looking for opportunities to educate trail and river users about social trails and barren ground. Agency personnel should also determine what access points, trailheads, and campsites would be best suited for educational displays regarding social trails and barren ground.

Audience.

Target audiences for social trail and barren ground related issues should include commercial operators, private float permit holders, private motorized boat permit holders, and hikers.

G. Alteration of Spawning Tributaries

Message.

Key messages concerning alteration of spawning tributaries should include information about salmon and trout life cycles and behavior and the consequences of manmade dams. Visitors would benefit from understanding that trout, salmon, and steelhead are especially intolerant of warm water temperatures and that human made dams create stagnant or slow-moving water and contribute to unfavorable water temperatures. Furthermore, many people fail

to understand that manmade dams (see figure J) present barriers to juvenile fish as they attempt to migrate up smaller tributaries in search of more favorable water temperatures.

Current Methods.

Current methods for educating public about the alteration of spawning tributaries is virtually non-existent. River rangers dismantle rock dams throughout the summer and educate users when the opportunity arises.

Proposed Methods.

Additional methods that should be implemented should include the development of an informational brochure regarding the obstacles manmade dams present to migratory fish. Such information should also be included in the boater etiquette video. Agency staff should also determine the feasibility/effectiveness of informational signage.

Audience.

Target audiences should include private float permit holders, hunters/anglers, commercial operators, and relevant internet forums and groups.

Figure J: Removal of Rock Dam, Wild Rogue Wilderness Area, Oregon Source: Author



H. Redd Disruption

Message.

Messaging regarding redd disruption on the Rogue River is also very limited. Many river management programs have been looking at ways to mitigate redd disruption, especially on rivers that provide crucial spawning habitat for anadromous fish such as salmon and steelhead. Many people are simply unaware of salmon and trout life cycles. Efforts to increase awareness of fish behavior and life cycles would help discourage redd disrupting behavior such as wading or boating over spawning habitat.

Ensuring river users are able to identify spawning redds and likely spawning areas should be a key component of educational efforts. The public

should be made aware of areas where fish like to spawn such as shallow areas with gravel/small cobble and moving water commonly found in tail-outs and riffles and instructed to avoid disrupting such areas. Visitors should also be informed how to properly indentify redds by looking for patches of lighter/cleaner gravel depressions in the river bed.

Current Methods.

Current methodology for educating river users about redd disruption is virtually non-existent. River rangers educate the public on occasion, but are offered little opportunity to do so.

Proposed Methods.

Bolstering educational efforts regarding the disruption of spawning redds is crucial moving forward and should include several components. Agency personnel should borrow from other agencies or develop Rogue specific informational material regarding the salmon life cycle, redd disturbance, and redd identification. This should include images and examples of redds as well as maps of specific spawning areas identified by Oregon Department of Fish and Wildlife biologists both on the main stem of the Rogue and tributaries located in the WRWA.

Unlike other issues outlined in this education plan, redd disruption only occurs during a specified time frame. As such, while providing information throughout the season about redd disruption would be beneficial, a more concerted effort to inform river users should be implemented during the peak spawning season for Chinook salmon in September and October. The visitor

center is only open during the limited use/permit boating season (May 15th-October 15th). However, many floaters that did not win a float permit via the annual lottery or who simply want to avoid the permitting process entirely plan trips after permit season is over. As a result, some of the busiest use days on the Rogue occur after permit season and during the latter half of October when many fish are still actively spawning. As a result, should concern over salmon populations increase agency managers may want to consider the feasibility of staffing the visitors center through October or implementing additional educational efforts during this time frame.

Audience.

Target audiences for educational efforts concerning redd disruption should focus primarily on river users with a particular emphasis on late season boaters.

As such, efforts should focus on private float permit holders, private motorized boat permit holders, anglers, commercial operators, and relevant internet forums and groups.

I. Problem Bears

Message.

Educational messages about human-bear related conflict should focus primarily on bear safe practices and self-reliance. Visitors to the WRWA and the Rogue River especially need to practice bear safe camping and food storage practices and be made aware that the WRWA and the Rogue River host a bustling black bear population. Educating user groups of the long-standing

history of human-bear conflict in the area and how problem bears are created are key messages as well.

People planning on camping in the area need to understand that the vast majority of bear related conflicts are easily preventable. Food items, tooth paste, perfumes, and other products that could conceivably attract a bear should be properly stored either in a bear safe canister or storage apparatus. Visitors must also be made aware of the locations of government provided bear boxes, electrical fences, and hoists and how to properly utilize them. Ensuring people are also aware of the variety of bear-safe food storage products such as locking coolers, bear canisters, and portable bear fences available on the market should also be a key message.

Much like the pit toilets, bear fences do not reflect wilderness character and are not entirely congruent with the guiding principles set forth in the Wild and Scenic Rivers Act. Although there are no current plans to remove bear fences from the area, it certainly has been considered and may become a more desirable option as agency resources continue to dwindle. The public should be informed that installing, maintaining, and removing bear fences from the river corridor annually is labor and resource intensive. Due to the difficulty inherent in accessing the area to ensure fences are quickly repaired when broken is extremely difficult and creates a significant liability issue. Many of the campsites lack any sort of government provided bear protection whatsoever. As such, self-reliance should be a key theme in all educational efforts regarding human-bear conflict. Those who choose to recreate in a wilderness setting need to be

prepared to provide their own bear protection accordingly. Messaging must include how users can become more self-reliant and include information on how to properly store food absent government provided bear fences.

Current Methods.

Current methodology for educating the public about bear issues include the boater etiquette video and river ranger/visitor center staff. In addition to bear hoists and boxes, the USFS and BLM also maintain a number of bear fences at popular camps along the Rogue River and the Rogue River Trail. Informational signage on how to properly use all government provided amenities is available on all fences, hoists, and boxes. Information about bears is also included with private float permits, via signage at the visitors center, and on agency websites.

Proposed Methods.

Additional methods that should be implemented must include how the public can properly store food and maintain safe camps in bear country.

Instructional pamphlets about how to construct your own bear hoist and build your own portable electric bear fence should be made available at the visitors center. Appropriate signage should also be posted at area access points.

Additionally, more information about bear safe storage products available on the market should be made available to area visitors. Agencies should also consider and determine the feasibility of imposing special laws requiring anyone camping overnight in the area to store food items in approved bear canisters and to practice bear safe principles. Agency staff should also determine the feasibility of

acquiring portable bear fences and making them available for boaters and hikers to rent or borrow at the visitors center.

Audience.

Target audiences for bear education should include all who intend to camp overnight in the area and include private float permit holders, private motorized boat permit holders, hunters/anglers, commercial operators, and hikers.

J. Fire Rings & Illegal Fires

Message.

Educational messaging concerning campfires should focus on unintended consequences of improper fire practices and how to ensure fires are legal.

Visitors must also be aware of the social and ecological impacts improper fires can have on the resource. Campfires sterilize soil and reduce nutrient recycling and when built repeatedly in the same area gives campsites a denuded, barren, and unnatural look. Such consequences negatively impact both the resource and user experience.

Campers visiting the area must also be informed of Rogue River specific guidelines that prohibit the construction of fire rings within 400ft of the river and that require fire pans or fire blankets year-round for campfires within 400 feet of the river. Many are also unaware that fire residue must also be carried out and LNT principles should be strictly followed. Furthermore, the public must also be informed that the Rogue River corridor and the WRWA are subject to the same

fire restrictions as the rest of the forest and that fires are often completely prohibited when conditions become severe.

Current Methods.

Current methodology regarding fire rings and illegal fire education is based mostly at the visitors center. Proper fire practices are outlined in the boater etiquette video and included with private float permits as well. River rangers and visitor center staff are also well versed regarding fire regulations and continually update information and educate area visitors.

Proposed Methods.

Additional methods that should be implemented to help educate area visitors about fire related issues should include requiring boaters watch the boater etiquette video. Furthermore, river rangers should receive proper law enforcement training and enabled to issue citations for fire related incidents.

Audience.

Target audiences for fire related education should be directed to all visitors to the area and therefore should include commercial operators, private float permit holders, private motorized boat permit holders, hunters/anglers, and hikers.

K. Leave No Trace

Message.

Leave No Trace principles collectively comprise one of the most important educational messages relevant to the area. Visitors should be informed that even

micro-litter such as bottle tops, fishing line, and candy wrappers are a common occurrence in the area and seriously degrade the resource and user experience. The same can be said when people frequently leave behind fire debris and items such as orange peels, corn husks, bones, and other bits of food. Campers should know that although such items are indeed biodegradable, they can still impact natural settings long after they've been discarded. They also can negatively impact wildlife and attract unwanted pests. Given the high degree of use on the river, it is not uncommon for popular campsites to be occupied for consecutive weeks or even months. Ensuring visitors understand their actions, even if seemingly harmless, have a negative impact on other's experience and local ecology.

Current Methods.

Current methods related to LNT education is primarily focused at trailheads and at the visitors center. LNT signage is also posted at many trailheads and bathrooms in the area (see appendix B). In addition, LNT practices are addressed in the boater etiquette video and a copy of LNT principles is included with private float permits. Visitor center staff and river rangers also regularly educate users regarding LNT principles. LNT information is also available on agency websites.

Proposed Methods.

Additional methods for educating visitors to the area should include boaters be required to watch the boater etiquette video. Visitor center staff and river rangers should also emphasize micro-litter and that campers should take a

close look at camp in the morning before departing for the day. Additionally, the agency should recommend the use of strainers when washing dishes or disposing of wastewater in order to collect stray food particles or consider making strainers a requirement if conditions worsen.

Audience.

Target audiences for LNT educational efforts should not only include visitors to the Rogue River and the WRWA, but should encompass groups outside those traditionally targeted in an attempt to bring LNT into a larger social context. As such, audiences should include commercial operators, educational institutions, private float permit holders, private motorized boat permit holders, hunters/anglers, local non-profits, community organizations, special interest groups, hikers, local government entities, and relevant internet forums and online groups.

L. Pets

Message.

Educational messages regarding pets should include proper pet practices and the consequences of failing to properly care for animals. Similar to LNT and human waste related issues, many people fail to pick up after their pets (namely dogs). Pet waste must be packed out just like all other human waste, garbage, or fire debris and is subject to LNT principles. Furthermore, unleashed or unruly dogs can harass wildlife. Visitors need to be aware that such issues can have

significant negative impacts on user experience and wildlife and pick up after their pets and keep them under control at all times.

Current Methods.

Current methods addressing pet concerns are limited. There is some relevant information about pets included in the boater etiquette video.

Proposed Methods.

Additional educational methods should include encouraging dog owners to pick up after their pets by providing dog waste disposal bags at the visitors center. Boaters should also be required to view the boater etiquette video so as to ensure they understand pet related issues in the area. Visitor center staff and river rangers should also take advantage of opportunities to educate pet owners as often as possible.

Audience.

Target audiences for pet related educational efforts should encompass all who wish to take their pets into the area such as commercial operators, private float permit holders, private motorized boat permit holders, hunters/anglers, and hikers.

V. Action Plan & Conclusion

The following table consists of individual action plans pertaining to the issues outlined in this wilderness education plan. Each item has been broken down into individual tasks that are intended to help mitigate the issues outlined in this project. For each action item a person or group of people have been indentified to implement it. Each item has also been assigned a desired completion date and have been labeled as high, medium, or low priority items. The action plan is not in any particular order regarding priority. However, items relating to practicing Leave No Trace ethics, mitigating campsite competition, and promoting wilderness awareness should be prioritized over other items. These issues have been recurring for many years and are key concerns brought up by members of the public at user group meetings.

Action Plan	Task	Date	Responsible Party	Priority	
Action Plan A: Human Waste	Require all boating parties view the boater etiquette video	12/2016	Visitor Center Staff	High	
	Inventory existing LNT signage at access points and ensure the LNT message is readily visible at all trailheads, bathrooms, and river access points in the area	Recreation Progra Manager & Wilderness/River Rangers		High	
	Contact human waste management system manufacturers and request sample products and information and make them available at the visitors center	05/2016	Visitor Center Staff	Medium	
	Develop an inventory of conferences, community events, and occasions involving target audiences and present LNT information	05/2017	Recreation Program Manager & Wilderness/River Rangers	Low	
Action Plan B:	Asses and monitor campsite competition on Forest Service section of the Rogue River	05/2017	Recreation Program Manager & Wilderness/River Rangers	High	
Campsite Competition	Require large groups utilize the campsite occupancy board	05/2016	Visitor Center Staff	Medium	
	Require all boating parties view the boater etiquette video	05/2016	Visitor Center Staff	High	
Action Plan C: Pit Toilets	Develop an informational pamphlet regarding the agency plans to phase out pit toilets, their justification for doing so, and a timeline for completion to be included with all private permits and available at the visitors center and agency media outlets	05/2016	Recreation Program Manager & Wilderness/River Rangers	High	
	Provide river rangers with relevant product information to increase awareness of acceptable alternatives to pittoilets	05/2016	Wilderness/River Rangers	Low	
	Require all boating parties view the boater etiquette video	05/2016	Visitor Center Staff	High	

Action Plan	Task	Date	Responsible Party	Priority
Action Plan D: User Conflict	Require all boating parties view the boater etiquette video	12/2016	Visitor Center Staff	High
	Ensure visitors are aware of the broad range of recreational activities available in the area	05/2016	Visitor Center Staff Wilderness/River Rangers	Medium
	Ensure private jet boat permit holders are informed of channel designations	05/2016	Visitor Center Staff Wilderness/River Rangers	High
	Include a diagram of channel designations with private float and jet boat permits (see appendix B)	05/2016	Visitor Center Staff/River Rangers	Medium
Action Plan E: Lack of Wilderness Appreciation and Understanding of Land Designation	Develop an inventory of conferences, community events, and occasions involving target audiences and present information about wilderness and basic information about public land management agencies and jurisdiction	05/2017	Recreation Program Manager & Wilderness/River Rangers	High
	Inventory existing wilderness signage at access points and ensure wilderness information is readily visible at portals to the WRWA	05/2016	Wilderness/River Rangers	Medium
	Identify areas where interpretive signage regarding basic information about public land administration could be installed	05/2017	Wilderness/River Rangers	Low
	Inventory area educational institutions and contact them about opportunities to present wilderness/land management information	Annually	Recreation Program Manager & Wilderness/River Rangers	Medium
Action Plan F: Social Trails and Barren Ground	Inventory and monitor current social trails and barren areas	05/2017	Recreation Program Manager & Wilderness/River Rangers	High
	Develop and implement a social trails and barren ground rehabilitation program	05/2017	Recreation Program Manager & Wilderness/River Rangers	Medium
	Include information about social trails in the boater etiquette video	05/2017	Visitor Center Staff	Low

Action Plan	Task	Date	Responsible Party	Priority
Action Plan F Continued: Social Trails and Barren Ground	Inventory existing informative signage at access points and ensure relevant signs are visible at all trailheads, bathrooms, and river access points in the area	12/2016	Recreation Program Manager & Wilderness/River Rangers	Low
Action Plan G: Alteration of	Develop informational brochure regarding the obstacles manmade dams present to migratory fish and make it available at the visitor center and agency media outlets	05/2017	Fisheries Biologist	Medium
Spawning Tributaries	Include information about manmade dams in the boater etiquette video	10/2016	Visitor Center Staff	Medium
	Determine if signage is feasible	10/2016	Fisheries Biologist	Low
	Develop Rogue specific informational material regarding the salmon life cycle, redd disturbance, redd locations, and redd identification	10/2017	Fisheries Biologist	Medium
Action Plan H: Redd Disruption	Include information about redd disruption the boater etiquette video	10/2017	Visitor Center Staff	Low
	Ensure visitor center staff and river rangers are informing users of the potential for redd disturbance during peak spawning season	10/2017	Visitor Center Staff River Rangers	Low
	Require all boating parties view the boater etiquette video	12/2016	Visitor Center Staff	High
Action Plan I: Problem Bears	Establish a forest order requiring all visitors to the area have bear safe storage canisters	05/2018	Recreation Program Manager Wildlife Biologist	Medium
	Determine feasibility of providing portable electric bear fences for rent at visitors center	05/2017	Visitor Center Staff	Medium

Action Plan	Task	Date	Responsible Party	Priority
Action Plan J: Fire Rings and Illegal Fires	Send appropriate forest service employees to law enforcement training so as to enable them to write tickets for illegal fires	05/2017	Recreation Program Manager & Wilderness/River Rangers	Medium
	Require all boating parties view the boater etiquette video	05/2016	Visitor Center Staff	High
Action Plan K: Leave No Trace	Inventory existing LNT signage at access points and ensure the LNT message is readily visible at all trailheads, bathrooms, and river access points in the area	05/2017	Recreation Program Manager & Wilderness/River Rangers	Medium
	Inventory area educational institutions and contact them about opportunities to present wilderness/land management information	10/2016	Recreation Program Manager & Wilderness/River Rangers	Medium
	Develop an inventory of conferences, community events, and occasions involving target audiences and present information about LNT principles	10/2016	Recreation Program Manager & Wilderness/River Rangers	Low
Action Plan L: Pets	Provide goo bags at the visitors center so as to encourage better pet practices	05/2016	Visitor Center Staff	Medium
	Require all boating parties view the boater etiquette video	05/2016	Visitor Center Staff	High
General Action Item: Building and Maintaining a Library	Maintain resources for teaching LNT and wilderness ethics including other issues as outlined in this plan	Year- round	Everyone	High
	Update resources, toolkits for education, and interpretive programs kept in known file and office locations	Year- round	Everyone	Medium
General Action Item: Helping Visitors Plan Ahead	Update agency websites	As Needed	Everyone	High
	Promote informational media via target audience specific online groups and via social media outlets	Year- round	Everyone	Medium

Action Plan	Task	Date	Responsible Party	Priority			
General Action Item: Helping Visitors Plan	Update Recreation Opportunity Guides	As Needed	Recreation Program Manager & Wilderness/River Rangers	Medium			
Ahead Continued	ed Build and maintain relationships with agency PR staff to help promote educational Year-	Everyone	Medium				
General Action Item: Maintaining a Field Presence	Improve efforts to make public contacts and share relevant information as outlined in this education plan	d share relevant information as outlined in Year-round Visitor Center Staff Wilderness/River Rangers					
General Action Item: Outfitter/Guide Outreach	Contact O/Gs in spring and offer LNT and wilderness information in their preferred format (e.g. LNT booklets/flyers, brochures, training sessions, regional pamphlets)	Annually	Recreation Program Manager & Wilderness/River Rangers	High			
	Include issue specific language in all relevant operating plans for O/Gs that are authorized to use the area	Annually	Special Uses Administrator	Medium			
	Provide annual training and educational opportunities for outfitter/guides that utilize the resource	Annually	Forest Training Staff	Medium			
General action Item: Wilderness Ranger	Secure funding to staff a seasonal wilderness ranger	Annually	Recreation Program nually Manager/Recreation Line Officers				
General action Item: Monitoring	Recruit wildemess stewards and volunteers to help implement monitoring objectives outlined in this plan.	Year- round	Everyone	High			

Conclusion

Of all the issues presented in this project there exists a common thread. By and large, the agency has left it upon the visitor to educate themselves regarding wilderness areas and wilderness values. In contrast to actively seeking out opportunities to educate the public regarding wilderness, in many ways the US Forest Service merely assumes people know how to behave in wilderness. The US Forest Service is perfectly capable of successfully carrying out public relation and education campaigns. Forest fire prevention is one example. Smokey Bear is known around the globe and has been one of the most effective public education campaigns to date. If the agency was as deliberate about preserving wilderness values as they are about fire prevention, many of the issues set forth in this education plan would be minimized if not eliminated entirely.

Furthermore, considering wilderness education plans are a required component of wilderness management and agency policy, there exists little information regarding how to go about drafting one. While drafting this project it became abundantly clear that there is little to no agency guidance regarding how to draft a wilderness education plan and what information to include. The agency would benefit by a standardized document that succinctly outlines relevant wilderness issues and sets forth educational and interpretive methods to help remedy them.

Lastly, perhaps the biggest issue with wilderness education plans is that they are often never carried out. Having a wilderness education plan is akin to having an item on a check list. Many forests simply draft them because they are required to, yet rarely get around to implementing recommended actions. A change in policy that requires education plans actually be implemented would go along ways in solving wilderness related problems.

VI. References

Wilderness Act of 1964, Pub. L. 88–577, § 2, Sept. 3, 1964, 78 Stat. 890

Wild and Scenic Rivers Act of 1968, Pub. L. 90-542, § 1(b), Oct. 2, 1968, 82 Stat. 906.

United States Department of Interior-Bureau of Land Management (2015). Wild Rogue River

Use Report. Retrieved From

http://www.blm.gov/or/resources/recreation/rogue/files/2015riverusereport.pdf

Oregon Omnibus Wilderness Act of 1978, Pub. L. 95-23, § 3(b), Feb. 24, 1978, 92 Stat. 40.

United States Department of Agriculture-Forest Service (2007). Wilderness Management. In
Forest Service Manual (chapter 2320). Retrieved from
http://www.wilderness.net/NWPS/documents/FS/FS_wilderness_policy.pdf

United States Department of Interior-Bureau of Land Management (1972, June 28). *Rogue River Management Plan*. Retrieved from http://www.rivers.gov/documents/plans/rogue-plan.pdf

Endangered and Threatened Species; 5-Year Reviews for 17 Evolutionarily Significant Units and Distinct Population Segments of Pacific Salmon and Steelhead, 76 Fed. Reg. §50448 (August 15, 2011).

Endangered and Threatened Wildlife and Plants; Determination of Critical Habitat for the Marbled Murrelet, 80 Fed. Reg. §5506 (August 25, 2015).

VII. Appendices

Appendix A
Existing LNT Signage, Wild Rogue Wilderness Area Source: USFS

Leave No Trace.... on the Rogue



Thousands of people visit the Rogue River Canyon each year. Everyone wants to see the river in a clean and natural state. Please do your part to protect vegetation, wildlife, and the wild river experience. Practicing Leave No Trace skills and ethics will help everyone have a better trip.

Dispose of Waste Properly

Pack it in, pack it out: Carry out all garbage including fishing line and micro-trash, like cigarette butts and small food scraps. Set a good example and pick up litter left by others. Keeping a clean camp shows consideration for other visitors and keeps wildlife, especially bears, from altering their natural eating patterns. Even small amounts of food scraps can attract camp pests such as ants, yellow jackets, raccoons, mice, and snakes. Secure food, garbage, and toiletries at night to prevent bears and other pests from leaving their mark in your camp.

Human waste disposal: All boating parties are required to carry a portable toilet. Help put an end to unsightly, unsanitary "toilet paper gardens" by setting-up and using your portable toilet when stopping at sites without government-provided toilets. All solid human waste needs to be deposited into a toilet. Urine can be carried out in a toilet, deposited into the main river flow, or at least 200 feet from camp, creeks, and the trail. Please pack out all toilet paper and feminine hygiene products. Waste water includes soapy and dirty water from bathing, dish washing, tooth brushing, and unwanted liquids from canned foods. Dish water should be strained to remove the solid food particles which are then carried out with your trash. Discard strained waste water directly into the main river flow, or scatter it on the land over a broad area away from camp, and at least 200 feet from side streams. Choose a biodegradable soap and use it sparingly, if at all.

Minimize Campfire Impacts: The safest, cleanest choice is to use a camp stove for cooking. If you choose to have a campfire, fire pans are required year-round within 400 feet of the river. The intent is to contain campfire materials and keep the beaches clean. Burn only dead and down wood or bring your own. Please carry out all excess fire residue, charcoal and ash. Be aware of current fire regulations, campfires are usually banned during fire season.

Fireworks and Firearms: Discharging fireworks and the following are prohibited: Discharging a firearm as follows: (1) In or within 150 yards of a residence, building, campsite, developed recreation site or occupied area, or (2) Across or on a public road or across or on a trail or body of water adjacent thereto, or in any manner or place whereby any person or property is exposed to injury or damage as a result in such discharge. Title 43 Code of Federal Regulations 8351.2-1 and Title 36 Code of Federal Regulations 261.10(d).

Leave What You Find: Leave natural, historical, and archeological features unspoiled and intact for others to enjoy. It is illegal to remove or disturb remnants of the past found on public lands according to the Archeological Resources Protection Act of 1979.

Be Considerate of Other Visitors: At boat ramps, wait patiently for your turn. Use ramps only for loading and unloading, and put gear and boats together away from the ramp. Allow others to go before you if all they want to do is put a loaded boat into the water and take off. Small groups should use small camps and leave large camps for large groups, or be prepared to share a large site with another group. Respect anglers by not boating over their fishing line or disturbing their fishing holes. Non-motorized boats usually have the right-of-way over motorized boats. However, non-motorized boats should move out of the main channel to allow motorized boats to pass, especially near rapids as motorized boats have to travel faster than the rapid to maintain control. Sound travels easily on the river, so keep camp noise to a minimum and let natural sounds prevail.

Please Keep the Wild Rogue Wild ... Leave No Trace

For more information contact Medford District BLM, Grants Pass Office 541/471-6724 or www.or.blm.gov/rogueriver



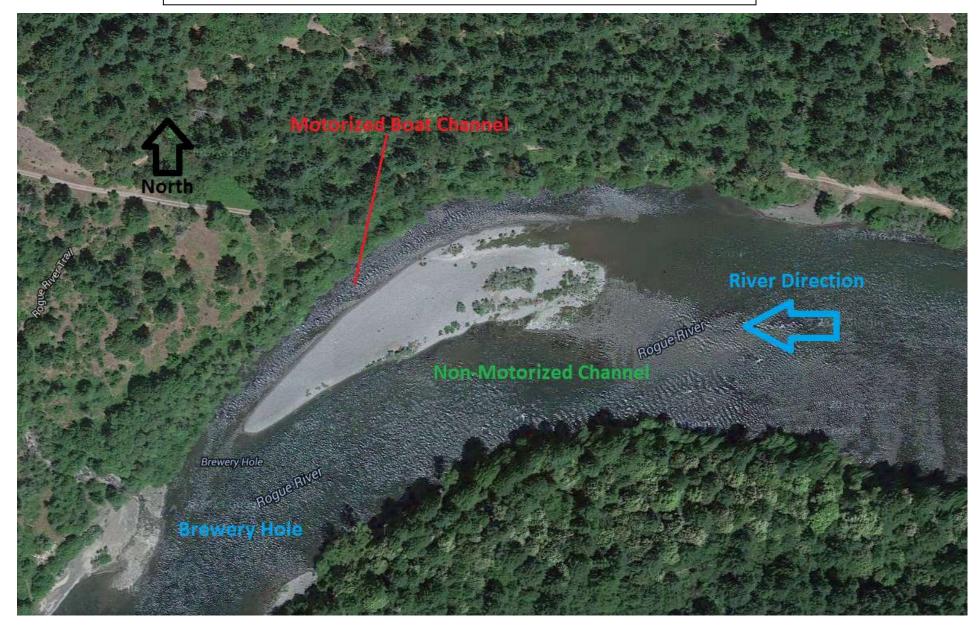








Appendix B
Brewery Hole Channel Diagram, Rogue River, Oregon Source: Google Satellite



Appendix C Bear Observation Summary, Wild Rogue Wilderness Area, Oregon Source: USFS

ROGUE RIVER BEAR OBSERVATION SUMMARY BY YEAR										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
# of observations	160	91	126	77	247	506	569	308	137	187
Earliest date	5/18/2006	5/20/2007	5/19/2008	05/16/09	4/22/2010	1/23/2011	5/17/2012	5/16/2013	5/21/2014	5/2/2015
Latest Date	10/20/2006	10/7/2007	10/20/2008	10/09/09	10/17/2010	10/26/2011	10/14/2012	10/20/2013	10/22/2014	10/25/2015
Total bears	283	110	159	87	478	782	707	411	440	199
Males	9	6	10	2	16	16	24	12	18	5
Females	37	10	25	6	96	16	78	46	49	13
Young	106	20	33	11	212	82	148	73	80	14
Unknown	131	74	91	68	152	16	457	280	293	167
Sow with cubs	36	10	20	4	96		77	46	39	14
Total times bears entered camp	9	4	14	1	6	7	18	1	4	26 17
Total times bears ate or tried to eat food	1	2	4	0	5	3	3	0	1	
Total times bears ate or tried to eat garbage	3	2	5	0	2		3	0	0	13
Total times bears successful eating food or garbage	3	4	4	0	7	3	3	0	0	17
Total times bears < 30 ft. from people	15	8	21	8	3	17	18	14	34	22
Total times bears displayed aggressive behavior	1	0	0	0	2	2	0	1	0	2
Yelling, banging pots and rocks used as deterrents	21	10	12	1	18	23	32	2	2	12
Other deterrents used		1	1	0	0		89	n/a	2 dog barked	12
Bears left and came back	4	2	8	0	4		3	0	0	1
Ammonia used	6	1	0	0	4		6	2	4	3
Electric fences used	39	8	3	0	4	35	70	37	35	31
Times bears damaged equipment	2	0	3	0	6		0	0	0	11
Times rock throwing used.	9	6	7	0	5		4	0	1	5

(Bear observation data courtesy of Holly Witt-Wildlife Biologist USFS/Gold Beach Ranger District)