

APPENDICES



Appendix A:

PAST ACTIVITIES THAT ARE STILL EVIDENT

Past mining activities within the watershed took three forms. Lode mining, which involved tunnel operations, Placer mining, which used water to process gravels and hydraulic mining which was a form of Placer.

Lode Mining

Lode mines and prospects are scattered widely across a north-south oriented mineralized belt beginning near the headwaters of Upper Granite Creek and terminating at the south end at the Greenhorn Mining. The total number of lode mines and prospects is unknown. Although many veins were explored underground, most of them produced little if any ore of economic value. The working of these mineralized areas directly exposed and/or brought to the surface substantial volumes of mineralized rock which was deposited on the surface in tailings dumps. Oxidation of the sulfide minerals remaining underground in veins and on tailings dumps has in the past and continues to this day to release iron, arsenic, copper, lead, zinc, and silver into the environment.

Placer Mining

A significant portion of the Granite Creek watershed was placer mined beginning in the 1860s. Early in the 1900's bucket-line dredges, draglines, and doodlebugs were used to mine. Capable of moving large volumes of alluvial material, operation of these processing plants significantly altered stream morphology, flow, and riparian areas. Operation of the plants as well as earlier placer mining efforts, resulted in the relocation of channels, redistribution of channel deposits, lowering stream beds, bank destabilization, removal of fines, and channelization between banks armored with dredge tailings consisting of cobbles, boulders, and large rocks. In these areas, vegetative potential is reduced, as is riparian habitat.

Almost all the sub-watersheds in Granite Creek have headwaters and/or channel segments that have been impacted in this way. Widths of disturbed areas range from several hundred feet to as much as 1000 feet at the confluence of Granite Creek and Clear Creek. Since natural geomorphic and fluvial processes would probably require several thousand years or more to restore the most highly impacted areas to "normal", these changes may be considered permanent.

Smaller watersheds were mined hydraulically. This method of placer mining involved directing streams of water under high pressure at hillsides and banks (highbars), and processing the loosened gravels through washing plants. Water was brought to the highbar areas in ditches, one of which (Pete Mann ditch) continues to divert water from the tributaries of Clear Creek to the Burnt River

watershed. While the extent and degree of damage caused by historic hydraulic mining is less than that caused by the operation of bucketline dredges and doodlebugs, impacts are locally significant.

An out growth of all this mining was the construction of the Fremont Powerhouse in 1906. It supplied power to several mines within the watershed and started to supply power to the town of Granite in 1938. Power production was stopped in the mid 60's and it was deeded over to the Forest Service. For the last couple of years the North Fork John Day district has been restoring the Powerhouse with the help of the State of Oregon Historical Preservation Office.

Within the watershed, there are 477 miles of roads that are used for vehicle traffic of some sort. These roads range from privately owned one lane two tracks to a state maintained two-lane asphalt paved road with turnouts. A majority of the Forest Service maintained roads were constructed in the late 60's through the 70's. Since the mid 90's, no new Forest Service road construction has taken place. Some small reconstruction or heavy maintenance has been completed but nothing on the scale of what was done in the 70's. In 1993 the North Fork John Day Ranger District completed an Access and Travel Management plan for the district. Within the Granite Creek watershed 59 miles of road located on the district was closed to vehicle traffic. Grant County re-constructed and paved the 13 road from Granite to the intersection of Forest Service Road 10 in the late 90's. The county also replaced the bridge that crosses Congo Gulch during the same period.

Approximately 9,590 acres of timber harvest has occurred in the Granite Watershed. All silvicultural treatments have been implemented which include clearcuts, individual tree cuts, salvage and commercial thinning. Most of the harvest was done in the 70's and 80's with some salvage completed in the 90's. More then 9,900 acres have been planted in the watershed.

Livestock grazing began with the arrival of miners and settlers during the last half of the 19th century. Overstocking of the available ranges during the late 1800's and overgrazing in the early 1900's caused widespread damage, altering riparian habitat structures. The growth of the livestock industry in eastern Washington and Oregon increased the number of animals beyond the area's carrying capacity, so by the 1920's overgrazing of National Forest system lands and drought conditions caused the range to further deteriorate to the extent that Congress passed the Taylor Grazing Act in 1934 to improve public rangeland.

Throughout the 1960's and 70's the Forest Service, Bureau of Land Management, Soil Conversion Service, and private landowners changed grazing practices by using a variety of management strategies. One pasture (Beaver Meadow Unit) of the Camp Creek Allotment falls within sub-watershed 93M and a small portion of 93L. Prior to 1954 this area was grazed by both sheep and cattle. Before 1932, information is sketchy but it is believed that grazing was quite heavy. From 1954 to the present, the amount of grazing

has slowly decreased to a season of 1½ to 2 months for 295 head of cattle (Beaver Meadow Unit only).

During the late 80's the North Fork John Day district constructed and placed numerous log structures in Clear Creek and Granite Creek with assistance from the Bonneville Power Administration (BPA). BPA also started to fund floodplain restoration work along Clear Creek and Granite Creek in the mid 90's. Riparian planting has taken place within the restored floodplain areas also.

Within the last 10 years there have been four large fires (over 100 acres) within the Granite Creek Watershed, compared with none in the preceding 15 years; all Wilderness fires on the Umatilla NF. In addition, there have been several large fires adjacent to the watershed but not within the boundaries of the watershed.

ONGOING ACTIVITIES

Currently there are 120 mining claims located within the Granite Creek watershed and around 98 of these have had some sort of activity done on them. Of these, 61 are placer claims, 31 are lode claims and 6 claims are a combination lode and placer. A majority of these claims are small in nature and are owned by individuals. They may use equipment in a limited setting and move up to 100 cubic yards of material in a year. Claimants usually occupy the claims when they are working by pulling in a camper trailer or staying in an old cabin located on the claim.

Firewood gathering is taking place along open roads within the watershed along with routine road maintenance. Road maintenance is done under an annual contract and is inspected by the Forest Service. Specifications for this work are included in the contract. Firewood is to be removed only on open roads, not more than 300 feet from the road or from any live water.

Restoration of the Fremont Powerhouse Complex started in 1999 and continues to this day. While work on the Powerhouse is complete there is still work being done on a couple of the homes. Of the four houses within the complex, two are included in the Cabin Rental program.

Recreational use of the watershed is estimated at 8,100 recreational visitor days. A recreational visitor day (RVD) is equal to twelve visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons. Most of the recreational use within the watershed centers on hunting. Fishing is not a large use since Clear Creek and Granite Creek are closed to all fishing. Some fishing occurs on Olive Lake. Camping at Olive Lake Campground starts around the middle of June and ends around the middle of November. The North Fork John Day Wilderness covers a large percentage of the east half of the watershed. Three trailheads service this portion of the wilderness. During snow season snowmobiling is the predominate recreational activity. A local snowmobile club maintains at least 60 miles of trail within the watershed.

Restoration of the dredge tailings located along Clear Creek is nearing completion. This work is removing the piles of rock left over from the dredge work done in the 30's and 40's and restoring the flood plain to its past elevation. Along with the tailing removal, riparian planting is being done.

A number of Special Use permits are present within the watershed. The Greenhorn water use permit allows the town of Greenhorn to draw up to 1 cubic foot per second of water from Lighting Creek above the Pete Mann Ditch diversion. A powerline from the town of Granite to the Fremont Powerhouse is permitted to the local power company. Pete Mann Ditch is currently not under a Special Use permit. The Umatilla and Wallowa-Whitman National Forests are currently working with the Office of General Council to determine who has existing water rights, where those rights are located, and if a special use permit is needed. Once an answer is found additional NEPA will be required for this permit.

FORESEEABLE FUTURE ACTIVITIES

In addition to the Claims included in this EIS the Wallowa-Whitman National Forest is currently working on 6 Plans of Operations located within the watershed. These plans are currently approved. The Forest is updating the NEPA since changed conditions have occurred.

The Umatilla National is proposing to non-commercially thin around 3,500 acres within the next 10 years. This work is located outside of wilderness, roadless, RHCA's, and LAV's for lynx. In addition, both Forests have plans to commercially thin around 844 acres that is also located outside the above areas.

Restoration work of the Clear Creek and Granite Creek flood plains will continue as long as funding is available. The planting of riparian habitat species is included in this work. Replacement of 8" PVC pipe that is draining the Bluebird and Blackjack mines with 18" corrugated plastic drainpipe.

The North Fork John Day Ranger District is completing an EIS that analyzes the effects that would occur during a 5,280-acre understory burn that is scheduled to be completed when funds become available.

The Wallowa-Whitman National Forest is analyzing the restoration work needed to fix a head cut on Bull Creek. They are also working with the City of Granite to improve the town's water system and looking at an extension of a fiber optic telephone line from Buffalo mine to the Crane Flat area. The Umatilla and Wallowa-Whitman will also be looking into the requirements needed for the use of the Pete Mann Ditch in the future.