

Lupfer Heights Subdivision

Fire Prevention, Control and Fuels Reduction Plan

Introduction

Lupfer Heights is a 12-lot subdivision of 142.8 acres located approximately 11.5 miles northwest of Whitefish and 5 miles southeast of Olney, Montana. The average lot size is 11.9 acres. The property is accessed from Highway 93 and Lupfer Road and has been assigned physical addresses of 205 and 309 Lupfer Road. The property is located in Sections 2 and 3 of Township 31 North, Range 23 West, P.M.M., Flathead County, Montana.

Vegetation on the property includes a mix engelmann spruce, Douglas-fir, western larch, lodgepole pine, scattered pockets of aspen, and isolated wetlands. The topography is gently rolling. The only areas with slopes greater than 15% occur on the eastern portion of Lot 10, which slopes downward to the west toward Highway 93. Prior to Whispering Trails, LLC purchasing the property, it was owned by Weyerhaeuser and before that Plum Creek, which managed the property for timber resources. Vegetation has been noticeably thinned on Lots 6, 7, 10, the eastern portion of Lot 8, and northern portion of Lots 11 and 12. The densest vegetation is located on Lots 8 and 9, which include a stand of single age-class lodgepole pines. Vegetation on Lots 1 – 5 and 11 and 12 is a mix of vegetation ages and types, with some pockets of denser timber interspersed with well-spaced areas. No significant pockets of dead or dying timber have been identified on the site.

The property is divided by a Burlington Northern Santa Fe railway, which is 200 - 300 feet wide along the property. Surrounding land uses include a state highway, residential parcels to the north and east, and state trust lands to the north and east used for recreation and resource management. In preparation of this report the author was unable to obtain are fire history.

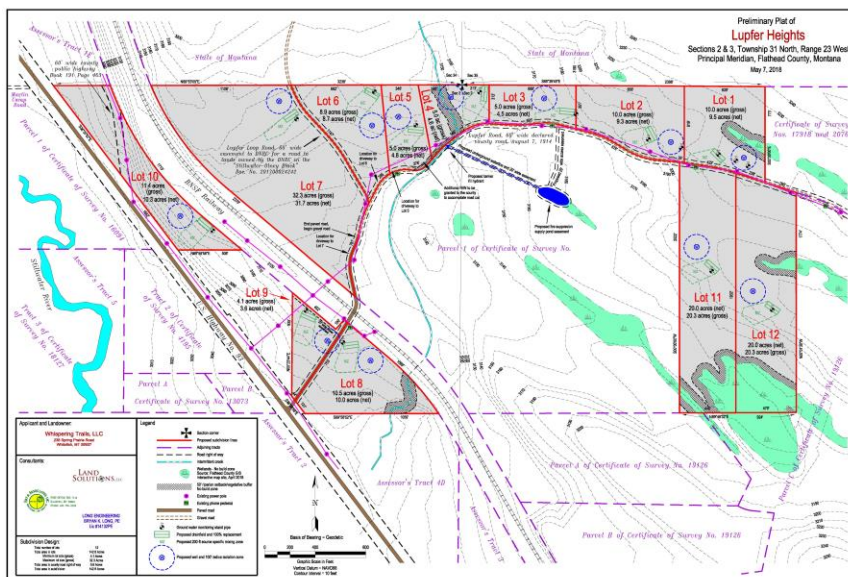


Figure 1: Preliminary plat of Lupfer Heights

Wildfire Hazards

Potential wildfire hazards include Highway 93, the BNSF railway, lightning, overhead power lines along Lupfer Road and the highway, timber management, and recreation (ATVs, campfires, etc.). The area most susceptible to wildfire appears to be the dense lodgepole pine stand on Lots 8 and 9 and the relatively steep area on Lot 10. Both of these areas are sandwiched between Highway 93 and the BNSF railway line, which provide fuel breaks and opportunities to contain wildland fires.

Access

Lupfer Road, a paved and gravel surfaced road generally built to Flathead County standards, provides primary access to all lots except Lot 10, which is accessed from Highway 93. From the intersection with Highway 93 to the eastern edge of Lot 12, Lupfer Road extends approximately 4,760 feet. The only significant grade on Lupfer Road is located between the railroad tracks and Highway 93, where the grade is roughly 10%. Otherwise, Lupfer Road meets Flathead County's grade standards.

Lupfer Loop Road, a well-built gravel road approximately 18 feet wide that intersects with Lupfer Road between Lots 6 and 7, provides secondary access within a public use easement. Lupfer Loop Road extends approximately 5 miles to the north, intersecting with Highway 93 near Olney.

Vegetation Treatment

In preparation for this report, on January 8, 2018 the author and landowner met on the property with Flathead County Fire Service Area Manager Lincoln Chute, logging contractors Randy and Sean Bohannon, and Bill Swope and Steve Penner from the Flathead Economic Policy Center. The purpose of the meeting was to evaluate vegetative fuels on the site and come up with a plan for fuels reduction that the landowner could undertake in conjunction with the Flathead Economic Policy Center, which could use the treatment as a model for others.

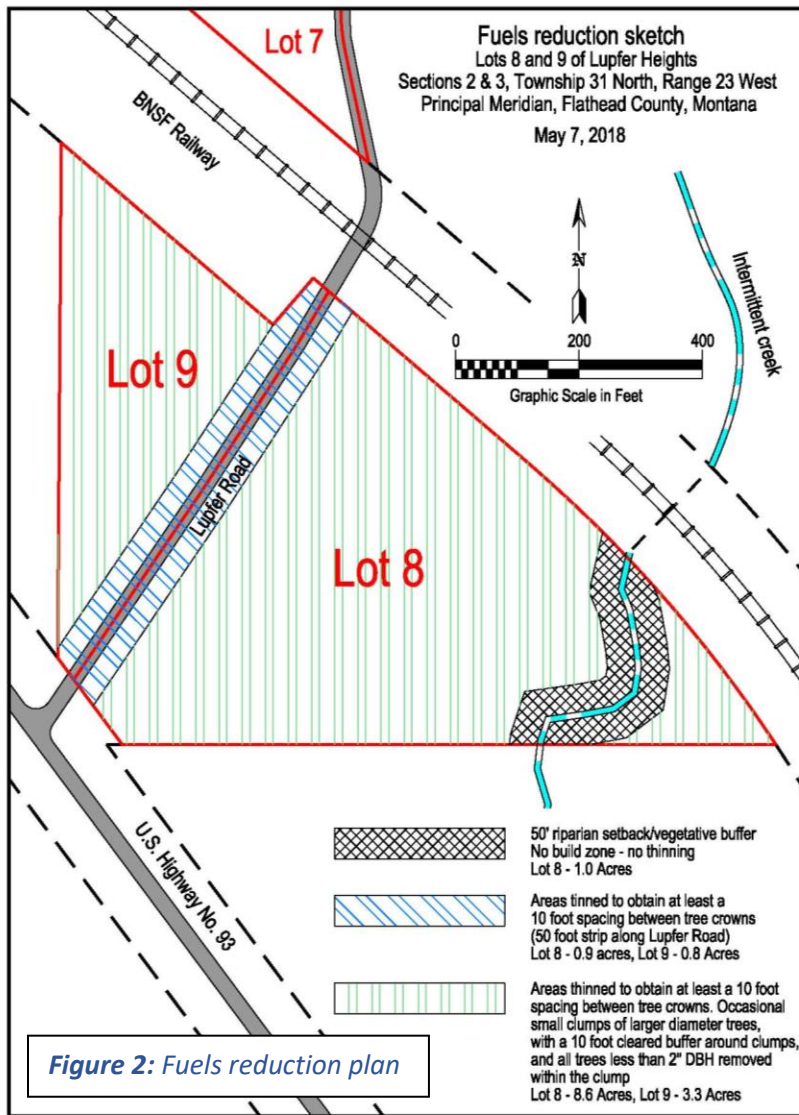
Based on the site conditions including previous vegetation treatments, the fuel break provided by the railroad, road conditions and proposed water supply, the prescribed treatment is as follows:

All trees within a 50-foot wide strip along each side of Lupfer Road in Lots 8 and 9 are to be thinned to obtain at least a 10-foot spacing between tree crowns.

Within the rest of Lots 8 and 9 except for 50 feet on both sides of the intermittent stream, trees are to be thinned to obtain at least a 10-foot spacing between tree crowns, but occasional small clumps of the larger diameter trees may be left un-thinned. A spacing of at least 10 feet is to be provided around the perimeter of the clumps and all trees of less than 2 inches diameter at breast height shall be removed within the clumps to reduce ladder fuels.

All slash and down woody fuels will be treated according to the Flathead Economic Policy Center's technical specification guidelines (attached) by mechanical piling, hand piling, and burning of the piles.

The purposes of reducing fuels in these areas are to provide a safer ingress and egress and to address the area that is most susceptible to wildfire between Highway 93 and the railway. This work is intended to be complete prior to final plat approval.

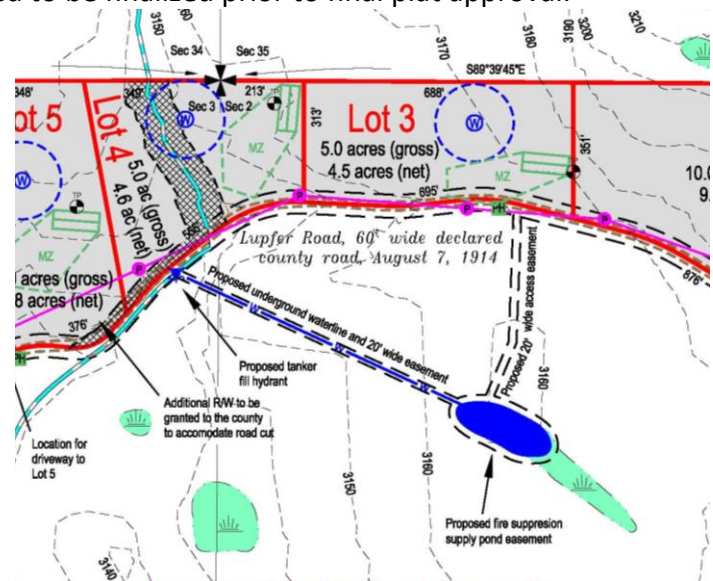


In addition to the above vegetation treatments, lot owners will be expected to clear defensible space around their homesites. Prior to final plat approval, lot owner association documents are intended to be developed requiring a vegetation/fuels management plan be reviewed and approval by a lot association board, possibly in conjunction with the Flathead County Fire Service Area, prior to construction.

Fire Fighting Resources

The property is in Flathead County Fire Service Area and located approximately 5.6 miles from the Olney Fire Station. The Olney Fire District has a mutual aid agreement with Flathead County Fire Service Area, as does the Whitefish Rural District. Based on discussions with Lincoln Chute, this subdivision is not expected to have a negative impact on local fire protection personnel, equipment and resources so long as an effective water supply system is developed and vegetation treatments are implemented as discussed above. The water supply system would include a newly developed pond on adjacent property owned by the subdivider and an underground waterline extending from the pond to a tanker fill hydrant located in a turnaround area on the south side of Lupfer Road across from Lot 4. The pond and water line would have access easements for maintenance purposes and be developed at sufficient depth to provide a year-round water supply. Plans are currently being developed by project engineer Bryan Long. Maintenance is proposed to be provided by lot owners through development of a maintenance agreement that stipulates annual inspection and testing and provides for assessments to fund periodic repairs. This agreement is planned to be finalized prior to final plat approval.

Figure 3: Proposed water supply location and easements



Preparer's Qualifications

Dave DeGrandpre, AICP of Land Solutions, LLC prepared this plan. Dave has worked as a professional land use planner in Montana for 18 years. A focus of Dave's practice is wildland-urban interface development. In the September of 2017 Dave completed a research paper for Headwaters Economics titled [Montana Land Use Planning Strategies to Reduce Risk in the Wildland-Urban Interface](#), and presented the findings of the report at the 2017 Montana Association of Planners conference. Land Solutions is currently in the final stages of completing an update of a Community Wildfire Protection Plan for Mineral County, Montana, available [here](#). Over the course of his career, Dave has worked with fire managers, planners and local government officials to address wildland-urban interface issues in dozens of growth policies, subdivision and zoning regulations.