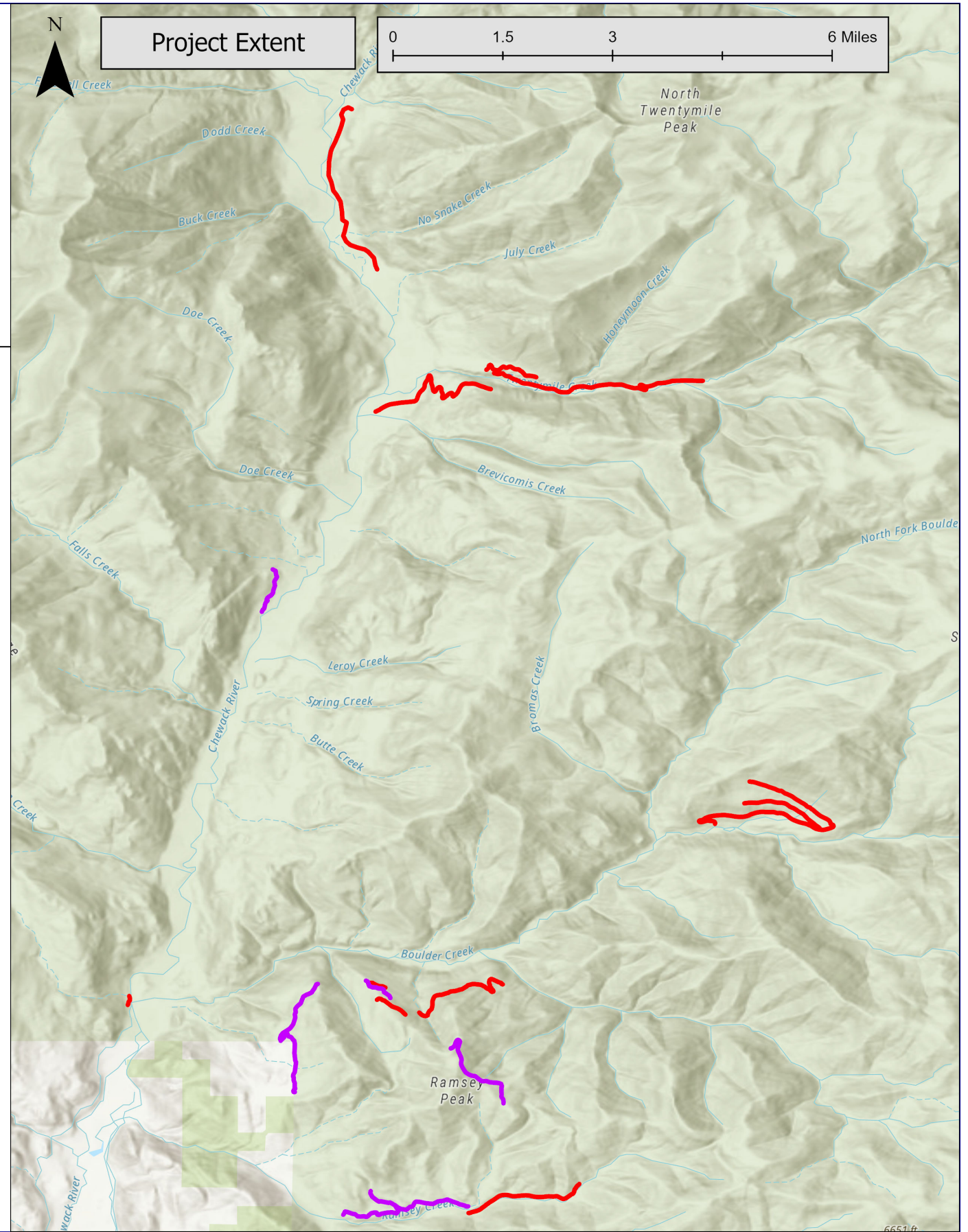
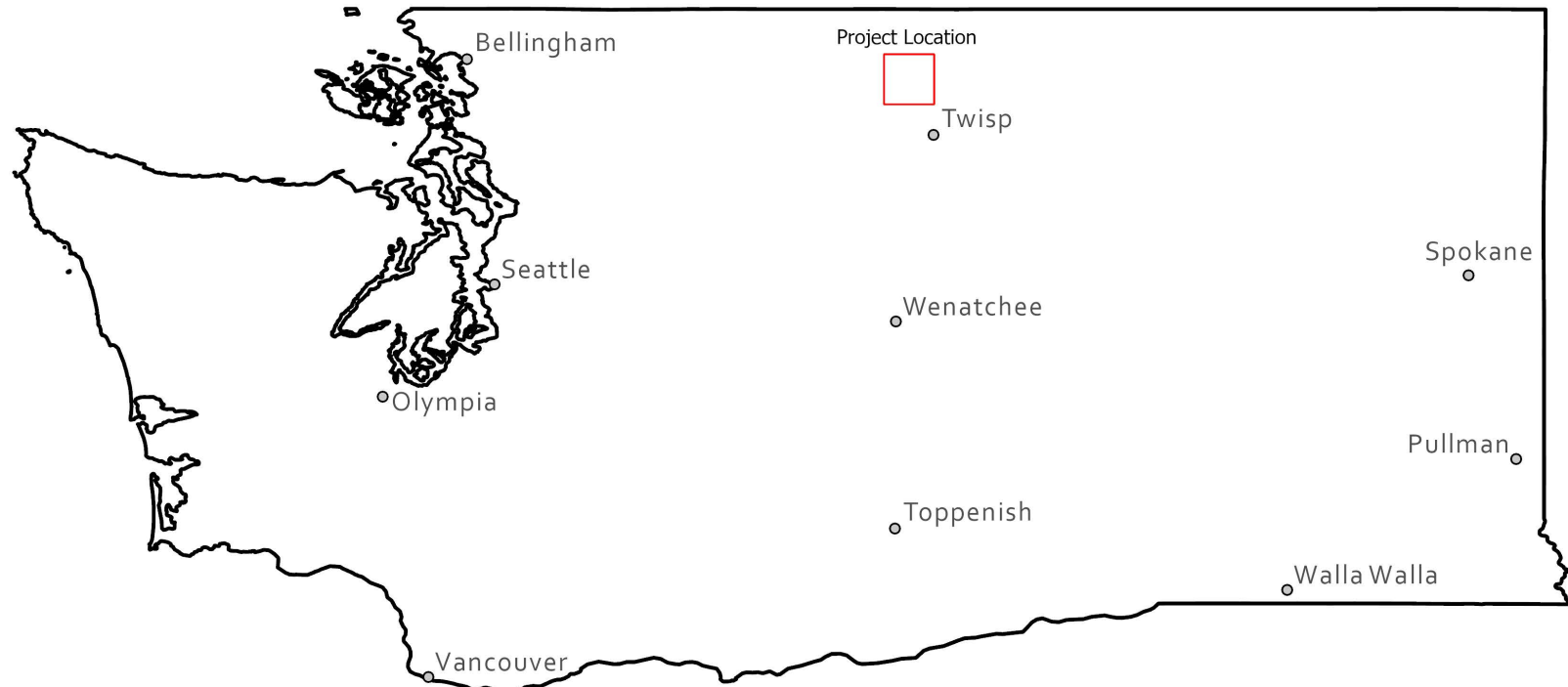


United States Department of Agriculture
Forest Service - Region 6
Okanogan - Wenatchee National Forest
Methow Ranger District
Okanogan County
Construction Drawings for
Chewuch Area Road Decommissioning



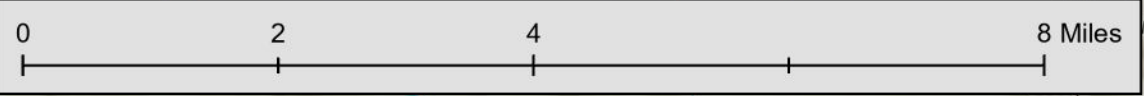


Legend

- Aquatic Closure
- Decommission

Project Extent

Proposed Miles of Treatment
20.03



North Work Area

5010800

5010740

5010700

5010650

5100090

North Twentymile Peak

July Creek

No Snake Creek

Honeymoon Creek

Doe Creek

Brevicomis Creek

Leroy Creek

Spring Creek

Butte Creek

Chewack River

Bramas Creek

Central Work Area

3700000-25.18L-2

3700000-25.18L-1

Middle Fork Boulder Creek

South Work Area

50100015

5009200

5009275

5009250

5009270

5009430

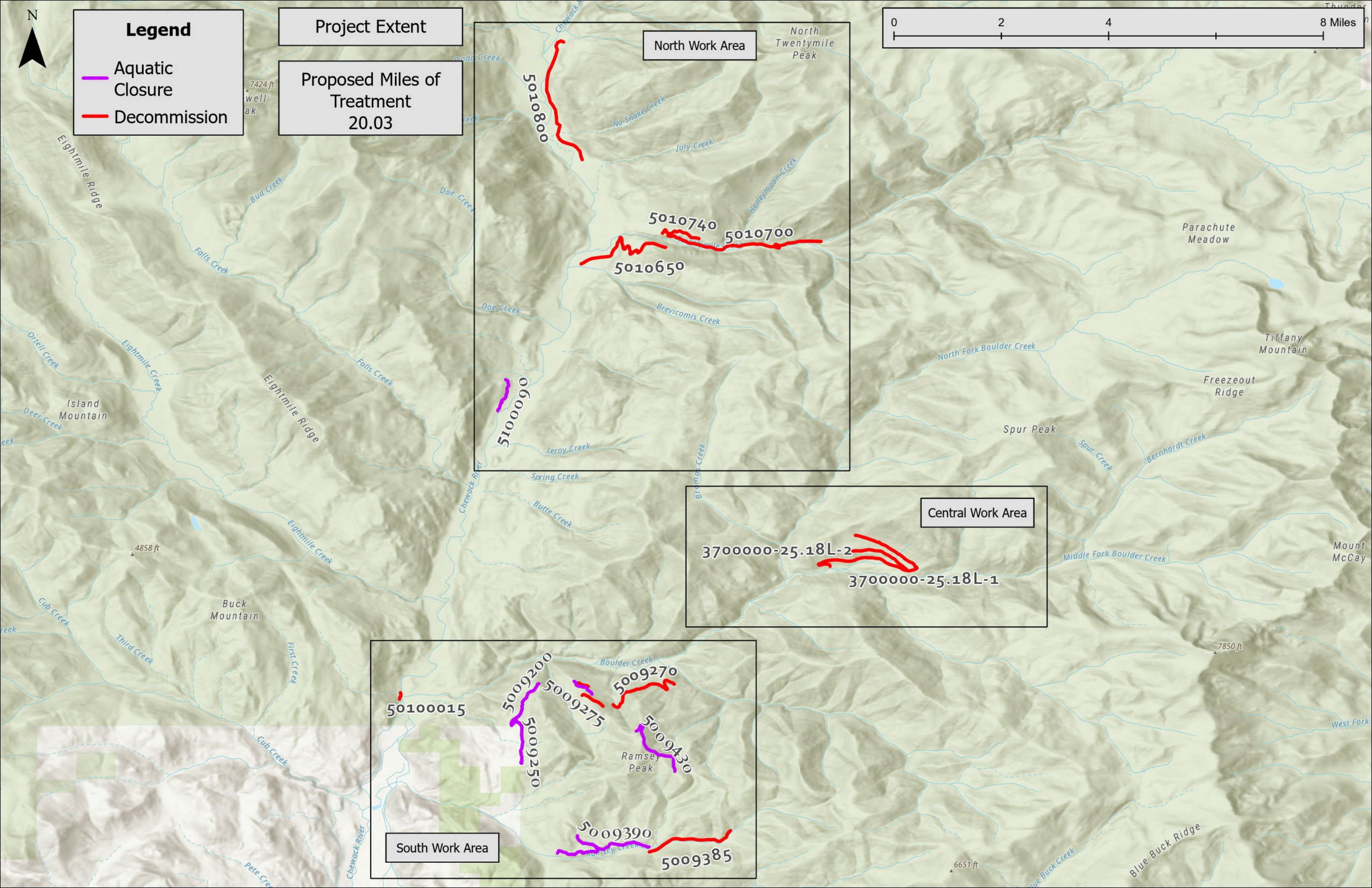
5009390

5009385

Ramsey Peak

Boulder Creek

Ramsey Creek



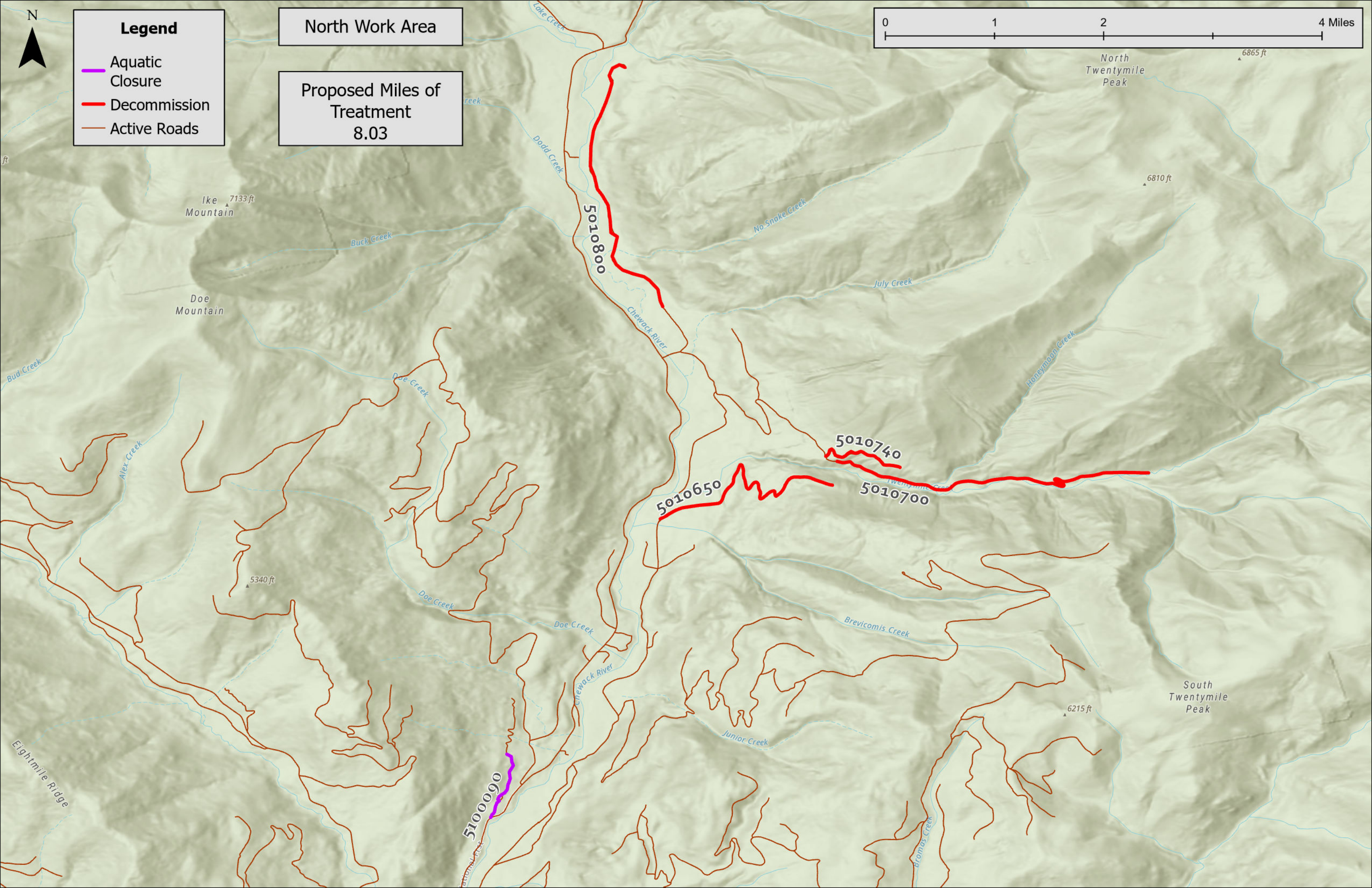
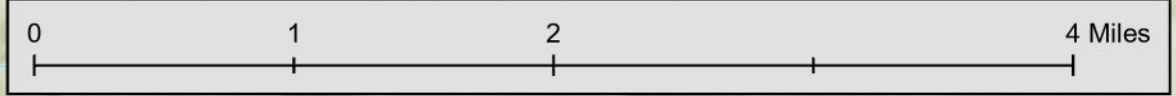


Legend

- Aquatic Closure
- Decommission
- Active Roads

North Work Area

Proposed Miles of Treatment
8.03



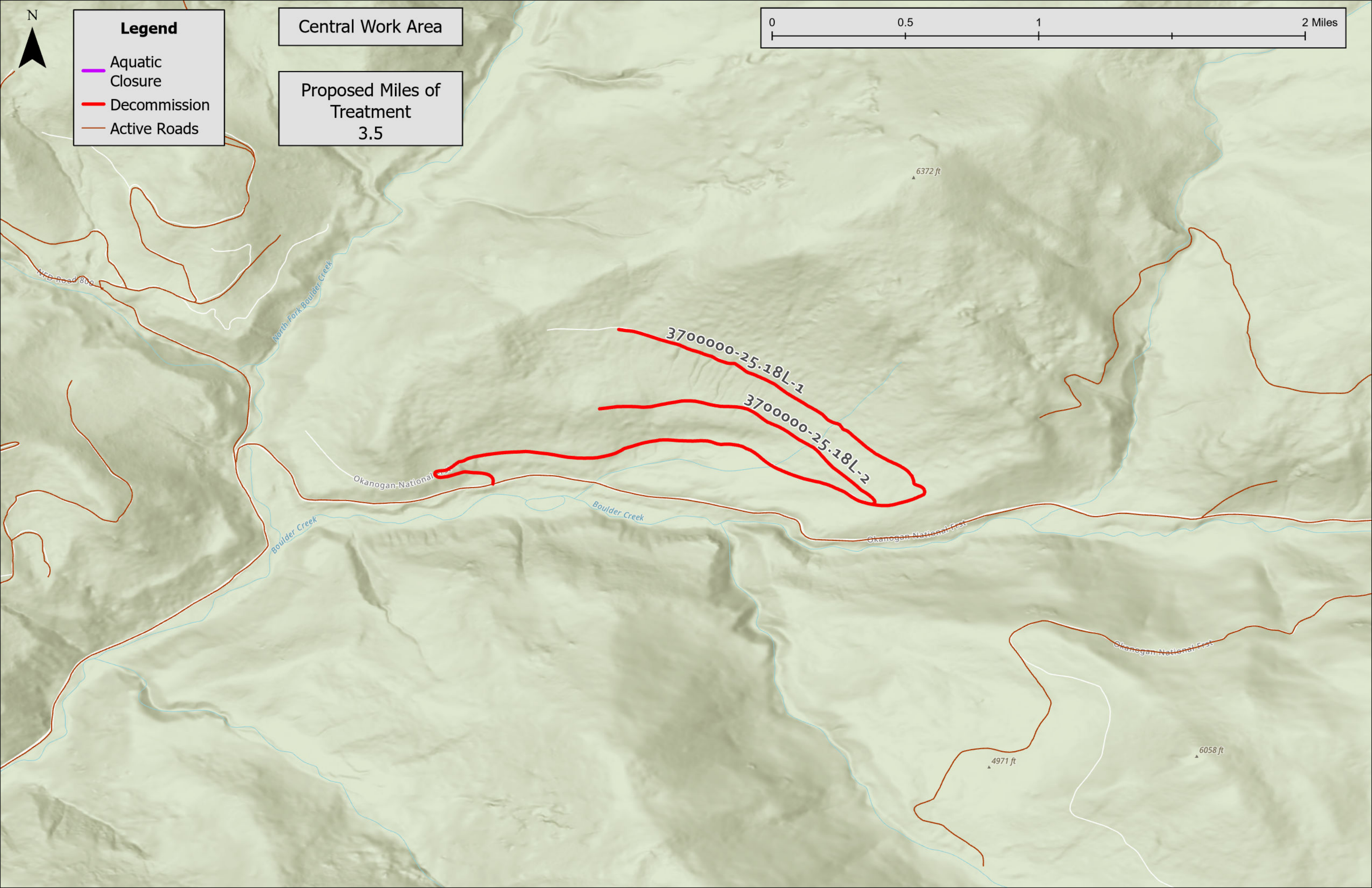


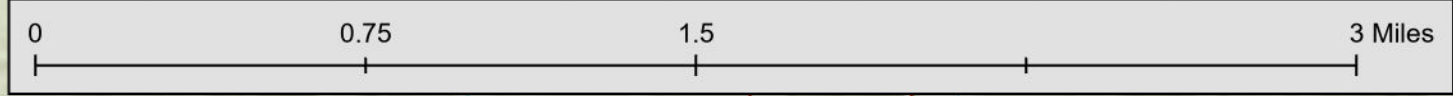
Legend

- Aquatic Closure
- Decommission
- Active Roads

Central Work Area

Proposed Miles of Treatment
3.5



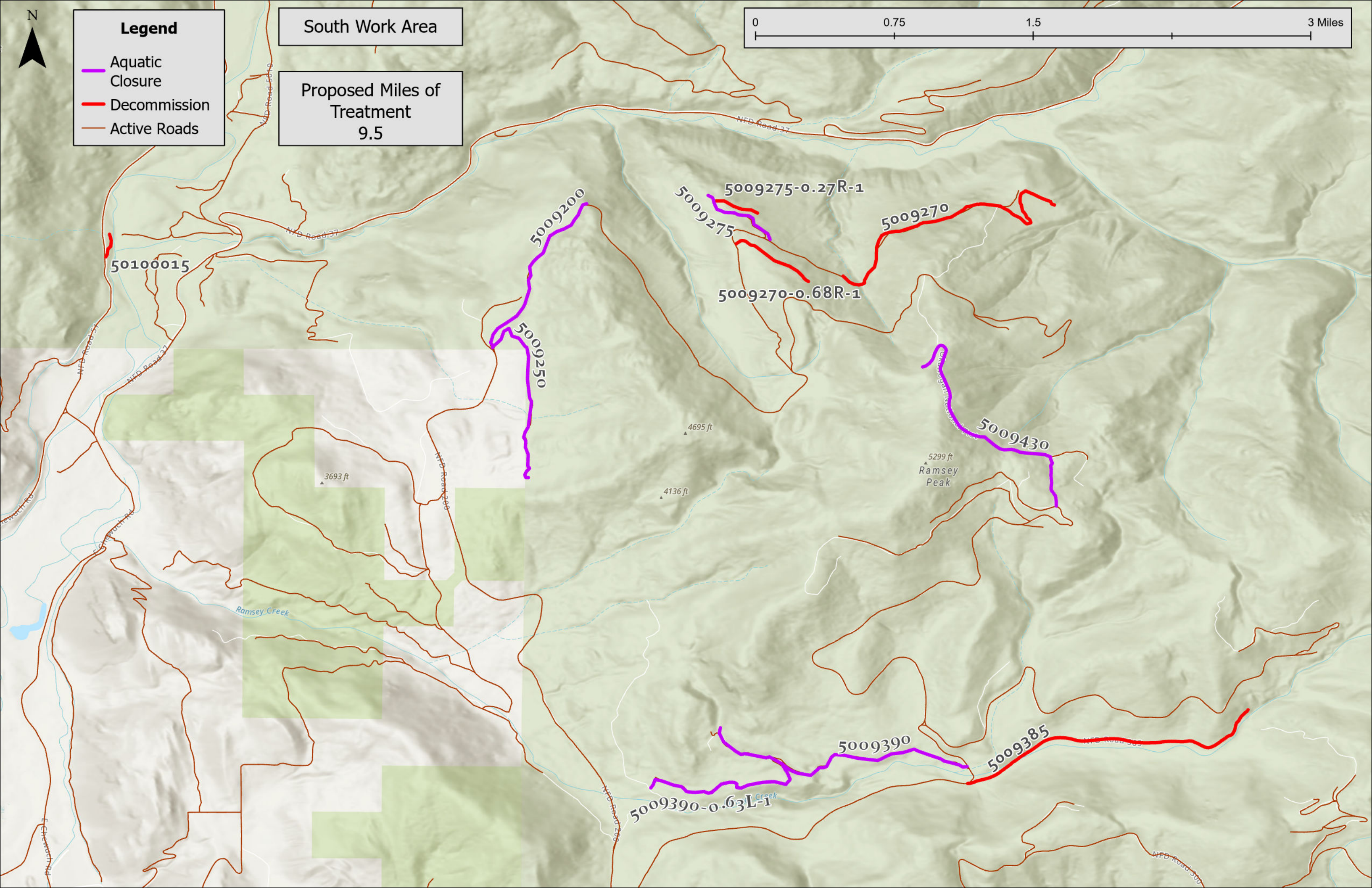


Legend

- Aquatic Closure
- Decommission
- Active Roads

South Work Area

Proposed Miles of Treatment
9.5



50100015

5009200

5009275

5009275-0.27R-1

5009270

5009270-0.68R-1

5009250

4695 ft

3693 ft

4136 ft

5299 ft
Ramsey Peak

5009430

Ramsey Creek

5009390-0.63L-1

5009390

5009385

NFD Road 500

E. Chertock Rd

NFD Road 300

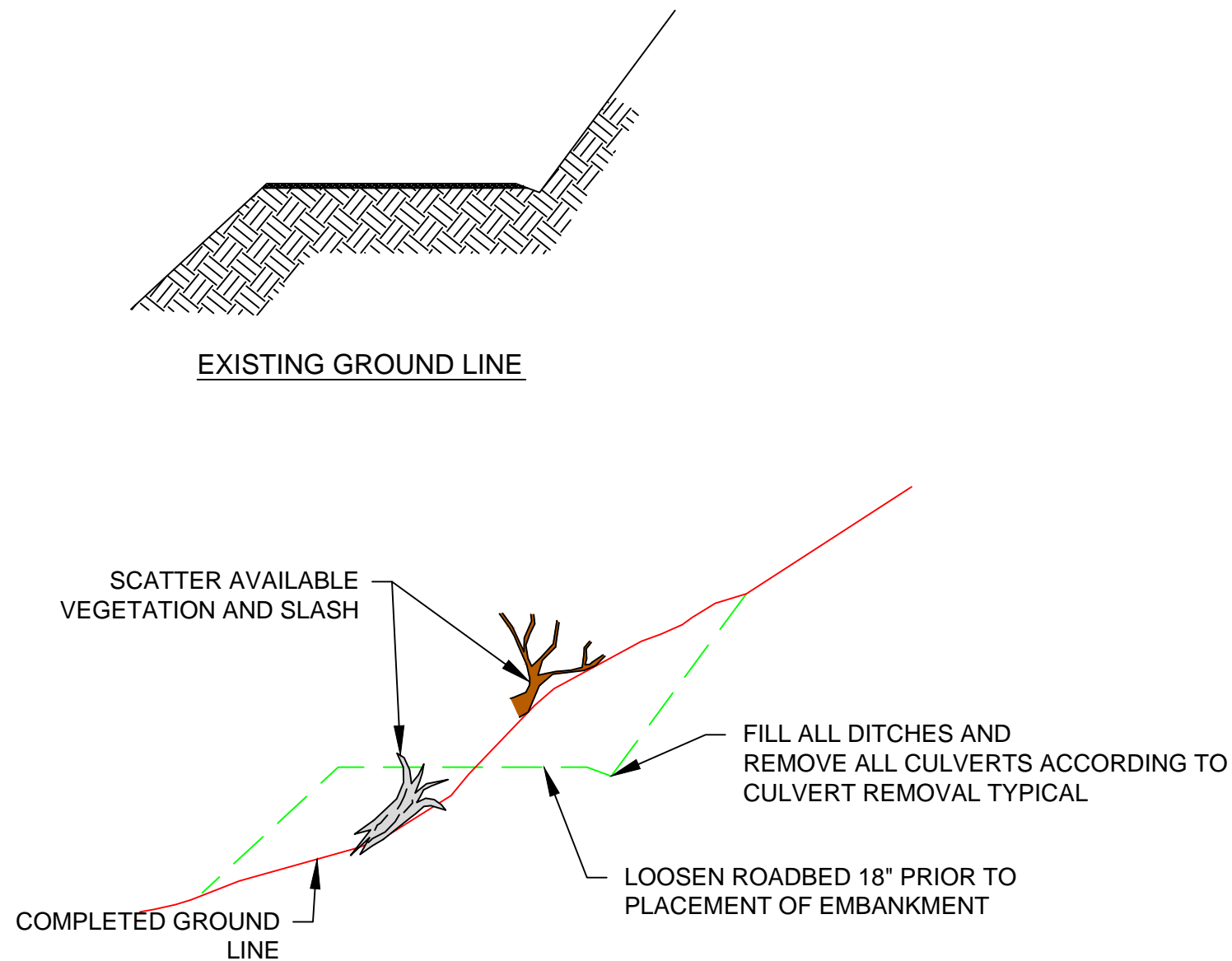
NFD Road 37

NFD Road 37

NFD Road 27

NFD Road 200

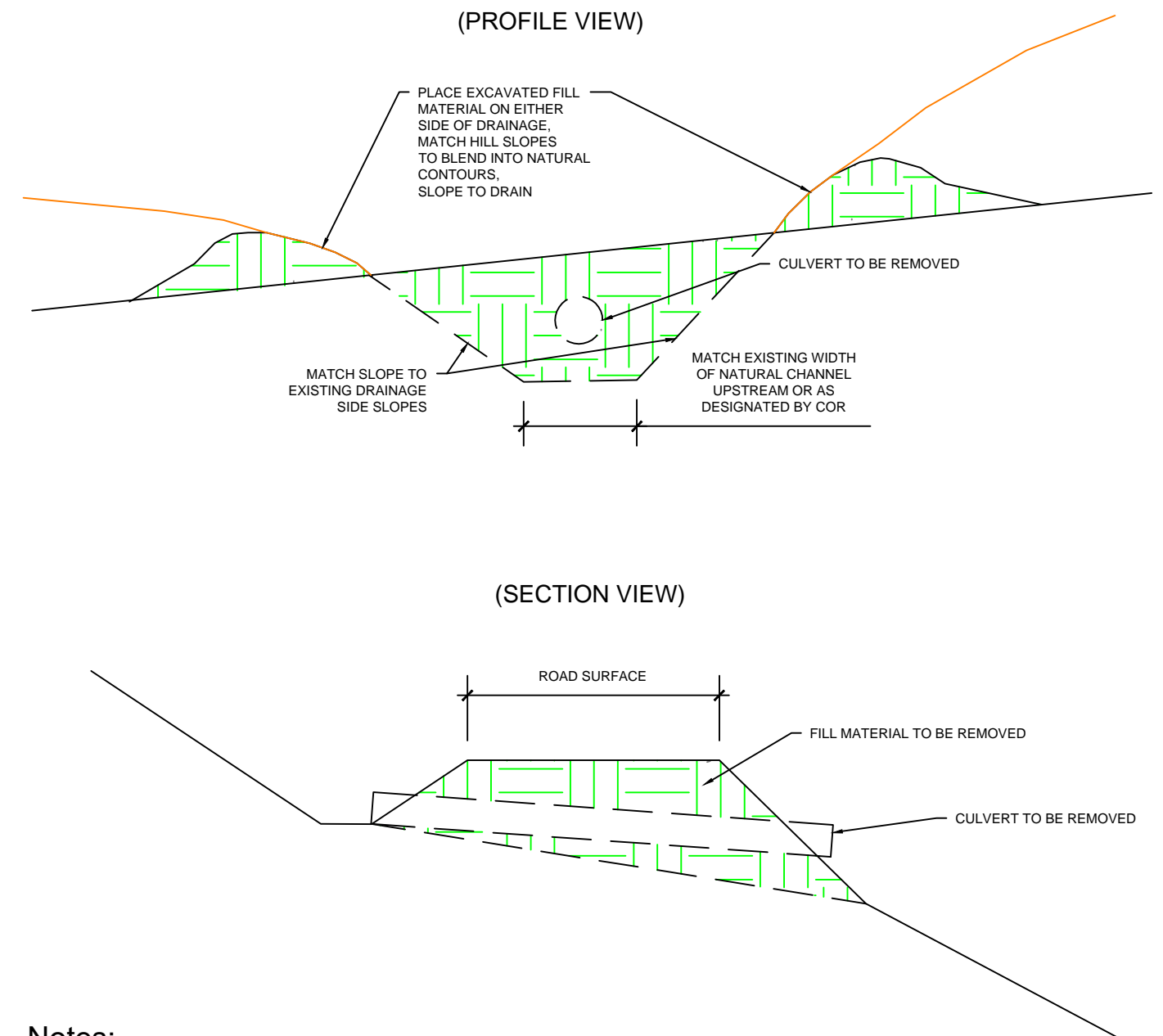
Roadway Obliteration



Notes:

1. Complete roadway obliteration as specified in provision 211.
2. Scarify to loosen the top 18" of roadbed prior to placement of embankment.
3. Fill all ditches and remove all culverts according to the typical culvert removal detail.
4. Excavated material shall be shaped to drain and left in an un-compacted condition.
5. All disturbed soils shall be mulched and seeded using the dry method and native seed mix.

Culvert Removal

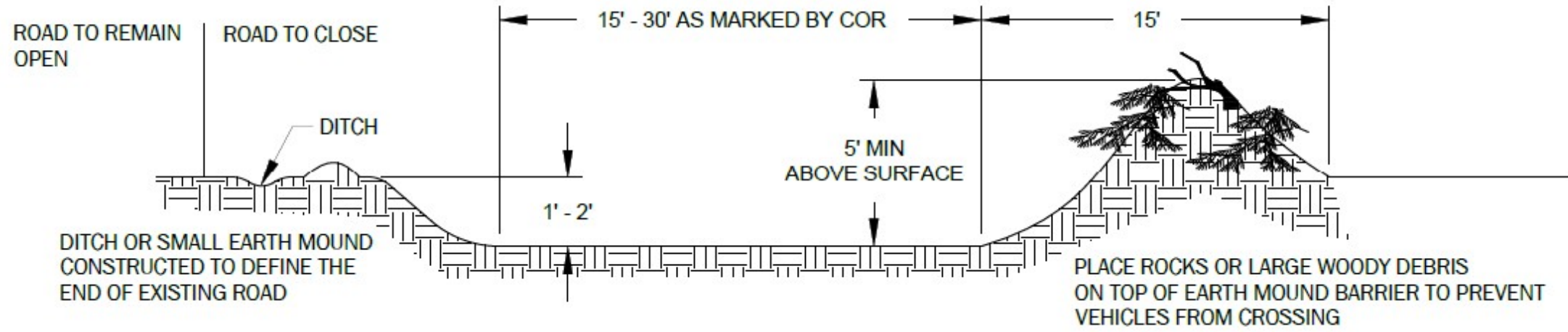


Notes:

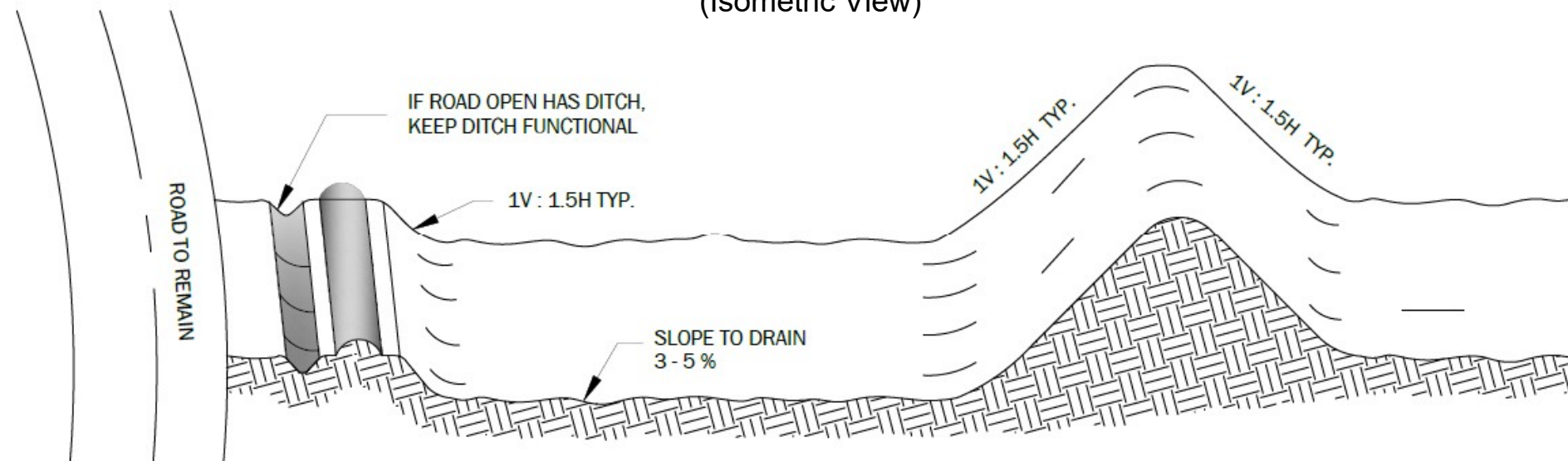
1. All culverts identified for removal shall be disposed of off Forest Service lands.
2. Channels, post culvert removal, shall be reshaped. Excavate fill from roadway to match original stream bank contours. Place embankment no steeper than 2H:1V slope.
3. The stream channel elevation shall be to the original channel bottom or pipe channel gradient, whichever is lower. Rocks over 12" may be placed along channel for erosion control.
4. Cross drain culverts are to be removed while the cavity is to be backfilled, compacted, and sloped to drain.

Earth Berm Closure

(Profile View)



(Isometric View)



Notes:

1. All barriers shall extend across the full width of the roadway.
2. Low spots and ditches should be daylighted and sloped to drain.
3. Earth mound barriers to be marked on the ground

211 – Roadway Obliteration

Description.

211.01 This work consists of obliterating or decommissioning roads, including decompaction to 18 inches or to the depth of compaction, recontouring to the natural slope profile, mulching and planting with native material, spreading native seed over obliterated roads in the fall once work is complete, and other incidental work. This includes furnishing all labor, equipment, supervision, transportation, supplies, and incidentals.

This work also consists of the removal of culverts and restoration of stream channels, including pumping or diverting of live streams, in channel rock placement, and other miscellaneous items required for execution of the work.

Roadway obliteration methods are designated as follows:

Method 1. Obliterate the roadway by restoring to approximate original ground contours. Keep excavated material within the original construction limits. Finish slopes to provide gradual transitions in slope adjustments without noticeable breaks. The finished surface shall remain rough not allowing water to flow directly down the fall line of the finished slope.

211.02 Definitions

- a) **Course woody debris** – woody material greater than 3-inch diameter on the small end and longer than 6 feet in length, including live trees removed from the roadway.
- b) **Native mulch** – includes topsoil, organic material, and coarse woody debris broken into smaller pieces that exist in the vicinity of the road.
- c) **Soil and vegetative transplants** – vegetation, which includes the plant or organic matter on the surface of the ground and the root system, transplanted from the roadway onto prepared (decompacted and recontoured) roadway. Transplanted material contains sufficient root mass and surrounding soil to maintain and incorporate nutrients, soil microbes, and other organisms. Vegetative material includes native shrubs, sod, and bunch grass.

Obliteration Requirements

211.03 Conform to the following when obliterating roadways:

- a) **Vegetation removal.** Remove vegetation including dead woody debris, trees, stumps, roots, and other vegetation within the limits of the immediate obliteration area prior to starting excavation operations and pile temporarily until recontouring has been completed. Preserve suitable vegetation in road prism to be transplanted after compacted soil has been loosened. Place clearing slash back on top of recontoured road segments and completed channel side slopes in stable positions that do not interfere with stream channel flow according to Subsection 211.03(e).
- b) **Decompaction of roadbed.** Loosen compacted soil down to 18 inches over the entire width of the roadbed and ditches through the use of a trackhoe excavator bucket.
- c) **Recontouring of roadway.** Following decompaction of the roadway, pull the fill material up and place on the loosened roadbed between the top of cut and original ground, forming a slope

approximating natural contours as shown on the plans, but also retaining a rough surface to slow the flow of water across the new fill slope. Fill in all ditches and other water traps, and remove all berms. Blend all finished slopes to match the surrounding terrain. Notify the inspector a minimum of 48 hours in advance of areas where full recontouring may not be achievable. If full recontouring is determined not to be practical or attainable by the CO, the CO may approve a partial recontour at a specific site.

- d) **Transplanting of vegetative material.** Transplant soil and vegetative material clumps from the road surface into the recontoured road prism. Excavate transplanting clumps of sufficient size to maintain root systems and adequate soil to enhance favorable growth. If the soil and vegetative clump breaks up and cannot be maintained, transplant the loose material right side up as best as possible.
- e) **Treatment of recontoured roadway surface.** Cover the disturbed area with a combination of transplants, native mulch, coarse woody debris, or agricultural straw (if no native material is available). If the transplants, native mulch, and coarse woody debris cannot meet the minimum coverage requirements of 50% coverage then coverage will be augmented with agricultural straw to obtain a minimum of 50% to a maximum of 80% ground coverage. The priority of coverage is as follows: soil and vegetative transplants, native mulch, and coarse woody debris, then apply agricultural straw at a rate of 1 bale per 400 square feet only when necessary if no native material is available to achieve the required coverage. Avoid burying any cover material. The end goal of the treatment should be to match the adjacent landscape coverage as closely as possible.

Place the coarse woody debris in various size classes over the recontoured roadway in a perpendicular pattern to the newly constructed slope to impede and slow the flow of water across the new slope.

Do not leave vegetation removed under Subsection 211.03(a) "hung-up" in remaining live vegetation.

- f) **Native seed planting.** Apply native seed mixture to obliterated road in the fall after work is completed. Seeding consists of a native seed mix that is genetically adapted. Seeding will be done at a rate of 20 lbs per acre and seed will be supplied by USFS. Equipment and seeding technique tutorials may be provided by USFS, but labor of seeding will be required by Contractor. All native seeding will be approved by the USFS Methow District Botanist.
- g) **Treatment of stream channel crossings.** For intermittent and perennial stream channels, remove all fills and recontour to the original ground slopes. Rehabilitate all disturbed stream channel side slopes and adjacent recontoured roadway areas that drain onto the stream channel side slopes using soil and vegetative transplants, native mulch, and agricultural straw as necessary if no native material is available to obtain a minimum ground coverage of 95%.
- h) **Treatment of ditch relief culverts.** Remove vegetation and decompact roadway in accordance with Subsections 211.03(a) and (b). Remove the culvert and appurtenances in its entirety and dispose of by removal from National Forest land. Perform work required by Subsections 211.03(c) through 211.03(e).
- i) **Treatment of seeps and wet areas.** Remove vegetation and decompact the roadways in accordance with Subsections 211.03(a) and (b). Shape the hillslope to drain water across the

roadway. Rehabilitate all disturbed wet area and drain side slopes and adjacent recontoured roadway areas using soil and vegetative transplants, native mulch, and agricultural straw as necessary if no native material is available to obtain a minimum ground coverage of 80%.