

Pre-Operations Report

Operation Name: Wagon Road
County: Linn
Management Basin: Mad Creek

Table 1. Operation Areas, Types and Acres

Area	Type of Operation	Gross Acres	Net Acres
	PC-M	109	99
Total		109	99

I. PHYSICAL DESCRIPTION OF OPERATION AREA:

The operation is located within a temperate climate area. Typically the fall and winter seasons are wet. This area receives approximately 70 to 85 inches of rainfall per year. The operation is located within the *Tsuga heterophylla* Zone (Natural Vegetation of Oregon and Washington, Franklin & Dyrness, 1973).

The sale is located on moderate side slopes of the two western forks of Little Rock Creek. The sale is underlain by an undifferentiated mix of sedimentary and igneous rocks, mostly continental volcanic and volcanoclastic rocks (Flows, Breccias, Tuffs and Lahar Deposits) of the Western Cascades. This area is mapped as a very large landslide deposit on the State geology map.

The soils within the operation are typed as Akerson. Akerson soil is comprised of deep, well-drained, fine textured colluvial soils. The average 50 year site index for Douglas-fir is 130 feet and 100 feet for western hemlock. (Soil Survey of the Cascade Unit, Miller & Steinbrenner, 1980) The elevation ranges from 2,000 feet to 2,240 feet.

II. CURRENT STAND CONDITION:

This is a 85 year old stand currently classified as Layered. The majority of the trees within the stand are Douglas-fir. A portion of the overstory trees consist of western hemlock and western red cedar. There are approximately 70 trees per acre of western hemlock within the understory as well as vine maple, salal, sword fern and oxalis. This stand was commercially thinned in 1983 and fertilized in 1988. There are currently 9 snags per acre; 600 cubic feet per acre of sound down wood; and 5,000 cubic feet per acre of down wood in all decay classes. (*SLI, 2005*)

Table 2. Stand Inventory Information

Area	Prescription	Stand ID ¹	Species	Age	DBH	BA	TPA	SDI	Acres ²
	PC-M	12681	DF	70	20	289	133	67	109
		Target ³			25	162	46	33	

1 The source of stand inventory information is SLI from 2005.

2 The acres are based on GIS and include roads, streams buffers, reserve areas, etc.

3 The Target identifies expected stand characteristics (DBH, BA, TPA and SDI) after harvesting has been completed.

III. DESIRED STAND CONDITION:

This operation is located in the Mad Creek Basin. Approximately 54 percent of this basin is planned for Complex Structure stands. (*Cascade District Implementation Plan, 2003*) This basin contains mature, densely stocked stands of Douglas-fir mixed with varying amounts of western hemlock, western red cedar, noble fir, and hardwoods. The diversity of tree species in these stands present good opportunities for structure based management, except for stands with very high overstory densities. The stands generally have high timber values and retain important structural components (snags, large old growth trees, large down logs, etc.) from legacy stands. This basin makes up 1.4% of the City of Salem’s municipal watershed.

The desired future condition of this stand is Layered. This stand needs to be opened up to keep the current layering within the stand growing. Understory trees should be protected as much as possible to add to the mix of species. Western redcedar trees will be a key component to leave in the stand for the layering. Several root disease pockets within the stand will be posted out. All trees, snags, and downwood within these pockets will be reserved from harvest. These root disease pockets will be used for future snag and down wood recruitment areas.

The **Anticipated Pathway** begins with a:

- A moderate thinning to remove some of the co-dominant trees.
- Evaluate the stand in 10 years to see if the stand has responded to the thinning. Check to see if snag and downwood requirements are met.
- Future thinnings will be performed to keep key structural components in the stand.

Table 3. Stand Structure Information

Area	Stand ID	Current	Post Harvest ¹	Desired Future	Acres
	12681	LYR	LYR	LYR	109

¹ The stand is expected to develop into this condition in the five to ten years after this operation is completed.

IV. PROPOSED MANAGEMENT PRESCRIPTION:

- Trees greater than 8 inches in diameter will be removed by a moderate thinning to an SDI of 33%.
- All western red cedar and red alder will be reserved from cutting. All trees 32 inches in diameter or larger will be reserved from cutting. Western red cedar 12 inches in diameter or larger may count towards the SDI thinning target.
- Understory trees will be protected as much as possible during the operation. The trees are a key component to keep the stand in a layered condition.
- No new snags or down wood will be created with this entry. Although, all cull pieces will need to be left within the thinning area away from all landing areas.
- Several root disease pockets within the stand will be posted as non-harvest areas within the operation. These areas will be used for recruiting future snags and downwood.

V. ESTIMATED TIMBER AND REVENUE INFORMATION:

Table 4. Timber and Revenue

Ownership		Sale Type	
BOF	CSL	Cash	Recovery
100%	0%	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Planned Quarter:		3	

	Conifer	Hardwood	Total
Net Volume (MBF)	2,275	0	2,275
Stumpage Value (\$/MBF)	\$430	0	
Estimated Gross Value	\$978,250	0	\$978,250
		Project Costs:	\$30,000
		Estimated Net Value:	\$948,250

VI. TRANSPORTATION PLANNING AND HARVESTING:

Access to the sale area will be via the paved county road, Monument Peak rd, Wagon rd. and Monument peak 500 rd. There will be four spurs constructed into the unit to facilitate ground yarding, some of the road will be on old sub-grades from previous activity. These roads will not be rocked since this is a summer logging operation with logging equipment that tends to be harsh on surfaced roads. These roads will be vacated after the sale is completed. The entire unit appears to be ground yard-able terrain on first review.

Project work

- Construct 47+50 stations of dirt road
- Review roads in the area for possible brushing
- Review drainage on existing roads in the area

Table 5. Transportation Planning Summary (Miles).

Activity	Mainline	Collector	Rocked Spur	Dirt Spur
Construct	0	0	0	.9
Improve	0	0	0	0
Maintain	0	0	5	0
Close/Block	0	0	0	0
Vacate	0	0	0	.9

*For determination of road class either use results of the Harvest and Habitat roads classifications, or if this information is not available then low use roads are spurs, medium use roads are collectors and high use roads are mainlines. Use these same criteria when comparing the total for all AOP sales to the IP plans.

VII. AQUATIC RESOURCES AND WATER QUALITY:

There are nine small non-fish bearing streams located within the operation. These streams all drain into Little Rock Creek. Although the habitat for fish is present within these streams, there are natural blockages to fish presence further down stream. The overstory along these streams consists of Douglas-fir and red alder.

Management activities within riparian areas of streams will focus on achieving properly functioning aquatic and riparian habitat conditions over time. Riparian Management Areas (RMAs) will be established immediately adjacent to streams for the purpose of protecting aquatic and riparian resources and maintaining the functions and ecological processes of the streams. The Management Standards for Aquatic and Riparian Areas found in the *NWO State Forests Management Plan* (pg. J-1 – J-16) will be followed within these RMAs.

The following measures will be used to minimize impacts to streams: 1. No ground based equipment will be allowed within 50 feet of the streams, 2. There will be seasonal restrictions as to when ground yarding and road construction will be allowed (i.e. during dry seasons), 3. Erosion control measures will be used on areas of soils exposed during road construction or improvement, 4. In the cable portions of the operation, one end suspension of logs during yarding will be required, 5. Road ditches will be disconnected from streams, 6. Road maintenance will be required during log hauling.

VIII. T&E SPECIES CONSIDERATIONS:

The operation was surveyed for Northern Spotted Owls during the 2006 survey season with one response from a single owl. The owl was not detected during any of the follow up visits. The operation will be surveyed again in 2007.

The operation area was checked against District knowledge for any listed plant location. The operation area was also checked against the Oregon Natural Heritage Program's database of known listed plant locations. No listed plant records were identified within the operation area.

IX. SLOPE STABILITY AND GEOTECHNICAL ISSUES:

The initial risk assessment for slope stability by the geotechnical specialist for the sale is low. A Field visit from the geotechnical specialist is not anticipated. The State geology map indication of landform origin as a very large landslide deposit is not expected to present any complication to the slope stability as related to this sale; however, if there is any indication of active slope movement observed during sale layout the geotechnical specialist will be consulted.

X. RECREATION RESOURCES:

Currently there is $\frac{3}{4}$ mile of nonmotorized multiuse trail in this area. This is part of the Radio Flyer Trail. The trail is primarily used by horse back riders. One month prior to operations notice of trail closure will be posted at the trail, trailhead and Santiam Horse Camp. In addition, due to the popularity of this area a news release will be sent out to inform visitors this trail will be closed. During the logging operation the trail will be closed to public use. Roads will be posted stating that an active logging operation is taking place. Operators and ODF will ensure that traffic rules are followed and caution is taken to ensure safety. Trail users may use the Xmas Tree Road as a detour around the operation to access other trails in the area.

Prior to operations, the trail will be flagged clearly so that operators are aware of its location. During operations, efforts will be made to minimize impacts to the

trail. This will be accomplished by limiting equipment crossing or driving along the trail except where necessary. Operators will make efforts to limit debris accumulation on top of the trail. Logging equipment such as bulldozers or skidders will not be used to open the trail. This will ensure that the trail will remain a single track dirt surface trail. Only hand crews or equipment designed for trail construction will be used. Once operations are complete skid roads leading into the area will be closed to minimize user conflicts such as entry by motorized vehicles into the non-motorized zone. The trail will be re-established by the Oregon Department of Forestry and reopened within one year after completion of the operation. Efforts will be made to return the trail tread to its original condition and location except where no longer feasible.

XI. CULTURAL RESOURCES:

Pre-operation reconnaissance revealed no visible cultural resource features or artifacts. If discovery is made, the cultural resource will be protected and field staff will consult with the Cultural Resource Specialist in Salem.

XII. SCENIC RESOURCES:

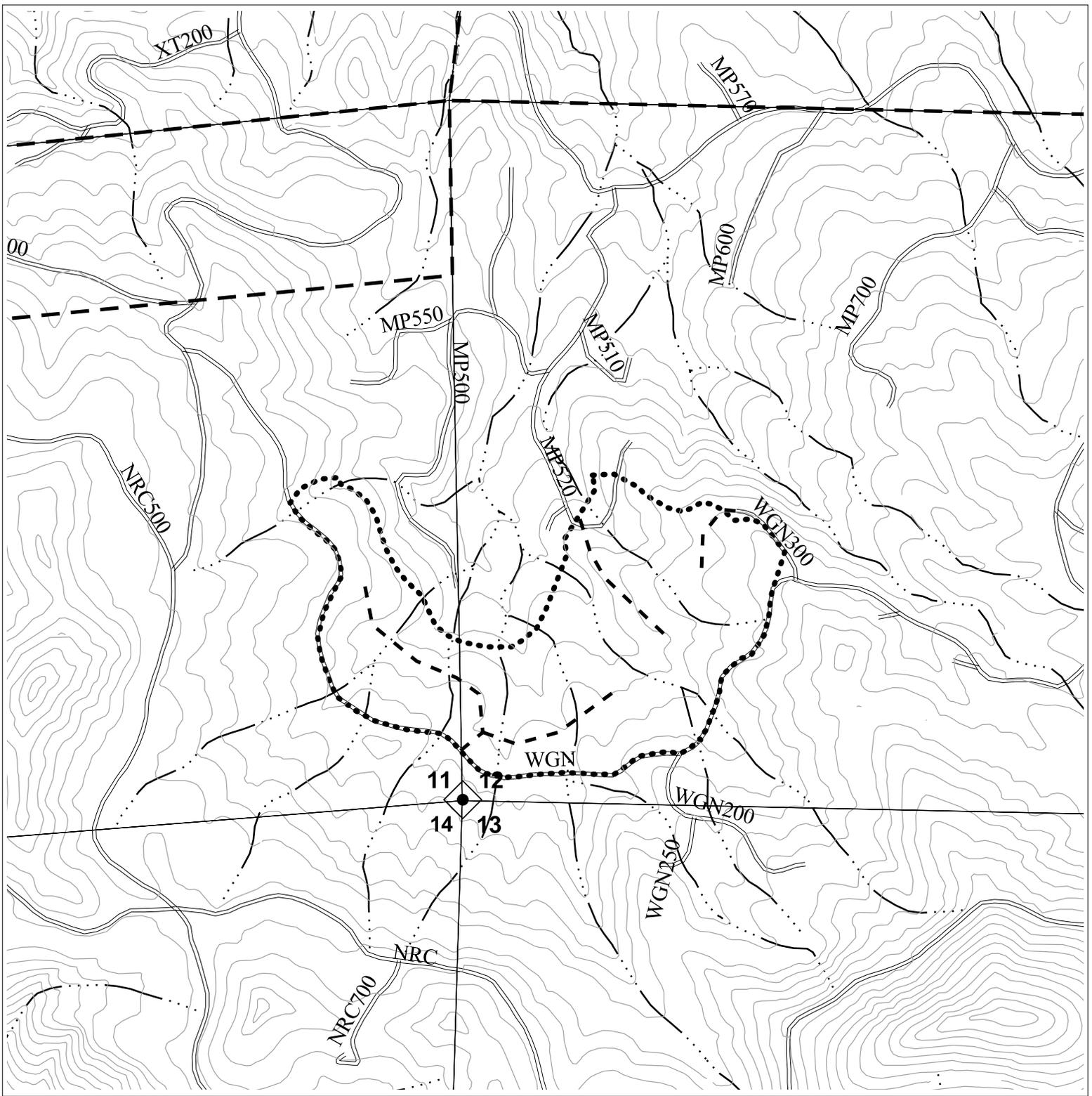
There are no scenic resource considerations.

XIII. OTHER RESOURCE CONSIDERATIONS:

There are no other resource considerations.

XIV. LAND MANAGEMENT CLASSIFICATION SUMMARY:

The operation contains Focused Stewardship, Aquatic and Riparian Habitat for nine small type N streams. See Section VII, Aquatic Resources and Water Quality, for the management guidelines to be utilized.



**WAGON ROAD
--TOPOGRAPHY--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT**

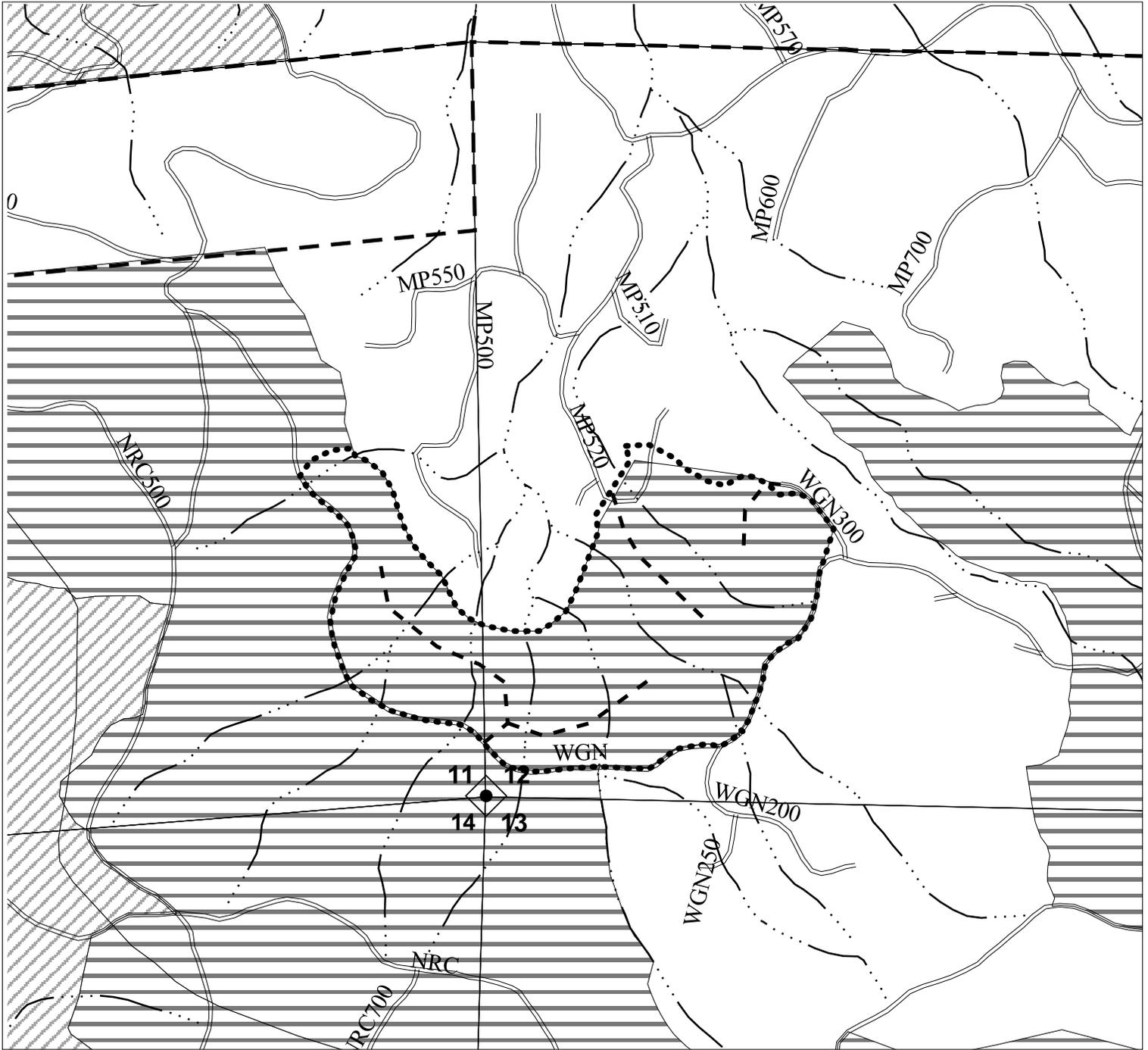
Portions of Sections 11 and 12
T10S, R3E W. M.
Linn County, OR

Approximate Net Acreage:
PC-M 99

-  New Road Construction
-  Santiam State Forest
-  40 foot contours
-  Streams
-  FISH
-  NONFISH
-  UNKNOWN
-  Roads
-  Wagon Road



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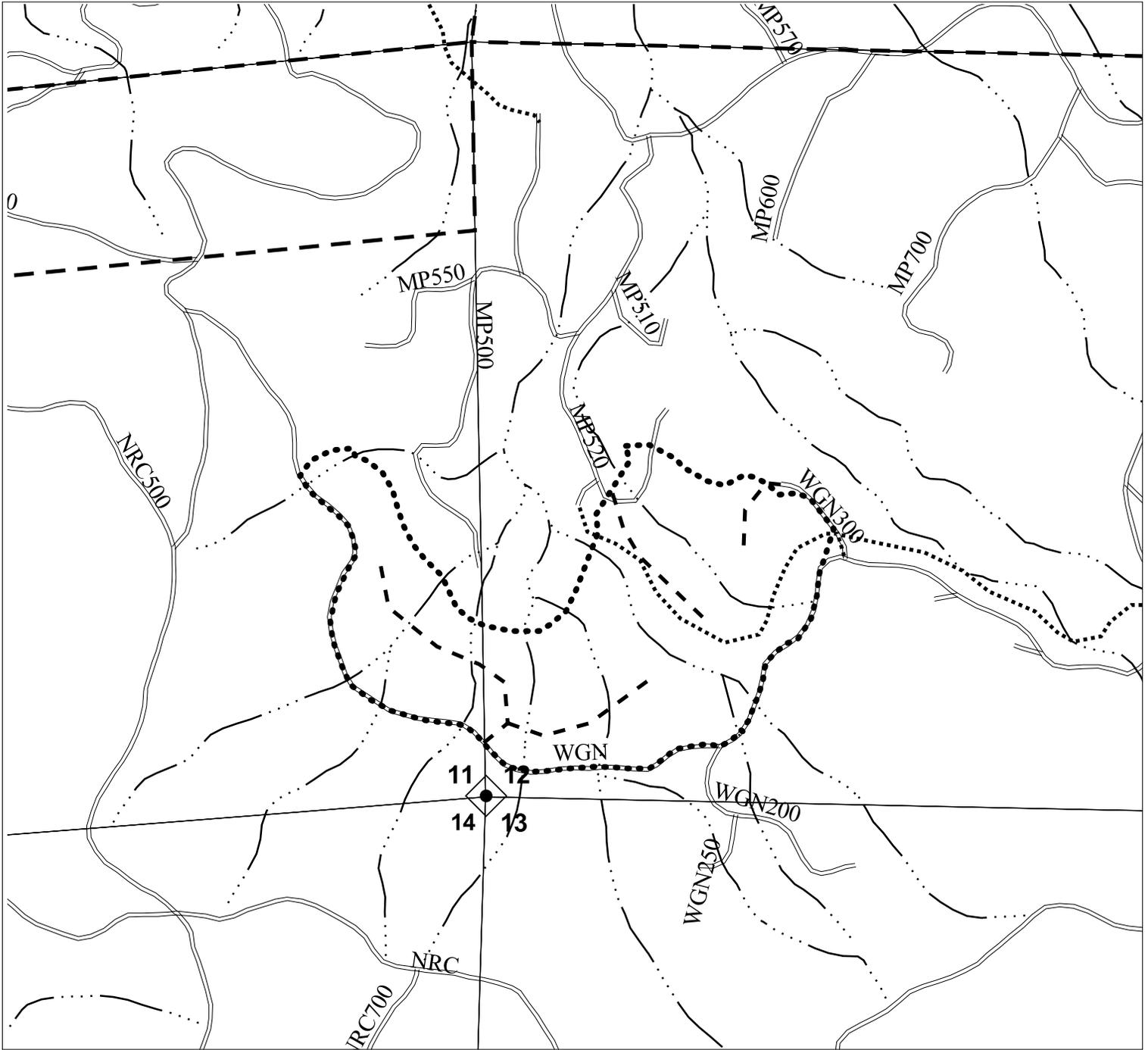
WAGON ROAD
--DESIRED FUTURE CONDITION--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT
 Portions of Sections 11 and 12
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WAGON ROAD
--KEY RESOURCES--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT

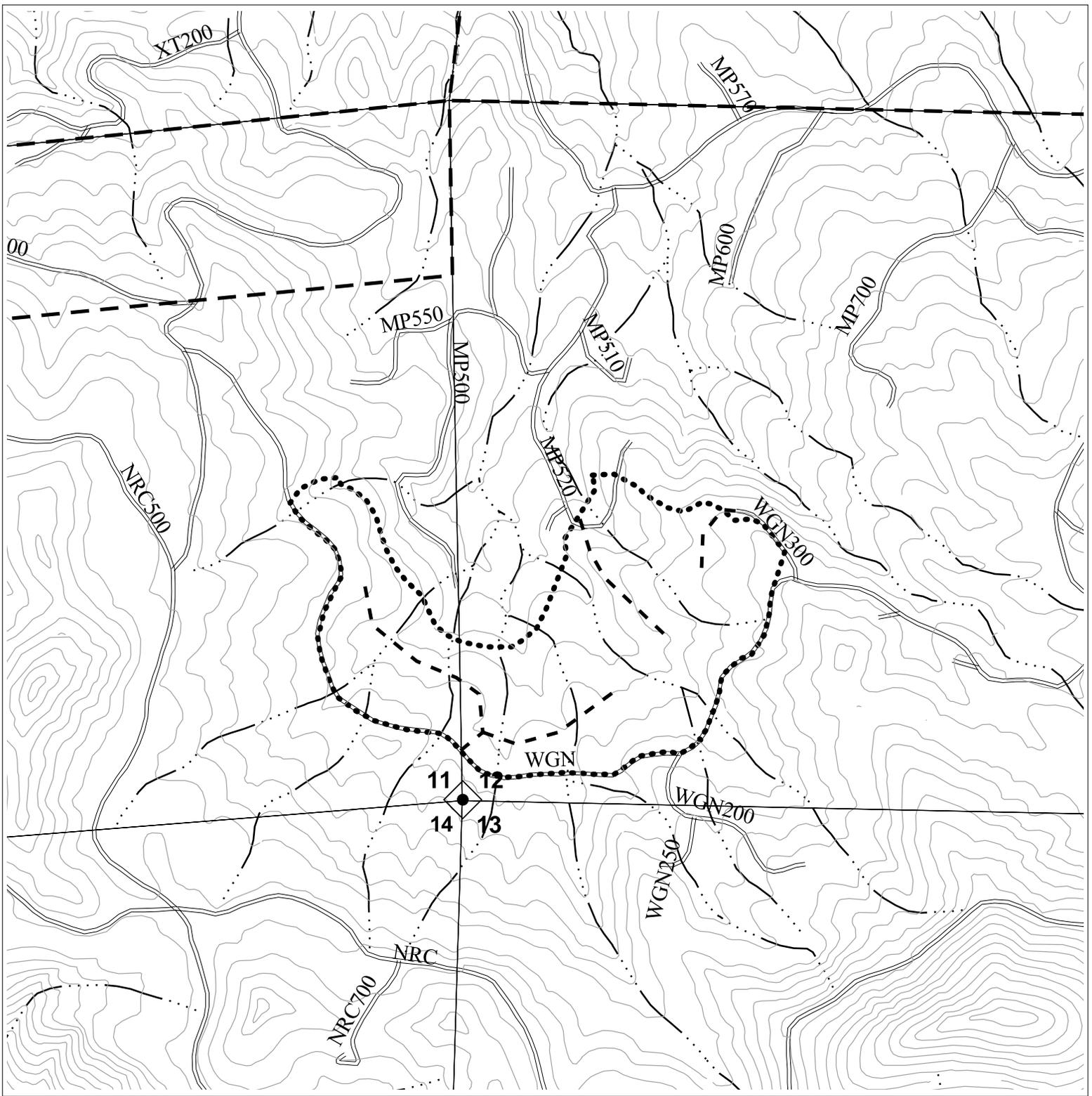
Approximate Net Acreage:
 PC-M 99

Portions of Sections 11 and 12
 T10S, R3E W. M.
 Linn County, OR

-  New Road Construction
-  Santiam State Forest
-  Horse Trail
- Streams
-  FISH
-  NONFISH
-  UNKNOWN
-  Roads
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WAGON ROAD
--TOPOGRAPHY--
FY '08 SALE PLAN
NORTH CASCADE DISTRICT

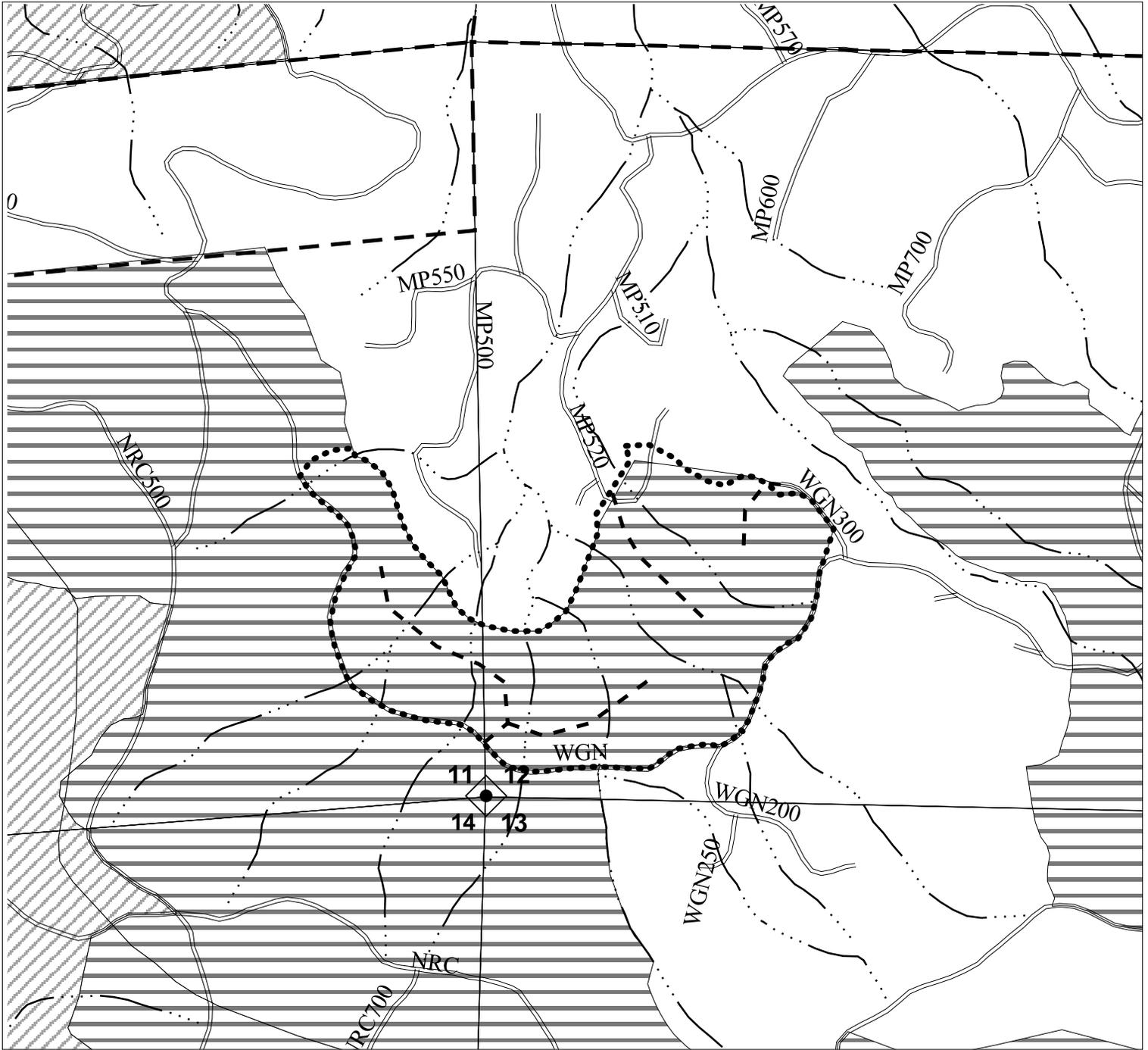
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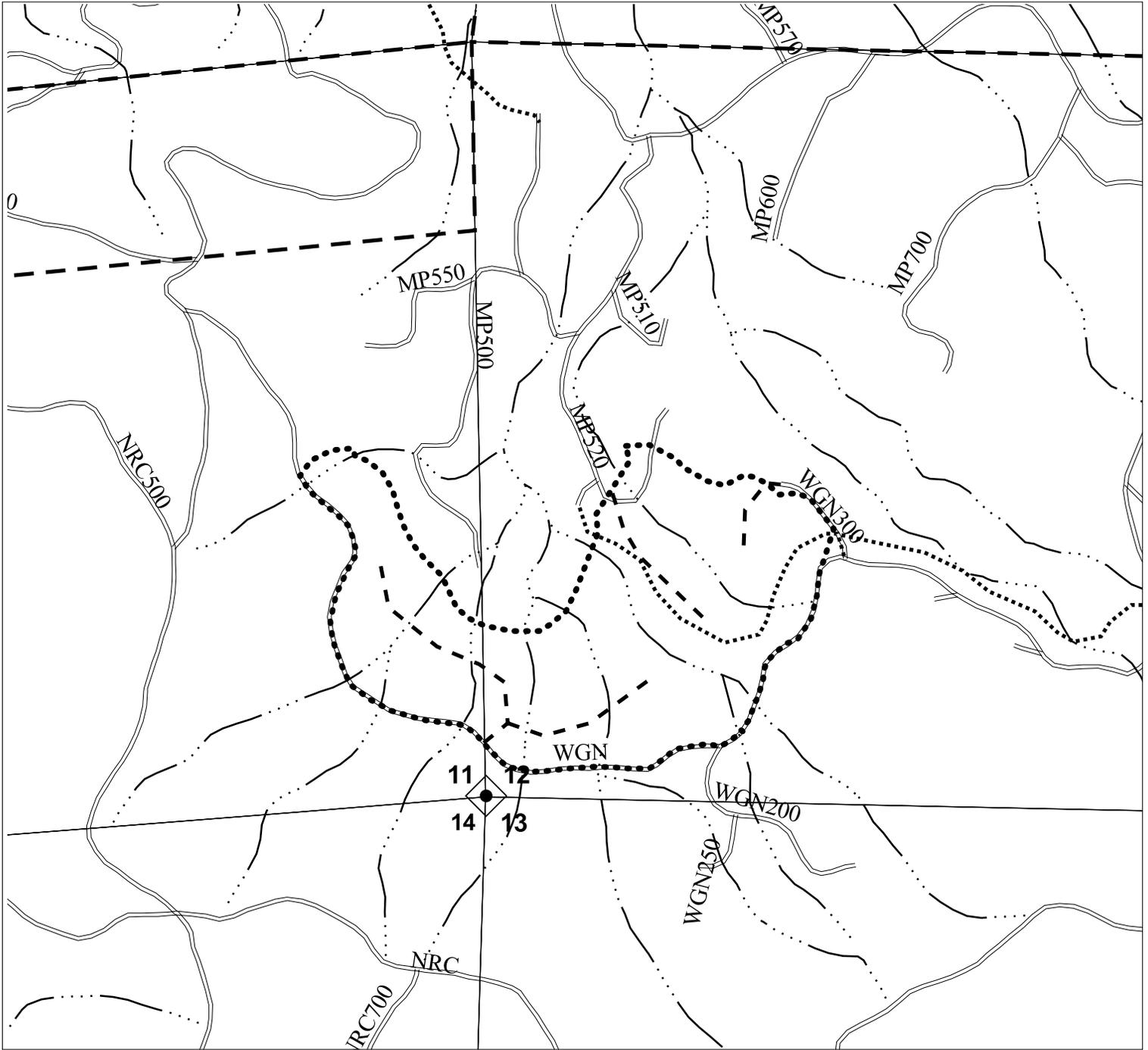
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