Desired Future Condition – South Fork Thinning

The following desired future conditions are derived from the **Mt. Hood Forest Plan** as amended.

Health & Growth	Forests have low levels of disease, damaging insect populations and storm damage. Stands are healthy and vigorous, and have growth rates commensurate with the sites potential (at a rate at which the mean annual increment has not culminated). Four-5, #44; and Four-86, FW-306; and Four-91, FW-372; and Four-90, FW-361. Four-92, FW-382; and Four-292, C1-22.
Water Quality	Watersheds provide long-term sustained production of high quality water for on-Forest and off-Forest water users. Four-17
Riparian & Aquatic	Riparian reserves contain the level of vegetative and structural diversity associated with mature and late-successional stand conditions. They supply coarse woody debris sufficient to sustain physical complexity and stability. They provide connectivity within and between watersheds. The riparian reserves connections provide unobstructed routes to areas critical to fulfilling life history requirements of aquatic and riparian-dependent species. NFP page B-11.
Snags & Down Logs	Snags, down logs, and recruitment trees are well distributed across the landscape in sufficient quantity and quality to support species dependent upon these habitats. NFP page C-40.
Deer & Elk	The forest contains a mix of habitats including forage, thermal cover and optimal cover. Open road density is at a level that allows animals a sense of security. Four-72, FW-202 to 210.
Timber Harvest Levels	Timber and other forest products are provided at a sustainable level that contributes to the stability of local and regional economies. Timber outputs come primarily from the Timber Emphasis (C-1) portion of the Matrix lands, with lesser amounts coming from the "B" land allocations of the Matrix. Minor amounts of timber may also come from Riparian Reserves or Late-Successional Reserves where harvesting would be used as a tool to enhance resources and move the landscape toward the desired future conditions. NFP ROD pages 2 & 3, Mt. Hood Forest Plan Four-86 & Four-289.

Purpose and Need

Many areas do not meet some of the desired conditions described above. The following lists the need for action, the purpose of the project, and a detailed description of the proposed action.

1. Thinning - Matrix

Need	Within the planning area there are plantations that are experiencing a slowing of growth due to overcrowding. Approximately 402 acres of these stands are within matrix lands and are currently overstocked. If left unaltered, this overstocked condition would result in stands with reduced vigor, increased mortality and increased wind damage susceptibility. There is a need for forest stands that are healthy and vigorous with low levels of mortality and wind susceptibility.
Purpose	The objectives are: 1) to increase health and vigor and enhance growth that results in larger wind firm trees; 2) to manage for forest conditions that contribute to the watersheds ability to provide for the long-term sustained production of high quality water; and 3) to provide wood fiber for local and regional economies.
Proposed action	The proposed action is to thin and harvest wood fiber from approximately 402 acres. Approximately 0.2 miles of temporary road would need to be constructed to access landings.

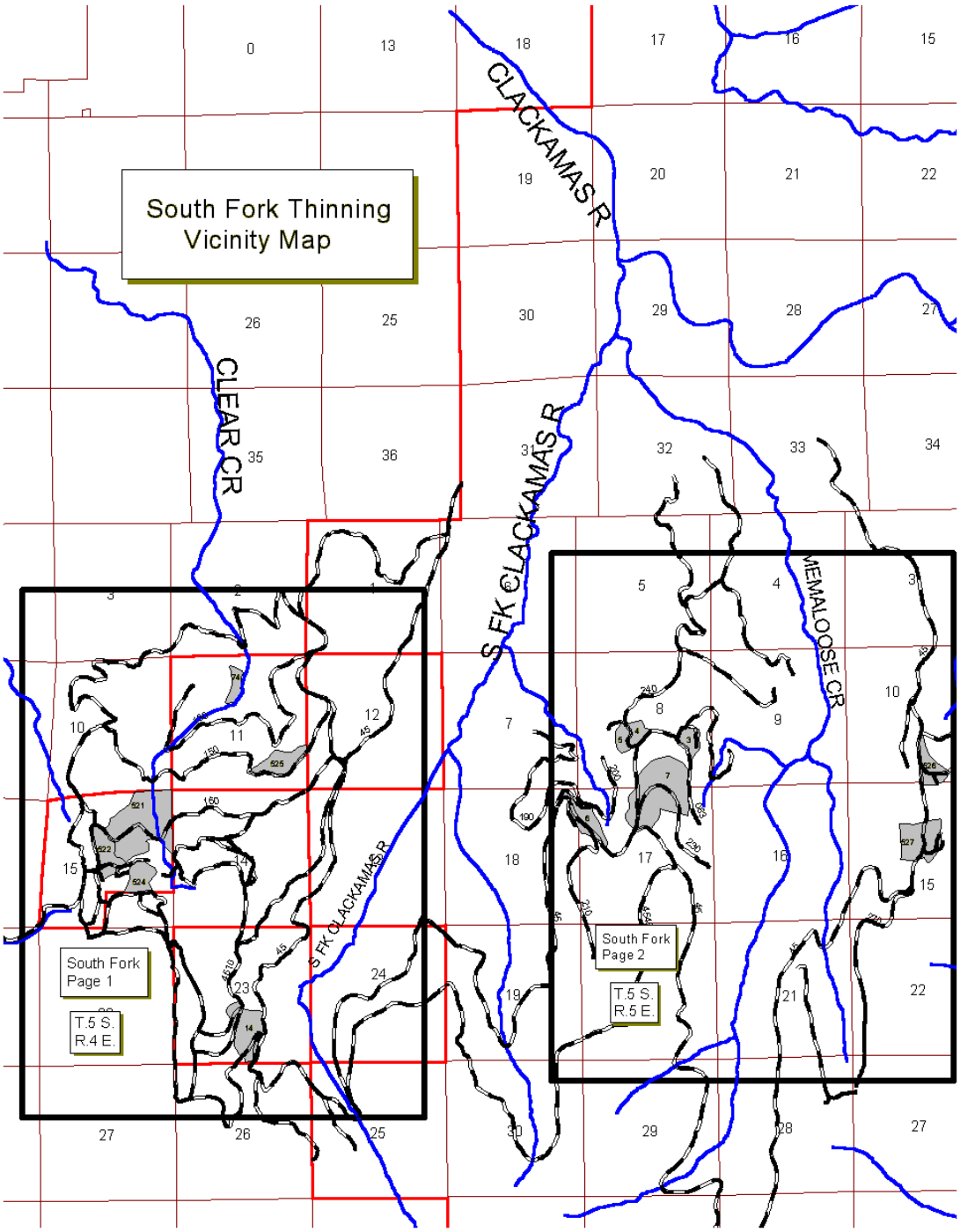
2. Thinning - Riparian Reserves

Need	Within the planning area, there are some stands of overcrowded second-growth trees in riparian reserves that currently do not contain the level of vegetative and structural diversity associated with mature and late-successional forests. Approximately 118 acres of second-growth stands in riparian reserves are in this condition. Mature or late-successional forest conditions are essential to maintaining habitat for aquatic and riparian-dependent species. If left unaltered, this overstocked condition would result in stands of small diameter trees with poor live crown development, increased wind damage susceptibility, and a substantial delay in the development of mature and late-successional stand conditions. These stands would have reduced capability to produce the size and quantity of coarse woody debris sufficient to sustain physical complexity and stability of the riparian reserves and associated streams. These stands would also have a reduced capability to provide for connectivity between and within watersheds. There is a need for mature and late-successional stands within the riparian reserves.

Purpose	The objective is to create stand conditions within the riparian reserves that would accelerate the development of mature and late-successional stand conditions. Another objective is to manage for forest conditions that contribute to the watersheds ability to provide for the long-term sustained production of high quality water.
Proposed action	The proposed action is to silviculturally treat approximately 118 acres of riparian reserves using a combination of thinning, small openings and leaving untreated areas. Wood fiber would be harvested.

3. Fertilization of Thinned Stands in the Matrix

Need	There are approximately 350 acres of stands that would be thinned in Proposed Action #1 that could benefit from the addition of nitrogen fertilizer. Nitrogen is a key element that is capable of increasing the health, vigor and indirectly, the wind firmness of forest stands. Without this treatment, stand growth potential would not be optimized. With treatment stand growth would be increased by approximately 5% to 12%. There is a need for forest stands that are healthy, vigorous and less susceptible to wind damage.
Purpose	The objective is to increase the health, vigor and growth of the residual trees by increasing root mass and expanding leaf area.
Proposed action	The proposed action is to aerially apply 200 pounds of nitrogen per acre to approximately 350 acres of second-growth conifer stands within three years of the completion of commercial thinning.


South Fork Thinning
Vicinity Map
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South Fork
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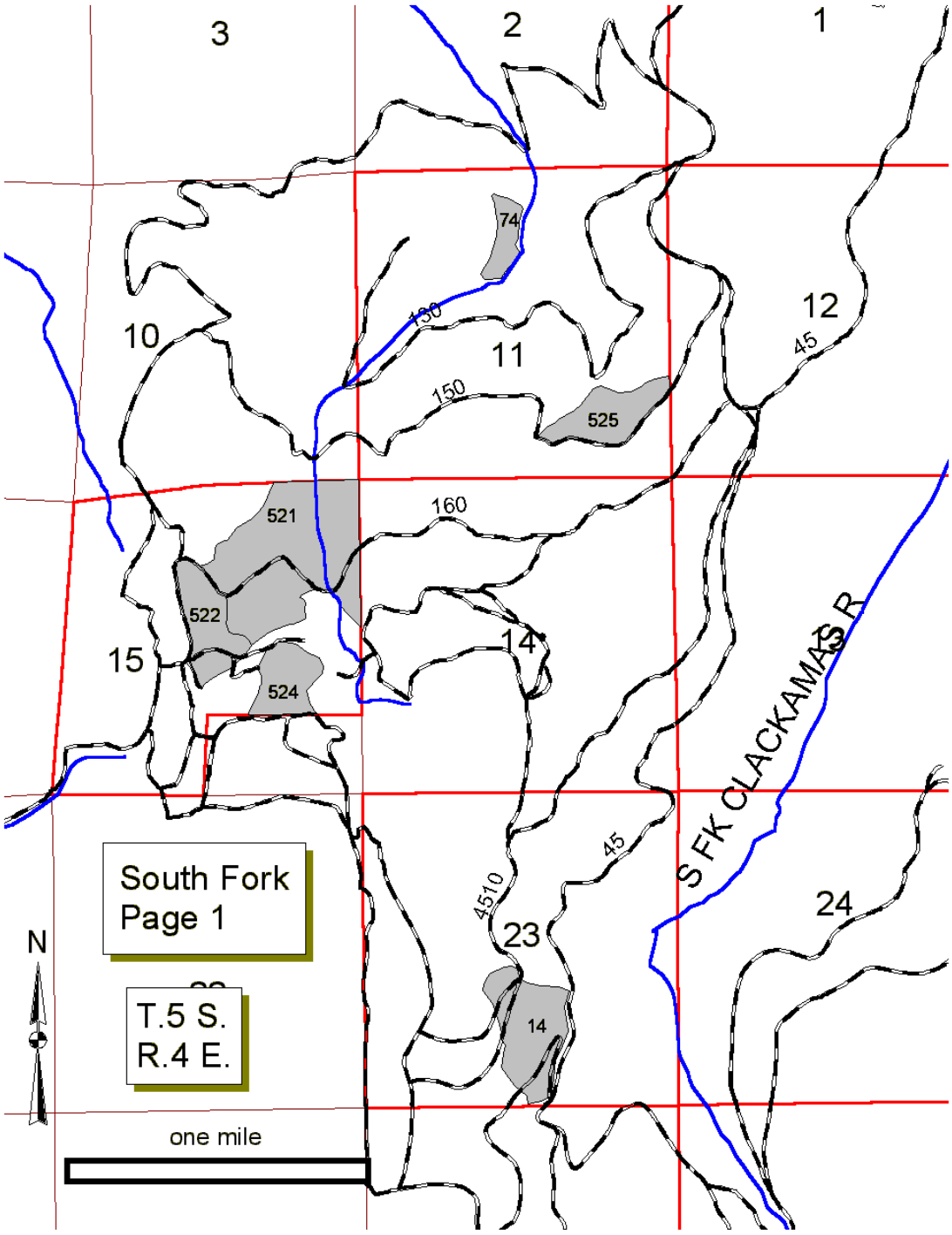
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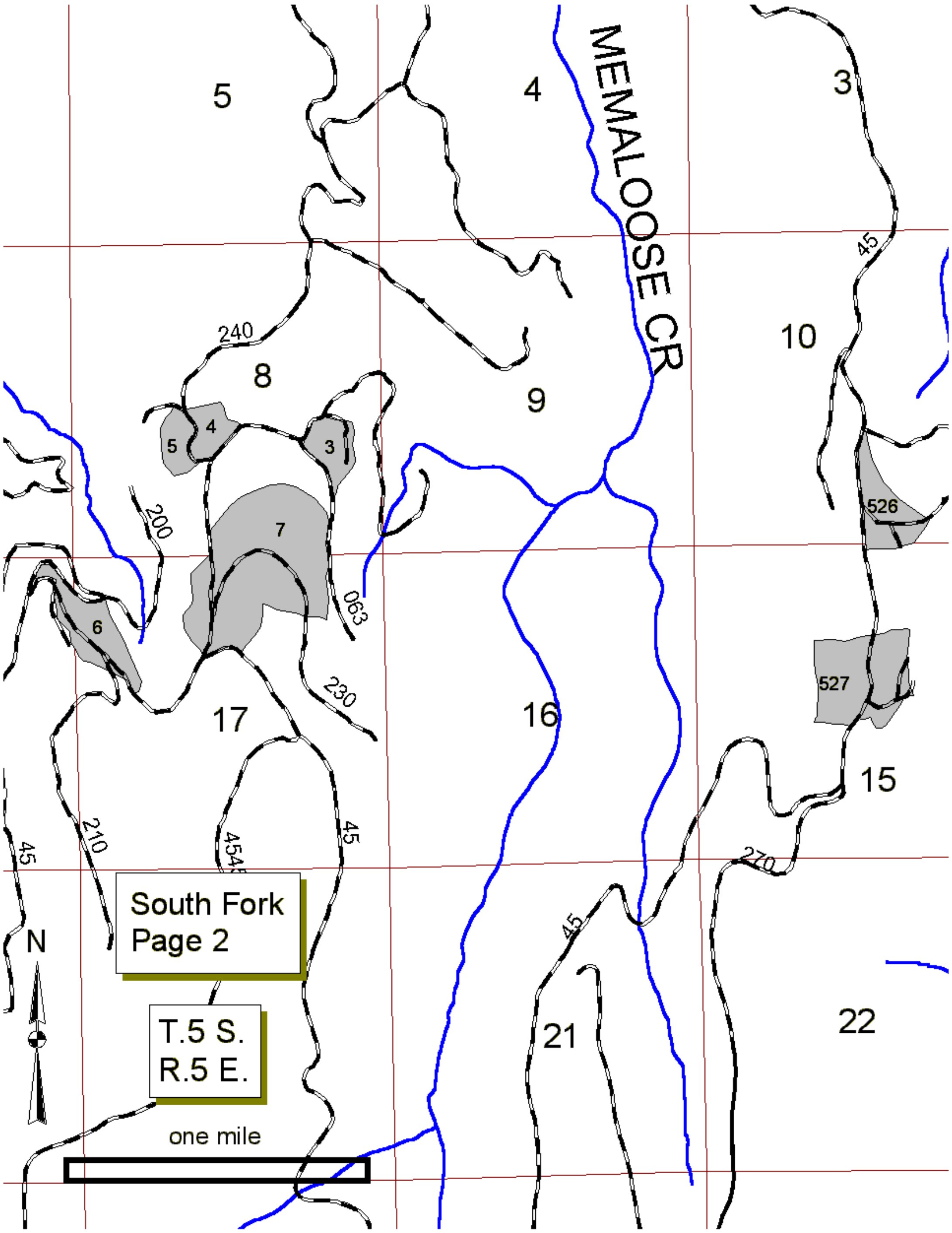
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