

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

APPENDICITIS HILL

Proposed Action (No Wilderness Alternative)

Under the proposed action, the entire 21,900 acres of the Appendicitis Hill WSA would be recommended for nonwilderness uses. The primary impacts under this alternative relate to timber harvest and mountain mahogany thinning, and the resultant impacts on wilderness values.

Impact on Wilderness Values

The entire WSA would be recommended for nonwilderness designation and none of the wilderness values on 21,900 acres would receive the special legislative protection provided by wilderness designation. There could be short-term impacts to wilderness values associated with this action if commercial timber thinning and mountain mahogany thinning occurs in the present planning horizon (15 to 20 years).

If not in the short-term, then, wilderness values would be lost in the long-term due to timber harvest in the west side of the WSA and due to mountain mahogany thinning on the southern part of the WSA.

The Big Lost MFP identified 300 acres of commercial Douglas fir in T5N, R25E, Section 33 for commercial thinning, in which 325 MBF (thousand board feet) would be cut, representing approximately 25% of the overstory. Average dbh is over 15 inches. This would require one mile of main logging road to be constructed and one mile of existing vehicle way to be substantially improved. In addition, two miles of skid road would be constructed.

This action would result in the wilderness value of naturalness being lost on 315 acres consisting of the timber sale area and new roads. Further, the perception of naturalness would be adversely impacted on an additional 500 acres surrounding the timber activity, the area in which at least some portion of the man-caused development could be seen by a casual visitor. Impacts would include noise of the logging equipment, the new road, and the equipment itself in the short-term. Long-term impacts would include the road, and the slash and stumps that are the aftermath of timber harvest. The end result is 815 acres on which the wilderness value of naturalness would be either lost or impaired.

The wilderness value of solitude would be similarly impaired, but essentially only during the period of active timber harvest. Sights and sounds of the logging operation would reduce the feeling of solitude on 815 acres while the thinning project was occurring. After the project terminated, the impact to solitude would be negligible.

The Big Lost MFP also called for thinning a 500 acre stand of decadent mountain mahogany to stimulate new growth with the end result being an improvement in crucial winter forage for mule deer. Thinning would entail the use of powersaws. No new roads would be required and there would be no surface disturbance. Stumps would be visible as would the cut mahogany which would be left where it fell.

This action would result in minimal impacts to naturalness on 500 acres. The nature of the mahogany thinning is such that it would be essentially unnoticeable unless the viewer was amid the thinning area where the stumps and cuttings could be seen. Away from the thinned area, the activity would be substantially unnoticeable and the impacts to naturalness negligible.

The mountain mahogany thinning would impact the wilderness value of solitude only during the thinning operation. Sights and sounds of the thinning would adversely impact solitude on 700 acres; after the project was completed, there would be no impacts to the wilderness value of solitude.

The three gravel pits that are anticipated along the edge of the WSA would have a negligible impact to naturalness and solitude. Surface disturbance from the gravel pits would only total 15 acres (5 acres each) and they would be unnoticeable beyond the immediate area.

Sights and sounds from recreational ORV use would have an adverse impact on solitude. However, the impact would be minimal because ORV use is estimated to be only 50 visitor days annually and is expected to remain below 100 visitor days in the foreseeable future.

Other recreation uses would increase slightly but would remain below 150 visitor days annually for the foreseeable future. This increase would not significantly impact opportunities for solitude.

Conclusion: The wilderness values of naturalness and solitude in the Appendicitis Hill WSA would be lost or impaired on 1,515 acres for the short-term. In the long-term, the wilderness value of naturalness would be lost or impaired on 1,315 acres. Solitude would be impaired only during the actual commercial thinning or mahogany thinning.

Impacts on Recreational Off-Road Vehicle Use

The Big Lost MFP limits ORV use in the Appendicitis Hill WSA to existing roads and ways. This designation would continue once the WSA was released for nonwilderness uses. The three miles of new road associated with commercial thinning of timber southeast of Crawford Peak would only slightly increase vehicle accessibility of the WSA as a whole. Recreational ORV use is projected to remain below 100 visitor days annually for the foreseeable future.

Conclusion: There would be only a minor increase in accessibility in the WSA and ORV use is expected to remain below 100 visitor days annually for the foreseeable future. There would be no significant impacts to recreational ORV use.

Impacts on Development of Energy and Mineral Resources

All lands within the Appendicitis Hill WSA (21,900 acres) would remain open for mineral entry and leasing. All potential energy and mineral resources would be available for development. This includes a moderate favorability for discovery of oil and gas, and moderate favorability for saleable materials (sand and gravel). Development of oil and gas resources is unlikely because there is limited direct evidence that such resources do indeed exist in the WSA.

Conclusion: Potential mineral resources would be available for development. This would be a beneficial impact to the development of mineral resources in the Appendicitis Hill WSA.

Impacts on Forest Management Actions

The Big Lost MFP identified 300 acres of Douglas fir for commercial thinning and this could occur under the proposed action. Approximately 325 MBF would be cut (about 25% of the total overstory in the stand). Other stands could be logged under the proposed action although it is unlikely to happen for at least the next twenty years if the current balance between supply, demand, and cost structure remains consistent. Other timber management practices such as tree planting could occur.

Conclusion: Commercial thinning on 300 acres could occur as anticipated, resulting in 325 MBF of timber cut. Other intensive forest management practices could occur although harvests on other stands is unlikely. This would be a beneficial impact to forest resources in the Appendicitis Hill WSA.

Impacts on Mule Deer Winter Range

The Big Lost MFP calls for improving mule deer crucial winter range by thinning 500 acres of decadent mountain mahogany. This could occur under the Proposed Action. Thinning would be done using chainsaws and cuttings would be left where they fell; from 1/3 to 1/2 of the mature shrubs would be removed.

Thinning mahogany would encourage new sprouting from the stumps and limb ends of the shrubs. By providing new growth, the quality and quantity of crucial winter forage for mule deer on this 500 acre stand would be improved. Because cuttings would be left where they fell, these would protect new seedlings from deer browsing until the seedlings were well established and large enough to recuperate from browsing. Cuttings would also provide immediate (first year) forage. The end result would be an overall improvement in the quality of 500 acres of crucial winter range for mule deer in the WSA, and an increase of 30 percent in the mule deer population.

Conclusion: Thinning of decadent mountain mahogany could occur, resulting in the improvement in the quality of 500 acres of crucial winter range for mule deer and a 30 percent increase in population in the Appendicitis Hill WSA. Deer utilizing this range would have a better chance of surviving a harsh winter. This would be a beneficial impact to the wintering mule deer population in the WSA.

Partial Wilderness Alternative

Under the Partial Wilderness Alternative, 13,670 acres would be recommended for wilderness and 8,230 acres would be recommended for nonwilderness uses (Map 4). The primary impacts of this action relate to wilderness designation, foregone timber harvest opportunities, and foregone opportunities to improve mule deer winter range.

Impacts on Wilderness Values

Wilderness values on 13,670 acres of the WSA would be protected by legislative mandate, while 8,230 acres would not receive the special legislative protection provided by wilderness designation. No timber harvest would be allowed in the designated wilderness portion of the WSA. Because all of the commercial timber lies within the area recommended for wilderness under this alternative, the wilderness values of naturalness and solitude would benefit.

An estimated 15 visitor days annually of recreational ORV use would be eliminated from the wilderness portion of the WSA. Although encounters between ORV users and other recreationists are infrequent at current levels of use, the elimination of ORV use would benefit the wilderness value of solitude because visitors would not encounter or hear ORV users in the area. Beneficial impacts to naturalness due to elimination of ORV use would be negligible because current use levels are quite low.

All 500 acres of mountain mahogany identified for thinning lies within the designated wilderness portion of the WSA under this alternative. Because of this, no improvement of crucial winter range for mule deer would be done. This would benefit the wilderness values of naturalness and solitude because of the elimination of the activity of thinning and because the stand would be left in its natural state.

Wilderness designation would result in the withdrawal of 13,670 acres from all forms of mineral entry and leasing. While mineral development in this WSA is unlikely, this action would forego any future mineral resource development. The wilderness values of naturalness and solitude would thus benefit over the long term.

Under this alternative, the 8,230 acres of the WSA recommended for nonwilderness uses would remain open for mineral entry and leasing. No development is anticipated, however, so wilderness values would not be impacted in the short-term. Three gravel pits along the eastern edge of the WSA would impair naturalness and solitude only negligibly because surface disturbance would be minimal (total of 15 acres) and they would be unnoticeable beyond the immediate area.

Sights and sounds from recreational ORV use in the nondesignated portion of the WSA would have an adverse impact on solitude. The impact would be minimal because ORV use is estimated to be less than 35 visitor days annually. Recreational ORV use is expected to remain below 100 visitor days annually for the foreseeable future so the long-term impact of ORV use on the wilderness value of solitude would be negligible.

Conclusion: Wilderness values of naturalness and solitude would be protected on 13,670 acres of the Appendicitis Hill WSA. Impacts to naturalness and solitude would not occur on 1,315 acres. Wilderness values on 8,230 acres of the WSA would not be protected but no development or impairing use is anticipated on this portion of the WSA. Thus, impacts to wilderness values on 8,230 acres of nonwilderness would be minimal in the short-term.

Impacts on Recreational Off-Road Vehicle Use

The Big Lost MFP limits ORV use in the Appendicitis Hill WSA to existing roads and ways. This designation would continue on 8,230 acres of land recommended for nonwilderness uses under this alternative. No new roads are anticipated. Recreational ORV use in the 8,230 acre nonwilderness portion of the WSA is projected to remain below 100 visitor days annually for the foreseeable future.

An estimated 15 visitor days annually of recreational ORV use would be eliminated from the 13,670 acres designated as wilderness under this alternative. Future opportunities would be foregone. However, there are similar or superior opportunities for ORV use on public land throughout the region. Any ORV use displaced from this portion of the WSA upon designation would be absorbed on the surrounding public land.

Conclusion: Recreational ORV use would continue at a level below 35 visitor days annually on 8,230 acres of land recommended for nonwilderness uses. ORV use of 15 visitor days annually would be eliminated from the 13,670 acres recommended for wilderness. The impact of this action on recreational ORV use in the Appendicitis Hill WSA would be minimal because of similar or superior opportunities for ORV use on surrounding public land.

Impacts on Development of Energy and Mineral Resources

The 8,230 acres of the WSA recommended for nonwilderness uses would remain open to mineral entry and leasing. All potential mineral resources in this portion of the WSA would be available for development. Other than the three gravel pits along the eastern edge of the WSA, no further mineral developments are planned and none are anticipated in the foreseeable future.

The remaining 13,670 acres recommended for wilderness designation would be withdrawn from all forms of mineral entry and leasing. This includes a moderate favorability for discovery of oil and gas. There are

no plans to develop any mineral resource within the 13,670 acre area recommended for wilderness, nor are there any projections to do so in the foreseeable future, with or without wilderness designation.

Conclusion: Potential mineral resources would be available for development on 8,230 acres of the Appendicitis Hill WSA. Opportunities to develop mineral resources on 13,670 acres of the WSA would be foregone. The impact of this action on development of mineral resources would be minimal because future projections do not indicate the likelihood of mineral development in this portion of the WSA.

Impacts on Forest Management Actions

No timber harvest would be allowed in the 13,670 acres recommended for wilderness under this alternative. All of the commercial timber in the WSA lies within the portion recommended for wilderness, so forest management practices would be minimal. Commercial thinning of 300 acres, as called for in the Big Lost MFP, would not occur.

Conclusion: The opportunity to commercially thin 300 acres of Douglas fir would be foregone. Future timber harvest on the remaining stands of commercial timber would also be foregone but the impact would be minimal because the current balance between supply, demand, and cost structure makes it unlikely that any further timber harvest would occur in the foreseeable future.

Impacts on Mule Deer Winter Range

Under this alternative, no mountain mahogany thinning would occur because the 500 acre stand identified in the Big Lost MFP lies within the 13,670 acres recommended for wilderness. Other vegetative manipulations are either expressly not allowed in wilderness or they are not feasible. For example, prescribed fire is allowable in wilderness, but it is not a feasible treatment method for mountain mahogany. Mahogany is an extremely fire sensitive species. Due to the intensity of a mountain mahogany fire, plants are killed and seed sources destroyed. Studies in similar areas show that it may take up to 17 years for a burned stand of mahogany to begin rejuvenation. Other activities such as chaining, hand cutting, and spraying are not allowable in designated wilderness.

Without any improvement in the crucial winter range for mule deer in the WSA, deer populations would continue to utilize the existing habitat. Mountain mahogany would continue to be the preferred forage until it was depleted, then the deer would switch to sagebrush as the primary forage. Sagebrush is lower in quality than mahogany as a forage plant, and does not provide the nutrients available from mahogany. Mule deer would probably not suffer any adverse impacts in the short-term. Over the long-term, there would be loss of habitat and a downward trend in the mule deer population by as much as 30%.

Conclusion: Crucial winter habitat for mule deer would not be improved because the 500 acre mountain mahogany thinning would not be allowed. There would be no impacts to the mule deer population in the short-term, but there would be a long-term reduction of the population by as much as 30%.

All Wilderness Alternative

Under the All Wilderness Alternative, the entire 21,900 acre Appendicitis Hill WSA would be recommended for wilderness designation (Map 4). The primary impacts of this action relate to wilderness designation and the resultant foregone timber harvest, along with the inability to improve crucial winter range for mule deer.

Impacts on Wilderness Values

Wilderness values on the entire 21,900 acre Appendicitis Hill would receive the special legislative protection provided by wilderness designation. No timber harvest or mountain mahogany thinning would occur, resulting in a beneficial impact to wilderness values of naturalness and solitude on 1,315 acres. The entire area would be withdrawn from all forms of mineral entry and leasing, so again, wilderness values would benefit.

An estimated 50 visitor days annually of ORV use would be eliminated by wilderness designation. Although encounters between ORV users and other recreationists are infrequent at current levels of use, the elimination of ORVs would benefit the wilderness value of solitude because visitors would not encounter or hear ORV users in the area. Beneficial impacts to naturalness would be negligible because current use levels are low.

Conclusion: Wilderness values of naturalness and solitude would be protected on the entire 21,900 acres of the Appendicitis Hill WSA. Adverse impacts to naturalness and solitude would not occur on 1,315 acres. This would be beneficial to wilderness values.

Impacts on Recreational Off-Road Vehicle Use

An estimated 50 visitor days annually of ORV use would be eliminated from the entire 21,900 acres of the WSA. Future opportunities for ORV oriented recreation would be foregone. However, there are similar or superior opportunities for ORV use on public land throughout the region. Any ORV use displaced from the WSA upon wilderness designation would be absorbed with no consequence on surrounding public land.

Conclusion: Recreational ORV use of 50 visitor days annually would be foregone; the impacts of displacing this use to other nonwilderness public land would be negligible.

Impacts on Development of Energy and Mineral Resources

Wilderness designation would withdraw all 21,900 acres of the Appendicitis Hill WSA from mineral entry or leasing, subject to valid existing rights at the time of designation. The opportunity to explore for and develop mineral resources, including a moderate favorability for oil and gas, would be foregone. Other than the three gravel pits anticipated along the eastern edge of the WSA, there are no plans to develop any mineral resource within the WSA, nor are there any projections to do so in the foreseeable future.

Conclusion: The entire 21,900 acres of the Appendicitis Hill WSA would be withdrawn from mineral entry and leasing. This would not be a significant impact because there are no plans for development, nor are there any projections for development in the future.

Impacts on Forest Management Actions

By designating the entire WSA as wilderness, timber harvest opportunities on 870 acres of commercial timber would be foregone. Forest management practices on all forested land in the WSA (2,100 acres) would be minimal. The current balance between supply, demand, and cost structure is such that it is highly unlikely that any timber harvest would occur in the foreseeable future, except for the planned commercial thinning of 300 acres of commercial timber. Commercial thinning would result in 325 MBF of timber cut, so wilderness designation would preclude the harvest of 325 MBF of timber.

Conclusion: Wilderness designation of the entire Appendicitis Hill WSA would result in the loss of 325 MBF of timber harvested and would preclude future timber sales on 870 acres of commercial timber. This impact is minimal, however, because current market trends make it unlikely that there would be any timber harvests in the foreseeable future.

Impacts on Mule Deer Winter Range

Wilderness designation for the entire WSA would preclude thinning mountain mahogany to improve crucial winter range for mule deer on 500 acres. As stated in the Partial Wilderness Alternative, thinning mahogany is the only feasible method to stimulate new growth and increase available forage.

Without any improvement in the crucial winter range for mule deer in the WSA, deer would continue to use existing habitat. Mountain mahogany would continue as the preferred forage until it was depleted, then the deer would switch to sagebrush. Sagebrush is lower in quality than is mahogany as a forage plant and does not provide the nutrients available from mahogany. Mule deer would probably not suffer any adverse impacts in the short-term. Over the long-term, there would be a gradual loss of habitat and a downward trend in the mule deer population by as much as 30%.

Conclusion: Crucial winter habitat for mule deer would not be improved on 500 acres because the mountain mahogany thinning would not be allowed. There would be no impacts to the mule deer population in the short-term, but there would be a long-term reduction of the population by as much as 30%.