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United States
Department
of Agriculture

Forest Service
Intermountain Region

Dixie National Forest

Strawberry Ridge Timber Harvest

Record of Decision for the Final Environmental Impact Statement

RECORD OF DECISION
FINAL ENVIRONMENTAL IMPACT STATEMENT

USDA - Forest Service

Strawberry Ridge Timber Harvest

INTRODUCTION

Forests of the Dixie National Forest blanket the foothills and mountains with a wide array of tree and understory species, provide a variety of resource values, and are the mainstay of communities within the zone of influence. The environmental impact statement of the Dixie National Forest Land and Resource Management Plan (DNF-LRMP) describes the local zone of influence as those counties whose economies are directly affected by Forest actions. The zone of influence for the Dixie encompasses the following counties: Piute, Garfield, Wayne, Kane, Iron and Washington. The boundaries of the Dixie National Forest lie within these counties (FEIS for the DNF-LRMP, Appendix BII-71).

The Final Environmental Impact Statement (FEIS) for the Strawberry Ridge Project area documents the results of the analysis on the proposal for: commercial timber sales, road reconstruction, subsequent post-treatment thinning and regeneration activities, the sale of miscellaneous forest products over a 4 year period, and other resource protection or enhancement activities proposed to meet a variety of vegetative and other resource management objectives in the Strawberry Ridge area. I have reviewed this FEIS and related material; my decision is based on that review.

WHAT IS BEING DECIDED

This Record of Decision (ROD) determines:

1. The degree that the economic and social stability of communities dependent on Dixie National Forest (DNF) resources will be considered in determining the types and levels of management activities that will occur in the Strawberry Ridge project area.

2. The extent that overmature timber will be harvested to reduce mortality losses and risks of pest infestation in the Strawberry Ridge project area.

3. The extent that wildlife management will be emphasized in the Strawberry Ridge project area.

4. How much emphasis will be placed on coordinating or restricting vegetative management activities in order to maintain or enhance scenic values along major roads (Utah State Highway 14), other travel routes (Forest road #058, #060 and (#239), adjacent to sub-divisions, and areas of outstanding scenic beauty (Strawberry Point) that are within or adjacent to the Strawberry Ridge project area.

5. What the balance will be between accommodating increased recreation use and other resource uses within and adjacent to the Strawberry Ridge project area.

AUTHORITY OF DECISIONS

The authority of the decision to implement projects outlined in this ROD under the selected alternative from the Final Environmental Impact Decision for the Strawberry Ridge Project area has been delegated to the Forest Supervisor of the Dixie National Forest by the Intermountain Regional Forester. The Forest Supervisor retains authority for management of the Forest, including all projects outlined in this ROD under the selected alternative.

PURPOSE OF THE SELECTED ALTERNATIVE

The purpose of this proposal is to help achieve the goals, objectives, and desired future condition identified in the Dixie National Forest Land and Resource Management Plan (DNF-LRMP), September, 1986. The primary objective of the decisions in this ROD are to provide for the long term health of the forest; help satisfy the short-term demands for timber products, and maintain a continuous supply of timber in the future; maintain or improve habitat conditions for vertebrate wildlife species; and, provide for the short-term maintenance and long-term enhancement of the critical viewsheds within the Strawberry Ridge project area.

RELATIONSHIP OF THIS DECISION TO OTHER ACTIVITIES IN THE STRAWBERRY

RIDGE PROJECT AREA AND ADJACENT AREAS.

The selected alternative is an integrated resource decision. However, it does not encompass all resource management activities necessary to achieve desired future conditions for all resources within the area. Previous environmental documents and decisions for management practices within and surrounding the project area were considered in assessment of cumulative effects. Activities reasonably expected to occur within the next 10-15 years (in the case of economic evaluations, one rotation or approximately 120-140 years) were identified and included in the cumulative effects analysis. Unforeseen activities will be analyzed for Forest Plan compliance and cumulative effects when proposed.

Several issues and concerns were raised during scoping and public comment on the Draft Environmental Impact Statement (DEIS) that are not within the scope of the proposed action. They include:

Resource Outputs outside the Strawberry Ridge Project Area. Resource outputs for areas outside the Strawberry Ridge Project Area, as detailed in the Dixie National Forest Land and Resource Management Plan, are not changed by the decisions in this ROD.

Forestwide Standards and Guidelines. Standards and Guidelines for the Forest are not changed by this decision. (See Chapter IV, pages 24-159 of the Dixie National Forest Land and Resource Management Plan.)

Current Management Activities. Management activities that are active at the present time within this project area, as supported by proper NEPA documentation, are not changed by this decision. (Refer to Chapter II, page 9 of this FEIS for a description of the existing management activities.)

THE PROJECT AREA

The Strawberry Ridge project area lies within the boundaries of the Cedar City Ranger District of the Dixie National Forest between Strawberry and Swains Creek. These drainages flow into Asay Creek and are part of the Sevier River Watershed.

The project area is approximately 4675 acres in size and is located approximately 2 miles southeast of Duck Creek Village. Three private sub-divisions are adjacent to the project area: (1) Strawberry Valley; (2) Swains Creek, and; (3) Zion View.

The legal description includes Sections 15, 20, 21, 22, 23, 27, 28, 29, 30, 31, 32 and 33, T. 38 S., R. 7 W., Salt Lake Base Meridian; Sections 5 and 6, T. 39 S., R. 7 W., Salt Lake Meridian; and Sections 1, 11 and 12, T. 39 S., R. 8 W., Salt Lake Base Meridian; Kane County, Utah.

RELATIONSHIP TO THE DIXIE NATIONAL FOREST PLAN

The Dixie National Forest Land and Resource and Management Plan was approved in September of 1986. The FEIS for the Strawberry Ridge Project area tiers to the FEIS for the Dixie National Forest Land and Resource and Management Plan. The Forest Plan provides the overall guidance for management activities by specifying goals and objectives, desired future condition, management direction and standards and guidelines.

As stated in the first paragraph of the Record of Decision for the Dixie National Forest Plan, "The Plan provides for coordinated multiple-use management of outdoor recreation, range, timber, watershed, wildlife and fish, minerals, and wilderness resulting in sustained yields of goods and services for the benefit of Utah and the American people.".

The ROD implementing the Dixie National Forest Plan provides additional information on page 8 concerning timber management on the Dixie National Forest: "The proposed Plan provides for the best management of the timber resource, contributing to the stability of local communities, providing for a continuing supply of Forest products demanded by the general public, and providing for the needs of other resources supplied through multiple-use forestry". It goes on to state on page 9 that "Under the Forest Plan, suitable timber base is composed of lands"(such as the Strawberry Ridge Project area) "that are economically efficient in meeting timber production and other resource goals. A balance is struck between conflicting interests that best meet needs of Forest resources and those dependent on National Forest timber".

ROAD VISUAL QUALITY

This ROD will change the Visual Quality Objectives (VQO) along road #058 and the first half mile of road #239 (from highway 14) from a Sensitivity level two, Variety Class B (foreground Partial retention and middleground and background modification) to a Sensitivity level one, Variety class B (Foreground retention, middleground and background partial retention). This change was necessitated due to the increased development on private land adjacent to the Strawberry Ridge project area, and the related increase in the number of people who are concerned with visual and recreation values.

ALTERNATIVES CONSIDERED

Alternative Development and Major Features

Five alternatives were carried and fully developed and analyzed by an interdisciplinary team (IDT) comprised of resource specialists from the Dixie National Forest and with consultation and comment from other agencies, organizations and interested individuals.

To guide the development and evaluation of alternatives the IDT used the Forest Plan direction for the management areas involved (Management areas 2A- 53 acres, 2B- 236 acres, 6A- 532 acres and 7A- 3854 acres). A summary of this direction can be found in Chapter I, pages 3-5, of the FEIS for the Strawberry Ridge

Project area or for a detailed discussion of this direction refer to the Dixie National Forest Land and Resource Management Plan, Chapter IV, pages 24-56, pages 63-72 and pages 109-120.

The IDT also developed opportunities of management, essentially project objectives (Chapter I, page 8 of the FEIS for the Strawberry Ridge Project area), issue statements from issues and concerns raised by the public and within agency (Chapter I, pages 9-10 of the FEIS for the Strawberry Ridge Project area), and mitigation measures that were developed from existing Forest Standards to specifically address concerns in this project area (Chapter II, pages 3-6 of the FEIS for the Strawberry Ridge Project area),all to further guide them in the development and evaluation of alternatives.

Alternatives Considered and Dismissed from Detailed Study

1. One alternative proposed managing the Strawberry Ridge project area (as defined in Chapter I, section B of the FEIS for the Strawberry Ridge Project area) to maximize timber harvest and future timber production over the entire project area. This option provided the best alternative for stand health, and increased vigor and production. However, other resource concerns, primarily in the Everett Hollow drainage and visually sensitive areas (areas adjacent to travel routes and sub-divisions), would not have been met. First, it was determined by the soil and hydrology specialists that the Everett Hollow channel was exhibiting considerable instability at this time. It was determined that the addition of 2.0 to 2.25 miles of new system road into the Everett Hollow drainage may not be able to be economically mitigated to avoid significant increases in erosion and sediment yield **(Issue/Concern 14 and 15)**.

Second, the west side of the Everett Hollow drainage is one of the few areas that have had relatively minor levels of past logging activity. Due to the mature and overmature trees that still remain in several of the stands and the multi-layered canopy present, several acres in this drainage have been designated for old-growth retention at this point in time **(Issue/Concern 13)**. Several species of wildlife will benefit, including goshawks, owls, deer, elk and turkeys **(Issue/Concern 12)**.

2. Another alternative considered utilizing management activities other than commercial timber harvest to meet objectives. One of the major concerns in this area from a stand health and production perspective is insect and disease problems and risks. This alternative considered treating these areas using ethephon, an ethylene-releasing plant growth regulator to control dwarf mistletoe (the primary disease of concern to management in the project area). This treatment has shown promise in high valued recreation areas of small acreage (costs typically range from $10 to $20 per tree). However, to treat the hundreds of acres of suitable forest land identified to have mistletoe (refer to Table 25, Summary of Major Diseases in the Project Area, by stand; Chapter III, pages 22-23, in the FEIS for the Strawberry Ridge Project area), would not be economical under the present economic situation. Treatment of this kind requires the existence of a high valued stand. The stands on Strawberry Ridge, though having the potential of increased production, are presently in a declining condition due to overstocking and insects and disease. This is not just from a production standpoint, but also from the standpoint of wildlife and long term maintenance of visuals **(Issue/Concern 6)**.

Another option considered was the use of thinning, without removal of the commercial logs. However, because of a large number of the trees infected with disease or infested with insects are of commercial size (refer to Table 25 in Chapter III, pages 22-23, in the FEIS for the Strawberry Ridge Project area for a summary of size class of tree infected with diseases) it was decided that to drop trees of commercial value, without removal, would not meet the multiple use objectives of the agency or the needs of some of the public user groups **(Issue/Concern 7 and 9)**.

3. An alternative that prescribed sanitation harvest only throughout the planning area was eliminated from further study. Sanitation harvest is used in conjunction with other harvest options in all alternatives carried. Sanitation alone, not in combination with other treatment options, would in many cases not meet the minimum

needs of **Issue/Concern 6, 7, 8, 9, and 12.** It also did not meet the purpose and need as discussed in Chapter I of the FEIS for the Strawberry Ridge Project area.

Primarily this alternative did not meet the objectives of any of the resources involved completely. It would come closest to meeting the visual objectives in the area **(Issue/Concern 1 and 2)**, however under the strict sense of sanitation removal of disease or insect infested trees, or trees in high risk categories, unacceptable size openings in high visual quality areas may be created. It would also not improve conditions for long term diversity and visual enhancement in untreated areas **(Issue/Concern 1 and 2)**.

Sanitation also would not allow the timber objectives to be met. This type of harvest would not eliminate the over crowding conditions in existing stands. Not only would this not improve production of stands but it also leaves conditions in stands that are conducive to future insect and disease buildups **(Issue/Concern 6 and 7)**.

From a wildlife standpoint it would not provide enough increase in stand diversity and proper placement of openings to increase forage needs in the area **(Issue 12)**.

4. A final alternative considered but eliminated from further analysis was a No Action Alternative in which no timber harvest activities would take place. This issue was raised during scoping. Discontinuing existing activities is outside the scope and intent of this EIS which is proposing the implementation of additional projects, not the discontinuation of existing activities.

Under NEPA regulations either one of two forms of the NO ACTION Alternative can be used, as supported by the interpretations of the Council on Environmental Quality (refer to the Forty Most Asked Questions Concerning CEQ's NEPA regulations (40 CFR 1500-1508)). The first is **No Action=No Project**, meaning the proposed action would not be implemented. The second is **No Action=No Change**. This second type of the no action alternative is used primarily when updating a land management plan.

The No Action Alternative that was evaluated in this analysis process was **No Action=No Project**.

Areas that will not be Harvested under any Action Alternative at this Entry.

The map in Appendix G of the FEIS for the Strawberry Ridge Project area describes the location of those areas that have been evaluated and placed in the unsuitable category, at this time, under all action alternatives based on suitability of forest or non-forest lands relative to timber harvest. Also, included under non-productive timber sites (not indicated on the map in Appendix G of the FEIS for the Strawberry Ridge Project area), as described under 36 CFR 219.3, is the area occupied by system roads and planned permanent skid trail systems in the area. The area occupied by roads, based on an average 14 foot width of road, is approximately 70 acres within the project area. The amount of area that will be occupied by permanent skid trails, following this entry, varies by alternative from 200 to 220 acres (these acres are presently suitable but will be moved into the unsuitable category following this entry due to planned future use, permanent skid trails). Refer to Chapter III, page 10-13 of the FEIS for the Strawberry Ridge Project area for a detailed description of land suitability.

Also described within the Suitability map, Appendix G of the FEIS for the Strawberry Ridge Project area, are additional acres that have been removed under all alternatives from treatment. Included are suitable timber lands removed from treatment in order to meet Old Growth requirements **(Issue/Concern 13)** specified in the LRMP, page IV-35. These areas include stands that are presently in an Old Growth condition; have had limited past harvesting, if any at all (approximately 333 acres). Suitable timber lands located in the Everett Hollow drainage have also been removed for watershed protection due to the present instability of the drainage **(Issue/Concern 14 and 15)**.

Stands 15-1, 2, 4 (94 acres total) have also been removed from entry at this time (refer to the stand map in Appendix L of the FEIS for the Strawberry Ridge Project area). These stands are growing well and are relatively disease free. It is projected that these stands will be harvested under a commercial thinning prescription in approximately 30 years. It is estimated that in approximately 60 years these stands will be grouped with other stands in treatment block 1 and harvested under the same prescription.

Alternatives Considered in Detail

From a broad range of possible alternatives the IDT selected a reasonable range of alternatives for detailed analysis. These alternatives are summarized below; detailed descriptions are provided in Chapter II of the FEIS for the Strawberry Ridge Project area.

Alternative A: No Action

This is the No Action Alternative; the proposed activity would not take place. This alternative serves as a benchmark for other alternatives. Components of the environment which may be affected by an action, are compared using Alternative A in order to show the change or impact on the environment.

Current management activities, outside the scope of the proposed project, will continue. This includes activities such as recreation, livestock grazing, fuelwood gathering and hunting. Refer to the "Affected Environment" section of the FEIS for the Strawberry Ridge Project area for a detailed description of use for each resource.

Alternative B: Timber Management with an Emphasis on Timber Production

This alternative was designed to address the issue of meeting short-term demand for timber, as well as preparing the land for long term supply. The long-term health of the Forest was considered during the formulation of this alternative. The purpose and needs for visuals, recreation, livestock grazing and wildlife were considered but were secondary to timber production and long-term forest health; minimum requirements (as defined by the Forest Plan standards and guidelines) would be met and exceeded only in critical areas designated by the respective specialist involved. The need to maintain acceptable levels of soil erosion rates and sediment delivery were of primary concern relative to any activity proposed under this alternative.

Under this alternative, it was estimated that 3067 acres would be treated commercially and/or non-commercially. It was also estimated that 8.8 million board feet (MMBF) of commercial sawlog size timber (± 1.8 MMBF at one standard deviation from the mean) would be removed from these treated acres.

Alternative C: Timber Management with an Emphasis on Timber Production With an Increased Emphasis on Uneven-aged Management.

This alternative was designed to address the issue of meeting short-term demand for timber, as well as preparing the land for long term supply. The long-term health of the Forest was considered during the formulation of this alternative. Increased emphasis was given to long term visual enhancements in this alternative over Alternative B. Wildlife and livestock grazing were considered during the development of this alternative but were secondary to forest production and long-term forest health; minimum requirements (as defined by the Forest Plan Standard and Guidelines) would be met and exceeded only in critical areas designated by the respective specialist involved. The need to maintain acceptable levels of soil erosion rates and sediment delivery were of primary concern relative to any activity proposed under this alternative.

Under this alternative, it was estimated that 3067 acres would be treated by commercial and/or non-commercial treatments. It was also estimated that 7.8 million board feet (MMBF) of commercial sawlog size timber (± 1.6 MMBF at one standard deviation from the mean) would be removed from these treated acres.

Alternative D: Timber Management with an Emphasis in Recreation Management and Visual Retention.

This alternative was designed to address the issue of meeting short-term demand for timber, as well as preparing the land for long term supply. The long-term health of the Forest was considered during the formulation of this alternative. Increased emphasis was given to long term visual enhancements and increasing semi-primitive motorized and non-motorized recreation opportunities over Alternative B or C. Treatment designs also provide a different type of habitat condition for wildlife than under Alternative B, and to a lesser extent Alternative C. Emphasis placed on livestock grazing is similar to the previous two action alternatives. The need to maintain acceptable levels of soil erosion rates and sediment delivery were of primary concern relative to any activity proposed under this alternative.

Under this alternative, it was estimated that 2752 acres will be treated commercially and/or non-commercially. It was also estimated that 5.4 million board feet (MMBF) of commercial sawlog size timber (± 1.1 MMBF at one standard deviation from the mean) would be removed from these treated acres.

Alternative E: Timber Management with an Emphasis in Wildlife Habitat Improvement, Recreation and Visual Quality.

This alternative was designed to address the issue of meeting short-term demand for timber, as well as preparing the land for long term supply. The long-term health of the Forest was considered during the formulation of this alternative. Increased emphasis was given to the purpose and need of providing a diversity in habitat conditions for vertebrate wildlife species within the project area. Increased emphasis was also given to visuals and recreation opportunities but not at the expense of wildlife concerns. Livestock grazing was considered but was secondary to other resource needs. The need to maintain acceptable levels of soil erosion rates and sediment delivery were of primary concern relative to any activity proposed under this alternative.

Under this alternative, it was estimated that 2752 acres would be treated commercially and/or non-commercially. It was also estimated that 6.6 million board feet (MMBF) of commercial sawlog size timber (± 1.3 MMBF at one standard deviation from the mean) would be removed from these treated acres.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is the alternative that best fulfills the following six goals as stated in the National Environmental Policy Act (Title I, Section 151(b)):

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

2. Assure for all Americans safe, healthful, productive and aesthetically and culturally pleasing surroundings;

3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

4. Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and a variety of individual choice;

5. Achieve a balance between the human population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Though all action alternatives fulfill the six goals stated above to at least a minimum degree, Alternatives C and E best fulfill these six goals.

THE DECISION

Based on the analysis in the Final Environmental Impact Statement (FEIS) for the Strawberry Ridge Project area, it is my decision to choose Alternative E for implementation. This decision has not been made lightly. We have considered all the comments received through the environmental review process. Interaction with citizens, industry, elected officials and resource management professionals has made this agency aware of their concerns about the biological, physical, social, economic and political consequences of one alternative course of action versus another. All practicable means to avoid environmental harm have been adopted in this decision.

Alternative E provides for the maintenance and long term enhancement of resource values for timber management, wildlife, recreation and visual quality at pre-treatment conditions or better without causing any long term degradation to the soil or watershed resource. Activities to be implemented include:

1. Commercial and pre-commercial treatment of an estimated 2752 acres.
2. Removal of an estimated 6.6 MMBF of conifer sawlog volume (± 1.3 MMBF).
3. Removal of an estimated 740 MCF or 5800 cords of conifer round wood or fuelwood products from slash and cull material remaining after harvest and post-treatment activities (± 148 MCF or 1160 cords).
4. Removal of an estimated 64 MCF of hardwood (aspen) roundwood or fuelwood products (± 14 MCF) from 1991-1994.
5. Up to 300 trees (seedling and sapling size) per year will be removed as ornamentals for personal or commercial use from 1991-1994.
6. Up to 800 trees (seedling and sapling size) per year will be removed as Christmas tree stock for personal or commercial use from 1991-1994.
7. An estimated 39.3 miles of existing roads will be reconstructed/reconditioned within the project area to accommodate timber removal.
8. Approximately 32.8 miles of road will be closed (excluding the 6.5 miles of road #239 that was reconstructed) to all motorized traffic, except snowmobiles. These roads will be water-barred (as necessary for erosion control) and seeded to grass. Closure to public traffic will occur after the first full summer/fall period following harvest completion (to allow fuelwood collection), but remain open for administrative use to complete post-treatment activities and for fire suppression.
9. Slash remaining after commercial treatment along the visual corridors (immediate foreground) will be hand-piled and burned following commercial harvest (refer to the Slash Disposal section below).
10. Approximately 330 acres of patch cut and group selection areas will be artificially planted to ponderosa pine and Douglas-fir.
11. Approximately 111 acres of patch cuts and group selection areas in aspen stands will be naturally regenerated back to aspen for wildlife habitat and visual enhancement.
12. Approximately 1921 acres of conifer stands will be pre-commercially thinned for timber production and maintenance of size class distributions.
13. Approximately 200 acres of suitable timber lands will be moved from the suitable category to the unsuitable category following harvest this entry due to the permanent skid trail system that will be established during this entry to protect the soil and vegetative resource.
14. Roads crossing Strawberry Valley meadow (T38S, R7W sections 30 and 31; T38S, R8W, section 1) into the project area will be closed and revegetated as part of the post-treatment operations.

Mitigation measures that will be completed in addition to Forest Plan standards and guidelines.

a. Prevent smoke dispersion problems during brush disposal activities by limiting burning in the area to time frames when weather conditions are conducive to allowing good dispersion of smoke, as determined by the Utah State Air Quality Bureau. (Smoke Management Guidelines for USDA-FS, 1988)

b. Borax (sodium tetraborate decahydrate), a fungicide and registered pesticide, will be used to treat all freshly cut white fir stumps greater than 14 inches in diameter, 50 feet outside existing root rot centers. This treatment is used to prevent infection of the stump by the *Fomes annosus* fungi. If the stump is not properly treated the fungi will spread through the root system of the cut stumps, infecting residual trees. (Refer to the Pathologist report in Appendix Q of the FEIS for the Strawberry Ridge Project area and the project file for the Strawberry Ridge Project area for the background documentation on the use of borax; Specialist Report File.)

c. Harvest activities will be restricted from April 15- July 1 in all or part of treatment blocks determined to be critical nesting habitat for turkey. Prior to each operating season, the Forest wildlife biologist will review the schedule of entry into harvest units to determine if harvest activities scheduled will impact areas of critical nesting habitat for turkey. If an area is determined to be critical then no harvest activities will be allowed within approximately 1/2 mile of any identified area between April 15 and July 1. In areas where critical nesting areas are not identified, harvest activities will proceed as scheduled. The normal operating season in this area is June 1 through October 31 of each year unless otherwise approved by the Forest Service.

d. Restrict harvest activities at least 100 feet from the "rim" area and ridge edges in block 11 to protect winter roosting sites for blue grouse, Merriam's turkey and raptors.

e. If available, leave trees with a DBH of 16 inches or greater on the leeward side of ridge lines or adjacent to meadows. These trees provide critical roosting habitat to blue grouse, Merriam's turkey and raptors. Desirable trees are those that have large diameter, horizontal branches, widely spaced and protruding at least 4 feet from the bole throughout the lower 2/3 of the crown. Ponderosa pine is the desirable species, though other species will suffice when ponderosa pine is not available.

f. In forest management areas, maintain a minimum on each treated area, an average of 20-30 snags (in all stages of development) per 10 acres, well distributed over the management areas, of the following minimum diameters (where biologically feasible):

Ponderosa pine, Douglas-fir and spruce/fir: 16 inch DBH

Aspen: 12 inch DBH

g. Removal of standing snags greater than 16 inch DBH and 15 feet tall, by fuelwood cutters, will not be allowed in this project area. Snags of greater than 16 inch DBH are of particular importance to wildlife and visual diversity.

h. All motorized traffic allowed under the transportation system in harvest Alternative E in the FEIS for the Strawberry Ridge Project area will be required to stay on existing roads, except snowmobile traffic.

i. The landscape architect will review marking of trees in retention areas and along road #239 to determine if the evidence of logging will meet the objectives of treatment in these areas of visual concern.

j. The landscape architect will review slash cleanup activities following harvest operations along the retention areas and road #239 to determine if further work is necessary to meet visual quality objectives.

k. Where possible, openings within retention zones created by group selection will be oriented so that their long axis is perpendicular to the line of sight from visual zones (sub-divisions, road #058 and Highway 14).

l. Any trees removed along the immediate foreground of road #058 and Highway 14 will be removed by taking the tree out in the opposite direction of the travel route. No logging traffic will be allowed in Strawberry meadow area.

m. Skid trail designation within retention zones will be reviewed by the landscape architect to assure visual quality objectives will be met, prior to ground disturbance.

Road System Proposed

The Transportation Plan for harvest Alternative E in Appendix M in the FEIS for the Strawberry Ridge Project area shows the road system planned for this alternative. Under this alternative approximately 39.3 miles of system road reconstruction will occur. In blocks 7, constructed landing areas will be developed 100-200 feet off of road #239. Following harvest, these areas will be ripped and revegetated. If additional temporary roads are needed they will be constructed to the minimum necessary to remove the necessary timber while still providing adequate protection to other resources involved (DNF-LRMP Standards and Guidelines and Alternative E mitigation measures). Prior to timber sale closure any temporary roads that were constructed will be recontoured, ripped and planted back to stabilizing vegetation.

All local roads used in harvest will be reconditioned/reconstructed to the level necessary to meet resource objectives (LRMP, page IV-51, L11-1). The timber sale collector road, #239, will be reconditioned/ reconstructed and spot surfaced with cinders. Maintenance levels will be Level 2 for local roads when open, Level 1 when local roads are closed and Level 3 for the collector road, road #239 (LRMP, page IV-51 & 52, L19). Entrances onto road #239 from Highway 14 will require improvements for safety reasons during logging and to handle the impacts of logging traffic. The entrance onto road #239 from Highway 14 will be paved to meet the necessary safety requirements.

The haul route required (contract provision C(T)6.84) for all timber removed from this project area will be from the local roads in the project area to the collector road, #239, northeast to Highway 14.

Traffic safety will be required under the timber sale contract (contract provision C(T)6.33) on all Forest Service controlled roads and trails open to public travel.

Under contract provision C(T)5.4, road maintenance will be required during use by the timber sale contractor, including dust abatement. This work consists of restoration and preservation of surface, shoulders, road-sides, structures, drainage, sight distance, and such traffic control devices as are necessary for prevention of excessive erosion damage to the facility and adjacent lands.

Logging Equipment Use

Ground logging equipment is expected to be the base of the logging operations. Both track as well as rubber tired skidders will be allowed. However, in some treatment blocks the overall width of skidding equipment used will not exceed (10) feet on primary skid trails in order to protect visual retention characteristics. Refer to Table 16 in the FEIS for the Strawberry Ridge Project area (Chapter III, page 61) for a summary of limitations on logging equipment (primary skid trails, only), by block.

Primary skid trails will be designated in all harvest areas for maintenance of soil productivity and protection of the residual growing stock (LRMP, page IV-40, E03-5). These primary skid trails will be spaced approximately every 150-200 feet and will not be allowed in drainages. If drainage crossing is necessary and allowed

by the sale administrator, crossing will occur as near to perpendicular to the drainage as is possible (safety being the primary factor).

Two options will be allowed for removal of logs from a treatment area to the primary skid trails for transport to the landings. The first option will be to keep all skidding equipment on the primary skid trail system and end-line logs to the trail with cable equipment. The second option will be to use a primary and secondary skid trail system to move logs from a treatment area. Under option two, the secondary trail system will be tilled where compaction exceeds the tolerance levels, as determined by the Forest soil scientist. In uneven-aged management areas the width of skidding equipment will be limited to 9 feet or less.

The Forest Service may also allow winter logging, with appropriate mitigation.

Slash Disposal

Slash from harvest will be hand piled and burned along the visual corridors of Highway 14 and road #058 and #239. The hand piling will occur within the immediate foreground of these roads only. The amount of area will depend on its visibility along these roads (typically 50-250 feet from the road). In all other areas slash treatment will be lop and scatter to a 24 inch height and piled and burned in concentration areas such as landings. Cull logs will be left where they fall to maintain a higher level of horizontal diversity in the forest (DNF-LRMP, page IV-25, A00-4B). Any cull material bucked from logs at the landing will be piled and left for fuelwood collection for a minimum period of 1 full year for fuelwood collection, except in immediate foreground partial retention areas (along road #239) which will be left for one full growing season. Any cull material left after these time frames will be piled and burned.

Stump heights will be restricted to a maximum of 12 inches except in the immediate foreground areas around Highway 14 and roads #058 and #239. In these areas stump heights will be kept at 6 inches or lower and the tree will be cut so the face of the stump will be facing away from the road (unless safety or terrain limitations prohibits this).

Refer to Chapter II of the Strawberry Ridge Timber Harvest FEIS, pages 56 to 65 for a detailed discussion of activities proposed under Alternative E.

BASIS FOR THE DECISION

No single factor determined the decision in selecting Alternative E. Rather, all issues and management directions were evaluated in combination. By considering the environmental, social and economic factors, Alternative E sets a course of action that seeks to maximize public benefits consistent with the principles of multiple-use and sustained-yield resource management.

This decision is consistent with my responsibilities under the National Environmental Policy Act, as well as other laws and regulations described later. This action will provide for a safe , healthful, productive and aesthetically and culturally pleasing surrounding; provide for a wide range of beneficial uses of the environment without undesirable and unintended consequences; maintain a balanced resource use; and not adversely affect the quality of renewable resources.

Response to Issues, Concerns and Opportunities

The selected alternative (Alternative E) was designed to be responsive to issues, concerns and opportunities identified in the scoping process, in the DEIS analysis, in comments on the DEIS, and in the analysis leading to the FEIS. The issues represented specific interests that individuals, groups, organizations and agencies had regarding the management of the Strawberry Ridge Project area. It is my belief that Alternative E furthers all of the interests, with minimal impact on any one of the interests.

The FEIS was modified in the following ways in response to comments on the DEIS:

a. Material was reorganized in the FEIS to provide clarity and to simplify review of the document.

b. A subject index was added to provide the reader with another avenue for locating primary subject areas.

c. A glossary of terms used in the FEIS was added.

d. Additional "Old Growth" blocks were added to Alternatives D and E near the Strawberry Point area. "Old Growth" acres were deleted from Alternatives B and C.

e. Considerable detail was added to the description of treatments proposed under each alternative to provide as specific a description as possible. To aid in this description the project area was broken down into treatment blocks and discussion provided by treatment blocks to aid in clarity of location of treatments.

f. Approximate location of patch cut areas proposed under alternatives were located on Alternative treatment maps found in the Appendix section of the FEIS.

g. The appendix section was reorganized, tabbed by section and a index provided at the beginning of the Appendix section to aid the reader in locating desired information in the Appendix.

h. The maps in the Appendix section were redone to provide the reader with better quality maps for review.

i. Best Management Practices (BMP's) that will be used were clearly defined in relation to mitigation measures or projects proposed to protect the soil and water resource.

j. A more detailed road design was completed and the proposed levels of reconstruction and closures were analyzed in more depth than in the DEIS.

k. Effects of proposed activities on the visual and recreation resource was analyzed and described in more detail than in the DEIS. This involved changes in the Visual Quality Objectives on acres throughout the project area than was described in the DEIS.

l. Effects of proposed activities on the social and economic situation of commodity and non-commodity interests was analyzed and described in more detail than in the DEIS.

m. The affected environment for vegetation was more clearly described in terms of land suitability, insect and disease, climate, soil organisms, species composition and stand structure.

n. The project area boundary was extended to the Strawberry Valley road, road #058, to permit the closure of the roads crossing the meadows in Strawberry Valley. This involved adding approximately 325 more acres than described in the DEIS. With this addition, Management Area 6A, and its subsequent Forest Plan direction were added. Clarification of acres involved in management area 7A and 6A were made in the FEIS.

o. The monitoring and evaluation plan was more clearly described by resource .

p. Effects of proposed activities on the wildlife resource was analyzed and described in more detail than in the DEIS.

q. The no action alternative was more clearly defined and completely analyzed.

r. Cumulative effects of proposed activities under each resource were completed in the FEIS.

s. Greater distinctions were made in regards to the effects of proposed activities on homeowners within the sub-divisions adjacent to the project area.

t. Alternative comparisons in Chapter II of the FEIS were defined in greater detail to provide for a better clarification of issues, concerns and opportunities as they relate to each alternative.

Following are the 15 issues and concerns used in the evaluation of alternatives. A detailed discussion of how each alternative addressed these issues can be found in Chapter II of the FEIS, pages 68-81.

ISSUE 1: *Maintain or enhance visual quality of Sensitivity Level 1 viewsheds. This includes areas visible from private sub-divisions surrounding the project area; Utah State Highway 14 adjacent to the project area; Strawberry Creek road, Road #058 and; Swain's Creek/Adair Hollow road, Road #060.*

ISSUE 2: *Maintain or enhance visual quality of viewshed visible from Strawberry Ridge road #239.*

ISSUE 3: *Minimize the effects that timber sale harvest will have on dispersed (low impact) recreation opportunities in the project area.*

ISSUE 4: *Maintain a suitable transportation system within the planning area to accommodate the increasing demand on the area by the recreationists.*

ISSUE 5: *Do not maintain or develop a transportation system that is unnecessary to the long term recreation needs in the area.*

ISSUE 6: *Implement proper silvicultural treatments, by removing unhealthy and slow-growing competition, thereby securing vigorous disease-free timber stands while distributing the timber age-class for continuing the future forest resource values.*

ISSUE 7: *Assure that sustained yield management objectives can be maintained under the silvicultural treatments prescribed.*

ISSUE 8: *Assure natural regeneration or artificial reforestation efforts will be successful within the time frames required by law for each type of harvest implemented.*

ISSUE 9: *Minimize adverse impacts to the economy of surrounding communities dependent on Forest Service timber resources.*

ISSUE 10: *Minimize adverse impacts to the economy of the surrounding communities dependent on recreational opportunities on Forest Service lands.*

ISSUE 11: *Minimize adverse impacts to the ranching community that are dependent on the grazing lands in the planning area.*

ISSUE 12: *Minimize the adverse effects of the timber sale on wildlife habitat and populations. The primary species of concern are: 1) Rocky Mountain elk; 2) mule deer; 3) Merriam's turkey; and 4) goshawk. These are all Management Indicator Species (MIS), as defined in the Dixie National Forest Plan.*

ISSUE 13: *Maintain suitable stands of Old Growth necessary for species that are related or dependent on this type of age class.*

ISSUE 14: *Minimize adverse impacts of the timber sale on soil erosion.*

ISSUE 15: *Minimize adverse impacts of the timber sale on stream quality.*

COMPATIBILITY WITH PLANS AND POLICIES OF OTHER JURISDICTIONS

No conflicts have been identified between the objectives of other Federal, State and Local governments and Indian tribes and the proposed action.

COMPLIANCE WITH THE NATIONAL FOREST MANAGEMENT ACT

All activities proposed for the Strawberry Ridge Project area will adhere to all sections of the National Forest Management Act.

Forest Plan Consistency

This decision is consistent with the Dixie National Forest Land and Resource Management Plan (DNF-LRMP) management direction and standards and guidelines for the Strawberry Ridge Project area.

Forest Land Suitability

All forest land identified for commercial timber harvest or vegetative related post-treatment activities have been determined to be suitable as defined in 36 CFR 219.3.

Vegetation Management

All vegetation management activities proposed under the alternative to be implemented adhere to all the principles and requirements of vegetative management as described in the National Forest Management Act.

Regeneration requirements were of particular importance to the publics who commented on activities proposed in this analysis. CFR 219.27(c)3 requires "When trees are cut to achieve timber production objectives, cuttings will be done in such a way as to assure that technology and knowledge exists to adequately restock the lands within 5 years after final harvest.....Five years after final harvest means 5 years after clearcutting, 5 years after final overstory removal in shelterwood cutting, 5 years after final removal cut in seed tree cutting, or 5 years after selection cutting.....Adequate restocking means that the cut area will contain the minimum number, size, distribution, and species composition of regeneration as specified in regional silvicultural guides for each forest type."

Areas proposed to be harvested under even-aged management intermediate cuts (commercial thinning or improvement cuts) or sanitation/salvage in this project area will have stocked, manageable stands following harvest activities. All areas harvested under uneven-aged management individual tree selection harvests will have stocked, manageable stands following harvest in size classes typically greater than 2 inches in diameter. Individual tree selection areas will typically contain the stocking of the size classes in the desired distribution curve of other than the regeneration size classes (refer to Chapter II, pages 56 to 65 for discussions of the attainment of size class distributions). The regeneration and stand stocking requirements under NFMA will be met in these areas following harvest. Refer to Table 19 in Chapter II of the FEIS for the Strawberry Ridge project area, pages 82 and 83, of this document for a summary of the number of acres involved in these treatments.

Under the alternative to be implemented patch cuts in the aspen and/or conifer disease centers and group selections in any area treated will be completed for the purpose of promoting regeneration. Harvest on these acres will require that it be done in such a way and on sites that will allow the establishment of regeneration within 5 years, at adequate stocking levels.

All management activities proposed that will affect the timber resource will meet all regional, NFMA, CFR and DNF-LRMP requirements for regeneration establishment and monitoring. No treatment prescribed will move a site into a condition in which it will no longer be capable of being regenerated in 5 years (based on existing technology and knowledge). If regeneration failure occurs on one of these sites due to a factor outside feasible control, such as excessive drought conditions, immediate followup treatments will be prescribed to regenerate these sites to adequate levels as soon as possible.

Specific Amendments to the Forest Plan

The Visual Quality Objectives along road #058 and the first half mile of road #239 between Utah State Highway 14 and the private sub-division have been revised, as previously stated in this ROD, to meet the changed conditions in the area.

COMPLIANCE WITH THE ENDANGERED SPECIES ACT

This decision is in compliance with the Endangered Species Act. A formal Biological Opinion by the U.S. Fish and Wildlife Service found that "no federally listed threatened or endangered species are known to occur in the project site. Also, we have determined that there will be no significant impacts on wetlands, floodplains, or other wildlife resources."

However, the Fish and Wildlife Service stated that the Mexican Spotted Owl was a candidate for official listing as either threatened or endangered and may occur in the project area. While this species has no legal protection at present under the Endangered Species Act, they suggested that care be taken to avoid them if found in the project area.

As a result of this suggestion a Mexican Spotted Owl survey was conducted. This survey procedure met the spotted owl inventory protocol requirements. No spotted owl response was heard during the surveys. It was therefore concluded by the Forest Wildlife Biologist that there are no known spotted owl pairs currently nesting within the Strawberry Ridge Project area.

PRESERVATION OF HISTORICAL AND ARCHAEOLOGICAL DATA

Based on findings from field surveys conducted in 1976 and 1987 by the Forest Cultural Resource Specialist no National Register Properties will be affected by any management activity conducted within the Strawberry Ridge Project area. State of Utah Historic Preservation Officer (SHPO) concurred with these findings on March 22, 1988.

MONITORING AND EVALUATION

Mitigation Measures to be Included in the Project Design

Forestwide Standards and Guidelines were applied during the development of the alternatives. They are listed on pages IV-24 through IV-159 of the Dixie National Forest Land and Resource Management Plan. In addition, the project-specific mitigation measures designed from the more general Forest Plan Standards and Guidelines in Chapter II, pages 3-6, of the FEIS for the Strawberry Ridge Project area will be applied during design and implementation of activities.

Monitoring and Evaluation Requirements

The goal of monitoring is to evaluate whether the activities to be implemented:

a. Meet the objectives outlined in the Forest Plan.

b. Maintain or enhance the identified forest uses of the Strawberry Ridge Project following activity implementation.

c. Do the activities implemented adhere to the specifications in the FEIS for the Strawberry Ridge Project area and contracts awarded.

Project-specific monitoring activities will occur as outlined in Chapter III, pages 105 to 108, in the FEIS for the Strawberry Ridge Project area. Two types of monitioring will be used in evaluations, and will be part of this decision.

a. Implementation monitoring is used to determine if plans, prescriptions, projects, and activities are implemented as designed and in compliance with Forest Plan objectives and standards and guidelines.

b. Effectiveness monitoring is used to determine if plans, prescriptions, projects, and activities are effective in meeting management direction, objectives, and the standards and guidelines.

PLANNING RECORDS

Planning records contain the detailed information, data and decisions used in preparing the Environmental Impact Statement and selecting Alternative E for implementation.

All documentation is available for inspection during regular business hours at the Cedar City Ranger District Office, Dixie National Forest, Cedar City, Utah, except those records related to Cultural Resources.

IMPLEMENTATION AND REQUEST FOR REVIEW

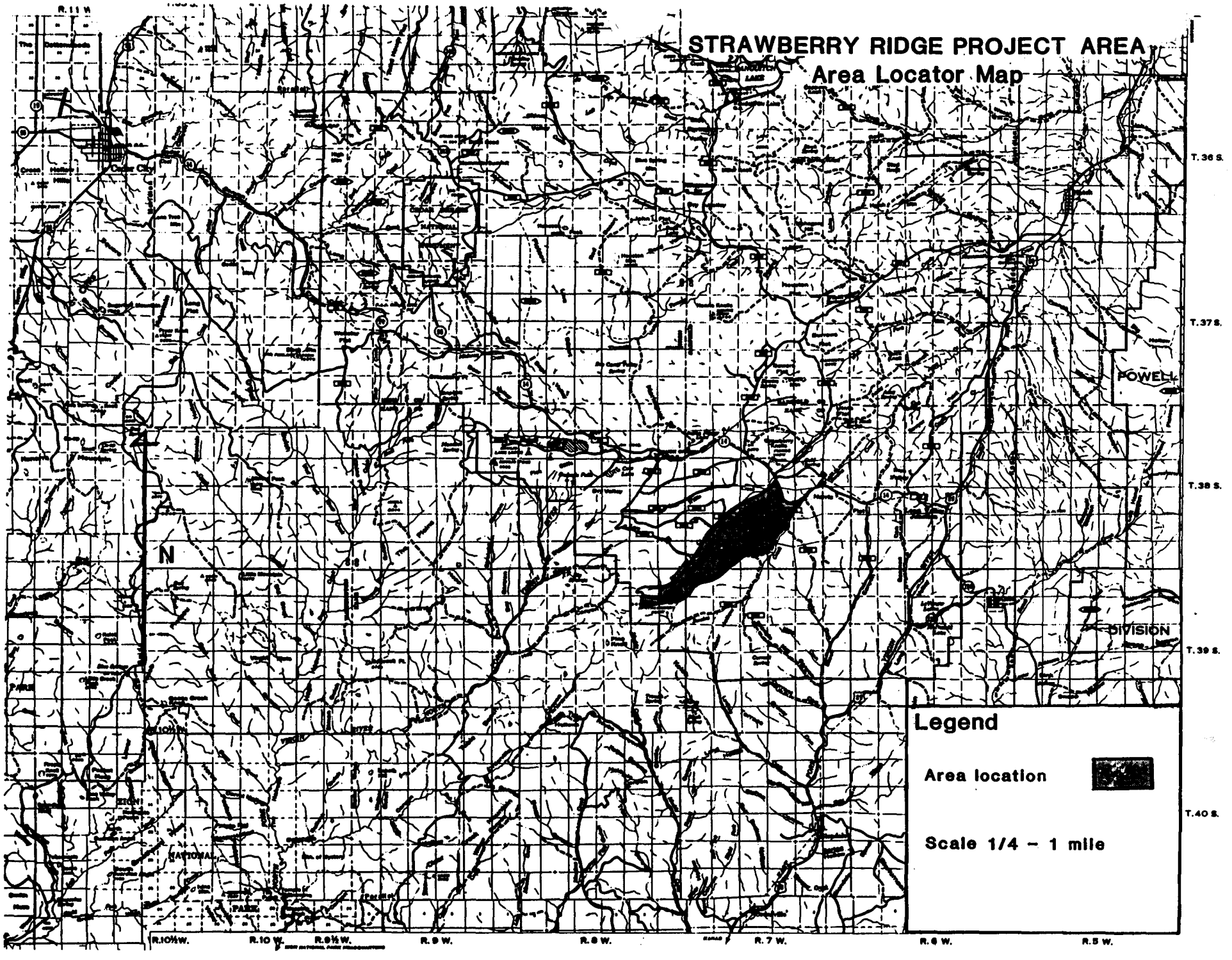
This decision may be implemented 45 days from the date that the notice of availability of the final EIS appears in the Federal Register.

This decision is subject to administrative review pursuant to 36 CFR 217. Any appeal of this decision must be fully consistent with 36 CFR 217.9; Content of Notice of Appeal, including the reasons for appeal and must be filed with the Regional Forester, Intermountain Region, 324 25th Street, Ogden, Utah 84401 within 45 days of the date the notice of availability of the Record of Decision is published in The Daily Spectrum. A copy of the notice of appeal must be filed simultaneously with the Forest Supervisor, Dixie National Forest, Box 580, Cedar City, UT 84720.

For further information contact Randall R. Hayman, Forester, Cedar City Ranger District, Dixie National Forest, Box 627, Cedar City, UT 84720; or telephone number (801) 865-3200.

HUGH C. THOMPSON
Forest Supervisor
Dixie National Forest

JAN 8 1991
DATE


STRAWBERRY RIDGE PROJECT AREA
Area Locator Map
Legend
Area location
Scale 1/4 - 1 mile
T.36 S.
T.37 S.
T.38 S.
T.39 S.
T.40 S.
R.11 W.
R.10½W.
R.10 W.
R.9½W.
R.9 W.
R.8 W.
R.7 W.
R.6 W.
R.5 W.
N
POWELL
DIVISION
ZION
NATIONAL
PARK