USDA

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Greendale Project

ERRATA

Final Environmental Impact Statement

Manchester Ranger District,
Green Mountain National Forest
Town of Weston, Windsor County, Vermont

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Based on the comments received on the Greendale Project Draft Environmental Impact Statement (DEIS), the Deciding Official came to the conclusion that, due to the minor nature of changes between the Draft and Final EIS, an errata sheet containing these minor changes would be issued [pursuant to 40 CFR 1503.4(c)]. This errata sheet, Appendix F to the Draft EIS (comments to the DEIS and responses) and the Greendale Project DEIS dated March 2003 is considered the Greendale Project Final EIS.

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- Chapter 2, Section 2.3.3: Change "White Rocks National Recreational" to "White Rocks National Recreation Area"

CHAPTER 1

- Pg. I-1, Chapter 1, second paragraph: Add after the first sentence "The Greendale Project Area consists of approximately 5,404 acres of National Forest System (NFS) lands and 2,816 acres of private lands for a total of 8,220 acres." Last sentence change ""within the 5,404 acre" to "on the 5,404 acres of NFS lands within the".

- Pg. I-1, Section 1.1 Purpose & Need, second paragraph: Replace the entire paragraph with "The Monitoring and Evaluation Report for 2002 (U.S.D.A Forest Service, 2003), page 24 states that for the period from 1987 to 2002, regeneration cuts for hardwoods occurred at a rate that was 30 percent of Forest Plan level, aspen management at only 14 percent, and conversion to softwoods at 72 percent. The report also states that other kinds of harvesting are falling short of Forest objectives. Selection harvest during the same period achieved only 58 percent of the Forest Plan level and thinning harvests only 38 percent of the Forest Plan level."

- Pg. I-2, add:

Explanation and Further Clarification of the Size of Group Cuts

There were a number of comments received during the DEIS public comment period that referenced or asked about the use of various group opening sizes associated with uneven-aged group selection harvesting. The following paragraphs provide explanation and further clarification on the intended size of group openings as was proposed under the various alternatives in the DEIS.

Alternative II proposed using larger size cuts for the group selection harvests as an alternative attempt (Alternative II; DEIS p. III-2) to mimic even-aged harvest methods of shelterwood and clearcutting but on a much reduced size and scale. In other words, instead of having 5 or 10-acre even-aged cuts, or even larger cuts, in order to achieve early successional habitat goals, an alternative was developed to use groups of varying sizes, consistent with Forest Plan direction, as part of an uneven-aged group selection management scheme. However, in order to achieve even minimal success at creating early successional habitat as desired (DEIS, Purpose and Need, p. I-1), these cuts would most likely need to be

larger than those usually prescribed for group selection harvests, in particular where the objective is to encourage aspen regeneration.

The Forest Plan describes the use of uneven-aged group selection harvest techniques in two key places. Page 4.68 states that the group cuts would "generally" be less than one acre, and describes where these cuts would be used. Appendix A, page A.06, describes the group selection method in detail. The maximum size allowed by the Forest Plan is stated here as "small groups resulting in openings that do not exceed an acre or two in size". Further down on A.06, it states "When groups are made of a maximum size, often considered to be 2 acres, they resemble small clearcuts". When considering cuts approaching the maximum size of two acres, "group selection can be used to encourage a higher proportion of species that are intolerant of shade" (p. A.06). This was the basis for proposing the two-acre group sizes for regenerating aspen in Alternative II (DEIS, p. III-2, para. 1).

The generally recommended group size that is used in many situations on the Green Mountain National Forest, and to be applied in most of the group selection units of the Greendale Project proposal (throughout all alternatives as appropriately described), is 1/3 to 1/2 acre. However, the range of sizes would generally go from about 1/4 up to about one acre, with the exception being the two-acre groups proposed for aspen regeneration in Alternative II. It is most important to note that sound silviculture would dictate the size of the group in any situation, and that the size would vary on the ground, and would depend upon the existing habitat and species, the desired regeneration objective, and the amount of light needed to meet that objective when considering how various species compete for sunlight and growing space.

The DEIS also talks about using group openings as small as 1/4 acre (DEIS p. I-9, para. 2; p. I-10, para. 2; p. III-2, para. 1;). Please note that Chapter III, in describing the alternatives, many times refers back to the description of the activities of the Proposed Action as being carried forward to a particular alternative(s) (i.e. also being proposed as part of an alternative). Use of 1/4-acre groups would be limited in most cases, to regenerate small clumps of softwoods, and only when it is determined that a small opening of this size would be effective. The main reason for this is to reduce the amount of competition from nearby hardwoods by keeping the opening small, and thus allow the softwoods a better opportunity to out-compete those hardwoods for light. Although not specifically stated as such in the DEIS, this was the primary intent for the use of the small (1/4-acre or so) group sizes in all of the management areas. This would be the case for the 1/4-acre group sizes in Compartment 45 of MA 3.1, stands 36 (a total of 3 acres of group cuts scattered appropriately over the entire stand) and 42 (a total of 2 acres of group cuts scattered appropriately over the entire stand), as proposed in the Proposed Action and all of the action alternatives.

- Pg. I-4, Figure 1.2, and Pg. I-7, Figure 1.3: Change the map scale from "1.87 inches = 1 mile" to "0.85 inch = 1 mile".

- Pg. I-5, second paragraph, fourth sentence: Change "3.75" to "3.899".

- Pg. I-16, first paragraph, fourth sentence: Delete reference to roads; no new road construction and no changes in system road use and classification would be needed.

- Pg. I-17, Figure 1.4: Change the map scale from "1.87 inches = 1 mile" to "0.85 inch = 1 mile".

CHAPTER 2

- Section 2.2, Pg. II-3, Heritage Resources heading: Change "2.28" to "2.2.8"

CHAPTER 3

- Section 3.1, Pg. III-1, second paragraph, first sentence: Delete one of the repetitive issues 2.3.6 (it appears twice).

- Section 3.1, Pg. III-1, second paragraph, last sentence: Change "(**Issue 2.3.4**)" to "(**Issue 2.3.10**)"

- Section 3.2, Pg. III-2, first paragraph, third sentence: Replace with "There would be 15% fewer total acres affected than the Proposed Action (690 acres v. 813 acres).

- Section 3.2, Pg. III-2, second paragraph, second sentence: Change "2.66" to "2.656".

- Section 3.3, Pg. III-8, At the beginning of the second paragraph add "Alternative III was developed to address concerns that the types of tree harvest proposed, the sights and sounds of logging, and the resulting changes to the forest landscape, would have a negative impact on the semi-primitive backcountry recreational experience of visitors using MA 6.2A particularly in the Moses Pond area **(Issue 2.3.2)**."

- Section 3.3, Pg. III-8, first paragraph, fifth sentence: Change "3.35" to "3.511".

- Pg. III-4, Figure 3.1, Pg. III-10, Figure 3.2, and Pg. III-15, Figure 3.3: Change the map scale from "1.87 inches = 1 mile" to "0.85 inch = 1 mile".

- Section 3.4, Pg. III-13, second paragraph, second sentence: Delete "tree harvest" and change "(806 v. 781)" to "(850 v. 813)".

- Section 3.4, Pg. III-13, first paragraph, third sentence: Change "4.15" to "4.161".

- Pg. III-17, Table 3.3: Change subtotal for MA 4.1 from "261 acres" to "265 acres"; and subtotal for MA 6.2A from "266 acres" to "239 acres".

- Pg. III-18, Table 3.3: Change Subtotal from "234 acres" to "97 acres".

- Pg. III-25. Add:

3.6.5 Modified Alternative II – Emphasize Individual Tree Selection and Limit Group Selection Harvest Size

This alternative was suggested by comments received during the 45-day DEIS public comment period that if Alternative II were to be selected for implementation, that it should be modified so that individual tree selection replace group selection wherever possible and that group harvest sizes be limited to less than 1/4 acre. This would more closely emulate the canopy gaps that naturally occur in Vermont.

This alternative would not achieve the desired objectives of creating quality early successional habitat needed for wildlife within the project area. Ideal open sunlight conditions needed by shade intolerant tree and understory plant species to survive would not be adequate where only individual tree selection is applied or in group harvests that are less than 1/4 acre in size. This smaller sized group harvest treatment would be effective where the desire is to regenerate small clumps of softwoods. The main reason for this would be to reduce the amount of competition from nearby hardwoods by keeping the opening small, and thus allowing the softwoods a better opportunity to out-compete those hardwoods for light. However, these size openings would not create the conditions needed to regenerate shade intolerant or semi-tolerant species. Certain species, aspen in particular, need ample amounts of sunlight, much more than would be provided by using very small group sizes such as 1/4 acre. Although some early successional habitat would be created with group harvest cuts of this size, the quality of that habitat would be severely compromised with the loss of vegetative composition diversity.

- Pg. III-26, Table 3.5, 'Delayed Shelterwood': Change "0" to "25" (under Proposed Action).

- Pg. III-26, Table 3.5, 'Timber Harvested': Change "3.75" to "3.899" (under Proposed Action); "2.66" to "2.656" (under Alt. II); "3.35" to "3.511" (under Alt. III); and "4.15" to "4.161" (under Alt. IV).

CHAPTER 4

- Pg. IV-5, second full paragraph, first sentence: Change "R-3, R-4, R-7, and R-8" to "R-1, R-2, R-3, R-4, R-5, R-6, and R-7".

- Pg. IV-5, second full paragraph, second sentence: Change "R-3" to "R-1".

- Pg. IV-5, second full paragraph, third sentence: Change "R-4" to "R-3".

- Pg. IV-7, under the highlighted section "Mitigation Measures Specific To Trail Use And Management", second paragraph, R-1, first sentence: Delete "Stands 25, and 26, Compartment 29, and" (These stands were dropped out of the Proposal and all alternatives).

- Pg. IV-17, third paragraph, last sentence: Delete "through" (it appears twice).

- Pg. IV-18, Section 4.2.4.1, first sentence: After "Project Area…" delete "except for apple tree orchard and opening maintenance".

- Pg. IV-25, first paragraph, second to last sentence: Change "3.1A" to "3.1".

- Pg. IV-27, third full paragraph, second sentence: Change "used" to "use".

- Pg. IV-31, first paragraph, last sentence: Change "occurs" to "occur".

- Pg. IV-34, Section 4.4.3.2.2, third paragraph, first sentence: Change "4.4.1.2.2" to "4.4.2.2.2".

- Pg. IV-41, Section 4.4.3.4.3, first sentence: Change "4.4.1.2.3" to "4.4.2.2.3".

- Pg. IV-56, third full paragraph, third sentence: Replace with "There are not any extensive industrial private forest lands in the area that would provide opportunities for harvesting large tracts."

- Pg. IV-64, first full paragraph: Change "continuing" to "continue".

- Pg. IV-79, first paragraph, last sentence: Change "over" to "overall".

- Pg. IV-91, Table 4.9.3 modified 10/21/03 per new timber harvest volume estimates for Compartment 27, stand 10 under the Proposed Action and Alternatives III, & IV:

Table 4.9.3 Economic Benefits and Costs

	Proposed Action	Alt. I (No Action)	Alt. II	Alt. III	Alt. IV
BENEFITS					
Total Est. Volume (MBF)	3899	0	2656	3511	4161
Jobs Provided (person years)	140	0	96	126	150
25% Fund to Towns	$ 299,600	0	$ 215,200	$ 270,325	$ 333,350
Total Stumpage Revenues	$ 1,198,400	0	$ 860,900	$ 1,081,300	$ 1,333,400
PROJECT COSTS					
Sale Administration	$ 50,300	0	$ 34,200	$ 45,300	$ 53,600
Sale Preparation	$ 159,700	0	$ 108,800	$ 143,800	$ 170,400
Trail Relocation	$ 500	0	$ 500	$ 500	$ 500
Apple Orchard Restoration	$ 3,400	0	$ 3,400	$ 3,400	$ 4,600
Stream Habitat Improvement	$ 8,800	0	$ 8,800	$ 8,800	$ 8,800
KV FUND COSTS					
Site Preparation	$ 58,000	0	$ 47,600	$ 56,000	$ 63,200
Stocking Surveys	$ 2,800	0	$ 2,300	$ 2,700	$ 3,000
ESTIMATE OF TOTAL BENEFITS, COSTS, AND PRESENT NET VALUE AFTER DISCOUNTING					
Total Benefits	$ 1,198,400	0	$ 860,900	$ 1,081,300	$ 1,333,400
Total Costs	$ 283,500	0	$ 205,600	$ 260,500	$ 304,100
Present Net Value	$ 914,900	0	$ 655,300	$ 820,800	$ 914,900

- Pg. IV-98, Table 4.11, 'Economic Benefits': Change "3.75" to "3.899" (under Proposed Action);); "2.66" to "2.656" (under Alt. II); "3.35" to "3.511" (under Alt. III); and "4.15" to "4.161" (under Alt. IV).
- Pg. IV-98, after Table 4.11, add:

4.12 Unavoidable Adverse Impacts / Short-term Uses versus Long-term Productivity / Irretrievable and Irreversible Commitment of Resources:

Recreation:

Unavoidable Adverse Impacts:

Under the proposed action and all action alternatives, timber harvesting would adversely impact the recreational experience, particularly in the semi-primitive setting of MA 6.2A, the primitive/semi-primitive setting of the adjacent White Rocks NRA, and at the Greendale Campground. While project activities would be timed to coincide with periods of relatively low recreational use, some adverse impacts are inevitable in the short term. Harvest and skidding occurring on or adjacent to existing trails may physically impede the use of those trails for recreation and access. Particularly, where winter logging is required to protect fragile soils, harvesting would adversely impact recreation uses such as snowmobiling and skiing. All adverse impacts would be minimized to acceptable levels through application of Forest Plan

standards and guides, and mitigation measures. Under the No Action alternative, no impacts related to timber harvesting would result. However, recreational hunting and bird watching opportunities would decrease over time as the diversity of habitat conditions declines.

Short-term Uses versus Long-term Productivity:
In the short term, recreational uses in the project area would be impacted. These impacts, more fully described for each alternative, include physical impediments on existing trails and travel-ways, and impacts to primitive/semi-primitive and campground recreational settings stemming from the sights and sounds of timber harvest activities. After harvest activities are completed and the project area's trails are restored, recreational use of the area in the long-term would continue virtually unchanged. Any changes in recreational use stemming from the proposed project or the action alternatives would be positive, e.g., increased presence of wildlife species as a result of habitat improvement. Under the No Action alternative, current uses would persist in the short term, but uses such as hunting and bird watching would suffer impacts in the long term as habitat diversity would decline.

Irretrievable and Irreversible Commitment of Resources:
The proposed action or any action alternative may result in an irretrievable commitment of resources due to the potential temporary unavailability of trails on which harvesting activity is occurring. Neither the proposed action nor any action alternative would result in an irreversible commitment of resources. No commitment of resources, either irretrievable or irreversible, would result from the No Action alternative.

Visual Quality:
Unavoidable Adverse Impacts:
In the short term, visual quality would be adversely impacted by harvest activities under the proposed action or, to varying degrees, under any action alternative despite the use of vegetative screens, particularly in the case of more intensive treatments such as clearcuts and shelterwood harvests. Adverse impacts would be created by the presence of slash and stumps, which would be evident from roads and trails adjacent to harvest areas, and within interior portions of the forest. Potential adverse impacts related to changes in forest textural quality would be evident from locations with broad viewsheds, such as the Wantastiquet Trout Club. Nonetheless, visual quality objectives would be met under the proposed action or any action alternative. Under the No Action alternative, no adverse impacts would result.

Short-term Uses versus Long-term Productivity:
Short-term impacts to visual resources would, over time, give way to pre-harvesting visual quality conditions as slash decays, openings revegetate, and sharp visual contrasts created in the viewshed by harvest activities soften. Under the No Action alternative, short-term use would not change.

Irretrievable and Irreversible Commitment of Resources:
Removing trees, thereby changing the forest textural quality and leaving slash and stumps on the ground would constitute an irretrievable commitment of resources. Because trees are a renewable resource, the commitment is not irreversible. No irreversible commitment of resources would result from the proposed action or any action alternative. Under the No Action alternative, there would be no irretrievable or irreversible commitment of resources.

Threatened, Endangered & Sensitive Species:

Unavoidable Adverse Impacts:

As set forth in the Biological Evaluation in Appendix C, no adverse impacts to threatened, endangered or sensitive (TES) animal or plant species are expected under the proposed action or the action alternatives. Indirectly, individuals of some sensitive species may be impacted by changes in their habitat, but would not result in trends towards listing or loss of viability. No adverse impacts to TES species would result from the No Action alternative.

Short-term Uses versus Long-term Productivity:

Under the proposed action or any action alternative, timber harvest may impact sensitive species habitat in the short term. In the long term, habitat would be expected to not only recover but also to improve over the status quo. Under the No Action alternative, no impacts to TES species would result, and therefore the balance between short-term uses and long-term productivity is not at issue.

Irretrievable and Irreversible Commitment of Resources:

Harvest activities under the proposed action or any action alternative may result in an irretrievable commitment of resources by temporarily fragmenting sensitive species habitat and/or degrading habitat through such mechanisms as soil compaction. No irreversible commitment of resources would result from the proposed action or any action alternative. The No Action alternative would not result in an irretrievable or irreversible commitment of resources.

Wildlife, Wildlife Habitat & Vegetation Management:

Unavoidable Adverse Impacts:

The proposed action and all action alternatives would result in temporary harvest-related adverse impacts to wildlife habitat and, potentially, to individual animals. These impacts include a decline in the availability of snag and downed log replacements and a potential slight short-term decline in wildlife food sources. The No Action alternative would not result in any direct adverse impacts to wildlife or wildlife habitat, but a continuing decline in forest species composition and age class diversity would adversely impact the quality of wildlife habitat over time.

Short-term Uses versus Long-term Productivity:

Under the proposed action and all action alternatives, vegetation management would result in revenue and the creation of generally better wildlife habitat in the short term. Long-term productivity in terms of wildlife and wildlife habitat would not decline but instead would increase with the creation of additional early successional habitat. Under the No Action alternative, current use would continue. Long-term productivity would continue to decline as forests mature and early successional habitat continues to disappear.

Irretrievable and Irreversible Commitment of Resources:

The proposed action and all action alternatives would result in an irretrievable commitment of resources in the form of habitat alteration. No irreversible commitment of resources would result. Under the No Action alternative, no irretrievable or irreversible commitment of resources would result.

Management Indicator Species (MIS):

Unavoidable Adverse Impacts:

MIS populations that rely upon mature forest would lose an insignificant amount of habitat acreage under the proposed action or any action alternative, but individuals of these species may be affected by project activities. Under the No Action alternative, MIS populations that rely upon early successional habitat would lose habitat acreage as existing young forest stands in the project area continue to mature.

Short-term Uses versus Long-term Productivity:

Long-term productivity in terms of MIS populations that rely upon early successional habitat would not be compromised by the short-term uses related to vegetation management, but would increase over time as a result of the proposed action or any of the action alternatives. Under the No Action alternative, short-term uses would remain unchanged; long-term productivity of MIS populations that utilize early successional habitat would decline.

Irretrievable and Irreversible Commitment of Resources:

The vegetation management activities used to manipulate MIS forest habitat under the proposed action or any action alternative would constitute an irretrievable commitment of resources, as habitat would change. None of the changes would comprise an irreversible commitment of resources.

Wetlands, Water and Soil Resources:

Unavoidable Adverse Impacts:

Timber harvest activities, including skidding of trees, crossing of streams, using skid trails, skid roads and log landings, and bridge construction would create unavoidable adverse impacts under the proposed action and all action alternatives. These impacts would include soil erosion, soil compaction, rutting, loss of soil nutrients through biomass removal, wetland degradation, pollution, loss of shade trees and water body sedimentation. The placement of LWD in project area waterbodies would result in short-term streambed disturbance. These impacts would be minimized to within acceptable levels through the application of Forest Plan standards and guidelines, Acceptable Management Practices and additional mitigation measures. The No Action alternative would not result in any adverse impacts to wetlands, water or soil resources.

Short-term Uses versus Long-term Productivity:

Under the proposed action or any action alternative, short-term uses, i.e., timber harvest, would result in impacts to long-term soil productivity. Because soil productivity is expected to recover, and because impacts to soil productivity would be minimized by the implementation of mitigation measures, these impacts would be minor. The No Action alternative would involve no short-term use, and therefore a balance between such use and long-term productivity is not at issue.

Irretrievable and Irreversible Commitment of Resources:

The potential reduction in soil productivity due to erosion and compaction would be an irretrievable loss of resources that may result from the proposed action or any action alternative. Over time, soil productivity would be expected to recover. Any pollution or sedimentation to project area water bodies resulting from project activities under the proposed action or any action alternative also would constitute an irretrievable commitment of resources. Neither the proposed action nor any action alternative would result in any irreversible commitment of resources. No

irretrievable or irreversible commitment of resources would result from implementation of the No Action alternative.

Fisheries Resources:

Unavoidable Adverse Impacts:

Sedimentation to and turbidity in fish-bearing streams may result from implementation of timber harvest activities under the proposed action or any action alternative. This impact would be minimized or eliminated through the use of Forest Plan standards and guidelines, Acceptable Management Practices and additional mitigation measures. Under the No Action alternative, stream habitat would continue to deteriorate due to a lack of LWD and quality pool habitat.

Short-term Uses versus Long-term Productivity:

The placement of LWD and the resulting streambed disturbance and turbidity would be a short-term use. This use would be balanced by a significant improvement in long-term productivity in terms of water quality and stream habitat. Under the No Action alternative, short-term uses would remain unchanged; productivity would continue to decline in the long term.

Irretrievable and Irreversible Commitment of Resources:

Neither the proposed action, the action alternatives, nor the No Action alternative would result in an irretrievable or irreversible commitment of resources.

Heritage Resources:

Unavoidable Adverse Impacts:

Ground-disturbing activities, such as skidding, under the proposed action or any action alternative potentially would result in physical impacts to historic and archaeological sites. These impacts would be minimized or eliminated through the implementation of mitigation measures. Under the No Action alternative, no direct impacts would result, although the opportunity to perform heritage resources site enhancement would be missed, particularly with regard to apple tree release.

Short-term Uses versus Long-term Productivity:

The short-term beneficial use associated with the timber harvest under the proposed action and all action alternatives potentially would result in the disturbance of heritage resources and, consequently, the decreased integrity of these resources and the lessening of their value for future study, enjoyment, and spiritual use. This decreased long-term productivity would be rendered unlikely through the implementation of mitigation measures. Under the No Action alternative, short-term uses would be unchanged. Long-term productivity of historic apple orchards would decline without the proposed apple tree release.

Irretrievable and Irreversible Commitment of Resources:

Neither the proposed action nor any action alternative would involve an irretrievable or irreversible commitment of heritage resources, because the application of mitigation measures and subsequent monitoring would render the risk of impacts to these resources negligible. Under the No Action alternative, the failure to undertake apple tree release may represent an irreversible or irretrievable commitment of those resources, because the trees' condition would continue to deteriorate, perhaps to the point where they could not be saved.

Economics:

Unavoidable Adverse Impacts:

Timber harvest activities under the proposed action or any action alternative may result in a minor and temporary impact to the local recreation-based economy in the project area. No adverse economic impacts would result from the No Action alternative.

Short-term Uses versus Long-term Productivity:

Timber harvest activities under the proposed action or any action alternative would, in the short term, result in the injection of revenue into the public and private sectors of the local economy. Also in the short term, revenue-generating recreational opportunities may be adversely affected. In the long term, economic productivity would benefit as forest and stream health improve, thereby increasing the value of resource extraction and recreational pursuits. Under the No Action alternative, short-term uses would be unchanged. Long-term productivity may decline as forest and stream health continue to deteriorate, adversely affecting timber and recreational values.

Irretrievable and Irreversible Commitment of Resources:

Timber harvest activities under the proposed action or any action alternative would represent an irretrievable commitment of resources in the sense that revenue-generating recreational opportunities would be impacted in the short term; also, timber harvested under the current plans would be unavailable for future harvest. Both the recreational opportunities and the timber resources would rebound in the future, however, and so the commitment of these resources would not be considered irreversible. Under the No Action alternative, no economic resources would be committed.

Environmental Justice:

Unavoidable Adverse Impacts:

Neither the proposed action, any action alternative, nor the No Action alternative would result in adverse environmental justice impacts.

Short-term Uses versus Long-term Productivity:

Environmental justice is not at issue in the project area.

Irretrievable and Irreversible Commitment of Resources:

Neither the proposed action, any action alternative, nor the No Action alternative would involve an irretrievable or irreversible commitment of resources in terms of environmental justice.

CHAPTER 5

- Pg. V-1, Section 5.1: Add "B. Culpepper, Timber Program Leader, Supervisors Office, Rutland; K. Donna, NEPA Coordinator, Supervisors Office, Rutland; D. McKinley, Former Acting District Ranger, Manchester District; G. Owens, District Ranger, Manchester RD; and J. Strand, NEPA Coordinator, Rochester RD."

- Pg. V-6: Add "U.S. Department of Agriculture. 2003. Green Mountain National Forest 2002 Monitoring and Evaluation Report. USDA Forest Service, Rutland, VT."

APPENDIX B

- Pg. B-3, Mitigation Measure R-1, first sentence: Delete "Stands 25, and 26, Compartment 29, and" (These stands were dropped out of the Proposal and all alternatives).

- Pg. B-4, Mitigation Measure R-3: Change entire paragraph to read:

  "As part of the provisions of the timber sale contract, require the timber purchaser to rehab any impacted trail upon completion of the timber sale. This work would consist of restoration of existing water bars, seeding and mulching areas of disturbed soil, clearing of logging debris from trails, removal of hazardous leaning trees or tops caused by the logging, replacement of any damaged or missing trail signs/blazes, and smoothing of any ruts as a result of harvest activity. At the completion of summer harvesting, restoration will take place no later than October 15 of each year during the life of the timber sale. This will allow skiing to occur during periods that the trails are not closed for skidding. The exception is the portions of the trails used for winter tree harvest and/or skidding."

- Pg. B-5, Mitigation Measure R-7, first paragraph, first sentence: Change "As part of the timber sale provisions" to "As part of the provisions of the timber sale contract". First paragraph, after last sentence, add "To minimize safety concerns related to snowmobiles, log trucks and other vehicles sharing the same travelways, the following measures will be implemented." Change the next four bullet items to read:

  - For winter trails in which skidding will cross the trail (and the trail remains open), skidding will be prohibited from all weekends and legal holidays.

  - Proper signing will occur at trailheads warning recreational users of harvest activity crossing the trail; signing will also occur 100 feet on the trail before the skid crossing, and as appropriate in parking lots and at trail intersections.

  - Post and maintain signs (and, if needed, appropriate speed limit signs), year- round warning recreation users of the presence of logging activities and logging trucks. Locate signs on those Forest Roads where harvest activity and recreation activities will occur (trails staff and timber sale administrator will identify locations).

  - Notify Catamount Trail Association (CTA) approximately one month before logging activities begin so CTA can temporarily remove trail blazes and post new ones, as appropriate, and alert trail users of any temporary re-routes. This will be the responsibility of the Forest Service District Trails specialist.

- Pg. B-6, Mitigation Measure S-9: Change entire paragraph to read "Protect Class II wetlands, Class II riverine wetlands (Greendale Brook, Jenny Coolidge Brook, Utley Brook, and an unnamed stream along the northeast boundary of Compartment 45, near FR 16), and Class III wetlands greater than approximately 1/10 acre in size by not allowing logging <u>within 50 feet</u> of any of these above mentioned wetlands. All other Class III wetland areas are protected by winter logging. In addition, no logging will be

done on inclusions of poorly drained soils. Flagging of these areas will be done during sale layout by qualified district staff."

- Pg. B-12, Mitigation Measure T-4 (Wetland sensitive plant associates): Change entire paragraph to read "Protect sensitive plant species associated with wetlands, the 50 ft. no-cut zone proposed to protect soil and water in Class II and 1/10 acre or greater Class III wetlands will aid in preventing changes in light regime and hydrology for these species, if they exist. Likewise, the winter-only logging mitigation will protect species that could possibly occur in the smaller Class III wetlands. A soil scientist or botanist prior to the start of timber harvest will check the sale's layout. The timber sale administrator will monitor the implementation of these mitigation measures through the duration of the sale."

APPENDIX C

- Pg. C-35, under Floating burr-reed, fourth paragraph, seventh sentence: Delete "is the only rare element noted from the pond or its surroundings"

- Pg. C-39, under Direct effects, after second sentence: Add "Thus, minimal direct effects are possible." Delete "Thus, no direct effects are expected" at end of paragraph.

- Pg. C-40, under Cumulative effects: Replace sentence with "Given that round-leaved orchids is not rare enough to be tracked by the state of Vermont, its distribution throughout the state is not well-documented. In addition, orchids tend to be microsite-specific. Thus, for the purposes of this analysis, the analysis area will be defined as the same as the project analysis area, as defined in the DEIS, and including both federal and private lands. The time frame for the analysis takes into account past timber sales in this area, present activities on adjacent private lands, and future activities, such as overstory removal, apple tree removal, and trail erosion control. These latter activities are not proposed for the stands with which this species is associated, and so are not expected to contribute to cumulative effects. No other populations of these species are known from this area, although it is possible that they do exist there, and have simply not been recorded. Because of the lack of records for this species, it would be difficult to quantify cumulative effects beyond the existing occurrence. However, since there is no known decline in this species, the potential loss of a few individuals, if any, is not expected to lead to loss of viability or a trend toward federal listing." Remove "No cumulative effects are expected, since no direct effects are expected, and indirect effects are expected to be minimal."

- Pg. C-41, under Direct effects, after second sentence: Add "Thus, some direct effects are possible." Delete last sentence.

- Pg. C-41, under Indirect effects, first paragraph, second sentence: Change "propsed" to "proposed".

- Pg. C-41, under Cumulative effects: Change sentence to read "No cumulative effects are expected, since no direct effects are expected, and indirect effects are expected to be minimal." Add "Because rich northern hardwoods of varying types are scattered

throughout the state, their distribution is not entirely predictable, and these four plant species are also not limited in distribution to any one part of the state, the analysis area for this effects analysis will be defined as the project analysis area, as defined in the DEIS, and including both federal and private lands. The time frame for the analysis takes into account past timber sales in this area, present activities on adjacent private lands, and future activities, such as overstory removal, apple tree removal, and trail erosion control. These latter activities are not proposed for the stands with which this species is associated, and so are not expected to contribute to cumulative effects. No other populations of these species are known from this area, although it is possible that they do exist there, and have simply not been recorded. However, they have not been recorded from the one other known rich woods site in this vicinity. Thus, while it is possible that there are populations of any these species in the analysis area, and it is possible that some of them have been or are currently being disrupted by other activities, there is no known decline in these species in this analysis area, and thus no cumulative effects are expected as a result of this proposed project."

- Pg. C-43, second full paragraph, first sentence: Delete "mitigate to" and after "wetlands" add "from the project as a result of standards and guidelines in the Forest Plan…".

- Pg. C-43, under Effects, second sentence: Change "sedimentation" to "sedimentation".

- Pg. C-43, under Direct effects: Change the entire paragraph to read "Because the project proposal does not include working in wetlands, no direct effects are expected."

- Pg. C-43 and C-44, under Indirect effects: Change the entire first paragraph to read "Because the project proposal does not include working in wetlands, no indirect effects are expected."

- Pg. C-46, under Cumulative effects: Change the sentence to read "No cumulative effects are expected, since no direct or indirect effects are expected."