

SUPPLEMENTAL INFORMATION REPORT

EAST SIDE PROJECT

FINAL ENVIRONMENTAL IMPACT STATEMENT

May 12, 2005

USDA Forest Service
Allegheny National Forest
Elk, Forest, McKean, and Warren Counties
Pennsylvania

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Introduction

The East Side Project, approved in December 2000, was developed in response to tree mortality and decline that developed across a 140,000 acre portion of the ANF. Since May 2001, the project has been the subject of litigation in the U.S. District Court for the Western District of Pennsylvania. On March 23, 2004, Judge Standish issued a final ruling on the case in favor of the Forest Service on nine of ten counts raised in the original complaint.

Twenty-eight timber sales with an estimated volume of 34 million board feet (MMBF) were intended to be implemented from the East Side decision. To date, only nine sales (containing 6.6 MMBF) have been sold. One additional sale, the Pig's Ear Sale, was withdrawn from the East Side decision and re-analyzed in the Spring Creek project in 2004. There are 18 remaining sales that still can be implemented under the East Side decision. Current estimate of volume to be sold is 12.0 MMBF (reduction in volume is due to delay in implementation and change in value of some of the salvage products to be included in these sales).

The East Side FEIS outlines 7 need statements for this project (USDA-FS 2000a, p. 6-9). A review of these statements shows that there is still a need to implement the East Side project.

Since December 2000, several changes have occurred within the East Side project area and within units proposed for treatment:

- The July 2003 windstorm caused considerable damage (windthrown and damaged trees) within 10 of the remaining East Side sales.
- As a result of the magistrate's December 24, 2003 recommendation, the Forest Service will refrain from timber harvesting on Group 3 soils and riparian areas included in the East Side Project Decision.
- Due to the delay in implementation, stand conditions in the overstory and understory have changed. Some modifications to silvicultural prescriptions are needed in some stands.
- A survey of Spring Creek conducted in 2004, documented the occurrence of the mountain brook lamprey (a Regional Forester's Sensitive Species) within the East Side Project area.
- Since 2001, several populations of Thread Rush (Regional Forester's Sensitive Species) were discovered within the East Side project area and in May, 2004, a Bald Eagle (Federally Threatened species) nest was also discovered within the East Side project area.

The purpose of this Supplemental Information Report is to document recent developments and review this project for compliance with laws, regulations, and Forest Service direction and to determine if additional environmental disclosures or changes to the selected alternative are necessary as a result of this new information and review of the changes conditions [see 40 CFR 1502.9(c)].

Recent Developments and Information

1. July 21, 2003 Storm Event:

A severe windstorm occurred on July 21, 2003 and affected approximately 10,000 acres of the ANF including the East Side project area. The storm caused considerable damage across two large subsections of the ANF. Severity of damage ranged from the breaking or toppling of scattered single trees to larger acreages where trees were entirely blown down and/or damaged (USDA-FS 2004a, p. 3). Following the July 2003 storm, affected portions of the East Side Project were reviewed for changed resource conditions.

Interdisciplinary analysis of the current resource conditions in the East Side Project Area has shown that the July 2003 storm altered the conditions in portions of the East Side Project. Scattered windthrown and damaged trees from the July 2003 storm within existing and planned timber sale units may be included with the timber sale units.

Eighteen stands, which were proposed for commercial thinning (code 4220) or salvage thinning (code 4232) were heavily damaged by the storm, which resulted in less than 40 percent relative density of overstory remaining in each of these stands. Effects of the July 2003 storm event are discussed in the 2003 Storm Assessment Addendum (USDA-FS 2004a, pp. 5-16). Interdisciplinary analysis of the conditions in these stands has shown the proposed intermediate treatments are no longer appropriate. These stands will be removed from treatment in the East Side Project and are listed in the Table 1. As a result of these removals, approximately 282 acres of intermediate harvest treatments and 4 acres of reforestation treatments will not be implemented under the East Side ROD. Further analysis in a future planned project would determine how best to address the current conditions in these stands. These acre reductions are included in Table 7.

Table 1 – Intermediate Treatments Heavily Damaged by July 2003 Storm

Compartment	Stand	Acres	Objective	Cut
684	31	10	GREEN	4220
700	22	15	GREEN	4220
700	135	8	GREEN	4220
816	82	6	GREEN	4220
819	33	11	GREEN	4220
826	28	22	GREEN	4220
826	59	14	GREEN	4220
827	68	6	GREEN	4220
827	71	8	GREEN	4220
829	10	31	GREEN	4220
700	8	40	SALVAGE	4232
700	18	14	SALVAGE	4232
700	34	17	SALVAGE	4232
700	37	19	SALVAGE	4232
700	134	4	SALVAGE	4232
816	3	21	SALVAGE	4232
827	14	20	SALVAGE	4232
827	41	16	SALVAGE	4232
	Total	282		

Withdrawal of East Side FEIS Treatments in Pigs Ear Area:

Interdisciplinary analysis of the resource conditions in the Pigs Ear Area found that the July 2003 storm altered the conditions of this portion of the East Side Project. The actions prescribed in the East Side ROD for the Pigs Ear Area (Compartment 712) are no longer appropriate because they were intended to address conditions that have been changed by the storm damage in the area.

On May 27, 2004, Kevin B. Elliott, Forest Supervisor, withdrew the silvicultural, reforestation, and transportation treatments in the Pigs Ear Area from the total project treatments as described in the East Side ROD, Table 1 – page 7 and Table 2 – page 8 (see Appendix A). As a result of this withdrawal approximately 178 acres of silvicultural treatments, 151 acres of reforestation treatments, and 1.4 miles of road reconstruction will not be implemented under the East Side ROD. These acre and mileage reductions are shown in Table 7 and Table 9.

The Pigs Ear area was re-analyzed and included in the Spring Creek EIS, for which the ROD was signed in June 2004.

Withdrawal of East Side FEIS Treatments from Jump Off and Rocket John Timber Sales:

Interdisciplinary analysis of the resource conditions in the proposed Jump Off and Rocket John Timber Sales found that the July 2003 storm created several pockets of down and leaning trees that posed potentially hazardous conditions to recreation vehicles accessing this portion of the East Side Project. The actions prescribed in the East Side ROD within 200 feet of Forest Roads (FR) 395 and 396 in the Jump Off and Rocket John Timber Sales, Compartments 700 and 701, were no longer appropriate where the pockets of wind thrown trees occurred as a result of the storm.

On May 27, 2004, Kevin B. Elliott, Forest Supervisor withdrew 17 acres of silvicultural treatments and 19 acres of reforestation treatments in the Jump Off and Rocket John payment units from the total project treatments as described in the East Side ROD, Table 1 – page 7 (see attached). The acres withdrawn from the proposed Jump Off and Rocket John Timber Sales were re-analyzed in the FR 395/396 Categorical Exclusion in 2004 and harvested with the FR 395/396 Salvage Sale, which was completed in 2004. These acre reductions are included in Table 7.

2. Group 3 Soils and Riparian Areas:

As a result of Magistrate Sensenich's December 24, 2003 recommendation, Forest Supervisor Kevin B. Elliot decided to refrain from timber harvesting on Group 3 soils and within riparian areas included in the Eastside Project. There are 301 acres of treatment prescribed on Group 3 soils in the Eastside Project. Prior to the Magistrate's recommendation and subsequent declaration by the Forest Supervisor, timber harvest had occurred on 4 of these acres. The remaining 297 acres will not be included in timber sale contracts as part of the implementation of the Eastside Project. These stands are shown

in Table 2 and these acre reductions are included in Table 7 and Table 10. The one stand that contained Group 3 soils was harvested in late January 2004, prior to the declaration, and was monitored in September 2004. The stand had less than 3 percent detrimental soil disturbance, where the standard is to maintain less than 15 percent within a stand or activity unit (USDA-FS, 1986).

Table 2 – Group 3 Soils

Compartment	Stand	Acres	Alt 1 Cut1	Alt 1 Cut2	Group 3 Soil (Acres)	Sale Name	Payment Unit	Awarded	Cut
309	3	13	4231	-	3	-	-	-	-
309	10	7	4231	-	7	-	-	-	-
309	11	18	4231	-	8	-	-	-	-
675	64	31	4231	-	12	-	-	-	-
816	18	6	4220	-	6	-	-	-	-
816	22	14	4220	-	4	-	-	-	-
816	24	19	4133	4141	16	-	-	-	-
816	54	7	4220	-	7	-	-	-	-
816	59	15	4133	4141	6	-	-	-	-
816	61	2	4133	4141	1	-	-	-	-
816	65	6	4133	4141	6	-	-	-	-
816	69	14	4133	4141	7	-	-	-	-
816	74	3	4117	-	2	-	-	-	-
816	77	9	4121	4132	4	-	-	-	-
816	86	5	4232	-	4	-	-	-	-
816	87	5	4220	-	3	-	-	-	-
817	13	8	4117	-	7	-	-	-	-
817	26	19	4121	4132	12	-	-	-	-
817	30	105	4220	-	99	-	-	-	-
817	48	17	4121	4132	12	-	-	-	-
817	50	14	4232	-	12	-	-	-	-
817	51	30	4220	-	29	-	-	-	-
817	53	11	4232	-	6	-	-	-	-
819	8	5	4117	-	5	-	-	-	-
841	35	14	4133	4141	4	Hillside	21	Yes	Yes
871	88	12	4133	4141	11	-	-	-	-
882	89	8	4133	4141	8	-	-	-	-
Group 3	Total	417			301				

There are 105 acres of timber harvest treatments prescribed within riparian areas in the Eastside Project. Of this acreage, 23 acres are included in existing active timber sale contracts. Timber harvest has occurred on 17 of these 23 acres. Existing timber sale contracts will be modified to ensure that the remaining 6 acres under contract are not subject to commercial timber harvest as part of the implementation of the Eastside Project. The remaining 82 acres will not be included in timber sale contracts as part of the implementation of the Eastside Project. These stands are shown in Table 3 and these acre reductions are included in Table 7.

Table 3 – Riparian Areas

Compartment	Stand	Acres	Alt 1 Cut1	Alt 1 Cut2	Riparian (Acres)	Sale Name	Payment Unit	Awarded	Cut
439	13	37	4133	4141	4	-	-	-	-
445	14	16	4220	-	4	-	-	-	-
445	16	40	0	4141	3	-	-	-	-
641	86	14	4133	4141	1	Sutton	5	Yes	Yes
642	1	26	4231	-	2	Ritts	13	Yes	Yes
642	4	14	4231	-	1	Ritts	12	Yes	Yes
642	17	8	4231	-	1	Ritts	6	Yes	Yes
675	61	16	4231	-	1	-	-	-	-
700	34	17	4232	-	2	-	-	-	-
700	56	24	4220	-	4	-	-	-	-
700	67	57	4220	-	2	-	-	-	-
700	91	23	4220	-	3	-	-	-	-
700	115	25	4220	-	2	-	-	-	-
701	22	71	4220	-	4	-	-	-	-
701	54	10	4220	-	1	-	-	-	-
801	16	13	4220	-	3	-	-	-	-
816	26	11	4220	-	6	-	-	-	-
817	25	27	4232	-	2	-	-	-	-
817	45	20	4232	-	8	-	-	-	-
818	35	9	4121	4132	3	-	-	-	-
819	10	25	4232	-	5	-	-	-	-
819	23	30	4220	-	5	-	-	-	-
819	29	15	4220	-	3	-	-	-	-
819	36	15	4232	-	1	-	-	-	-
819	41	10	4121	4132	3	-	-	-	-
819	47	14	4232	-	1	-	-	-	-
820	49	14	4220	-	4	-	-	-	-
826	70	38	4220	-	1	-	-	-	-
827	58	17	4220	-	2	-	-	-	-
827	59	12	4232	-	1	-	-	-	-
831	4	18	4232	-	1	-	-	-	-
831	30	3	4232	-	2	-	-	-	-
831	51	3	4232	-	1	-	-	-	-
841	25	13	4231	-	4	Hillside	6	Yes	Yes
841	85	5	0	-	3	-	-	-	-
865	52	22	4232	-	3	Slider	1	Yes	No
868	27	20	4133	4141	2	L. Mill Ck	2	Yes	Yes
868	28	8	4133	4141	1	L. Mill Ck	2	Yes	Yes
869	9	9	4232	-	1	L. Mill Ck	28	Yes	Yes
869	25	10	4232	-	1	L. Mill Ck	24	Yes	Yes
871	51	18	4133	4141	3	Slider	10	Yes	Yes
	Total	797			105				

3. Silvicultural Prescription Changes Due to Changes in Current Stand Conditions:

The delay in implementation of the East Side Project has resulted in the loss of advanced regeneration due to interfering vegetation and/or deer browsing in five stands proposed for clearcutting (final harvest) in the East Side Project. Due to the loss of advanced regeneration, the prescribed treatments in the East Side ROD for these stands are no longer appropriate.

Three stands had reforestation treatments prescribed to ensure regeneration of the stands following clearcutting (code 4117) (see Table 4). A shelterwood sequence (code 4133/4141) is now being prescribed for these stands including the reforestation treatments proposed in the East Side Project. These stands will be analyzed in future project (s).

Table 4 – Clearcuts (Final Harvest) with Reforestation Treatments

Compartment	Stand	Acres	Objective	Cut	Revised Cut
684	18	5	SALVAGE	4117	4133/4141
700	129	16	SALVAGE	4117	4133/4141
700	138	6	SALVAGE	4117	4133/4141
	Total	27			

Two stands did not have reforestation treatments prescribed in the East Side Project (see Table 5). Therefore, due to the loss of advanced regeneration, Compartment 701, Stand 16 is being withdrawn from the total project treatments described in the East Side ROD, Table 1 – page 7 (see attached). Further analysis in future project(s) is needed to determine how best to regenerate this stand. Some windthrow has occurred in Compartment 684, Stand 1 as a result of the July 2003 storm. Salvage (code 4231) is now being proposed for this stand instead of clearcutting. Further analysis in future project(s) is needed to determine how best to regenerate this stand. These acre reductions are included in Table 7.

Table 5 – Clearcuts (Final Harvest) without Reforestation Treatments

Compartment	Stand	Acres	Objective	Cut	Revised Cut
684	1	28	SALVAGE	4117	4231
701	16	9	GREEN	4117	Dropped
	Total	37			

Three stands, totaling approximately 47 acres, are proposed for two-aged management (code 4121/4132) (see Table 6). These three stands also include 158 acres of reforestation treatments. Research has been done since the East Side ROD was signed that shows two-aged management reduces growth of regeneration especially for shade intolerant species. Further analysis in a future planned project would determine how to best regenerate these stands. These acre reductions are included in Table 7.

Table 6 – Two-Aged Harvests

Compartment	Stand	Acres	Objective	Cut
816	14	7	GREEN	4121/4132
818	35	9	GREEN	4121/4132
819	4	31	GREEN	4121/4132
	Total	47		

Summary of Vegetation Treatment Changes:

Table 7 includes changes from this new information that will result in changes to Table 1, page 7 (see Appendix A in SIR) in the East Side ROD. In summary, four factors contributed to the vegetation changes:

1. July 2003 Storm – Due to severe damage from the storm, another 282 acres are now less than 40 percent stocked and will need future treatment.
2. Group 3 Soils Withdrawals – Over 300 acres of wet soils will not be harvested leaving standing and down coarse woody debris. A majority of the proposed treatments were salvage thinning or intermediate thinning. There will be no follow-up treatments.
3. Riparian Area Withdrawals – Eighty-two acres of riparian areas will not be harvested leaving standing and down coarse woody debris. There will be no follow-up future treatments. Understocked areas are small and scattered.
4. Changed silvicultural prescriptions due to delay in implementation.

Tables 4, 5, and 6 include 111 acres of early age class development that will not occur with this project for the reasons discussed outlined above. A planned future project will re-analyze these stands within the next 5 years. As a result any understocked conditions that exist will be addressed at that time.

Maps showing the changes from the July 2003 Storm, Group 3 soil and riparian areas withdrawals, and changed silvicultural prescriptions due to delay in implementation are located in the Project File for this SIR.

Table 7 – Alternative 1: Revised Total Vegetation Treatments (Acres)

Activity	MA 3.0	MA 2.0	MA 6.1	Total	Herbi- cide	Site Prep	Ferti- lize	Fence	Plant	TSI/ Release
EVEN-AGED REGENERATION HARVESTS										
Green										
Clearcut (for wildlife objectives)	12	0	0	12	0	0	0	2	2	0
Shelterwood Seed Cut (1 st entry)/Removal Cut (2 nd entry)	542	0	0	542	536	466	262	204	50	33
Shelterwood Removal Cut	28	0	0	28	9	3	28	9	9	28
Shelterwood Removal Cut (delay)	60	0	0	60	60	55	28	54	17	0
Prep. Cut/Two-Aged	72	0	0	72	71	68	0	68	14	0
Two-Aged	7	0	0	7	7	7	0	0	7	0
Reforestation Treatments Only	76	0	0	76	43	21	29	6	18	35
Salvage										
Clearcut	47	0	0	47	47	47	47	39	39	0
Shelterwood Seed Cut (1 st entry)/Removal Cut (2 nd entry)	1272	0	0	1272	1173	948	540	894	304	37
Shelterwood Removal Cut	59	0	0	59	6	25	59	21	5	16
Shelterwood Removal Cut (delay)	592	0	0	592	561	461	190	452	105	73
Prep. Cut/Two-Aged	27	0	0	27	27	27	0	27	14	0
Two-Aged	132	0	0	132	132	119	0	79	36	0
Reforestation Treatments Only	28	60	90	178	178	159	0	94	15	9
INTERMEDIATE TREATMENTS										
Green										
Commercial Thinning	1379	0	0	1379	0	0	0	0	0	0
Salvage										
Salvage Thinning	2278	0	0	2278	4	0	0	2	4	0
UNEVEN-AGED TREATMENTS										
Green										
Selection	31	63	0	94	43	68	0	43	43	63
Group Selection	0	154	0	154	127	154	0	25	0	154
Transition Cut	18	0	0	18	0	0	0	0	0	0
Salvage										
Selection	28	12	0	40	12	12	0	12	12	12
Group Selection	0	115	0	115	80	115	0	80	80	115
Total	6688	404	90	7182	3178	2755	1183	2109	774	575
ROD Total	7643	404	90	8137	3419	3044	1293	2282	797	576
Net Change (Acres)	-955	0	0	-955	-241	-289	-110	-173	-23	-1
Percent Change	-12.4	0	0	-11.8	-7.0	-9.5	-8.5	-7.6	-2.9	-0.2

Transportation Changes:

Due to the changes described previously, construction or reconstruction of the road segments listed in Table 8 are no longer needed for implementation under the East Side ROD. Reconstruction (betterment) of Forest Roads (FR) 125A, 125Ab, and 125Ac (approximately 1.4 miles) were withdrawn as part of the Pigs Ear Area Withdrawal and then were included in the Spring Creek FEIS. The reconstruction of FR 538 was proposed to access Compartment 817, Stand 30, which was removed due to Group 3 soil concerns. These segment miles are reflected in the transportation system activities in Table 9.

Table 8 - Road Segments No Longer Needed for East Side Project

Forest Road	MA	Miles	Road System Activities
125A	3.0	1.16	Reconstruction-Betterment
125Ab	3.0	0.03	Reconstruction-Betterment
125Ac	3.0	0.14	Reconstruction-Betterment
538	3.0	0.43	Reconstruction-Betterment

Table 9 shows the difference between Road System Activities described in the East Side ROD, Table 2, page 8 and removing the road segments no longer needed described in Table 8.

Table 9 – Alternative 1: Proposed Transportation System Activities (miles, # of pits)

Road System Activities (miles)	Private	MA 2.0	MA 3.0	MA 6.1	MA 6.2	Total (ROD)	Revised Total (SIR)
New Construction	0.2	0.1	14.9	0	0	15.2	15.2
Road Reconstruction							
Existing Road Betterment	1.2	0.3	14.5	0	0	16	14.2
Existing Road Realignment	0.3	0	1.2	0	0	1.5	1.5
Existing Road Restoration	6.8	6.1	76.5	0.2	2.4	92	92
Total Road Reconstruction	8.3	6.4	92.2	0.2	2.4	109.5	107.7
Existing Road Decommissioning	0.0	0	7.2	0	0	7.2	7.2
Temporary Road/Long Skid	0.0	0	0	0	0	0	0
Stone Pits (# of pits)	0	3	40	0	0	43	43
Existing Pit Expansion	0	1	32	0	0	33	33
New Pit Development	0	2	8	0	0	10	10

Wildlife Habitat Improvement Changes:

As a result of the removal of harvest treatments on Group 3 soils, seven acres of aspen regeneration, 6 acres aspen planting, and 4 acres of wildlife shrub release will not be implemented under the East Side ROD (see Table 10). These acre reductions are included in Table 7, where appropriate.

Table 10 – Alternative 1: Wildlife Treatment Acres

Wildlife Treatments	MA	Acres (ROD)	Acres (SIR)	Change (Acres)
Create/Maintain openings	3.0	2	2	0
Clearcut for opening	3.0	9	9	0
Regenerate aspen	3.0	92	85	-7
Seeding	3.0	54	54	0
Planting	3.0	466	460	-6
Planting	2.0	187	187	0
Planting	6.1	15	15	0
Fencing	3.0	43	43	0
Prune and release apple trees	3.0	36	36	0
Release mast producing shrubs/trees	3.0	14	10	-4
Conifer release	3.0	36	36	0
Nest boxes	3.0	14	14	0
Catch basins and fish structures	3.0	9	9	0
Construct water holes	3.0	7	7	0

4. Mountain Brook Lamprey:

A survey of Spring Creek conducted on 5/12/04 and 5/13/04 documented the occurrence of the mountain brook lamprey (Andrew Turner, personal e-mail correspondence 5/14/04). The mountain brook lamprey is on the Regional Forester's Sensitive Species list for the ANF. The East Side analysis recognized there was a high potential for suitable occupied habitat for the mountain brook lamprey exists within or downstream of the Eastside Project Area (Eastside FEIS, Appendix C, p. C-39). Implementation of the mitigation measures adopted in the East Side FEIS/ROD that protect water quality and reduce sedimentation will ensure that suitable mountain brook lamprey habitat will be maintained under all alternatives (East Side FEIS, Appendix C, pp. C-39, 43 and Appendix D, p. D-2) and proposed activities will not cause a trend toward federal listing for this species.

5. Thread Rush Populations and Bald Eagle Nest Discovered:

In May, 2004, a Bald Eagle nest was discovered within the East Side project area on the Bradford Ranger District. The nest is located approximately ½ mile from the closest East Side vegetation treatment (Reforestation). Terms and Conditions associated with the Biological Opinion (USFWS 1999) for the Bald Eagle (listed as Threatened) discussed in the East Side FEIS Appendix D (pp. D-5-6) will be implemented. No change in the Determination for the Bald Eagle (East Side FEIS p. 228) or re-initiation of consultation with the USDI-FWS is needed.

Since 2001, surveys have documented several populations of the Thread Rush (R9-Sensitive) in the project area. These populations are located along the shores of the Allegheny Reservoir and occur in areas of fluctuating water. These areas are not near any of the East Side treatment areas. Forest Plan Standards and Guidelines listed in East Side FEIS Appendix D and adopted in the East Side ROD to protect water quality will be implemented. No change in the Determination for the Thread Rush is needed (East Side FEIS p. 229).

Conclusions/Findings

Relationship of the new or changed conditions to the five major issues in the original East Side FEIS:

The five major issues identified in the Eastside FEIS and the measures used to evaluate these issues as well as recent developments are summarized below:

1. What level of timber harvest should occur in the East Side project area?

There was a concern over the amount of timber harvesting, if any, that should occur in conjunction with other management activities. Measures used to evaluate the original issues include the following: (1) Total acres of timber harvesting; (2) Transportation system activities necessary to complete harvesting activities; (3) Long-term sustainability of the forest resource; and (4) Volume and value of timber harvested. The information provided in this SIR shows a 12 percent reduction in timber harvest acres. Long term sustainability is measured by the percentage of the acres where the overstory is greater than 50% stocked after treatment, percentage of low stocked acres which contain adequate numbers of tree seedlings after treatment, and percentage of the acres in total project which contain adequate numbers of tree seedlings after treatment. These percentages are expected to decrease slightly for Alternative 1 with the reduction of treatments in final harvest and intermediate treatment prescriptions. Table 8 in this SIR shows approximately 1.8 miles of road reconstruction activity that is no longer needed. The estimated timber volume for the first entry has decreased from 34 MMBF identified in the ROD to approximately 18.6 MMBF, which includes 6.6 MMBF that have already been sold and an estimated 12.0 MMBF to be sold. This is a result of the loss of merchantable timber due to the delay in implementation and treatments dropped due to new information. The actual amount harvested will now be closer to the harvest totals of Alternative 3. Value of total timber harvested decreased as well.

2. Should only dead, dying, and damaged trees be salvaged?

There were concerns about the appropriate amounts of timber harvesting in response to tree mortality and decline. Treatments could be limited to the removal of only dead, dying, and damaged trees. Measures used to evaluate the alternatives include the following: (1) Percent of potential dead and dying material salvaged and utilized and (2) The value of the lost salvage volume. Since there was a reduction in salvage treatments, approximately (9%) based on the recent information, the percent of salvage material that will be harvested and utilized will be less than the 100% indicated in the FEIS and subsequently the value loss will be greater than the numbers reflected in Alternative 1. With the delay in implementation, the foregone loss noted in the FEIS has increased as well in the remaining stands, but not to point where individual prescriptions have changed.

3. Should herbicides be used as reforestation treatment?

There was a concern over the use of herbicides and the amount of other reforestation treatments in the project area. Measures used to evaluate issues include the following: (1) Reforestation activity acres; (2) Potential vegetation response to treatment versus the

response to doing no treatment; and (3) Potential risks to human health and wildlife from using herbicides. As a result of the changed conditions, there is a reduction in treatments needing reforestation efforts (7%) than what was prescribed. A decrease of 7% in herbicide use will also occur. The potential human health and wildlife risk remains negligible regardless of the reduction. Some low stocked treatment areas will not be harvested and therefore, proposed herbicide applications for these stands would not occur, which may result in these stands not being regenerated successfully with this project.

4. What level of construction of new roads and reconstruction of existing roads should be implemented in the project area?

This issue was addressed by developing alternatives to the Proposed Action that propose varying quantities of road construction and reconstruction. Measures used to evaluate alternatives include the following: (1) Road density; (2) Existing road corridor added to the FS system; (3) Miles of construction, reconstruction, and decommissioning; and (4) Number of stone pits. As seen in Table 8 and Table 9 in this SIR, the reduction of road treatments is minor as reconstruction-betterment activities are decreased by 1.8 miles. Since the FR 125A, 125Ab, and 125Ac are being reconstructed and added to the Forest Service road system in the Spring Creek Project, there is a no change in Forest Service system road density in MA 3.0 or existing road corridors being added to the FS system as a result of these changes. The number of stone pits and other road activities remain the same.

5. Should even-aged management or uneven-aged management silvicultural systems be used in the project area?

The Forest Plan gives direction regarding the primary silvicultural system to be used in each Management Area. Forest Plan direction is based on considerable analysis of trade-offs between these systems. This issue was addressed by developing alternatives that propose both even-aged and uneven-aged management practices. Measures used to evaluate alternatives include the following: (1) Number of acres proposed for even-aged and uneven-aged management; (2) Net Cash flow; (3) Acres where regeneration success is anticipated based on historical ANF tree seedling development patterns; (4) Acres of future moderately to well-stocked forest cover; and (5) Future stand value. The largest acreage reductions (12%) as a result of the changed conditions occur with the proposed even-aged treatments. Acreage reductions in uneven-aged treatments (24 acres) are minor and are a result of changed conditions due to the July 2003 storm (Pig's Ear Withdrawals). Total revenue and cost is reduced and results in a smaller net cash flow.

Regeneration success estimates are based upon past ANF success trends and the 1998 ANF Monitoring and Evaluation Report. Values were assigned either as "High, Moderate, or Low" per alternative with "High" assigned to the alternatives with the highest amount of even-age regeneration treatments and "Low" assigned to alternatives with no regeneration treatments. Recent ANF monitoring reports show similar success trends in even-age regeneration treatments. Future stand value is dependent upon the species composition that results from treatments applied in the East Side units. "High" value was assigned to alternatives with the most even-age regeneration treatments and

“Low” values to the alternatives which contained no even-age regeneration treatments. Both the harvest acres in regeneration success and future stand values will be less as a result of the conditions and information summarized in this SIR; therefore, the trend for regeneration success and future stand values is downward from “High” towards “Moderate”. However, future planned projects would address some units dropped as a result of conditions and information in this SIR, therefore the trend toward “High” may result for those forested stands managed.

Summary

The issues of the 2000 East Side FEIS/ROD were re-examined in light of recent developments. The same measures of these issues were used to consider this information. These measures remain basically unchanged from the 2000 analysis. Therefore, the original alternatives that address the issues and drive the analysis are sound. Treatments that are no longer considered have individual variable effects on all resource areas but are within the range of effects analyzed in the East Side FEIS. The major differences based on the SIR are fewer timber harvest treatments (12%) and less timber to be harvested due to loss of merchantability as a result of the delay in implementation and removal of harvest treatments as a result of changed conditions.

Alternative 1 as revised in this SIR will address the original purpose and need for the East Side project area as follows:

1. **Initiate reforestation treatments to restore declining forest ecosystem** - Create approximately 2,129 acres of early age class in understocked stands, where reforestation activities are necessary to restore these stands to a healthier condition.
2. **Establish tree seedlings to restore tree regeneration or replacement and to improve the horizontal and vertical diversity in the ecosystem** – Approximately 10,574 acres of reforestation treatments will be implemented to improve horizontal and vertical diversity in the ecosystem.
3. **Enhance health and vigor of forested stands by regulating stocking and species composition** – Approximately 1,379 acres of green thinning will be completed to enhance the health and vigor of forest stands with stocking levels greater than 80% relative stand density where there is tree-to-tree competition for space and nutrients.
4. **Sustainable Forest Management** – Approximately 6,688 acres of timber harvests with associated reforestation treatments would be implemented to provide a sustained yield of high quality hardwood sawtimber and to provide age- and size-class diversity for wildlife habitat (USDA-FS 1986a, p. 4-82) in MA 3.0. Implementing regeneration harvests and starting reforestation treatments in a portion of the mature or declining stands will promote the sustainable delivery of forest products in MA 3.0.

5. **Supply forest products to meet public demand and to contribute to the economic vitality of local communities** – Approximately 6.6 MMBF of timber has already been sold with the East Side project. There is an additional estimated 12.0 MMBF of timber to be sold with the remaining first entry sales. Second entry timber could result in an additional 28 MMBF of timber being sold. Continued implementation of this project would continue to support the need to supply this renewable resource.
6. **Transportation system development to provide access and to maintain water quality** – The opportunity still exists to maintain or improve the existing transportation system, to provide adequate access for forest management, and to maintain or enhance water quality.
7. **Restore wildlife habitat** – Initiation of regeneration treatments on approximately 2,129 acres of stands that currently have less than half of normal tree stocking levels will over time restore forested habitat and enhance wildlife habitat through vegetative management techniques and develop habitat structure. Opportunities still exists within the East Side project area to improve wildlife habitat on approximately 967 acres through proposed activities, such as construction of waterholes, catch basins and fish structures, seeding and planting, aspen regeneration, and conifer release.

Changes to Alternative 1 by Management Area (MA):

- a) In MA 2.0, there is no change in the treatments approved in the East Side ROD based on new information.
- b) In MA 3.0, there are changes to the treatments approved in the East Side ROD based on new information. Withdrawals for Group 3 soils/riparian areas, the July 2003 storm, and prescription changes will result in approximately 394 acres less of the 0-10 year age class (early successional habitat) being created through even-aged final harvests. Due to the delay in implementation, it will also take longer than anticipated to regenerate stands proposed for regeneration harvests under the East Side Project. Intermediate even-aged harvests are also reduced by approximately 600 acres and uneven-aged harvests by approximately 24 acres. There will also be a reduction in associated reforestation activities. These withdrawals and acre reductions affect approximately 12 percent of the total harvest treatments in MA 3.0 under the East Side Project but do not impair the selected alternative's ability to satisfy the purpose and need for the East Side Project. Even with the reduction of treatments, remaining treatments in MA 3.0 are still within the range of effects analyzed in the alternatives considered in the East Side FEIS.
- c) In MA 6.1, there is no change in the treatments approved in the East Side ROD based on new information.

- d) In MA 6.2, there is no change in the activities (transportation only) approved in the East Side ROD based on new information.
- e) In MA 8.0, there is no change in the treatments (Regeneration Demonstration Area) approved in the East Side ROD based on new information.

Cumulative Effects

Based on analysis of the information presented on pages in this SIR, cumulative effects for the East Side project were reviewed. Since the total amount of treatments is less, the effects analysis is still within the scope and order of magnitude based upon current levels of management authorized by the Forest Plan and the Biological Opinion (East Side FEIS p. 181-182). Additional NEPA decisions, since the East Side ROD, that overlap with portions of East Side Project Area boundary have been made. These include the Spring Creek FEIS, Windthrow Salvage EA, County Line FEIS, Sugar Run FEIS, Trails End Re-entry EA, and twenty July 2003 Storm Categorical Exclusions (see 2003 Storm Assessment Addendum, pp. 28-42). Future known projects that overlap the cumulative effects analysis area include: Forest Renewal EA, Eagle Windmills Salvage EA, Herbicide Diversity Study Removal EA, KEF Windthrow EA, Martin Run EIS, and Marienville Regeneration EA.

Soils

The cumulative effects analysis area for soils was the East Side project boundary within a thirty-three year period (1986 through 2019). Changes in harvesting, reforestation, and transportation activities listed previously will result in reducing potential soil disturbance by approximately 168.5 acres (or less than one percent) from those described for Alternative 1 in Table 26 of the FEIS (East Side FEIS p. 69). The reduction in timber harvest and loss of merchantable volume due to delays in implementation, which has resulted in more coarse woody debris being left in the woods, should have minimal changes to carbon storage and carbon sequestration described in Table 25 of the FEIS (East Side FEIS p. 65).

Ten units approved in the Eastside FEIS and contained in the Hillside and Slider Salvage Sales were monitored in 2003 and 2004 to assess the condition of several soil condition indicators (compaction, displacement, rutting, puddling, accelerated erosion and ground cover). These conditions were recorded if determined to be detrimental. The protocol followed was adopted by the Allegheny NF in 2002. Of the ten units there was an average level of detrimental soil conditions of 4.3 percent. Of these 10 units 9 met the standard of less than 15 percent area in a detrimental soil condition. The unit (Compartment 841/Stand 51 - Hillside Salvage, PU - 21.7%) disturbance that did not meet the standard is described below.

This stand (Compartment 841/Stand 51) was a smaller stand than most that were monitored. Because of the size, only three transects were done in this stand. Each transect crossed a skid trail. The main disturbance was found in the stops that were in the skid trail in one transect. One of the skid trail crossings accounted for twice as much

disturbance as the other two combined. Due to the fewer number of transects in this stand, some may argue that this method would not provide statistically valid results. In fact, statistical tests done on the data indicate that the results may not prove that the stand exceeds the standard with 95 percent confidence. It appears that the data shows consistent detrimental disturbance in all transects, so it is unlikely that one transect skewed the data. Transects in this stand were all located in Group I soils (well drained). Therefore, the inherent soil drainage should not have affected the results except that there are fewer operation restrictions on well drained soil. The harvest method in this stand was a shelterwood seed cut. Upon re-entering the stand for the removal cut the sale administrator will formulate a skid trail pattern to ensure that operators stay on previously disturbed areas, in order to reduce further impacts to the soil. Additional mitigations/remediation is also currently being considered.

Forest Plan standards and guidelines and Interim Soil guidelines will ensure timber activities minimize soil disturbance. The newer projects proposed since East Side within the cumulative effects analysis area will continue to follow these mitigations.

Hydrology/Watersheds

The East Side project area contains portions of fourteen 5th order watersheds. However three of the watersheds have no activities proposed within them and were not included in the cumulative effects analysis area for hydrology in the East Side FEIS. The cumulative effects analysis area for the East Side project included the other eleven 5th order watersheds (totaling approximately 157,634 acres).

Some of the positive water resource effects have been delayed because many of the road improvements proposed in the East Side project have not yet been implemented. This has allowed higher sedimentation rates to occur on unimproved roads, which will continue until the recommended treatments are applied.

Forest Plan standards and guidelines will ensure timber activities do not degrade water quality. The newer projects proposed since East Side within the cumulative effects analysis area will continue to follow these mitigations; therefore, no degradation to water quality from timber activities is expected.

Transportation

The cumulative effects analysis area for transportation included the entire ANF. Changes in the proposed transportation activities are shown on Table 8. These minor changes will result in a negligible change to the road density of 2.3 (miles of road per square mile) (see Table 38, USDA-FS 2000a, p. 121) for the East Side project area and road density of 1.4 for the entire ANF (USDA-FS 2003, p. 15). Newer projects within the East Side cumulative effects analysis area will add approximately 3.75 miles of roads to the Forest Service (FS) System roads while decommissioning approximately 7.1 miles of FS system roads. This will result in a minor reduction in road density for the East Side project area.

Over the past six years, oil and gas developments have resulted in approximately 32.5 miles of new access roads per year within the ANF, which was used as the cumulative

effects analysis area for oil and gas development in the East Side FEIS. This is below the estimated 50 miles per year used in the cumulative effects analysis for oil and gas development in the FEIS.

All of the road reconstruction and construction proposed in the East Side FEIS is located in MA 3.0. Considering the changes to the Forest Service road system described in this SIR, the road density within the project area will remain within the Forest Plan Standard of 2 to 4 miles of road per square mile (for MA 3.0) and the road density within the ANF will be below the Forest Plan Standard of 2 to 4 miles of road per square mile (for MA 3.0) (USDA-FS 2003, p. 15). No changes in road management (open, closed, or restricted) will occur as a result of the changes mentioned in this SIR.

Oil, Gas, and Minerals

The cumulative effects analysis area for oil, gas, and minerals also include the entire ANF. Recently, there has been an increase in oil and gas development on the ANF. Over the past six years, an average 286 wells per year have been drilled on the ANF. This is about a 78 percent increase over what was discussed in the cumulative effects section for the East Side FEIS. However, the amount of new road construction is less than expected in the East Side FEIS. The increase in oil and gas development may result in an increase in pit expansion within the project area due to additional pit run needed for access roads and well pads. The changes in harvesting, reforestation, and transportation activities should have no cumulative effects on the oil, gas, and mineral resources in the East Side project area.

Vegetation

The cumulative effects analysis area for vegetation included the East Side project area including National Forest System lands and private lands and uses the same thirty-three year period (1986 to 2019) as the other resources. Table 11 shows the comparison of the Vegetation Cumulative Effects Summary (Table 78, page 182) from the FEIS with the harvesting and reforestation changes in this SIR. The numbers in Columns 1, 2, 5, 6, 7, and 8 have been copied directly from Table 78 of the FEIS (see Appendix A, p. A-3). Column 3 shows the amount of each treatment that has been accomplished or is planned in newer projects, including some that were known (foreseeable future) when the East Side FEIS was completed (see 2003 Storm Assessment Addendum, pp. 40-42). Column 9 shows the revised acres of treatment from the changes in harvesting and reforestation treatments described in this SIR. Column 10 shows the cumulative acres of treatment (sum of Columns 1, 2 or 3 [whichever is greater], 5, 6, and 9) with the changes in harvesting and reforestation treatments described in this SIR.

Table 11 - Vegetation Cumulative Effects Summary

ACTIVITY	Past FS Treatments 1986-1998	Future FS Treatments	Planned or Accomplished FS Treatments Since 1998	Percent Future FS Treatments Planned or Accomplished Since 1998	Past Private Treatments	Future Private Treatments	ACRES OF TREATMENT /CUMULATIVE EFFECT (CE)			
							ALT 1	ALT 1 CE	ALT 1 SIR	ALT 1 CE SIR
Column	1	2	3	4	5	6	7	8	9	10
Commercial Timber Harvest										
Even-aged FH	14,095	11,380	3,622	32%	687	1,374	981	28,517	798	28,334
SH Seed Cut	5,280	10,298	1,872	18%	-	-	1,924	18,132	1,814	17,392
Two-Aged Prep	65	0	12	exceed	-	-	253	318	99	176
Two-Aged	680	0	70	exceed	-	-	132	812	238	988
Uneven-aged Prep	24	0	0	-	-	-	18	42	18	42
Uneven-aged Selection	2,525	4,360	176	4%	-	-	427	7,312	403	7,288
Intermediate Thinning	17,116	17,600	772	4%	1,779	3,558	1,776	41,829	1,379	41,432
Salvage Thinning	5,156	0	1,774	exceed	-	-	2,467	7,623	2,278	9,208
No Harvest – Reforestation Only										
Reforestation Only					-	-	245	245	254	254
Reforestation/Understory Treatments										
Planting	1,092	2,532	980	39%	-	-	815	4,439	774	4,398
Fencing	4,167	9,668	2,182	23%	-	-	2,314	16,149	2,109	15,944
Herbicide	7,425	17,224	3,612	21%	-	-	3,487	28,136	3,178	27,827
Site Prep	7,644	17,732	3,675	21%	-	-	3,093	28,136	2,755	28,131
Fertilization	7,218	16,744	765	5%	-	-	1,322	25,284	1,183	25,145
Release/TSI	1,223	2,836	4,160	147%	-	-	576	4,635	575	5,958

Due to changes in harvesting and reforestation treatments described in this SIR, most of the activities listed in show minor reductions and are within the cumulative acreages predicted for the foreseeable future. The exceptions are two-aged prep harvest, two-aged harvests, salvage thinning, and release.

No future two-aged harvests were predicted in Table 78 of the FEIS. At least 253 acres (column 7) of two-aged prep cuts should have been included as a two-aged harvest in the Future FS Treatments column because a two-aged harvest usually follows the prep cut once regeneration is established (which should occur within 20 years [foreseeable future] of the prep cut). Seventy acres of two-aged harvests were also prescribed in newer projects. If the 253 acres are added to the past and proposed East Side two-aged harvests, the cumulative acreage of two-aged harvests in the SIR would be slightly less than the revised cumulative acreage of the FEIS.

The East Side FEIS and Forest Plan did not estimate the amount of salvage thinning which might occur in the foreseeable future since salvage thinning is a response to unforeseen events. However, adding both salvage thinning and green thinning together still results in less total thinning than anticipated in the East Side cumulative effects analysis.

The East Side cumulative effects analysis underestimated the amount of release within the East Side project area that would occur within the foreseeable future. The amount of release already accomplished and planned for the project area already exceeds the amount anticipated in the FEIS cumulative effects analysis. Since release is done manually using chainsaws or weed cutters, disturbance is minimal. Release is expected to improve tree species composition in the long term (USDA-FS 2002, p. 92, USDA-FS 2001, pp. 90-91, Marquis 1994, pp. 269 and 282).

As discussed previously, overall reductions in harvesting and reforestation treatments described in this SIR would result in less timber harvesting and herbicide use than what was described in the FEIS. Less early age class (approximately 394 acres) would also be created with the East Side project due to the changes described in this SIR.

The amount of harvesting on private lands is within the range discussed in the cumulative effects analysis for vegetation in the FEIS. On July 21, 2003, a severe storm affected approximately 14,399 acres of land within the ANF Proclamation Boundary. Of this affected acreage, approximately 1,200 acres occurred on private lands within or adjacent to the East Side project area with approximately 575 acres being heavy windthrow (stand replacing). Salvaging of much of this material has already occurred, especially on industrial private forest lands, and most likely is being done in lieu of green treatments.

Wildlife

The cumulative effects analysis area for wildlife included the East Side project area including National Forest System lands and private lands and use the same thirty-three year period (1986 to 2019) as the other resources. Changes in vegetation treatments described in this SIR and the analysis of future vegetation projects within the East Side cumulative effects area (project area and time period) are within the range analyzed in the East Side FEIS.

No critical habitat exists on the ANF for federally Threatened or Endangered species (as determined by the USFWS) or Regional Forester's Sensitive Species. Since there are no additional cumulative effects beyond those analyzed in the East Side FEIS (pp. 187-229) and the Biological Assessment, the Summary of Determinations for the East Side FEIS (pp. 228-229) will remain unchanged. Therefore, there is no need to consult with the USFWS as the changes discussed in this SIR will result in no change in determinations for either Threatened or Endangered species or Regional Forester's Sensitive Species and will also result in a reduced take for the Indiana Bat due to the reduction in timber harvesting. All Terms and Conditions associated with the Biological Opinion (USFWS 1999) and the appropriate mitigations (East Side FEIS -Appendix D) will be implemented.

A review of the habitat requirements and effects to Management Indicator Species (MIS) shows that there will be a slight decrease in habitat created for those species requiring early successional or aspen habitat. This reduction in acres (approximately 394 acres) is a result of even-aged regeneration harvests and associated reforestation treatments being dropped because of changes described in this SIR. Conversely, there will be a slight increase in habitat for those species requiring mature and/or late successional habitat. Cumulatively, changes in habitat required by MIS are minor and the effects to these species are within the range analyzed in the East Side FEIS (USDA-FS 2000a, pp. 218-221 and 223-227).

Cumulative effects to the Indiana Bat include the effects of past treatments and future treatments on both Forest Service and private lands. Based on the SIR, early successional habitat created (0-10 age class) will be reduced under the selected alternative. Even with this reduction, approximately 4% of the East Side project area will still remain in the 0-10 age class in 2019 (East Side FEIS – Appendix C p. C-41). Intermediate harvests are also reduced by approximately 600 acres and the percent of the project area projected to be treated to the year 2019 will remain relatively unchanged.

The amount of release was underestimated in the East Side cumulative effects analysis. In conjunction with other ongoing and future projects, more release will be accomplished. Release is expected to improve tree composition in the long term. Since trees cut for release are less than 6 inches in diameter at breast height (DBH) and treatments occur outside the songbird nesting season, treatments are within the range of effects listed in the Eastside FEIS (USDA-FS 2000a, p. 211) to wildlife and their habitats, including PETS species.

Stands affected by storm event in 2003 include eighteen stands that were proposed for either thinning or salvage thinning, in which the relative density of the stands has fallen below 40%. The intermediate treatment prescriptions are no longer appropriate for these stands and they will not be implemented under the East Side ROD. In areas where future stand replacement is the only option, the majority of the trees are blown down or the relative density is below 40%. This eventually results in a change to seedling/sapling stand that provides less than suitable conditions for the Indiana bat roosting and foraging habitat. In addition approximate 178 acres of silvicultural treatments in the Pigs Ear Area and 17 acres in the Rocket John and Jump Off areas have also been dropped from further consideration as a result of the storm. The Pigs Ear area has been re-analyzed and included in the Spring Creek FEIS ROD. The Rocket John and Jump Off areas have been salvaged in the FR 396/396 Salvage Sale. Other stands were affected by the wind event to a lesser degree and no change in prescription is noted. In areas of partial blowdown, less of a change in canopy occurred; therefore, the damaged is scattered with gaps created, resulting in more optimum habitat conditions for roosting and foraging habitat (USDA-FS 2004b).

Cumulatively, OGM activity has increase at a higher level then indicated in the original East Side FEIS. As indicated in the East Side FEIS p. 224, this level of oil and gas activity development may reduce the suitability of the area for some wildlife species, but

doesn't make the habitat unsuitable. The large majority of the project area will continued to remain unaffected by intensive oil and gas activities and will provide suitable habitat, if not optimum habitat for potentially affected species.

Indiana Bat Surveys

Surveys for the Indiana bat continues on the ANF. Since 1998, 282 bat mist net survey sites have located within the ANF. One Indiana Bat was captured on the ANF within the East Side project area (East Side FEIS, Appendix C, p. C-5) and one other Indiana bat was captured northeast of the ANF, outside of the East Side project area on private lands in 2001. Of these 282 locations, 112 sites are located within the East Side project area.

Indiana Bat Monitoring

Monitoring will continue to ensure compliance with all Indiana Bat standards and guidelines. Standards for snag and live tree retention are implemented for each new project. Individual live trees, snags and clumps of live and dead trees are marked for retention and inspected by timber sale administrator's through-out the life of sale. Any loss of trees is documented. In 2002, as a part of the 20 stands monitored each year for standards for tree retention, three stands/units were included from East Side timber sales. One unit of these stands/units showed three live trees and three dead trees damaged or blown down as a result of logging or subsequent wind events. In 2003, as a part of the 20 stands monitored for standards for tree retention, eight stands/units were included from East Side timber sales. Three stands show six live trees and 15 dead trees damaged or blown down as a result of logging or subsequent wind events.

Twenty stands (10 final harvest and 10 partial harvest units) were monitored in 2002 on the ANF (3 are East Side units). In summary, units generally met or exceeded he requirements of snags and live residuals (8 to 15 live trees per acre in "green" units and retain all snags). Canopy closure was monitored on all 10 partial harvest units, with only one stand falling below 54% canopy closure due to sugar maple mortality within the stand. In the three stands/units in East Side, residual tree guidelines have been effective to date. Twenty stands (10 final harvest and 10 partial harvest units) were monitored in 2003 in total (8 are East Side units). In summary, units generally met or exceeded he requirements of snags and live residuals (8 to 15 live trees per acre in "green" units and retain all snags). In the "salvage" partial units monitored, including five units in East Side, live and dead trees/acre fell below the minimum as a result of continued mortality associated with insect infestation and drought. Canopy closure was monitored on all 10 partial harvest units. None of the "green" partial harvest units fell below 54% canopy closure, while most of the salvage partial harvest units did due to continued mortality associated with insect infestation and drought. Also, as part of the BO monitoring, 14 stands were surveyed in 2003, as a part of the BO Snag Longevity Study (monitored 1,3,5,7, and 10 year interval). One unit within an East Side timber sale (Ritts Salvage Sale) received first year post-harvest survey and will receive additional surveys every odd year. A recent trend shows that retainment of trees in partial harvest salvage units seem to be susceptible to further mortality because of insect and disease and/or windthrow conditions. However, R. Morin (personal communication) indicates that the average condition across the ANF easily meets both the suitable and optimal Indiana bat live tree

requirements. For dead trees, the estimated average number of dead trees ≥ 20 " dbh is below the threshold for optimal habitat and ANF conditions are less certain of meeting that criterion. However, because only 30% of a landscape needs to provide more than one tree ≥ 20 " dbh per two acres, it is quite possible (since the ANF is 94% forested) that the optimal dead tree habitat condition would be met as well (R. Morin, personal communication; USDA-FS 2000). Survey sites, monitoring, and longevity studies will continue to be implemented in the East Side Project Area as part of the implementation of the East Side ROD.

Heritage

The cumulative effects analysis area for heritage resources included the East Side project area and uses the same thirty-three year period (1986 to 2019) as the other resources. Heritage surveys are completed for all projects, including oil and gas developments. All heritage sites are protected; therefore no additional cumulative effects are anticipated beyond those effects analyzed in the East Side FEIS

Recreation

The cumulative effects analysis area for recreation included the East Side project area and uses the same thirty-three year period (1986 to 2019) as the other resources. Based on a reduction in harvest acres and road activities in the SIR, the setting indicators and effects to the Recreation Opportunity Spectrums (ROS) analyzed in the East Side FEIS, will remain unchanged. All future proposed activities will strive to meet the ROS class objectives for federal land within proposed projects.

Recreationists tend to avoid areas where severe windthrow exists, especially for camping and hiking, due to safety concerns and the difficulty of navigating through the forest. Often suitable sites for recreation are found within a few miles of the original disturbed site. Recreation trail clearing and cleanup, as a result storm, are ongoing within the East Side project area. Effects from all harvests are located on pages 240-244 within the East Side FEIS.

Cumulatively, oil and gas activity has increase at a higher level then indicated in the original East Side FEIS. Therefore, the amount of oil and gas is expected to increase at a higher then the 2% indicated during the cumulative effects period as indicated in the East Side FEIS p. 246. The effects on recreation experience is a loss of remoteness and visual quality, and an increase in road access due to oil and gas activity as indicated in the East Side FEIS.

Cumulatively, acres of past, present and future vegetation treatments are within the range analyzed in the East Side FEIS. Roughly 12% fewer early age class stands will be created as a result of the changes described in this SIR. Although oil and gas development has been higher than expected, there has been no change in Recreational Opportunity Class within the East Side project area. Cumulatively, most of the project area will remain in a forested state, and there are no additional effects to the Recreation resources beyond those analyzed in the East Side FEIS. All mitigation measures related

to trails and recreation facilities and sites will be implemented (East Side FEIS-Appendix D).

Scenic

The cumulative effects analysis area for scenic resources included the sensitive travel corridors and the areas immediately adjacent to them. Cumulatively, OGM activity has increase at a higher level than indicated in the original East Side FEIS. Impacts of OGM development can affect a sensitive visual corridor. Impacts can be in the form of roads that intersect travel ways or the placement of tank batteries/wells adjacent to roads with little or no vegetative buffer (East Side FEIS p. 254). Effects to visual quality from an increase in OGM development depends on the location and extent of the activity.

Cumulatively, acres of past, present and future vegetation treatments are within the range analyzed in the East Side FEIS. In areas of mortality that are no longer considered for treatment, the visual contrast of dead and dying trees will remain. All mitigations concerning the Scenic Resource (East Side FEIS – Appendix D) will be implemented. All future Forest Service projects in the project area will strive to meet the Visual Quality Objectives as determined by the Forest Plan through project design and mitigation measures.

Economics

The cumulative effects analysis area for economics included the East Side project area including National Forest System lands and private lands and uses the same thirty-three year period (1986 to 2019) as the other resources. Cumulatively, acres of past, present and future vegetation treatments are within the range analyzed in the East Side FEIS. A loss of volume and dollars has occurred as a result of the delay in implementation of the proposed vegetation treatments in the East Side Project. Additional losses in timber volume and dollars will occur because of treatments that will no longer be implemented as a result of the changes described in this SIR.

Table 97, East Side FEIS (USDA-FS, 2000a, p. 259) shows the Summary of Key Economic Values for the East Side project. As shown in the table, approximately 1.0 MMBF of timber worth approximately \$1.0 million was foregone prior to the ROD. An additional 8.0 MMBF worth approximately \$2.2 million has been lost due to delay of implementation of the project. Additional reductions in volume and value to due to items discussed in this SIR have also occurred and are as follows:

1. July 2003 Storm resulted in a reduction of an additional 1.5 MMBF (0.8 MMBF 1st Entry and 0.7 MMBF 2nd Entry) due to and the Pigs Ear and Rocket John/Jump Off withdrawals and having to re-analyze 282 acres of green and salvage thinning.
2. Withdrawal of Group 3 Soils and Riparian Areas resulted in a reduction of an additional 2.5 MMBF (1.6 MMBF 1st Entry and 0.9 MMBF 2nd Entry).

3. Silvicultural Prescription Changes due to Changes in Stand Conditions resulted in a reduction of an additional 1.3 MMBF (0.9 MMBF 1st Entry and 0.4 MMBF 2nd Entry).

Some of this volume has been harvested in recent projects, such as FR 395 Salvage Sale, or will be harvested in current projects, such as the Quad Salvage Sale (Spring Creek FEIS), or in future planned projects, such as the Marienville Regeneration EA. The decrease in revenues due to the decrease in volume harvested as a result of this SIR may also be offset somewhat by recent higher timber stumpage prices and dollar returns.

As a result of the changes discussed in this SIR, approximately 837 acres of reforestation treatments will no longer be implemented. This would result in a reduction in the implementation costs (at today's costs) of close to \$0.5 million.

The impacts of oil and gas development within the project area to the local economy are through private employment and income since subsurface mineral rights are reserved and outstanding (USDA-FS 2000a, p. 255). There are no additional effects on Economics of Federal actions from increased oil and gas development within the East Side Project Area beyond those analyzed in the East Side FEIS.

Human Health and Safety

The cumulative effects analysis area for human health and safety included the East Side project area including National Forest System lands and private lands and uses the same thirty-three year period (1986 to 2019) as the other resources. A reduction of approximately 7% in herbicide application will occur as a result of this SIR. Cumulatively, the amount of herbicide that will occur in the project area to the year 2019 is still within the range analyzed within the East Side FEIS. All mitigations concerning herbicide and safety to human health will be implemented (East Side FEIS– Appendix D); therefore, no additional effects beyond those analyzed in the East Side FEIS are anticipated to human health and safety. Cumulative effects to human health are not likely to occur because none of the herbicides are persistent in the environment or in the human body (East Side FEIS 1986, p. 266).

People working at or traveling to OGM facilities and the associated equipment are exposed to the hazards from falling dead or declining trees (East Side FEIS p. 263). Cumulatively an increase in OGM activity with the East Side project area would present the same hazard/risk from falling dead or declining trees. However, the cumulative effect of salvage harvesting would result in a cumulative reduction in risk from falling trees for oil and gas developers and their equipment/facilities (East Side FEIS pp. 265-266)

Determination

I have reviewed this SIR, the original FEIS, project file, and ROD for the East Side Project. I believe the East Side project is in compliance with all applicable laws, regulations, and Forest Service direction. I have determined that the decision made in the ROD is sound. The new information as presented in the SIR shows that the effects of implementing the remaining treatments in the East Side Project are within the effects previously analyzed and are actually less than those described in the FEIS. Project implementation of the remaining activities, shown in Table 7, may proceed as planned.

Signature

/s/Geoff Chandler
Geoff Chandler, Acting Forest Supervisor

5/12/2005
Date

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