

Appendices to the ROD

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APPENDIX 1:

MAPS

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APPENDIX 2:

DESIGN CRITERIA SPECIFIC TO THE SELECTED ACTION

Design Criteria Tables

Table 2-1 Design Criteria for Riparian Area Protection

Table 2-2 Summary of ELTPs in Project Area and Guidelines for Season of Operation

In addition to the Forestwide Standards and Guidelines included in the Forest Plan (pages IV-34 to IV-36), the Best Management Practices (BMPs) recommended by Michigan's Department of Natural Resources (MI-DNR, 1994), and standard and special Forest Service Timber Sale Contract provisions, site-specific design criteria will be implemented to offer additional protection to fish and wildlife habitat, water quality, and soil resources. The following design criteria will be applied during implementation of the Selected Action, and include:

1. In all treatment stands with residual trees, favor the retention and regeneration of healthy black cherry, northern red oak, hemlock, pine, and cedar to encourage recruitment of wildlife forage species. These species may be harvested where needed. In stands receiving a selection harvest, encourage structural and species diversity within the stand. Where the favored species listed above are present, regeneration gaps may be created and should be approximately 40-80 feet in diameter.
2. Existing cull trees and snags within the hardwood and conifer stands should be retained where possible. Existing snags in aspen stands should be retained where possible. To allow for safer operating conditions during treatment activities, hazardous trees may be removed.
3. Reserve 2-3 of the larger diameter, low quality, large-limbed trees per acre in managed hardwood and conifer stands for future snag and den trees.
4. Where possible, retain the recommended number of larger diameter, low quality aspen trees in stands designated for large woody debris (see Map I in Appendix 1, and Table B-9 in Appendix B of the EIS for the recommended number of aspen trees to retain in each stand).
5. No logging activity would occur within 300 feet of active (used in the previous or current nesting season) red-shouldered hawk or goshawk nests at any time of the year. In addition, there would be a 30-acre nest protection area where no disturbance-causing activities would be allowed during the nesting period (March 15 through September 1).
6. Protection measures for any new locations of TES species will be reviewed on a case-by-case basis to determine the appropriate action. Guidelines in existing recovery plans and conservation approaches will be followed to protect TES locations. The District Ranger would make a final decision on additional protection measures.
7. In order to maintain shade, soil, and microclimate conditions around the Mingan's moonwort site in Compartment 67, a 100-foot or larger radius buffer zone will be marked around the fern population. Within this approximately 0.75-acre zone, no vegetation management activities will occur. Trees being cut outside this buffer as part of the aspen clearcut unit should be felled away from the buffer zone.
8. If any RFSS plants are found during project layout and implementation, appropriate protective design criteria would be added to the project and an addendum to the BE prepared.
9. Opening reconstruction and road mowing should occur in early summer, prior to seed set of typical non-native invasive plants. Specific dates can be determined through consultation with the Forest Botanist.
10. Stands with harvest treatment that intersect the known area of glossy buckthorn infestation should be harvested during the winter operating season over snow.

After finishing work within any of the above mentioned stands and prior to movement into an uninfested stand, all off-road harvesting equipment shall be cleaned (dry, with broom or similar tool). Purchaser shall ensure that all off-road equipment is free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds. Equipment shall be considered free

- of soil, seeds, vegetative matter, and other such debris when a visual inspection by the Sale Administrator does not disclose such material.
11. Timber sale contract administrators should locate landings and skid trails in areas where glossy buckthorn is absent on the site.
 12. Design criteria for riparian area protection described in Table 2-1 in Appendix 2 will be applied to all stands with management activities.
 13. ELTP guidelines for normal season of operations and limitations that are outlined in Table 2-2 in Appendix 2 are recommended unless conditions dictate otherwise.
 14. Stream and wetland crossings should be minimized and/or avoided, and crossed at right angles, where possible. Only Forest Service-designated stream crossings will be used.
 15. Where roads cross riparian areas or streams, drainage will be provided to protect the road as well as water and soil resources. This may include crossing wetlands or small drainways under frozen ground conditions, or utilizing pipe bundles, corduroy (log stringers), or other similar cross-drainage structures. Whenever possible, temporary structures and crossings should be removed and rehabilitated upon completion of treatment activities and road use.
 16. All identified perennial and intermittent streams within sale areas will be shown as protected streamcourses on the Sale Area Maps.
 17. To the extent possible, pre-haul road maintenance should avoid removal of topsoil and herbaceous vegetation from the road surface in order to protect the road profile and maintain proper drainage.
 18. Within sale areas, signs will be placed where the NCT enters and exits sale areas to alert trail users of possible harvesting activities. Signs will also be placed at locations within the sale areas where roads being utilized for harvest activities intersect the NCT.
 19. Within a strip 25 feet in width measured from edge of clearing along the NCT all slash resulting from the purchaser's operations shall be removed and stumps shall be cut to less than 6 inches high. Within adjacent strip 25 feet in width all slash shall be lopped and scattered to lie within 2 feet of the ground.
 20. Skid trails crossing the NCT should be perpendicular to the trail and specifically designated on the ground by the Forest Service. Skidding will not be allowed along the trail surface.
 21. Where harvest units occur along the NCT, stands will be managed in accordance with the VQO as described in Section 5.4 of this document. Existing tree basal area, vegetation density, and the viewshed would be taken into consideration. Cutting may take place adjacent to the trail as long as the VQO as described in Section 5.4 of this document will still be met.
 22. For all harvest units along the NCT, post harvest treatment should remove unsightly residual saplings and seedlings where necessary to reduce any visual impacts and ensure the VQO will be met.
 23. To minimize conflict with NCT users and harvest operations in the area of highest trail use, harvest activities adjacent to the NCT from U.S. Highway 45 east to O Kun De Kun Falls will be conducted during specific times and days to limit user impact. Harvest activities, including equipment and timber hauling, during periods of high trail use in this area, June 1 through October 15, will only be allowed from 6:00 p.m. Sunday through 8:00 p.m. Friday.
 24. Exposed mineral soil on log landings, temporary roads, and newly constructed berms will be seeded as needed to prevent soil erosion. Skid trails will be leveled and seeded where necessary if a large amount of mineral soil is exposed. Existing roads

- within the project area that need erosion control will be seeded. Seeding is to be of a locally native plant seed mix, whenever feasible and available. If not, a non-invasive seed mix could be used.
25. Logging debris (chips, bark, etc.) at landings should be evenly redistributed to a thickness that would not inhibit vegetation growth on the area, as determined by the sale administrator.
 26. Harvest operations will be restricted to July 16 - September 15, and from December 15 through March 15 to protect soil resources and residual stands throughout the project area. Except in goshawk and red-shouldered hawk nesting areas, operations could occur outside of this period when soil conditions will support the type of equipment being used.
 27. No operations will be permitted on slopes over 35%, and equipment operations on slopes between 25% and 35% will be permitted on a case-by-case basis as determined by the Forest Service.
 28. In clearcut units, harvesting methods other than whole-tree chipping should either leave slash at the stump or haul the slash back onto the harvested area and distribute it evenly.
 29. Whenever feasible, stands proposed for clearcut-type harvests that have 40 basal area or less of aspen should be winter harvested to promote regeneration (see Tables B-2 and B-3 in Appendix B of the EIS for recommended harvest seasons for each stand).
 30. Stands for riparian conifer planting that were not previously surveyed for rare plants will be surveyed prior to the planting. If any RFSS plant populations are found, they will be excluded and buffered from the planting area. Stands that need to be surveyed include: Compartment 103, Stands 23, 43, and 49; Compartment 135, Stands 4, 5, 24, and 25; Compartment 136, Stands 8, 16, 25, 26, 27, 36, 38, 41, 48, 51, and 54; and Compartment 139, Stands 18 (south half only), 22, 39, 42, and 88.

Table 2-1. Baltimore Vegetation Management Riparian Design Criteria.

ELTP/ Aquatic Feature	Compartments / Stands Potentially Affected	Riparian Influence Area	Harvest and Harvest Associated Equipment Restrictions	Minimum Canopy Coverage ¹	Roads, Landings, Skid Trails
Large Permanently Flowing Streams (Baltimore R. from mouth up to Lathrop Cr. and all branches Ontonagon R.)	82/89, 83/18	5 tree lengths back from the edge of the bankfull Stage or ELTP defined floodplain, whichever is greater. OR when river is nested within a swamp or bog, 1 tree length back from the edge of the ELTP defined swamp or bog OR 5 tree lengths from the bankfull stage, whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 2 tree lengths of ELTP defined floodplain. OR when stream is nested within swamp or bog, no commercial timber harvest or equipment operation within 2 tree lengths of edge of ELTP defined swamp or bog.	Maintain 75 - 100% crown canopy closure within riparian influence area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing large permanently flowing (perennial) streams where possible. When crossing is unavoidable, use designated stream crossings with coordination with MI-DNR. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Small Permanently Flowing Streams (with adjacent slopes 1-18% B and C slopes)	102/26; 103/14,62; 104/12,40; 141/61	When permanently flowing (perennial) stream is nested within swamp, bog, or floodplain ELTP, go to the top of the adjacent slope plus 1 tree length OR 2 tree lengths back from the edge of the swamp, bog, or floodplain, whichever is greater. Otherwise, area to the top of the adjacent slope plus 1 tree length. OR 3 tree lengths back from the bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 1 tree length of bankfull stage. OR when stream is nested within swamp, bog, or floodplain, no commercial timber harvest or equipment operation within 1 tree length of ELTP defined swamp, bog, or floodplain.	Maintain 75% crown canopy closure within riparian influence area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing small permanently flowing (perennial) streams where possible. When crossing is unavoidable, use designated stream crossings with coordination with MI-DNR. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Small Permanently Flowing Streams (with adjacent slopes 18-35% D slopes)	66/8	Area to the top of the adjacent slope plus 1 tree length. OR 3 tree lengths back from the bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 1 tree length from stream's bankfull stage.	Maintain 75% crown canopy closure within riparian influence area.	Same as above.
Small Permanently Flowing Streams (with adjacent slopes 35-55% E slopes)	67/29	Area to the top of the adjacent slope plus 1 tree length. OR 3 tree lengths back from the bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within the area from the stream's bankfull stage to the top of the adjacent slopes.	Maintain 75% crown canopy closure within riparian influence area.	Same as above.

¹ This is part of riparian ecotone that lies beyond the no harvest zone

Note: This Table includes all treatment stands in all alternatives. Minor variation exists between Alts 3 and 4. Alt 2 has fewer treatment acres in each ELTP/Aquatic Feature category, although it has 2 additional stands in Wetland – Mixed Imperfect Alder Conifer.

ELTP/ Aquatic Feature	Compartments / Stands Potentially Affected	Riparian Influence Area	Harvest and Harvest Associated Equipment Restrictions	Minimum Canopy Coverage ₁	Roads, Landings, Skid Trails
Seasonally (Intermittent) Flowing Streams (with adjacent slopes <1% slope)	67/29; 82/2,58; 101/46; 102/35; 134/29; 135/8,14; 136/26,46; 137/11; 139/24,68,73,75, 77; 142/2,25,32,34	When seasonally flowing (intermittent) stream is nested within a swamp or bog, 2 tree lengths back from edge of wetland, OR 2 tree lengths back from bankfull stage, whichever is greater.	No commercial timber harvest or harvest associated equipment operation within ½ tree length from stream’s bankfull stage. OR if seasonally flowing (intermittent) stream is nested inside a swamp or bog, there would be no commercial timber harvest within 1 tree length from the edge of the ELTP defined swamp or bog.	Maintain 50% crown canopy closure within riparian influence area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing seasonally flowing (intermittent) streams where possible. When crossing is unavoidable, use designated stream crossings with mitigation measures such as pipe bundles. Remove bundles upon completion. Discourage removal of limbs and other debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Seasonally (Intermittent) Flowing Streams (with adjacent slopes 1-18%, B & C-slope)	66/3,4,6,8,20; 67/7,10,29; 72/18; 82/2,10,16,30,31, 58,61,74,80,89,92; 83/8,12,15; 84/3,9; 85/8; 101/3,20,23, 40,46; 102/6,8,12, 28,35,40,43,47,49, 53,65,82; 103/1,7, 14,18,20,33,69; 104/1,4,6,11,12, 14,15,23,26,27,28, 31,37,40,57,60,64; 105/7,8,33,50,65, 73,93; 134/6, 29; 136/14,22,40,43; 137/23; 139/4,13, 24,34,41,51,62,75, 77,87; 140/4,16, 27,28,37; 142/25; 144/39	Area to top of adjacent slope plus 1 tree length. OR 2 tree lengths back from the bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within ½ tree length from stream’s bankfull stage.	Maintain 50% crown canopy closure within riparian influence area.	Same as above.
Seasonally (Intermittent) Flowing Streams (with adjacent slopes 18-35%, D-slope)	66/6,8,20; 67/29; 83/21,15; 101/3, 40; 102/6,82; 105/33,73,92,93; 139/41,62,68; 140/4,27,28; 142/32	Area to top of adjacent slope plus 1 tree length. OR 3 tree lengths back from bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 1 tree length from stream’s bankfull stage.	Maintain 50% crown canopy closure within riparian influence area.	Avoid new road/landing construction within riparian area where possible; Skid trails would direct activities outside of riparian area as quickly as possible; Use designated skid trails to minimize the number of skid trails within riparian areas and to avoid the steeper slopes wherever possible. Avoid crossing seasonally flowing (intermittent) streams where possible. When crossing is unavoidable, use designated stream crossings with mitigation measures such as pipe bundles. Remove bundles upon completion. Discourage removal of limbs and other debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.

ELTP/ Aquatic Feature	Compartments / Stands Potentially Affected	Riparian Influence Area	Harvest and Harvest Associated Equipment Restrictions	Minimum Canopy Coverage ₁	Roads, Landings, Skid Trails
Seasonally (Intermittent) Flowing Streams (with adjacent slopes 35-55%, E-slopes and LTA 20)	67/10,29; 72/14; 82/1,30,31,58,61, 80; 101/23,40; 103/1; 136/46; 139/15,24	Area to top of adjacent slope plus 1 tree length. OR 3 tree lengths back from bankfull stage; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within the area from the stream's bankfull stage to the top of the adjacent slopes.	Maintain 50% crown canopy closure within riparian influence area.	Same as above.
Lakes and Ponds	66/4; 82/74; 103/7; 105/1,2,45,73; 139/62	Entire ELTP plus the area to the top of the adjacent slope plus 1 tree length. OR 2 tree lengths from the edge of the lake/pond or adjacent ELTP defined swamp, bog, or floodplain; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 2 tree lengths from edge of lake/pond. If the lake is nested within a swamp, bog, or floodplain that is 2 tree lengths or more in width, then there would be no commercial timber harvest or equipment operation within 1 tree length of the edge of the ELTP defined swamp, bog, or floodplain.	Maintain 50% crown canopy closure within riparian influence area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.
Forest Seasonal Ponds (1/2 acre in size or larger)	Where found	The whole seasonal pond plus 1 tree length.	No equipment within seasonal ponds. Do not harvest trees with rooting zones in contact with edge of seasonal ponds.	Maintain 75% crown canopy closure within riparian influence area.	No equipment would be permitted within seasonal ponds and no landings would be permitted within 150 feet of seasonal ponds; Avoid new road/landing construction within riparian area where possible; Skid trails would direct activities outside of riparian area as quickly as possible; Seasonal ponds would not become disposal area for slash; Retain existing cull trees and snags in riparian areas where possible.
Wetland - Sedge-meadow floodplain (ELTP 233)	66/8; 82/74; 101/40; 102/10,43,53,82; 103/14,21; 105/1; 134/21,29,60; 142/25,36; 144/6,40	Entire ELTP plus area to top of adjacent slope plus 1 tree length. OR 2 tree lengths from the edge of the ELTP defined floodplain; whichever is greater.	No commercial timber harvest or harvest associated equipment operation within 1 tree length of edge of ELTP defined floodplain.	Maintain 50% crown canopy closure within riparian influence area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing wetlands where possible. When crossing is unavoidable, use designated crossings with mitigation measures such as corduroy (log stringers) or crossing under frozen conditions. Remove corduroy upon completion. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.

ELTP/ Aquatic Feature	Compartments / Stands Potentially Affected	Riparian Influence Area	Harvest and Harvest Associated Equipment Restrictions	Minimum Canopy Coverage ₁	Roads, Landings, Skid Trails
Wetland – Mixed Imperfect Alder/Conifer (Poorly Drained – ELTPs 225A, 237A)	<p>66/4; 72/18; 82/10,16; 83/12, 18,32; 85/8; 101/23;102/12,28, 35,43,49,53,54,65; 103/7,14,62;104/1, 5,12,13, 15, 31,57; 105/1,8,18,19,26, 31,33,41,44,45,46, 48,50,56,65,73,89, 90,93;134/24,27, 28,29,32,35,62; 135/14; 136/10,14, 18,22,24,26; 137/23,26; 139/52; 140/2,3,16, 23,27, 36; 142/16,17,24, 48,50; 143/1,2,5,7, 8,9; 144/30,39</p>	Pure unit - 2 tree lengths from the edge of the ELTP delineation.	No commercial timber harvest or harvest associated equipment operation within 1 tree length of edge of ELTP defined floodplain.	Maintain 50% crown canopy closure within riparian influence area.	Same as above.
Wetland – Forested Linear Wetland (ELTPs 218, 222)	<p>101/45; 104/6,15; 105/6,14,18,26,28, 31,32,39,41,97; 134/14,15,16,24, 27,29,32; 140/3, 39; 144/6,40,48, 72,73</p>	Edge of forested linear wetland plus 1 tree length.	No commercial timber harvest or harvest associated equipment operation within 1/2 tree length of edge of ELTP defined wetland.	Maintain 50% crown canopy closure within riparian influence area.	Same as above.
Wetland – Bog (ELTP 231)	<p>66/3,4; 72/6,7; 82/16; 102/12,85; 103/7</p>	Entire ELTP plus area to top of adjacent slope plus 1 tree length OR 2 tree lengths from the edge of the ELTP defined floodplain, whichever is greater	No commercial timber harvest or harvest associated equipment operation within 1 tree length of edge of ELTP defined bog.	Maintain 50% crown canopy closure within riparian influence area.	Avoid new road/landing construction within riparian area where possible. Skid trails would direct activities outside of riparian area as quickly as possible. Avoid crossing wetlands where possible. When crossing is unavoidable, use designated crossings with mitigation measures such as corduroy (log stringers) or crossing under frozen conditions. Remove corduroy upon completion. Discourage removal of limbs and other logging debris from riparian area where possible. Retain existing cull trees and snags in riparian areas where possible.

Listed in the table below are brief descriptions of the ELTPs that occur within the project area and that may be affected by, or that may affect the activities in the Selected Action. The table also lists the suitability for timber management of these ELTPs. Some ELTPs are not suitable for timber management, such as wetlands, and these will be avoided during any sale preparation and harvest activities to protect the soil and site resources.

Many of these ELTPs do not have any activities planned to occur on them, but are included as they were part of the scope of the effects analysis. A more complete description and map of these ELTPs located within the project area is located in the project file.

Table 2-2. Summary of ELTPs in Baltimore Project Area.

LTA	ELTP	GIS Acres	Drainage Class*	Common Soil Surface Texture**	Common Soil Subsurface Texture**	Season of Operability ⁺	Slope Range %	Comments or Special Features
19	214B [#]	2281	P	Organic	Clays and silts	6	0-1	Undulating complex
			SP	Loam, silt loam, silty clay loam		5	0-2	
			MW			3	0-4	
	215B	731	W	Silt loam, loam, fine sandy loam	Silty clay or clay	2	0-6	Upland clayey level plain
	216B	6602	W	Loam, clay loam, very fine sandy loam	Clay loam, silty clay loam	2	0-6	Upland clayey level plain
	216C	711					0-15	
	217A [#]	4564	SP	Mixed organic material with silt loam, loam, or silty clay loam	Clay or silty clay with some strata of sandy clay loam or sandy clay	4	0-2	Lower areas in level plain
	218	335	PD	Organic, mucky silt loam, or silty clay loam	Silty clay or clay	Not suitable	0-2	Drainway - may be open or shrubby, and frequently dammed and flooded
	219B	1293	MW/SP	Silty clay loam, clay loam, and silty clay.	Fine sandy loam to clay loam	4	0-4	Lower areas in level plain with till substratum
	221B	2362	W	Loam, fine sandy loam, silt loam	Clay loam, sandy clay loam, sandy loam, loam	2	0-12	Till deposit - higher elevation in clay plain
222	222	P	Organic, mucky silt loam, fine sandy loam, or silty clay loam	Clay loam, sandy clay loam, sandy loam, loam	Not suitable	0-2	Drainway - may be open or shrubby, and frequently dammed and flooded	

LTA	ELTP	GIS Acres	Drainage Class*	Common Soil Surface Texture**	Common Soil Subsurface Texture**	Season of Operability	Slope Range %	Comments or Special Features
19	225A [#]	664	SP	Loam, silt loam, silty clay loam	Silty clay loam to clay	6/ commonly not suitable	0-2	Depression in level plain
	226B	2483	W	Loam, silt loam, clay loam, silty clay loam	Sandy loam, sandy clay loam, clay loam	2	0-4	Upland; clay over till
	230B [#]	469	SP/MW	Sandy loamy, loamy fine sand	Stratified fine & very fine sands	4/ commonly non suitable	0-4	Found in rich alluvial bottomlands along perennial streams
	231	138	VP	Organic	Organic over loam, sandy clay loam, clay loam	Not suitable	0-1	Shallow and deep organic deposit complex
			P		Loam, sandy clay loam, clay loam, clay			
	233	292	VP/P	Mucky loams over stratified clays, silts and sands	Sandy clay loam to clay	Not suitable	0-2	Relatively wide floodplains associated w/perennial streams; often grassy or brushy
	234B	614	W	Loam, sandy loam, loamy sand or loamy fine sand	Variable - waterworked loamy sand to clay loam	2	0-12	Beach ridges and ground moraine domes
	236E ⁺⁺	2008	W	Silt loam, silty clay loam, clay loam, clay loam, loam	Clay, silty clay	3/ commonly not suitable	25-45	Valley wall landform associated with steeply incised drainage channels
			SP/P	Mucky sandy loam, loam, silt loam or clay loam	Sandy loam, sandy clay loam, clay loam, clay		0-4	Alluvial bottomlands of incised drainage channels
237A [#]	1225	P	Organic over silt loam, loam, sandy loam, fine sandy loam	Silt loam, loam, fine sandy loam, sandy loam, silty clay loam	6	0-1	Low area complex; transition to till deposit	
		SP	Silt loam, loam, fine sandy loam, sandy loam, silty clay loam		5	0-4		

LTA	ELTP	GIS Acres	Drainage Class*	Common Soil Surface Texture**	Common Soil Subsurface Texture**	Season of Operability	Slope Range %	Comments or Special Features
19	238B	2537	W/MW	Sandy loam, fine sandy loam, loam, silt loam	Loam, clay loam, or sandy clay loam stratified with bands of clay or sandy clay	2	1-12	Till deposit - higher elevation in clay plain
	239D ⁺⁺	731	W	Loam, silt loam, clay loam, silty clay loam	Clays and silts	3/ often not suitable	12-25	Upper reaches of incised drainage channels; vulnerable to headward erosion
	480	2	N/A					Gravel/borrow pit
20	N/A	5519	Not mapped to ELTP level				Very steep valley walls and bottomlands of major drainages	
W	W	126	N/A				Water body	

* A drainage class refers to the frequency and duration of wet periods under conditions similar to those under which the soil developed. It also describes the rapidity at which free water is removed from the soil.

VP - Very poorly drained **P** - Poorly drained **SP** - Somewhat poorly drained **MW** - Moderately well drained **W** - Well drained

** Some soil textures are grouped into broad categories. Actual textures can range from fine to coarse within these broader categories – particularly sandy textures.

⁺ Season of operability:

- 0 - All year long.
- 1 - All year long, except during (April/May) and (October/November).
- 2 - Winter and during July, August and September. Delays up to 1 week following rain in the summer can be expected.
- 3 - Winter and during August and September. Delays 1 to 2 weeks following rain in the summer can be expected.
- 4 - Winter and during August. Delays 1 to 3 weeks following rain in the summer can be expected.
- 5 - Winter and less than 1 month summer, which may be missed if periodic rains occur.
- 6 - Winter only with frozen roads and trails. Typically these ELTP's are not included in the actual timber sale units.
- N/A - Site is primarily non-productive for growing merchantable timber.

Indicates an ELTP or ELTP component that will need field verification on a case-by-case basis to fully determine operability due to site specific soil conditions that cannot be predicted at the ELTP level mapping scale.

++ Indicates an ELTP that may not be operable on slopes between 25-35%. Needs to be assessed on a case-by-case basis and other natural landform characteristics must be taken in to account such as wetland proximity, shallow to bedrock, access, exposure etc. In nearly all cases, slopes over 35% will not be operable for equipment.

FINAL EIS, ERRATA SHEET, AND APPENDICES

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ERRATA SHEET

APPENDIX I: RESPONSE TO PUBLIC COMMENTS ON THE EIS

Response to Comments Tables

Table I-1 List of Commenters on the EIS

Table I-2 List of Commenters Who Submitted Comments after the Close of the 45-day Comment Period

Table I-3 Public Comments on the Environmental Impact Statement and Responses to those Comments

4.0 REFERENCES

ERRATA SHEET

This errata sheet documents minor changes, additions, or deletions to the Final Environmental Impact Statement (FEIS) for the Baltimore Vegetation Management Project (VMP). Changes, additions, or deletions are denoted in *italics*.

Page 6, Executive Summary – second to last bulleted item, *delete “West”* and replace with “Middle.”

Page 1-8, DEIS – fourth full paragraph in right column, *delete “West”* and replace with “Middle.”

Page 2-7, DEIS – first bulleted item in right column, *delete “West”* and replace with “Middle.”

Page 2-16, DEIS - Design Criterion #9, *delete first paragraph* and replace with the following (retain 2nd paragraph as is): “*Stands proposed for harvest that intersect the known area of glossy buckthorn infestation should be harvested during the winter operating season over snow. This includes the stands shown in the table below.*”

Alternative 2		Alternative 3		Alternative 4	
Compartment	Stand	Compartment	Stand	Compartment	Stand
72	1	72	1	72	1
72	6	72	6	72	6
72	7	72	7	72	7
72	10	72	10	72	10
72	14	72	14	72	14
72	17	72	17	72	17
83	12	72	18	72	18
83	15	72	20	72	20
83	22	82	1	82	1
136	34	82	2	82	2
139	57	82	8	82	8
		82	10	82	10
		82	16	82	12
		82	58	82	16
		82	61	82	61
		82	81	82	81
		82	82	82	82
		82	89	82	89
		83	12	83	12
		83	15	83	15
		83	18	83	18
		83	22	66	8
		66	8	67	29
		67	29	136	34
		136	34	138	78
		138	78	138	79
		138	79	140	2
		140	2	140	3
		140	3		

Page 2-17, DEIS - Design Criterion #12, *delete* and replace with the following: “*ELTP guidelines for normal season of operations and limitations that are outlined in Table 2-2 in Appendix 2 are recommended unless conditions dictate otherwise.*”

Page 3-3, DEIS – first paragraph below Figure 3.1.2, “...Forest Plan, *page IV-71*).”

Page 3-11, DEIS – first paragraph, second sentence, in left column under “Invasive plant Species,” *delete* and replace with “*Clearcutting is proposed in eight of the stands infested with glossy buckthorn, and hauling would occur throughout the area.*”

Page 3-17, DEIS – first paragraph in left column under “Invasive plant Species,” *delete* and replace with “*Clearcutting is proposed in 27 of the stands infested with glossy buckthorn, and hauling would occur throughout the infested area.*”

Page 3-20, DEIS – first paragraph, first sentence, in right column under “Invasive plant Species,” *delete* and replace with “*The effects of clearcutting in the seven stands that contain glossy buckthorn would be the same as for Alternative 3.*”

Within Chapter 3 all page references to Chapter 3 of the DEIS should be *30 pages less* than what is shown. For example, “(...Soil Resources Section, *page 3-84*)” should be *page 3-54*. This is resulted from a change in how the page numbering in Chapter 3 was done.

Page 3-21, DEIS – second paragraph in right column, *delete* “*Aldred*” and replace with “*Eldred*.”

Page 3-26, DEIS – first paragraph in left column, ninth and tenth line, second sentence, *delete* “...*more abundant wildlife...*” and replace with “*improved.*”

Page 3-26, DEIS – last paragraph in right column, third line, *delete* “*no*” and replace with “*lack of.*”

Page 3-31, DEIS – last paragraph in right column - more clarification was deemed necessary for this paragraph. When stating “..., Alternative 3 would fragment the most aspen habitat,” it is important to note this is referring to “seral stage fragmentation.” This means the aspen habitat referred to would remain aspen habitat under Alternative 3, but Alternative 3 would result in the greatest change to the “seral stage,” or age class, of that habitat, not changes in the forest type.

Page 3-39, DEIS – first full paragraph, second sentence, in right column, *delete* and replace with “*These harvest treatments altered landscape patterns and changed habitat suitability for some wildlife species.*”

Page 3-76, DEIS – second paragraph, second sentence, in left column under “Sensitive Plants,” *delete* and replace with “*About 3,040 additional acres were surveyed in spring, summer, and fall of 2003.*”

Page 3-77, DEIS – third paragraph, third sentence, in left column under “Rare Plants,” *delete* “*Three...*” and replace with “*Four...*”

Page 3-77, DEIS – top of right column after the end of item #3 description, *add* “4) *Botrychium minganense, Mingan’s moonwort, occurring in an aspen-fir stand in the project area.*”

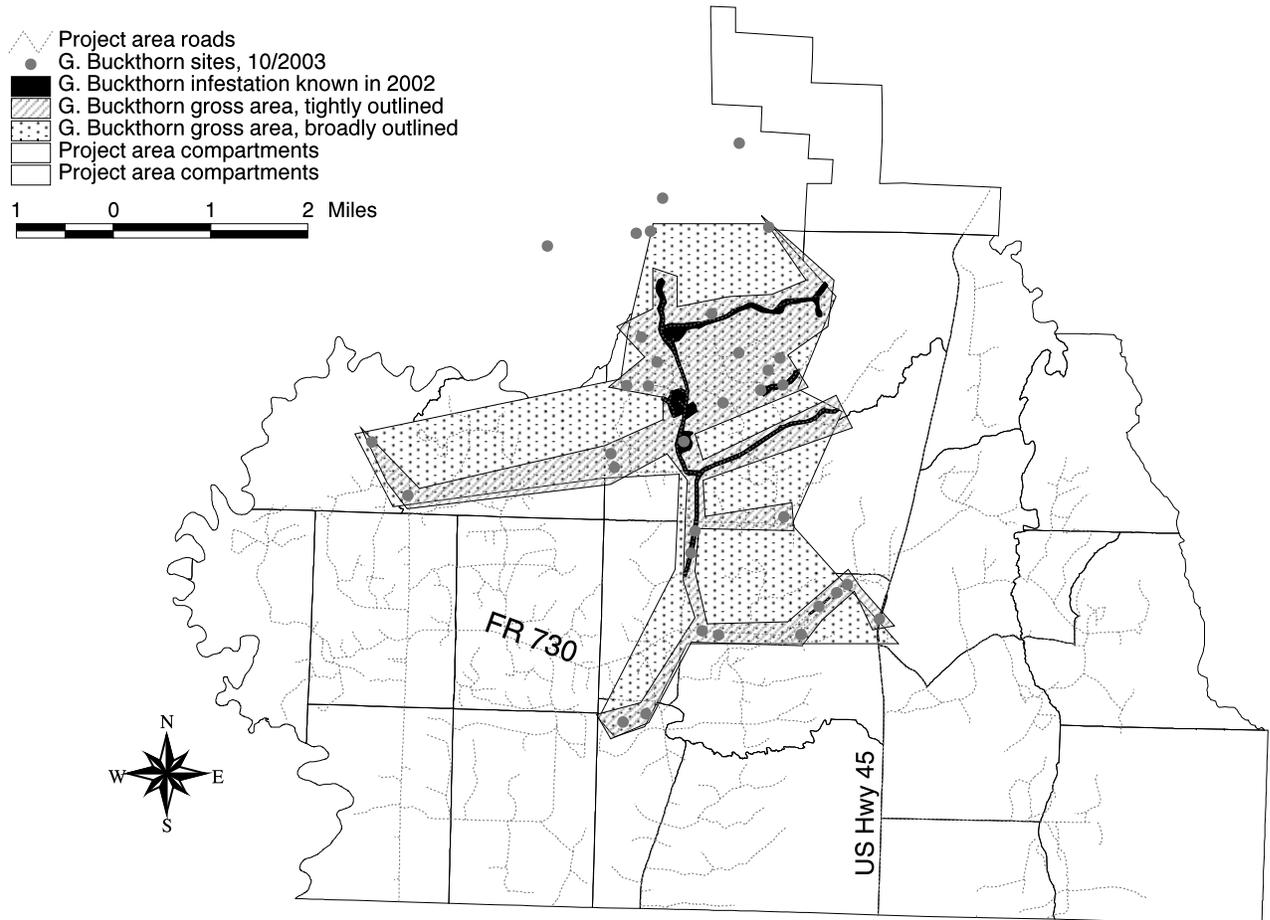
Page 3-77, DEIS – second paragraph in right column, *delete* and replace with “*No state-listed plants were observed (except those also listed as RFSS, above). An addendum to the BE has been prepared for the Botrychium minganense found in summer, 2003. To protect this population, a 100-foot radius, no-activity, buffer zone will be added to the project, as a design criterion.*”

Page 3-78, DEIS – first paragraph in right column, *delete* and replace with the following two paragraphs:

“The glossy buckthorn infestation, which is of highest concern, was first observed during field surveys for rare plants in late 2002. The full extent of the infestation has not yet been determined, but additional mapping in 2003 shows that the infestation is much larger than noted in 2002. Within the project area, it appears to be centered on, or at least very dense within, two shrub thicket wetlands, and to extend from there into moist woods. The infestation also occurs outside the project area, and the overall infestation center may be off the Forest, in the Victoria area.”

Figure 3.7.1 shows the known infestation area as of October 2003. Additional sites found in 2003 are shown as gray dots. The gross area of infestation can be mapped by using these dots as the perimeter. Depending on how inclusively the lines are drawn, the gross infestation area appears to range from 3200 to 6800-some acres. There are certainly more sites within the gross area that have not yet been recorded. The main area mapped in 2002 lies primarily along roads. This is partially due to our mapping because we had mostly checked for the shrub from the roads and had not canvassed the adjacent woods. However, the roads can also be corridors for spread of this plant.”

Page 3-78, DEIS – Figure 3.7.1, *delete* and replace with the following updated figure:



Updated Figure 3.7.1. Main Known Area of Glossy Buckthorn Infestation.

Page 3-79, DEIS – fourth full paragraph, first sentence, in left column, *delete* and replace with “*Like the proposed mechanical treatment, herbicide control would be labor-intensive and could involve cutting individual stems and painting with herbicide, spraying foliage, or basal stem spraying.*”

Page 3-79, DEIS – Table 3.7.1, *delete* and replace with the following updated table:

Updated Table 3.7.1. Comparison of Determinations for RFSS Plants by Alternatives.

	Alternative			
	1	2	3	4
Number of taxa with “no impact” determination	49	43	39	42
Number of taxa with “may impact individuals” determination	1	7	11	8

Page 3-79, DEIS – Table 3.7.2, *delete* and replace with the following updated table:

Updated Table 3.7.2. Comparison of Risk Assessment for Spread and Treatment of Glossy Buckthorn by Alternative.

	Alternative			
	1	2	3	4
Overall risk	high	high	high	high
Acres treated	0	0	~300	~55

Page 3-80, DEIS – second paragraph, first sentence, in left column under “Non-native Invasive Plants (NNIP),” *delete* and replace with “*Glossy buckthorn occurs on 3200 to 6800 or more acres in the project area, and nothing would be done in this alternative to slow its spread.*”

Page 3-81, DEIS – first paragraph, first sentence, in right column under “Sensitive Plants,” *add* “*Mingan’s moonwort (Botrychium minganense)*” to list of species that could be impacted.

Page 3-82, DEIS – first paragraph, first sentence, in left column under “Glossy Buckthorn,” *delete* and replace with “*Under this alternative, approximately 300 acres within the glossy buckthorn infestation in the project area would be treated by mechanical girdling and stem burning.*”

Page 3-82, DEIS – third paragraph, in left column under “Glossy Buckthorn,” *delete* and replace with “*Given the new information as to the much larger extent of the infestation (10 to 20 times what we thought previously), the proposed mechanical treatment would not be appropriate and would not meet the need [“to control this infestation from further spread”] identified on p. 1-7 of the draft EIS (purpose and need section). The proposed girdling would amount to a spot-treatment of about 10% of the infested area, within the middle of the large infestation, rather than suppression of the majority of the infestation. The proposed girdling would not decrease the overall infestation area. It would provide some suppression in the treatment area as well as a test of girdling as a control method. Re-sprouting and germination of seeds in the seed bank would ensure there would still be glossy buckthorn in the treatment area. The proposed girdling would allow native shrubs and herbs to compete with the buckthorn, thereby helping to suppress it in this small part of the infestation. However, the overall infestation would continue to spread at its edges and in outlying small populations.*”

Page 3-82, DEIS – in left column under “Glossy Buckthorn,” *add* the following paragraph to the end of this section: “*Since we know now that the infestation is widespread, and not restricted mainly to*

roadsides, a way to meet the stated need (p. 1-7) would be to treat the infestation's leading edges and satellite populations. This would be a containment strategy to keep the overall infestation area from getting larger, a strategy to use until a more effective means of eradicating the central buckthorn population could be found. Treating the edges and satellite populations would mean a separate environmental (NEPA) analysis, and dropping any proposed buckthorn treatment from the Baltimore VMP."

Page 3-82, DEIS – first paragraph, first sentence, in right column under "Sensitive Plants," add "*Mingan's moonwort (Botrychium minganense)*" to the list of species that could be impacted.

Page 3-82, DEIS – right column under "Non-native Invasive Plants," add the following paragraph after the first paragraph: "As in Alt. 3, the treatment proposed under Alt. 4 would be a spot treatment within the infestation. It was proposed as a test of girdling and as a way to treat the denser part of the infestation that did not fall within road rights-of-way where treatment could be conducted under categorical exclusions. Given the new information on the enormity of this infestation, spending time and resources to treat less than 2% of the central infestation is not appropriate and does not meet project objectives."

Page 3-83, DEIS – first paragraph, second sentence, in left column, delete and replace with "Although the design criteria should help prevent proposed timber harvest activities from spreading the glossy buckthorn and the proposed girdling should locally suppress the spread of the infestation, it is still expected to continue spreading with no overall containment."

Page 3-83, DEIS – first paragraph in right column under "Reasonably Foreseeable Future Actions," delete and replace with "The Forest is beginning to address the NNIP problem as about 200 buckthorn shrubs in the rights-of-way on FR 730, FR 733, and the North Country Trail were cut down (most) or dug up (when there were just 1-3 bushes by themselves) in August 2003, under road and trail maintenance categorical exclusions. This should slow the spread along the road edges, but provides no real control or containment of the overall infestation. Future, similar treatments along roadsides in the project area may occur separate from the Baltimore VMP."

Page 3-84, DEIS – first paragraph in left column under "Alternative 2," delete and replace with "No treatment of NNIP infestations would occur under this alternative. The glossy buckthorn cutting and digging completed in August 2003 may slow the spread along the roadsides where the bushes were treated. The proposed design criteria would be applied to minimize the likelihood that timber harvest activities would spread buckthorn seeds; however, spread of NNIP species including glossy buckthorn is expected within the project area."

Page 3-84, DEIS – first paragraph, second sentence, in right column under "Alternatives 3 and 4," delete and replace with "The proposed glossy buckthorn treatments would provide some local suppression in a small portion of the large infestation area and would allow a test of the effectiveness of girdling on this species. However, they would not provide containment of the infestation and continued spread is likely in and off the project area."

Page 3-87, DEIS – second bulleted item under "Alternative 3" in left column, delete "4" and replace with "6." Note that the length of the NCT bordered by clearcut treatments under Alternative 3 was correctly analyzed using GIS, but the number of "units" along the NCT with clearcut treatments in Alternative 3 is "6," not "4."

Page B-6, Appendix B, Table B-1, DEIS – Compartment 139, Stand 57 should be "winter only."

Page B-8, Appendix B, Table B-2, DEIS – Compartment 82, Stand 8 should be "winter only," Compartment 82, Stand 82 should be "winter only."

Page B-9, Appendix B, Table B-2, DEIS – Compartment 66, Stand 8 should be "winter only," Compartment 67, Stand 29 should be "winter only."

Page B-12, Appendix B, Table B-2, DEIS – Compartment 138, Stand 78 should be “*winter only*,”
Compartment 138, Stand 79 should be “*winter only*.”

Page B-13, Appendix B, Table B-3, DEIS – Compartment 82, Stand 58 should be “*winter only*.”

Page B-14, Appendix B, Table B-4, DEIS – Compartment 136, Stand 34 should be “*winter only*.”

Page B-15, Appendix B, Table B-4, DEIS – Compartment 72, Stand 18 should be “*winter only*,”
Compartment 72, Stand 20 should be “*winter only*,” Compartment 82, Stand 8 should be “*winter only*,”
Compartment 82, Stand 10 should be “*winter only*,” Compartment 82, Stand 82 should be “*winter only*,”
Compartment 82, Stand 89 should be “*winter only*.”

Page B-16, Appendix B, Table B-4, DEIS – Compartment 66, Stand 8 should be “*winter only*,”
Compartment 67, Stand 29 should be “*winter only*.”

Page B-19, Appendix B, Table B-4, DEIS – Compartment 138, Stand 78 should be “*winter only*,”
Compartment 138, Stand 79 should be “*winter only*.”

Chapter 4.0 (References), DEIS – *replace* with “4.0 References” enclosed with this document. Due to additions to the References from responding to comments on the DEIS, a new Reference section was completed in order to reduce confusion.

APPENDIX I:**RESPONSE TO PUBLIC COMMENTS ON THE EIS**

The Notice of Availability of the EIS was published in the Federal Register (published by the Environmental Protection Agency) on September 19, 2003, and in the Ironwood Daily Globe (newspaper of record) on September 22, 2003. The comment period, which is 45 days in length, is calculated from the date the Notice of Availability is published in the Federal Register, and ended on November 3, 2003. The commenters listed below submitted their comments by the close of the 45-day comment period.

Table I-1. List of Commenters on the Environmental Impact Statement (EIS).

#	Commenter	Comment Format	Date
1	George Beck, Lac Vieux Desert Band of L. Superior Chippewa Indians	Phone conversation	09/11/2003
2	Craig A. Czarnecki, U.S. Dept. of the Interior, Fish and Wildlife Service (USFWS)	Written comments	09/15/2003
3	Lester Berman, U.S. Dept. of Housing and Urban Development (HUD)	Written comments	09/17/2003
4	Marion True	Phone conversation	09/17/2003
5	Michael Donofrio, Keweenaw Bay Indian Community (KBIC)	Written comments	10/06/2003
6	Michael J. Tilley	Email comments	10/02/2003
7	Stephen Rodock	Email comments	10/02/2003
8	Patrick Bartels	Email comments	10/03/2003
9	Marcia J. Paquette	Email comments	10/03/2003
10	Craig E. Ryan	Email comments	10/03/2003
11	Jim Spooner	Email comments	10/03/2003
12	Dale W. Arenz, Law Offices of Arenz, Molter, Macy & Riffle, S.C.	Written comments	10/03/2003
13	David R. Oberstar, Law Offices of Fryberger, Buchanan, Smith & Frederick, P.A. for Lake States Lumber Association (LSLA)	Written comments	10/03/2003
14	Rodger Lundell, President Northern West Virginia Chapter Ruffed Grouse Society	Email comments	10/04/2003
15	Dick Mortimer	Email comments	10/04/2003
16	Al Powell, Grouse Feathers Kennels	Email comments	10/05/2003
17	Richard Petersen	Email comments	10/06/2003

#	Commenter	Comment Format	Date
18	Mike Rose	Email comments	10/06/2003
19	Ed Zlotocha	Email comments	10/06/2003
20	Dan Anderson	Email comments	10/07/2003
21	Richard R. Chronquist	Email comments	10/07/2003
22	Monte Seehorn	Email comments	10/07/2003
23	David P. Bartz	Written comments	10/07/2003
24	J.L. Hager, President & CEO WRR Environmental Services Co., Inc.	Email comments	10/08/2003
25	Jim & Carolyn Kidd	Email comments	10/08/2003
26	Scott Robbins, Smurfit-Stone Corp.	Email comments	10/10/2003
27	Bob Morgner	Email comments	10/13/2003
28	Kathy Kowal, U.S. Environmental Protection Agency (EPA), Region 5	Phone conversation	10/16/2003
29	Gary Zimmer, Regional Wildlife Biologist, The Ruffed Grouse Society	Written comments	10/17/2003
30	Al & Nancy Warren	Written comments	10/22/2003
31	Anders B. Tingstad, Jr., 98 th District Court Judge	Written comments	10/22/2003
32	Norman Pestka, President Northern Land and Sales II, LLC, Norman Pestka Construction, Inc.	Written comments	10/23/2003
33	Michael T. Chezick, U.S. Dept. of the Interior, Office of the Secretary	Written comments	10/24/2003
34	Mark K. Jones	Email comments	10/27/2003
35	Ronald C. Williams, U.S. Dept. of Agriculture, Natural Resources Conservation Service	Written comments	10/30/2003
36	Steve Garske	Email comments	11/02/2003
37	Doug Cornett, Northwoods Wilderness Recovery	Email comments	11/03/2003

The following list of commenters submitted their comments after the close of the 45-day comment period. The comments from the U.S. Environmental Protection Agency (EPA) are findings required by regulation and as such, are included in this appendix. The comment received from Mark Donham was to “verify” that he “authorized” Doug Cornett to include his name as part of Doug Cornett’s comments, which have already been included in the appendix. Although the comments from Andrew Laird and Marty Rajala were submitted after the close of the 45-day comment period, the Forest Service elected to still respond to these comments to show their comments or concerns have been noted. However, because their comments were submitted after the close of the comment period, Mr. Laird and Mr. Rajala will not have standing to appeal the Decision for this project.

Table I-2. List of Commenters Who Submitted Comments after the Close of the 45-day Comment Period.

#	Commenter	Comment Format	Date
38	Kenneth A. Westlake, U.S. Environmental Protection Agency (EPA), Region 5	Written comments	11/04/2003
39	Mark Donham, Heartwood	Email comments	11/04/2003
40	Andrew Laird, National Forest Protection Alliance	Email comments	11/04/2003
41	Marty Rajala	Written comments	11/12/2003

In conjunction with the written and emailed comments noted above, the Forest Service also received several incoming phone calls with comments or questions about the Baltimore project. However, the majority of these comments or questions were answered during the course of the call and therefore, have not been included here to avoid repetition. The conversation records for these calls are included as part of the project record.

Table I-3. Public Comments on the Environmental Impact Statement and Responses to those Comments.

(Comments received were grouped according to topic. **Bold** number in parentheses after each comment identifies commenter from list above in Table I-1 or Table I-2)

<u>Comment #</u>	<u>Comment Category/Comment</u>	<u>Response</u>	<u>Reference to EIS or other Documentation</u>
	Concurrence with Proposal		
1	“The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Baltimore Vegetative Management Project, Ottawa National Forest, Ontonagon County, Michigan. The U.S. Forest Service has coordinated with the U.S. Fish and Wildlife Service (FWS) during the development of the alternative management plans and preparation of the DEIS. Based on input from the FWS, the Department finds that the DEIS adequately addresses the concerns of the Department regarding fish and wildlife resources, as well as species protected by the Endangered Species Act, and finds the preferred action acceptable with respect to these resources and species. We have no comment on the adequacy of other resource discussions presented in the document.” (33)	Thank you for your comment and documentation of your review.	N/A
2	“We have reviewed your Draft EIS for the Baltimore Vegetative Management Project wherein the proposal states to harvest timber, improve dispersed recreation opportunities and provide the transportation system needed to serve the projects in the Ontonagon Ranger District. From our study of this proposal, we find that appropriate steps are in place in the text portion of the draft EIS or in Appendix C (Riparian Design Criteria and ELTP Guidelines Tables) to address possible negative impacts on the area’s natural resources for the four alternatives.” (35)	Thank you for your comment and documentation of your review.	N/A
3	“The U.S. Environmental Protection Agency (EPA)	Thank you for your comment and documentation of	N/A

<u>Comment #</u>	<u>Comment Category/Comment</u>	<u>Response</u>	<u>Reference to EIS or other Documentation</u>
	<p>has reviewed the U.S. Forest Service’s (USFS) Draft Environmental Impact Statement (EIS) for the Baltimore Vegetative Management Project on the Ottawa National Forest, Ontonagon County, Michigan. Our review is pursuant to the National Environmental Policy Act, the Council on Environmental Quality’s NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.</p> <p>The U.S. EPA would like to take this opportunity to compliment the USFS on the incorporation of mitigation features into the project, efforts to restore riparian habitat by increasing the presence of long-lived conifer species in riparian zones, and efforts to reduce detrimental vehicle crossings at waterways.”</p> <p>(38)</p>	<p>your review.</p>	
<p>4</p>	<p>“The DEIS includes a No-Action alternative and four action alternatives. The USFS presents its Preferred Alternative, Alternative 3, as best addressing the purpose and need in the project area (see below). All of the action alternatives would meet, to varying degrees, the project’s purpose and need to:</p> <ul style="list-style-type: none"> ➤ Regenerate aspen stands in order to produce early successional habitat via even-aged management, ➤ Balance the softwood component, ➤ Manage hardwoods via even- and uneven-aged management, ➤ Minimize adverse impacts to resources, ➤ Improve riparian areas, ➤ Provide wood products for regional and local needs in support of a stable economic base, ➤ Provide recreational opportunities, ➤ Maintain a road system to manage resources and provide recreational opportunities, and ➤ Provide for human health and safety by 	<p>Thank you for your comment and documentation of your review.</p> <p>Please note that the EIS does include a “No-Action” alternative, but only analyzes three “action alternatives,” not four.</p>	<p>N/A</p>

<u>Comment #</u>	<u>Comment Category/Comment</u>	<u>Response</u>	<u>Reference to EIS or other Documentation</u>
	<p>minimizing user conflict between snowmobiles and automobiles.</p> <p>The U.S. EPA has rated both the USFS' Preferred Alternative (A3) as well as another Proposed Action (A4). The two alternatives are described in detail in Table 1 of the DEIS. Both A4 and A3 are rated EC-1 – Environmental Concerns, Adequate Information. This rating indicates that our review did not identify any potential environmental impacts requiring substantive changes to the preferred alternative.” (38)</p>		
	Endangered Species Act Section 7 Consultation		
5	<p>“Kirtland’s warbler – You determined that the Baltimore Project will not affect the Kirtland’s warbler because this species is not present in the action area. The proposed action therefore does not require section 7 consultation for the Kirtland’s warbler, and the species will not be considered further in this letter.” (2)</p>	Thank you for your comment and documentation of your review.	N/A
6	<p>“Bald eagle – You determined that the Baltimore Project is not likely to adversely affect the bald eagle. We concur with your determination...” (2)</p>	Thank you for your comment and documentation of your review.	N/A
7	<p>“Gray wolf – You determined that the Baltimore Project is not likely to adversely affect the gray wolf. We concur with your determination...” (2)</p>	Thank you for your comment and documentation of your review.	N/A
8	<p>“Canada lynx – The best available data indicate that the Canada lynx is not currently found on the ONF or anywhere else in Michigan. Therefore, the proposed action does not require section 7 consultation for this species. It is possible, however, based on the availability of suitable habitat and documented historic occurrences of lynx in the Upper Peninsula of Michigan, the species may occur on the ONF in the future. We therefore support the ONF’s ongoing implementation of the</p>	Thank you for your comment and documentation of your review.	N/A

<u>Comment #</u>	<u>Comment Category/Comment</u>	<u>Response</u>	<u>Reference to EIS or other Documentation</u>
	<p>Conservation Agreement signed between our agencies and the associated Lynx Conservation Assessment and Strategy (LCAS).</p> <p>The Baltimore Project includes the relocation of snowmobile trail #3. Portions of this trail follow State Highway 45, a paved road subject to year-round vehicle traffic. Significant safety concerns exist regarding snowmobile interactions with vehicular traffic. Based on this concern, you propose to relocate the 0.7 miles of snowmobile trail #3 that follows State Highway 45. The proposed trail relocation will be located approximately 1,000 feet east, but will roughly parallel the existing the (sic) State Highway 45 route. Your BA indicates that although the LCAS guidelines call for no net increase of designated or groomed snowmobile trails in any Lynx Analysis Unit (LAU), the proposed relocation will increase the amount of snowmobile trail in LAU 9 by 0.95 mile. We recognize the need, however, to consider the requirements of both the public and wildlife, and that this trail relocation is necessary to address an important human safety issue.</p> <p>We encourage your continued consideration for potential effects of ONF management actions on the lynx. Application of the LCAS management guidelines will help insure that habitat is protected and maintained for the species if it expands its range into ONF lands in the future.</p> <p>This precludes the need for further action on this project as required by section 7 of the Act. If the project is modified or new information about the project becomes available that indicates listed or proposed species may be present or affected, you should reinstate consultation with this office.” (2)</p>		

<u>Comment #</u>	<u>Comment Category/Comment</u>	<u>Response</u>	<u>Reference to EIS or other Documentation</u>
	Support for Preferred Alternative		
9	<p>“I am pleased to learn that the recently released Draft Environmental Impact Statement shows that Preferred Alternative #3 has been selected. As you know, this Alternative emphasizes habitat for ruffed grouse and woodcock at levels above what the Forest Service originally proposed.”</p> <p>“I wish to continue to share my enthusiastic support for the selection of Alternative #3 as the Preferred Alternative.”</p> <p>“It is my understanding that the project area contains 35% of the Forests (sic) aspen habitat and appears to be the key to meeting Forest Plan objectives. With nearly half of the aspen in that area greater than 50 years old and past maturity, it is essential that management occur now before opportunities are lost.”</p> <p>“Young forest habitat is used by a wide range of wildlife species including ruffed grouse, woodcock, and many songbirds. This type of habitat is very important to recreational hunting and we are collectively one of the highest users of this area.”</p> <p>“I support the proposed regeneration methods that will emphasize high stem densities of regenerating trees essential to many of the wildlife species found in young forest habitats.” (6)</p>	Thank you for your comment and time to review the proposal.	N/A
10	<p>“I am in full support of Alternative 3 as the preferred alternative for the Baltimore Vegetative Management Project. The area of this project contains 35% of the Forests aspen habitat and is therefore key to meeting the Forest Plan objectives. With ½ of the aspen in this area over 50 years old and past maturity it is essential that management occur now before opportunities are lost. Young</p>	Thank you for your comment and time to review the proposal.	N/A

<u>Comment #</u>	<u>Comment Category/Comment</u>	<u>Response</u>	<u>Reference to EIS or other Documentation</u>
	forest habitat is used by a wide range of wildlife species including ruffed grouse, woodcock, and many song birds. This habitat is very important to recreational hunting and hunters are one of the highest users of this area. The proposed regeneration methods will emphasize high stem densities of regeneration essential to many wildlife species found in young forest habitats.” (7)		
11	“I support alternative 3 as the preferred alternative.” (8)	Thank you for your comment and time to review the proposal.	N/A
12	<p>“Please note my feelings on this matter!!!</p> <p>1) I support the selection of Alternative 3 as the Preferred Alternative.</p> <p>2) I would like to emphasis that this project area contains 35% of the Forests aspen habitat and therefore is a key to meeting Forest Plan objectives. With nearly half of the aspen in this area greater than 50 years old and past maturity it is essential that management occur now before opportunities are lost.</p> <p>3) Young forest habitats are used by a wide range of wildlife species including ruffed grouse, woodcock and many songbirds.</p> <p>4) This habitat is important to recreational hunting and hunters are one of the highest users of this area.</p> <p>5) I support the proposed regeneration methods that emphasize the high stem densities of regenerating trees, essential to many of the wildlife species found in young forest habitats.” (9)</p>	Thank you for your comment and time to review the proposal.	N/A
13	“I support alternative 3 as the plan for the Baltimore Vegetative Management Project. As a hunter of the Forest I believe I belong the (sic) largest group of people using it. The management area contains about 35% aspen and much of that is older than 50	Thank you for your comment and time to review the proposal.	N/A

<u>Comment #</u>	<u>Comment Category/Comment</u>	<u>Response</u>	<u>Reference to EIS or other Documentation</u>
	years. It is important that it is managed NOW before regeneration becomes less likely or impossible. A variety of habitat uses young forest fro (sic) habitat and I support regeneration methods that emphasize high stem densities which are important to not only grouse but many birds and animals.” (10)		
14	“Please accept my enthusiastic support of Option 3 with respect to the subject management project. Good stewardship of our forests demands we continue to offer game and non-game species alike safe areas from predation and an abundant supply of food, especially critical in the winter months. That can only happen if we assure the maintenance of early successional growth, high density cover available in young aspen tracts. With the Baltimore VMP area containing a large percentage of the Ottawa National Forest's aspen growth, and given it's (sic) late stage of succession, we need to move forward now to open the area for young growth, high stem density trees. The loss of early successional habitat threatens a number of species of birds and animals that thrive in that environment, such as woodcock and rugged grouse. I am sure there are other species both fur and feather that thrive in early successional growth areas. As a hunter, and recognizing hunters are the one of the primary users of the Ottawa National Forest, (not to mention financial contributors through hunting license fees in support of forest management), I trust you will continue to support Option 3 as written. But it is not just about hunting opportunities- Option 3 makes good sense for all forest creatures.” (11)	Thank you for your comment and time to review the proposal.	N/A
15	“As a dedicated ruffed grouse hunter, I was pleased to learn that the Environmental Impact Statement on the Baltimore Project calls for alternative 3 which	Thank you for your comment and time to review the proposal.	N/A

<u>Comment #</u>	<u>Comment Category/Comment</u>	<u>Response</u>	<u>Reference to EIS or other Documentation</u>
	<p>calls for forest management habitat for grouse and woodcock.”</p> <p>“Because young forest habitat is the best alternative for more forms of wildlife including grouse, woodcock, deer and many songbirds, my wife and I strongly approve of alternative #3.”</p> <p>“Because the major user of young forest is the hunter whose dollars paid for the purchase, the upkeep, and the management of the national forest, the hunters’ wishes should be paramount in forest management.” (12)</p>		
16	<p>“I am offering support for the Alternative 3 as the Preferred Alternative for the Baltimore Vegetative Management Project in the Ottawa National Forest in the UP. This area of the forest contains a large amount of aspen which is an important facet in meeting the Forest Plan objectives. Over half of the aspen in this area is over 50 years old and it is imperative that management occur.”</p> <p>“Young forests are a key requirement for many birds, song birds, and of course, including grouse and woodcock. As you are also aware hunters are among the highest users of the forest in this area. Regeneration management of the forest is important ingredient (sic) to many wildlife species that are commonly found in young forest habitat. Therefore, I am very much in favor of Alternative 3.” (15)</p>	Thank you for your comment and time to review the proposal.	N/A
17	<p>“After having waded through and reviewed the four alternative plans for the Baltimore Vegetative Management Project, I am convinced that Alternative #3 is by far the best and am asking you to choose it for your final decision.</p> <p>This area contains about 35% of the forests (sic) aspen habitat and seems to me that it is a key to help meet the Forest Plan objectives. With so much</p>	Thank you for your comment and time to review the proposal.	N/A

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	<p>of the aspen over 50 years old, it is time to cut and allow regeneration while the opportunity is available. Yes, I am an avid grouse and woodcock hunter, but aside from these two species about 70 other species use and need the regenerational growth created by aspen cutting. Not only does this provide the necessary habitat, but it further increases the hunting opportunities for many types of hunting. Hunters are the highest users of this area. From an economic standpoint, jobs, profit form (sic) the lumber(?) and recreational users provide dollars because of what is offered in this area. Every little bit adds to the economy, but even more important is the enjoyment to be able to use a productive recreational area. The State has given the DNR the authority to base its management practices on sound biological ideas, so I encourage you to do what is best even though there are 'other' groups that want to stop sound forestry (sic) practices. Thank you for all the countless hours you've spent in preparing a thorough report. Again I ask that you choose Preferred Alternative #3." (16)</p>		
18	<p>"I support active management of the resource, oppose very much inactive management or letting the forest return to OLD GROWTH. Old Growth belongs only in small areas. I am in favor of use of the resource and active management for wildlife, especially active management of aspen. Please use clear cut of aspen as a tool for the forest and wildlife." (17)</p>	<p>Thank you for your comment and time to review the proposal.</p>	<p>N/A</p>
19	<p>"I support Alternative3. This Alternative 3 is the best one for habitate (sic) regeneration that favors a wide variety of wildlife species, including ruffed grouse and woodcock. As you know woodcock are in a national decline and need early successional forests to assist them in regaining their former numbers of the early 1970's.</p>	<p>Thank you for your comment and time to review the proposal.</p>	<p>N/A</p>

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	<p>The grouse and woodcock populations are a critical aspect of recreation in the western UP and Alt 3 will assist in helping them be abundant enough to promote additional tourism here as well as recreation for the local populations.</p> <p>Also, as you know, alt 3 with it's (sic) 35% aspen habitat will assist in meeting the Forest Plan Objectives.</p> <p>I also want to say the (sic) I support the regeneration methods that emphasize high stem densities of regenerating trees. It is this habitat that I was walking thru (sic) just last night while woodcock hunting. And, I can tell you they were there, even if I was not shooting well. Thanks for your efforts." (18)</p>		
20	<p>"I was very happy to read that Alternative 3 was chosen as the Preferred Alternative. This project area is very important to meeting Forest Plan objectives. This decision is very timely also. To wait any longer would jeopardize early-successional forest habitat, key to many game and non-game species.</p> <p>This young forest habitat is also very important to hunters. Since hunters utilize this resource most frequently, Alternative 3 appears to be the best fit of science and practical use.</p> <p>I am looking forward to the continued improvement of the Ottawa National Forest habitat!" (19)</p>	<p>Thank you for your comment and time to review the proposal.</p>	<p>N/A</p>
21	<p>"I am writing to support preferred alternative 3 in the proposed management plan for the Ottawa National Forest. I am a heavy user of the Ottawa, which includes bird hunting, hiking, and photography. The young forest that would be created as a part of Alternative 3 is important to many wildlife species. Thanks for your consideration." (20)</p>	<p>Thank you for your comment and time to review the proposal.</p> <p>Please note that the preferred Alternative 3 you refer to is part of the proposal for the Baltimore Vegetative Management Project (VMP) only, not the management plan for the Ottawa National Forest.</p>	<p>N/A</p>

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22	“I would like to express my support for the selection of Alternative 3 as the Preferred Alternative for the Baltimore VMP. Further, I'd emphasize that this project area contains 35% of the Forest aspen habitat and therefore is a key to meeting Forest Plan objectives. With nearly half of the aspen in this area greater than 50 years old and past maturity, it is essential that management occur now before opportunities are lost. I also support the proposed regeneration methods that will emphasize high stem densities of regenerating trees, essential to many of the wildlife species found in young forests, including ruffed grouse, woodcock and many songbirds. Lastly, I would suggest that these management practices are also vital to preserve this habitat for recreational hunting and that hunters are one of the highest users of this area.” (21)	Thank you for your comment and time to review the proposal.	N/A
23	“I recommend Alternative 3 as stated in your proposed Plan. Regeneration of the aspen stands is all important in attaining wildlife goals, in addition to the production of needed wood products.” (22)	Thank you for your comment and time to review the proposal.	N/A
24	“This is a large project (35,900 acres) on the Ontonagon Ranger District that is in the heart of the Forests biggest aspen area. Many of you responded and the Draft Environmental Impact Statement was recently released. The Preferred Alternative that has been selected is Alternative 3, which emphasizes habitat for ruffed grouse and woodcock at levels above what the Forest Service originally proposed. My comments include the following: 1) I support for the selection of Alternative 3 as the Preferred Alternative. 2) I emphasis (sic) that this project area contains 35% of the Forests aspen habitat and therefore is a key to meeting Forest Plan objectives. With nearly	Thank you for your comment and time to review the proposal. Please note that the “Preferred Alternative,” Alternative 3, has not yet been <i>selected</i> . As stated in the cover letter sent with the EIS, Alternative 3 was <i>identified</i> as the Preferred Alternative. Actual <i>selection</i> of an alternative, or parts thereof, does not take place until the Record of Decision for the project is issued. Alternative 3 does propose habitat management at levels above what the Forest Service scoped in the Proposed Action, but it is still in line with the Purpose and Need identified for this project and project area.	Refer to Section 1.3, p.1-2 to 1-9

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	<p>half of the aspen in this area greater than 50 years old and past maturity it is essential that management occur now before opportunities are lost.</p> <p>3) As I am sure you are aware, young forest habitat is used by a wide range of wildlife species including ruffed grouse, woodcock and many songbirds.</p> <p>4) This habitat is very important to recreational hunting and that hunters are one of the highest users of this area.</p> <p>5) I also want to state that I support the proposed regeneration methods that will emphasize high stem densities of regenerating trees, essential to many of the wildlife species found in young forest habitats.”</p> <p>(24)</p>		
<p>25</p>	<p>“I support alternative number three. This type of habitat is essential for grouse and woodcock and is the best silvicultural method to manage aspen. It is essential, it is critical and extremely important. I urge you to select this alternative. We are at a crisis with woodcock and the grouse habitat is not good in 50 year old stands. Thanks for hearing my comments. PS - I have visited the forest for years and know the area well.”</p> <p>(25)</p>	<p>Thank you for your comment and time to review the proposal.</p>	<p>N/A</p>
<p>26</p>	<p>“I am very pleased that ‘Alternative #3’ has been selected as the preferred alternative. As a ruffed grouse and deer hunter I am thrilled with the scheduled 2,245 acres of clearcut. Aspen management has been severely attacked by anti-hunter, anti-logging, anti-clearcut groups of people to the detriment of early successional forests of the Lake States. These forests provide incredible habitat for a great variety of plants etc. and the animal species, both game and non-games that need these plants and habitat to survive.</p> <p>I would whole-heartedly support a decision on your</p>	<p>Thank you for your comment and time to review the proposal.</p>	<p>N/A</p>

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	part to implement Alternative #3 for this project.” (23)		
27	“We support the decision in the Draft Environmental Impact Statement on the Baltimore Vegetative Project. The Proposed action meets the goals of the Forest Plan and the desired future condition as per the management areas. We agree with your assessments of the conditions and needs.” (26)	Thank you for your comment and time to review the proposal. Please note that the EIS only identifies a preferred alternative for this project and does not contain the actual decision. The decision for the project is issued as a separate document known as the “Record of Decision.”	N/A
28	“This is to let you know that as a taxpaying citizen of both Michigan and the US, I support alternative plan #3 for subject management program. This alternative (sic) supports ruffed grouse, woodcock, songbirds and about one third of the wildlife in our forests.” (27)	Thank you for your comment and time to review the proposal.	N/A
29	“The Ruffed Grouse Society strongly supports the tentative selection of Alternative 3 as the preferred alternative for implementation. As noted in the Purpose and Need Statement, the Baltimore Project Area ‘contains the largest portions of contiguous aspen ecosystem on the Forest.’ This alternative provides the best opportunity to maintain this important landscape component within Management Area (MA) 1.1 at both a Project and Forest-wide perspective. The other Alternatives would result in decreases at greater degrees of early successional forest habitat, a situation that would not address the Project’s Purpose and Need. Throughout the Forest, proposals and ongoing management activities are resulting in a significant decrease in aspen habitat for the future including decreases in MA 1 (ie. Plantation Lakes VMP and Choate VMP). This project area appears to provide additional opportunities to compensate somewhat for that forest-wide decline. As noted in the	Thank you for your comment and time to review the proposal.	N/A

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	<p>documentation, despite the emphasis placed by this alternative to treating mature aspen stands, a significant reduction would occur in this MA over the long term. The Society is encouraged by the District’s emphasis of habitat management for early successional species in this Project Area, an emphasis prescribed in the current Ottawa Forest Plan as well as throughout the DEIS.</p> <p>In addition, the Society offers the following concerns related to this project:</p> <p>The Society supports the creation of temporary openings greater than 40 acres as proposed in the preferred alternative. While this technique does not provide optimal ruffed grouse habitat, it will result in the maintenance of aspen habitat in the long term and is preferable to losing the aspen component, a situation that would happen if management activities do not occur in the near future. In addition, larger blocks of aspen may produce conditions favorable to some wildlife species including several species of songbirds by increasing the amount of ‘interior’ young forest habitat.</p> <p>The Society supports the District’s goal of promoting a balanced age class distribution in aspen habitats, an important long-term consideration in maintaining a continuous supply of habitat for early successional wildlife species. The Preferred Alternative appears to best address this goal.</p> <p>We also support the management strategy of promoting high stem densities of regenerating aspen habitats in a significant number of stands. Perala (1977) reported that residual basal areas of 10-15 square foot/acre treated would slow aspen seedling growth by 35 to 40%. Stone et al. (2001) found that aspen residual basal area of only 10.5-12 sq. ft./acre reduces aspen sucker density by 29%.</p>		

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	<p>Clearly, optimum stem density is crucial for the survival for many wildlife species and excessive residual live trees should be limited in these areas.”</p> <p>“The Preferred Alternative is an encouraging sign to those of us with hopes of slowing down the long-term decline of the American woodcock, a species that requires young aspen and alder habitats associated with riparian habitats mixed within a landscape of scattered openings. This alternative addresses many of those needs and the Society offers support to the District to make this possible.</p> <p>As noted in the FEIS (sic), hunting is a long time tradition in the project area and hunters continue to be primary users of these lands. Ruffed grouse and woodcock are pursued by about 120,000 Michigan hunters annually, with much of that effort on the National Forests (Whitcomb et al. 2000). Obviously any significant decrease in ruffed grouse or woodcock populations would create quite a social and economic impact in this region.” (29)</p>	<p>Please note that the document commented on was the DEIS (Draft Environmental Impact Statement), and not the FEIS (Final Environmental Impact Statement).</p>	
30	<p>“I want to take this opportunity to commend you and the Forest Service for selecting Option 3 with respect to the Baltimore Timber Project. It is my understanding that this will regenerate aspen timber in the district, which is vital to our local industry, and woodcock and grouse habitat. Please keep up the good work.” (31)</p>	<p>Thank you for your comment and time to review the proposal.</p> <p>Please note that the EIS only <i>identified</i> “Option 3” (Alternative 3) as the preferred alternative in the “Baltimore Timber Project.” The actual <i>selection</i> of an alternative, or parts thereof, is issued in a separate document known as the “Record of Decision.”</p>	N/A
31	<p>“I would like to commend you and the Forest Service for choosing Option 3 with respect to the Baltimore Timber Project. I believe this will regenerate aspen timber in the area, which is important to our local industry. Please continue the good work.” (32)</p>	<p>Thank you for your comment and time to review the proposal.</p> <p>Please note that the EIS only <i>identified</i> “Option 3” (Alternative 3) as the preferred alternative in the “Baltimore Timber Project.” The actual “choosing” or selection of an alternative, or parts thereof, is issued in a separate document known as the</p>	N/A

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		"Record of Decision."	
32	"I want to express my support for Alternative 3 as the Preferred Alternative. I bird hunt in this area in the fall and bird watch/camp/hike in the summer here. This area contains 35% of the Forests (sic) aspen habitat and is key to meeting Forest Plan objectives. With nearly half of the aspen in this area greater than 50 years old and past maturity it is essential that management occur now before opportunities are lost. Young forest habitat is used by a wide range of wildlife species including ruffed grouse, woodcock and many songbirds. This habitat is to recreational hunting and that hunters are one of the highest users of this area. I support the proposed regeneration methods that will emphasize high stem densities of regenerating trees, essential to many of the wildlife species found in young forest habitats." (34)	Thank you for your comment and time to review the proposal.	N/A
33	"In closing, I will say that to the layman it appears that Alternative #3 is the best option because of the cost return analysis being the highest and it's also a viable option to you as the managers of this forest system." (41)	Thank you for your comment and time to review the proposal.	N/A
34	Believes the approach we (USFS) are taking at maintaining and regenerating the aspen is appropriate, and agrees we would need to exceed the 40-acre clearcut limit to do so. (4)	Thank you for your comment and time to review the proposal.	N/A
	Opposition to Preferred Alternative		
35	"I am in strong opposition to the forest service's new preferred alternative (Alternative 3) for the Baltimore Vegetative Management Project." (30)	Thank you for your comment and time to review the proposal. Please note that Alternative 3 is not the "new" preferred alternative for this project, as no other alternative was ever previously identified as the preferred alternative.	N/A

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	Support for Alternative 1 (No Action)		
36	“For the reasons discussed above, and give (sic) the available choices, I am in favor of Alternative 1 (No Action). Alternative 1 will allow this area to recover to a more natural and stable condition. It will in my opinion also leave the area much more resistant to infiltration by invasive species.” (36)	Thank you for your comment and time to review the proposal.	N/A
	Heritage and Cultural Resources		
37	<p>“Within the Baltimore Vegetative Management Project, is an allotment located in section 10 of T49N and R39W. I noticed that Ottawa National Forest land surrounds this parcel. I also observed that Victoria Dam and the Ontonagon river are within this project area. We believe significant cultural sites exist in section 31 of T50N and R39W. We ask you to refrain from management activities within or near these areas. I believe more in depth discussion would have to involve your archaeologist, Loreen Lomax.</p> <p>In general, we recognize that your staff will uphold relevant federal laws to protect cultural and natural features within Baltimore Vegetative Management Project. Please contact me with related questions.” (5)</p>	<p>There are no archaeological sites identified adjacent to the allotment in Section 10 of T49N, R39W. Please note that Ottawa National Forest land does not “surround” this parcel, but does border it on the east and south sides. General concerns regarding management activities near this parcel may be best addressed at the Forest level rather than under heritage resources at the project level.</p> <p>Victoria Dam and the Ontonagon river are actually outside of the project area, but there are highly significant archaeological sites within the area along Victoria Reservoir and the Ontonagon River. However, no activities are planned within the areas of these known sites. The closest treatments proposed under this project are located in the southeast portion of section 31 of T50N, R39W, and a surface survey for heritage resources was conducted for this area. No archaeological sites were discovered during this survey. Please note, however, that Section 106 of NHPA stipulates that in the event archaeological resources are uncovered during project implementation or ground disturbing activities, the project should come to a halt and agency archaeologist notified.</p>	Refer to Ontonagon County, Michigan 2000 Plat Book, p.25
38	Is there any mention or reference in the DEIS regarding tribal/treaty rights? Main items of concern	No, there is no mention of treaty rights in the EIS; however, nothing that is proposed in the Baltimore	N/A

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	are normally tiered to white (paper) birch use, trails, and treaty rights. (1)	VMP is expected to impact/preclude the exercise of treaty rights within the project area.	
	Range of Alternatives		
39	“LSLA believes that alternative 3 presents the best option of the alternatives analyzed in the DEIS. However, additional alternatives which harvest more hardwood sawtimber and remove more of the over-mature trees should be carefully evaluated.” (13)	The EIS indicates that “Overall, most of the even-aged hardwood stands are still relatively young for regeneration. Intermediate treatments are most needed to increase the growth and vigor of potential seed trees for regeneration cuts in the future.” All hardwood stands were reviewed and stands in need of treatment at this time were included in at least one of the action alternatives. Some hardwood saw timber would be removed with the individual tree selection cuts and some may be removed with the improvement cuts to meet the objective of stand quality improvement. Shelterwood cutting would also remove some hardwood saw timber and clearcutting may as well.	Section 3.1.2, p.3-3 Refer to Maps C & E in Appendix A for the hardwood stands proposed for treatment.
40	“In conclusion, I feel I must also voice my disappointment with the draft’s total omission and disregard of any comments opposing the extensive clear cutting in the original proposal. Review of the Baltimore VMP ‘Issue Sorting Table’ does reflect ‘several commentors (sic) (who) expressed a desire for maintenance or expansion of the existing aspen type....’ This, along with the belief that shelterwood treatment ‘would not capture the full economic value of the mature aspen...’ were identified as the ‘Major Issues’ to be used in developing the new alternatives. However, there were also several expressed concerns ranging from ‘clearcuts too high’ and ‘treatments too frequent’ to ‘protests any clearcuttings’ and ‘leave our forests alone.’ By omitting these latter views and others like it, it would appear the only interest in the plan from the public was to favor maximum clearcutting of aspen for maximum monetary values alone. I don’t believe	As discussed in the EIS, “Issues involve a point of discussion, debate, or dispute, and constitute an ‘unresolved conflict.’ They were used to formulate alternatives to the proposal for consideration when determining how best to meet the project objectives.” The analysis for the EIS did not omit or disregard comments “opposing the extensive clear cutting.” Comments received during scoping in regards to “clearcuts too high” and “treatments too frequent” were in regards to northern hardwood management and stated “ <i>I believe the desired future condition of 85-95 percent northern hardwood type even aged (clear cut) management is too high and these treatments are being applied over too short a time span.</i> ” The EIS does not propose any clearcutting for the management of even-aged northern hardwoods. Management of even-aged northern hardwoods usually involves	Section 2.2.1, p.2.2

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	<p>this is the case.” (30)</p>	<p>other methods of treatment such as shelterwood-type treatments, not clearcutting. The frequency of treatment is commonly governed by several factors including, but not limited to, a stand’s age, health, growth, and vigor, overall stocking density, and the desired condition or objective for the stand.</p> <p>Comments in regards to “protest any clear cutting” and “leave our forest alone” were considered and are addressed in the EIS or covered by one of the alternatives. As discussed in the EIS, the interdisciplinary team did consider a “no clearcutting” alternative, but concluded that such an alternative would not meet the stated purpose and need of regenerating and maintaining early successional forest types and associated habitat, particularly aspen types, within the DFC. Also note that Alternative 4 does contain less clearcutting than the original proposed action.</p> <p>Interest from the public to favor clearcutting of aspen was not for monetary values alone. Some of those comments did include opposition to the proposed shelterwood treatments and/or conifer planting in existing aspen stands because “shelterwood treatment would not capture the full economic value of the mature aspen in these stands...,” but that was not the only reason given. The EIS indicates another reason for this opposition was that “shelterwood treatments...would result in a reduction of aspen type because such treatment would convert the stands to another forest type.” As stated in the EIS, “Several commenters expressed a desire for the maintenance or expansion of the existing aspen type <i>and associated habitat...</i>” Their desire for this was mainly for wildlife and recreational purposes.</p>	<p>Section 2.3, p.2-4</p> <p>Section 2.9.2, p.2-19</p> <p>Table 2.7.1, p. 2-12</p> <p>Section 2.2.2.1, p.2-2</p> <p>Section 2.2.2.1, p.2-2</p> <p>Section 2.2.2.1, p.2-2</p>

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	Changes from Scoping/Proposed Action		
41	<p>“The original scoping proposal (now Alternative 2) proposed timber-harvesting activities on 3360 acres of the 28, 475 acres of National Forest lands within the project boundaries. The new ‘preferred’ alternative now proposes commercial timber cuttings on 5,565 acres, a nearly 66% increase. Moreover, alternative 3 proposes a doubling of the clear cut acreage (from 1160 to 2245 acres) and another doubling of clear cuts with residual trees (725 to 1425 acres). In addition, the new preferred alternative would require 30.3 more miles of road development and reduces the proposed old growth classification from 1650 to 614 acres. It also proposes clear cuts along 5000 feet of the North Country Trail with no buffer.” (30)</p>	<p>Your analysis of the differences between Alternative 2 and Alternative 3 is mostly correct; however, please note that there is no longer any proposed old growth classification under this project (i.e., 0 acres), and the 614 acres you refer to is <i>existing</i> classified old growth. Also note that Alternative 3 is not the “new” preferred alternative for this project, as no other alternative was ever previously identified as the preferred alternative.</p> <p>Alternatives are developed in response to comments, or in response to internal concerns that generated “unresolved conflicts.” Although there may be differences in the acres proposed for treatment, the preferred alternative is in line with the Purpose and Need for this project.</p> <p>Yes, implementation of Alternative 3 would involve 30.3 more miles of transportation management activities than the original Proposed Action. However, these transportation management activities were also identified as part of the long-term transportation needs for the project area. Implementation of the transportation plan for Alternative 3 would bring the project area that much closer to the long-term transportation goals for the area.</p> <p>Alternative 3 does propose clearcutting along approximately 5,000 feet of the North Country Trail; however, the two other action alternatives considered management along the trail that would meet certain Visual Quality Objectives (VQOs) as discussed in the EIS. This provided the deciding official with an analysis and contrast of effects for various management options along the trail.</p>	<p>Section 2.9.1, p.2-18 & 19</p> <p>Refer to Section 1.3, p.1-2 to 1-9</p> <p>Table 3.4.1, p.3-49</p> <p>Section 3.4.3.3, p.3-50</p> <p>Section 3.1.3.2, p.3-11 & 12; Section 3.1.3.3, p.3-17 & 18; Section 3.1.3.4, p.3-20 & 21; Section 3.8.2.2, p.3-86 & 87; Section 3.8.3, p.3-89; Section 3.8.4, p.3-89 & 90; Section 3.8.5, p.3-91; Section 3.8.6, p.3-92</p>

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42	“The scoping document (USDA-FS 2002) proposes to log a total of 3360 acres within the project area. Alternatives 3 (the preferred alternative) and 4 propose cutting to one degree or another 5580 and 5585 acres, respectively (EIS, Table 2.7.1, page 2-12). Thus the preferred alternative proposes cutting 66% more than the acreage originally proposed. This increase is so large as to make these two alternatives substantially different that (sic) what was originally proposed, and they would therefore seem to be in violation of NEPA.” (36)	Alternatives are developed in response to public participation and comments, or in response to internal concerns that generated “unresolved conflicts.” Although there may be differences in the acres proposed for treatment, Alternatives 3 & 4 are still in line with the Purpose and Need for this project, but at varying degrees, and therefore, in compliance with NEPA, which is noted in the EIS.	Section 2.2., p.2-1 to 2-4 Refer to Section 1.3, p.1-2 to 1-9 Section 2.1, p.2-1
43	“The scoping document offered in 2002, proposes to log a total of 3360 acres within the project area. The alternative you chose, Alternative 3, proposes cutting at least 5580 acres (EIS, Table 2.7.1, page 2-12). Thus, the preferred alternative proposes cutting at least 66% more than the acreage originally proposed and a substantially greater volume of wood than was originally intended. This increase is so large as to make this alternative substantially different that (sic) what was originally proposed, almost unrecognizable from the original plan. This fact alone appears to be a blatant violation of NEPA, since the public was unable to comment on a plan that is far from what was proposed well over a year ago. The Forest Service should have re-done the scoping of this sale long ago, but waited until now to pull an unexpected change on the public. Don’t you think this behavior erodes the very basis of having ‘public participation?’” (37, 39)	Alternatives are developed in response to public participation and comments, or in response to internal concerns that generated “unresolved conflicts.” Although there may be differences in the acres proposed for treatment, Alternatives 3 & 4 are still in line with the Purpose and Need for this project, but at varying degrees, and therefore, in compliance with NEPA, which is noted in the EIS. The EIS did provide the public the chance to review and comment on the proposed alternatives that were developed in response to scoping.	Section 2.2., p.2-1 to 2-4 Refer to Section 1.3, p.1-2 to 1-9 Section 2.1, p.2-1
44	“Your preferred action, alternative 3, proposes logging off 5580 acres. The original scoping document only proposed a project area of 3360 acres. Your proposed action is much larger than the original project, making it substantially larger. This appears to be a blatant violation of the NEPA	Please note the original scoping document did propose the same project area as the EIS. The scoping letter stated “The project area encompasses a total of approximately 35,900 acres, approximately 28,475 acres are National Forest System lands...” The 3,360 acres	Refer to page 1 of the “Baltimore Vegetation Management Project, Scoping Information and Request for Public Comments,” and Section

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	<p>process. Maybe with the Bush Administration in Washington, you feel that you don't have to adhere to the environmental laws that govern our public lands." (40)</p>	<p>discussed in the original scoping document refers to the amount of area proposed for vegetative treatment <i>within</i> the project area, not the size of the project area itself. The preferred alternative proposes vegetative treatment activities within the same project area.</p> <p>Alternatives are developed in response to public participation and comments, or in response to internal concerns that generated "unresolved conflicts." Although there may be differences in the acres proposed for treatment, Alternatives 3 & 4 are still in line with the Purpose and Need for this project, but at varying degrees, and therefore, in compliance with NEPA and the provisions of applicable laws, regulations, and policies.</p>	<p>1.2, p.1-1</p> <p>Section 2.2., p.2-1 to 2-4</p> <p>Refer to Section 1.3, p.1-2 to 1-9</p> <p>Section 2.1, p.2-1</p>
	<p>Elimination of Projects</p>		
<p>45</p>	<p>"To add insult to injury, the Forest Service eliminates virtually all 'habitat enhancement' projects such as old-growth classification, wildlife and fish habitat enhancement, watershed restoration, buffers on the North Country Trail, and dozens of miles of road closures. Again, these were features of the original proposal, now none of are being planned. Certainly a radical departure from what the public was told – and expected." (37, 39, 40)</p>	<p>The only projects or "features" you mention from the original proposal that were not carried forward for further analysis include old growth classification and the fisheries project. Reasons for this are discussed and disclosed in the EIS. All other projects such as "wildlife habitat enhancement, watershed restoration, buffers on the North Country Trail, and dozens of miles of road closures" were carried forward and analyzed as part of the EIS.</p>	<p>Section 2.9.1, p.2-18 & 19</p> <p>Sections 2.4, 2.5, & 2.6, p. 2-4 to 2-11</p>
	<p>Aspen Management</p>		
<p>46</p>	<p>"Active management of the aspen in the project area is important. With 44% of the aspen greater than 60 years of age, and half of that more than 70 years old, the aspen forest is in decline. DEIS, p.3-2. Failure to manage this timber now will likely result in the loss of the economic value of these trees. On the other hand, harvest of these trees will recover the remaining economic value, and allow</p>	<p>Your reference to the EIS on the amount of older-aged aspen is correct.</p> <p>The loss of the economic value of not managing the aging aspen timber was brought forward in the analysis of effects for this project.</p> <p>Recovering the remaining economic value of the aging aspen timber through timber harvest was</p>	<p>Section 3.1.2 and Figure 3.1.1, p.3-2</p> <p>Section 3.1.3.1, p.3-6; Section 3.2.3.1 and Table 3.2.1, p.3-25</p> <p>Section 3.1.3.3, p.3-16; Table 3.2.1 and Section</p>

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	the Forest Service to manage the age class distribution with future activities. In addition, current management will return these mature to overmature aspen forests to productivity, resulting in long term benefits for the forest.” (13)	<p>also brought forward in the analysis of effects, and is addressed through the differences between alternatives for this project.</p> <p>Having the opportunity to manage the age class distribution with future activities by harvesting and retaining/regenerating the aspen component is discussed in the EIS.</p> <p>Returning the mature to overmature aspen forests to productivity and the long term benefits are discussed in the EIS.</p>	<p>3.2.3.2, p.3-25 & 26.</p> <p>Section 2.2.2.1, p.2-2; Section 2.5.1, p.2-7 & 8.</p> <p>Section 3.1.3.2, p.3-8; Section 3.1.3.3, p.3-15; Section 3.1.3.4, p.3-19</p> <p>Section 3.1.3.2, p.3-8; Section 3.1.3.3, p.3-15 & 16</p>
47	“It is essential that a high density stem count method be maintained in the aspen areas of northern states. The Management Method #3 will assure continued health of the species and continue to serve the people of Wisconsin for generations to come. Aspen should be harvested well before it reaches fifty years of age. There is no scientific, or political reason to allow a species to exist and be a deterrent to its continue (sic) well being and the whole ecological community it affects. Don’t make the same mistakes they are making in West Virginia, too few trees cut when they do cut, and what they leave is of lower quality and it shades out the new vigorous growth of the desired species. Hopefully this will change with the advent of chip board plants and the ultimate use of red maple and yellow-poplar. Aspen needs to be maintained in a even age system and not left to chance.” (14)	<p>To ensure a high density stem count, the EIS indicates that aspen is best regenerated using clearcutting as directed in our Forest Plan (page VI C-11), which states “clearcutting was determined to be the optimum method for regeneration of aspen.”</p> <p>On the Ottawa National Forest, aspen will be harvested in accordance with Forest Plan Standards. In referencing our Forest Plan, the EIS indicates that the “average rotation age for aspen is 54-64 years with a maximum age of 70-90 years, Forest Plan IV-67.” The priority with this project is to treat mature aspen stands before they are non-merchantable and/or convert to other forest types.</p>	<p>Section 1.3.2, p.1-6</p> <p>Section 3.1.2, p.3-2</p>
48	“It appears the Forest Service’s alternatives 3 and 4 are an effort to “catch up”. These alternatives will only recreate the same situation we began with early last century – an extensive young forest with 74 to 77% of the aspen under 34 years old! This does not fit with the statement ‘Uneven-aged management that produces a continuous forest cover with many different-sized trees may be	The priority with this project is to treat mature aspen stands before they are non-merchantable and/or convert to other forest types. However, as stated in the EIS, “The goal is to have the aspen distributed more evenly over all age classes, with fewer trees greater than 70 years old,” and “to harvest at a more consistent rate in the future.” Clearcutting in this entry is the first step of a multi-	Section 3.1.2, p.3-2

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	practiced where there are northern hardwoods’ (Pages 1-2 and 1-3 of the Draft EIS; Management Area 1.1, Desired future condition...)” (30)	<p>step process to obtain the long-term objective of an even age-class distribution in the aspen forest type.</p> <p>It is important not to confuse even-aged management with uneven-aged management. The statement “Uneven-aged management...may be practiced where there are northern hardwoods” is referring to just that, stands of northern hardwoods, not the even-aged management of aspen. Uneven-aged management is appropriately being considered in the northern hardwood stands, but even-age management (clearcutting) is the optimal method of cutting and regenerating aspen forest types.</p>	<p>Section 1.3.1.2, p.1-2 & 3</p> <p>Section 1.3.2, p.1-6</p>
49	“What approach did you take for considering aspen to be mature or overmature?” (4)	The EIS discusses different research on the pathological rotation age (age at which insect or disease losses offset any additional gains in volume) of aspen, and 50 years was used for a rotation age.	<p>Section 3.1.1, p.3-1</p> <p>Section 3.1.3.1, p.3-6</p>
	Social/Economics		
50	<p>“The social impact of the federal timber sale program must also be considered. There is no meaningful discussion of this issue in the DEIS.”</p> <p>“Many loggers in the areas surrounding the Ottawa National Forest have grown up in logging families. Towns are dependent on logging, with many support-related businesses benefitting (sic) from timber sales on the federal forest. A stable supply of timber from these federal forests is critical to maintaining these loggers and their support businesses.” “Harvest levels should be equal to the allowable cut in the Forest Plan, which would provide for a long-term, continued harvest at sustainable levels. A stable flow of timber is critical to the businesses that harvest and utilize timber</p>	<p>The EIS explains that “Items generally associated with social and economic aspects of a vegetation management project include effects on employment...” “More specifically these items include social effects (jobs provided, income and taxes generated, and monetary return to counties)....”</p> <p>However, the EIS also acknowledges that “Even though the social/economic effects are most appropriately evaluated and measured at a broad scale, inferences can be made at the project scale using Forest-wide information.” The social analysis focused on Ontonagon County and the EIS portrays the measures and figures used for the analysis and describes the effects on employment</p>	<p>Section 3.2.1, p.3-23</p> <p>Section 3.2.1.1, p.3-23</p> <p>Section 3.2.2.3, p.3-24;</p> <p>Section 3.2.1.1, p.3-23;</p> <p>Section 3.2.2.2 p.3-24;</p> <p>Section 3.2.3, p.3-25 to 27, and Table 3.2.1, p.3-25</p>

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	<p>products. Widely fluctuating harvest levels can be devastating to these businesses.”</p> <p>“In many of the small local communities, logging is the dominant industry, and the major employer. Forest products industries are the major employer in the region surrounding the Ottawa National Forest. Loss of these industries would be devastating to the communities and families.” (13)</p>	<p>(jobs), income, taxes, and payments to states.</p> <p>The Need for Action for this project is tied to the management objectives of the Forest Plan and Forestwide direction, which includes “Provide a non-declining, sustained yield of timber.” Furthermore, the EIS acknowledges that “Social/economics is primarily linked to the timber resources objective of providing a supply of wood products for regional and local needs to help support a stable economic base.” Information is provided in the EIS in regards to the current Forest Plan harvest level, the timber sale accomplishments over the past 15 years, and some of the difficulties encountered while trying to meet the Forest’s targets.</p> <p>The EIS acknowledges that logging and forest products manufacturing is one of the main industries in the surrounding area.</p>	<p>Section 1.3.1.1, p.1-2</p> <p>Section 3.2.1.2, p.3-23</p> <p>Section 3.2.2, p.3-24</p> <p>Section 3.2.2, p.3-23</p>
<p>51</p>	<p>“The economic returns from the project could be enhanced by removing the noncommercial aspen treatment proposed in Alternative 3. The cost for the treatment is more than \$141,000. DEIS, p.D-4. The minor benefit from the treatment may not justify the expense.” (13)</p>	<p>The Forest Service is a multiple use agency with multiple resource objectives. The Multiple-Use Sustained-Yield Act, 16 U.S.C. 528, states that the national forests “shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes.” The Multiple-Use Sustained-Yield Act does not require the agency’s resource management decisions to be solely determined by economic efficiency, but rather that “consideration [shall be] given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output” (16 U.S.C. 531).</p> <p>It is difficult to assess the benefits of wildlife habitat in an economic analysis, and although costly, non-commercial aspen treatment may be preferable to losing aspen wildlife habitat in the long-term. The proposed non-commercial treatments would</p>	

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		<p>support both the Management Area 1.1 direction to “Maintain potential conditions for moderate to high populations of game species such as deer and ruffed grouse and nongame species such as golden-winged warbler,” and the Forestwide Management Goal to “Maintain a moderate to high amount of aspen type to provide a sustained level of habitat for white-tailed deer and ruffed grouse....” As such, it was included in two of the alternatives.</p>	<p>Section 1.3.1.2, p.1-3</p> <p>Section 1.3.2, p.1-6</p>
<p>52</p>	<p>“Finally, planning should include the indirect economic impacts of the Ottawa’s activities. For example, do periodic large timber sales lead the big timber companies to rely on public lands to the extent that they sell off their forest lands for development, thus further fragmenting the landscape and reducing the region’s timber base in the long run?” (36)</p>	<p>Whether or not “periodic large timber sales lead the big timber companies to rely on public lands to the extent that they sell off their forest lands for development...” is beyond the scope of analysis for this project.</p> <p>The EIS indicates that “The timber program on the Ottawa National Forest is relatively stable,” and “Present levels of harvest are similar to what they were in past years, and they are not expected to change dramatically in years to come.”</p>	<p>Section 3.2.3.3, p.3-26</p>
<p>53</p>	<p>“Negative economic, social and environmental impacts to the local area are certainly a result of the Ottawa’s timber cutting activities. The effects of this massive give away to the timber industry depresses many of the markets for timber, especially hardwoods, thus hurting the small land owner.” (37, 39)</p>	<p>The commenter fails to specify what or what type of “negative economic, social and environmental impacts” they are referring to. Without more specific information we cannot fully respond to this comment.</p> <p>This project does not propose to “give away” anything to the timber industry. The timber sales for this project would be sold under a competitive bidding process with specific base prices that would need to be met before any timber is sold. Prices being paid for most timber has been steadily increasing, and as indicated in the EIS, “Most mills have been running at or near full capacity, and the market for timber stumps has been strong.” Also note that this project proposes to treat only a small amount of hardwood stands, and most of the treatment would focus on the management and</p>	<p>Section 3.2.2, p.3-23</p> <p>Refer to Appendix A to compare Maps C & E</p> <p>Refer to Appendix D, Table D-1 for estimated product volumes</p>

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		harvest of aspen timber.	
	Roads/Access		
54	<p>“In order to manage the forest, the Forest Service needs to have road access. The road access is also needed to provide for multiple use of the forest. LSLA members expect their national forests to be managed and protected for future generations. They expect access for recreation and fire prevention, and they expect access to reach private lands. Above all, LSLA members expect their national forests to be healthy, green, full of fish and wildlife. The DEIS recognizes that the Forest Service is proposing to decommission more than 26 miles of roads. DEIS, p.3-49. The Forest Service must assure that it has sufficient access to manage the forest and deal with wildfire and other catastrophic events.” (13)</p>	<p>The EIS indicates that “Current and proposed access is being managed in accordance with the Forest Plan (pages IV-56 & 57).” Sufficient access would be maintained and the EIS indicates that the proposed transportation system “...is tied to developing and maintaining a long-term transportation system that allows management of National Forest System lands and provides for public access while meeting other resource objectives.”</p>	<p>Section 3.4.2, p.3-47</p> <p>Section 3.4.3, p.3-50</p>
55	<p>“By my observation, it appears that one of the goals in the BVMP transportation plan is to decommission most roads that cross Perennial streams. In the area that we are accustomed to traveling, it is our hope rather than decommissioning the road on the south side of Stand #8 of compartment #66 it would be left passable to ORV travel after the cutting is done to allow us access to the compartments west of us.”</p> <p>“This road in particular to myself and family...is used a fair amount during hunting and trapping season, and we would like to have it kept open. We did have a homemade bridge, which I believe to be more appealing to the surrounding environment, there a few years ago across Schaat creek, but the beavers built a dam across the road and it was washed away. Rather than drive cross country...we would make a request to keep this portion of road</p>	<p>The EIS explains that the goals and objectives of the transportation plan for this project are tied to the goals and direction given in our Forest Plan. Some of those goals are to “Minimize detrimental soil disturbance and erosion,” and “Design management activities to minimize impacts on water quality and other riparian values.” The EIS also states that “The transportation system should provide the most cost efficient and lowest impact transportation system needed to meet the objectives for MA 1.1 and Forest Plan goals.” To help achieve these goals with the most cost efficient and lowest impact transportation system needed to meet the objectives for MA 1.1, the segment of road and related crossing on Schaat creek you refer to was identified as one of the crossings no longer needed for long-term access and management of forest resources. This is because more efficient access to the</p>	<p>Section 1.3.1.1, p.1-2</p> <p>Section 1.3.2, p.1-7</p>

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	open.” (41)	<p>compartments west of Schaat creek is obtainable via FR 736, and therefore, the Schaat creek crossing was proposed for decommissioning.</p> <p>Please note that without a proper permit from the Michigan Department of Environmental Quality (DEQ), and in this case additional permission from the Forest Service, the installation of a “homemade bridge” or other crossing structure on a perennial stream such as Schaat creek is illegal. In the event no legally placed crossing structure is in place, please be advised that Section 324.81133 of Michigan’s Natural Resources and Environmental Protection Act (Act 451 of 1994) states that “A person shall not operate an ORV: In or upon the waters of any stream, river, bog, wetland, swamp, marsh, or quagmire except over a bridge, culvert, or similar structure.” As stated above, access to the compartments west of Schaat creek is obtainable via FR 736.</p>	Refer to Appendix A, Map I
56	“I spoke to Mr. Strasser about a week ago regarding the passability of old or existing roads after the area around it has been clearcut. In the past, it has been my observation that some of these roads are impassible.” (41)	The EIS explains that “The even-aged silvicultural system used for aspen and softwoods results in clearcuts accessed by many temporary roads.” Most often these temporary roads are “obliterated” upon completion of the harvest, and therefore, would be impassible as you mentioned.	Section 1.3.1.2, p.1-3 Section 2.4.1.3, p.2-6
57	“If possible, could you give me a list of the management levels of the roads in the BVMP? I see that there are quite a few roads that are in the vicinity of our property that are on the long range transportation plans of which we are grateful that access has been maintained. Right now, there are quite a few that are getting brushed in and pretty rough to get through and in need of maintenance. We are assuming that the maintenance will be done as the stands are treated, but we are unsure of the levels of acceptability of the roads that don’t have	Forest System Roads are managed based on four levels of management objectives – Levels 1, 2, 3, & 4. Level 1 & 2 roads are referred to as “low standard” system roads and therefore, are managed at a lower standard than level 3 & 4 roads, which are referred to as “main collector” system roads and usually have a “good” gravel surface. With the exception of FR 730 & FR 733, all other system roads within the project area are management level 1 & 2 roads, with the majority being management level 1. FR 730 & FR 733 are management level 4 and management level 3	Section 3.4.2, p.3-48

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	nearby stands that need treating.” (41)	<p>roads, respectively. In regards to level 1 & 2 roads, the EIS explains that “Open and closed low standard system roads are not maintained on an annual basis and are comprised of native surface material.”</p> <p>All known roads on Forest System lands within the project area were inventoried and their needs were identified. This inventory process did identify, as indicated in the EIS, that “Many of these low standard system roads in the project area are growing over with brush,” and are in need of maintenance, or in some cases, reconstruction. Maintenance and reconstruction activities are explained in the EIS and would include removing brush within and along the clearing limits of each road that is utilized to implement this project. Except for areas where specific resource concerns have been identified, system roads not utilized to implement this project would remain in their existing condition until they are needed for future management activities.</p>	<p>Section 3.4.2, p.3-48</p> <p>Section 3.4.2, p.3-48</p> <p>Section 2.4.1.3, p.2-5 & 6</p>
58	“We do understand the reasoning and logic behind the long range transportation system plans and appreciate your time.” (41)	Thank you for your comment and time to review the proposal.	N/A
	Vehicle Use/Enforcement Measures		
59	“As stated in Section 1.3.2, Existing Condition, some areas of dispersed recreation are experiencing impacts to soil and water resources. In addition, as mentioned in Section 3.3.4.1, Past, Present, and Reasonably Foreseeable Actions, occasionally people use snowmobiles and all-terrain vehicles (ATVs) to explore forest by riding cross-country. Please address enforcement measures to ensure proper vehicle use to protect resources and minimize impacts to soil and water resources (i.e., road rutting, tree skinning, crossing wet areas, and	Implementation of the proposed transportation, watershed, and recreation management activities under any of the action alternatives would help to address impacts to soil and water resources. This is because most roads on National Forest System lands would be bermed or gated and closed to passenger vehicle use, except for those under a special-use permit or for administrative or emergency purposes. Use of snowmobiles or ATVs to travel “cross-country” on National Forest System lands in the Ottawa National Forest is	Sections 2.4.1.3, 2.4.1.4, & 2.4.1.5, p.2-5 to 2-7

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	spreading non-natives).” (38)	<p>permissible under the direction of our current Forest Plan, providing the area is not a designated Wilderness or specifically closed to such use, and that no resource damage or violation of other applicable laws, such as those defined in the “Natural Resources and Environmental Protection Act (Act 451 of 1994),” is occurring.</p> <p>We have both Level 1 & 2 law enforcement personnel on the Forest that can deal with violations of passenger vehicle use on these closed roads as well as other resource damage concerns such as road rutting, tree skinning, or crossing wet areas on National Forest System lands.</p>	
	Operating Seasons/Conditions		
60	<p>“The DEIS discloses certain site-specific activities that will be applied to all proposed actions. Some of the restrictions include limiting operations to frozen soil conditions. Before implementing such blanket restrictions, the Forest Service should obtain current information from the local loggers and determine whether they have upgraded their equipment to the point where they can operate on non-frozen ground without causing any significant soil impacts. In many areas of the Lake States Region, loggers are investing large sums of money into equipment which is designed to operate in more difficult soil conditions. If the loggers are willing to make that investment in equipment, land managers should be willing to see how that equipment can be utilized. If the Forest Service has investigated this issue, it should be disclosed in the environmental documents.” (13)</p>	<p>The Ottawa National Forest uses well established interpretations of ELTPs as guidelines for determining operating periods. The “frozen soil” operating season referred to in the EIS is used almost exclusively on poorly drained or very poorly drained mineral and organic soils, which usually remain saturated throughout the year. Saturated soils have very low bearing strength and this design criterion protects the soil resource from rutting and compaction when machinery must travel over them. Very few of the proposed timber harvest areas include these soil conditions and restrictions.</p> <p>There are reasons other than soil protection why operations are limited to winter conditions. The time of harvest can influence the amount of carbohydrates available to root suckers, and the density of regeneration may vary according to the level of these reserves (Bates et al 1989, Stoeckeler 1947, and Burns and Honkala 1990).</p>	<p>Refer to Appendix C, Table C-2, p.C-6 to C-8</p> <p>Section 2.8, p.2-16 & 18 - #9 & #29</p>

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		<p>A reduction in suckering may be linked with low levels of carbohydrate reserves in the roots during the active leaf development in the spring and early summer. Generally, cutting during the dormant season produces vigorous suckers the next growing season, but cutting during the growing season on fine-textured soils sometimes results in failure or limited suckering. Vigorous aspen suckering is desired in harvest areas with glossy buckthorn present. Competition from vigorous aspen growth would help to restrict the re-growth and spread of the buckthorn. Therefore, winter harvest was recommended for some stands that otherwise may not require this based on soil conditions alone.</p> <p>Timber sale contracts may specify the width of equipment, but not specific types of equipment that will be used. Within the normal operating season, the periods that purchasers operate are adjusted by weather and site conditions. Acceptable site conditions may allow operators with “updated” equipment to operate earlier or later in the season.</p>	Section 3.1.3.2, p.3-11
	Fragmentation		
61	<p>“Fragmentation is identified as an issue and discussed in the DEIS. DEIS, p.3-30. LSLA does not believe there is any credible scientific evidence of negative impact on wildlife resources caused by within forest fragmentation. As is recognized by the DEIS, fragmentation has been scientifically documented as a concern in urban and highly agricultural areas. That concern does not transfer to fragmentation within a forest. Forests that are harvested and regenerated to a forest condition are quite different from fragmentation caused by forest land conversion.” (13)</p>	<p>We agree that “Forests that are harvested and regenerated to a forest condition are quite different from fragmentation caused by forest land conversion.” The EIS discusses the difference between “forest” fragmentation and fragmentation caused by forest land conversion.</p>	Section 3.3.3.1, p.3-30

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	Wild and Scenic Rivers		
62	<p>“LSLA agrees that there is no significant effect on the wild and scenic rivers within the project area. No vegetation management is proposed in any of the river corridors. Closing the unclassified roads in the corridor to passenger car traffic as proposed, and allowing recreational access, is appropriate.” (13)</p>	<p>Thank you for your comment and time to review the proposal.</p>	<p>N/A</p>
	Cumulative Effects Analysis		
63	<p>“It has also been suggested that the Forest Service must conduct a broad cumulative impacts analysis in every timber sale analyzed. Some of those commenting on timber sale projects go so far as to suggest that any potential forest management activity should be included in the analysis. That would essentially require that the Forest Service analyze the harvest of the entire study area. NEPA does not require that the Forest Service go to such and extreme.”</p> <p>“Rather, NEPA requires federal agencies to consider the cumulative impacts on the environment of related proposed federal actions. In <i>Kleppe v. Sierra Club</i>, 427 U.S. 390 (1976), the Supreme Court stated that ‘when several proposals for...related actions that will have cumulative or synergistic environmental impacts upon a region are pending concurrently before an agency, the environmental consequences must be considered together.’ <i>Id.</i> at 410. However, the duty to discuss cumulative impacts ‘requires the weighing of a number of relevant factors, including the extent of the interrelationship among proposed actions and practical considerations of feasibility.’ <i>Id.</i> at 412. Stated another way, NEPA requires only an assessment of ‘proposed actions,’ not the</p>	<p>Thank you for your comment and time to review the proposal.</p>	<p>N/A</p>

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	'cumulative' impact or 'possible environmental impacts of less eminent actions.' <i>Id.</i> at 410 and n. 20. Accordingly, the cumulative impacts of projects not yet proposed need not be considered in Forest Service analysis. The DEIS correctly considers the cumulative impacts of the actions proposed in this project." (13)		
64	"The photo entitled 'Aerial Composite' shows several aerial photographs of the area adjacent to the South Branch Ontonagon River and Victoria Reservoir, before cutting started on several sales happening in the late 1990's. The photo Aerial Overlay' (sic) has several of those cutting units overlaying the Aerial Composite, to demonstrate cumulative cuts since the aerial photos were taken in the mid-1990's." (37, 39)	<p>Note that the project area mostly contains Management Area (MA) 1.1, which is primarily managed with "Emphasis on early successional community types (both plant and animal)," and "Maintains moderate to high amounts of aspen type." As a result, one would expect to see even-aged management activities such as clearcutting for the maintenance and regeneration of aspen or other early successional community types.</p> <p>Some of the information used in the analysis for this project was obtained from aerial photos and records of past treatments that occurred within the project area. Past treatments were considered in the cumulative effects analysis, and some of the more recent sales were even listed in the EIS. Some of these are evident in the "Aerial Composite" photo submitted or were part of the "cutting units overlaying the Aerial Composite," while others lie outside of the area depicted in the photo.</p> <p>Please note the location shown in the "Aerial Composite" photo submitted depicts the portion of the project area that lies to the south/southeast of Victoria Reservoir, but does not depict the area "adjacent to the South Branch Ontonagon River." The South Branch Ontonagon River lies approximately 3 to 4 miles west of the area depicted in the "Aerial Composite" photo.</p>	<p>Section 1.3.1.2, p.1-3</p> <p>Section 3.1.1, p.3-1; Section 3.1.2 and Figure 3.1.1, p.3-2; Section 3.1.3.2, p.3-8 & 10; Section 3.1.3.3, p.3-15, 16 & 17; Section 3.1.3.4, p.3-19; Section 3.1.3.5, p.3-21; Section 3.3.1.1, p.3-28; Section 3.3.1.3, p.3-29; Section 3.3.3.1, p.3-30; Section 3.3.3.3, p.3-33; Section 3.3.4.1, p.3-39 & 45; Section 3.5.3.2, p.3-57, 58 & 59; Section 3.5.3.5, p.3-61 & 62; Section 3.6.3.3, p.3-71 & 72</p>

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65	“The Forest Service fails to reference any scientific literature in its discussion in EA’s and BE’s on cumulative impacts.” (37, 39)	Please note that the Baltimore VMP is an EIS, not an EA, and part of the analysis for this project involved both a BE and BA (Biological Assessment). Some of the discussion in the EIS, the BE, and the BA on “cumulative impacts” does contain reference to scientific literature, studies, or practices. Please note that discussion on cumulative effects often ties back to the direct/indirect effects analysis, which often contains references to scientific literature, studies, or practices. Chapter 4.0 contains nearly 2-1/2 pages of references used in the EIS alone, and the BE lists approximately 3 pages of references that were used for its analysis. Analysis of the direct/indirect and cumulative effects is also often based on proven scientific forestry methods, studies, and management practices, as well as the professional knowledge and experience of the specialists involved.	Section 3.1.3.6, p.3-22; Section 3.5.3.5, p.3-62; Chapter 4.0, p.4-1 to 4-3 Page 77-80 of the BE Page 15 of the BA
66	“Cumulative effects are mentioned throughout the EA, but little has been done to adequately analyze the effects that Baltimore and dozens of other past, present and future timber sales will have on the environment.” (37, 39)	Please note that the Baltimore VMP is an EIS, not an EA. The EIS does contain a cumulative effects analysis for each resource area, and considers past, present, and future activities. The “open area analysis” also considered these activities. Even-aged management and maintenance of aspen involves treatment of stands on a rotational basis over an average rotational period. Within the past fifteen years 5,020 acres of aspen have been clearcut in the Baltimore area to regenerate aspen, and 586 acres of aspen have been converted to other forest types using other treatment methods. This clearcutting created only three temporary openings greater than 40 acres, all which were part of the Victoria South TS. As a result, many of the existing aspen stands were left untreated. In order to regenerate and maintain the aspen component within the DFC for MA 1.1, this project proposes to	Sections 3.1.3.5 and 3.1.3.6, p.3-21 & 22; Section 3.3.4, p.3-37 to 3-46; Sections 3.4.3.4 and 3.4.3.5, p.3-51; Section 3.5.3.5, p.3-60 to 3-62; Section 3.6.3.3, p.3-71 & 72; Section 3.6.3.5, p.3-73 to 3-75; Section 3.7.3.5, p.3-83 & 84; Sections 3.8.5 and 3.8.6, p.3-90 to 3-92; Section 3.9.3, p.3-93 & 94; Section 3.10.2.5, p.3-99 & 100 Section 3.1.1, p.3-1

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		<p>continue the rotation of such treatments on certain stands that were not treated in these past sales, and are now at or beyond the normal rotation age for aspen.</p> <p>In addition to the sales proposed under this EIS, there are three other vegetation management projects on the Ottawa National Forest awaiting implementation. These include the Choate, Deadstream-McClellan, and Prospector Vegetation Management Projects. None of these projects are near the Baltimore area or on the Ontonagon or Bergland Ranger Districts. The only project that lies within MA 1.1 is Choate, which includes clearcutting aspen (820 acres), and various other treatments to manage for conifer and hardwoods (620 acres). Approximately 50 acres of existing aspen types will be converted to other forest types in the Choate VMP.</p> <p>In the next three to five years there are additional projects planned on the Ottawa NF, which include the Camp Seven, Bluff Divide, Ridge, Three Corners, and Rousseau East Vegetation Management Projects. However, none of these projects would occur in MA 1.1. The forest types treated would depend on individual management area objectives, but because none of these projects would occur in MA 1.1, there should be no cumulative effect on the long-term vegetative composition related to this project or for MA 1.1.</p> <p>The deciding Official has reviewed the EIS and all applicable documentation and has determined that it is adequate.</p>	<p>Choate VMP, DN/FONSI, p.2</p>
<p>67</p>	<p>“The Baltimore area has been extensively cut over during the past 15 years. Little cutting took place until the late 70’s.” (30)</p>	<p>The EIS acknowledges that there has been active management of aspen forest types in the Baltimore area during the past 15 years, and that “Most aspen regeneration did not begin until the late</p>	<p>Section 3.1.2 (Aspen) and Figure 3.1.1, p.3-2 Section 3.1.3.5, p.3-21</p>

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		1970s.” Some of the past timber sales and treatments in the Baltimore area are also described in the EIS. Clearcutting has been the silvicultural method primarily used and regeneration has been well established. These past treatments were also considered as part of the “open area analysis” for this project.	Section 3.5.3.2, p.3-59 Section 3.6.3.3, p.3-71 & 72
	MIS/Habitat Analysis		
68	“The DEIS and biological evaluation implicitly recognize that habitat can be used as a surrogate to determine presence of most species. We agree that this approach to species viability analysis is correct and appropriate in this case, and that specific species viability studies are not needed. If there is no habitat in the study area to support the species, it is unlikely the species resides in the study area. Conducting a viability survey for such species only serves to unnecessarily expand the workload of already overworked Forest Service personnel. The Forest Service in the Baltimore DEIS correctly uses habitat in the analysis.” (13)	Thank you for your comment and time to review the proposal.	N/A
	Watershed		
69	“Alternatives 3 and 4 would leave a much higher risk of increasing flood peaks with stream erosion and sedimentation than the original scoping proposal. Alternative 3 has the highest risk with cutting on fully 15% of the project area within a five-year period.” (30)	An open area analysis (Verry, 1992) was completed for this project and although Alternative 3 has the greatest amount of clearcut acreage, the analysis has shown that conditions do not exist that would result in changed flow characteristics, stream channels, and fish habitat from the proposed actions.	Section 3.6.3.3, p.3-71 & 72
70	“As printed on page 3-63 of the draft ‘the greatest potential (negative) impact to fisheries and aquatic and riparian environments is directly or indirectly related to roads’. Yet, the new preferred alternative 3 proposes 30.3 more miles of road development than originally proposed during scoping.” (30)	Implementation of Alternative 3 would involve 30.3 more miles of transportation management activities than the original Proposed Action. However, these transportation management activities were also identified as part of the long-term transportation needs for the project area. Implementation of the	Table 3.4.1, p.3-49

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		<p>transportation plan for Alternative 3 would bring the project area that much closer to the long-term transportation goals for the area.</p> <p>The effects of the proposed road development were analyzed for each alternative, including Alternative 3. The results for the analysis of effects of the action alternatives is discussed in the EIS and found that "...all of the indicators of potential aquatic impact would decrease, or in some cases remain unchanged."</p> <p>Please note that Alternative 3 is not the "new" preferred alternative for this project as no other alternative was ever previously identified as the preferred alternative.</p>	<p>Section 3.4.3.3, p.3-50</p> <p>Section 3.6.3, p.3-68 to 3-75</p> <p>Section 3.6.3.2, p.3-69 & 70</p>
71	<p>"Another concern with this project is how the flood potential of the Ontonagon will be affected by the four alternatives. Last spring the floodwaters reached nearly to or even over bridges in Ewen and other areas." (36)</p>	<p>Refer to response above to comment # 69.</p>	<p>Section 3.6.3.3, p.3-71 & 72</p>
72	<p>"With clearcuts of nearly 3000 acres in the Choate sale, and the other logging taking place in the watershed, how will the proposed Baltimore project affect future high water levels on the Ontonagon River and its tributaries?" (36, 37, 39)</p>	<p>Please note that the "Choate sale" does not contain "clearcuts of nearly 3,000 acres." The Decision Notice and Finding of No Significant Impact (DN/FONSI) for the Choate Vegetation Management Project (VMP) indicates that harvest activities would occur on approximately 1,440 acres <i>total</i>, and only 820 of those acres would be treated with clearcutting. In addition, the Choate project area is not located within the same 6th level watershed as the Baltimore project area. The 6th level watershed scale was chosen because larger scales would dilute effects and Verry's research was done at a smaller watershed scale. For the Baltimore project open area was analyzed for all the project subwatersheds, including the full subwatersheds beyond the project boundary, with the exception of the East Branch Ontonagon</p>	<p>Refer to pages 1 & 2 of the Choate VMP DN/FONSI</p> <p>Section 3.6.3.3, p.71 & 72</p>

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		<p>because only a very small amount (< 1%) of the project area is within this large subwatershed. This analysis found that conditions within all the subwatersheds analyzed do not exist that would result in changed flow characteristics, stream channels, and fish habitats from the proposed actions.</p> <p>If we were to use 5th level watersheds in order to encompass enough area to include both the Baltimore and Choate project areas, we would have to include three (3) watersheds. The cumulative % open area conditions resulting from National Forest stand management within the South Branch Ontonagon, West Branch Ontonagon, and Middle Branch Ontonagon 5th level watersheds are as follows: 2.3%, 2.9% and 4%, respectively. This is well within the thresholds determined in Verry’s research (threshold of 30%), and would therefore not warrant further analysis. The smaller 6th level watershed is more appropriate for showing flow cumulative effects based on Verry’s research at the project scale.</p>	
73	<p>“All action alternatives will greatly increase the flood potential for the Ontonagon and Baltimore Rivers. Last spring floodwaters reached historic flood levels. In Ewen, the bridge over the South Branch had waters cover the bridge and resulted in the closure of M-28. Will increased cutting affect the stability of the Victoria Dam and the potential for catastrophic flooding of the town of Ontonagon?” (37, 39)</p>	<p>Refer to response above to comment # 69.</p> <p>Victoria Dam would not be affected by the proposed clearcutting.</p>	<p>Section 3.6.3.3, p.3-71 & 72</p>
74	<p>“Sedimentation of area streams and the Ontonagon and Baltimore Rivers will most certainly occur. However, the EIS fails to quantify the polluting sediments that will enter these extensive stream and river systems.” (37, 39)</p>	<p>The analysis of effects for sedimentation was discussed in terms of risk associated with roads. The late 1800 and early 1900 logging era is the primary source of existing sediment within streams. Actions that reduce current sediment sources would improve sediment condition in streams.</p>	<p>Section 3.6.1.1, p.3-63</p>

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		Roads are the primary modern potential sediment source to streams. Analyzing measures that relate to sediment sources allows us to determine risks to streams and provides the decision maker a sufficient basis for alternative comparison. The action alternatives make reductions relative to these measures, thereby reducing sediment risk to streams. The measures used include: Total road miles; Road miles open to passenger vehicles; Number of road/stream crossings; Road density; Road miles within steep landscapes and 328 feet (100 meters) from streams; and Road miles through wetlands. These were displayed in a summary table in the EIS. The results for the analysis of effects of the action alternatives is discussed in the EIS, which found that "...all of the indicators of potential aquatic impact would decrease, or in some cases remain unchanged."	Section 3.6.3.2, Table 3.6.2, p.3-69 Section 3.6.3.2, p.3-69 & 70
75	"Will the Ottawa seek storm water pollution permits from the EPA?" (37, 39)	No. The commenter references a court decision in California and we are not within the court's jurisdiction.	N/A
76	"We have also attached photos of recent past cutting in the Baltimore EIS area. The Pierson Creek Crossing photo depicts Doug Cornett standing at a culvert in the center of the picture. In the foreground, the road crossing the creek is full of mud that was directly running into Pierson Creek when this photo was taken. Additionally, there were no buffers on this creek and sand had completely embedded the stream, certainly at the expense of fish and aquatic invertebrates." (37, 39)	The commenter fails to provide enough information as to the specific location of the photo submitted, nor did they include a photo to show that there actually was a culvert where Mr. Cornett was standing "in the center of the picture," as this is not evident in the photo they submitted. Furthermore, no photos were included to support their claim or show that "the road crossing the creek is full of mud that was directly running into Pierson Creek when this photo was taken," or that "sand had completely embedded the stream." Also, the picture appears to depict a skid trail, not a "road," and appears to depict a "draw" or "swale," not a "creek" that would be expected to contain flowing water. No flowing water is evident in the photo submitted, which would be necessary to transport	N/A

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		<p>any sand or sediment to another location. There is no way to determine from the photo if the area in question meets “stream” definition because the photo does not show if there is “bed and bank” condition present.</p> <p>A review of the “Timber Sale Inspection Reports” for the area we <i>think</i> this photo was taken from in the Pierson Creek timber sale indicate that the sale was frequently monitored by Forest Service personnel and skidding was suspended a number of times due to wet conditions. The Inspection Reports also indicate that skid trails that had rutting due to wet conditions, as well as landing areas, were shaped up and leveled off. However, without more specific information we cannot fully respond to this comment or know whether or not the location in question had been identified as a protected stream course in a past Forest Service timber sale, and would have had “buffers.”</p>	
77	<p>“Attached is the file ‘Where Rivers Are Born’ which talks about the negative impacts of timber cutting etc. on the headwaters of streams. Numerous headwater streams are found throughout the Baltimore timber sale area. Your proposed actions will devastate the water quality of the area and beyond. Please incorporate this document into our comments.” (37, 39)</p>	<p>The commenter attached the document, “Where Rivers Are Born: The Scientific Imperative for Defending Small Streams and Wetlands.” We have reviewed this document and the Ottawa National Forest agrees small streams and wetlands are important to aquatic ecosystems and adjacent uplands. As such, we are providing restrictions within these areas through the riparian design criteria for this project. However, the commenter fails to provide enough information as to why they feel that the proposed actions, or which specific actions, “will devastate the water quality of the area and beyond.” Without more specific information, we cannot further respond to this comment.</p>	<p>Section 3.6.2.1, p.3-67</p> <p>Section 3.6.3.2, p.3-70</p> <p>Refer to Appendix C, Table C-1, p.C-2 to C-5</p>
	<p>Old Growth</p>		

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78	<p>“The original scoping proposal identified approximately 1650 acres with an old growth management objective. Now all alternatives have limited this to 614 acres. The forest service reasons that since the forest wide goal of 1-3% old growth has been met, there is no need to consider the benefits of increasing old growth classification in the Baltimore VMP. I disagree.”</p> <p>“The original proposal identified coniferous forest areas along the steeply sloped Baltimore River valley that currently provides winter thermal cover and remote habitat (sic) for wildlife including ‘big trees, snags, den trees, dead and down logs and other ground material.’ While the original proposed old growth would not <u>exceed</u> the MA 1.1 DFC, <u>all</u> newly proposed alternatives would substantially exceed the DFC for percent aspen composition in the Baltimore MA 1.1. I think the new proposals are way out of balance with priorities.” (30)</p>	<p>Reasons for not considering to classify any more old growth in the project area are discussed in the EIS. Classifying more acres as old growth in MA 1.1 <i>would</i> exceed the desired future condition (DFC) for old growth in this management area (1%-3%) as given in the Forest Plan because it is currently at 3%.</p> <p>The coniferous forest areas you refer to are already mostly included as part of the 614 acres of existing classified old growth in the project area.</p> <p>Implementing the old growth classification as originally proposed during scoping <i>would</i> exceed the DFC for old growth in MA 1.1 because as discussed in the EIS, it is already at 3%.</p> <p>The Forest Plan identifies DFCs for management areas on the Forest as a whole, and the DFC for the percent aspen composition in MA 1.1 on the Forest is 40-60%. Although the percent aspen composition “in the Baltimore MA 1.1” would be greater than 60% immediately after treatment under any of the action alternatives, it would still be less than 60% and within the DFC for the management area as a whole. Reasons for this are also discussed in the EIS.</p>	<p>Section 2.9.1, p. 2-18 & 19</p> <p>Refer to Appendix A, Map E</p> <p>Section 2.9.1, p. 2-18 & 19</p> <p>Table 1.3.1, p.1-5</p> <p>Table 2.7.7, p.2-15;</p> <p>Table 3.1.1, p.3-4;</p> <p>Table 3.1.2, p.3-5</p> <p>Section 1.3.2, p.1-6;</p> <p>Section 3.1.2, p.3-2</p>
	Exotic/Invasive Species		
79	<p>“The DEIS describes an area of Buckthorn infestation to be treated in Alternative 3. DEIS, p.2-9. Alternative 4 also addresses the infestation, but treats only about 50 acres. LSLA believes the infestation should be fully treated to control spread, whichever alternative is finally selected by the Forest Service.” (13)</p>	<p>The decision maker can choose a combination of actions in the final Decision as long as the effects have been disclosed. Please note, however, that additional mapping by a Forest Service contractor during rare plant surveys in 2003 noted several more locations for glossy buckthorn. The infestation appears to be 10 to 20 times larger than we thought when the EIS was prepared. The errata sheet also acknowledges that “Since we know now that the infestation is widespread, and</p>	<p>See errata sheet and revised Figure 3.7.1</p>

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		not restricted mainly to roadsides, a way to meet the stated need would be to treat the infestation’s leading edges and satellite populations. This would be a containment strategy to keep the overall infestation area from getting larger, a strategy to use until a more effective means of eradicating the central buckthorn population could be found. Treating the edges and satellite populations would mean a separate environmental (NEPA) analysis, and dropping any proposed buckthorn treatment from the Baltimore VMP.”	Section 1.3.2, p.1-7
80	<p>“Figure 3.7.1 shows the known distribution (by the Forest Service) of glossy buckthorn on the site. Unfortunately the gray area of this map (approximately 300 acres) includes only a small portion of the area now infested by this plant.”</p> <p>“At this time I suspect that the overall ‘center of infestation’ of this very large glossy buckthorn population is not within the project site, but northeast of there, roughly around Victoria.” (36)</p>	<p>We agree. Refer to response above to comment # 79.</p> <p>The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) has also completed invasive plant mapping in this area and has offered to share these data. We expect the GLIFWC data to show additional buckthorn sites in the Baltimore project area and these new sites will be added to the Forest database of invasive plant sites.</p>	See errata sheet and revised Figure 3.7.1
81	<p>“Alternatives 1 and 2 propose to not treat the buckthorn populations at all. Given the potentially serious adverse ecological and economic effects of this invasion, any decision to not treat this population is irresponsible and unacceptable. [It is presumably also illegal, given Executive Order 13112 (NISC 2001)].” (36)</p>	<p>The No Action alternative (Alt. 1) cannot, by definition, include any new management activities. It is designed to serve as a baseline against which to analyze proposed activities. Buckthorn treatment could be proposed in a separate project if the No Action alternative were selected.</p> <p>The EIS mentions that the glossy buckthorn infestation was not found until after development of the Proposed Action (Alt. 2) and therefore, no treatments were proposed. Because that alternative had already been released for scoping, and to minimize changes to the Proposed Action, any proposals to treat the buckthorn were added to the additional action alternatives. Also refer to response to comment # 79 above for discussion on information contained in the errata sheet.</p>	Section 2.2.3.1, p.2-3; Section 3.7.1, p.3-76

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		Alternatives are developed to display the trade offs of different levels and types of treatment. The activities proposed (or not proposed) here are legal.	
82	<p>“Given the fact that glossy buckthorn is found in all directions from the proposed treatment areas of Alternatives 3 and 4, both of these alternatives are also wholly inadequate for addressing this buckthorn infestation.”</p> <p>“As alluded to in the EIS (page 3-82), the goal should be to eliminate glossy buckthorn from the Ottawa (and ideally, with outside help, from surrounding private and public lands as well.) Treating only a small portion well within the boundaries of this infestation, as Alternatives 3 and 4 would do, is EXACTLY THE WRONG WAY to approach this problem (Moody and Mack 1988).”</p> <p>“In the absence of available biological control organisms, the only sensible way to attack such a large infestation is from the outside in. The infestation should be delineated as best as possible and a determined attempt made to find the edges and the outlier plants and patches. Then the outlier patches should be eradicated first.”</p> <p>“Hitting the smaller outlier populations (also generally less suitable for biocontrol) first will best slow the spread of these species, until such time that biocontrol organisms may make effective control or elimination of this entire population feasible.” (36)</p>	<p>We agree. Refer to response above to comment # 79.</p> <p>The errata sheet indicates we also realize “The proposed girdling would only amount to a spot-treatment of about 10% of the infested area, within the middle of the large infestation, rather than suppression of the majority of the infestation.” In regards to Alt. 4, the errata sheet states “Given the new information on the enormity of this infestation, spending time and resources to treat less than 2% of the central infestation is not appropriate and does not meet project objectives.”</p>	Section 1.3.2, p.1-7
83	<p>“The treated areas and the areas surrounding them should be revisited annually for at least 5 years to eradicate any missed plants and pull any new seedlings that may appear.”</p> <p>“The EIS suggests (page 3-82) that future</p>	The EIS does state in the <i>Monitoring</i> section that “If either mechanical glossy buckthorn control treatment is selected, monitor the effectiveness of the treatments in reducing abundance and slowing spread of the infestation, 1-2 years following treatment.” We recognize that weed infestations	Section 2.10, p.2-20

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	<p>monitoring and control of glossy buckthorn will occur, but doesn't give any specifics. Within the heavily infested area indicated in Figure 3.7.2, there are undoubtedly many thousands (and probably millions) of established seedlings. In an area this size individual glossy buckthorn plants (especially smaller plants) are sure to be missed or survive treatment. In order for treatment to have long-term benefit, monitoring and follow-up treatment must be done annually for years." (36)</p>	<p>require repeated treatments over several years. The EIS discusses in the effects of the proposal for Alternative 3 that "The proposed glossy buckthorn treatment would not totally eradicate the infestation, but would curtail its expansion. Re-sprouting and germination of seeds in the seed bank would ensure there would still be glossy buckthorn in the project area." The effects of the proposal for Alternative 4 indicate that "Expansion of the glossy buckthorn and adverse effects on plant communities are likely. Although the weed treatment and design criteria should help prevent proposed timber harvests from spreading the glossy buckthorn and slow the natural spread of the infestation, it is still expected to continue spreading." The proposals in Alts. 3 and 4 did not include any specific follow-up treatment because we wanted to find out if girdling would be effective before committing to doing additional rounds of this method of treatment. The Ottawa has recently contracted preparation of NEPA analysis for Forestwide integrated non-native invasive plant management. This analysis is designed to allow the Forest to treat infestations using the most effective treatment method, and to revisit sites such as the buckthorn infestation that may have been treated under other projects.</p>	<p>Section 3.7.3.3, p.3-82</p> <p>Section 3.7.3.4, p.3-83</p>
<p>84</p>	<p>"(As an aside, all Ottawa field personnel should be able to recognize glossy buckthorn and certain other major invasives, so they can report them whenever they come upon them.)" (36)</p>	<p>This comment is beyond the scope of the Baltimore project; however, we agree this could be beneficial for the Forest. The Ottawa NF Botany program does provide periodic training and field guides on invasives to field-going personnel, and in 2003 the Botany program sponsored an invasive plant observation contest among Forest employees to encourage reporting.</p>	<p>N/A</p>
<p>85</p>	<p>"Road reconstruction and disturbance by logging equipment are guaranteed to spread glossy</p>	<p>Best management practices and guidelines in the Forest Plan that speak to prompt revegetation and</p>	<p>Section 2.8, p.2-16 to 2-18 - #8, #9, #10, #16,</p>

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	buckthorn and other invasive species if they are present on the site, and increase the likelihood of bird-, wind-, and machinery-dispersed species from outside the area becoming established, if they are not there yet. Removal of the existing forest vegetation will also encourage their spread.” (36)	limiting soil disturbance are included in the EIS as design criteria, which are used to help prevent the spread of invasive plants. The only high priority invasive plant known in the project area is glossy buckthorn. As mentioned, measures were proposed to slow its spread. Other invasives occur mainly along roadsides in the project area and are expected to continue to occur mainly in open disturbed areas.	and #24 Refer to Appendix E, Table E-1, p.E-4 & 5
86	“Appendix E gives a list of nonnative species known to occur in the project area, and a simple (though perhaps reasonable) method for ranking the likelihood of plants spreading to the area, and their impact if they do. Yet there is no indication in the EIS of the criteria used to evaluate whether or how the proposed activities will contribute to the increase and spread of these species, or what effect these species will have on the plant community in the project area if they do spread. How were these values determined? How accurate are they be (sic) expected to be? Outside of glossy buckthorn, what monitoring or further treatment will be done concerning these species, to ensure that adverse impacts of this project do not exceed expectations?” (36)	The botany specialist report lists how the risk assessment criteria were used to assess the spread of glossy buckthorn in the project area. The factors are qualitative, as shown and explained in the appendix, and are used to develop management actions. An assessment was not conducted for the other invasive plants known from the project area, as stated in the specialist report. Glossy buckthorn is the only plant species known in the project area that is a high priority invasive for the Ottawa. No treatment was proposed for any other invasive plants. Inventory, treatment, and monitoring of invasive plants occur Forest-wide as staff availability, time, and funding permit, under the Botany Program’s annual program of work.	Refer to Appendix E, p.E-2 & 3 Section 3.7.2, p.3-78
87	“It is my considered opinion, though observation over several years a well as from information published sources (e.g., Martin 2001, Voss 1996 page 519), that Eurasian marsh thistle (Cirsium palustre L.) is a significant invasive plant whose potential impact should not be underestimated. Marsh thistle is now widely introduced around the Ottawa and the western U.P.” (36)	This comment is beyond the scope of the Baltimore project. At this time, marsh thistle is considered a priority 2 invasive for the Ottawa NF. In sensitive locations, control of this species may be considered. The list of invasive plants of concern is in draft form, and comments and new information on particular species will be considered during the next update of this list.	Refer to Appendix E, Table E-1, p. E-4
88	“There is growing evidence that these earthworms have a significant and perhaps severe adverse impacts on northern forest ecosystems (Gundale 2002, Lawrence 2003). Yet there is no mention in	The Ottawa National Forest recognizes that non-native invasive earthworms pose a threat to northern forests. Evidence is clear that these worms can change soil characteristics and the	N/A

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	<p>the EIS of the potential of the four alternatives for introducing and spreading earthworms, or the potential impact of these earthworms on the land. Great care should be taken to avoid the further spread of earthworms in northern forests. At a minimum, equipment should be cleaned of mud, seeds, etc. before being allowed in the project area, and vehicle access to these areas should be kept to a minimum.” (36)</p>	<p>amount of duff, which in turn impacts plant growth and tree regeneration. While the distribution and threats are not fully understood, initial surveys on the Ottawa (2003) indicate that these worms (including <i>Lumbricus rubellus</i>, <i>L. terrestris</i>, <i>Dendrobaena octaedra</i>, <i>Aporrectodea tuberculata</i>, <i>Eisenia rosea</i>) are already widespread across the Forest. During project surveys for Baltimore, no areas were identified as being free of worms. Therefore, no project design criteria were included to address additional spread of worms within the project area.</p>	
<p>89</p>	<p>“Any planting or replanting of trees should also be done in such a way as to avoid introducing earthworms and other nonnative species. Tree replanting is a poor substitute for natural regeneration anyway – it may bring in tree species less suited to the site, or trees of the same species genetically less suited to the site, than the trees already there. It also risks introduction of invasive species and pathogens. (36)</p>	<p>Tree planting stock normally used on the Forest is “bare root” and does not contain soil that would introduce earthworms or other invasive species. In addition, the nursery beds where the trees are grown are well tended to prevent the introduction of invasive species and pathogens. A site conversion through planting is done only after careful analysis of site conditions and capabilities. Seed used for the planting stock is from the same geographical origin or provenance and is harvested from trees of native stock growing under conditions similar to those of the planting site.</p>	<p>N/A</p>
<p>90</p>	<p>“Numerous species of exotic plants will be spread throughout the Baltimore sale area as a result of the timber cutting, roads, and a gravel pit expansion. Many native plant species are at risk because of this. However, little can be done to prevent the spread of exotics, short of canceling the sale. This massive timber cutting will certainly spread exotics all over.” (37, 39)</p>	<p>The only high priority invasive plant known in the project area is glossy buckthorn. Measures were proposed to slow its spread. Other invasives occur mainly along roadsides in the project area and are expected to continue to occur mainly in open disturbed areas. Best management practices and guidelines in the Forest Plan that speak to prompt revegetation and limiting soil disturbance are included in the EIS as design criteria, which are used to help prevent the spread of invasive plants.</p>	<p>Refer to Appendix E, Table E-1, p.E-4 & 5</p> <p>Section 2.8, p.2-16 to 2-18 - #8, #9, #10, #16, and #24</p>
<p>91</p>	<p>“The plan to try to eradicate Glossy Buckthorn is a joke in light of the mass alteration of the</p>	<p>Glossy buckthorn is a non-native invasive species known to impact native plant communities. The Forest Botany Program includes treatment of these</p>	<p>Refer to Section 3.7.2, p.3-77 to 3-79</p>

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	surrounding landscape.” (37, 39)	invaders as part of the multiple use mission of the agency.	
92	“Also, information should be systematically gathered regarding the locations, extent, and treatment of other non-native animal and plant invasive infestations (i.e., wooded areas adjacent to roads).” (38)	This comment is beyond the scope of the Baltimore VMP. The Forest has an on-going inventory program for invasive species.	N/A
93	<p>“Of the two alternatives, the U.S. EPA leans more favorably toward A4 for the following reasons:</p> <ul style="list-style-type: none"> ➤ It places less emphasis on management of early successional species while keeping aspen within the desired range as stated in the Forest Plan. Alternative 4 would not produce openings greater than 40 acres in size, thus reducing aspen regeneration in those areas and providing for natural conversion to hardwood or conifer forest types; ➤ Improvement cutting and no treatment management would produce a more complex forest structure when compared to clear cutting with multiple age classes; ➤ Riparian influence area planting of approximately 170 acres is suggested in A4 only. Conifer planting along riparian influence areas is important for bank stabilization, shading and temperature control, cover and resting areas for spawning lake sturgeon, and increases the availability of large woody debris in the long term; and ➤ It provides a buffer along either side of the North Country Trail where clear cutting would not take place. <p>However, we would like to see some of the elements of A3 carried forward in a hybrid of A4 and A3. U.S. EPA strongly suggests that Alternative 4 be enhanced with a greater emphasis on controlling</p>	<p>Thank you for your comment and documentation of your review. The proposed vegetative management for this project lies entirely in Management Area (MA) 1.1, which places emphasis on the management of early successional habitat and related forest types, particularly aspen. Please note that Alternative 3 does contain improvement cutting and has the most uneven-aged management of any alternative, and contains treatment to convert some aspen stands to other forest types. Alternative 3 also takes into consideration that many of the existing aspen stands on unsuitable ground would naturally convert to other forest types in the future, which would add to the complexity of the forest structure in the project area.</p> <p>In reference to riparian influence area planting and management along the North Country Trail, the decision maker can choose a combination of actions in the final Decision as long as the effects have been disclosed.</p> <p>The EIS indicates that one of the decisions to be made includes “The amount, type, and location of treatment necessary to attempt to control or eradicate invasive, exotic, noxious, and weedy plant species, if any.” Again, the decision maker</p>	<p>Refer to Map B in Appendix A, and Section 1.3.1.2, p.1-2 & 3</p> <p>Section 2.5.1.1, p.2-8 Section 3.1.3.3, p.3-13</p> <p>Section 3.1.3.3, p.3-15</p> <p>Section 1.4, p.1-9</p>

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	the non-native infestation of glossy buckthorn (i.e., the 300+ acres proposed for girdling and/or burning in A3 should be folded into A4). U.S. EPA supports the use of the design criteria mentioned in Chapter 2, Section 2.8, to prevent the spread of glossy buckthorn seeds, particularly in intact forest communities after harvest.” (38)	can choose a combination of actions in the final Decision as long as the effects have been disclosed. However, due to new information concerning the glossy buckthorn and the size of the infestation (refer to response above to comments # 79 and #82), the proposed treatment would no longer meet the stated need.	Section 1.3.2, p.1-7
94	Is the glossy buckthorn a concern in shaded areas as well as open areas? (28)	Glossy buckthorn is a major invasive plant of concern for the Ottawa because it can invade the forest understory, and is not restricted to open areas such as roadsides. In the Baltimore area, glossy buckthorn occurs along some roadsides, within some wetland areas, and also as scattered shrubs under the forest canopy.	Refer to Section 3.7.2, p.3-78 & 79 for more information on this shrub.
95	Why is there no mention in the DEIS of herbicide use for the glossy buckthorn infestation? (4)	The EIS does indicate that “A determination was made to not consider the use of herbicides for this project because chemical weed control was not included in project scoping.” The EIS also indicates that “Herbicide use, however, is likely to be a viable option in the near future, and it may be more effective and efficient to use herbicides.”	Section 3.7.2, p.3-79
96	Success rates for various mechanical glossy buckthorn treatments should be discussed. (4)	Buckthorn treatment is an emerging science and little quantitative information is available. Most infestations are treated with herbicides, which were not considered here. The mechanical treatments that were proposed have been used successfully at other sites. Their success, however, is not guaranteed, and the EIS indicates that “re-sprouting can be a problem with mechanical treatment (Haber 2001),” and “cutting (reduces growth but does not kill plants).”	Section 3.7.2, p.3-79
	Rare Species		
97	“The EIS states that under the three ‘action’ alternatives some state-listed species may be harmed. This is unacceptable for biological, ethical	As stated in the biological evaluation (BE), “The U.S. Forest Service is responsible for protecting all federally proposed and listed species and the	BE, p. 2

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	and legal reasons. The law is clear: Federal Agencies must adhere to state law, unless that state law conflicts with Federal law. The intentional taking of state listed species is illegal, whether done by individuals or local, state, or federal agencies.” (36)	Regional Forester's Sensitive species. In addition, the Forest Service is directed to "assist states in achieving their goals for conservation of endemic species" (FSM 2670.32). State listed species are addressed in the project environmental assessment (not in the BE) when they are known to occur within a project area or are likely to be impacted by the activities of a project. Protection measures for State listed species are undertaken where feasible.” The EIS indicates that no state-listed plant species are known from the project area that are not also listed as Regional Forester's Sensitive species (RFSS). As noted in the EIS, the BE determined that, for some taxa, proposed actions “may impact individuals of a species, but are not likely to cause a trend to federal listing or a loss of viability.” No activities are proposed that would directly impact any of the known populations of RFSS plants—sites are either excluded from stands proposed for harvest or other activity, or given a no-activity buffer zone. Refer to the BE for more discussion of potential impacts.	Section 3.7.2, p.3-77 Section 3.7.3.1, p.3-80 Section 3.7.3.2, p.3-80 Section 3.7.3.3, p.3-81 Section 3.7.3.4, p.3-82
	Openings for Deer and Grouse		
98	“For vegetation management planning to make sense, planning within the Ottawa must take into account conditions of the land outside the Ottawa. It seems curious that the Ottawa is concerned with providing early successional habitat and openings for deer when most of the land outside the forest consists of cut-over, early-successional woods and various types of openings, including roadsides, log landings, farms and settlements, and pipeline and power line right-of-ways.” (36)	The analysis did consider the condition of private land within the project area and the cumulative effects area. Please note the types of openings you mention may not provide the same type of habitat or conditions as the upland openings proposed under this project.	Section 3.3.4.1, p.3-39, 42, & 45; Section 3.6.3.3, p.3-71 & 72
99	“Furthermore, the Michigan DNR has been working to hold the deer population stable, or even decrease	The Michigan Department of Natural Resources (MDNR) was mailed copies of the EIS and did not	N/A

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	it slightly in the state (MDNR 2001). The aim of providing more deer habitat (which directly implies increasing the local deer herd) would therefore seem to be at odds with the MDNR's goals." (36)	comment that the actions proposed in the Baltimore VMP are at odds with their goals for deer management.	
	Proposed Alder Cutting		
100	"I also looked and could not find the reason for the alder cuttings proposed in the vicinity of Schaat creek in or near Compartment 102." (41)	The reason for the proposed alder cutting project is to improve habitat for grouse and woodcock, and is disclosed in the EIS.	Section 2.4.1.2, p.2-5
	N. Goshawk and Red-shouldered Hawk		
101	"Habitat for species such as the Northern Goshawk and Red-shouldered Hawk – both largely dependent on mature and unaltered forests – will see a wholesale elimination through the planned cuts. This is especially distressing when looking at other nearby and bordering sales that have altered and eliminated habitat across an even broader scale. What is being done to assess these wide-ranging cumulative effects?" (37, 39)	<p>The effects to the Northern Goshawk and the Red-shouldered Hawk were analyzed in the EIS and the biological evaluation (BE). Cumulative effects from past, present and foreseeable future actions were considered, and "wholesale elimination" of habitat is not apparent from the analysis.</p> <p>The Ottawa National Forest Monitoring and Evaluation Reports (M&E Report) assess Forest-wide effects for both raptors. The BE assesses the effects for both raptors at the project area level and the cumulative effects area level.</p>	<p>Section 3.3.3.5, p.3-35</p> <p>BE, p.12-18 and 19-23</p> <p>FY 2001 M&E Report (Revised June 2003), p.19-20 and 32-34</p> <p>BE, p.12-18 and 19-23</p>
102	"The fact remains that over 5500 acres of suitable habitat will be reduced to no habitat for the Goshawk, and that what habitat does remain will be severely fragmented to the point that all habitat may be eliminated." (37, 39)	The biological evaluation (BE) shows there would be 3,695 acres of various types of clearcuts that would change potentially suitable habitat to unsuitable habitat until the stands regenerate into mature stands (50-80 years). It also shows there would be 1,885 acres of improvement type harvest that would change potentially suitable habitat to unsuitable habitat for a few growing seasons. The BE analyzes the effects of the change in habitat on these two raptors. The Wildlife Report prepared for this project documented the amount of habitat remaining for each alternative and the effects of this amount of habitat. This information was considered by the Deciding Official.	<p>BE, p.15 and 68-69</p> <p>Wildlife Report, p. 89-90 and 93-95</p>

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103	<p>“This project will have a major impact on habitat for the Northern Goshawk and the Red-shouldered hawk. The cumulative destruction of their habitat will have a major effect on the viability of these species. Your office should be conducting studies of the cumulative impact that this destruction has on their population and breeding success. You have been over-cutting the hardwood on the Ottawa for a long time, and the effect on these threatened raptors is obviously not a major factor in the decision-making process of your office.” (40)</p>	<p>The Ottawa National Forest Monitoring and Evaluation Reports assess Forest-wide effects for both raptors. The biological evaluation (BE) assesses the effects for both raptors at the project area level and the cumulative effects area level.</p> <p>The proposed harvesting of hardwood was analyzed in the EIS and the effects on these two raptors were analyzed in the BE. The effects to habitat by Management Indicator Species was analyzed in the Wildlife Report and summarized in the EIS. The Wildlife Report documented the amount of habitat remaining for each alternative and the effects of this amount of habitat. This information was considered by the Deciding Official.</p>	<p>BE, p.12-18 and 19-23</p> <p>Section 3.1.3.3, p.3-13</p> <p>BE, p.12-18 and 19-23</p> <p>Section 3.3.3.5, Table 3.3.2, p.3-35</p> <p>Wildlife Report, p.89-90 and 93-95</p>
104	<p>“How can the Forest Service eliminate so much habitat for the Northern Goshawk, a regionally sensitive species, and still not know what populations are in the Upper Peninsula? To date there has been no attempts to study the population dynamics and whether there is a Minimum Viable Population (MVP) for this species. Yet the Ottawa makes unsubstantiated claims that the population is ‘stable to increasing,’ and goes on to state that over 5500 acres of cuts ‘[S]hould not effect the Forest trend.’ To further this absurdity, the Ottawa claims there will be ‘[N]o measurable effect from Alternative 1’ (see Table 3.32, EIS p.3-35). However, there is no indication that the population of area Goshawks has been studied to any extent, and there is little to no data to be able to compare effects of any of the cutting Alternatives to Alternative 1, the No Action alternative.” (37, 39)</p>	<p>The Forest Service manages the habitat, not the species, so we consider the amount of potentially suitable habitat to be an indicator of how the species is doing. We do not study the population dynamics and whether there is a “MVP” for this species. Considering the Northern Goshawk population of the Upper Peninsula is outside the scope of this project. The Forest Service does not consider habitat eliminated due to most management activities. Potentially suitable habitat can be made unsuitable for a period of time.</p> <p>The FY 2001 Monitoring and Evaluation Report (M&E Report) (Revised June 2003) does state that there is more suitable habitat than there are nesting Goshawks. It also states: “To date, there is no evidence of nest abandonment resulting from logging or human disturbance in areas where these guidelines [nest protection] are in effect.” From this information the Management Indicator Species section infers that the population is stable to increasing. It also states that the effects from the</p>	<p>FY 2001 M&E Report (Revised June 2003), p.19-20</p> <p>Section 3.3.3.5, Table 3.3.2, p.3-35</p>

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		<p>proposed management activities should not affect the Forest trend. The biological evaluation (BE) states there are “low to none effects” for the Northern Goshawk and “none effects” for the Red-shouldered hawk for Alternative 1. There have been surveys to find active nests and monitoring surveys to check nests found previously (see Project File). The EIS has protection measures for all known and newly discovered nests from harvest and disturbance. Both the BE and the Wildlife Report analyze the effects of management on potentially suitable habitat. This analysis has been summarized in the EIS (Wildlife section).</p>	<p>BE, p.68-69</p> <p>Section 2.10, p.2-20</p> <p>Section 2.8, p.2-16 & 18 - #5, #6, and #26</p> <p>BE, p.12-18</p> <p>Wildlife Report, p.93-95</p>
	Habitat Diversity & Productivity		
105	<p>“A goal of this project is to increase the amount of early-successional habitat in this part of the Ottawa. After driving and walking through much of the project area (west of Hwy 45), though, it appears to me that most of this area is already in an early-successional state. This includes large areas of aspen monoculture on sites that have been clearcut a number of times. Also, the soil appears to have a reduced organic (duff) layer and to be significantly compacted in some areas. For these reasons as well as those discussed above it seems clear that cutting more of the remaining older forest will adversely impact the diversity or health of the forest, and even the long-term productivity of the forest.” (36)</p>	<p>The goal or need for this project is not to “increase” the amount of early-successional habitat, but to regenerate and maintain as much as possible the amount of early-successional habitat and aspen type that is present before it converts to another forest type through ecological succession. Treating these stands would retain aspen as the forest type and improve the health and vigor of these stands. The analysis displayed in the EIS indicates the percentage of aspen type that would be maintained, or in some cases lost, for each of the alternatives. Note that in the long term this percentage would substantially decrease under all of the alternatives, so it is important to regenerate and maintain this habitat while the opportunity still exists because as noted in the EIS, “Forty-four percent of the aspen is greater than 60 years old, and more than half of this is greater than 70 years old.”</p> <p>Finding that “most of this area is already in an early successional state” would be in line with the purpose of MA 1.1, which is to “Emphasize early</p>	<p>Section 1.3.2, p.1-6</p> <p>Table 3.1.1, p.3-4</p> <p>Appendix B, Table B-6, p.B-20</p> <p>Section 3.1.2, p.3-2</p>

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		<p>successional community types (plant and animal)...” and “Maintain moderate to high amounts of aspen type along with associated timber products and habitat conditions.” The Baltimore area has a large amount of aspen stands originating from heavy disturbance regimes in the early 1900s. They may have been harvested once since that time, but have not been clearcut “a number of times.” Most of the overmature aspen stands this project focuses on have not been treated since the early 1900s.</p> <p>Aspen stands typically have well-developed shrub and herb layers, and plant species diversity is usually greater in this type than in any of the associated conifer forest types (Ohmann et al 1978). According to the professional judgment of the Forest Soil Scientist, the organic layers of the soils in the Baltimore Project Area, outside of access roads and log landings, are within the normal range of thickness for a forested soil. Soils in the Baltimore Project area are also very resistant to compaction, particularly when dry, due to their high clay content. Design criteria incorporated into the project are intended to prevent soil compaction and reduced productivity within the forested stands, thus protecting the long-term productivity of the forest.</p>	<p>Section 1.3.1.2, p.1-3</p> <p>Section 3.5.2, p.3-54</p> <p>Section 3.1.2, p.3-2</p> <p>Section 3.5.3.2, p.3-58 & 59</p> <p>Section 2.8, p.2-17 & 18</p>
	White-tailed Deer Study		
106	“We also recommend that the USFS give serious consideration to initiating a multi-year white-tailed deer study to assess the impacts of the deer herd on forest ecology, particularly regeneration of under-represented native flora.” (38)	Thank you for the recommendation, but this comment is beyond the scope of the Baltimore VMP. The Forest Service is charged with managing forests, and research studies are left to the Forest Experiment Stations, universities, and others. Several studies are available that document deer impacts on forest composition and structure.	N/A

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		While it is not connected directly with this project, there is a joint MDNR/USFS proposal to do this. It is in the preliminary stages at this time, but some of your concerns may be covered.	
	North Country Trail (NCT)		
107	“No buffer strip along the NCT is incorporated into alternative 3. This simply adds a minor insult to a major injury, however, it might well lead to increased public opposition to not only this alternative but to other overly large scale clear cutting proposals in the future. At least, I hope so.” (30)	That is correct, Alternative 3 proposed clearcutting along the NCT; however, the two other action alternatives considered management along the trail that would meet certain Visual Quality Objectives (VQOs) as discussed in the EIS. This provided the deciding official with an analysis and contrast of effects for various management options along the trail.	Section 3.1.3.2, p.3-11 & 12; Section 3.1.3.3, p.3-17 & 18; Section 3.8.2.2, p.3-86 & 87; Section 3.8.4, p.3-89 & 90; Section 3.8.6, p.3-92
108	“Your document indicates that the project will clearcut areas around the North Country Trail. You say in the document that this will benefit hikers, including that the benefits include (sic): 1) providing break in the canopy for the trail user, 2) fully portrays aspen management activity, 3) trail users would see species dependant upon early successional habitat. You should be ashamed of yourselves! This is outrageous and disgusting even for such a disfunctional (sic) branch of government as the Forest Disservice. BUFFER AREAS FOR THE NCT SHOULD BE MAINTAINED AT ALL COSTS. How can you clearcut the trail for aspen?” (40)	That is correct, Alternative 3 proposed clearcutting along the NCT; however, the two other action alternatives considered management along the trail that would meet certain Visual Quality Objectives (VQOs) as discussed in the EIS. This provided the deciding official with an analysis and contrast of effects for various management options along the trail.	Section 3.1.3.2, p.3-11 & 12; Section 3.1.3.3, p.3-17 & 18; Section 3.8.2.2, p.3-86 & 87; Section 3.8.4, p.3-89 & 90; Section 3.8.6, p.3-92
	Consistency with State and Federal Laws		
109	“We are concerned about virtually every aspect of this EA, and believe the Ottawa will violate numerous state and federal laws, meant to protect the environment, if the sale proceeds. We urge the Hiawatha to withdraw the Baltimore timber sale.” (37, 39)	Please note the Baltimore VMP is an EIS, not an EA, and this project is located on the Ottawa National Forest, not the Hiawatha. The commenter fails to specify which laws, and in what way, they feel we will violate those laws. Without specific information we cannot fully respond to this comment. We believe this project	N/A

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		is consistent with applicable federal laws or acts (i.e., NFMA, NEPA, ESA, MBTA, NHPA and the Clean Water Act).	
110	“We are concerned about virtually every aspect of this EA, and believe the Forest Service will violate numerous state and federal laws, meant to protect the environment, if the sale proceeds. We urge you to withdraw the Baltimore timber sale before we are forced to resort to legal action.” (40)	Please note the Baltimore VMP is an EIS, not an EA. The commenter fails to specify which laws, and in what way, they feel we will violate those laws. Without specific information we cannot fully respond to this comment. We believe this project is consistent with applicable federal laws or acts (i.e., NFMA, NEPA, ESA, MBTA, NHPA and the Clean Water Act).	N/A
	General		
111	“This project will have no impact on HUD assisted projects. Therefore HUD has no comment on this project. HUD wishes the Department of Agriculture success in bringing this project to better manage our natural resources to a successful conclusion.” (3)	Thank you for your comment and documentation of your review.	N/A

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