

## Errata Sheet – Savanna Ecosystem Restoration Environmental Assessment

The Savanna Ecosystem Restoration (SER) Environmental Assessment was sent out for the 30-Day Comment Period on September 23, 2010. Between this date and the signing of the Decision Notice, the document was reviewed for accuracy and clarity. The following corrections and/or clarifications will be incorporated into the final document for implementation.

### Chapter 1

#### Page 1-4, Forest Plan Direction, paragraph 1

**Text:** It describes desired resource conditions, resource management practices, levels of resource production and management, and the availability of suitable land **and** resource management.

**Correction:** It describes desired resource conditions, resource management practices, levels of resource production and management, and the availability of suitable land **for** resource management.

#### Page 1-11, first paragraph after bulleted list

**Text: Seeding/planting** would occur in a series of **seed** patches on no more than 10% of the total acreage of treated area.

**Correction: Site preparation (including the use of herbicides) and the establishment of native understory vegetation** would occur in a series of patches on no more than 10% of the total acreage of treated area.

**Map 1:** Remove the “Map 2” and “Map 3” labels under the two metapopulation areas.

### Chapter 2

White River Metapopulation Area: Alternatives 2 and 3 – Vegetation Management Map – Change the status of FR 5315 to show it as closed.

White River Metapopulation Area: Alternative 2 – Recreation Management Map – Change the status of FR 5315 to show it as closed.

White River Metapopulation Area: Alternative 3 – Recreation Management Map – Change the status of FR 5315 to show it as closed.

### Chapter 3

**Page 3-6, Bulleted List, item #3** (This information pertains to treatments in the Project Area analyzed previously in other documents; the corrections to acreages does not affect the amount and types of activities proposed in the SER EA)

**Text:** Approximately **346** acres in other **upland opening** locations within the Project Area will be treated between 2009 and 2011 to maintain open conditions and improve herbaceous diversity.

**Correction:** Approximately **668** acres in other locations within the Project Area will be treated between 2009 and 2011 to maintain open conditions and improve herbaceous diversity.

**Page 3-9, Alternative 1, paragraph 1**

**Text:** Within the active treatment areas, the woody overstory (**tree**) and understory (**shrub/sapling**) will be reduced to an average of **5-20% and 10-25%, respectively**.

**Correction:** Within the active treatment areas, the woody overstory will be reduced to an average of **10-25% canopy cover (open) within 70-80% of treated areas and to an average of 25-60% canopy cover (woodland) within 20-30% of treated areas**.

**Page 3-9, Alternative 1, paragraph 1** (This information pertains to treatments in the Project Area analyzed previously in other documents; the corrections to acreages does not affect the amount and types of activities proposed in the SER EA)

**Text:** The three active treatments to restore savanna/barrens are approximately **559** acres in size, **in 70 locations**.

**Correction:** The three active treatments to restore savanna/barrens are approximately **796** acres in size.

**Page 3-10, paragraph 3**

**Text:** Fuels reduction and air quality would not be affected by prescribed fire and mechanical equipment treatments beyond the **343** acres of broadcast and pile burning that are associated with the projects already approved by previous decisions within the Project Area.

**Correction:** Fuels reduction and air quality would not be affected by prescribed fire and mechanical equipment treatments beyond the **365** acres of broadcast and pile burning that are associated with the projects already approved by previous decisions within the Project Area.

**Page 3-10, paragraph 4**

**Text:** Herbicides (see Appendix C) using ground-based application methods at recommended label rates to suppress oak and cherry sprouting, carex, and bracken fern, would be used to supplement mechanical, hand tool, and broadcast/pile burning treatments to attain the desired canopy conditions.

**Correction:** Herbicides (see Appendix C) using ground-based application methods at recommended label rates to suppress oak and cherry sprouting, carex, and bracken fern, would be used to supplement mechanical, hand tool, and broadcast/pile burning treatments to attain the desired canopy conditions. **This would be limited to no more than 10% of the area proposed for savanna creation/restoration activities.**

**Page 3-11, paragraph 3**

**Text:** **Two locations of mature oak/aspen forest** are proposed for treatment, using mechanical equipment to clearcut and regenerate these areas by root and stump sprouting.

**Correction:** **One location of mature oak/aspen forest** is proposed for treatment, using mechanical equipment to clearcut and regenerate these areas by root and stump sprouting.

**Page 3-14, paragraph 2**

**Text:** Fuels reduction and air quality would be affected by additional prescribed fire and mechanical equipment treatments beyond the **343** acres of broadcast and pile burning **previously approved in the Savanna/Barrens Restoration Project.**

**Correction:** Fuels reduction and air quality would be affected by additional prescribed fire and mechanical equipment treatments beyond the **365** acres of broadcast and pile burning **that are associated with the projects already approved by previous decisions within the Project Area.**

**Page 3-14, Cumulative Effects, paragraph 1 and Table 3.5**

**Text:** The remaining acres of tree and shrub cutting from the three on-going projects within the Project Area (~396 acres), prescribed fire (~128 acres), and seeding and planting (~559 acres) are included in Table 3.5.

**Correction:** The remaining acres of the on-going projects within the Project Area are included in Table 3.5.

**Table: 3.5** Project Area Vegetation Treatments 1978-2010 (National Forest System Lands Only)

<b>Treatment Types</b>	<b>Forested</b>	<b>Non-Forest, All</b>	<b>Aquatic</b>
Thin and Timber Stand Improvement	794	N/A	N/A
Regenerate by Clearcut/Removal	1,826	N/A	N/A
Regenerate by Shelterwood	294	N/A	N/A
Reduce Encroaching Trees by Hand Tools, Mowing, Prescribed Fire, or Improve by Seeding, Tilling, and Planting	941	713	N/A
Stabilize Stream Banks, Placement of Woody Debris, Install Habitat Structures	N/A	N/A	208
Ongoing Vegetation Treatments	N/A	<b>796</b>	N/A

**Page 3-15, Alternative 1, paragraph 1**

**Text:** Longer-lived species, such as oaks, white pine, and maples **would dominant** throughout the Project Area...

**Correction:** Longer-lived species, such as oaks, white pine, and maples **would be dominant** throughout the Project Area...

**Page: 3-21, Non-Native Invasive Plant Species, Table 3.9: NNIS Control Recommendations**

**Correction:** Total Estimated Number of Locations = 40 and Total Estimated Number of Acres = 41

**Page 3-24, Scots Pine, paragraph 1**

**Text:** Due to the preferred habitat characteristics of Scots pine, it may serve as **threat** to savanna habitat (Sheehan 2007b).

**Correction:** Due to the preferred habitat characteristics of Scots pine, it may serve as **a threat** to savanna habitat (Sheehan 2007b).

**Page 3-35, Savanna Restoration, paragraph 2**

**Text:** Timber removal **by would** result in soil disturbance that would be conducive to NNIS germination.

**Correction:** Timber removal **by equipment would** result in soil disturbance that would be conducive to NNIS germination.

**Page 3-38, Cumulative Effects, Bullet #3** (This information pertains to treatments in the Project Area analyzed previously in other documents; the corrections to acreages does not affect the amount and types of activities proposed in the SER EA)

**Text:** Approximately **346** acres in other **upland opening sites** within the Project Area where encroaching woody vegetation will be removed to restore the areas to open conditions.

**Correction:** Approximately **668** acres in other **locations** within the Project Area where encroaching woody vegetation will be removed to restore the areas to open conditions.

**Page 3-38, Cumulative Effects, paragraph 2**

**Text:** Within these treatment areas, woody vegetation will be reduced to an average of **5-20% canopy cover for overstory and 10-25% for understory saplings and shrubs**.

**Correction:** Within these treatment areas, the woody overstory will be reduced to an average of **10-25% canopy cover (open) within 70-80% of treated areas and to an average of 25-60% canopy cover (woodland) within 20-30% of treated areas**.

**Page 3-68, Cumulative Effects, paragraph 4**

**Text:** Implementation of the conservation measures presented **above in** Appendix A would minimize potential adverse effects to KBB and its habitat on National Forest System lands within the Project Area. Although increases in human populations and associated land uses and developments are expected within the MNF in the future, positive effects of Forest Service projects such as the Proposed Action should mitigate **potential the** negative effects of activities on private lands.

**Correction:** Implementation of the conservation measures presented **above and in** Appendix A would minimize potential adverse effects to KBB and its habitat on National Forest System lands within the Project Area. Although increases in human populations and associated land uses and developments are expected within the MNF in the future, positive effects of Forest Service projects such as the Proposed Action should mitigate **the potential** negative effects of activities on private lands.

**Page 3-115, paragraph 1**

**Text:** The prescribed burning (**343 acres**) activities associated with the Savanna/Barrens Restoration project would still occur within the boundaries of the Project Area.

**Correction:** The prescribed burning (**365 acres**) activities associated with the Savanna/Barrens Restoration project would still occur within the boundaries of the Project Area.

**Page 3-115, Alternative 2 & 3, paragraph 1**

**Text:** Because of logistical and biological constraints **no more than approximately 2,000 acres of prescribed burning would be implemented annually.**

**Correction:** Because of logistical and biological constraints **prescribed burning within the Project Area would be limited to ~2,000 acres annually.**

**Page 3-121, paragraph 2**

**Text:** Because of logistical and biological constraints **no more than ~ 2,000 acres of prescribed burning would be implemented annually...**

**Correction:** Because of logistical and biological constraints **prescribed burning within the Project Area would be limited to ~2,000 acres annually...**

**Page 3-121, Direct and Indirect Effects, paragraph 2**

**Text:** In Alternative 1, fuels would not be affected by prescribed fire and mechanical equipment treatments beyond the **343** acres of broadcast and pile burning described in the Savanna/Barrens Restoration Project.

**Correction:** In Alternative 1, fuels would not be affected by prescribed fire and mechanical equipment treatments beyond the **365** acres of broadcast and pile burning described in the Savanna/Barrens Restoration Project.

**Page 3-130, Bullet #1**

**Text:** Open County roads: Traveled portion of the ROW graded annually, and ROW clearance dimensions infrequently maintained; traveled width 15-40'; **maintained principally for high clearance vehicles**; used primarily in spring, summer, and fall seasons; open to equestrian uses, OHV use prohibited.

**Correction:** Open County roads: Traveled portion of the ROW graded annually, and ROW clearance dimensions infrequently maintained; traveled width 15-40'; **variable maintenance levels**; used primarily in spring, summer, and fall seasons; open to equestrian uses, OHV use prohibited.

**Page 3-139, paragraph 1**

**Text:** As the **sites that would** no longer be available to motorized-dependent camping there would be a gradual decrease in the levels of compaction and an increase in the capacity of water to infiltrate the soil at these sites.

**Correction:** As the **sites would** no longer be available to motorized-dependent camping, there would be a gradual decrease in the levels of compaction and an increase in the capacity of water to infiltrate the soil at these sites.

**Page 3-139, paragraph 5**

**Text:** As the number of existing sites would be **decrease** under these alternatives, there would be an increase in dispersed motorized-dependent recreational use on the sites that remain and on those that would be developed.

**Correction:** As the number of existing sites would be **decreased** under these alternatives, there would be an increase in dispersed motorized-dependent recreational use on the sites that remain and on those that would be developed.

**Page 3-140, paragraph 2**

**Text:** Assuming an average impact area of 48” for this trail, this would directly affect approximately 7 acres of National Forest land.

**Correction:** Assuming an average impact area of 48” for this trail, this would directly affect approximately **10** acres of National Forest land.

**Page 3-141, Table 3.34: Approximate Acreage of Soils Impacted by Recreation within the Project Area**

**Corrections are shown in boldface.**

Source of Impact	Project Area Location	Alternative 1	Alternative 2	Alternative 3
Dispersed Campsites	White River	9.1	0	0
	Otto	4.7	4.7	4.7
Designated Campsites <sup>1</sup>	White River	0	3.6	3.6
Designated Non-Motorized Trail	White River	0	<b>9.6</b>	0
Designated Parking Areas <sup>1</sup>	White River	0	2.5	2.5
<b>Total</b>		13.8	<b>20.4</b>	10.8

<sup>1</sup>Does not include features associated with the Pines Point Campground.

**Page 3-141, Alternative 2 and 3: The Effects on the Soils Related to the Restoration of Savanna, paragraph 1**

**Text:** As a result of a project previously planned within this Project Area (**Savanna/Barrens Restoration Project and the Karner Blue Butterfly Habitat Restoration Project**), there would be approximately **474** acres within the Project Area where the seeding of native vegetation and prescribed burning **would** occur. **These acres are in addition to those proposed by the project being evaluated.**

**Correction:** As a result of projects previously planned within this Project Area), there would be approximately **796** acres within the Project Area where the seeding of native vegetation and prescribed burning **could** occur.

**Page 3-146, paragraph 2**

**Text:** It is likely that, as the surrounding private lands are further divided and the population increases, the use in this area **will**.

**Correction:** It is likely that, as the surrounding private lands are further divided and the population increases, the use in this area **will increase**.

**Page 3-148, Existing Condition, paragraph 2**

**Text: Overall**, the trend for outdoor recreation indicates a continued growth in the demand for opportunities, facilities, and services (Cordell 1999).

**Correction: Nationally**, the trend for outdoor recreation indicates a continued growth in the demand for opportunities, facilities, and services (Cordell 1999).

**Page 3-151, Map 3.6: WRSNA Existing Condition**

- ✓ Change the status of FR5317, FR9012R, and 9015S to show them as closed.
- ✓ Change the status of FR5315, FR5306, and FR5295 as open seasonally.

**Page 3-156, paragraph 3**

**Text:** Population growth for the Manistee National Forest impact area (a nine county area) was 15.4% during **1990-2000** (Social and Economic Assessment for the Michigan National Forests, 2003).

**Correction:** Population growth for the Manistee National Forest impact area (a nine county area) was 15.4% during **1980-2000** (Social and Economic Assessment for the Michigan National Forests, 2003).

**Page 3-170, Map 3.13: Recreation Elements in the WRSNA under Alternative 3.**

- ✓ Remove designated parking areas identified on 168<sup>th</sup> Avenue and FR9015H.

**Page 3-171, Cumulative Effects, paragraph 1**

**Text:** Currently, this area **is** offers one of the most unique riding experiences on National Forest lands in Oceana County.

**Correction:** Currently, this area offers one of the most unique riding experiences on National Forest lands in Oceana County.

**Page 3-176, paragraph 1** (This information pertains to treatments in the Project Area analyzed previously in other documents; the corrections to acreages does not affect the amount and types of activities proposed in the SER EA)

**Text:** Approximately **346** acres in other upland opening locations within the Project Area will be treated between 2009 and 2011 to maintain open conditions and improve herbaceous diversity.

**Correction:** Approximately **668** acres in other upland opening locations within the Project Area will be treated between 2009 and 2011 to maintain open conditions and improve herbaceous diversity.

**Page 3-176, paragraph 2**

**Text:** Full expression of the reduced tree density and increase in herbaceous ground cover **will be not** be obvious for 5 – 10 years...

**Correction:** Full expression of the reduced tree density and increase in herbaceous ground cover **will not** be obvious for 5 – 10 years...

**Page 3-195, Alternatives 2 and 3, paragraph 1**

**Text:** Under these alternatives, the remaining classified Forest Service roads within the WRSNA would be closed. These are identified in the following table.

**Correction:** The existing classified Forest Service roads and the current status of these roads under Alternatives 2 and 3 are identified in the following table.

**Page 3-195, last paragraph**

**Text:** Under these alternatives, **only the county roads would remain open within the WRSNA. These** would include: 148<sup>th</sup>, 152<sup>nd</sup>, 160<sup>th</sup>, and 168<sup>th</sup> Avenues, and Winston and Arthur Roads (adjacent).

**Correction:** Under these alternatives, **the county roads remaining open** would include: 148<sup>th</sup>, 152<sup>nd</sup>, 160<sup>th</sup>, and 168<sup>th</sup> Avenues, and Winston and Arthur Roads (adjacent).

**Page 3-197, paragraph 6**

**Text:** The use of county roads as control lines for prescribed burning activities would not impact **be** the anticipated future use of these roads.

**Correction:** The use of county roads as control lines for prescribed burning activities would not impact the anticipated future use of these roads.

**Page 3-206, Table 3.44: Estimated Revenues and Costs for Harvest Activities**

**Correction:** Add the following footnote to 25% Fund Payment column

*<sup>1</sup>Annually two federal payments are made to the counties; Payment in Lieu of Taxes (PILT) and either a share of the 7 year 25% rolling average payment or a share of the Secure Rural Schools State (formula) payment. The PILT is a payment to local governments to help offset losses in property taxes due to non-taxable federal lands within their boundaries.*

**Page 3-207, Bullet #1**

**Text:**

1. Savanna Restoration/Creation Site Preparation: The type and amount of site preparation that would be necessary in any given stand would be dependent on the existing condition of that stand. The types of activities would include, but not be limited to: stump removal, leveling/grading, chipping, masticating, and discing. The purpose of these activities would be to prepare the soil for the establishment of the native seed patches that would not exceed 10% of the treatment areas. **The value that is shown for this assumes that no more than 10% of the areas being converted/restored to savanna would require site preparation and that site preparation would only need to occur once.**

**Correction:**

1. Savanna Restoration/Creation Site Preparation: The type and amount of site preparation that would be necessary in any given stand would be dependent on the existing condition of that stand. The types of activities would include, but not be limited to: stump removal, leveling/grading, chipping, masticating, and discing. The purpose of these activities would be to prepare the soil for the establishment of the native seed patches that would not exceed 10% of the treatment areas. **The value that is shown for this is an estimate of the cumulative area (~10%) within the savanna restoration/creation units that would be affected by site preparation activities and that these activities would only need to occur once.**

**Page 3-207, Bullet #4**

**Text:**

4. **Herbicide Non-Woody Vegetation/NNIS: Under Alternatives 2 and 3, these treatments would occur on the 10% of the areas proposed for savanna creation/restoration and in the control of the NNIS that has already been identified through botanical surveys. It would be likely that the areas where NNIS control would be necessary would increase in the savanna**

creation/restoration areas due to an increase in sunlight, disturbance to the upper soil profiles, and NNIS seeds present (but currently dormant) in the seed bank. As a result, the cost to contain/control these species would likely increase beyond the level of the initial treatments that are reflected in Table 3.45.

**Correction:**

4. **Herbicide NNIS: Under Alternatives 2 and 3, the use of herbicides would be necessary to control NNIS that have** already been identified through botanical surveys. It would be likely that the areas where NNIS control would be necessary would increase in the savanna creation/restoration areas due to an increase in sunlight, disturbance to the upper soil profiles, and NNIS seeds present (but currently dormant) in the seed bank. As a result, the cost to contain/control these species would likely increase beyond the level of the initial treatments that are reflected in Table 3.45.

**Page 3-207 and 208, Bullet #5**

**Text:**

5. **Herbicide Woody Vegetation: This activity would apply to the areas under Alternatives 2 and 3 where savanna creation and opening restoration would occur.** The implementation would consist of spot-treatment of sprouting stumps, with the amount required dependent on the number and type of stumps per acre. For example, it would be expected that the amount of stumps treated in the pine stands and open areas would be less than that of existing forested oak stands. How much would depend on the existing location and cover type characteristics. **The value that is reflected in Table 3.45 assumes that all of the stands would require approximately the same level of treatment and that the treatments would be necessary on every acre that is proposed for treatment.**

**Correction:**

5. **Herbicide Woody and Non-Woody Vegetation: Like the site preparation, this activity would apply to an estimated 10% of the total surface area within the savanna restoration/creation units under Alternatives 2 and 3.** The implementation would consist of spot-treatment of sprouting stumps, with the amount required dependent on the number and type of stumps per acre. For example, it would be expected that the amount of stumps treated in the pine stands and open areas would be less than that of existing forested oak stands. How much would depend on the existing location and cover type characteristics. **The value that is reflected in Table 3.45 assumes that all of the stands would require approximately the same level of treatment.**

**Page: 3-209, Table: 3.45 Non-timber Related Costs for the Savanna Ecosystem Restoration Project**

**Correction:** Clarification of Bullets 4 and 5 on pages 3-207 and 208 result in changes to acres and costs that are reflected in and noted in boldface type in Table 3.45. This table should replace the one in the EA.

Activity <sup>1</sup>	Estimated Measure		Estimated Amount per Acre	Total By Alternative	
	Alternative 2	Alternative 3		Alternative 2	Alternative 3
Prescribed Burning (acres)	4,111	4,111	\$150	\$616,650	\$616,650
Site Prep/Seeding of Native Plants (acres)	306	306	\$3,000	\$918,000	\$918,000
<b>Herbicide NNIS (acres) Bullet #4</b>	<b>42</b>	<b>42</b>	<b>\$400</b>	<b>\$16,400</b>	<b>\$16,400</b>
<b>Herbicide Woody and Nonwoody Vegetation (acres) Bullet #5</b>	<b>306</b>	<b>306</b>	<b>\$400</b>	<b>\$122,400</b>	<b>\$122,400</b>
Road Decommissioning or Gating (gates)	8	10	\$1,000	\$8,000	\$10,000
Design and Construction of the Non-motorized Trail System (miles)	12.2 miles new construction of single-track trail	0	\$1,000 per mile of new construction	\$12,200	0
	7.5 miles designated on closed forest roads.	0	\$200 per mile of designation	\$1,500	0
Parking Lot Development	1 Horse Parking Area	No Horse Parking Area	\$120,000 Total Cost	\$122,500	\$2,500
	1 Angler Parking Area	1 Angler Parking Area	\$2,500 Total Cost		
Campsite Development (\$1,000/site)	11	11	1,000	\$11,000	\$11,000

**Page C-1, Appendix C, paragraph 1**

**Text:** The use of herbicides as a vegetative control tool on the Huron-Manistee National Forests was halted in 1990 as part of a coordinated “Lakes States position”, in which no use **was be** permissible under Environmental Assessments.

**Correction:** The use of herbicides as a vegetative control tool on the Huron-Manistee National Forests was halted in 1990 as part of a coordinated “Lakes States position”, in which no use **was to be** permissible under Environmental Assessments.