

### (3.16) Heritage Resources

#### (3.16a) Existing Condition and Resource-Specific Information

##### Introduction

The glacial retreat (approximately 11,000 years before present (BP)) allowed for the utilization and settlement of Lower Michigan by mankind for the past 9,000 years. The Paleo-Indian cultures that occupied this area consisted of hunter and hunter-gatherer groups who followed the migrating animal herds through the open grasslands that became established with the glacial retreat. Hunter-gatherers are people whose subsistence strategy (food, shelter and supplies) was based on seasonal animal migration and wild plant collection for foodstuffs, clothing, cordage (twine and rope), and chert for stone tools. Warming trends allowed for changes in flora and fauna, and by 8,000BP the open grasslands began transitioning to pine forests that were utilized by Early and Middle Archaic cultures of hunter-gatherers (Branstner 1991). The environment developed into its modern biotic communities by 3,500BP (Fitting 1975). This led to a transition marked by the Late Archaic and Woodland cultures, who became more settled, establishing semi-permanent and permanent encampments, territories, and trading centers. These cultures started to mold their environment and by 2,000BP developed agriculture to supplement and then partially replace their dependence on seasonal foraging strategies.

European explorers began arriving in the Great Lakes Region by 400BP, marking the beginning of the Historic Period. These Europeans established trading centers and conducted fur trapping and trading with the indigenous peoples and introduced them to European goods and ideas. European settlement of Lower Michigan began in earnest by 150BP with the introduction of large scale logging operations and homesteading. By 20BP (1930A.D.), the forests of Michigan were depleted and a majority of homesteads were abandoned due to poor soils, fire danger, and the Great Depression. The Manistee National Forest was established during this time through the acquisition of these abandoned lands. The Civilian Conservation Corps (CCC) was created at the same time to employ the nation. The work accomplished by the CCC in Michigan included planting trees, controlling soil erosion, and repairing damaged riparian areas. In addition, the CCC constructed water control structures and assisted in the development of recreational facilities throughout the state.

Throughout this era of occupation and utilization, people left physical evidence of their presence. This evidence includes stone implements and waste material, pottery, structural remains, maintained structures, metal implements, and glass. To be considered historic, features and artifacts must be at least 50 years old or have a significant impact on the culture (such as the CCC). Otherwise, the term "archaeological resource" means any material remains of past human life or activities which are of archaeological interest, as determined under uniform regulations pursuant to the Archaeological Resources Protection Act of 1979. Such regulations containing such determination shall include, but not be limited to: pottery, basketry, bottles, weapons, weapon projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, human skeletal materials, or any portion or piece of any of the foregoing items. Non-fossilized and fossilized paleontological specimens, or any

portion or piece thereof, shall not be considered archaeological resources, unless found in an archaeological context. When identified through field survey, archeological "heritage" resources are documented and protected in accordance with the National Historic Preservation Act of 1966, Archeological Resource Protection Act of 1979 and various Forest Service directives.

### Existing Condition

The Project Area has a very high probability for the presence of both historic and prehistoric cultural resources. Portions of the North, South, and Main Branches of the White River and its tributaries (Mud Creek, Sand Creek, Knutson Creek and Knapp Lake) are all included within the Project Area boundaries. Associated with these water bodies are approximately 20 miles of river bluff, stream bank, and lake edge that occur entirely or within ¼ mile of the Project Area.

Prior to European contact, the White River (and its tributaries) and the adjacent areas were utilized by the indigenous peoples for residence, sustenance, travel, and trade. In addition, European settlers utilized this river and its tributaries for logging, travel, and trade. While there is the potential for extensive cultural resources along this waterway, only a small portion of it (<1 mile) has been recently intensively surveyed within the Project Area. There have been 26 previous surveys conducted within the Project Area. The combined surveys have resulted in the identification of 20 known cultural resources within the Project Area and 54 known cultural resources located within 1 mile of the Project Area.

Of the 20 known heritage resource sites, there is one prehistoric site and nineteen historic sites. The prehistoric site consists of a Woodland period encampment. The historic sites include: 1 historic grave, 1 logging camp, 1 artifact scatter, and 16 homesteads or farms. Eligibility of these 20 sites to the National Register of Historic Places (NRHP) consists of 19 sites that are currently Unevaluated, and 1 site listed as Not Eligible to the NRHP.

The 54 known cultural resources located within one mile include 35 historic sites and 19 prehistoric sites. Of the historic sites, there are 19 homesteads/farms, 4 schools, 3 artifact scatters, 2 sawmills, 2 historic areas/villages, 2 historic depressions, 1 logging camp, 1 lookout tower, and 1 cemetery/school. The prehistoric sites consist of 7 Woodland period camps/villages, 5 lithic concentrations, 2 pottery concentrations, 2 lithic/ceramic concentrations, 1 lithic scatter, 1 pottery scatter, and 1 Archaic/Woodland period camp. A total of 4 sites are listed as Eligible to the NRHP, 1 is listed as Not Eligible, and there are 49 sites listed as Unevaluated to the NRHP.

### Methods and Findings

Based on the proposed activities within the Project Area, the cultural resource area of impact is 4,805 acres. Of this area, there are 3,451 acres that were previously surveyed. The total amount of survey necessary to complete the project consisted of 1,384 acres. Survey coverage was accomplished utilizing a combination of Rule 4 and 5, pedestrian transect surveys. During this survey, 15 new sites were identified. There are 2 logging camps, 11 homesteads/farms and 2 historic depressions. In addition to the pedestrian transect survey, 1.2 acres of intensified survey (shovel testing) was conducted utilizing a 10m × 10m grid on 3 transects. There were 5

positive shovel test units, identifying 1 new prehistoric site. In addition to the recorded features, the survey crew located 5 cultural features that did not meet the criteria for a cultural resource site. These five cultural features included a dugout depression, a 1930's household dump, a 1950's household dump, and 2 can dumps from 1930-1985.

(3.16b) Direct, Indirect, and Cumulative Effects

Under Alternative 1, no management activities would occur within the Project Area as a result of this project. The potential impacts would be limited to those projects that are on-going within this area. These areas have been surveyed and conservation measures established to minimize any impacts on the cultural resources. In addition, some sites would remain vulnerable to being inadvertently impacted by recreational or administrative use. These impacts occur rarely and are difficult to predict, but are historically minor in severity and limited to the surface layers of the existing sites.

Under Alternatives 2 and 3, the potential impacts to the cultural resource sites consist of ground disturbance activities from prescribed fire line construction, mechanized tree harvesting, and mechanical equipment associated with the establishment and maintenance of savanna (i.e. stump removal, soil scarification, planting, etc.). Potential impact damage would range from minor (soil compaction and surface scraping) to severe (site obliteration). Under these alternatives, implementation would occur in several phases. Based on the extent of proposed ground disturbance, all of the areas proposed for savanna creation and KBB opening restoration would be subject to Rule 4 (30 meter or better surface) survey coverage prior to project implementation. Conservation measures have been established (see see the CR section of Appendix A) to ensure minimal impact to the cultural resource sites that have been or are identified.

In addition, there are fifteen locations within the Project Area that would require intensive survey (shovel testing) prior to the implementation of the activities proposed under Alternatives 2 and 3. These locations would be established as cultural resource reserve areas, in which ground disturbance prescriptions would be restricted or disallowed until the intensive survey is completed. Avoiding sites and cultural resource reserve areas would protect the sites and reserve areas from ground disturbing impacts and ensure that these areas would not be damaged or destroyed. Allowing prescribed burning over select cultural resource sites would allow for the sites to better blend into the newly established savanna and opening system. Prescribed burning would also help remove hazardous heavy fuel loads from within site boundaries, better preserving site integrity. If unknown cultural resources are discovered during project activities for the proposed project or if there is a change in the locations of treatments, then a professional Cultural Resources Specialist would be contacted. Project work would not be allowed to resume until the cultural resources have been documented and the sites are preserved from any potential impacts.

The implementation of these recommendations will remove all potentially adverse impacts to cultural resources for this project.

(3.17) Environmental Justice(3.17a) Existing Condition and Resource-Specific Information

Forest Service activities must be conducted in a discrimination-free atmosphere. Contract work that may be generated from this project would include specific clauses offering civil rights protection. The Forest Service would make a concerted effort to enforce these policies. Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups should bear disproportionately high and adverse human health or environmental effects resulting from Federal agency programs, policies, and activities. Environmental justice is also the identification of projects that are located near minority and low-income communities that have an adverse environmental impact. The purpose of the evaluation is to determine if a disproportional number of projects that have adverse environmental effects are located near minority and low-income communities. The following table highlights the differences in demographic trends between Michigan and Oceana and Muskegon Counties.

Table 3.46: Demographic Trends within the Area of Analysis

Factor	Measure	Oceana County	Muskegon County	Michigan
Population, 2009 estimate	Number	27,577	173,951	9,969,727
Population, April 1, 2000 to July 1, 2009	Percent Change	+2.6%	+2.2%	+0.3%
Persons 65 years old and over, 2008	Percent	15.2%	12.9%	12.8%
Female persons, 2008	Percent	49.8%	50.3%	50.8%
White persons, 2008	Percent	96.8%	83.3%	81.2%
Black persons, 2008	Percent	0.6%	13.4%	14.2%
American Indian and Alaska Native persons, 2008	Percent	1.1%	0.8%	0.6%
Asian, persons, 2008	Percent	0.3%	0.8%	2.4%
Persons of Hispanic or Latino Origin, 2008	Percent	14.9%	4.5%	4.1%
Persons reporting two or more races, 2008	Percent	1.2%	1.9%	1.5%
Foreign born persons, 2000	Percent	4.4%	1.9%	5.3%
Language other than English spoken at home, age +5, 2000	Percent	11.5%	4.4%	8.4%
High school graduates, age 25+, 2000	Percent	79.8%	83.1%	83.4%
Persons with a disability, age 5+, 2000	Number	5,338	34,257	1,711,231
Households, 2000	Number	9,778	63,330	3,785,661
Median household income, 2008	Amount	\$40,872	\$41,274	\$48,606
Persons below poverty level, 2008	Percent	18.8%	17.9%	14.4%

The values presented in this table were compiled by the U.S. Census Bureau and are accessible on-line at: <http://quickfacts.census.gov/qfd/states/260000.html>.

This information indicates that Oceana and Muskegon Counties do not qualify as environmental justice communities. None of the alternatives are expected to disproportionately impact human populations. There are no human health or safety factors associated with the alternatives that would affect low-income or minority populations in or around the Project Area.

Local tribes were scoped during the development of this project.

(3.17b) Area of Analysis

Environmental justice is a community measurement of a variety of socio-economic factors in comparison to a baseline of similar data. For this project, the data from Oceana and Muskegon counties was compared with the State of Michigan.

(3.17c) Effects Common to All Alternatives

No alternatives are expected to affect the civil rights of any landowners, or other individuals, near the Project Area. Any contracts would be issued in accordance with USDA regulations. There would be no discrimination based on race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. The laws, rules, and regulations governing nondiscrimination conduct in government employment would be adhered to.

The demographic information indicates none of the alternatives would affect environmental justice within Oceana or Muskegon Counties.

(3.18) **Irreversible and Irretrievable Commitment of Resources**

(3.18a) **Area of Analysis**

This section refers to specifically to the resources that occur within the Project Area boundary. This area serves as the area of analysis for the effects discussion.

(3.18b) **Effects Common to All Alternatives**

Irreversible commitments are decisions affecting non-renewable resources. Such commitments are considered irreversible, because the commitment would deteriorate the resource to the point that renewal could occur only over a long period of time or at great expense. Commitments are also irreversible if the resource has been destroyed or removed. The loss of soil due to erosion would be an irreversible commitment of resources. However, due to the incorporation of Best Management Practices, Forest Plan standards and guidelines, and the conservation measures specified in this document (Appendix A), it is not anticipated that there would be any significant soil loss under any alternative from soil erosion. The loss of heritage resource sites resulting from accidental damage or vandalism would also be an irreversible commitment of resources. Conservation measures would provide reasonable assurances there would be no irreversible loss of heritage resources.

Irretrievable commitments of natural resources result in the loss of productivity or use of resources due to management decisions made in the alternatives. These are opportunities foregone for the period of time that the resource is unavailable. Under Alternative 1, there would be no irretrievable commitment of resources. Under Alternatives 2 and 3, of the 2,542 acres of savanna creation activities, there would be approximately 2,422 acres that would be permanently converted from a forested condition to a non-forested condition (the remaining 120 acres is already classified as open area). These forested areas would be removed from the commercial timber base and there would be a shift in ecosystem productivity as these areas undergo the slow transition to savanna. The commitment is irretrievable, rather than irreversible, as reforestation efforts could be made in these same areas for future inclusion into the commercial timber base.