1.0 Chapter 1: Purpose of and Need for Action

1.1 Proposed Action

The Great Divide Ranger District of the Chequamegon-Nicolet National Forest proposes to implement various resource management projects to address both resource and public safety concerns that are consistent with existing management direction in the current Chequamegon Land and Resource Management Plan (referred to as the Forest Plan hereafter). The management activities would occur principally during 2002 through 2007.

The Cayuga Project area is located within T43N, R2W, Sections 6-7, 16-20, and 29; T43N, R3W, Sections 1-18, and 23-24; T43N, R4W, Sections 1-3, 10-23, and 27-33; T43N, R5W, Section 24; T44N, R3W, Sections 19-23 and 26-35 and T44N, R4W, Sections 23-27 and 34-36, Ashland County, Wisconsin (see maps in Appendix A). The project area is located within Forest Plan Management Prescriptions (hereafter referred to as Goal Areas) 1 and 2. There are four Management Areas (MA's) within Goal Area 1 in the Cayuga Analysis area. They include 181, 191, 221, and 231. Two MA's, including 192 and 172, are within Goal Area 2 in the Cayuga Analysis area. Management areas are contiguous parcels of land, while Management Prescriptions are the combination of goals, objectives, practices, and standards that define specific management direction for those parcels of land. (CNF Plan pp.1V-101-102 and CNF Plan map).

1.2 Need for Action

Through Congressional mandate, National Forest lands are managed to provide multiple benefits to all Americans in a sustainable way for present and future generations. The original management emphases were identified as watershed protection (Creative Act of 1891) and a continuous supply of wood products (Organic Act of 1897). Since then management for wildlife, fish, outdoor recreation, wilderness, heritage resources, grazing, wild and scenic rivers, and roads were added to the Forest Service mission. General direction for how the western side of the Chequamegon-Nicolet National Forest is to be managed is found in the 1986 Chequamegon Land and Resource Management Plan (Forest Plan). The Forest Plan divides the Chequamegon National Forest into different Management Areas (MAs) where each MA has particular objectives or a desired future condition (DFC). The DFC for Goal Areas 1 and 2 can be found in the Forest Plan, pages IV-106 through IV-126.

The Cayuga Project Area is located within Goal Area 1 (Management Areas 181, 191, 221, and 231) and Goal Area 2 (Management Areas 192, 172) as identified in the 1986 Chequamegon National Forest Land and Resource Management Plan (Forest Plan). The proposed actions in this analysis respond to the goals and objectives outlined in the Forest Plan, and help move the project area toward desired conditions described in that plan (Forest Plan, pages IV-1 through IV-126). The effects of implementation of these and alternative sets of actions will be disclosed in the Cayuga Project Final Environmental Impact Statement (FEIS) in Chapter 4.

1.2.1 Forest Age and Composition and Silvicultural Needs (Need #1)

There is a need to move forests in the project area closer to desired future conditions as defined in the Forest Plan:

- In Goal Area 1 we need to increase the amount of young aspen to meet the Plan goal of managing 30 % of aspen in the 0-20 year age class (Forest Plan, pp. IV-114).
- In Goal Area 2 we need more uneven-aged hardwood and less even-aged hardwood forest to meet Plan multiple resource objectives (Forest Plan, pp. IV-119)
- In both Goal Areas 1 and 2, there is a need to:
- Thin overly dense stands to enhance health, growth, and vigor (Forest Plan, pp IV 44-61).
- Use appropriate harvest methods to best meet resource objectives (e.g., visual quality, wildlife management.) (Forest Plan, pp. IV 38-44)

1.2.2 Management of the McCarthy Lake and Cedars Research Natural Area (Need #2)

Monitoring of the McCarthy Lake and Cedars Research Natural Area (RNA) has shown that white-tailed deer are browsing cedar and preventing its regeneration. Approximately 1/2 mile outside the boundary of the RNA there are 378 acres of mature aspen. Conversion of some of these aspen stands to longer-lived species through shelterwood methods is needed to decrease the browse value to deer and reduce browsing of cedar within the RNA.

A spur off of Forest Service road (FR) 1333 accesses the RNA in the southeastern side. A review of yearly monitoring at McCarthy Lakes and Cedars Research Natural Area (RNA) indicates increasing hunting activity. This has resulted in ground disturbance and user-developed trails. Closure of this portion (approximately ¼ to ½ mile) of the spur is needed to protect the unique values and resources within the RNA (Forest Plan, p. IV-93; FSM 4063.3).

1.2.3 Control of Noxious weeds (Need #3)

There are three patches of leafy spurge, that cumulatively total less than 1 acre in size, located within the Cayuga Project Area. Leafy spurge is one of the species listed by the State of Wisconsin as a noxious plant to be controlled whenever it occurs (Municipal Law 66.96, Noxious weeds). Control of small patches of leafy spurge is needed to meet the intent of the law.

1.2.4 Fisheries and Wildlife Habitat Maintenance and Improvement (Need #4)

The quality of the trout habitat of McCarthy Creek and Brush Creek (Class II trout streams) within the Cayuga Project Area is degraded from long-term beaver activity. Approximately 354 acres of aspen exist within 300 feet of these streams. The abundance of aspen along these streams encourages beaver activity. This has resulted in flooding, the loss of streamside forest cover, increased siltation, increased stream water temperatures, and channel modification. There is a need to reduce aspen at these sites to protect water quality and coldwater fisheries habitat (Forest Plan, pp. IV-67 and 79). In addition, there is a need to conduct in stream restoration projects to reverse the impacts of past beaver activity (Forest Plan, pp. IV-69 and IV-79).

The DFC described in the Forest Plan suggests that 3-5% of Goal Area 1 and 4-6% in Goal Area 2 be managed as permanent upland openings. The existing condition within the project area is near or slightly less than 1%. Through natural succession, some openings are reverting to forest cover due to the encroachment of woody vegetation. The existing acreage will continue to decline over time if opening restoration does not occur. Therefore, there is a need to restore these openings to a non-forested condition, to retain the value of the openings (Forest Plan, pp. IV-78).

1.2.5 Watershed Restoration (Need #5)

There are seven sites identified within the Cayuga Project Area where erosion and sedimentation are a concern. The culverts at these road crossings are deteriorated or undersized. Erosion of the road alongside the culverts (piping), at the embankments, or at the surface results in stream sedimentation. The undersized culverts could fail during spring runoff or during an intense storm with heavy rains, resulting in tons of sediment washing into the streams. There is a need to improve road surfaces, control ditch and embankment erosion, and replace culverts that contribute to sedimentation or block fish passage.

1.2.6 Public Safety at Recreational Facilities and Trails (Need #6)

There is a 25-acre stand of mixed red and mature jack pine within the Day Lake Campground that has created a safety concern. There is a need to thin the stand to remove the mature jack pine and release the red pine. Safety concerns would be addressed by reducing the risk of aging trees breaking and injuring campers within the Jack Pine and Heron Circle loops.

In addition there are approximately 111 acres of red pine within the campground in the Paper Birch, Red Pine, Blueberry and Musky Bay loops that should be thinned to help improve the quality of recreational experience. There is a need to thin this 111 acres of red pine to allow more air movement and to decrease the shading to let more sunlight filter through the forest canopy to help stimulate under story vegetation for screening between the sites.

The Clam Lake community currently has limited parking for snowmobilers who use the area trails, and who consequently park their vehicles and trailers in the community center where fire engines and rescue vehicles are housed. The parked vehicles and trailers block the garage so that emergency personnel and vehicles are unable to respond to an incident. This situation has created public health and safety concerns for community members due to the lack of trail parking. There is a need to cooperate with local interests and provide adequate and safe parking that will not block egress of emergency vehicles.

Snowmobile Trail 8 follows a portion of Forest Road 1296, cooperatively maintained by the local township, east of County Highway GG north of Clam Lake. A local landowner is constructing a year-round residence and will be plowing the road for access during the winter. There is need to construct a trail to separate recreational motorized use from highway vehicle use (Forest Plan, pp. IV-27).

1.2.7 Forest Roads (Need #7)

There are about 141 miles of road (system and non-system roads that are open and closed) within the Cayuga Project Area. These roads consist of Traffic Service Level (TSL) A roads (double-lane blacktop, i.e., State Highway 13, County Highway GG north), TSL B roads (double-lane gravel, i.e., Forest Road 184), TSL C roads (single-lane gravel roads that allow cautiously driven two-wheel drive passenger cars, i.e., Forest Road 182), and TSL D roads (single- lane, two-track logging roads that generally require four-wheel drive).

Some of the forested areas (stands) proposed for treatment do not have roads to provide access to conduct management activities. There is a need for short-term temporary road construction to access stands to harvest and haul timber volume. There is also a need to conduct maintenance of existing Forest Service roads to provide adequate access for these management activities.

Some road locations are no longer required for meeting other resource management objectives. Therefore, there is a need to decommission roads that are no longer needed on the landscape to protect resources within the project area.

1.3 Objectives of The Action

The following objectives were developed from focusing on the site-specific needs identified in Section 1.2, the desired conditions of the Forest Plan, laws, and other direction. References to Forest Plan goals are given where appropriate.

1.3.1 Objective #1: Maintain Aspen Component and Age Class Distribution (Forest Plan, pp. IV-42, 109, 114, and 119). Indicator: The alternatives will compare the existing percentage of aspen in various age classes to the desired future conditions described in the Forest Plan.

1.3.2 Objective #2: In Goal Area 2, Achieve a Desired Balance of Even and Uneven-aged Hardwood Stands. (Forest Plan, p. IV-119). Indicator: Percentage of even-aged and uneven-aged stands within Goal Area 2.

1.3.3 Objective #3: Manage A Continuous Canopy of Hardwood To Meet Wildlife Objectives Where Suitable (Forest Plan, pp. IV-124). Indicator 1: Acres of continuous, un-fragmented mature interior hardwood forest. Indicator 2: Acres of aspen converted to hardwood type to promote continuous, interior forest conditions.

1.3.4 Objective #4: Convert Stands To Promote The Development Of Long-lived Species Where Visual Quality Objectives (VQO's) Are Important (Forest Plan, pp. IV-29-IV-38). Indicator: Acres converted to meet VQO's.

1.3.5 Objective #5: Restore and Maintain Permanent Openings (Forest Plan, pp. IV-77 and IV-78). Indicator: Acres of upland openings managed for the long-term goal of grass/forbs/shrub cover type (This includes any acres of new construction, together with acres of existing openings undergoing maintenance activity.)

1.3.6 Objective #6: Restore The Vegetative Composition Of Transition Areas Between Upland and Lowland From Aspen Back To Long-Lived Conifer Types Through A Shelterwood Harvest Method and Under-planting (Forest Plan, pp. IV-22, 78, 85-87) Indicator: Acres of conversion

1.3.7 Objective #7: Provide Safe and Quality Recreation Experiences And Facilities (Forest Plan, pp. IV-27). Indicator 1: Acres within Day Lake Campground in hazardous condition. Indicator 2: Acres managed for large trees to improve site conditions within Day Lake Campground.

1.3.8 Objective #8: Modify Forest Management Practices In Adjacent Timber Types To Reduce Negative Impacts On The Conifer Swamp And Bog Within The McCarthy Lake and Cedars Research Natural Area (McCarthy Lake and Cedars RNA Establishment Record, pp.8 & 9). Indicator: Acres of conversion from aspen.

1.3.9 Objective #9: Close Motorized Access To Research Natural Areas That Do Not Contribute To Objectives Or Protection Of The Area (Forest Plan, pp. IV-93). Indicator: Motorized access points to RNA closed to public.

1.3.10 Objective #10: Control Leafy Spurge At Known Sites (Municipal Law 66.96, Noxious weeds). Indicator: Number of acres of leafy spurge treated within the project area.

1.3.11 Objective #11: Restore Streams To Reduce Effect Due To Beaver Activities (Forest Plan, pp. IV-79). Indicator: Miles of in-stream habitat improvement.

1.3.12 Objective #12: Protect, Restore, And Improve The Quality of Watersheds (Forest Plan, pp. IV-69). Indicator 1: Number of road/stream crossings improved. Indicator 2: Number of road/stream crossings where fish passage restored. Indicator 3: Acres of floodplain or wetland restored.

1.3.13 Objective #13: Manage For Long-Lived Species Adjacent To Trout Streams To Reduce The Loss Of Cold Water Habitat (Forest Plan, pp. IV-79). Indicator: Acres of aspen type converted to long-lived species within 300 feet of Brush and McCarthy Creeks.

1.3.14 Objective #14: Design Trails And Trailheads That Minimize User Conflicts While Protecting Resources (Forest Plan, pp. IV-27). Indicator: Miles of trail located on public roads within the project area.

1.3.15 Objective #15: Identify Roads For Decommissioning That Are No Longer Needed For Resource Management Within Goal Areas 1 and 2 (Forest Plan, pp. IV-116 and 126). Indicator: Miles of decommissioned roads within each Goal Area.

1.3.16 Objective #16: Construct And Maintain Temporary Roads To Provide Access For Resource Management Activities (Forest Plan, pp. IV-97). Indicator: Miles of temporary road construction.

1.4 Scope of This Environmental Impact Statement

1.4.1 History of The Planning and Scoping Process

The Notice of Intent (NOI) was published in the Federal Register on April 23, 2001. The NOI asked for public comment on the proposal from April 23, 2001 until June 4, 2001. In addition, the Cayuga ID team sent out 465 project information packets to interested individuals, local, state, and county agencies, tribal governments, Great Lakes Indian Fish and Wildlife Commission (GLIFWC), and landowners within and adjacent to the project area. A full list of individuals, agencies, tribal governments, organizations, and landowners consulted can be found in the scoping section of the Cayuga Project File. Appendix E of this EIS lists the Agencies and persons were provided copies.

A total of 72 responses were received by the closing date for public comment. Another 35 responses were received after the closing date. The Cayuga ID team utilized all these responses, along with internal scoping, to identify the twelve issues and sixteen objectives for the proposed projects.

1.4.2 Relevant Planning Documents

The following two documents directly influence the scope of this EIS:

1986 Chequamegon Land and Resource Management Plan (Forest Plan)

Chequamegon Land and Resource Management Plan Final Environment Impact Statement (FEIS)

This EIS has been tiered to the Forest Plan and FEIS, which contain directions for management of Goal Areas 1 and 2, portions of which are located within the Cayuga Project Area. The proposed project actions are consistent with these two documents, while taking new information and science into consideration.

1.4.3 Issues Studied in Detail

The Forest Service separated the issues into two groups: **Significant issues** were defined as those directly or indirectly caused by implementing the proposed action. **Non-significant issues** were identified as those: 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council on Environmental Quality (CEQ) NEPA regulations explain this delineation in Sec. 1501.7: "…identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)…." A list of non-significant issues and reasons regarding their categorization as non-significant may be found in the Issues section of the Project Record.

The Forest Service identified the following significant issues during scoping:

1.4.3.1 Issue 1-- Early Successional Management:

How will the proposed management affect the amount and proportion of early successional habitat in the affected area?

- Effects on deer herd size
- Effects on other early successional wildlife species
- Effects on understory browsing related to deer herd size
- Loss of aspen type by conversion to other types

Indicator 1: Amount of aspen cover type in Goal Area 1

Indicator 2: Amount of aspen cover type in Goal Area 2

1.4.3.2 Issue 2--Wildlife Openings:

What are the effects of creating and maintaining permanent openings?

- Impacts on neotropical migratory birds
- Impacts on Forest Management Indicator Species

Indicator 1: Percentage of wildlife openings in project area

Indicator 2: Acres of openings maintained

Indicator 3: Acres of openings constructed

1.4.3.3 Issue 3--Vegetation Composition:

How would the proposed management activities affect biodiversity?

- Landscape pattern is the relative amount and distribution of different communities.
- Landscape structure is composed of the balance of age classes and the age structure within stands (even vs. uneven-aged).
- Landscape function is the variety of habitats provided.

Indicator 1: Acres of aspen conversion to conifers or northern hardwoods

Indicator 2: Proportion of major upland forest types in Goal Area 1, (aspen, conifer, northern hardwoods)

Indicator 3: Proportion of major upland forest types in Goal Area 2, (aspen, conifer, northern hardwoods)

Management Requirement: Leave a number of snags and down trees acting as habitat for cavity nesters and other wildlife.

1.4.3.4 Issue 4--Fragmentation:

What effect will the management activities have on migratory species from edge effects and fragmentation due to a variety of management activities?

Indicator: The amount of change of interior forest acres within the Cayuga Project Area.

1.4.3.5 Issue 5--Roads:

How will the proposed management activities affect forest access and recreational opportunities on National Forest lands?

- Access
- Impacts to Threatened, Endangered, and Sensitive (TES) species

Indicator 1: Miles of roads available for public and/or timber-hauling access

Management Requirement: Mitigation measures were designed to minimize impacts to TES species (see description of mitigation measures in Appendix C).

1.4.3.6 Issue 6--Water Quality:

What effect will the management prescriptions have on water quality?

- Culvert replacement with road reshaping and/or surfacing
- Fish habitat and passage
- Timber management activities adjacent to streams

Indicator 1: Quantitative estimate of cumulative sediment yield to affected streams

Indicator 2: Miles of in-stream habitat improvement

Indicator 3: Number of sites culverts would be replaced

Indicator 4: Number of sites culverts would be removed and not replaced

Management Requirement: Mitigation measures have been designed to minimize adverse affects to water quality (see Section 2.4 and Appendix C).

1.4.3.7 Issue 7—Noxious weeds:

How will the proposed management activities affect noxious weeds?

- Effect of releasing one exotic to control another
- Effect of soil disturbance on spread of noxious weeds

Indicator 1: Number of flea beetle release sites

Management Requirement: Measure leafy spurge density and flea beetle population at release site annually.

1.4.3.8 Issue 8--Soil Quality:

What impacts will the proposed management activities have on soil quality?

Indicator 1: acres with potential for compaction and rutting before application of project design features and mitigation measures

Indicator 2: acres with potential for erosion and displacement before application of project design features and mitigation measures

Management Requirement: Apply mitigation measures to protect the soil resource

1.4.3.9 Issue 9--Floodplains and Wetlands:

What impacts will the proposed management activities have on floodplains and wetlands?

Indicator 1: Number of sites where floodplain is restored

Management Requirement: Apply mitigation measures to protect floodplains and wetlands

1.4.3.10 Issue 10-Visual Quality:

How will the proposed actions enhance or improve visual quality along County Highway GG (north) and the shoreline of Day Lake and Spillerberg Lake?

Indicator: Acres treated to improve long-term visual quality objectives (VQO's).

Management Requirement: Meet VQO's for areas designated as being Sensitivity Levels 1 and 2.

1.4.3.11 Issue 11- Recreation Facility and Trails:

What impacts will the proposed management of these recreational opportunities have on users?

- Relocating section of Snowmobile Trail off of Forest Road 1296
- Effect of conducting thinning of jack pine and red pine on campground users

Indicator 1: Miles of trail located on Forest Road 1296

Indicator 2: Number of sites within management activity areas

Management Requirement: Apply mitigation measures for timing of thinning in campground.

1.4.3.12 Issue 12- Social and Economic:

What will the benefits be to local communities from the proposed management activities?

- Percentage of receipts from timber sales returned to Ashland County
- Employment opportunities generated by opportunities on National Forest land

Indicator 1: Amount of volume generated from timber sales

Indicator 2: Estimated timber sale receipts returned to the county

1.4.4 Issues Eliminated From Further Study

The Cayuga ID Team eliminated the following issues (resources) from detailed study, as directed by CEQ Regulation §1500.1(b), 1500.2(b) and other sections, because the proposed project would cause only inconsequential or no effects to occur to these resources. No further information on these eliminated issues is required to appear in this EIS.

1.4.4.1 Forest Plan Revision

Five major EIS's are on going to implement the 1986 Chequamegon National Forest Plan. This Plan is currently undergoing revision and a variety of revision alternatives have been developed.

There is a concern that implementing proposed actions now could limit the range of options for decision-making and alternative choices to revising the Forest Plan.

In the context of the entire Forest Plan revision, the Interdisciplinary Team analysis found goal trade-offs from Cayuga actions to be very small and the cumulative tradeoffs at the overall Forest Plan level to be negligible. The scope and scale of vegetation treatments and road access management is well within all of the goals, objectives, standards, and guidelines found in the range of all alternatives considered for Revision. Additionally, the Cayuga action alternatives were developed by considering the new information and conditions used in developing the Plan Revision alternatives. These small trade-offs will have no impact on limiting the range of options for decision-making and alternative choices to revising the Forest Plan. Therefore, this issue is not relevant to the proposed action. No mitigation or design changes are needed, nor do additional alternatives need to be considered. Since there will be no related impacts to the revision process, there are none to disclose, and this issue is dismissed from further discussion in this EIS. Detailed rationale for this dismissal is found in the Cayuga Project Record, Forest Plan Revision Compatibility Analysis.

1.4.4.2 Prime Farm, Timber, and Rangelands

There are no prime farmlands or rangelands on National Forest land within the project area. There are small acreages of private agricultural land on the eastern border of the project area near the community of Cayuga. There are also scattered parcels of private forested timberland scattered throughout the project area ranging in size from a few acres to thousand-acre parcels. (The maps in Appendix A show ownership patterns).

1.4.4.3 Minerals

There is potential for mineral development for iron, quarry stone (building), and sulfide minerals. There are no mineral leases or special use permits being administered within the project area. Requests for mineral special use permits will be evaluated on a case-by-case basis.

1.4.4.4 Wild and Scenic Rivers

There are no wild and scenic river corridors that exist within the Cayuga Project Area. In addition, there are no congressionally designated study rivers within the project area.

1.4.4.5 Special Use Authorizations

There are special use permits and easements for various uses of National Forest lands within the Cayuga Project Area. This analysis will not be evaluating any special use authorization requests. These requests will be evaluated on an individual basis.

1.4.4.6 Forest Plan Revision Inventoried Potential Wilderness Area (IPWA)

During the revision of the Chequamegon-Nicolet National Forest Plan, areas that have potential to become congressionally designated wilderness areas are being evaluated.

Within the Cayuga Project Area, the Iron River Forest Plan Revision Inventoried Potential Wilderness Area (IPWA) has been identified. There are approximately 8,503 acres within the Iron River Forest Plan Revision IPWA. This area is not included in the project area analysis of direct or indirect effects as no activities are proposed within it. As stated in the original "Purpose and Need" sent out for public review, "no decisions will be made that change the undeveloped character of this area until the evaluation under the Forest Plan Revision process is completed in the reasonably foreseeable future." This area, however, is included in the analysis of the cumulative effects.

1.4.4.7 Ecological Reference Areas

There are two Ecological Reference Areas (ERA) within the Cayuga Project Area. The McCarthy Lakes and Cedar Research Natural Area (RNA) is located within one of the ERA's in the project area. A portion of the other ERA is within the Iron River IPWA. No management activities are proposed within either the ERA's or IPWA. However, cumulative effects of management activities conducted adjacent to these areas are included in the analysis of cumulative effects in Section 4.2.1.

1.4.4.8 Population Viability Analysis

Viability of animal populations is best considered at a larger scale than at the project level. Currently the issue of population viability is being analyzed as a part of the Forest Plan Revision process. A Biological Evaluation (BE) has been prepared to analyze the effects on wildlife populations that are present within the project area. (The BE is attached as Appendix D).

1.4.4.9 Heritage Resources

The Forest Service is charged with the responsibility of managing and protecting archaeological and historic sites and districts, i.e., places relating to our cultural heritage referred to as heritage resources. Heritage resources recorded within the Great Divide Ranger District include Native American settlements and camps, some of which are thousands of years in age. They also include house places, camps and other landscape features related to European American settlement. The Forest Plan provides heritage resource management direction on pages IV-28 and 29. Essentially, the direction states that all areas must be surveyed for heritage resources prior to any activity, which may disturb significant or potentially significant heritage resources. Ground-disturbing activities such as road construction, closures, road decommissioning, trail construction,

wildlife and fish habitat improvement activities, and timber harvest activities have been reviewed for heritage resource survey needs. The entire Cayuga project area has been surveyed, but sites identified have not yet been evaluated for their historical or archaeological significance.

For this reason, all reported heritage resources would be excluded from proposed project activity areas so they will not be directly or indirectly affected. Surveys were conducted in consultation with the Forest Archaeologist and the State Historic Preservation Officer (SHPO). Project prescription, design, and mitigation measures H1-H5, as described in Appendix C would serve to prevent disturbance of unevaluated heritage resource sites. These measures would be included during timber sale design and layout, included in the timber sale contract, and ensured during implementation by the Timber Sale Administrator. Specific locations for implementation of these measures were not listed, to protect the sites. In the event that previously unrecorded heritage resources are discovered prior to or during project implementation, all surface disturbing activity within and near the discovery would cease. The Forest's professional heritage staff would assess the discovery, and any treatment changes identified as needed (in consultation with the SHPO) to protect the site, would be considered and assessed at the time of discovery.

Over a ten year period (1991-2000) the Chequamegon-Nicolet National Forest's Heritage Resource staff have monitored 400 recorded heritage resource sites located on National Forest lands. Many of these sites were monitored because of their proximity to land and resource management activities that could potentially render adverse effects. Results of these monitoring activities showed that avoidance of sites was over 99% effective. (Mark Bruhy, Forest Archaeologist, 03/30/2001 message).

Documentation regarding heritage resources, and heritage resource surveys, is on file at the Glidden Office, along with the Division of Historic Preservation, State Historical Society of Wisconsin. The Forest Service has consulted with the State Historic Preservation Officer (SHPO) regarding this project, in accord with 36 CFR 800.4, and SHPO has concurred that the Forest Service's proposal will not directly or indirectly affect cultural resources within or directly adjacent to the project's area of potential effect. It is for these reasons, that this issue was not studied further in this environmental analysis document.

1.5 Decisions To Be Made

The responsible official for this proposal will be the Great Divide District Ranger of the Chequamegon-Nicolet National Forest. The decision to be made is limited to:

- What vegetation management activities would be implemented in the project area and where they would occur
- What roads to build, maintain or decommission and how access on them would be managed
- Whether to implement the fisheries and watershed restoration activities
- What mitigation measures or monitoring measures to implement to meet the Forest Plan standards and guidelines while minimizing resource damage
- Whether or not to implement the relocation of a portion of Snowmobile Trail 8 and construct a trail head to address public safety
- The District Ranger must also determine if the selected alternative would or would not be a major federal action, significantly affecting the quality of the human environment. If he determines that it would not significantly affect the quality of the human environment, he can then prepare a Record of Decision (ROD) and the project can proceed.

1.6 Applicable Regulatory Requirements, Required Coordination, Licenses, and Permits

NEPA at 40 CFR 1502.25(a) directs "to the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with …other environmental review laws and executive orders." The Cayuga Project must comply with the following Federal and Wisconsin State environmental laws, regulations, and coordination activities for it to proceed. The following regulations and policies are relevant to activities proposed in the Cayuga project:

1.6.1 National Forest Management Act (36 CFR 219.27)

This Act establishes guidelines for National Forest management. This project has been designed in conjunction with these guidelines, as explained below:

- Timber stands identified for harvest are suitable for timber production.
- The project would improve water quality.
- This project would meet the Forest Plan recommendations for fisheries habitat improvement.
- This project would meet the Forest Plan objectives for road densities.

- This project would prevent or seriously reduce the potential damage to stands of timber due to infestation by disease or insects.
- This project would further protect unique qualities of the McCarthy Lake and Cedar Research Natural Area.

1.6.2 Endangered Species Act of 1973, as amended 1978, 1979, 1982, and 1988 (16 U.S.C. 1531)

This Act provides direction to the Forest Service to establish objectives for habitat management and recovery through the Forest Plan for the conservation and protection of endangered and threatened species. This project is consistent with these guidelines as explained below:

- The project area would be reviewed to identify, manage, and protect essential and critical habitats to meet legal requirements and recovery objectives for Federally listed species.
- A Biological Assessment (BA) for this project would be completed to determine potential for effects on listed species, and submitted to the US Fish and Wildlife Service for review. Formal consultation would be initiated if a may affect determination were made for any listed species.
- The project analysis would identify and prescribe mitigation measures to prevent adverse modification or destruction of critical habitat and other essential habitats.

1.6.3 Executive Order 12898 (Environmental Justice)

The Environmental Justice Executive Order 12898, released by the White House in February 1994, places attention on any adverse human health and environmental effects of agency actions that may disproportionately impact minority and low-income populations. The Order simultaneously directs Federal agencies to avoid making decisions that discriminate against these communities. The disclosure of EO 12898 considerations are found in the project file (Environmental Justice section).

1.6.4 National Historic Preservation Act (16 U.S.C. 470)

This Act provides direction for Federal agencies to establish a program for preservation of historic properties. In compliance with this act, potential impacts to sites eligible for the National Register of Hitoric Places were considered in this analysis. Consultation with local tribal governments pertaining to historical and culturally significant sites has also been conducted. See Section 1.4.4.9.

1.6.5 Section 404 of the Clean Water Act (CWA)

The Federal Water Pollution Control Act of 1972, as amended, is commonly referred to as the Clean Water Act. This was enacted to restore and maintain the chemical, physical, and biological integrity of the Nations waters. Under Section 404, the U.S. Army Corps of Engineers has been given responsibility to regulate the discharge of dredged and fill material into waters of the United States, including wetlands (33 CFR 323.3). The State of Wisconsin also exercises control over projects impacting wetlands under Water Quality Standards for Wetlands, Chapter NR 103. There is a general exemption for silvicultural activities including harvesting for the production of forest products or upland soil and water conservation practices. Wisconsin's Forestry Best Management Practices for Water Quality are still required. Appropriate Federal and State Water Regulatory and Army Corps permits, and Trans 207 Agreements would be obtained prior to implementation of projects involving navigable waters, floodplains, or wetlands.

1.6.6 Chapter 30 (Wisconsin state statute) Permit

According to Wisconsin statute, a permit is required for the construction of a ford or installation of a culvert or bridge across a navigable perennial or intermittent stream. The watershed improvement project leader will obtain a permit for replacement of culverts before implementing any in-stream work.