

Chapter VII

Glossary

Chapter VII defines some of the terms used in the Final EIS and the accompanying Forest Plan.

A

activity	A measure, course of action, or treatment that is undertaken to directly or indirectly produce, enhance, or maintain forest and rangeland outputs or achieve administrative or environmental quality objectives.
activity fuels	Fuels that have been directly generated or altered by management action.
administrative purposes	For use by the Forest Service as a part of scheduled management activities (e.g., road building).
age class	One of the intervals, commonly 10 years, into which the age range of stands of trees is divided for classification and use.
age class distribution	The location and/or proportionate representation of different age classes in a forest or area of the forest.
air quality class	<p>A designation for the level of protection that is given geographic areas of the state. This classification denotes deterioration of air quality which would be regarded as significant and consequently not allowed. Class I allows the least deterioration; example - Isle Royale National Park and Seney National Wildlife Refuge. Class II is much less restrictive than Class I and includes most of Michigan. Class III is least restrictive.</p> <p>The State of Michigan has the primary responsibility for assignment of lands within the state to air quality classes.</p> <p>The Forest Service has responsibility to consult with the state on all matters concerning air resource consideration, including recommendation for change of National Forest area to Class I.</p> <p>All of the Ottawa National Forest is currently within air quality class II. There is no recommendation for change in class designation in the Forest Plan.</p>
all-aged	See "uneven-aged management."
allowable sale quantity	The quantity of timber that may be sold from the area of suitable land covered by the Forest Plan for a time period specified by the Plan. This quantity is usually expressed on an annual basis as the average annual allowable sale quantity. In Forest planning, the allowable sale quantity is applied to each decade over the planning horizon and includes only chargeable volume; fuelwood or other nonindustrial wood is not included in the allowable sale quantity.
alluvial	Pertaining to material that is transported and deposited by running water.
alternative	One of the several policies, plans, or projects proposed for decision-making.

amenity value Typically used in land-use planning to describe the resource properties for which market values (or proxy values) are not or cannot be established.

anadromous fish Fish that ascend rivers from the sea in certain seasons for breeding and spawning; for example, salmon, steelhead, and shad.

analysis area One or more sites combined for the purpose of analysis in formulating alternatives and estimating various impacts and effects.

analysis of management situation (AMS) A determination of the ability of the planning area to supply goods and services in response to public demand for those goods and services.

appropriated funds Monies authorized by an act of Congress which permit Federal agencies to incur obligations and to make payments out of the U.S. Treasury for specified purposes.

aquatic Pertaining to standing and running water in streams, rivers, lakes, and reservoirs.

aquatic ecosystem The stream channel, lake bed, water itself, and biotic communities that occur therein.

arterial roads Roads that provide service to large land areas and usually connect with public highways or other Forest arterial roads to form an integrated network of primary travel routes. Their location and standard are often determined by demand for maximum mobility and travel efficiency rather than specific resource management service. They are usually developed and operated for long-term land and resource management purposes and constant service.

artificial reforestation The practice of reforestation of an area of land through planting of trees or seeding the area with tree seed.

B

background (visual distance zone) The distant part of a landscape; surroundings, especially those behind something and providing harmony and contrast; area located from 3 to 5 miles to infinity from the viewer.

basal area Measurement of how much of a site is occupied by tree stems. It is determined by estimating the cross-section area of all the trees in an area at breast height (4.5 feet).

base sale schedule A schedule in which the planned sale and harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade of the planning period and this planned sale and harvest for any decade is not larger than the long-term sustained-yield capacity. (This definition expresses the principle of nondeclining flow.)

basic land unit (BLU)	A relatively uniform area of land capable of some particular level of production and use; almost always occurs at several places on the Forest. BLUs are simplified versions of Landtype Associations (LTAs) derived by grouping similar LTAs and by adjusting boundaries to match compartment boundaries. Delineators of FORPLAN level 1 analysis areas.
benchmarks	Reference points that define the bounds within which feasible management alternatives can be developed. Benchmarks may be defined by resource outputs or economic measures.
benefit (value)	Inclusive term to quantify the results of a proposed activity, project, or program expressed in monetary or nonmonetary terms.
benefit/cost ratio	A measure of economic efficiency. The total discounted benefits of an activity divided by the total discounted cost.
big game	Large animals that are hunted, such as white-tailed deer.
biological potential	The maximum production of a selected organism that can be obtained under optimum management.
biomass	As used in this EIS, the total weight or quantity of a tree or trees; normally expressed in dry weight tons per acre per year.
board foot	An amount of wood equivalent to a piece 12 inches by 12 inches by 1 inch.
broadcast seeding	The scattering of seed as evenly as possible over an area to be revegetated.
brush raking	The uprooting and piling of brush with a tractor or bulldozer to reduce competition between the brush and the favored species.
buffer-filter strip	A designated land or water area, along the perimeter of some land use, whose own use is regulated so as to restrict, absorb, or otherwise preclude or control unwanted development or other intrusions into areas beyond the buffer.
burning prescription	Written direction stipulating fire environment conditions, techniques, and administrative constraints necessary to achieve specified resource management objectives by use of fire on a given area of land.

C

C	Unit of measure equal to 100.
canopy	The more or less continuous cover of branches and foliage formed collectively by the crown of adjacent trees and other woody growth.

capability	The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at given levels of management intensity. Capability depends upon current site conditions such as climate, slope, landform, soils and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease.
capability area	As used in this EIS, the Landtype Association is the capability area for Forest-level planning.
capital investment costs	A cost that increases the amount of natural or developed resources (assets) needed to maintain or increase the flow of outputs in the future. Capital investment benefits are normally realized over a long period of time.
categorical exclusion	A decision to exclude an action from the need to document the environmental analysis in an environmental assessment or environmental impact statement. It is based on the responsible official finding that the action will have no significant effect on the human environment, individually or cumulatively. If there is any uncertainty regarding effects, appropriate documentation of the analysis is required.
CFR	See "Code of Federal Regulations."
character type	Large physiographic area of land that has common characteristics of land forms, rock formations, water forms, and vegetative patterns.
clearcutting	A regeneration method used to establish even-aged stands whereby all commercial size trees are removed in one harvest.
coarse-textured	A description of soil that includes both sand and loamy sand U.S. Department of Agriculture textural classes.
Code of Federal Regulations	Regulations generated by an agency to implement an act of Congress. For example, 36 CFR 219 contains implementing regulations for the Renewable Resources Planning Act and the National Forest Management Act.
collector road	A road that serves smaller land areas than a Forest arterial road and is usually connected to a Forest arterial or public highway. Collects traffic from Forest local roads and/or terminal facilities. The location and standard are influenced by both long-term multiresource service needs, as well as travel efficiency. May be operated by either constant or intermittent service depending on land use and resource management objectives for the area served by the facility.
common (variety class B)	Refers to prevalent, usual, or widespread landscape variety within a character type. It also refers to ordinary or undistinguished visual variety.
common minerals	See "common variety mineral materials."

common-use pit	Generally, a broad geographic area from which nonexclusive deposits of mineral materials available on the surface can be obtained.
common variety minerals	A collective term used to describe common varieties of sand, gravel, stone, pumice, pumicite, cinders, clay, and other similar materials. Common varieties do not include deposits of those materials that are valuable because of some property giving them distinct and special value.
community pit	See "common-use pit."
community stability	The capacity to absorb and/or cope with change without major hardships to groups or institutions within the community.
community type	An assemblage of plants and animals occupying a specific area and of definite enough species composition to be distinguished from other assemblages. It may be an age group of a forest type, a wetland type, or other type of land surface. The concept is most useful in planning vegetation manipulations.
conifer	Any of predominantly evergreen, cone-bearing trees, such as pine, spruce, hemlock, or fir. Trees belonging to the botanical group <u>Gymnospermae</u> .
constant dollars	A term used to signify that the monetary values are adjusted to and expressed in terms of a common base year.
constant-use road	A road developed and operated for continuous or annual recurrent service.
constraint	A qualification of the minimum or maximum amount of an output or cost that could be produced or incurred in a given time period.
controlled burn	See "prescribed fire."
cord	A unit of gross volume measurement for stacking round or split wood. A standard cord is 4 feet by 4 feet by 8 feet or 128 cubic feet. A standard cord may contain 60 to 100 cubic feet of solid wood depending on the size of the pieces and the compactness of these stacks.
corridor	A linear strip of land identified for present or future location of transportation or utility rights-of-way within its boundaries.
cost coefficients	Values that relate an amount of activity to a particular dollar cost in a specific period of time.
cost effective	Achieving specified results, including both quantifiable and nonquantifiable values, at the least cost.
cost efficient	The usefulness of specified inputs (cost) to produce specified outputs (benefits). In measuring cost efficiency, some outputs (such as environmental or social impact) are not assigned monetary values, but are achieved at specified levels in a least-cost manner. Cost efficiency is usually measured using

present net value, although use of benefit-cost ratios and rates of returns may be appropriate.

critical habitat

Those areas designated as critical by the Secretary of the Interior or Commerce for the survival and recovery of listed species (50 CFR, Parts 17 and 226). Because use of the term has legal implications, the Forest Service limits its use to only those habitats officially determined as critical by the Secretary (FSM 2670.5). A biological opinion of the U.S. Fish and Wildlife Service resulting from formal consultation with the Forest Service on the proposed Forest Plan states that there is no designated critical habitat for listed species on the Forest at this time. (See "essential habitat.")

cubic foot

Common unit of measure for wood volume equivalent to a cube 12 inches on all sides.

cultural resource

Cultural resources are nonrenewable evidence of human behavior in the form of the remains of sites, structures, or objects. They may be divided into four, often overlapping, data categories, that can be represented by the following disciplines:

Archaeology - That branch of anthropology that involves the physical remains (artifacts) and other by-products of human behavior.

Architecture - The art and science of building, including plan, design, construction, and decorative treatment.

Ethnology - The branch of anthropology that involves the behavior of living people.

History - The discipline that involves the human past through analysis of written documents.

D

DBH

See "diameter at breast height."

delta

A low, nearly flat, alluvium tract of land deposited at or near the mouth of a river.

deflator

A factor used to convert nominal dollar values of cost or benefits of any given year to a common base year. In this document, this term is used in reference to deflating cost and benefit values to the base year of 1978, i.e., 1978 dollar terms.

demand (trends)

The expected future need or desire for outputs, services, and uses over time presented by periods of time.

desired future condition

A physical state of the forest that when achieved is designed to effectively integrate the management of such resources as timber, wildlife, recreation, and roads in such a manner as to produce a steady stream of outputs that satisfy a goal.

developed recreation	Recreation that requires facilities that result in concentrated use of an area. Examples are campgrounds and ski areas. Facilities might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts, and buildings.
diameter at breast (DBH)	A standard measure of tree size, taken at 4.5 feet above ground level.
dispersed recreation	In contrast to developed recreation sites, such as campgrounds, picnic grounds, winter sports sites, resorts, and recreation residences, dispersed recreation areas are the lands and waters under Forest Service jurisdiction that are not developed for intensive recreation use. Dispersed areas include general undeveloped areas, roads, trails, and water areas not treated as developed sites.
distance zones	See "visual distance zones."
distinctive (variety class A)	Refers to unusual and/or outstanding landscape varieties that stand out from the common features in the character type.
distribution system	Transmission lines, pipelines, utility lines, and the like.
District	One of the six Ranger Districts that compose the Ottawa National Forest. These are: Bergland Ranger District, Bergland MI; Bessemer Ranger District, Bessemer, MI; Iron River Ranger District, Iron River, MI; Kenton Ranger District, Kenton, MI; Ontonagon Ranger District, Ontonagon, MI; and Watersmeet Ranger District, Watersmeet, MI.
diversity	The relative degree of abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area. See "vertical diversity."
drumloid	A pattern of smoothly rounded, elongated, and oval hills, mounds, or ridges of compact glacial till with the long axis parallel to the direction of movement of the ice.

E

EA	See "environmental assessment."
ecological classification system (ECS)	A systematic procedure for delineating (mapping), naming, and describing units of land with management significance and ecological integrity. A natural resource inventory and interpretations are made of these land units. It is also a capability information system.
ecological landtype (ELT)	An area of land with a distinct combination of natural, physical, chemical, and biological properties that cause it to respond in a predictable and relatively uniform manner to the application of given management practices. In a relatively undisturbed state and/or at a given stage (sere) of plant succession, an ELT is

usually occupied by a predictable and relatively uniform plant community. Typical size generally ranges from about 10 to several hundred acres.

ecological landtype phase (ELTP)	An area of land with specific soil conditions, segments of specific landforms, and specific habitat types for project level application. Typical size is in tens of acres.
economic analysis	An analysis of various costs and benefits, both priced and nonpriced, associated with alternative programs or projects to identify tradeoffs and aid in selection of a preferred alternative.
ecosystem	The natural system formed by the interaction of groups of organisms and their environment.
effects (direct)	Impacts that are caused by an action and occur at the same time and place.
effects (indirect)	Impacts that are caused by an action and are later in time or further removed in distance, but are still reasonably foreseeable.
EIS	See "environmental impact statement."
emphasize	To place special consideration of or emphasis on something.
employment	Labor input into a production process, measured in the number of person-years or jobs. A person-year is 2,000 working hours by one person working yearlong or by several persons working seasonally.
endangered species	Any plant or animal in danger of extinction throughout all or a significant portion of its range and listed as "endangered" by current Federal Register final rulemaking.
endemic	Native or confined to a certain region; having a comparatively restricted distribution.
environmental analysis	An investigation of alternative actions and their predictable environmental effects, including physical, biological, economic and social consequences and their interactions; short- and long-term effects; and direct, indirect, and cumulative effects. This process provides the information needed for identifying actions that may be categorically excluded or for preparing environmental documents as required.
environmental assessment (EA)	A concise public document that serves to (1) briefly provide sufficient evidence of the environmental analysis for determining whether to prepare an environmental impact statement or finding of no significant impact and (2) aid in an agency's compliance with the National Environmental Policy Act when no environmental impact statement is necessary.

environmental document	Refers to a National Environmental Policy Act environmental assessment, environmental impact statement, finding of no significant impact, notice of intent, or record of decision.
environmental effect	Net change (good or bad) in the physical, biological, social, or economic components of the environment resulting from human actions. Effects and impacts as used in this EIS are synonymous.
environmental impact statement (EIS)	A statement of environmental effects required for major federal actions under Section 102 of the National Environmental Policy Act (NEPA), and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality guidelines, and directives of the agency responsible for the project proposal.
erosion	The wearing away of the land's surface by running water, wind, ice, and other geological agents. It includes detachment and movement of soil or rock fragments by water, wind, ice, or gravity.
essential habitat	Those areas designated by a Regional Forester as possessing the same characteristics as critical habitat without having been declared as critical habitat by the Secretary of the Interior or Commerce. The term includes habitats necessary to meet recovery objectives for endangered, threatened, and proposed species and those necessary to maintain viable populations of sensitive species (FSM 2670.5).
even-aged management	The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. Managed even-aged forests are characterized by a distribution of stands of varying ages (and, therefore, tree sizes) throughout the forest area. The differences in age between trees forming the main canopy level of a stand usually does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.
even-flow	Continuous supply of products over a given time period.

F

fauna	The animals of a given region or period.
final harvest	The final cut in a stand that is managed even-aged.
final overstory removal	See "removal cut."
fine-textured	Includes sandy clay, silty clay, and clay U.S. Department of Agriculture textural classes.

fire management	All activities required for the protection of resources and values from fire, and the use of fire to meet land management goals and objectives.
fire protection area	The area of land the Forest Service has fire protection responsibilities for.
fish	As used in this EIS, all species of freshwater and saltwater fishes, as well as amphibians, crustaceans, mollusks, insects, and such other invertebrate organisms that are considered a biotic part of the aquatic resource and ecosystems.
floodplain	Lowland and relatively flat areas joining water, including at a minimum, those areas subject to a 1 percent (100-year recurrence) or greater chance of flooding in any given year.
flora	The plants of a given region or period.
forage	All nonwoody plants (grass, grass-like plants, and forbs) and portions of woody plants (browse) available to domestic livestock and wildlife for food. Only a portion of a plant is available for forage if the plant is to remain healthy.
forage management	Development of the range resource to its reasonably attainable potential, and management on a sustained-yield basis in a manner that will enhance productive harmony between man and his environment.
forb	Any herbaceous plant other than grass or grass-like plants.
foreground (visual distance zone)	That part of a scene or landscape that is nearest to the viewer and in which detail is evident, usually at 1/4- to 1/2-mile from the viewer.
Forest	In this EIS and proposed Forest Plan, the land and resources of the Ottawa National Forest, a unit of the USDA-Forest Service, headquartered at Ironwood, Michigan.
forest highway (legal definition)	A Forest road under the jurisdiction of and maintained by a public authority and open to public travel.
forest land	Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for nonforest use.
forest plan	A long-range plan for management of a designated area of National Forest System lands. This plan will provide management direction for all management programs and practices, resource uses, and resource protection measures on these lands.

forest plan amendment	Formal alteration of the Forest Plan by modification, deletion, or addition based upon nonsignificant or significant changes. Nonsignificant changes are minor modifications of management direction. Significant changes are major alterations of specific management prescription direction or land use designations. Unlike a complete plan revision, an amendment addresses only the issues that trigger a need for change. Amendments must satisfy both National Forest Management Act and National Environmental Policy Act procedural requirements including appropriate public notification.
forest plan goal	A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.
forest plan objective	A concise, time-specific statement of measurable planned results responding to preestablished goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.
forest type	(1) A classification of land based upon the species forming a plurality of live-tree stocking. (2) A descriptive term used to group areas of similar vegetation; may include nonforest vegetation types.
forested land-withdrawn from timber production	Lands designated by Congress, the Secretary of Agriculture, or the Chief of the Forest Service for purposes that preclude timber production. Experimental forests were included if their objectives preclude regularly scheduled timber production. Withdrawn land was classified as not suited for timber production. It includes proposed research natural areas identified in compliance with 36 CFR 219.25.
forested land-not producing industrial wood	Lands producing tree species that are not currently used industrially or not expected to be used industrially within the next 10 years. Such lands were classified as not suitable for timber production.
forested land-physically not suited	Forest lands where technology is unavailable to ensure timber production without irreversible resource damage to soils productivity, or watershed conditions; and lands Forest managers cannot ensure will be adequately restocked within 5 years. Such lands were classified as unsuitable for timber production.
forested land-inadequate response information	Forest lands where managers lack adequate information, based on current research and experience, to project responses to timber management practices. These lands were categorized as unproductive in the FORPLAN model and were unsuitable for timber production.
forested land-not appropriate	Forest lands inappropriate for timber production were determined by reviewing tentatively suitable Forest lands and summarizing the acres that were: (1) assigned to other resource

uses to meet Forests' Plan objectives; (2) needed to meet minimum management requirements; and (3) not being the most cost efficient in meeting Forest Plan's objectives over the planning horizon.

forested land-
not suited

See "forest land-unsuitable."

forested land-
suitable

Land that is to be managed for timber production on a regulated basis.

forested land-
tentatively
suitable

Forest land that is producing or is capable of producing crops of industrial wood and (a) has not been withdrawn by Congress, the U.S. Secretary of Agriculture, or the Chief of the Forest Service; (b) where existing technology and knowledge is available to ensure timber production without irreversible damage to soils, productivity, or watershed conditions; (c) where existing technology and knowledge, as reflected in current research and experience, provides reasonable assurance that adequate restocking can be attained within 5 years after final harvest; and (d) where adequate information is available to project responses to timber management activities.

forested land-
unsuitable

Forest land that is not managed for timber production because (a) the land has been withdrawn by Congress, the U.S. Secretary of Agriculture, or the Chief of the Forest Service; (b) the land is not producing or capable of producing crops of industrial wood; (c) technology is not available to prevent irreversible damage to soils, productivity, or watershed conditions; (d) there is no reasonable assurance that lands can be adequately restocked within 5 years after final harvest, based on existing technology and knowledge, as reflected in current research and experience; (e) there is at present, a lack of adequate information to respond to timber management activities; or (f) timber management is inconsistent with or not cost efficient in meeting the management requirements and multiple-use objectives specified in the Forest Plan.

forestwide
standards and
guidelines

A set of statements that define or indicate acceptable norms, specifications, or quality that must be met when accomplishing an activity or practice under a given set of conditions of the Forest.

forest plan
goal

A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.

FORPLAN

A specific linear program model designed for use in Forest Service planning.

FSH

Forest Service Handbook.

FSM

Forest Service Manual.

fuel break A strategically located strip, normally 100- to 400-feet wide, where fuel has been reduced or modified; used as a safe location from which fire fighters can attack and control a fire.

fuel treatment A rearrangement or disposal of natural or activity fuels to reduce the fire hazard.

fuel Wood and vegetation material that can burn. While usually referring to living and dead wildland surface vegetation, roots and organic soils such as peat are often included.

G

game Wild animals hunted for sport or food.

gathering pipeline A pipeline that carries gas or liquid (natural gas, carbon dioxide, oil, etc.) from a well to a collecting facility or transmission pipeline. (See also "transmission pipeline.")

goal See "forest plan goal."

goods and services The various outputs, including on-site uses, produced by forest and rangeland resources.

ground moraine The landform resulting from drift deposited from beneath a glacier or released from the ice, commonly leaving a fairly even, thin layer of till and having a gentle rolling surface.

group selection cutting See "selection harvest cut."

growing stock level (GSL) The density of trees growing in a specified area expressed in either trees per acre or square feet of basal area per acre of acceptable trees growing on an area.

growing stock volume The cubic-foot volume in growing stock trees contained in a specified area.

guideline An indication or outline of policy or conduct.

H

habitat The place where animals live. It can be water for beaver, fish and aquatic insects; rocks for bats and some species of birds, or forested areas for many mammals, birds, and reptiles.

habitat capability The estimated ability of an area, given existing or predicted habitat conditions, to support a wildlife, fish or plant population. It is measured in terms of potential population numbers.

habitat type All land areas that now support, and are presumably still capable of supporting, one climax plant community.

hardwood A broad-leaved flowering tree, as distinguished from a conifer. Trees belonging to the botanical group Angiospermae.

harvest The cutting and removal of trees from the forest for utilization, generally by commercial timber sale.

herbicide A chemical compound used to kill or control growth of undesirable plant species.

high quality hardwoods Hardwood trees or stands that will yield high-value timber products such as face veneer, knot-free lumber, furniture speciality product stock, or flooring.

1

implementing regulations See "Code of Federal Regulations."

inclusion As used in this EIS, any unmapped vegetation. In all vegetation surveys, virtually every drawing of a map unit includes vegetation that is not identified in the type name of the map unit. Usually these vegetative areas are too small to be mapped separately. Examples: (a) a perched wetland less than 10 acres; (b) clumps or islands of remnant trees in final harvest cuts that were left uncut for lack of commercial value or for aesthetic or wildlife value. Inclusions reduce the homogeneity of map units and may affect interpretation and prescription.

indicator species A species whose presence in a certain location or situation at a given population indicates a particular environmental condition. Its population changes are believed to indicate effects of management activities on a number of other species or water quality.

indigenous species Species historically native to an area; not introduced by humans.

input-output (I-O) analysis model Quantitative study of the interdependency of a group of activities based on the relationship between inputs and outputs of the activities. The basic tool of analysis is a square input-output table, interaction model, for a given period that shows simultaneously for each activity the value of inputs and outputs, as well as the value of transactions within each activity itself. It has especially been applied to the economy and the industries into which the economy can be divided.

insecticide An agent used to control insect populations.

instream flow The quantity of water in a stream or river usually used in defining the minimum flow necessary for all the uses of water while it is flowing through streams. Some of those uses are fisheries, channel stability and maintenance, riparian habitat maintenance, and aesthetics.

intangible values (intangible outputs)	Goods, services, uses and conditions that are believed to have values to society but that have neither market values nor assigned monetary values.
integrated pest management	A systematic decisionmaking process and the resultant management actions which derive from consideration of pest-host systems and evaluation of alternatives for managing pest populations at levels consistent with resource management objectives.
integrated resource management	All resources are planned in the same area using an interdisciplinary team approach. All further Forest Plan implementation actions are united and coordinated to achieve Forest Plan goals and objectives.
inter-disciplinary process	Use of a team representing several disciplines to coordinate and integrate planning actions consistent with the principles of the Multiple Use Sustained Yield Act.
inter-disciplinary team	A team assembled for implenting an interdisciplinary approach. It is composed of two or more persons having skills appropriate to the scope of the action.
intermediate harvest (cutting)	Any commercial removal of trees from an even-aged stand between the time of its formation and the regeneration cut.
intermittent drainway	Stream channels that only carry water during spring snow melt and during and immediately after a rainfall.
intermittent use road	A road developed and operated for periodic service and closed for more than one year between periods of use.
interpretive site	A developed site at which a broad range of natural or cultural history is intepreted or described for the enjoyment of the public.
intolerant	See "shade intolerant."
intrusive	Rocks formed from solidification of fluid flowing into or between other hard rocks. Solidification occurs before surface contact.
isolated finds	An archeological object or objects found in solitary circumstances.
issue	A subject or question of widespread public discussion or interest regarding management of National Forest System lands.

K

K-V funds	In 1930, Congress passed the Knutson-Vandenberg Act (K-V Act) to authorize collection of funds (K-V funds) for reforestation and timber stand improvement work on areas cut over by a timber sale.
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L

lacustrine nesting habitat	Nesting areas that are associated with lakes.
lake-laid	Sediments derived from materials washed into a glacial lake from the glacier.
land (classification of forest land)	The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river floodplains; streams, sloughs, estuaries, and canals less than 120 feet in width; and lakes, reservoirs, and ponds less than one acre in size.
land adjustment	Change in National Forest System landownership through acquisition, exchange, or disposal of land or interests in land.
land base	A specific area of the earth's surface and all its attributes including water bodies from which goods, services, and uses can be supplied.
land condition	The state of a given area in terms of the quality of its physical and biological character and use; conditions can be existing, future, or desired.
landline	A property boundary located on the National Forest.
land management	The intentional process of planning, organizing, programming, coordinating, directing, and controlling land use actions.
landtype association (LTA)	An area of land with relative homogeneity of natural, physical, chemical, and biological properties. Typical size usually is thousands of acres. Criteria for delineation of LTAs are major glacial landform deposits (such as end moraine, ground moraine, lacustrine lake plain, glacio-fluvial deposits, or variations of these deposits); areas of bedrock outcropping and control; and areas of post-glacial erosional landforms (such as Sturgeon Gorge). Capability area used in Forest planning.
land use	The occupation or reservation of land or water area for any human activity or any defined purpose; in this EIS, the terms "use" and "land use" are interchangeable.
large tree habitat	Big tree stands of long-lived species. See "old growth."
leasable minerals	Coal, oil, gas, phosphate, sodium, potassium, oil shale, and geothermal steam.
lifestyle	The characteristic way people live, indicated by consumption patterns, work, leisure, and other activities.
linear program model	A mathematical method used to determine the best use of resources to achieve a desired result. Limitations on available resources can be expressed in the form of equations.

linear programming	A mathematical technique for determining the effects of alternative resource allocations.
litter	The uppermost layer of organic debris on the ground under a vegetation cover; that is, essentially the freshly fallen or only slightly decomposed vegetable material, mainly from foliage but also bark fragments, twigs, flowers, and fruits.
local road	A road that connects terminal facilities with Forest collector or Forest arterial roads, or public highways. Its location and standard are usually controlled by a specific resource activity rather than travel efficiency. Forest local roads may be developed and operated for either long-term or short-term service. Consists of either winter-only, winter/dry-summer, or summer-normal standard.
long-term	Action governed by the Forest Plan generally taking place over a period longer than 10 years from the present.
long-term facility (road)	A facility that is developed and operated for long-term land management and resource utilization need, and that may be operated for constant or intermittent service.
long-term sustained yield capacity	The highest uniform wood yield from lands being managed for timber production that may be sustained, under a specified management intensity, consistent with multiple-use objectives.

M

M	One thousand units.
maintenance level 1	This road maintenance level is basic custodial care as required to protect the road investment and to see that damage to adjacent lands and resources is held to a minimum. Level 1 maintenance often requires an annual inspection to determine what work, if any, is needed to keep drainage functional and the road stable. This level is the normal prescription for roads that are not open for traffic. Level 1 is to maintain drainage facilities and runoff patterns.
maintenance level 2	This road maintenance level is used on roads where management requires that the road be open for a limited passage of traffic. Traffic is normally minor, usually consisting of one or a combination of administrative use, permitted use, or specialized traffic.
maintenance level 3	This road maintenance level is used on roads that are opened for public traffic and generally applies when use does not exceed 15 ADT (average daily traffic). The road is maintained for safe and moderately convenient travel for passenger cars.
maintenance level 4	This road maintenance level generally applies when use of a road is between 15 ADT and 200 ADT. At this level, more consideration is given to the comfort of the user. These roads are frequently surfaced with aggregate materials, but some routes

may be paved to meet economical consideration of the limited aggregate resource and surface replacement cost factors.

maintenance level 5	This road maintenance level is generally maintained for use of 100 ADT and greater. Roads in this category include both paved and aggregate surfaces. Safety and comfort are important considerations. Abrupt changes in maintenance will be posted to warn a traveler until these deficiencies are corrected.
management area	An area delineated by a line on a map showing the location where a management prescription applies. The entire Forest is divided into management areas. Each is described and policies and prescriptions relating to their use are listed in the Forest Plan. A management area is usually noncontiguous.
management concerns	A matter of importance to the management of National Forest System lands, which is identified internally by the agency.
management direction	A statement of multiple use and other goals and objectives, the associated management prescriptions, and the standards and guidelines for attaining them.
management goal	A concise statement that describes a desired condition of the land to be achieved sometime in the future.
management indicator species	See "indicator species."
management intensity	The management practice or combination of management practices and their associated costs designed to obtain different levels of goods and services.
management opportunity	A statement of general actions, measures, or treatments that addresses the public issues or management concerns in a favorable way.
management practice	A specific activity, measure, course of action, or treatment.
management prescription	Management practices selected and scheduled for application in a specific area to attain multiple use and other goals and objectives. At the Forest level for a management area, a management prescription includes the management practices selected and scheduled, the description of the desired future condition of the land, and the standards and guidelines necessary to control the management practices and to achieve and maintain the desired future conditions.
management team	The decision-making group consisting of the Forest Supervisor, Staff Officers, and District Rangers.
market value (market output)	Goods, services, and uses that are commonly bought and sold that are priced or valued directly from existing markets.

mass movement	Downslope unit movement of a portion of the land's surface; that is, a single landslide or the gradual simultaneous downhill movement of a whole mass of loose earth material on a slope face.
maximum modification (MM)	A visual quality objective meaning human activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background area.
MBF	One-thousand board feet of timber.
mean annual increment (MAI)	The total increment (growth) of a stand up to a given age divided by that age, expressed in cubic measure, based on expected growth.
medium-textured	Includes very fine sandy loam, loam, silt loam, and silt U.S. Department of Agriculture textural classes.
middle ground (visual distance zone)	The part of a scene or landscape that extends from the foreground zone to 3 to 5 miles from the observer. Texture is discernible at that distance.
MIH codes	Management Information Handbook codes (FSH 1309.11).
minerals of compelling domestic significance	Minerals of compelling domestic significance include: antimony, asbestos, bauxite and other sources of aluminum, bismuth, barite, bentonite, beryllium, boron, cadmium (zinc byproduct), cesium, chromium, cobalt, columbium, copper, diamonds, fluorspar, germanium (zinc byproduct), gold, graphite, ilmenite and rutile, indium, iron ore, lead, lithium, manganese, mercury, mica, natural gas, nickel, petroleum, phosphate, platinum group, potassium, rubidium, scandium, selenium, silver, strontium, sulfur, tantalum, tellurium (copper byproduct), thorium, tin, tungsten, uranium, vanadium, zinc, and zirconium (including associated hafnium).
mineral development	The inventory and extraction of mineral materials.
mineral exploration	A search for mineral materials.
minimum (variety class C)	A description of a condition that has little or no visual variety in the landscape, monotonous or below average compared to the common features in the character type.
minimum level management	The management strategy that would meet only the basic statutory requirements of administering unavoidable nondiscretionary land uses, preventing damage to adjoining lands of other ownerships, and protecting the life, health, and safety of incidental users.
mission	A major, continuing national area of concern or responsibility of the Forest Service that is directed by legislation or executive regulation. The Forest Service mission represents the basic reason for the existence of the Forest Service as an agency in the federal government and characterizes the agency's role in solving broad, national problems.

mitigation	Avoiding or minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitation, or restoring the affected environment; or reducing or eliminating the impact by preservation and maintenance operations during the life of the action.
MM	One million units.
MMBF	One-million board feet of timber.
moderately coarse-textured	Includes sandy loam and fine sandy loam U.S. Department of Agriculture textural classes.
moderately fine-textured	Includes clay loam, sandy clay loam, and silty clay loam U.S. Department of Agriculture textural classes.
modification (M)	A visual quality objective meaning human activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middle ground.
monitoring	The observation and determination of whether Forest management direction is being implemented as stated in the Forest Plan.
motorized use	Land uses requiring or largely dependent on motor vehicles and roads.
multi-disciplinary approach	An approach whereby one or more disciplines representing a unique value or resource provides input to an ID team or to management.
multiple use	The management of all various renewable surface resources of the National Forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land would be used for less than all of the resources; in a harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being 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.

N

National Register of Historic Places	A listing maintained by the National Park Service of areas that have been designated as being of historical significance.
natural	Existing and/or formed by nature. Not artificial.

natural appearance	Human activities are not evident to the casual forest visitor. See "retention" and "visual quality objective."
natural reforestation	The practice of reforestation of an area of land that establishes a new crop of trees through the natural seeding or sprouting of trees.
near natural appearance	Human activities may be evident but must remain subordinate to the characteristic landscape. See "partial retention."
NEPA	National Environmental Policy Act of 1969 (83 Stat. 852 as amended; 42 U.S.C. 4321, 4331-4335, 4341-4347).
net annual growth	The net increase in the volume of trees during a specified year. Components of net annual growth include the increment in net volume of trees at the beginning of the specific year and surviving to its end, plus the net volume of trees reaching the minimum size class during the year, minus the volume of trees that dies during the year, and minus the net volume of trees that become rough or rotten during the year.
net public benefits	An expression used to signify the overall long-term value to the nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (cost) whether they can be quantitatively valued or not.
NFMA	National Forest Management Act of 1976 (90 Stat. 2949; 16 U.S.C. 1609).
1978 dollars	A term used for monetary values that have been deflated (adjusted) to the 1978 base year terms; i.e., what the cost or value would have been in monetary terms in 1978.
no-action alternative	The most likely condition expected to exist in the future if current management direction would continue unchanged.
nondeclining yield(non-declining flow)	A level of timber production planned so that the planned sale and harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade.
nonforest land	Lands never having or incapable of having 10 percent or more of the area occupied by forest trees, or lands previously having such cover and currently developed for nonforest use.
nongame	Animal species that are not usually hunted in Michigan. This classification is determined by the State legislature.
nonmotorized use	Land uses requiring or largely dependent on isolation from motor vehicles and/or roads.
nonpriced benefits	Benefits for which no dollar value has been established or assigned.

objective	A clear and specific statement of planned results to be achieved within a stated time period. The results indicated in the statement of objectives are those that are designed to achieve the desired condition represented by the goal. An objective is measurable and implies precise time-phase steps to be taken and resources to be used that, together, represent the basis for defining and controlling the work to be done.
obliteration	The returning of the land occupied by a road or trail to vegetative production.
occupancy trespass	The illegal occupancy or possession of National Forest System land.
off-road vehicle	Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such terms exclude: (a) any registered motor boat, (b) any fire, military, emergency, or law enforcement vehicle when used for emergency purposes, and any combat or combat support vehicle when used for national defense purposes, and (c) any vehicle whose use is expressly authorized by the respective agency head under a permit, lease, license, or contract.
old growth	A condition in which a stand of trees is beyond normal rotation age. The stand is characterized by the presence of large trees, snags, other cavity-producing trees, and down trees. The condition exists in a particular type until the dominant tree species is replaced with another species through natural succession and in a particular stand until the dominant trees are removed through final regeneration cut.
open to public travel	The condition of a road or trail that, except during scheduled periods, extreme weather conditions, or emergencies, is open to the general public for use with a standard passenger automobile, without restrictive gates or prohibited signs or regulations, other than for general traffic control or restrictions based on size, weights, or class of registration.
opening	A generic term referring to a combination of temporary and permanent upland forest openings. (See "temporary opening" and "permanent upland opening.")
operational costs	Those costs required to operate programs, administer the activities involved, and maintain capital improvements.
opportunity	A proposal that is considered in developing alternative activities, projects, or programs where an option exists to invest profitably to improve or maintain a present condition.
opportunity area	Land areas that provide the best opportunities to work toward Forest Plan goals and objectives. Generally, opportunity areas will be management areas or portions of management areas.

opportunity costs	The value of benefits foregone or given up due to the effect of choosing another management alternative that either impacts existing outputs or shifts resources away from other activities so they are no longer produced and their benefits are lost.
output	A good, service, or on-site use that is produced from forest and rangeland resources.
output coefficient	Values that relate an acre of land to a particular quantity of output in a specific period of time.
output, induced	A good, service, or on-site use which is incidental to the objectives of the resource activity. An example is the timber harvest activity that produces a primary output of board feet of timber and a induced output of acres of improved wildlife habitat because of the harvest activity.
output market	A good, service, or on-site use that can be purchased at a price.
output, non-market	Goods, services, and uses that are not commonly bought or sold in existing markets; assigned dollar values for some have been derived from willingness-to-pay analyses for use in comparing alternatives. See also "intangible values."
outwash plain	A broad, nearly level landform from meltwater deposited by streams flowing in front of or beyond a terminal moraine.

P

PAOT	See "persons-at-one-time."
partial retention (PR)	A visual quality objective that in general means human activities may be evident but must remain subordinate to the characteristic landscape. See "near natural appearance."
perennial stream	A stream that flows throughout the year and from source to mouth.
permanent upland opening	An upland supporting perennial grasses, forbs, sedges, and shrubs with less than 16 percent stocking of trees and less than 10 percent crown cover of trees. The area may be developed and maintained permanently. Generally, but not necessarily, over one acre in size.
persons-at-one-time (PAOT)	A recreation-capacity measurement term indicating the number of people that can comfortably occupy or use a facility or area at one time.
physiographic province	Region of similar structure and climate that has had a unified landform history.
pit operating plan	A plan for the orderly removal of mineral materials from a designated site. The plan includes provisions for the

protection of public safety and other resource values as well as for the closing and rehabilitation of the site upon completion of mineral removal.

planned ignition	A fire started by a deliberate management action.
planning area	The area of the National Forest System covered by a Forest Plan.
planning criteria	Criteria prepared to guide the planning process and management direction.
planning problem	A major problem of long-range significance, derived from public issues and management concerns, to be addressed when formulating Forest Plan alternatives.
plantation	A forest crop or stand raised artificially, either by seeding or planting of young trees.
poletimber	As used in timber survey, a size class definition of trees 5.0 to 8.9 inches DBH.
predator	An animal species that obtains its food by hunting other animal species.
preferred alternative	The alternative favored for implementation by the Forest Service based on relative merits including physical, biological, social, and economic considerations and the agency's statutory missions.
prescribed fire	A wildland fire burning under specified conditions that will accomplish certain planned objectives. The fire may result from either planned or unplanned ignitions. Use of unplanned ignitions must have prior approval by the Regional Forester.
prescription	See "management prescription."
present net value (PNV)	The difference between the discounted value (benefits) of all outputs to which monetary values or established market prices are assigned and the total discounted costs of managing the planning area.
present value benefit	The sum of each year's benefit values discounted to the present.
present value cost	The sum of each year's costs discounted to the present.
preservation (P)	A visual quality objective that provides for ecological change only.
primitive ROS class	The classification of the Recreation Opportunity Spectrum characterized by an essentially unmodified environment, where trails may be present but structures are rare, and in which probability of isolation from the sights and sounds of humans is extremely high.

program	Sets of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishment.
program budget	A plan that allocates annual funds, workforce ceilings, and targets among agency management units.
programmed allowable harvest	A term used in previous timber management plans that represents that part of the potential yield that is scheduled for cutting. Level is based upon current demand, funding, silvicultural practices, and multiple-use considerations.
protective element	The support element providing protection to Forest resources and uses, such as fire suppression.
public issue	A subject or question of widespread public discussion or interest regarding management of National Forest System lands and identified through public participation.
pulpwood	(1) The wood of spruce, pine, aspen, and various other trees used to make paper. (2) Wood cut and prepared primarily for manufacture into wood pulp. Must meet minimum specifications for pulpwood but not meet minimum specifications for sawtimber. Refer to management intensity and utilization Forestwide Vegetation Management standards and guidelines-2400 Timber Management.

Q

quality-sized fish Fish whose size is approximately that which most fishermen would consider an acceptable catch, expressed in inches:

<u>Species</u>	<u>Quality Size</u> (inches)
Yellow perch	8
Bluegill	6
Pumpkinseed	6
Rockbass	6
Black crappie	8
Walleye	15
Largemouth bass	12
Smallmouth bass	11
Northern pike	20
Muskellunge	26
Lake trout	19
Bullhead	8
<u>White sucker</u>	<u>12</u>

These lengths reflect nationwide standards of fisheries management objectives based on proportional stock density.

R

rangeland	Land on which the natural plant cover is composed principally of native grasses, forbs, or shrubs valuable for forage.
raptor	A predatory bird.
RARE II	The second roadless area review and evaluation instituted in 1977. A process to identify roadless and undeveloped land areas in the National Forest System and to determine their general uses for wilderness and other resource management and development. Includes three classes of inventoried lands: <ul style="list-style-type: none">- Lands proposed for addition to the National Wilderness Preservation System.- Lands allocated for nonwilderness uses.- Lands allocated for further planning.
reclamation	Returning disturbed lands to a form and productivity that will be ecologically balanced and in conformity with the predetermined land management plan.
record of decision	The documentation of what the decision was, the date, and a statement of reasons for the decision.
Recreation Opportunity Spectrum (ROS)	A system of classifying the range of recreational experiences, opportunities, and settings available on a given area of land. Classifications include: <ul style="list-style-type: none">- Primitive (P)- Semiprimitive Motorized (SPM)- Semiprimitive Nonmotorized (SPNM)- Roaded Natural (RN)- Rural (R)- Urban (U).
recreation residence site	House or cabin permitted on National Forest System land for the recreational use of the owner, but not as a primary residence.
recreation visitor day (RVD)	Recreational use of National Forest System land that aggregates 12 hours. It may consist of one person for 12 hours, two people for six hours, or any combination that totals 12 hours.
recreational river	Those rivers or sections of rivers identified through the National Wild and Scenic Rivers Act that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.
reforestation	The restocking of an area with trees, either naturally or artificially, most commonly used in reference to the latter. Reestablishment of a crop on forest land; includes measures to obtain natural regeneration as well as tree planting and seeding. Reforestation is done to produce timber and other forest products, protect watersheds, prevent erosion, and improve

other social and economic values of the forests, such as wildlife, recreation, and natural benefits.

regeneration	(1) The actual seedlings and saplings existing in the stand. (2) The act of establishing young trees with the intention of establishing a new crop of seedlings.
regeneration cut	Removal of trees with the intention of establishing a new crop of seedlings.
Region	In this EIS and proposed Forest Plan, the Eastern Region of the USDA-Forest Service headquartered at Milwaukee, WI.
regulated	Forest land managed for timber production under sustained yield principles.
release	Freeing a tree or group of trees from more immediate competition by cutting, or otherwise eliminating, growth that is overtopping or closely surrounding them.
removal cut	An intermediate cut to remove the overstory from an area regenerated by the shelterwood method where the remaining overstory is to be removed in one or two cuts.
renewable resources	Resources that are possible to use indefinitely when the use rate does not exceed the ability to renew the supply. However, in the RPA program, the term is used to describe those matters within the scope of responsibilities and authorities of the Forest Service.
research natural area	Land area classified by order of the Chief of the Forest Service containing natural plant communities, unique aquatic, geologic, and other biotic features. Such an area is protected and studied to obtain more information about the ecosystem.
resource management prescription	Written direction on the resource management practices selected and scheduled for application on a specific area to attain goals and objectives.
restoration of disturbed area	See "revegetation."
retention (R)	A visual quality objective that in general means human activities are not evident to the casual forest visitor. See "natural appearance."
revegetation	The reestablishment of a plant cover. This may take place naturally through the reproductive process of existing flora or artificially through direct management action.
right of eminent domain	The taking of property for a necessary public use, with reasonable compensation being made to the property owner.
riparian ecosystem	A term referring to land adjacent to perennial streams, lakes, and reservoirs and including other well-developed riparian vegetation (primarily intermediate streams). This land is

specifically delineated by the transition between the aquatic ecosystem and the adjacent terrestrial ecosystem and defined by soil characteristics and distinctive vegetation communities that require free and unbound water.

riparian area	Includes stream channels, lakes, adjacent riparian ecosystems, floodplains, and wetlands.
riprap	Material such as rock, logs, and concrete that are placed along a water course to stabilize the banks.
river area (Wild and Scenic Rivers Act)	(1) For a river study, that portion of a river authorized by Congress for study and its immediate environment, comprising an area extending at least 1/4-mile from each bank. (2) For designated rivers, the river and adjacent land within the authorized boundaries.
river corridors	See "river area."
road closure	A road, or segment thereof, that is closed to use when the official having jurisdiction to regulate the use on the road has issued an order and posted that order in accordance with 36 CFR Part 261 (FSM 1023).
road density	The measure of the degree to which the length of road miles occupies a given land area; for example, 1 mile/square mile is one mile of road within a given square mile.
roaded natural ROS class	A classification of the Recreation Opportunity Spectrum that characterizes a predominantly natural environment with moderate evidence of the sights and sounds of humans. Such evidences usually harmonize with the natural environment. Opportunities exist for both social interaction and moderate isolation from sights and sounds of humans.
road obliteration	See "obliteration."
ROS class	See "Recreation Opportunity Spectrum."
rotation	The period of years between the initial establishment of a stand of timber and the time when it is considered ready for cutting and regeneration.
roundwood	The volume of logs or other round products required to produce lumber, plywood, woodpulp, paper, or other similar products.
RPA	Forest and Rangeland Renewable Resources Planning Act of 1974 (88 Stat. 476, as amended; 16 U.S.C. 1600-1614).
RPA national assessment	A document compiled by the U.S. Secretary of Agriculture every 10 years which contains facts and analyses to develop and guide public and private forest and rangeland policies and programs.
RPA national program	A document compiled by the U.S. Secretary of Agriculture every five years which outlines Forest Service programs for National

Forest System management, cooperative assistance to states and private landowners, and research.

rural ROS
class

A classification of the Recreation Opportunity Spectrum that characterizes an area on which the sights and sounds of man are prevalent and the landscape has been considerably altered by the works of humans.

RVD

See "recreation visitor day."

S

salvage
(of timber)

Dead or dying trees in excess of those needed for wildlife, aesthetics, or other purposes that are harvested to utilize commercial timber products.

sapling

As used in timber survey, a size class definition; trees 1.0 to 4.9 inches DBH.

sawtimber

(1) As used in timber survey, a size class definition; trees larger than 9 inches DBH for softwoods and 11 inches DBH for hardwoods. (2) As used in timber sales, a product class definition; logs that meet minimum piece specifications. Refer to utilization standards in the proposed Forest Plan, Forestwide Vegetation Management standards and guidelines-2400 Timber Management.

scarification

Loosening the top soil to prepare an area for regeneration by direct seeding or natural seed fall.

scenic
easement

The right to control the use of land (including the air space above such land) within the authorized boundaries of the component of the Wild and Scenic River System, for the purpose of protecting the natural qualities of a designated wild, scenic, or recreation river area, but such control shall not affect, without the owner's consent, any regular use exercised prior to the acquisition of the easement.

scenic river

The rivers or sections of rivers identified through the National Wild and Scenic Rivers Act that are free of impoundments, where shorelines or watersheds are still largely primitive and shorelines largely undeveloped, but accessible at places by the road.

scoping

Determining the extent of analysis necessary for an informed decision about a proposed action. The process includes: (1) reviewing Forest Plan direction as it relates to the analysis; (2) personally contacting those publics interested or affected by the proposed action to get their opinion; and (3) determining local management concerns. This process continues throughout analysis until a decision is made.

sediment

Solid materials, both mineral and organic, that are in suspension, are being transported, or have been moved from their

site of origin by air, water, gravity, or ice, and that have come to rest on the earth's surface either above or below sea level.

sediment yield	Amount of solid material washed into a water course.
seed cut	See "shelterwood cutting."
seedbed	(1) In natural regeneration, the soil or forest floor conditioned for seed germination and establishment. (2) In nursery practice, prepared area that is seeded.
seedling	As used in timber survey, a size class definition; trees less than 1 inch DBH.
selection harvest cut	A timber harvest system that removes trees individually in a scattered pattern from a large area each year. (1) Individual tree selection cutting involves the removal of selected trees of many size classes on an individual basis. Regeneration is established under the partial shade of the overstory canopy after each cut. (2) Group selection cutting involves the removal of selected trees of many size classes in groups from a fraction of an acre up to 1 acre in size. Regeneration occurs in the groups under conditions similar to those found in small clearcuts.
semiprimitive motorized ROS class	A classification of the Recreation Opportunity Spectrum characterized by moderately dominant alterations by humans, with strong evidence of permanent roads and/or trails.
semiprimitive nonmotorized ROS class	A classification of the Recreation Opportunity Spectrum characterized by few and/or subtle modifications by humans and with a large probability of isolation from the sights and sounds of humans.
sensitive areas	Areas of high erosion hazard, areas that may be susceptible to compaction, or areas of unstable slopes.
sensitive species	Species placed on the Eastern Region sensitive species list at the discretion of the Regional Forester if he deems that they require special management attention. Examples of situations that may cause such listings include: <ul style="list-style-type: none">- Species common elsewhere, but a disjunct population of unique, popular, or scientific interest occurring on National Forest System land.- Locally endemic populations in unique habitats that warrant continued monitoring or special management to ensure jeopardy is not occurring and will not occur in the future.
sensitivity level	(1) As used in culture resource management; the degree of culture resource development potential and/or the degree of conflict with other uses for a given area. (2) As used in visual quality management, a particular degree or measure of viewer interest in the scenic qualities of the landscape: Level 1 - most sensitive, Level 2 - sensitive, Level 3 - less sensitive.

sensitivity level 1	A landscape of high viewer interest. Includes all seen areas from primary travel routes, use areas, and water bodies where, as a minimum, at least one-fourth of the Forest visitors have a major concern for the scenic qualities.
sensitivity level 2	A landscape of moderate viewer interest. Includes all seen areas from primary travel routes, use areas, and water bodies where fewer than one-fourth of the Forest visitors have a major concern for scenic qualities.
sensitivity level 3	A landscape of low viewer interest. Includes all seen areas from secondary travel routes, use areas, and water bodies where less than one-fourth of the Forest visitors have a major concern for scenic qualities.
shade intolerant	A pioneer plant, one that thrives only in the main canopy and that perpetuates itself through adaptations favoring survival and growth in the open, establishment on disturbed areas under extreme site condition, early seed production, and widespread seed dispersal.
shade tolerant	A plant that grows and thrives under a forest canopy and that perpetuates itself through adaptations favoring survival and growth in a shaded understory, establishment in undisturbed litter or duff layer, and a long life span.
sheet erosion	Removal of a fairly uniform layer of soil from the land surface by runoff water, without the development of conspicuous water channels.
shelterwood cutting	A cutting method used in even-aged management. It is the removal of a stand of trees through a series of cuttings designed to establish a new crop with seed and protection provided by the residual stand.
short-term facility (road)	A facility developed and operated for a limited period of time that will cease to exist as a transportation facility after the purpose for which it was constructed is completed. The occupied land is reclaimed and managed for natural resource purposes.
silvics	The study of the life history and general characteristic of forest trees and stands, with particular reference to locality factors, as a basis for the practice of silviculture.
silvicultural system	A management process whereby forests are tended, harvested, and replaced, resulting in a forest of distinctive form. Systems are classified according to the method used in harvesting the mature crop, and provide for regeneration according to the type of forest thereby produced.
sirococcus shoot blight	A fungus disease that affects red pine and jack pine. Smaller trees growing under an overstory of pine commonly show symptoms and are often deformed or killed by the disease.
site	An area considered in terms of its environment, particularly as this determines the type and quality of the vegetation the area

can carry. May be classified qualitatively by climate, soil and vegetation into site types or quantitatively by their potential wood production into site classes.

site index (SI)	A numerical evaluation of the quality or productivity of land, especially used in forest land where it is determined by the rate of growth in height of one or more of the tree species.
site preparation	Preparation of a site before planting, natural or artificial seeding, or sprout growth for regeneration. Includes preparation of the ground surface for planting or seeding, and/or removal of unwanted vegetation, slash, stumps, and roots from a site.
site productivity	An estimation of the timber growth potential based on an evaluation of soil-site features.
skid trail	Travelway used to drag or transport trees from the stump to the landing.
slash	Debris or residues left after logging, pruning, thinning or brush cutting, and large accumulations of debris after wind or fire. It includes logs, branches, bark, and stumps.
snag	A standing dead tree. May be used by birds or mammals for nesting, roosting, perching, courting, and/or foraging for food.
softwood	(1) A coniferous tree. Trees belonging to the botanical group <u>Gymnospermae</u> . (2) Commerical timber of coniferous trees.
soil profile	A progression of distinct layers of soil, beginning at the surface, that has been altered by normal soil-forming processes such as leaching, oxidation, and accretion.
spatial feasibility	The capacity of a land allocation to be practically implemented on the ground.
spawning reef (manmade)	A layer of cobblestone typically placed along shallow areas of lakes. Serves as spawning habitat for fish species that spawn on gravel substrate, such as walleye.
special attention zone	Land and vegetation for approximately 100 feet from the edges of all perennial streams, lakes, and other bodies of water; the recognizable area dominated by riparian vegetation.
special land use	The occupation or reservation of land or water for a particular land use or uses and excluding some land uses.
stand	An aggregation of trees occupying a specific area and sufficiently uniform in composition, age, arrangement, and condition as to be distinguishable from the forest on adjoining areas.
standard	A principle requiring a specific level of attainment, a rule to measure against.

structural range improvement	Any type of range improvement that is human-made (such as fences or corrals).
stumpage	The value of timber as it stands in terms of an amount per cubic unit.
subsoil	The layer below the soil surface in which roots normally grow.
subsurface rights (mineral rights)	Legal ownership of mineral resources including the authority to use so much of the surface as is prudently needed to explore, develop, and produce them.
subsurface values (subsurface resources)	Resources and improvements under the surface of the land. As used in this EIS, the term means minerals.
succession	An orderly process of biotic community development that involves changes in species, structure, and community processes with time. It is reasonably directional and, therefore, predictable.
suitability	The appropriateness of applying certain resource management practices to a particular unit of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices.
suitable range	Range that is accessible to livestock or wildlife and that can be grazed on a sustained yield basis without damage to other resources.
suitable forested lands	Forest lands to be managed for timber production. See "forested land-not suited."
summer-normal roads	Roads that can be used all year with the exception of spring breakup and extremely wet periods. The roads are constructed primarily from native soils but some segments may be constructed with imported borrow. Ditching is used to provide a drained roadbed and to protect the resources. Culverts or pipes are used for cross-drainages. Aggregate surfacing is used except where native soils are adequate.
surface rights	Ownership of the surface of the land only; right to use the surface of the land; and easements.
sustained yield	The achievement and maintenance in perpetuity of a level of annual or regular periodic output of the various renewable resources of the National Forest without impairment of the productivity of the land.
system road	An arterial, collector, or local road that has been catalogued and placed on the Forest's transportation system inventory records and maps.

T

temporary facility (road)	A temporary use of the land for transportation purposes; usually constructed to serve a specific resource activity. Occupied land is returned to resource production upon termination of the activity requiring its use.
temporary opening	A forest opening created through clearcut final harvest and in the process of regeneration. Under the 40-acre limitation for clearcutting, it will no longer be considered an opening when the new stand is greater than 20 percent of the height of the surrounding vegetation.
tentatively suitable forested land	See "forested land-tentatively suitable."
terminal moraine	The landform resulting from the outermost end moraine of a glacial advance.
thermal cover	Vegetation offering protection to wintering deer as an aid for moderating the effects of radiant heat loss, insulation. Local deer prefer hemlock, cedar, and balsam fir. Preference for single trees or clumps of three to six trees is as common in this area as for larger inclusions.
thinning	Cutting made in an immature crop or stand, primarily to accelerate the diameter increment (annual growth) of the residual trees, but also by suitable selection, to improve the species composition and/or quality of the trees that remain.
threatened species	Any plant or animal that is likely to become an endangered species within the foreseeable future throughout all or significant portion of its range and is listed as "threatened" by current Federal Register final rulemaking.
tiering	<p>Refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared. Tiering is appropriate when the sequence of statements or analyses is:</p> <ul style="list-style-type: none">- From a program, plan, or policy environmental impact statement to a program, plan, or policy statement or analysis of lesser scope or to a site-specific statement or analysis, or- From an environmental impact statement on a specific action at an early stage (such as need and site selection) to a supplement (which is preferred) or a subsequent statement or analysis at a later stage (such as environmental mitigation). Tiering in such cases is appropriate when it helps the lead agency to focus on

the issues that are ripe for decision and exclude from consideration issues already decided or not yet ripe.

timber production	The growing, tending, harvesting, and regeneration of regulated crops of industrial wood. Industrial wood includes logs, bolts, or other round sections cut from trees for industrial or consumer use, except fuelwood.
timber products	Timber products derived from vegetation types.
timber stand improvement (TSI)	Activities conducted in young stands of timber to improve species composition, growth rate, and form of the remaining trees. Examples are thinning, pruning, fertilization, and control of undesirable vegetation.
tolerant	See "shade tolerant."
topsoil	The original or present dark-colored upper soil that ranges from a fraction of an inch to several feet deep.
traffic service levels	<p>Level A - These are normally high standard roads, most often arterial. They are often two-lane, blacktopped roads. (Local and collector roads seldom are traffic service level A.)</p> <p>Level B - Usually a collector road and usually gravel surfaced. May be considered a medium standard road. May be single or double lane with mixed timber and recreation traffic. Traffic controls may be applied to reduce traffic volume and conflicts. Road location is strongly influenced by topography. Road surface is stable for most traffic during the normal use season.</p> <p>Level C - Normally considered a local road of minimum standard. Traffic flow is interrupted by limited passing facilities or slowed by road condition. Most safety features are provided by traffic management, such as single lane or allowable hours or season of use. Usually managed open but can be closed depending upon administrative and resource needs. Road location is dictated by topographic features and environmental factors. Road surface may not be stable under all traffic or weather conditions and may have rutting and dust.</p> <p>Level D - Usually a low-standard local road or travelway with slow traffic flow which may be blocked by an active resource activity (such as logging or mining). Two-way traffic is difficult and may require backing of one vehicle for another to pass. Some vehicles cannot travel on these roads. Road surface may be rough and irregular. Use may be discouraged or road closed immediately after the resource activity ends. When closed, the road usually is seeded with grass for erosion control and wildlife purposes, or allowed to revegetate naturally. The road would normally not be needed until re-entry years later for a resource activity such as a timber harvest. Temporary bridges and culverts are permissible.</p>

transmission pipeline A pipeline that carries gas or liquid from a producing field or central collection facility to a storage or consumption facility, usually over long distances.

TSI See "timber stand improvement."

U

unconstrained maximum Level of management defined as the highest possible level of a given output along with the costs associated with achieving it.

uneven-aged management The course of actions involved in maintaining a forest or stand composed of trees that differ markedly in age or size.

unplanned ignition A fire started at random by either natural or human causes.

unregulated Forest land that is suitable and available, but not organized for timber production under sustained yield principles where timber harvest is permissible but not a goal of management.

upland opening See "permanent upland opening."

utility corridor A tract of land of varying width forming a passageway through which various commodities such as oil, gas, and electricity are transported.

valley terraces A series of level surfaces in a stream valley, flanking and more or less parallel to the stream channel and above the existing floodplain.

variety classes Levels of visual variety or diversity of landscape character. The three levels are distinctive (Class A), common (Class B), and minimal (Class C).

veneer A thin sheet of wood of uniform thickness, produced by rotary cutting or by slicing, and sometimes by sawing.

veneer log A log considered suitable in size and quality for producing veneer.

vertical diversity The diversity in an area that results from the complexity of the above ground structure of the vegetation; the more tiers of vegetation or the more diverse the species make-up, or both, the higher the degree of vertical diversity.

viable population For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to ensure its continued existence is well distributed in the planning area (36 CFR 219.11).

visitor information service (VIS)	A service provided to the public by National Forests in which the public is supplied with information regarding opportunities or activities on National Forest System land; usually but not restricted to recreational opportunities.
visitor day	See "recreation visitor day."
visual absorption capacity (VAC)	The land's capacity to absorb the visual impact of management activities. Indicates the relative difficulty or cost of achieving visual quality objectives.
visual distance zones	Areas of landscapes denoted by specified distances from the observer. Used as a frame of reference in which to discuss landscape characteristics or activities of humans. The three zones are foreground (fg), middleground (mg), and background (bg).
visual management system	Also referred to as "landscape management" or "visual resource management." The art and science of planning and administering the use of forest lands in such ways that the visual effects maintain or upgrade human psychological welfare. It is the planning and design of the visual aspects of multiple-use land management.
visual quality objective (VQO)	A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape. The five levels are preservation (P), retention (R), partial retention (PR), modification (M), and maximum modification (MM).
visual resource	The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

W

water (classification of forest land)	Streams, sloughs, estuaries, and canals 120 feet or more in width and lakes, reservoirs, and ponds more than one acre in area. The water area is classed as not suited for timber production.
water-influenced landscape (WIL)	A term developed by the Ottawa National Forest which includes those land and water areas that are riparian and aquatic ecosystems, floodplains, wetlands, the "special attention" zone and visual resource area of concern. The WIL includes the river corridors and adjacent terrestrial area of the National Wild and Scenic Inventory Rivers. The WIL areas provide for the location of areas where management practices are modified to prevent detrimental changes in visual quality, water quality, fish and wildlife habitat, and soil productivity and to protect Wild/Scenic Inventory Rivers. Riparian areas can occur outside of WIL areas.
water yield	The total net amount of water produced on the Forest including streamflow and groundwater recharge.

watershed	The entire area that contributes water to a drainage or stream.
wetlands	Areas inundated by surface or ground water with frequency sufficient to support under normal circumstances vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.
whole tree removal	Felling and transporting the whole tree with its crown, and sometimes even its roots, for processing at a landing or mill.
wild and scenic river corridor	See "river area."
Wild and Scenic Rivers Act	Public Law 90-542, as amended (82 Stat. 906, as amended; 16 U.S.C. 1271-1287); 1968.
wild river	Those rivers or sections of rivers identified through the Wild and Scenic Rivers Act that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.
wilderness	The Wilderness Act of 1964 (78 Stat. 890, 16 U.S.C. 1131-1136) defines a wilderness as an area of undeveloped, federally owned land designated by Congress that has the following characteristics: (1) It is affected primarily by the forces of nature, where man is a visitor who does not remain. It may contain ecological, geological, or other features of scientific, educational, scenic, or historical value. (2) It possesses outstanding opportunities for solitude or a primitive and unconfined type of recreation. (3) It is an area large enough so that continued use will not change its unspoiled natural condition.
wilderness area	A Congressionally designated tract of federal land retaining its primeval character and influence without permanent improvement or human habitation. Management is intended to retain these characteristics.
wilderness condition	The environment of a wilderness area but may or may not be designated for wilderness area management.
wilderness study area (WSA)	One of the areas selected by Congress from an inventory of unroaded and undeveloped National Forest System lands as having apparent high quality for wilderness. Such an area will be studied to determine whether it should be recommended for addition to the National Wilderness Preservation System.
wildfire	Any fire that requires a suppression response.
wildlife	As used in this EIS, all nondomesticated mammals, birds, reptiles, and amphibians living in an environment; includes both game and nongame species, whether considered beneficial or otherwise. Animals, or their progeny, that once were domesticated but have escaped captivity and are running wild,

such as horses, burros, and hogs, shall not be considered wildlife.

wildlife habitat	The sum total of environmental conditions of a specific place occupied by a wildlife species or a population of such species.
wildlife opportunity area	Identified areas within the Ottawa National Forest which reflect different levels of response (high, medium, low) to various practices such as clearcuts, other regeneration harvest cuts on wildlife habitat and wildlife-based recreation uses.
wildlife structure	A site-specific improvement of a wildlife or fish habitat, such as a spring development or dugout to provide water, brushpile for cover, nestbox for birds, or rock and log placement in a stream for fish cover and pool creation.
winter-only road	Roads constructed of native soils that can normally only be used during the winter when they are frozen. Ditching is used only where needed to protect the resources. Culverts or pipes are only used for watercourses that are flowing during the winter or where needed to protect the resources. No aggregate surfacing is used.
winter/summer-dry road	Roads that can be used during the winter in a frozen condition or during dry periods in the summer. The roads are constructed primarily from native soils but some segments may be constructed with imported borrow. Ditching is used to provide a drained roadbed and to protect the resources. Culverts or pipes are used for most cross-drainages. Aggregate surfacing is used on steep grades or to stabilize soft areas.

Chapter VIII

References



Chapter VIII

References

Chapter VIII lists the references used throughout the planning process in preparing the Forest Plan and Final Environmental Impact Statement.

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In addition, there are planning records available in the Forest Supervisor's Office. These planning records relate to the Forest Planning Process as described in 36 CFR 219.12, and include:

- Identification of purpose and need which includes the issues, concerns, and opportunities collected.
- Public involvement records.
- Inventory data background information.
- Analysis of the management situation including background for yields, costs, demand, management prescriptions, and benchmark analysis.
- Process for the formulation of alternatives.
- Reference information related to the estimation of effects and evaluation of alternatives.

Chapter IX

Index



Chapter IX

Index

Chapter IX is an index to the Final EIS. The purpose of the index is to direct the reader to the significant discussions of major topics covered by this Final EIS. It is not intended to locate every reference to a particular topic and it does not duplicate the headings listed in the Table of Contents.

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Chapter X

Appendices



Chapter X

Appendices

All the appendices for the Final Environmental Impact Statement are contained in the Appendix Volume.

Major Changes to Appendices

A number of changes were made to the Appendices of the Draft Environmental Impact Statement. Part 7 of Appendix B, describing Formulation of Alternatives, was changed to show revisions made to alternative 7 in response to public comments on the draft documents. Part 8 of Appendix B, Estimating Effects, was changed to display the change in forest products and features resulting from revisions to alternative 7.

Appendix E was revised to include the recently identified candidate research natural area in the Sylvania Roadless Area.

A new appendix, Appendix H, was included in the volume. This appendix lists the federally listed endangered and threatened species and documents the evaluation which identifies candidate species for the Regional Forester's sensitive species program.

Appendix I, Management Indicator Species Evaluation, has been revised to reflect additions and substitutions made to the MIS list.

These changes and all those made throughout this document are due to the review of the draft documents by both the public and the Forest Service. The changes which are found in the Final Environmental Impact Statement are the result of attempts to make this document as responsive to the public as was possible.