

LAKWOOD SOUTHEAST PROJECT

Purpose and Need

Background

The Lakewood Southeast Project Area (analysis area) is located in the southeastern portion of the Lakewood-Laona Ranger District (see vicinity map). This project contains approximately 36,939 acres of National Forest. Within the analysis area, the Chequamegon-Nicolet National Forest 2004 Land and Resource Management Plan (forest plan) allocated the majority of the lands to Management Areas (MA) 4A (conifer: red-white-jack pine), 4B (conifer: Natural pine oak), 8F (special management areas), and 8G (old growth and natural feature complexes). Also included in the analysis area are MAs 2A (Uneven aged Northern Hardwoods), 2C (uneven-aged northern hardwoods: mixed forest), 3C (even-aged hardwoods: oak-aspen), and 8E (existing and candidate research natural areas). Shown on Table 1 below, are acres of these MA allocations:

Table 1: MA acres. This table shows the dominate MA's in the analysis area.

MAs	MA 2A	MA 2C	MA 3C	MA 4A	MA 4B	MA 8E	MA 8F	MA 8G
Acres	9	366	101	15,585	10,299	304	3,987	6,288

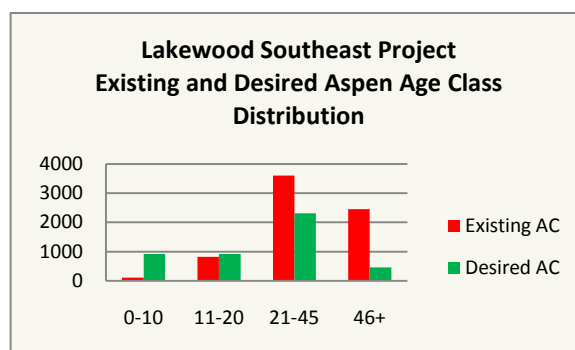
Existing Condition vs. Desired Conditions

Species Age Class Distribution

The existing age class distributions within the analysis area differ from the desired conditions from the forest plan.

Aspen Age Class Distribution

Currently, there is an overabundance of the 21-45 and 46+ aspen age classes and a shortage of the 0-10 aspen age class on the Forest and in the project area. This shortage is 2% (about 110 acres) of aspen in the 0-10 year age class. The desired condition from the forest plan (p. 2-5) is to have 20% (or about 925 acres) of aspen in that age class. This means that there is currently a deficit of about 815 acres of young aspen. Therefore, there is a need to modify the analysis area's aspen age class distribution to more closely reflect forest plan's desired future conditions, primarily, in MA 4A.

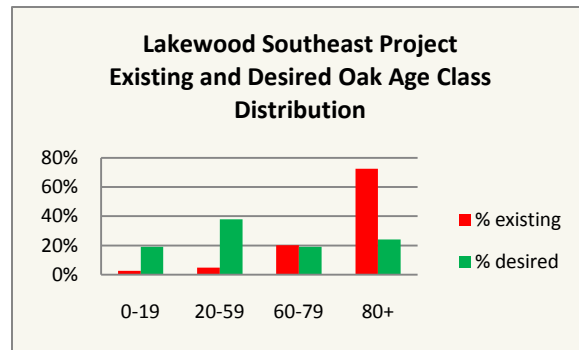


Oak Age Class Distribution

Currently, there is an overabundance of the 80+ oak age class and a shortage of 0-19 and 20-59 oak age classes on the Forest and in the project area. This shortage is 3% (about 50 acres) of oak

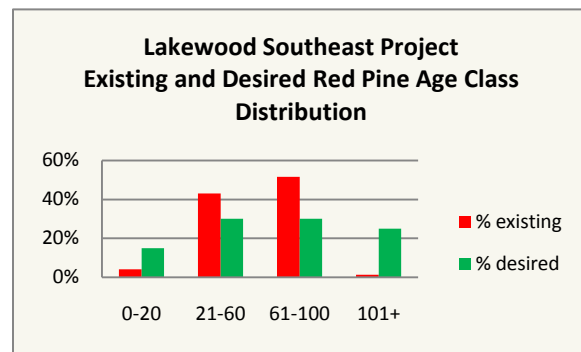
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in the 0-19 year age class. The desired condition is to have 19% (or about 380 acres) of oak in the 0-19 year age class (forest plan, p. 2-9). This means that there is currently a deficit of about 330 acres of young oak. To work toward the desired future condition, there is a need to convert older oak to younger oak age classes. Other needs are to increase 20-59 age class from 5% to 38% and reduce the 80+ age class from 72% to 24%.



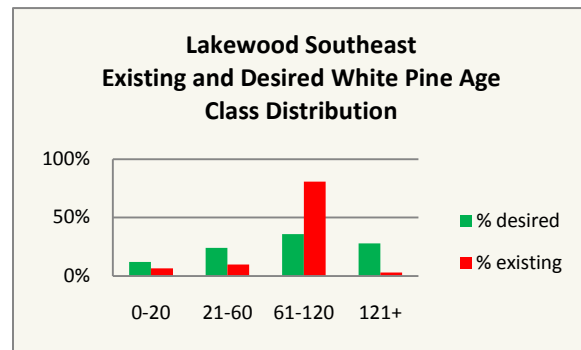
Red Pine Age Class Distribution

Currently, there is an overabundance of the 21-60 and 61-100 age classes and a shortage of 0-20 and 101+ age class red pine on the Forest and in the project area. The shortage currently 4% (about 300 acres) of red pine in the 0-20 year age class and the desired condition (forest plan, p. 2-10) is 15% (or about 1,100 acres). This means that there is currently a deficit of about 800 acres of young red pine. This deficit shows a need to modify the analysis area's red pine age class distribution to more closely reflect forest plan's desired future conditions. Other gaps are to reduce 21-60 age class, from 43% to 30% and the 61-100 age class from 52% to 30%. Also, the 101+ age class is currently 1% and should be increased to 25%.



White Pine Age Class Distribution

Currently, there is an overabundance of 61-120 age class and a shortage in all the other age classes of white pine on the Forest and in the project area. This shortage is 6% (about 90 acres) of white pine in the 0-20 year age class. The desired condition from the forest plan (p. 2-12) is to have 12% (or about 190 acres) of white pine in that age class. This means that there is currently a deficit of about 100 acres of white pine. This gap shows a need to modify the analysis area's white pine age class distribution to more closely reflect forest plan's desired future conditions. Other needs are to increase the 21-60 age class from 9% to 24%, reduce the 61-120 age class from 82% to 36%, and increase the 121+ age class from 3% to 28%.



Species Composition

The existing forest type composition within the MA 4B portion of the Lakewood Southeast Project Area differs from the desired forest type composition (forest plan Table 3-11, p. 3-19).

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Aspen Composition

Currently, there are about 2,423 acres of aspen composition (27% of the uplands) in MA 4B in the analysis area. The desired composition of aspen in MA 4B is 0-7% of the uplands. Aspen composition in MA 4B exceeds 7% both at the Forest level as well as within the analysis area. The upper end of the range (7%) would be approximately 627 acres of aspen. Therefore, there is a need to convert about 1,796 acres of aspen in MA 4B to other types in order to bring aspen composition within the range of forest plan's desired conditions.

Jack Pine Composition

Currently, the jack pine composition is about 716 acres (8% of the uplands) in MA 4B in the analysis area. The desired composition of jack pine in MA 4B is 3-6% of the uplands. Jack pine composition in MA 4B exceeds 6% both at the Forest level as well as within the analysis area. The upper end of the range (6%) would equate to about 538 acres of jack pine. This gap shows a need to convert about 179 acres of jack pine in MA 4B to other types in order to bring jack pine composition within the range of forest plan's desired conditions.

Red /White Pine Composition

Currently, there are about 3,085 acres of red/white pine composition (34% of the uplands) in MA 4B in the analysis area. The desired composition of red/white pine in MA 4B is 45-70% of the uplands. Red/white pine composition in MA 4B is below 45% both at the Forest level as well as within the analysis area. The lower end of the range (45%) would equate to about 4,032 acres of red/white pine. Therefore, there is a need to convert about 947 acres of other types in MA 4B to red/white pine in order to bring composition within the range of forest plan's desired conditions.

Selected Trout Stream Improvement

There are currently 764 acres of aspen within the selected stream buffer zones in the analysis area. Little Waupee Creek and Waupee Creek are selected trout streams (forest plan p. 2-17 and Appendix DD-2) where aspen regeneration is not desired within 450 feet distance of these streams and their tributaries. This project area also contains several Class I (not selected) and Class II trout stream that require a 300 foot buffer without aspen generation. The long term desired future condition for these stream buffers is to have more long-lived, shade-tolerant species. There is a need to convert aspen to other long-lived species within these stream buffers.

Species diversity

There are many areas within the Lakewood Southeast Project Area that would benefit by increasing stand tree species diversity. Planting white pine or hemlock in the understory would improve long-term wildlife habitat value, reduce susceptibility to insects or diseases, and increase future management options. This project would increase tree species diversity in many stands within the Lakewood Southeast Project Area (forest plan p. 2-25).

Stocking

Many stands in the Lakewood Southeast Project Area exceed (or will soon exceed) the desired forest stocking levels.

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Uneven aged Hardwood

There are currently no uneven-aged hardwoods in the analysis area; however, there are about 300 acres of overstocked northern hardwood stands within the analysis area that are good candidates for uneven-aged management. The forest plan's desired condition (p. 2-8) recommends stocking levels in managed uneven-aged northern hardwood stands to maximize growth and quality of forest products. So there is a need to move some of the northern hardwoods in the Lakewood Southeast Project Area toward uneven-aged conditions to meet the forest plan.

Mixed Hardwood

Currently there are about 200 acres of mixed upland hardwood stands that exceed the stocking levels desired in the forest plan (see FF-1 through FF-3). Reducing the stocking of these stands would maximize growth and improve stand health. Therefore, there is a need to reduce stocking in even-aged mixed hardwood types within the project area.

Red Pine

There are about 3,600 acres of red pine types in the project area that are (or soon will be) in need of density management. This includes about 1,800 acres of stands that are currently in excess of desired stocking levels (forest plan, Table 2-9, p. 2-10) and another 1,800 acres that will exceed the desired stocking levels within the next five years. This gap shows a need to reduce the stocking levels of these stands, which would maximize growth and improve stand health.

White Pine

Currently there are about 300 acres of white pine types in the Lakewood Southeast Project Area that are in need of density management. Addressing this need would reduce the density of these stands, which would maximize growth and improve stand health.

Communities of concern

Currently within the Lakewood Southeast Project Area are forest communities that have become increasingly rare or altered with the absence of their primary natural disturbance agent- fire.

The desired condition from the forest plan is: Goal 1.2 calls for protecting ecological communities of special concern; Goal 1.4 calls for providing terrestrial ecosystems in healthy, diverse, and productive conditions that support the diversity of plant and animal communities and tree species, and have a high likelihood of supporting the viability of native and desired non-native vertebrates and vascular plants.

Reestablish components and processes in the northern dry forest ecosystem

These forests are pine- or pine-hardwood-dominated ecosystem found on dry sandy soils and occurring mainly on sandy glacial outwash, sandy glacial lake plains, and sand ridges.

Aggressive fire suppression policies and minimal use of prescribed fire over the past eighty years, has largely excluded fire from these ecosystems.

Currently, the removal of fire from the Northern Dry Forest has altered stand densities, species composition, and age class distributions. Desired condition from the forest plan's Objective 1.4c (p. 1-3) gives direction to restore and/or emulate natural disturbance regimes historically present

within pine ecosystems. This loss shows a need to restore northern dry forests in the project area.

Pine Barrens

Pine Barrens are types of savanna plant communities that occur on sandy soils, dominated by grasses, low shrubs, small trees, and scattered large trees. Historically, Pine Barrens covered 2.3 million acres (7%) of Wisconsin’s pre-settlement landscape. Pine Barrens are highly variable in nature and can be difficult to characterize. However, one thing that they all have in common is that they tend to be open landscapes on sandy soils that are subject to frequent fires.

Currently, because of the exclusion of fire on the landscape, Pine Barrens have become quite rare. The desired condition from the forest plan’s objective 1.4b (p.1-3) is to restore and/or emulate natural disturbance regimes in Pine Barrens. Therefore, there is a need and an opportunity to Restore Pine Barrens Ecosystems in the Lakewood Southeast Project Area. This would include burning 800 acres east of Airport Road-a former Pine Barrens.

Access Management

The estimated total road mileage on national forest within the analysis area is approximately 258 miles. The type and condition of the roads varies from asphalt surface with shoulders to unsurfaced “woods roads”. Road management in this project is in conjunction with the forest’s Travel Management Project.

The current road mileage exceeds the density of roads in some areas called for in the forest plan (see p. BB-1). The forest plan’s direction is to reduce average open and total road density (p. 1-7), see Table 2 below. The Lakewood Southeast travel analysis process shows a need to reduce road density for the following recreation opportunity spectrum classification’s (to move towards forest plan’s desired conditions):

- open and total road density for non motorized
- open and total road density for roaded natural remote
- total road density for roaded natural

Table 2: Open and Total Road Density* This table shows the gap between current and desired road density.

Recreation Opportunity Spectrum class	Desired Future Condition	Existing Condition within project area
Non-motorized	≤ 0 mi./sq. mi. of open road.	1.2 mi./sq. miles
Non-motorized	≤ 3 mi./sq. mi. of total road.	4.25 mi./sq. miles
Roaded Natural Remote	≤ 2 mi./sq. mi. of open road.	3.25 mi./sq. miles
Roaded Natural Remote	≤ 3 mi./sq. mi. of total road.	3.84 mi./sq. miles
Roaded Natural	≤ 4 mi./sq. mi. of open road.	3.60 mi./sq. miles
Roaded Natural	≤ 4 mi./sq. mi. of total road.	5.19 mi./sq. miles

*Total Road density includes both open and closed roads.

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Lakewood Southeast Project Area currently includes closed roads (from a previous decision) in a non-motorized area, as well as other areas. The desired condition is to move towards forest plan's objectives in providing non-motorized recreation experience (forest plan, p. 1-4) as part of "maintain and enhance diversity and quality of recreation experiences..." Therefore, there is a need to block these roads to motorized use in the Lakewood Southeast Project Area. Blocking these roads would be completed by decommissioning, removing the roads from the Motorized Visitor Use Map, installing gates or barriers, and creating parking areas.

Currently, the location of some of the existing roads is not appropriate for ongoing management activities. The desired condition from the forest plan is to provide a safe, efficient road system (p. 1-7). Preliminary analysis showed a need to provide long-term access in parts of the analysis area that are not adequately accessible for long-term management by National Forest System Roads. Other areas showed a need for road improvements to improve or maintain access that provides for public safety, enjoyment, and minimizes adverse environmental effects. To address this need for change there will road construction and reconstruction.

Other Improvements

Wildlife Habitat Improvement

Currently, wildlife habitat openings are scattered throughout the project area in a variety of sizes. Over time, brush and other competing vegetation has encroached on these openings. The desired condition is for the Forest Service to maintain numerous permanently non-forested areas as one way of providing a variety of habitats for wildlife (forest plan, p. 2-4, 2-15, and 2-16). There is a need to maintain forest wildlife openings in an open condition in accordance with forest plan direction for the benefit of a number of wildlife species. Mechanical means or prescribed fire will be used to remove encroaching vegetation. Alder management is included in the mechanical habitat improvement work. This would create temporary openings and early successional habitat used by American woodcock and golden winged warblers. The Wisconsin Department of Natural Resources lists the woodcock and warbler as Species of Greatest Conservation.

There are limited historical and current nesting records for red-shouldered and goshawks (Regional Forester Sensitive Species [RFSS] and State Threatened) in upland hardwood stands. These hardwood stands currently lack a large conifer (hemlock and white pine) component that is an important part of high quality nesting habitat. The forest plan's desired condition is to encourage the planting of these two tree species where opportunities are present (p. 1-4). The gap between the current and desired conditions shows a need to improve the nesting habitat within the project area for these two RFSS species.

There is only one communal wood turtle (RFSS and State Threatened) nesting site on the District and many of the other smaller/individual sites are located adjacent to roads which increases the possibility of turtles being killed by vehicles. The forest plan refers to the importance of communal nesting sites on the Forest (p. 2-22). Ideal sites would be less than an acre and located in stands adjacent to streams on sandy soils. To protect the wood turtle there is a need to create nesting habitat.

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Reduce hazardous fuels

Within the Lakewood Southeast Project Area there are hundreds of homes, family cottages, and businesses. The eastern extent of the project area is located on a large sand outwash plain that is subject to extended drought conditions. The vegetation in the area is fire-adapted and burned frequently prior to human development. Currently, there are many Wildland Urban Interface (WUI) areas (areas of National Forest lands adjacent to private properties) where the fuel profiles would pose a hazard to life and property in the event of a wildfire.

Airport Road and the adjacent area (about 1,000 acres) are at the greatest risk of a wildland urban interface fire. Recognizing this, the Forest Service has identified numerous timber stands on National Forest lands within the project area that contain hazardous fuel conditions and need treatment. In addition to timber stands with fuel hazards, there are also stands in the WUI that are overstocked, in an unhealthy condition, or have the potential to be converted to less flammable forest types.

The forest plan's (p. 2-25) desired condition is to "focus fuels reduction activities within the urban interface and areas surrounding the communities at risk".

There is a need to reduce hazardous fuels adjacent to private homes and property in the Lakewood Southeast Area. Reducing the amount of ladder fuels and flammable fuels within these stands could reduce the size and occurrence of catastrophic crown fires. This would increase firefighters' ability to safely and effectively control wildfires.

Proposed Action

Based on the opportunities and needs outlined in the Purpose and Need Section, the Forest Service proposes the following actions in the project area. Acreages are approximate:

This project would harvest 11,820 acres of timber to manage species age diversity, species composition, and improve growing conditions, including:

- Select harvest of 307 acres of northern hardwoods
- Thin 5,591 acres of pine, spruce, oak, northern hardwoods, and aspen
- Clearcut 1,247 acres of jack pine, red pine, and aspen
- Shelterwood harvest 4,282 acres of pine, fir, birch, oak, northern hardwoods, and aspen
- Special cut 393 acres of pine, aspen, and northern hardwoods

Access Management:

- Construct 2.5 miles of road
- Reconstruction/maintenance of 34 miles of road
- Install barriers on the ground to block closed/decommissioned roads, which are not open to public motorized use from prior decisions, within the Lakewood Southeast Project Area.
- Decommission 23.4 miles of open unauthorized roads outside of the non-motorized area.
- Decommission 3.1 miles of open system road and remove them from the Motorized Visitor Use Map outside the non-motorized area.
- Close 3.9 miles of road outside the non-motorized area.

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Other Management:

- Understory plant 2,045 acres
- Understory burn 1,976 acres
- Mechanical treatments
- Improvement of 903 acres of timber stands
- Full plant 445 acres
- Reestablish components and processes in the dry northern forests and pine barrens
- Management of wildlife openings
- Improve habitat for wood turtle, red shoulder, and goshawk

Reference

Chequamegon-Nicolet National Forest 2004 Land and Resource Management. 2004. Milwaukee, WI. U.S Government Printing Office.