

Harvest Plan

University Forests

OP_ID:201

Date: 10-1-2019

Forest_ID: 2

Forest Name: PEF

Town: EDDINGTON

Compartment: C

Stand: C97, C172

Treatment_Type: SWEST and STAGE 2 SW Start_Yr:2019 End_Yr: 2020 Budget_Yr 2020

Notification TBD

Season: Winter

Area: 35 ac

Landowner: University of Maine Foundation

Logger(s): Operator_ID: Roger Avery and Sons Logging

Forester: Keith Kanoti LF3508
University Forests Office
250 Nutting Hall
Orono, ME 04469
Cell Phone 207-944-6841
E-Mail keith.kanoti@maine.edu

Equipment Mix: Cable Skidder

Landowner Objectives for harvest unit: Production of commercial forest products. Protection of water quality.

Description of operation site boundary: The Harvest Boundary is flagged on PINK.

Description of nearby property lines: None

Waterbodies: There are two large Wetlands located adjacent to the harvest area with a brook connecting them that will require a crossing.

Wildlife habitats/Natural Communities/threatened and Endangered Species: Brook trout habitat in the stream and Waterfowl Wading bird habitat in the wetlands.

Best Management Practices for Protecting Water Quality

Sediment: Sediment of surface waters will be prevented in the following ways:

1. Winter harvest is planned so risk of soil exposure is reduced by operation under frozen conditions, trails may be cut and frozen in advance of their main use.
2. Wood will be harvested across the brook when conditions favorable and wood will be left on the near side of the brook when risk is elevated by poor conditions.

3. A cable skidder will be used for yarding so all slash and non-merchantable material will be left on in the woods increasing surface roughness. Slash will also be available to cover areas of exposed soil as needed in trails.
4. The site has gentle slopes toward the water body (8% or less) and is essentially flat for the last ~75' before the wetland. The wettest soils are in the 0-75' zone at the toe of the slope, as such we have prescribed no harvest for this area. This is 3X the recommended MFS Best Management Practices (BMP) filter width for a 0-5% slope.
5. Our timber harvest contract specifies the use of BMPs and we will perform harvest inspections at least once a week and document BMP performance and more frequently if weather conditions deteriorate. The Logger is responsible for BMP installation but will work with the Forester to design the BMP system as needed.

Maintain Shoreline Integrity/Temperature effects: No Harvesting will take place within 75' of the wetland assuring shoreline integrity will be maintained. A skid trail crossing is planned over the brook below the wetland. Shoreline integrity will be maintained on this crossing in the following ways:

1. Temporary bridges will be used to cross the brook at a narrow place with well-defined banks.
2. Slash and logs will be used as needed to armor the approaches and minimize soil disturbance.
3. Slash will be left in the approaches (where above the normal high water mark) when the bridges are removed to stabilize soil.
4. An assessment will be done in the spring to see if additional stabilization measures are needed, such as hay and seed or water diversion structures.
5. Bridges and any material below the normal high water mark will be removed at the conclusion of the harvest.

Shoreland Zoning Considerations/Statewide standards/Chapter 27 considerations: 250' Statewide Standards shoreland areas on the wetlands and 75' shoreland area on the brook. The 250' zone will be marked in with BLUE Flagging and the 75' Zone with DOUBLE BLUE.

Permits and Notifications: A forest Operations notification will need to be filed with the Maine Forest Service. We plan to exceed the allowed opening size under the statewide standards for timber harvesting in Shoreland areas. An Option 3 application has been submitted to the Maine Forest Service and will have to be approved before harvesting starts.

Local timber harvesting ordinances: None Identified.

Timing considerations: Winter conditions.

Access and yard location: Wood will be yarded along the access road. Wood may be yarded down the road if needed. Main Trails have been laid out in advance and are flagged in YELLOW and BLACK STRIPED flagging.

Recreational and Aesthetic Considerations: Visibility is low for this harvest area so aesthetics are not a major concern.

Prescriptions:

Near side of the Brook (C97)

Shelterwood Establishment

All trees to Cut will be Marked with BLUE Paint, except balsam fir – CUT all merchantable fir.

This will be a shelterwood establishment harvest. About 50% of the stand basal area will be harvested reducing the overstory basal area from 155 to 80 Square feet per acre. Removals should focus on intolerant hardwoods and balsam fir first, then tolerant hardwood of poor form and suppressed and midstory trees. Finally large overstory trees including white pine, hemlock and spruce and quality longer lived hardwoods should be spaced to achieve the desired basal area.

Some areas of pine and spruce regeneration are present from previous harvests, these should be protected. In areas with fir or no regeneration, create soil disturbance to encourage pine regeneration by skidding through these areas when possible.

In the 250' shoreland area do not reduce basal area below 80 square feet and do not create any canopy gaps in excess of 1500 square feet.

In the 75' shoreland area only select the most at risk trees for removal. Do not create canopy gaps and do not reduce basal area below 100 square feet, favor softwoods in this area.

Far Side of the Brook (C172)

Stage 2 of 3 stage Shelterwood.

All trees to Cut will be Marked with BLUE Paint, except balsam fir – CUT all merchantable fir.

Second Stage of 3 Stage Shelterwood.

There will be no harvesting within 75' of the wetlands.

North end of the Block Strips 6-13 on map.

75-250' from wetlands. Release white pine advance regeneration where present by removing canopy trees from along the edges of leave the leave strips from the last harvest. Concentrate on removing hardwoods that cast low shade. Large pine directly on the edge of the leave strips should also be harvested to provide release to the regeneration unless they have cavities or good potential for cavity formation (dead tops, lightning strikes signs of decay). Trees should be felled into and along the leave strips to protect pine regeneration.

Within the leave strips. Remove the majority of the hardwoods and retain the majority of the white pine, unless the pine are in groups where pine should be spaced to provide 50% canopy closure to create a Shelterwood condition within the strips. Skid trails will be run down the

center of the old uncut strips to avoid pine regeneration. The regeneration within the leave strips is primarily balsam fir and is not desirable so no effort will be made to protect this.

The resulting stand in the 75-250' zone will not have a regularly distributed canopy and will have canopy openings in excess of 10,000 square feet less than 100' apart.

South end of the Block Strips 1-5.

These areas did not regenerate white pine and will comply with option 1 of statewide standards. Remove 1/3 of the basal area in previously uncut strips. Remove trees in the following order until 1/3 of the basal area is removed:

Balsam fir

White Birch

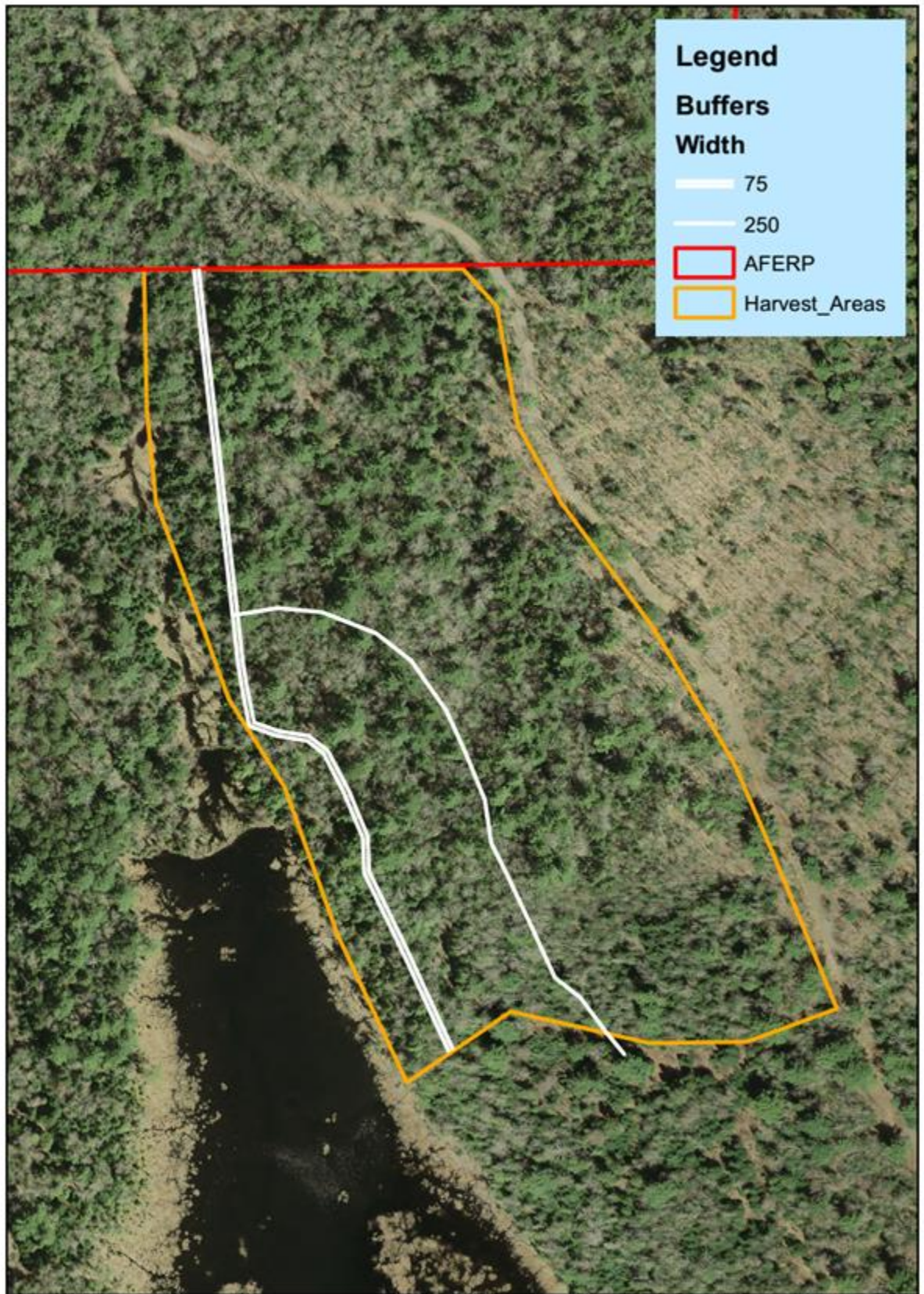
Aspen

Red Maple if not log quality potential.

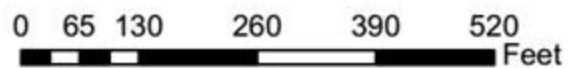
Beyond 250' from Wetlands

Reduce canopy closure to approximately 35%. To achieve this remove hardwood first then pine.

OPID 179 Penobscot Forest Stand C97



University Forest Office
Keith Kanoti LF 3508
10-27-2017 NAD 83 19N
For Planning Only - Not a legal survey



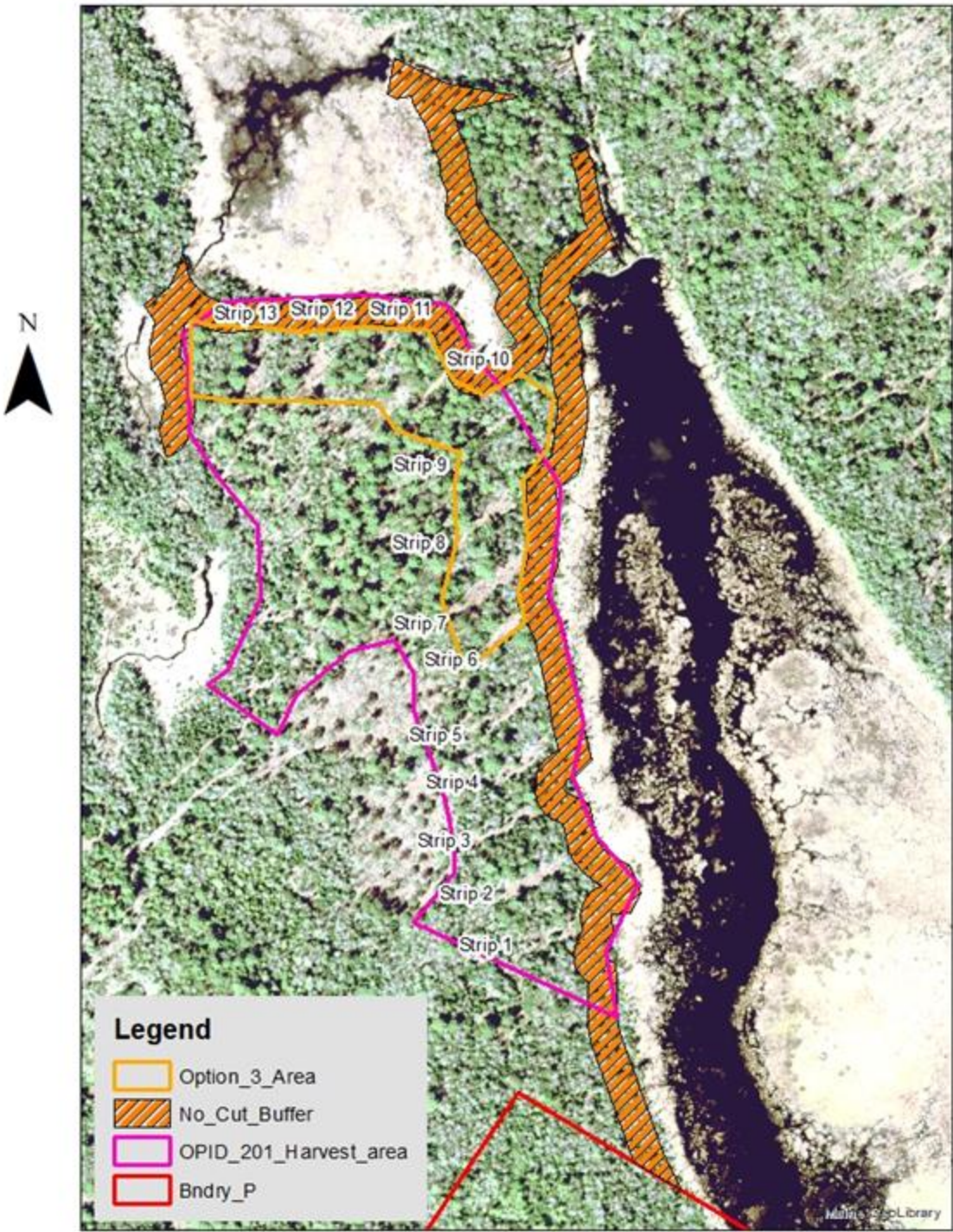
OPID 179 Penobscot Forest Stand C97 Soils



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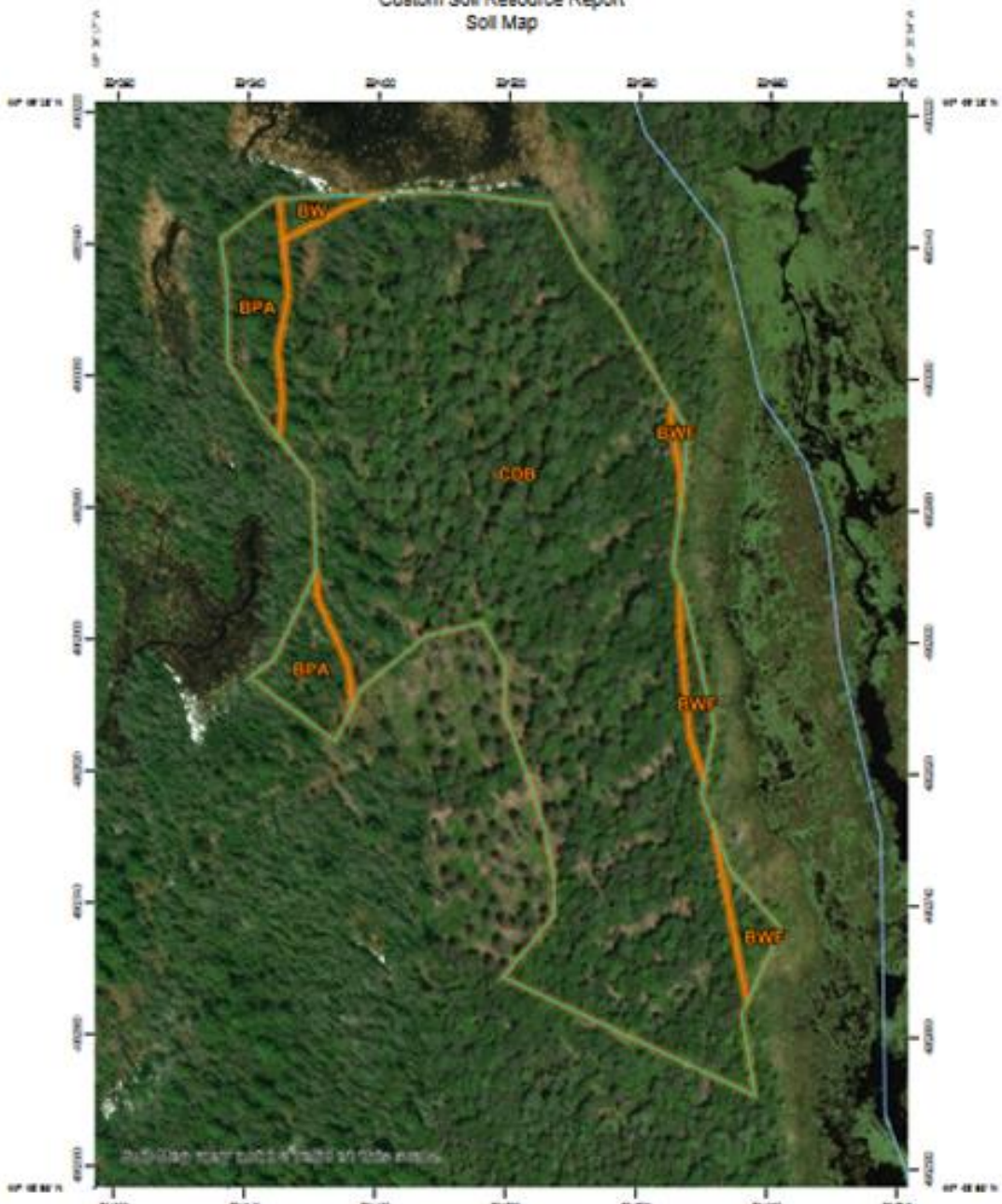
Option 3 University of Maine Foundation



University Forests Office
Keith Kanoti LF#3508
12-16-19 Not a Legal Survey

0 110 220 440 660 880 Feet

Custom Soil Resource Report
Soil Map



Map Scale: 1:2,220 (Printed on A portrait (8.5" x 11") sheet)

0	45	90	135	180	225
0	150	300	450	600	750

Map projection: Web Mercator. Corner coordinates: WGS84. Edge to: UTM Zone 18N WGS84