### Stewardship Forester training

**Spring**, 2019

### WHAT WILL MY WOODS LOOK LIKE?

### BEFORE AND AFTER TIMBER HARVESTING







# Maine Healthy Forest Program

A healthy forest provides habitat for wildlife, clean water and air, recreational opportunities, and economic vitality to families. Healthy forests are important to our Maine way of life. Maine's Healthy Forests Program is a collaboration of:





Contact us at: 800-367-0223 Or on the web at www.mainehealthyforests.org

22 State House Station 18 Elkins Lane Augusta, ME 04333-0022



Working with you to encourage active management of Maine's family woodlands

Maine's Healthy

**Forests Program** 

A Guide for Loggers

# GOALS

- Help forestry professionals help woodland owners meet their harvesting goals while operating and maintaining a healthy business
- Recognize the importance of communication and visual impact in timber harvesting
- View timber harvesting with an eye towards aesthetics and achieving goals
- Introduce a tool to prompt discussion before the job begins

What do (we think) we know about Maine's family woodland owners? Why People Own Woodland : The top three reasons why Kennebec County landowners own land are: "Part of my primary home" (62.3%), "To enjoy beauty or scenery" (60.3%), "For privacy" (60.9%). Timber products is #12 (about 15%)

# Attitudes about timber harvesting

- Woodland owners: based on experiences, expectations and goals
- Neighbors and general public: often influences woodland owners, and vice versa
- Professionals: Maine's Healthy Forests Program encourages forestry and logging professionals to be trusted service providers for harvesting on family woodlands.

# The importance of "story"

Have we as professionals effectively communicated our story?

What is the owner's story for his or her woods?

Do woodland owners always know what questions to ask, let alone ask them?

## PRINCIPLES OF LOGGING AESTHETICS

- Aesthetics are a form of Communication
- Since beauty is in the eye of the beholder, identify the beholder(s) and where they behold from.
- Landings have the greatest visual impact on most harvests.
- Harmony is pleasing to the eye. Waste and disorder are not harmonious.

# PRINCIPLES OF LOGGING AESTHETICS-2

- The most recent job gets the credit and the blame.
- Planning for aesthetics improves results and reduces costs.
- Time heals many wounds; how much do you have to work with?
- Work done for other purposes can yield aesthetic benefits.
- Aesthetic judgment is often based on expectation , experience and story.
- People like big trees!

Good, Better, BEST Practices for achieving goals

Planning: use tools such as FMP, HP, TSA, HSS/checklist----

And Pictures! to help ensure desired results

Responsibility-who does what, and who pays for it

Cost/benefit-part of risk management

# The HSS questions cover the following categories:

•Landowners' overall satisfaction with the harvest.

### •How woods looked after the harvest.

•Landowner's satisfaction with the financial outcomes of the harvest.

•Written timber sale agreement-use and effectiveness.

•Forester involvement

•Were harvest goals met?

# Actual landowner question:

 "...but what I really want to know is, what will my woods look like...?"

### Thinning and Crown Release of Crop Trees

Natural white pine sawtimber stand



#### DEF

#### Woodland Owners' View

There are too many big pines here. Some need to come down so that the others can grow better. There is a lot of unwanted fir here but if the stand is thinned, a few years from now more pine seeds will come.

#### Logger's View

There is good road access to this stand, and the trees have sufficient volume and value to make a viable partial cut. Seeing the ribbons on the trees to leave will make it more efficient for the operator. Since the younger fir are not desirable to save, there will be plenty of room for grapple skidders to maneuver without damaging the trees to keep.

#### Forester's View

This medium sawtimber-sized white pine stand is too dense; crowns are closed in and the stand is not achieving optimum growth. The established but suppressed fir understory is not a good replacement. Recommend thinning to release the crowns of the best crop trees on three or four sides. Then let the stand grow for a while, as long as the dominant timber trees continue to add volume and value. When the time comes to regenerate the stand, harvesting within a year of a good cone crop should increase the amount of white pine in the next forest.

### Thinning and Crown Release of Crop Trees

Natural white pine sawtimber stand



#### DURING

#### Woodland Owners' View

The feller buncher has a saw at the bottom of the yellow metal part. It's like a huge sawmill blade. The operator cuts a tree using the saw, then uses the grips on the front to put it closer to the feller buncher. After enough logs are on that space, the operator moves them to a pile of logs which a skidder then takes to a log yard.

#### Equipment Used

Tracked feller buncher, grapple skidder, and loader/slasher on landing.

#### Logger's View

Modern mechanical harvesting equipment allows well-trained operators to see what they are doing, and make good decisions as they cut the designated trees. Boom-mounted saw heads like this reduce the equipment impact by reaching out without driving to the stem that's being cut.

### Thinning and Crown Release of Crop Trees

#### Natural white pine sawtimber stand



AFTER

#### Woodland Owners' View

The trees are spaced wide apart and wind or insect disease could be a problem in the future. In addition, the width of each tree is small in terms of how strong each tree might be if a big wind came through. On the other hand, each tree now has a lot of light and the crowns can get wider quickly. It is a risk to do wide spacing but it might help in the future growth of the trees.

#### Forester's View

Residual stand is in great shape as far as mechanical damage from equipment is concerned. The basal area may be a little below the optimum stocking table guideline; however, the stand is still intact and growth should take off. Keep an eye out for disease or insect damage. The stand may be susceptible to wind damage for a few years, but these dominant trees have already adapted to wind stress over the years. Unless some unforeseen damaging factor comes into play, grow these trees to a target financial maturity size, perhaps 24" dbh or greater.

### Thinning and Crown Release of Crop Trees

#### Natural white pine sawtimber stand



#### **AFTER 5 Years**

#### Woodland Owners' View

The pines are growing bigger crowns and wind has not taken any trees down. There are a lot of new saplings under the pines which include balsam, spruce, red pine, and white pine. While it was a risk, the trees are happy with their sunlight.

#### Wildlife Outcomes

This stand now has two well established vertical layers, below 6'and above 30'. Over time, the midstory layer (6-30') can become established, which will attract birds such as the black-throated green warblers.

#### Forester's View

It is amazing how quickly healthy pine responds to more sunlight. These crowns have really expanded in only five years, and the stand has held up during some pretty strong wind events. The understory regeneration, while not part of the original plan, is a welcome hedge, in case it becomes necessary to remove the overstory. But for now, let it grow.

### Improvement Harvest—Looking Up

#### Mixed wood forest



#### Woodland Owners' View

During warmer months, there are so many trees and leaves that there isn't much sunlight getting through. Because of that, the trees won't grow as well. If a thinning happened, then the remaining trees would have more light and resources. They will grow better and faster without the competition.

#### BEFORE

#### Forester's View

When the leaves are out, canopy closure for this stand is nearly 100%. A thinning and improvement cut will open space around the crowns of the best crop trees, allowing them to increase growth and future value.

### Improvement Harvest—Looking Up

#### Mixed wood forest



#### AFTER

Woodland Owners' View

The remaining trees are now going to have more

sunlight. They are "released" which means the

Equipment Used

In-woods cut-to-length processor and forwarders.

competing trees have been removed.

#### Forester's View

The remaining crop trees have been released, and with no damage to the crowns. The white pines especially, and the hardwood too, will make good use of the additional sunlight starting next growing season.

#### Wildlife Outcomes

Small upper canopy gap openings (less than two acres) are beneficial to certain songbirds, such as the chestnut-sided warbler.

### **Patch Cut with Retention**

#### Young sapling stand



#### BEFORE

#### Woodland Owners' View

Each bird species like a particular kind of tree and/or stand. Woodcock like open spaces where they can easily fly for their courtship dance. This stand is over grown with too many saplings so something needs to happen.

#### Logger's View

Small stems like these aren't real money-makers, but by cutting all of them in a small area next to the haul road, and using what markets there are for biomass chips, this work can be done without having to charge the landowner anything.

#### Forester's View

This stand could be non-commercially thinned, but since there is a lack of open ground and low cover in this forest, and the landowner has a specific wildlife objective of managing for woodcock, a small patch cut (less than five acres) is in order.



### **Patch Cut with Retention**

#### Young sapling stand



AFTER

#### Woodland Owners' View

Well done job. The pine trees will grow larger and will make seeds to regenerate the stand. In the meantime, woodcock have happily returned to this area.

#### Equipment Used

Tracked feller buncher, grapple skidders, and commercial chipper.



#### Forester's View Very clean patch opening. Retaining the handful of pine trees to grow larger will bring more income

during a later harvest, meanwhile providing a valuable seed source for the regeneration of the patch. This will be an early successional stand surrounded by an otherwise mid-successional forest.

#### Wildlife Outcomes

Besides woodcock, many other species will use this opening. Raptors and other predators will hunt it; songbirds such as the chestnut-sided warbler will provide low cover for snowshoe hare and other small mammals, which in turn are food for lynx, bobcat, etc. Deer and moose will browse along the edges eventually.

### Landing and Woodyard Area

#### High visibility and aesthetic value



#### DURING

#### Woodland Owners' View

The crew is doing a great job of keeping mud and tracks off the driveway, and keeping the equipment in a specific area. They know how important aesthetics are, because it was talked about before the work started.

#### Logger's View

It can be tricky sometimes, but a good logging crew can balance the need to have enough room for the equipment to work with keeping things neat and tidy.

#### Forester's View

Excellent utilization and sorting of wood products for various mills, which means the landowner is getting a good return for the wood.

### Landing and Woodyard Area

#### High visibility and aesthetic value



#### **AFTER 18 months**

#### Woodland Owners' View

Agreed ahead of time to take care of the seeding and planting trees, using some of the stumpage income received. The results are excellent.

#### Equipment Used

Medium sized bulldozer with blade for smoothing ground after other equipment was moved off.

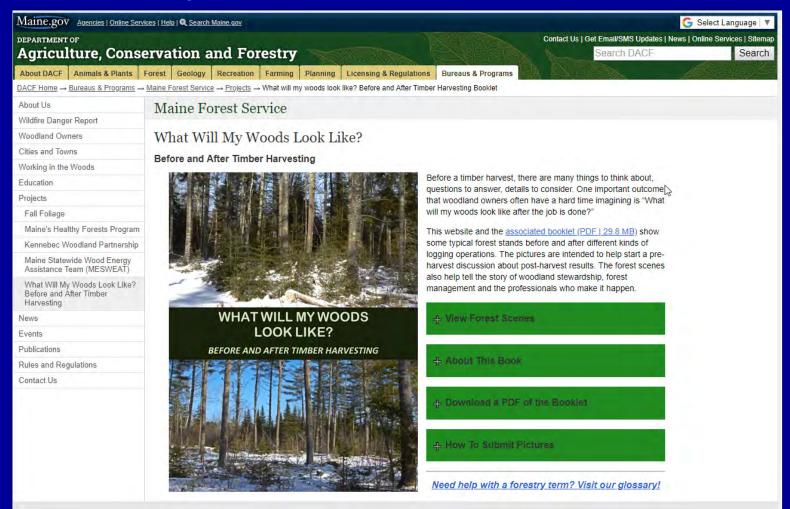
#### Forester's View

The landing was graded and smoothed after logging was completed for aesthetics as well as to prevent invasive plant regrowth. This space can be used again for future harvesting operations, as long as it is regraded and reseeded again.



Pileated woodpecker

# What Will My Woods Look Like - Website



https://www.maine.gov/dacf/mfs/projects/what\_will\_my\_woods\_look\_like/index.html

# Wanted: more pics!

- Submit photo series to <a href="mailto:Forestinfo@maine.gov">Forestinfo@maine.gov</a>
- Try for same p.o.v., with recognizable reference feature
- Write your own captions
- Contact person required, no anonymous submissions
- Optional confidentiality of location & contact information
- MFS will review, potentially edit for clarity
- Video welcome
- Beyond timber harvests—site prep & plant, culvert replacement, road building, etc.
- Check website for further details

# ARE WE THERE YET?

