#### Workshop Goals

- Be familiar with the WoodsWise & WoodsWise East programs
- Write a Woodland Resource Action Plan (WRAP) and fill out associated documents
- Recognize habitats for WoodsWise East wildlife & be able to incorporate them into WRAPs
- Understand the importance of water resources and removing barriers within them.



#### Stewardship Forester Workshop Agenda

9:00AM Welcome & Introductions-Michael Jensen, District Forester, Maine Forest Service.

9:15AM WoodsWise Program Overview-Allyssa Gregory, District Forester, Maine Forest Service.

9:30 AM WoodsWise East Overview, Kenny Fergusson, District Forester, & Morten Moesswilde, Division Director, Maine Forest Service.

9:45AM WoodsWise East, Wildlife- Jared Gregory, District Forester, Maine Forest Service.

10:05AM WoodsWise East, Streams-Tom Gilbert, Water Resources Specialist, Maine Forest Service.

10:30AM Break

10:45AM Forms & Checklist-Allyssa Gregory, District Forester. Maine Forest Service.

11:25AM Review-Allyssa Gregory, District Forester, Maine Forest Service.

**12:00PM Lunch** 

### Introductions

Tell us your **NAME**, the **AGENCY** you work for and your **AREA** of operation.



#### Be WoodsWise

Advice

Resources

Incentives







#### WoodsWISE, the Maine Brand of Stewardship.

Taking care of our woodlands is extremely important to the economy and well-being of Maine. The WoodsWise program offers:

- Advice-visits from MFS, District Foresters and connections to private stewardship foresters
- Resources- publications, webpages, and the WoodsWise Wire to make informed decisions about woodland stewardship
- Incentives-cost-share assistance for Woodland Resource Action Plans (WRAP)

A key element of woodland stewardship is working with a professional forester to develop a stewardship plan/WRAP.



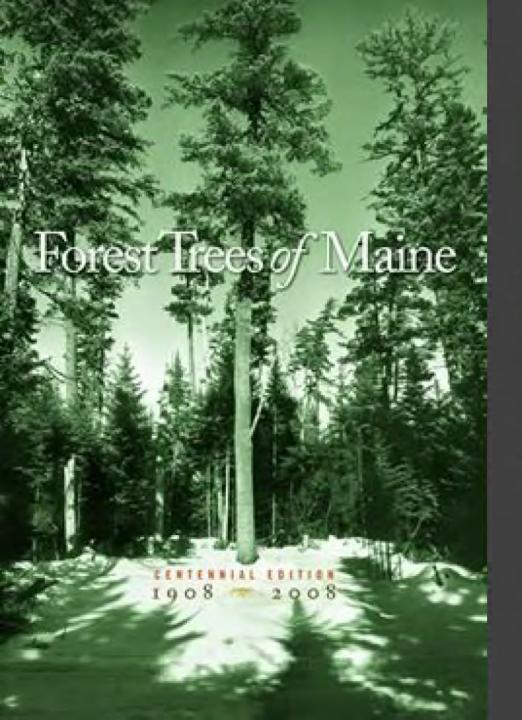
#### Forester Districts Field Team Leader Morten Moesswilde Field Staff Aviante Mil 0020 Forest Policy & Management Randy Lagasse Read color to Maine Forest Service Department of Agriculture, REC - Island Falls 45 Radar Road Den Jecobs Conservation and Forestry Ashland, ME 04732 Cult 557-1086 2 Femely Road Marchan, Michigan Maine Forest Service Radio call# 351 June 21, 2022 REC - Old Town **Terri Coolong** Maine Forest Service Jim Ferrante IIT Airport Road P.O. Box 1107 REC - Norridgewool Adam Cates Coll#: 441-4308 Maine Forest Service PO Box 416 564 Skowhegen Rd Cell#. 592-2238 Radio call# 254 Mike Richard Maine Forest Service 131 Bethel Road West Paris, ME 04289 Cult. 441-3276 Old Town, ME 04468 77 Whitneyville Road rweeborn, ME 04648 Phone: 441-4924 Radio call # 154 Asine Forest Service \$36 Waldebore Road lefterson, ME 04348 Shane Duigan aine Forest Service 356 Shaker Road Gray, ME 04039 Cell#: 592-1251 Albana Graners - Jeffman Scale: 1:1,400,000 1 inch - 22 miles Mike Richard - West Paris

#### Advice from District Foresters

The Maine Forest Service has 11 District Foresters

To find your local District Forester, visit <a href="https://www.maine.gov/dacf/mfs/policy\_management/district\_foresters.html">https://www.maine.gov/dacf/mfs/policy\_management/district\_foresters.html</a>

And, type the town into the, 'Search' feature.



# Resources for Informed Decisions

- MFS has a, 'Woodland Owner' webpage with a variety of resources for anyone interested in woodland stewardship. Links to:
- Virtual copies of publications
- Forest health information,
- Forest protection materials
- Rules & regulations related to timber harvesting
- Connections to other organizations and stewardship foresters



#### Incentives for WRAPs

 The WoodsWISE Incentives program offers cost-share assistance for woodland stewardship plans, known as a Woodland Resource Action Plan (WRAP).

 Before submitting an application, landowners are asked to select a private stewardship forester to develop their WRAP



# Who is Eligible for a WRAP Incentive?

#### Type of Ownership:

- Private individuals, persons
- Companies, or other entities that hold title to land (and timber), including joint owners or tenants in common,
- Groups and/or associations, corporations,
- Indian tribes, indigenous groups, or other native groups
- Other private legal entities.

#### Acreage limitations:

 Applicants must own at least 10 contiguous forested acres, but <u>not more</u> than 1000 forested acres statewide.

#### Who is NOT Eligible?

Corporations whose stocks are publicly traded, owners principally engaged in the processing of wood products from their ownership, and properties where the ownership of the timber is different from the fee ownership of the land are excluded.

Quasi-municipal entities such as utility districts .They are encouraged to apply for a Project Canopy Urban & Community Forestry grant. Limited Liability Corporations, 501(c) 3 corporations, family partnerships, and similar entities that otherwise meet program requirements will be considered on a case-by-case basis.

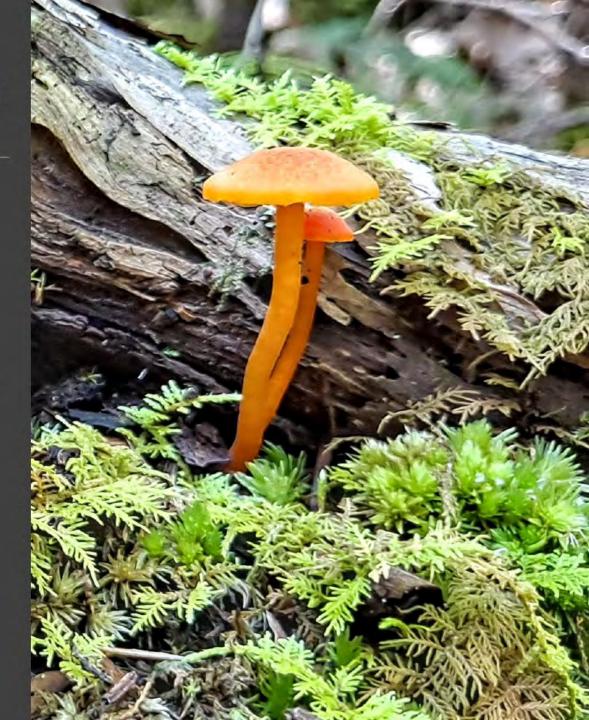


#### Landowner Stewardship Pledge

Landowners must agree to sign a pledge to maintain plans and practices for a minimum of ten years from the time of establishment.

Additional cost-sharing for the same plan/practice type for the same acres will not be approved by MFS until the last year of the 10 year practice period.

Landowners who fail to maintain the practice for ten years may be required to repay the Maine Forest Stewardship Program the cost-share amount received, with interest at the statutory rate.



#### WoodsWISE Incentives\*

#### **Summary Table of Eligible Practices**

	Forest Management Planning			
Code	Component Description	Max %	Max. payment	
FMP-1a	Development of a New Forest Management Plan (10-50 wooded acres)	na	na	
FMP-1b	Development of a New Forest Management Plan (51+ wooded acres)	na	na	
FMP-2	Amendment of an existing Forest Management Plan (includes Silvicultural Operations Plans)	50	\$150	
FMP-3	Expansion (in area) of an existing Forest Management Plan	na	na	
FMP-4a	Periodic Update of a Forest Management Plan (10-50 wooded acres)	na	na	
FMP-4b	Periodic Update of a Forest Management Plan (51+ wooded acres)	na	na	
FMP-5a	Woodland Resource Action Plan (10-50 wooded acres)	50	\$250	
FMP-5b	Woodland Resource Action Plan (51+ wooded acres)	50	\$5/wooded acre	

#### FMP-2 Amendment of an Existing WRAP

- •Woodland Resource Action Plan, which are necessitated by a change in landowner objectives, forest conditions, identified projects, or new information during the original 10-year planning horizon of the Plan. It may include some or all portions of the woodland originally covered by the plan, and revise information or recommendations in the original plan.
- •The Amendment is not required to provide recommendations beyond the original 10-year planning horizon. Amendments, once approved, are considered part of the original plan.
- •Only one Amendment per existing plan will be approved during a twelve-month period. The existing plan must still be active, i.e., the planning period has not expired.
- •Amendments must meet current minimum specifications of a WRAP.

#### WoodsWise East

A landowner engagement project promoting DownEast wildlife

Maine Forest Service 2022-2023



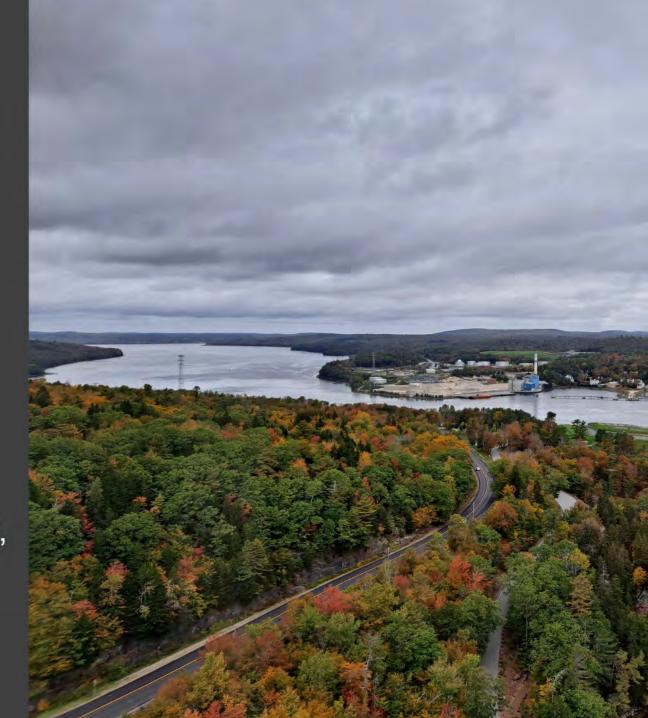






#### WoodsWise East

- Woodland owner engagement (primary audience) focused on habitat
  - Private Foresters, other natural resource professionals & organizations
- Primary partners
  - Funded by NFWF & AFF
  - Maine TREE/Maine Tree Farm, FSG, IFW
  - Others, local/regional groups
- Multiple strategies



#### Habitats

- Early & late successional forest
  - American woodcock
  - Black-throated blue warbler

- Stream passage fish/aquatic organisms
  - Eastern brook trout

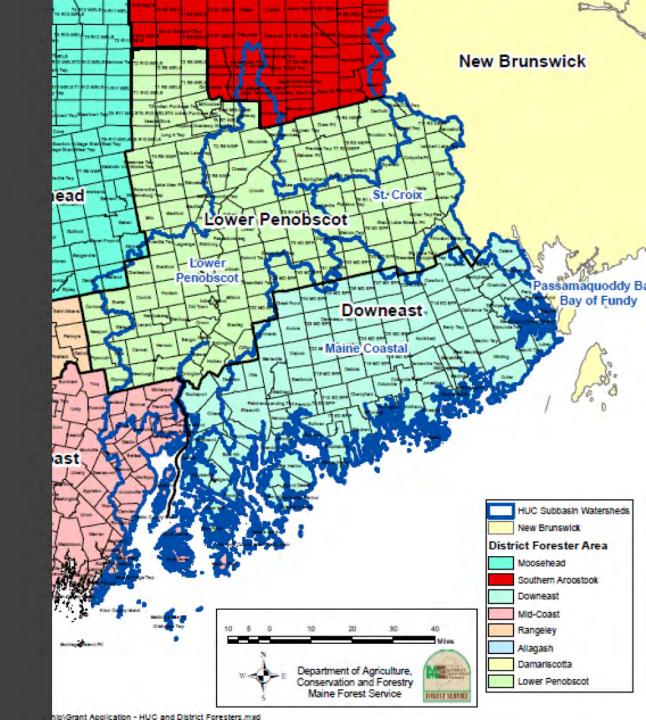


### Strategies

- Direct outreach
- Workshops for professionals & landowners
  - Forestry for Maine Birds
  - Fish passage/barriers
- Habitat assessment
- Conservation Demonstration Areas/ Stewardship Hubs
- Targeted cost-share WRAPs
   Don't wait! Special Limited Time Offer!

### Project Area

- Watersheds
  - Maine Coastal Rivers
  - Lower Penobscot
  - St. Croix
- District Foresters
  - Michael Jensen
  - Kenny Fergusson
  - Allyssa Gregory



#### WWE WRAP Applications

- Same eligibility criteria as other WRAPs
  - Within the project area
- Same application & sign-up process
- Application period:
  - April 1 June 30 or while funding lasts
- Plans MUST be completed, w/ <u>all</u> paperwork & spatial data submitted by October 30<sup>th</sup>, 2023.
- Additional Plan Specifications Habitats

#### WWE WRAP Specifications - Habitat

- A paragraph summarizing bird habitat
  - Early & Late successional habitat
  - Canopy layers
  - Dominant tree species & % cover
    - Recommended: snags, CWD, invasives
- A paragraph summarizing stream habitat
  - Presence of streams (incl. on maps)
  - Evidence Aquatic Organism Passage barriers
  - Summary of riparian forest condition
- Resources: FFMB, Focus Species, IFW, StreamSmart, etc.

#### WWE WRAP Cost-share Rates

Code	Component Description	Max %	Max payment
FMP-11a	WWE WRAP (10-50 ac)	75	\$400
FMP-11b	WWE WRAP (51+ ac)	75	\$8/wooded acre
FMP - 12	WRAP amendment (e.g. habitat assessment, silvicultural operations plan, upgrade to CAP-106 or TF standard)	75	\$4/wooded acre

#### WWE Roll-out

- Announcement
- Webpage week of 3/28
  - Forms
- Taking WRAP applications 4/1
- Workshops watch the MFS calendar
  - Forestry for Maine Birds Orono May
  - Stream habitat/barrier assessment tbd June
  - Tree Farm fall field day

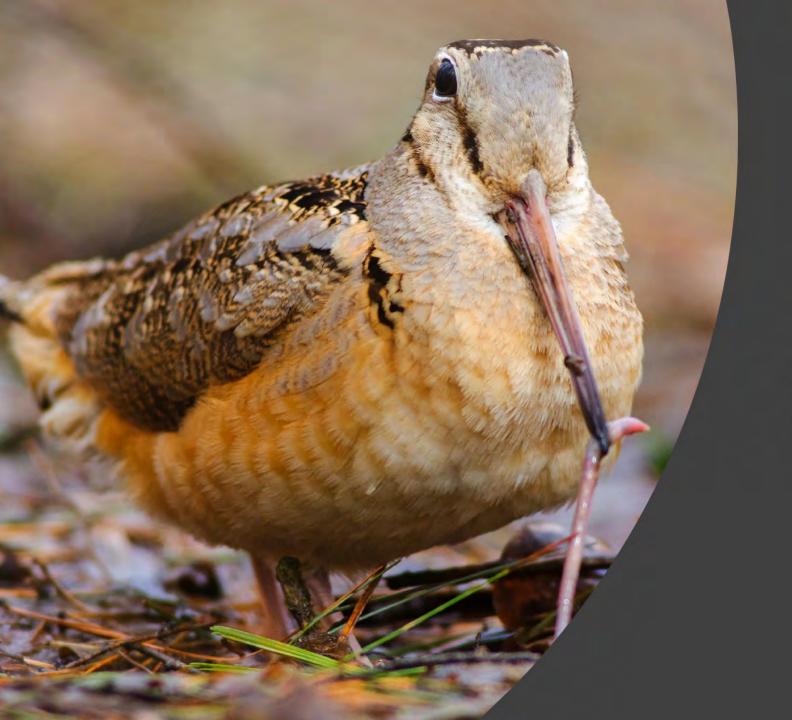








# WoodsWise East Wildlife



# American Woodcock

Identifying Characteristics

- Body Shape small, round, plump, virtually no neck
- Bill long and slender
- Legs short
- Coloration forest floor







# Habitat Requirements: Forest Floor

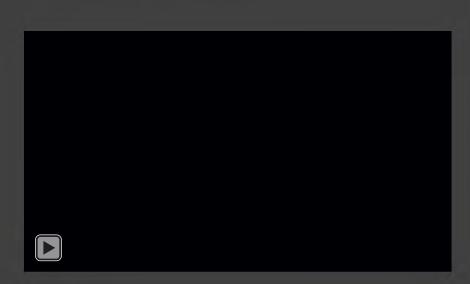
- Feeds on Invertebrates
- Nests on ground
- Prefers dense cover
  - Early successional
  - <20 year old forests</li>
  - Shrublands
- Cover Types
  - Northern Mixed Wood
  - Northern Hardwood
  - Oak/Pine



Habitat Requirements: Openings and Fields

- Breeding behaviors
- Dance and flight
- Distinct Noise







# Perpetuating Habitat

- Maintaining Early Successional Forest
- Clear Cuts
- Patch Cuts
- Seed Tree
- Maintaining Open Field Conditions
- Mowing or Brush Cutting
- Prescribed Fire



#### MDIFW Woodcock Blocks: Bud Leavitt WMA

Too Old

Just Right

Fresh Cut









Black Throated Blue Warbler

# Identifying Characteristics

- Dark blue on top
- White underbelly
- Black throat
- Very small



### Habitat Requirements

- Mature Northern Hardwood Forest
- 50-80% canopy coverage
- Well developed understory
- Feeds primarily on insects, particularly moths, butterflies, and their larva







### Perpetuating Habitat

- Maintaining Mature Late Successional Forest
  - Doesn't mean you can't cut!!
- Irregular Shelterwood System
  - Individual Tree/Small Group Selection
  - Thinning, esp. Variable Density
  - Extended Rotation/Deferred Harvest
- https://extension.unh.edu/
  - The Irregular Shelterwood System: Review, Classification, and Potential Application to Forests Affected by Partial Disturbances, (Raymond et al. 2009)

# Forestry For Maine Birds

- https://maineaudubon.org/project s/forestry-for-maine-birds/
- FFMB Guidebook for Foresters
- Upcoming Events

#### Stand Assessment Data Form (Short Version)

Lot	Date	_	G	round Conditio	ons			
Stand(s)			Weathe	r				
			-					
	Plot ID or	GPS	Forest Habi	tat Association		Stand Str	ucture Class	
Overstory (>30')  Dominant Species			% Cover	Composition	Canop	y Height	Gaps?	
Midstory (6-30')					Canop	py Cover		
Dominant Species			% Cover	Composition	% Cover			
Understory (1-6')				Ground Cover	er			
Dominant Species			% Cover	% Cover				
Snags/Cavity/Decay Trees		Coarse Woody Material		Fine Woody Material		Hardwood Leaf Litter		
Large Very Large:								
Invasive Plants			and Disease	Riparian and Forested Wetlands				
	% Cover:							
	Stand(s)	Stand(s)  Plot ID or  Coarse V Material  Large Very Large:	Plot ID or GPS  Plot ID or GPS  Coarse Woody Material  Large Very Large: Insects	Stand(s) Weather Plot ID or GPS Forest Habi  % Cover  % Cover  % Cover  Coarse Woody Material  Large Very Large: Insects and Disease	Stand(s) Weather  Plot ID or GPS Forest Habitat Association  % Cover Composition  % Cover Composition  Ground Cove  % Cover % Cover  Coarse Woody Material  Large Very Large: Insects and Disease Riparian and F	Stand(s) Weather  Plot ID or GPS Forest Habitat Association  % Cover Composition Canop  % Cover Composition % Cov  Ground Cover  % Cover % Cover  Coarse Woody Material  Large  Very Large:  Insects and Disease: Riparian and Forested	Stand(s) Weather  Plot ID or GPS Forest Habitat Association Stand Str  % Cover Composition Canopy Height  Canopy Cover  % Cover Composition % Cover  Ground Cover  % Cover % Cover  Coarse Woody Fine Woody Material Hardwood  Large  Very Large:  Insects and Disease Riparian and Forested Wetlands	



Information from Forestry for Maine Birds: A Guidebook for Foresters Managing Woodlots "With Birds in Mind." Maine Audubon 2017. Available at maineaudubon.org/ffmb. **Brook Trout** 



# Identifying Characteristics

- Vary greatly in size and color
- Dark wormlike lines on back
- White leading edge of fins



## Habitat Requirements

- Cool, clean, well oxygenated water
  - Sensitive to changes
- Found in varying size water bodies
  - Lifecycle requirements
- Mature Riparian Corridors



## WHAT IS GOOD TROUT HABITAT?

Intact forested riparian area provides shading to keep temperatures cool.

Root systems stabilize streambanks.

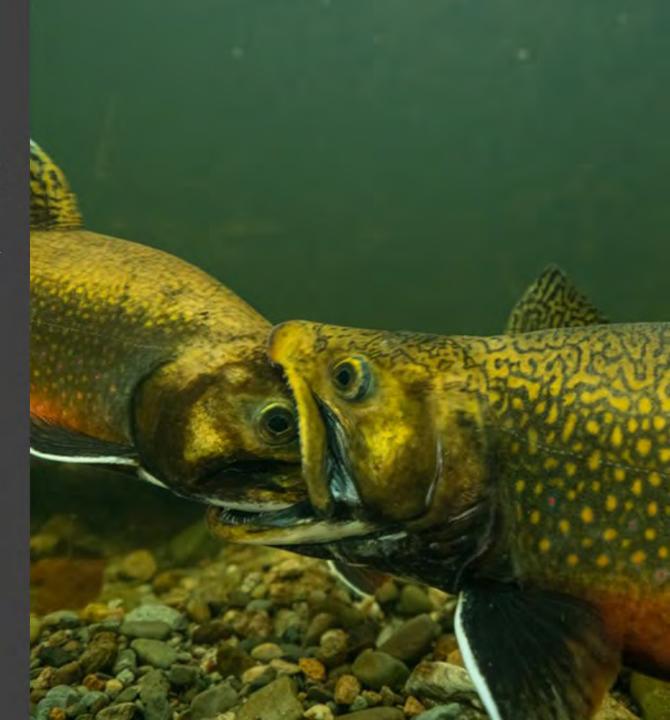
Downed trees and boulders form diverse and complex habitats for different fish species and sizes.

Clean gravels for spawning.



# Perpetuating Habitat

- Follow BMPs and Regulations
  - Minimum baseline
- Usually Similar to Late Successional
  - Plus coarse woody debris
  - Plus snag retention/recruitment
  - Stream barriers (covered later)



# Stream Connectivity Identifying Barriers to Aquatic Organism Passage (AOP)





## Well designed crossings...

Maintain fish and wildlife habitat





while protecting roads

...And let the stream act like a stream

# What's the problem?

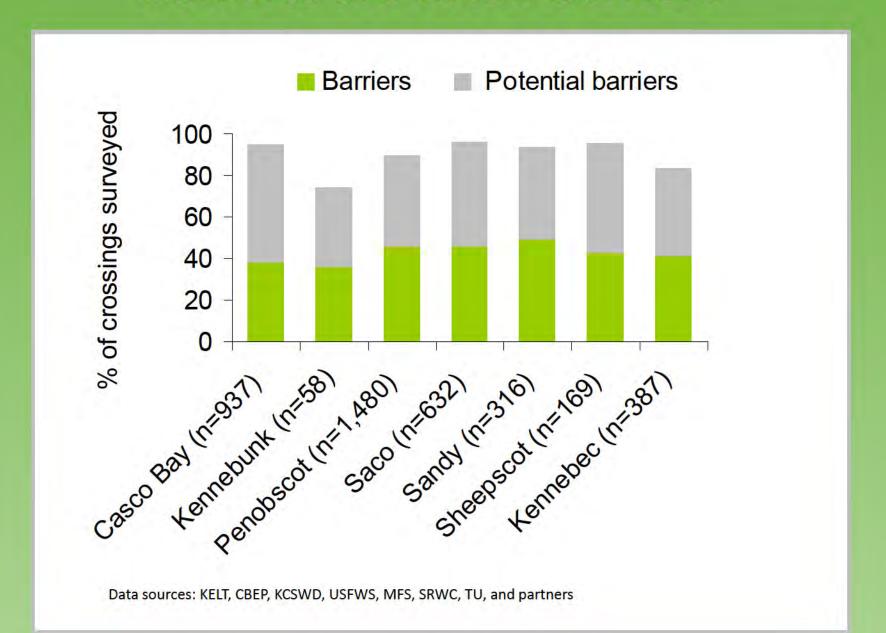
# **Barriers!**



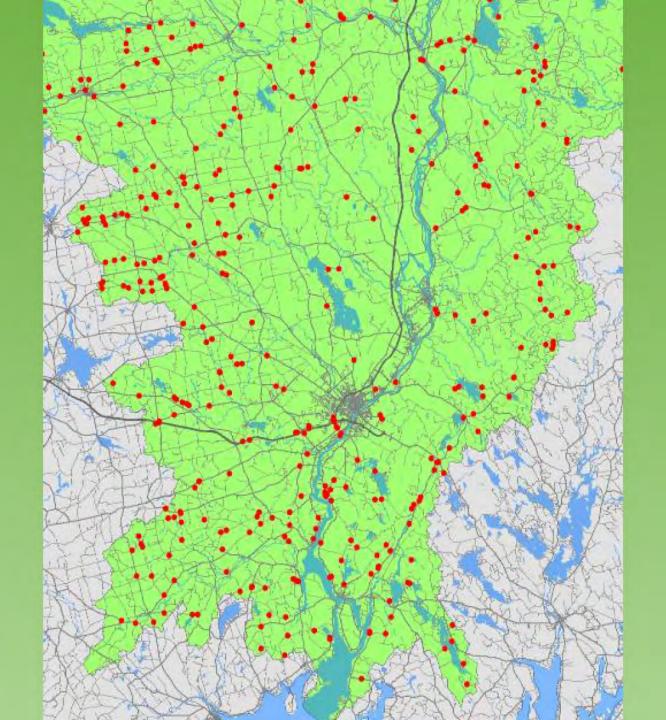




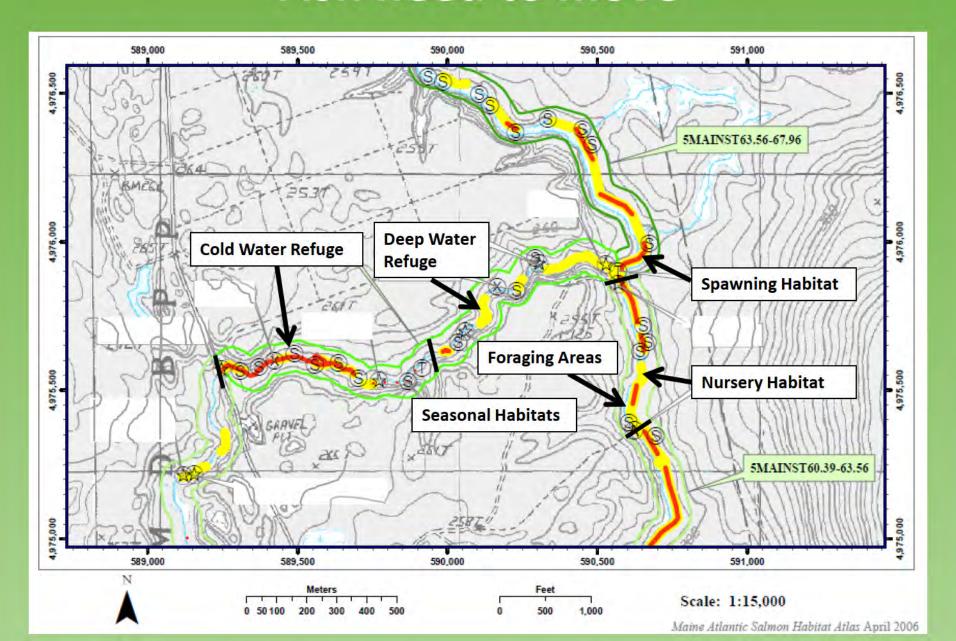
#### **Culverts are often barriers**



The problem is widespread



## Fish need to move



## Curry Brook crossing, Cathance TWP, 2021



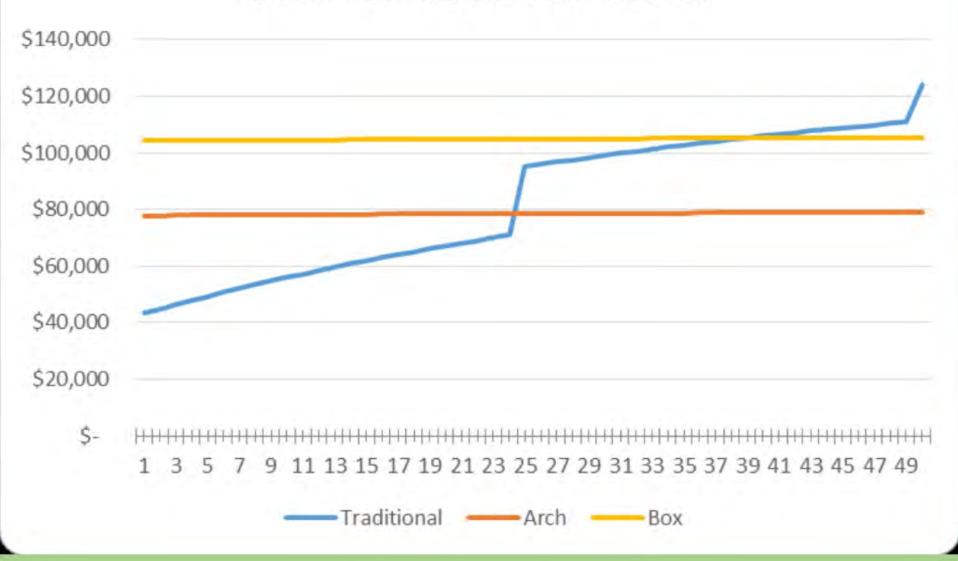
## **Preston Brook Crossing**



## Are Stream Simulation Culverts Cost-Effective? A Lifetime Cost Comparison

PREPARED FOR THE NATURE CONSERVANCY
RBOUVIER CONSULTING, LLC

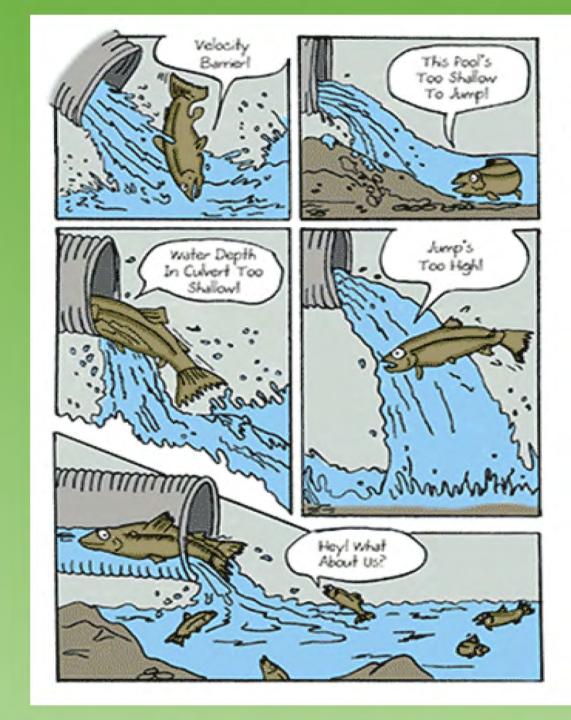
#### Comparison of Costs Over 50 Years: 72"CMP vs Stream Simulation Alternatives



# Types of Barriers to Fish

- Velocity barrier
- Jump barrier
- Low-flow barrier
- Debris barrier

Often a combination



## Velocity Barrier



- Typically caused by undersized culverts.
- Fish cannot sustain their burst speed for very long.
- Becomes a barrier if water is moving faster than the fish can swim

#### Does the Water Velocity in the Crossing Matches the Stream?

Compare the water velocity inside the structure with the velocity in the natural stream channel away from the influence of the crossing

# Pipe that does not span the channel set at stream grade Turbulence scours at end of pipe Flow accelerates though pipe over time Low flow barrier Plunge pool created

#### **Tailwater Scour Pool**

-Consider time of year of observations

If you see a scour pool, there is an outlet drop and/or velocity barrier at some point of the year!



# Jump Barriers



1 – 3.5" drop = Minor barrier 3.5 – 6" drop = Moderate barrier >6" drop = Severe barrier

#### **Important Points**

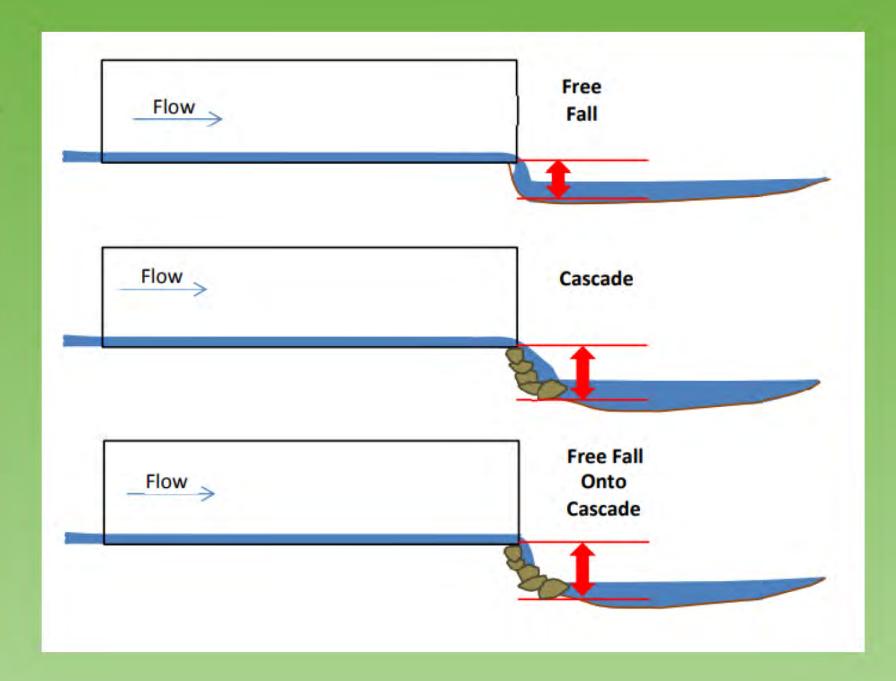
 Fish have varying abilities to jump depending on size, species and other factors

#### Causes

- Pipes set too high, (ledge, set wrong, etc.)
- Pipes that do not span the stream become perched over time.

#### **Jump Barrier Types**

- -Free Fall
- -Cascade
- -Free Fall Onto Cascade



## Low-Flow Barriers



#### Important points

- Fish require a minimum water depth to swim
- Barrier is created by water that is too shallow (summer)

#### Causes

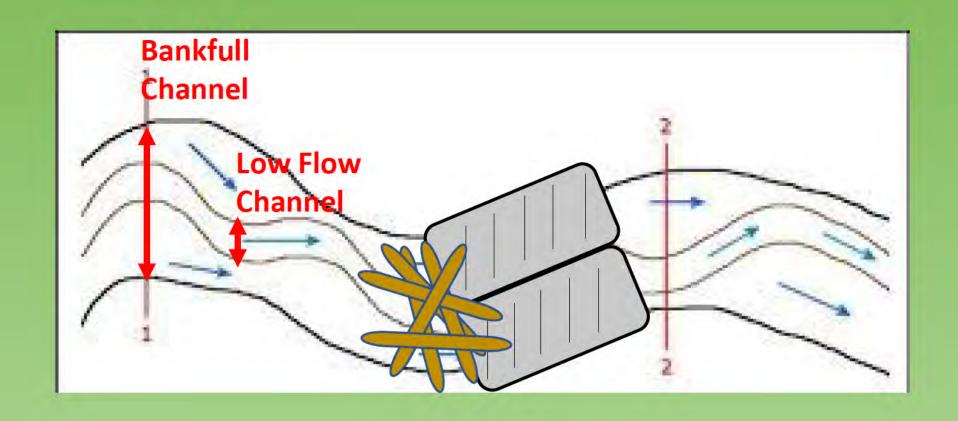
- Flat bottomed structures set too high in elevation
- Multiple pipes that are not offset

Minor barrier- May be passable at higher flows

Moderate barrier- Not likely passable at higher flows

Severe barrier- Impassable at higher flows

#### **Double Culverts Often Create Barriers!**



## Sediment wedge at Inlet

- -Indicator of undersized crossing
- -Low flow barrier



#### Sediment wedge at Inlet

- -Indicator of undersized crossing
- -Low flow barrier



### **Debris Barriers**

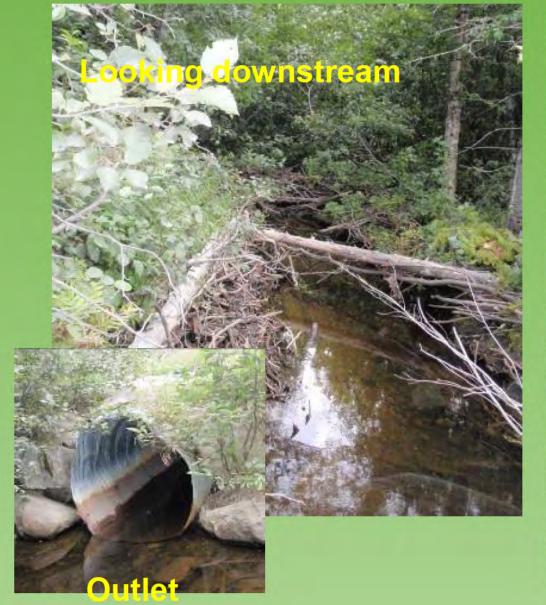


#### Causes

- Undersized culverts
- Double culverts
- Lack of maintenance

Minor barrier- <10% blockage Moderate Barrier- 10% - 50% blockage Severe barrier- >50% blockage

## Indicators of elevation problems



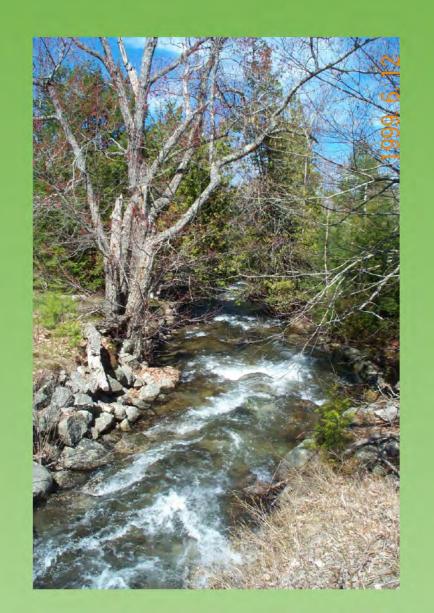


## A stream channel rediscovered!



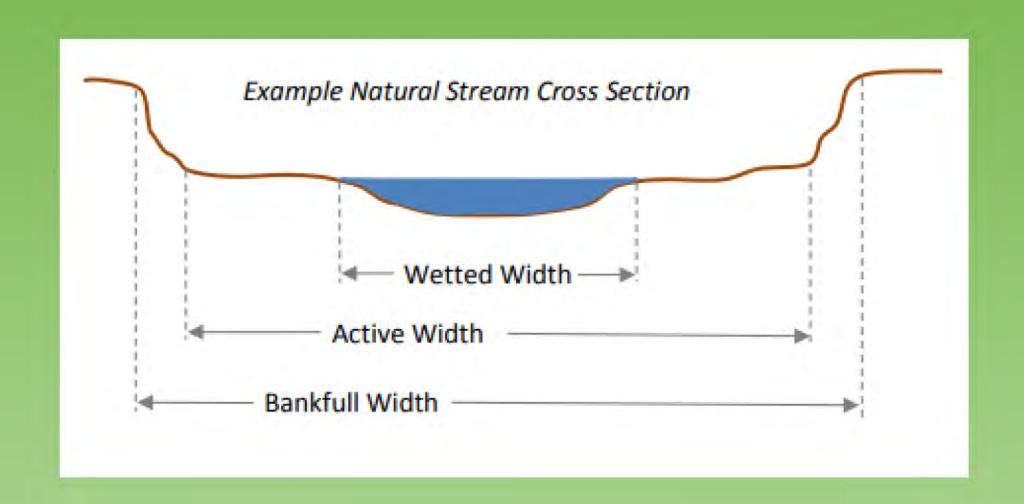
## Rules of Thumb (4 S's)

Span the stream
Set elevation right
Slope matches stream
Substrate in the crossing

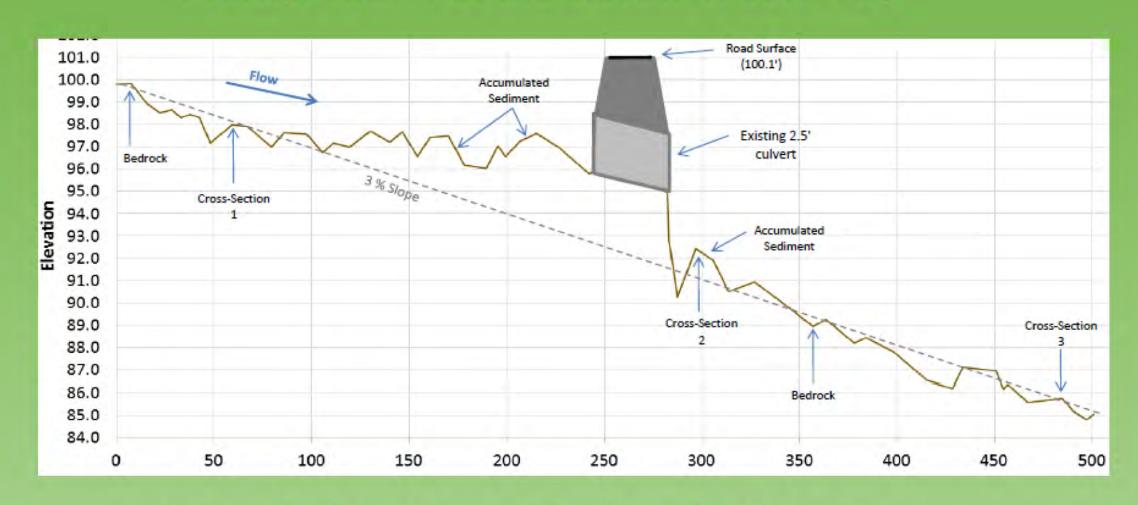


## Principle #1 – Span the Stream Channel





#### Principle #2 - Set the Elevation Correctly

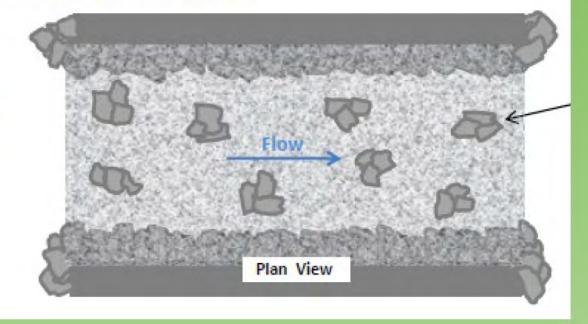


Principle #3 – Slope Matches the Stream

#### **Principle #4 – Substrate in the Crossing**



#### Bed and Bank Schematic:



# The Watershed-scale Approach to Restoring Stream Systems (WATRSS)

- A five-year program.
- Almost \$7 million available to private landowners.
- Provides significant financial and technical assistance, like surveying and engineering, to upgrade road-stream crossings.

#### A Watershed-scale Approach to Restoring Stream Systems for private landowners







## Thank you!



Tom Gilbert: 207-441-5282 Thomas.gilbert@maine.gov www.maineforestservice.gov



Break



## Forms & Additional Info for WRAPs

- Application-printed or fillable PDF
- Claim for Payment
- Landowner/Forester Affidavit
- Landowner Stewardship Pledge
- Location Information/GIS



#### WoodsWISE



Incentives to Stewardship Enhancement

#### Woodland Resource Action Plan Application Forest Management Planning is made possible in part by the USDA Forest Service's Stewardship Program

Return to: WoodsWISE, Maine Forest Service, 22 State House Station, Augusta, ME 04333; forestinfo@maine.gov

andowner Name:	Property: Town		
	Road		
andowner's Social Security or Tax ID #	County		
Co-owner or legal representative:	Estimated total acres:		
Mailing address:	Estimated forested acres:  Total wooded acres in Maine:		
	Ownership type		
(street address, city, state, zip) elephone number(s):	individual joint		
-mail address:	nonprofit		
(e-mall is used to expedite Approval & other WoodsWISE communications)	company/business (without publicly traded stock) other:		
pplication for Forest Management Planning: Check one. Call MFS or your o	consulting forester if you need assistance.		
FMP-5a Woodland Resource Action Plan (10-50 wooded acres)	WoodsWise East		
FMP-5b Woodland Resource Action Plan (51+ wooded acres)	in eligible project area FMP-11a: WWE WRAP (10-50 ac)		
The second resident man (s. 1) insects as es,	FMP-11b: WWE WRAP (51+ ac)		
FMP-2 Amendment of an existing Forest Management Plan	FMP-12: WRAP amendment		
tewardship Forester who has agreed to prepare the plan:	THE TE MINE GREENING		
lameLicense #:			
Previous Forest Management Plans: Has the current landowner (or spouse) previous property through Maine Forest Service or Natural Resources Conservation Servi			
No Yes (YearName of Forester			
certify that the above information is consistent with property deeds and is accurate to the bior which I receive cost-share funds must be maintained for a minimum of ten years. In placin loods/MSE/Stewardship program, I agree to meet program requirements. I pledge to consersources of my land and I will strive to provide a high level of stewardship for all my natural mader penalties of perjury, I certify that: 1) The number shown on this form is my correct taxpockup withholding because: (a) I am exempt from backup withholding, or (b) I have not been thholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified thholding, and 3) I am a U. S. citizen or other U. S. person (defined by the IRS). Ref: www.irs.	ig my application for Maine's  ive, nurture, enhance, and protect the forested esources payer identification number, and 2)I am not subject to notified by the IRS that I am subject to backup d me that I am no longer subject to backup		
and any series of the series o			
andowner signature(s)	Date		



#### WoodsWISE



**Incentives to Stewardship Enhancement** 

#### Woodland Resource Action Plan/Amendment to existing Plan - Claim for Payment

Forest Management Planning is made possible in part by the USDA Forest Service's Forest Stewardship Program, CFDA 10.678

Landowner: PAYEE Name:		
Address:		
If the Payee name or ac please contact the Main		address on the Application Form,
I am hereby making clair	m for cost-share payment under the W	/oodsWISE program for (check one):
FMP-5b Develo	pment of a Woodland Resource Action Plan ( pment of a Woodland Resource Action Plan ( pment of Amendment of an existing Forest Ma	51+ wooded acres)
Forester)	s prepared by	
on (date) for	wooded acres in the tow	n of
Landowner signature(s)		Date
Objectives: (1st)	(2 <sup>nd</sup> )	
(3rd)	(4th)	
Plan/amendment start date:	Yes No	Cost-share payment authorized:  Signature of Division Director:
GIS information verified:		
Total property acres: Total forested acres: Total plan cost:		Date
District Forester signature:		



Maine Forest Service

#### WoodsWISE



Incentives to Stewardship Enhancement

#### Woodland Resource Action Plan -- Landowner/Forester Affidavit

(in lieu of Proof of Payment)

Landowner: I,		, have received a completed Woodland				
Resource Action		ment to an existing Plan as follows (				
☐ FMP-5a	P-5a Development of a Woodland Resource Action Plan (10-50 wooded acres)					
FMP-5b						
FMP-30		of a Woodland Resource Action Plan (51+ v	1000			
■ FMP-2	Development	of Amendment of an existing Forest Manag	ement Plan			
The plan/amendment was prepared by		pared by	(Stewardship			
Forester)	ate) for	wooded acres in the town of				
(4)	are) 101	wooded acres in the fown of		•		
with the understa my claim for pay	anding that I w yment is appro	for the development of my vill be eligible to receive cost-share oved and processed. I will retain property (s)	reimbursement oof of payment	from the state once		
me me or me ri	iau (minimun	II TO Years) Check #(s)		(requirea).		
Landowner signature(s)			Date			
				**********		
Forester: I		(Licensed F	orester#	) certify that I		
		, (Licensed F ices rendered in the development an an/Amendment (as noted above) in				
Stewardship For	ester signatur		Date			
ore marasing 1 or	ester signatur					
programs consists o	of:	abursement for all types of Forest Managen	nent Plans under M	faine Forest Service		
<ul> <li>a simi</li> </ul>	ilar written reco	d check (both sides), OR rd generated by the bank that clearly sho n the landowner to the forester.	ows that funds in	a given amount have		
		lieu of the above documents if they are no	t readily obtainable	le. Check number(s) are		
		it is submitted in lieu of proof of payment, le				
proof of payment up	pon request from	the Maine Forest Service.				
If payment is made	in a form other t	han a check, a notarized statement signed b	y the forester asser	rting that payment has		
been received, and i	identifying the ty	pe and dollar value of payment, may substi	tute as proof of pa	yment.		
In all cases, MFS re	serves the right t	o request additional documentation.				
The state of the s		The state of the s				

Affidavit - Woodland Resource Action Plan

August 2020



#### WoodsWISE



Incentives to Stewardship Enhancement

#### Landowner Stewardship Pledge

Forest Management Planning is partially funded by the USDA Forest Service's Stewardship Program.

I understand that any practice for which I receive cost-share funds must be maintained for 10 years. In placing my application for participation in Maine's WoodsWISE program, I pledge to conserve, nurture, enhance, and protect the forest resources of my/our land, and will strive to provide a high level of stewardship for all my/our natural resources.

This plan reflects my objectives as the landowner. I accept and approve the recommendations made by the resource professional who prepared the Plan. I pledge that any management practices implemented on my land will be consistent with these recommendations and it is my intention to follow them wherever possible.

I also understand that the Maine Forest Service may contact me for the purposes of monitoring the implementation of this Plan, either by a site visit or other means of communication.

Landowner signature:	date:
Landowner signature:	date:

#### Background:

The above statement must be signed by the landowner and is considered part of a Forest Management Plan. It means that, in return for accepting funding for assistance in management planning, the landowner will continue to manage their land in a responsible way. It further means that the landowner has accepted the plan as meeting their objectives, and will make a reasonable attempt to follow the plan, though the landowner may amend the plan to meet changing conditions or circumstances. The pledge does not mean that the landowner is obligated to accept or adopt a plan that does not meet their own objectives for their land.

The pledge also means that if a landowner who has received cost-share funding for the preparation of the plan later chooses to change the use of the land, e.g. for housing/commercial development, or otherwise engage in activities that are inconsistent with stewardship principles, the landowner who received the cost-sharing is obligated to return the funding that was provided to them for natural resource management planning.

#### Location Information/GIS

#### There are several options for plan writers to meet this requirement:

- List of the latitude and longitude coordinates of the corners of the woodlands covered by the WRAP. The coordinates must be listed in a consecutive order around the perimeter of each parcel. The datum (NAD 83 or WGS 84) must be stated.
- Provide a polygon shapefile of the woodlands covered by the WRAP, with the following coordinate system: Datum NAD83, Projection UTM Zone 19N. The shapefiles must be attributed with sufficient information to uniquely identify the landowner with the woodlands in the plan.
- Provide a Google Earth .kml or .kmz file of the woodlands covered by the WRAP. Make sure to use an appropriate scale that clearly depicts the woodland on current aerial photography.

## What to Include in a WRAP

Woodland Resource Action Plans (WRAPs) are intended to provide a good description of the current and potential values of a woodland, and a blueprint of activities to reach woodland owner's objectives to maintain and improve their woods.

Today, we will cover the minimum requirements plans need to be eligible for the WoodsWise incentive.



## Cover Page

- Landowner name
- Mailing address
- telephone number(s)
- e-mail address ( if available)
- Plan preparer's name
- Preparer's mailing address
- Preparer's telephone number(s)
- Preparer's email (if available)
- Plan preparation date
- Location of parcel
- The Planning period-(minimum of 10 years) and the expiration/renewal date of the Plan must be stated.
- Total acreage of the parcel
- Total wooded acreage page
- Plan preparer's signature MUST be included.



# Plan Body/Sections: Goals & Activities

- Landowner(s) management goals and objectives- goals & objectives in a standalone section that is easily found.
- Schedule of Activities -to be implemented during the planning period will summarize recommended activities by parcel, stand or other geographic location, as applicable. This can be a stand-alone page, or included with other pages.



## Plan Body: Maps

At a minimum, one Forest type and stand map shall be prepared for the parcel, including the following required items:

- Property boundaries
- Water bodies (incl. intermittent/ephemeral streams and stream channels that affect forestry activities) and non-forested wetlands
- Forest stands, typed (at a minimum) SW/MW/HW
- Non-forest land uses (may be broken out to internal parcel lines, ledges and barrens, building areas, etc)
- Wildlife habitat(s) designated by the DIF&W (this must correlate to the E&SWH item in the Legal Considerations section)
- Specific locations where any area-based rules, regulations or other legal considerations (for example, Statewide Standards or Shoreland Zoning) affect timber harvesting and/or related management activities (this must correlate to the items in the Legal Considerations section)

## Plan Body: Maps

#### All maps must include:

- North arrow
- Preparation date
- Legend
- Map preparer or source
- Map preparer's signature (for the primary forest type/stand map)
- Scale
- Land use cover typing on the Map must match the Stand Descriptions and Schedule of Activities.



## Plan Body: General Woodland Conditions

- Description of the boundary line
- Soils information
- Operability
- General property description
- Property history
- Access and roads



## Plan Body: Stand Descriptions & Prescriptions

For TGTL-include an acreage listing including total parcel, all forest (may be broken into "classified" and "non-classified" forest for Tree Growth Tax Law (TGTL) purposes), all water bodies, and all other non-forest land uses.

You can break this section down further as, nonforested wetlands, forested wetlands, ledges and barrens, building areas, gravel or other mining areas, utility right-of-ways, roads, agriculture, and other, as applicable.



## Plan Body: Stand Descriptions

- Include a brief statement describing actual field methods used to develop the Plan.
- Note terms or labels used for stand identification cover type (minimum of SW, MW and HW)
- Land use cover typing must match the Map and Schedule of Activities.)
- Acreage of each stand
- Dominant tree species and size classes
- Relative stocking
- Condition of understory/regeneration
- Description of stand quality, related to current and potential forest products



## Plan Body: Prescriptions

- •Type and purpose(s) of the treatment,
- Tree species affected/targeted
- •Quantitative description of treatment intensity (e.g. number/spacing of trees removed or left, stocking target, percent crown closure) to describe how stand structure will change as a result of the prescription.

The prescription(s) must identify the stand(s) for which it is written, matching the Map and Schedule of Activities, and be easily located by reference on the stand map.

If no silvicultural activities are recommended for any given stand for the planning period, the plan must explicitly state that no activities/treatment are recommended.



### Plan Body: Forest Health Assessment

Stand-alone section must describe the known presence or absence and, if present or imminent, the current or potential effects of:

- Invasive plant & insect species;
- Other (native) insects and diseases;
- Damage from past weather events and/or equipment operation;
- Other forest health items affecting landowner goals and objectives.

Include any recommended actions to manage, control or monitor specific threats to forest health.

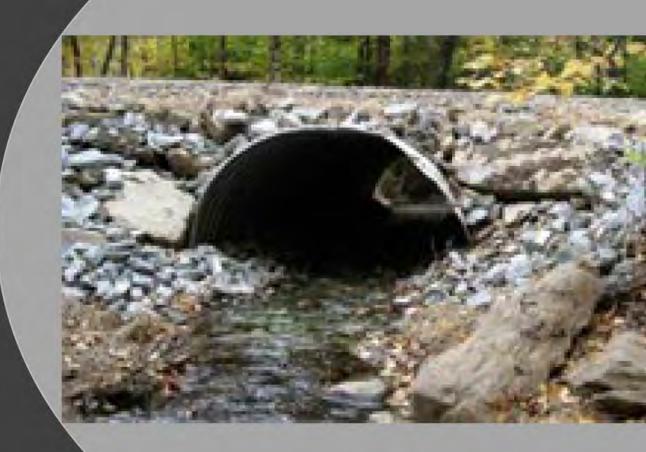


### Plan Body: BMPs

Best Management Practices for protecting water quality must be described, including measures specific to the recommended activities and/or recommendations to repair pre-existing conditions.

If no specific best management practices are recommended for the planning period, a statement to that effect is required.

For example, if an existing road or trail condition is or may be negatively affecting water quality, describe the BMPs recommended to correct the situation.



### Plan Body: Future Conditions

A brief parcel, stand or compartment-specific statement of desired future conditions, as applicable to at least the planning period or beyond.

May include some or all of the following elements: future forest type, size class or age, structure, forest products and grades, species composition, as well as desired recreational, wildlife habitat, aesthetic or other landowner-desired outcomes.

Other recommended activities, such as wildlife habitat practices or access improvements, may also be included here and on the Schedule of Activities.. Alternative recommendations and/or constraints to implementation may also be included.



- <u>Deed restrictions:</u> Deed restrictions are encumbrances on the property and/or specific uses
  which are recorded at the county Registry of Deeds. According to the best available
  knowledge of the landowner (or other sources if applicable), the property IS / IS NOT subject
  to deed restrictions which affect forest management activities.
- <u>Easements:</u> Easements may include legally conveyed conservation/land use restrictions, utility lines, public rights of way, and the like. According to the best available knowledge of the landowner (or other sources if applicable), the property IS / IS NOT subject to easements which affect forest management activities.
- Tree Growth Tax Law (TGTL). TGTL is a statewide "current use" property tax program, administered by the local assessor (or Maine Revenue Service, Property Tax Division, for properties in the Unorganized Townships).

Forest Operations Notifications (FON) and Landowner Report: MFS Rules Chapter 26.
These rules require that landowners notify the Maine Forest Service of planned timber harvesting. A FON is valid for up to 2 years and is not a permit. Each FON has a unique number which is used to track wood transport and marketing. You will need to indicate if I timber harvest will (Yes) or will not (NO) occur.

Forest Operation Notifications <u>must</u> now be filed online using the Forest Online Resource Tool (FOResT).

 <u>Clearcutting:</u> MFS Rules Chapter 20. These rules regulate the establishment, arrangement and regeneration of clearcuts. Clearcuts are harvests which leave an area 5 acres or greater with less than a minimum stocking of trees. You will need to indicate, if clearcutting will occur (Yes) or will not occur (No) during the planning period.

 Water bodies and Water Quality: protection of water bodies and water quality occurs through different rules which vary with location and type of activity.

Waterbodies typically include saltwater, lakes, ponds, rivers, streams, and Non-forested wetlands. The Erosion and Sedimentation Control Law, the Protection and Improvement of Waters Act and the Natural Resources Protection Act apply to all woodlands.

BMPs should be utilized appropriately to comply with these regulations. You will need to note the jurisdiction SWS, Town, LUPC, etc.

• <u>Land Use Planning Commission (LUPC) standards:</u> MFS Rules Chapter 27 (optional for woodlots in areas not subject to LUPC jurisdiction). These rules regulate timber harvesting and related activities in unorganized and deorganized areas, in both shoreland and other Protection Sub-districts

 Essential or Significant Wildlife Habitats (EWH, SWH): as designated by the Maine Department of Inland Fisheries and Wildlife (DIF&W).

EWH or SWH may or may not have regulatory impacts on forest management activities, depending on whether they have been legislatively adopted and mapped (as for example seabird nesting island habitats).

• Threatened or Endangered Species: Federal and/or State Endangered or Threatened Species are designated by the US Department of the Interior and/or DIF&W, and may have protections regarding their habitats and/or restrictions on certain activities near these habitats at certain times of the year.

You will need to indicate conditions in this section for both bullet points(see checklist)



- <u>Liquidation Harvesting (LQH):</u> MFS Rules
   Chapter 23. This rule regulates timber harvesting
   on land sold or offered for sale within 5 years of
   purchase. Indicate conditions.
- Local ordinances: A number of municipalities have adopted ordinances (other than Shoreland Zoning) that affect timber harvesting. It is always a good idea to check with town officials before proceeding with timber harvesting. Ex: China requires town to approve any water crossings.



### Plan Body: Long-Term Resource Considerations

- Wetlands: are any present on the property? Does the property border wetlands?
- Woodland legacy planning information: who will the landowner entrust the care of their woodland to when they are gone?
- Historical, cultural & archaeological sites, other special sites: This item may be addressed by describing any locations in the woodlot with special significance to the landowner or the community, such as scenic views, special trees or stands, or cemeteries, headstones, etc.
- Protection from fire: what is the risk of loss to catastrophic wildland fire? Any preventative measures?
- Soil & water quality protection: Note any erosion, soil, or water resource related issues here. How the water and soil will be protected during any timber activities or recreation.



## Plan Body: Long-Term Resource Considerations

- Biodiversity: ways to promote and maintain biodiversity
- Fish & wildlife issues: This item may be addressed by describing any landowner identified interests, such as deer habitat or stocking fish in ponds.
- <u>Monitoring:</u> how often? Which areas require the most attention (spots with erosion concerns, forest health problems etc).
- Recreational opportunities: This item may be addressed by describing landowner's stated recreational goals and/or activities. Does the landowner want to keep skid trails open for hiking? Is there an already established hiking/utv trail that should be avoided during operations?
- <u>Aesthetic quality:</u> which visual aspects of the property are important to the landowner?
   Would they like to maintain a buffer near the home? Is there a rock outcrop that should be protected during operations?

## Plan Body: Long-Term Resource Considerations

- <u>Carbon sequestration and climate resilience:</u> Among the many benefits provided by forests, removing carbon from the atmosphere and storing it in trees may have increasing significance in the years to come
- Forests of Recognized Importance (FORI): are globally, regionally and nationally significant
  large landscape areas of exceptional ecological, social, cultural or biological values. These
  forests are evaluated at the landscape level, rather than the stand level and are recognized
  for a combination of unique values, rather than a single attribute. NO (FORI) currently exist
  in the State of Maine.
- Agroforestry: If agroforestry practices such as silvo-pasture, alley cropping or windbreaks
  are relevant and important to the woodland owner, they may be included either in the stand
  descriptions and prescriptions, or as a separate section here.

#### Notes on WRAPs

- Applications needs to be approved before the WRAP is submitted for review
- Use the WRAP checklist, small stuff might be left out. Most of the time not much more than adding a sentence or two to complete.
- GIS information should be submitted the same time you send in WRAP and associated documents.
- Silvicultural prescriptions need all the elements for each stand being treated – (use the checklist) Purpose of the treatment, tree species, quantitative description of treatment intensity. Could someone else take their prescription and apply it, and come even close?
- Double check the cover page-plan preparer signatures, cover page, and map
- Shoreland zones, need to be shown on the map (if relevant)
- Legal considerations need to noted even if they are not applicable.
   Include everything on the checklist



# WRAPs: What Did I Miss?

- Do your prescriptions match the landowner's goals?
- Make BMPs specific to the site.
- Ensure all necessary components in the, 'Stand Description' & 'Stand Prescriptions' sections are covered.
- What are the 'Future Conditions' of the stand?



