

MFS now regulates Natural Resource Protection Act Activities for Forestry

- Earth moving activity within 75' of or in a protected resource
- Construction of permanent structures in on over or adjacent to a resource (Culverts, bridges, roads)

Protected Resources

- Stream channels and rivers
- Great ponds
- NON FOREST freshwater wetlands
- Coastal wetlands



Definition of a Stream Channel:

- Between defined banks
 - Lacks terrestrial vegetation or
 - Exposed parent material bed
- Hydrologically connected to other waterbodies
- Does not include
 - Rills or gullies in disturbed soils



Stream Channels Not Stream Channels









NRPA Permit Exemptions

- Maintenance, repair and replacement of culverts
- Temporary structures
- No permit but must Notify MFS vis FONS

Chapter 21: Section 11, Crossings of Water Bodies
The following information must be attached to this form and provided to Maine Forest Service as required in Chapter 21 Rule, Section 11 for all water crossings:
Check all that apply: Permanent water crossing Temporary water crossing
 □ Map showing the location of all proposed <u>permanent</u> crossings. □ GPS location of all proposed <u>permanent</u> crossings. □ For any temporary or permanent crossing that requires a permit, attach a copy of the approved permit(s).
Required statement must be signed by the responsible party: All temporary and permanent crossings will be
constructed, maintained and closed out in accordance with the requirements of Chapter 21 rules.
Responsible Party Signature: Date:

EXEMPT - Culvert Replacements

- Existing culverts can be replaced with no permit as long as the replacement culvert is:
 - Embedded into the streambed 25% of culvert diameter
 - Erosion control measures are taken
 - Does not block fish passage
 - MFS is notified prior to activity

EXEMPT - Temporary Crossings

- In place less than 7 months in a 12 month period
- Fill is never temporary (wood is not fill, dirt and rocks are!)
- Still can't cause a discharge
- Examples of temporary crossings: temporary bridges and wood mats, pole fords.

Permit By Rule Same form as before now goes to MFS

- New permanent Stream Crossings
- Soil disturbance within75'
- Forestry exempt from waiting period
- Put more than one project on each form
- Construct to standards

			-	ulation, Chapter 305			
PLEASE TYP Name of	E OR PRINT IN	BLACK INK ONLY (3	COPIES, PLEASE BEAF				
Applicant:				Name of Owner:			
Mailing Add	dress:			Town/City:			
State:		Zip Code:		Daytime Telephon (Include area code			
	etland Water	Body or Stream:					
	rections to Si				171		
Town/City:			Map #:	Lot #:	Col	inty:	
Description	of Project:						
				Part of a larger	project?	Yes	No
		ject: does	does not D inve	olve work below mea	- 1		
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Permits

<u>required</u> for NEW permanent crossings of non-forested wetlands, rivers, & tidal waters

 Permits must be submitted at least 60 days in advance. CALL FOREST SERVICE FOR HELP!







Permanent Crossings

Meets Standard

Not so much



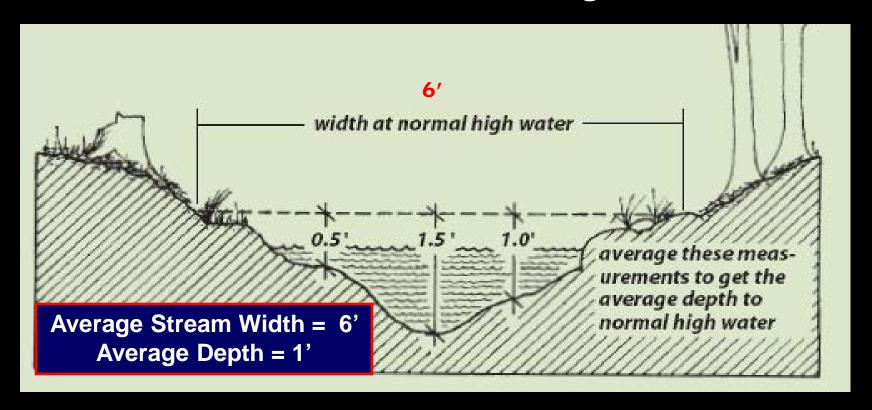




Crossing Sizing Check

Determine the opening size needed

Measure both upstream and downstream of crossing in an undisturbed location, and average measurements





Crossing Sizing Check

Design the crossing to meet the required opening size and account for embedding

3X Cross Sectional area

Table C Culvert Diameter and Opening Sizes				
Opening size (sq. ft.)	Diameter (inches)			
0.20	6			
0.80	12			
1.25	15			
1.75	18			
2.40	21			
3.15	24			
4.90	30			
7.05	36			
9.60	42			
12.55	48			
15.90	54			
19.65	60			
23.75	66			
28.26	72			

3X cross section
Stream width = 6 ft
Average stream depth = 1 ft
Opening size at least = 18 sq ft
Table C (Round Culverts):
Culvert Diameter = 60 in

If culvert is to be embedded you must account for the loss of capacity!



Culvert Installation

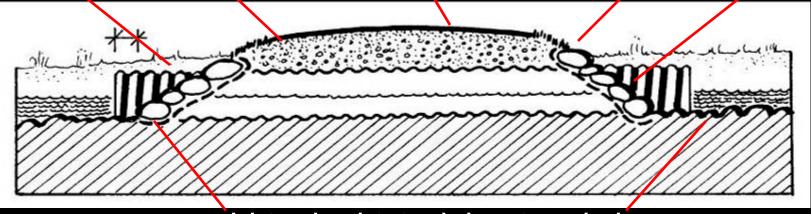
Stabilize shoulder

Use geotextile to prevent undermining

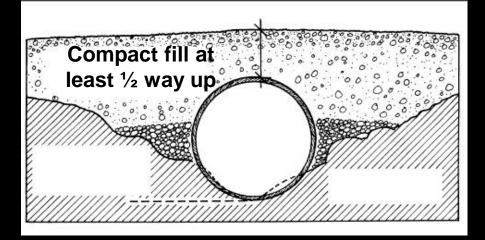
Extend 1' beyond road fill

Compacted backfill at depth of 1' or ½ diameter of culvert

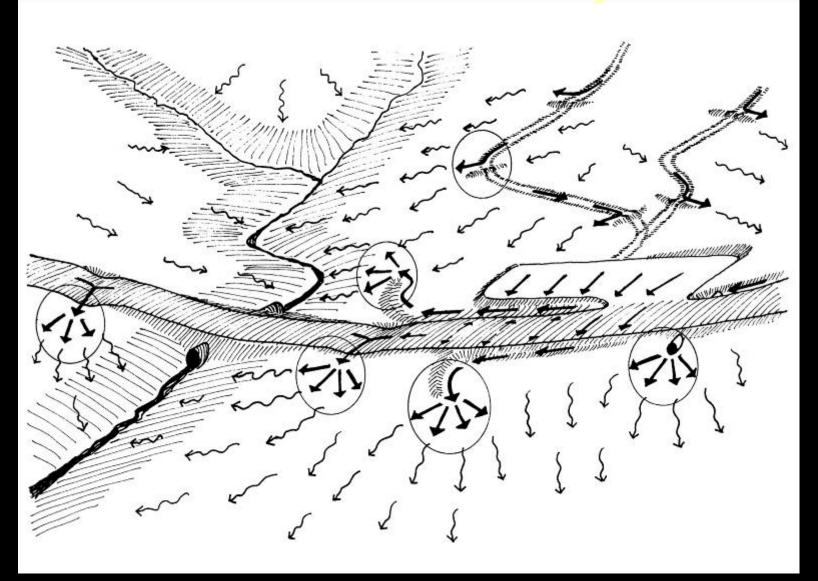
Armor inlet



Inlet and outlet at or below stream bed



Concentrated runoff can't enter waterbody



Questions?

