



Gravel Roads & Water Quality

John Maclaine
Nonpoint Source Training Center

MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

Protecting Maine's Air, Land and Water

Maine's Resources

- ~**6,000** lakes and ponds
- >**45,000** miles of streams and rivers
- **5 million** acres of wetland (25% of the state)
- Over **30,000** miles of road





MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

www.maine.gov/dep



Erosion and Sedimentation

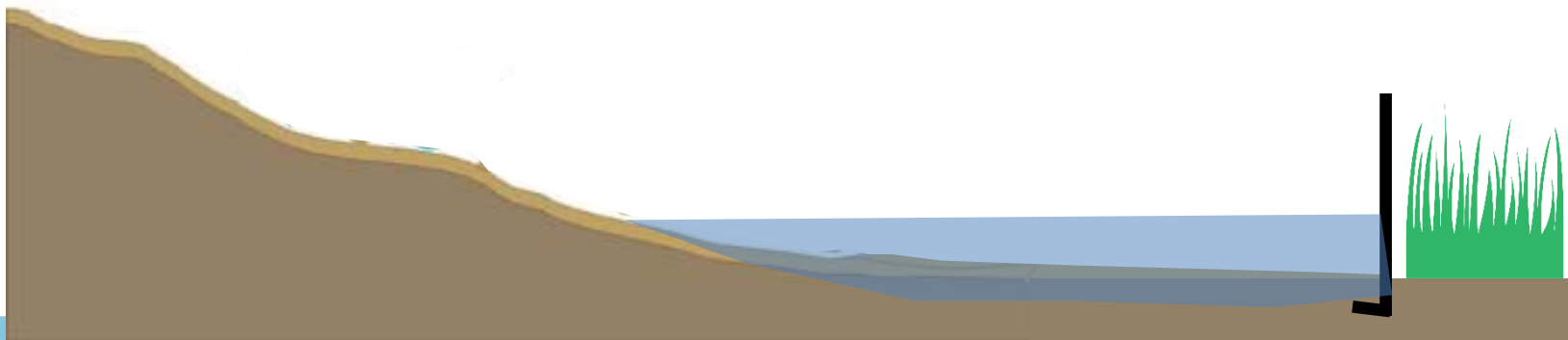
Erosion

Movement of soil by action of water, wind, or ice

- Erosion is natural
- Accelerated Erosion is not

Sedimentation

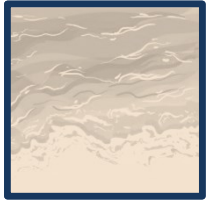
“Settling out” of soil particle from the water.



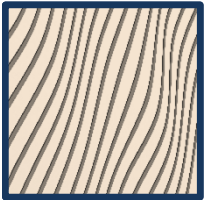
Types of Erosion



Splash
(Raindrop)



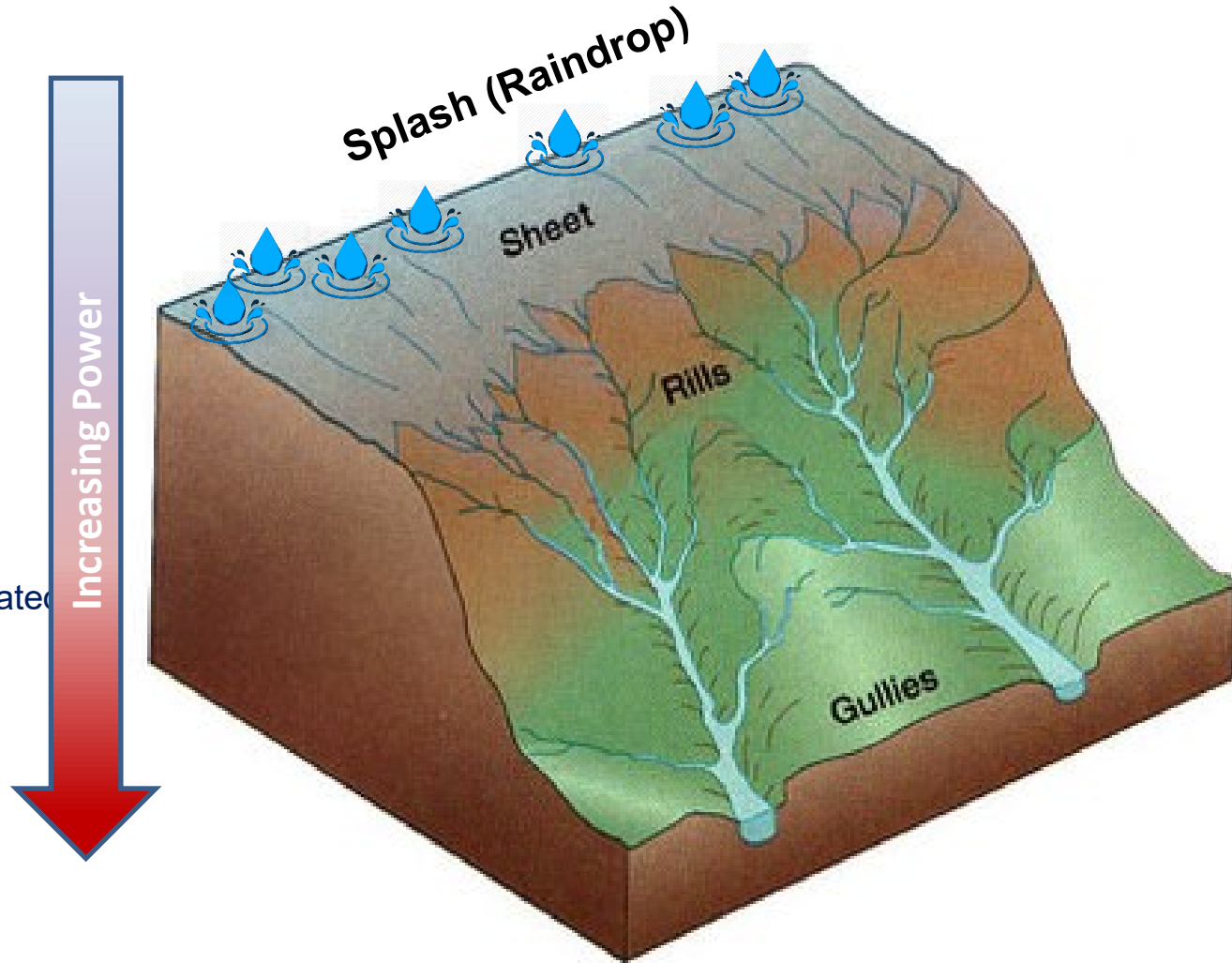
Sheet



Rill
(Shallow concentrated)



Gully
(Concentrated)



Camp Roads & Driveways

Get the water off the road as quickly as possible!

- Use proper surface material
GRADE & COMPACT!!



Recycled Asphalt



Camp Roads & Driveways

Get the water off the road as quickly as possible!

- Use proper surface material
- Establish crown



Camp Roads & Driveways

Get the water off the road as quickly as possible!

- Use proper surface material
- Establish crown
- Remove plow/grader berms



Ditches

- U – shaped



Ditches

- U – shaped
- Grass or rock-lined



Ditches

- U – shaped
- Grass or rock-lined (or both)



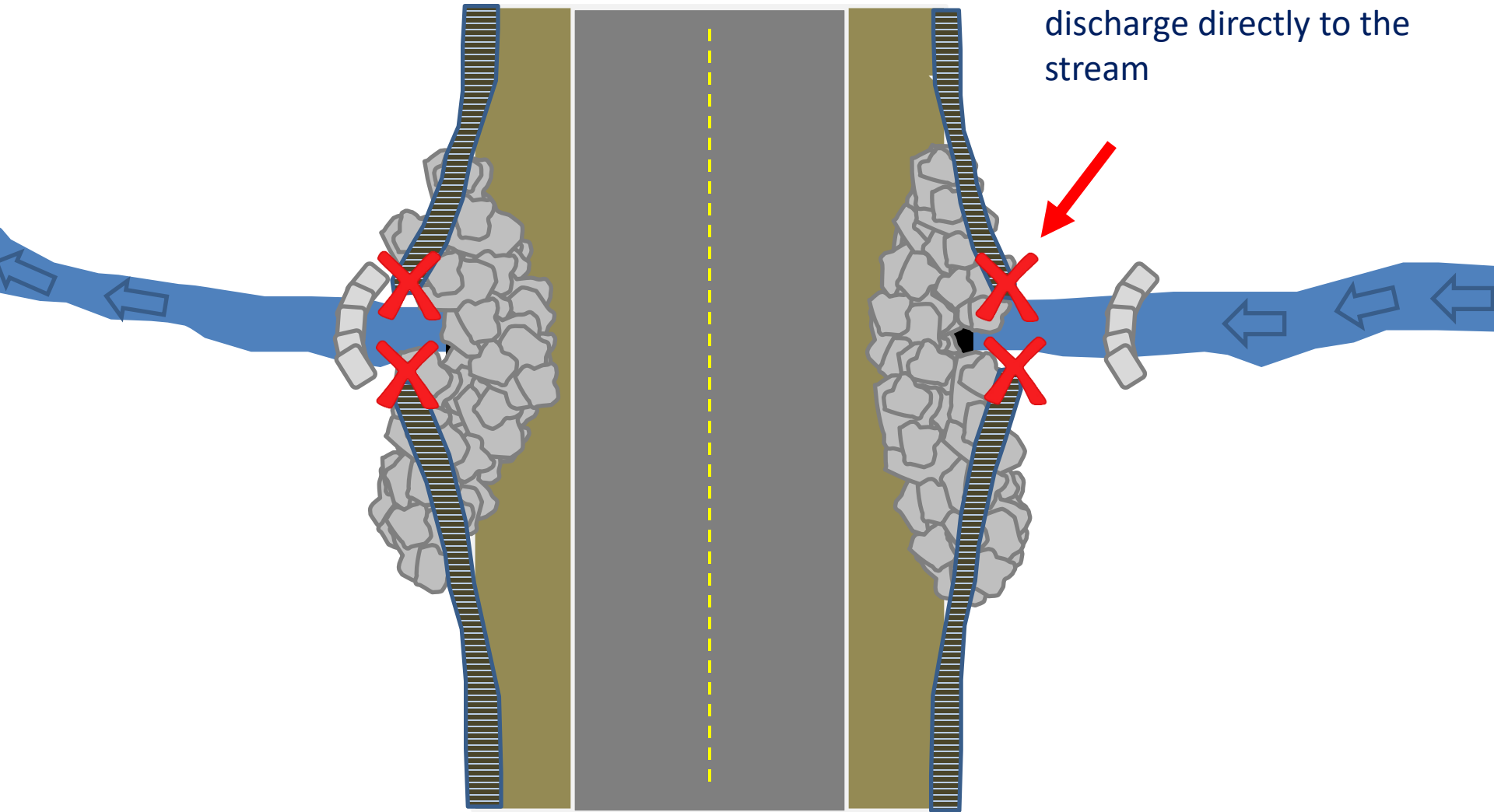
Ditches

- U – shaped
- Grass or rock-lined
- Install Erosion Control blankets or TRM in flow lines



Ditches

We don't want to
discharge directly to the
stream



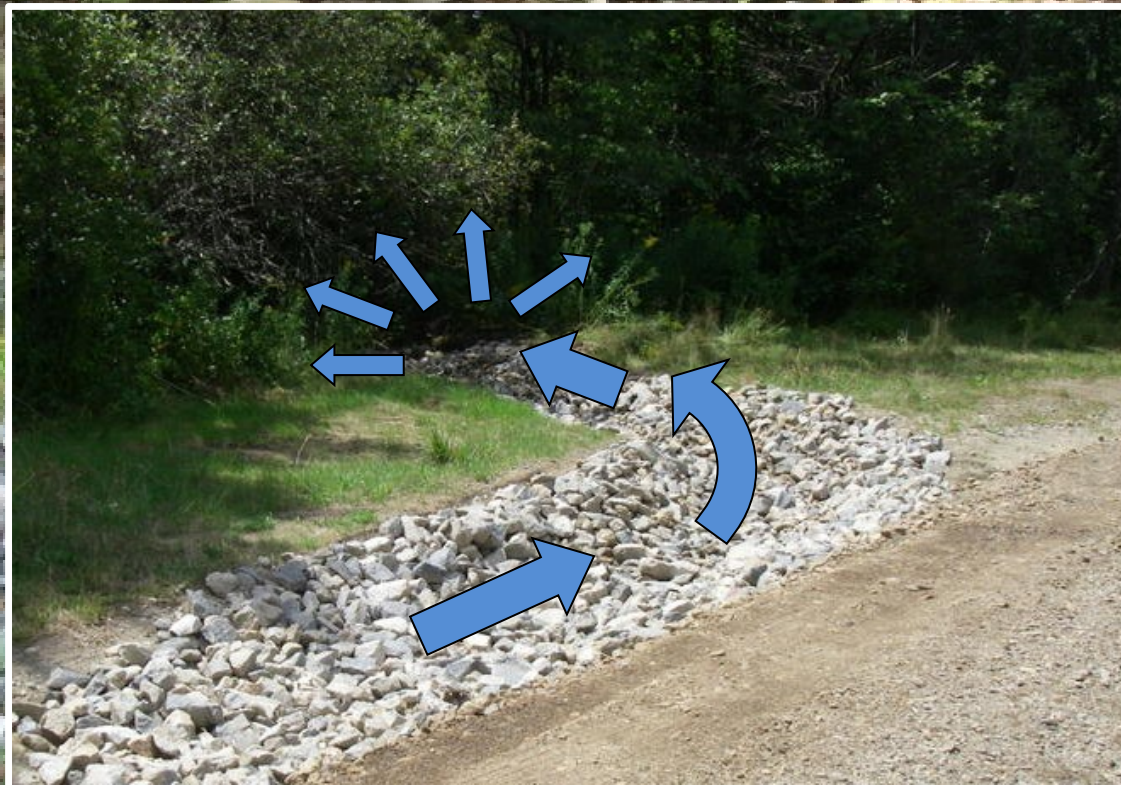
Turn-outs & Level Spreaders



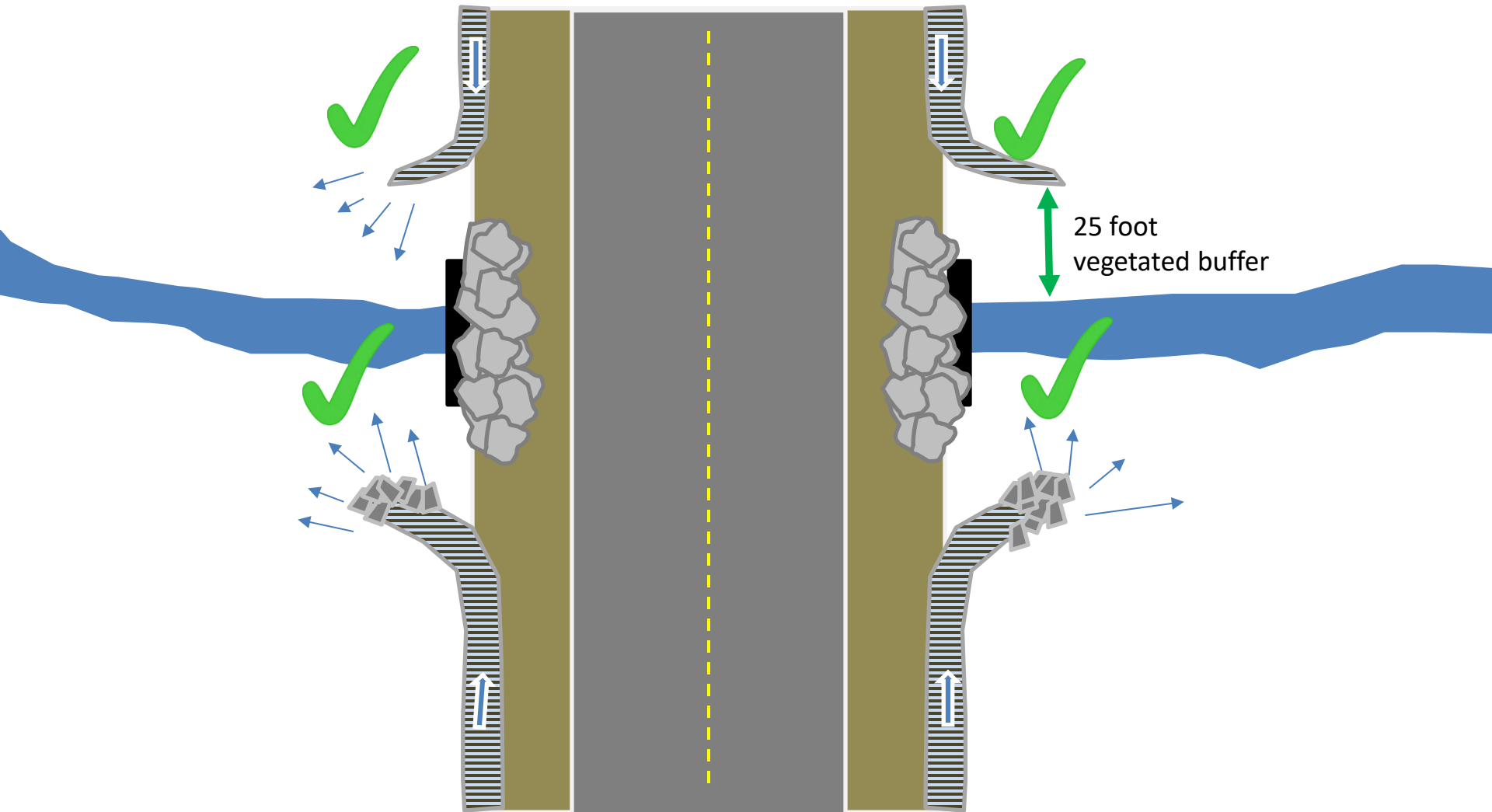
PERMANENT

Grade	Spacing between turnouts
2%	200 feet
5%	80-100 feet
10%	30-40 feet

Erosion Controls: Concentrated Flow (Gully) Erosion / Slopes



Ditch Termination - Turnouts



Stream Crossing Installation

Water Quality & Fish Passage

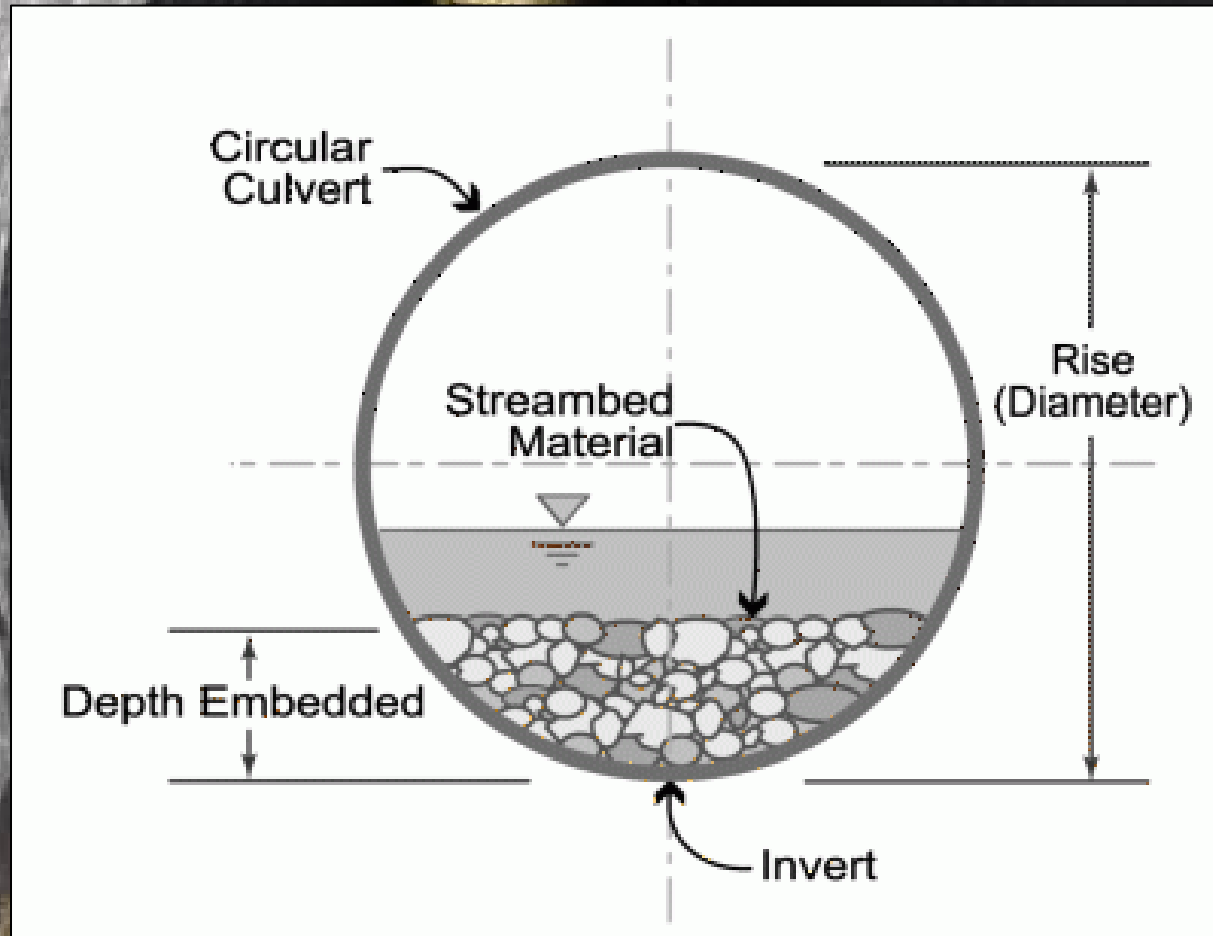


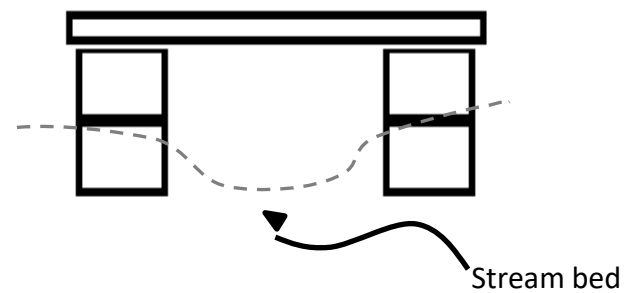
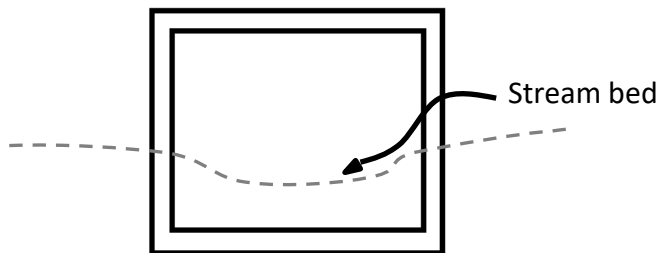
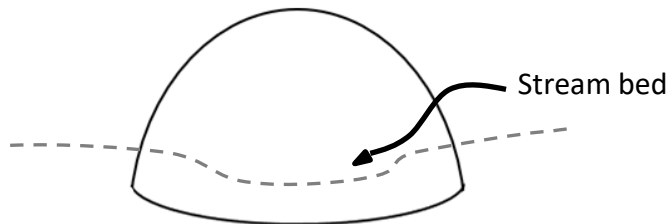
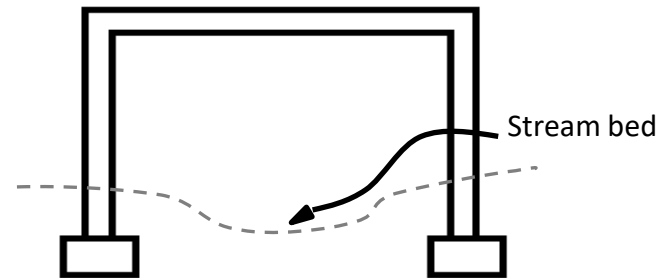
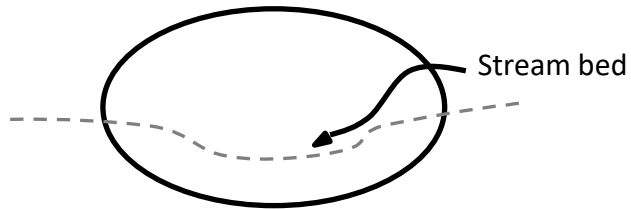
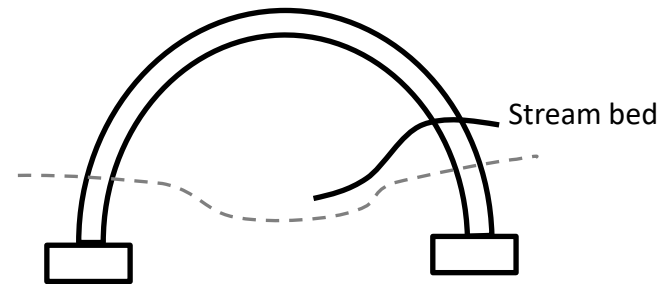
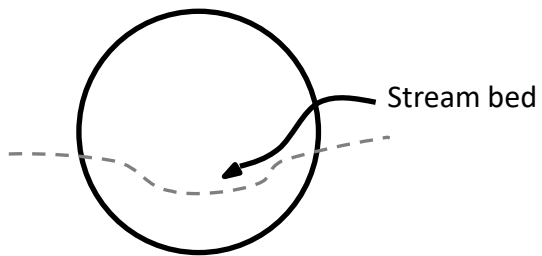
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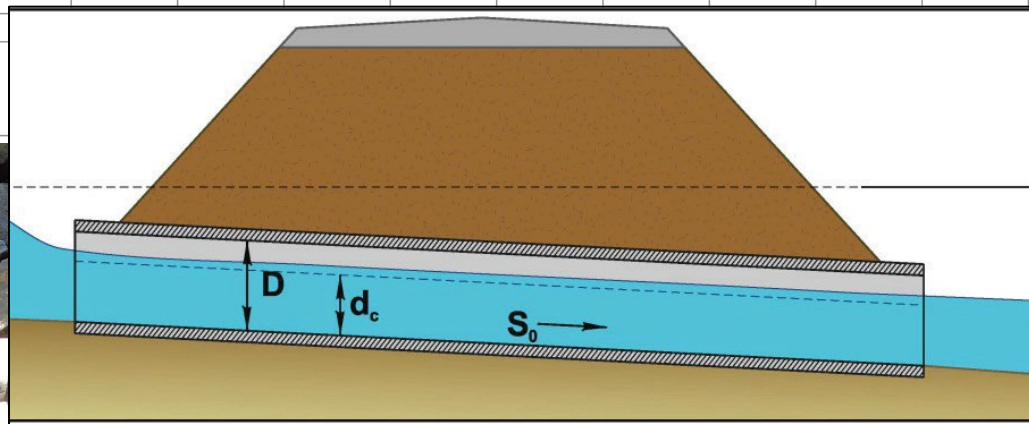
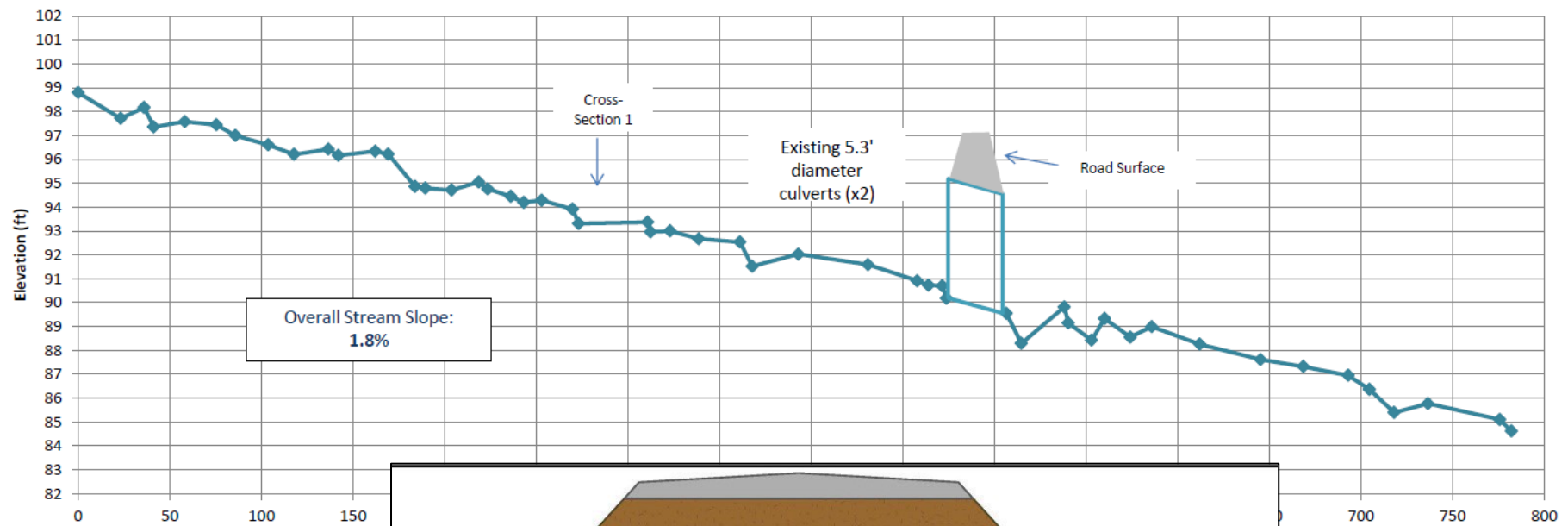
Stream Crossings

Basic Design & Installation





Stream Slope



Do You Need a Permit?

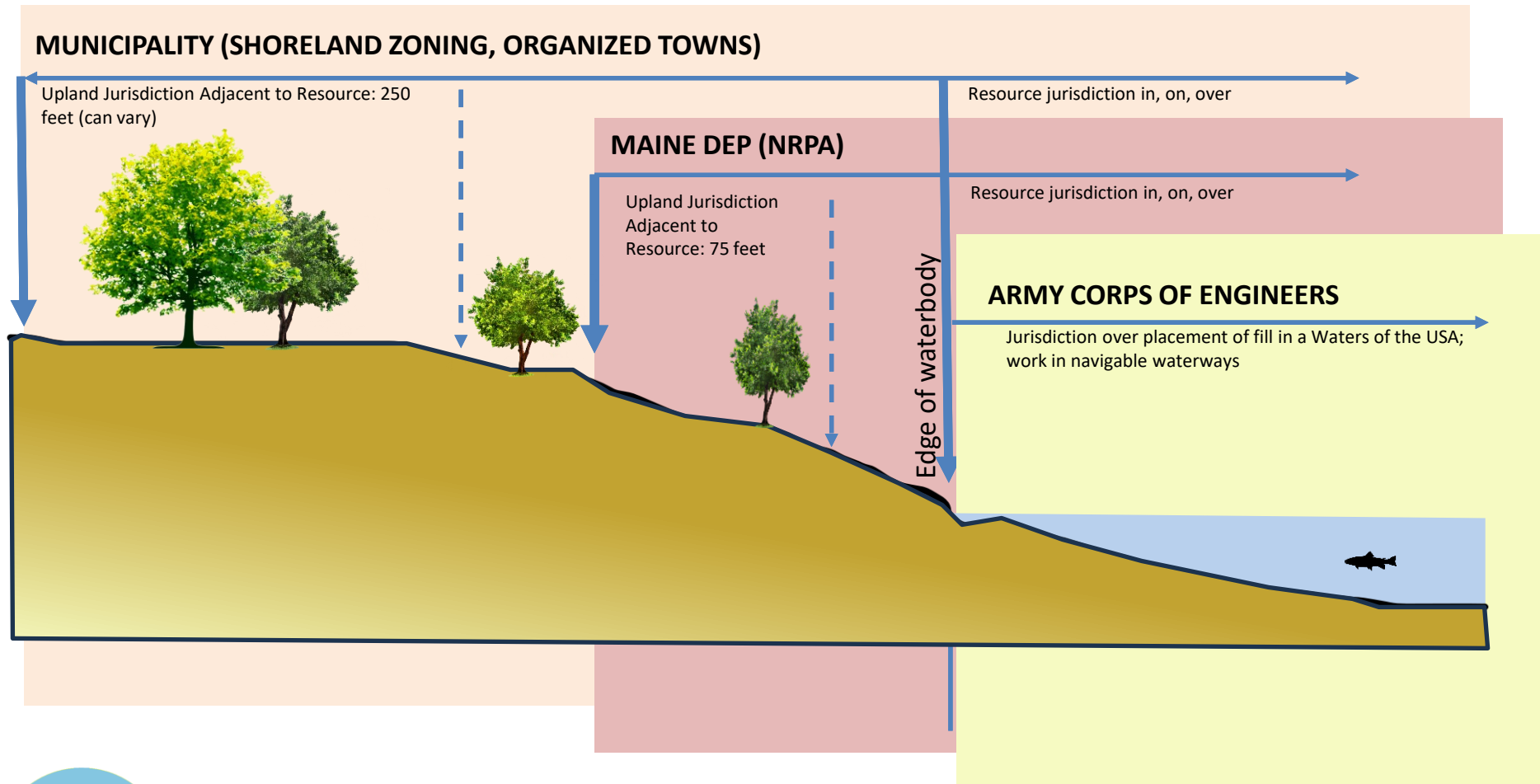
DEP-Related Permits for Certain Camp Road Work Near Water			
	In or within 75 feet	Within 250 feet	Contact
Lake, Pond, River, Wetland, Tidal area	Required permits: • NRPA • Shoreland zoning	Required permits: • Shoreland zoning	NRPA – DEP Shoreland zoning – Town Code Enforcement Officer **
Stream	Required permits: • NRPA • Shoreland zoning		

*Replacement of stream crossings, maintenance & repair are exempt from permitting, but conditions apply

** A DEP-certified contractor may be required



Do You Need a Permit?



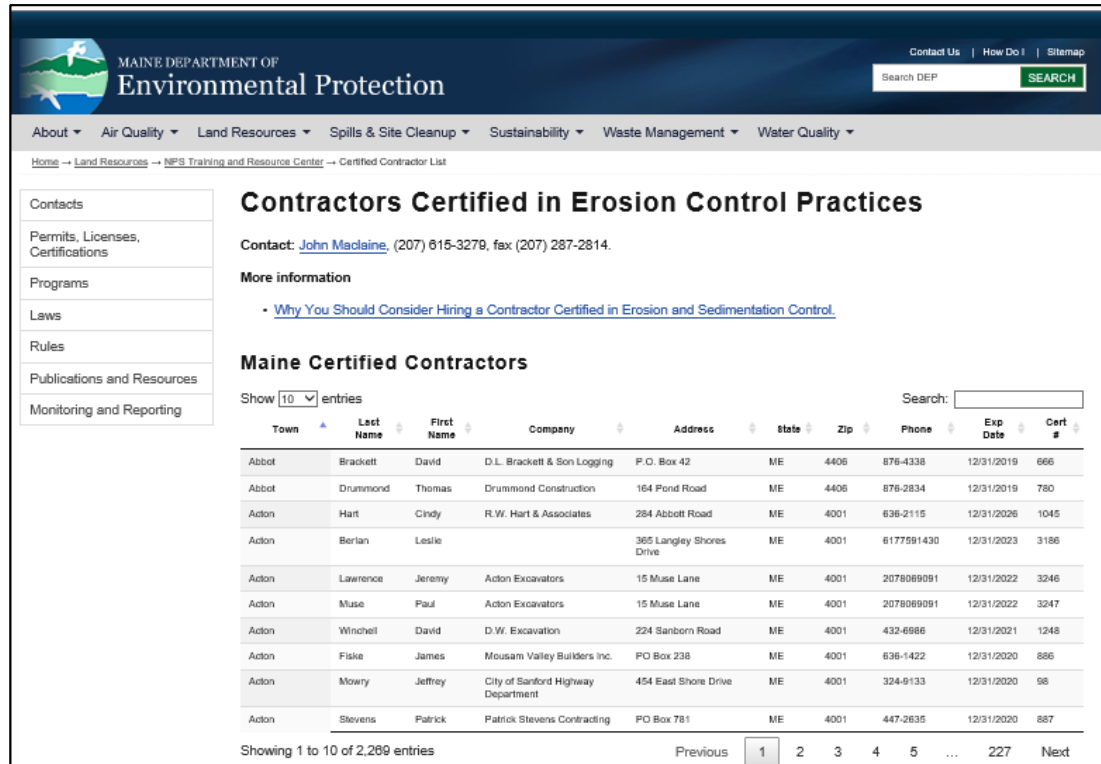
Working in the Shoreland Zone

As of January 1, 2013: DEP Certification is **REQUIRED**

- Applies to contractors disturbing, filling, grading removing > 1 cu. yard of soil, until:
 - Applies until permanent Erosion Control measures are in place, or
 - The area is sufficiently vegetated to prevent erosion of soil
- A certified individual must be on site each day earth moving occurs and be responsible for management of erosion & sedimentation practices



Erosion Control Certification List



The screenshot shows the Maine Department of Environmental Protection website. The header includes the department's logo and name, along with navigation links for Contact Us, How Do I, and Sitemap. A search bar is also present. The main content area is titled "Contractors Certified in Erosion Control Practices" and includes contact information for John Madlaine. A sidebar on the left lists various services like Permits, Licenses, and Certifications. The main section displays a table of certified contractors with columns for Town, Last Name, First Name, Company, Address, State, Zip, Phone, Exp. Date, and Cert #. The table lists 10 entries, showing contractors from Abbot to Stevens. At the bottom, it indicates "Showing 1 to 10 of 2,289 entries" with pagination controls.

Contractors Certified in Erosion Control Practices

Contact: [John Madlaine](#), (207) 615-3279, fax (207) 287-2814.

More information

- [Why You Should Consider Hiring a Contractor Certified in Erosion and Sedimentation Control.](#)

Maine Certified Contractors

Show entries Search:

Town	Last Name	First Name	Company	Address	State	Zip	Phone	Exp. Date	Cert #
Abbot	Brackett	David	D.L. Brackett & Son Logging	P.O. Box 42	ME	4406	876-4338	12/31/2019	666
Abbot	Drummond	Thomas	Drummond Construction	164 Pond Road	ME	4406	876-2834	12/31/2019	780
Action	Hart	Cindy	R.W. Hart & Associates	284 Abbott Road	ME	4001	636-2115	12/31/2026	1045
Action	Berlan	Leslie		365 Langley Shores Drive	ME	4001	6177591430	12/31/2023	3186
Action	Lawrence	Jeremy	Action Excavators	15 Muse Lane	ME	4001	2078069091	12/31/2022	3246
Action	Muse	Paul	Action Excavators	15 Muse Lane	ME	4001	2078069091	12/31/2022	3247
Action	Winchell	David	D.W. Excavation	224 Sanborn Road	ME	4001	432-6986	12/31/2021	1248
Action	Fiske	James	Mousam Valley Builders Inc.	PO Box 238	ME	4001	636-1422	12/31/2020	886
Action	Mowry	Jeffrey	City of Sanford Highway Department	454 East Shore Drive	ME	4001	324-9133	12/31/2020	98
Action	Stevens	Patrick	Patrick Stevens Contracting	PO Box 781	ME	4001	447-2635	12/31/2020	887

Showing 1 to 10 of 2,289 entries Previous 2 3 4 5 ... 227 Next

<https://www.maine.gov/dep/land/training/ccec.html>





Contact:

John Maclaine

john.maclaine@maine.gov

207-615-3279

www.maine.gov/dep

