



**Upper New Meadows River
Watershed Improvement Project
(2005-2007)**

Grantee

Town of Brunswick

Project Coordinator

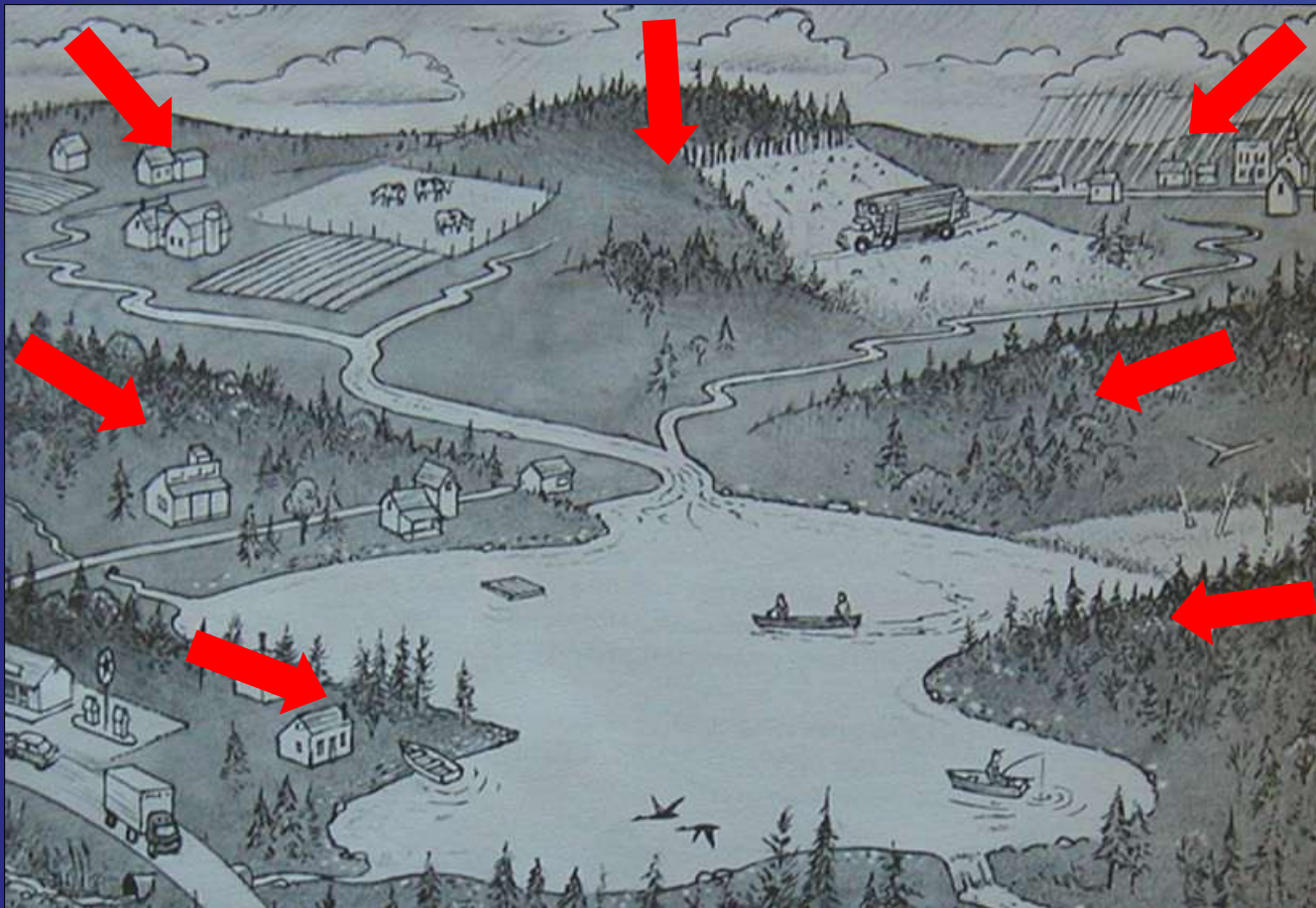
Cumberland County Soil and Water
Conservation District

Funding

US Environmental Protection Agency and
Maine Department of Environmental
Protection

What is a Watershed?

All of the land that drains or sheds its water into a waterbody.



The New Meadows River (NMR) Watershed



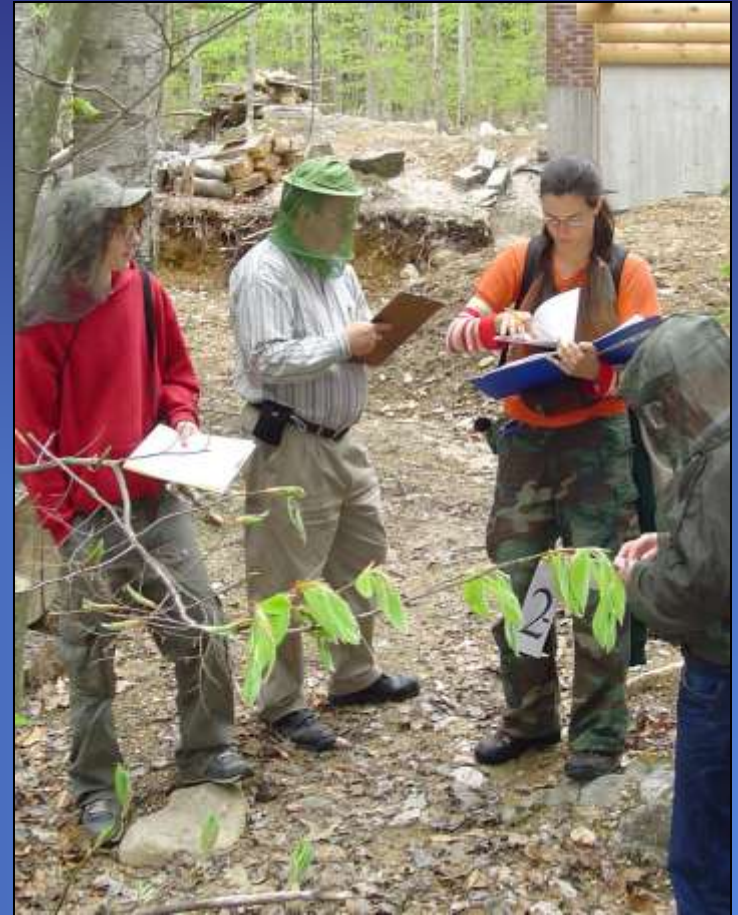
Towns within the watershed include:

- Brunswick
- Harpowell
- West Bath
- Phippsburg
- Bath

-  Land in NMR Watershed
-  Water
-  Land in Other Watersheds

Project Timeline

- 1998:
Survey to identify water quality impact sites
- 2004:
Town of Brunswick applies for funding to address highest impact sites to improve water quality



Project Timeline Continued

- 2005:

Project starts

- Funding provided to address 7 impact sites
- Free technical assistance offered to watershed landowners and municipalities



- 2007:

Project ends

What is it about soil?

Excess sediment:

- Can smother clam flats, spawning grounds and clog gills of aquatic animals
- Can transport toxic materials and bacteria
- Carries nutrients which fertilizes marine aquatic plants - high nutrient levels in water can cause algal blooms



Effects of Algal Blooms

- Decline in Water Quality
- Loss of Wildlife
- Impact on Economic Resources
- Lower Property Values



Decline in Water Quality

- Decreased Clarity



- Lower Dissolved Oxygen

Loss of Wildlife



- Decline in food and habitat size

- Death from types of toxic algae



Impact on Economic Resources

- Shellfish Bed Closures



- Decline in Recreational Use

Lower Property Values

- For every 3 ft. decline in water clarity, shorefront property values can decline as much as 10-20%.



Water Quality Conservation Practices

- Prevent soil from entering water resources (divert it or infiltrate into ground)
- Conservation practices include:
 - Infiltration Trenches
 - Water Diverters
 - Vegetated Buffers



**Dripline Trench
Infiltrates Roof
Runoff Into the
Ground**

Construction Projects

The following sites were addressed through this project:

- Old Bath Road, Brunswick
- Peterson Lane, Brunswick
- Agricultural Site, Brunswick
- Camp Drive, West Bath
- Residential Property, West Bath
- **Larabee's Grove Road, West Bath**
- Houghton Pond Road, West Bath

Old Bath Road Brunswick

Problem:

Solution:

Soil Erosion / "False Ditches" Washing Sediment into NMR

Redefined Ditches Lined with Curlex to Revegetate



New Meadows River

**Before
(facing North)**

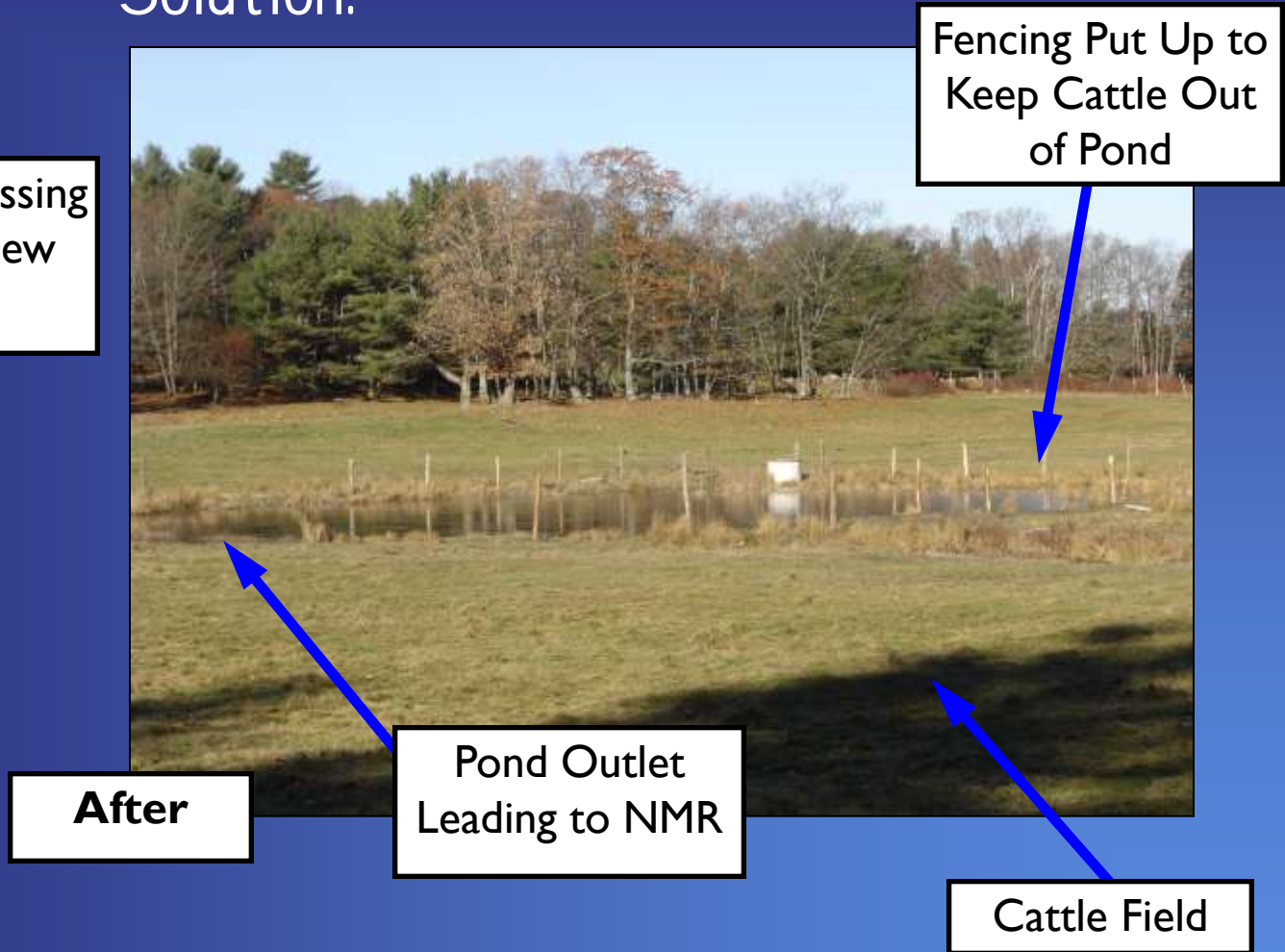
**After
(facing North)**

Agricultural Site On Peterson Lane in Brunswick

Problem:

Cattle Directly Accessing
Pond Leading to New
Meadows River

Solution:



Fencing Put Up to
Keep Cattle Out
of Pond

After

Pond Outlet
Leading to NMR

Cattle Field

Camp Drive

Off of New Meadows Road in West Bath

Problem:



Solution:



Peterson Lane Brunswick

Problem:

Lack of Proper Road
Drainage; Surface Road
Material Washing into
Tributary of New Meadows
River

Solution:

Removal of Rock
Ledges and
Installation of Stone-
lined Ditching



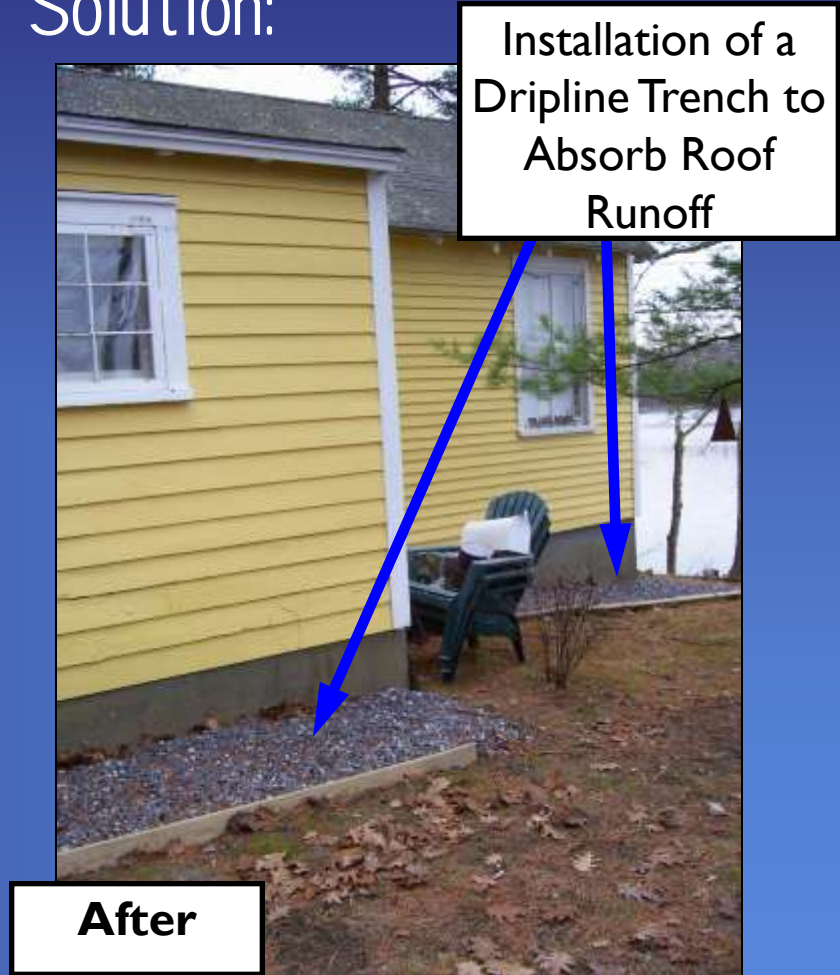
**After
(facing North)**

Residential Property On Camp Drive in West Bath

Problem:



Solution:



Residential Property On Camp Drive in West Bath

Problem:

Loss of Trees and Other
Shoreline Vegetation

Solution:

Plantings of Native Trees and
Shrubs to Stabilized Shoreline
Bank and Absorb Excess Water
and Nutrients



After

Larabee's Grove Road

Off of New Meadows Road in West Bath

Problem:

Saturated Road Bed Requiring Twice as Much Sanding in Winter; Lack of Ditching / Collection of Sand



**Before
(facing South)**

Solution:

Ditching, New Road Bed



**After
(facing South)**

Houghton Pond Road Off of Sabino Road in West Bath

Problem:

Lack of Proper Road
Drainage; Road Surface
Washing into New
Meadows River

Solution:

Addition of a Good
Gravel Road Material that
has been Properly Graded
and Crowned



After

Next Steps

- Continue involving stakeholders in New Meadows River protection efforts
- Look into addressing impact sites in the lower watershed
- Find new ways to monitor and remediate future water quality impacts
- Use education, outreach, and other proactive techniques to protect future water quality

For More Information Contact:

- Vanessa Levesque
Town of Brunswick
Natural Resource Planner
(207) 725-6639
vlevesque@brunswickme.org

- Heather True
CCSWCD Project Manager
(207) 892-4700 ext. 105
htrue@cumberlandswcd.org