

# Protecting the Watershed:

Lamprey River, North Branch River,  
Pawtuckaway River, North River,  
Little River and Piscassic River

**Lamprey River Advisory Committee (LRAC)  
Orientation Session  
September 24, 2011**

Prepared by:  
New Hampshire Rivers Management and Protection Program  
Lamprey River Watershed Association  
Lamprey River Advisory Committee (Existing)

# Facts about the Lamprey River and its Watershed

- Watershed: 214 square miles
- Designated river miles: 87.8
- River drops 600 feet in elevation
- Largest tributary to Great Bay
- 14 towns share the water resources, 3 RPCs, 2 counties

# Pressures on the Watershed

- Watershed population increase -
  - 2000: 53 people/km<sup>2</sup> vs 2020 85 people/km<sup>2</sup>
- The amount of impervious surfaces has increased by 56% from 1990 to 2000 and continues to increase.
- Some towns are 6.6% to 8% impervious – over 10% serious water quality problems become all but impossible to reverse.
- Water quality problems within the river - low dissolved oxygen, low pH and too much chloride.
- Water quality problems in Great Bay – too much nitrogen

# River Resource Values & Characteristics

## Env-Wq 1803.02 Information Required for Nomination

- **Natural Resources:**
  - Geologic Resources
  - Wildlife Resources
  - Vegetation/Natural Ecological Communities
  - Fish Resources
  - Water Quality
  - Open Space
  - Natural Flow Characteristics
- **Managed Resources:**
  - Impoundments Land Use
  - Withdrawals/Discharges
  - Hydroelectric Resources
- **Cultural Resources:**
  - Historical/Archaeological Resources
  - Community River Resource
- **Recreational Resources:**
  - Fishery Resources
  - Boating Resources
  - Other Recreation
  - Public Access
- **Other Resources:**
  - Scenic Resources
  - Land Use
  - Land Use Controls
  - Water Quality
  - Riparian Interests/ Flowage Rights

# CHARACTERISTICS WORTHY OF DESIGNATION

## Historical and Cultural Richness

- Native American history dates back 8,000 years
- Colonial settlements
- Agricultural diversity – forestry, orchards, crops, sugar
- Mill complexes – lumbar and textile
- 24 buildings and sites on the National or NH Register of Historic Places or on the Historic Bridge Inventory

Lamprey River in Deerfield

# CHARACTERISTICS WORTHY OF DESIGNATION

## Fish and Wildlife Habitat

- Home to several threatened and endangered species; Per F&G Wildlife Action Plan – some of the highest ranked fish habitat in NH
- Lamprey River system is considered a “river of distinction” for it’s potential for anadromous fish
- The Lamprey is one of only two coastal rivers experiencing an INCREASE in river herring returns – alewives and blue herring

Little River in Lee

# CHARACTERISTICS WORTHY OF DESIGNATION

## Vegetation and Natural Communities

- 68 % of Lamprey River Watershed is covered by forest
- 40 % of forest is mixed coniferous and deciduous
- Six types of exemplary ecological communities identified
- Over 250 plant species identified in river corridors
- 20 rare or threatened plants within river corridors

Piscassic River Greenway



# CHARACTERISTICS WORTHY OF DESIGNATION

## Recreation

- Fishing (Cold and warm water species; routinely stocked with trout by NH Fish & Game and Trout Unlimited)
- Boating (Class I, II or III Rapids - depending water levels)
- Hiking (2,170 acres of conservation land within watershed)
- Wildlife Viewing (150 species of birds breed or winter along the river corridor)



# Rivers Classification System



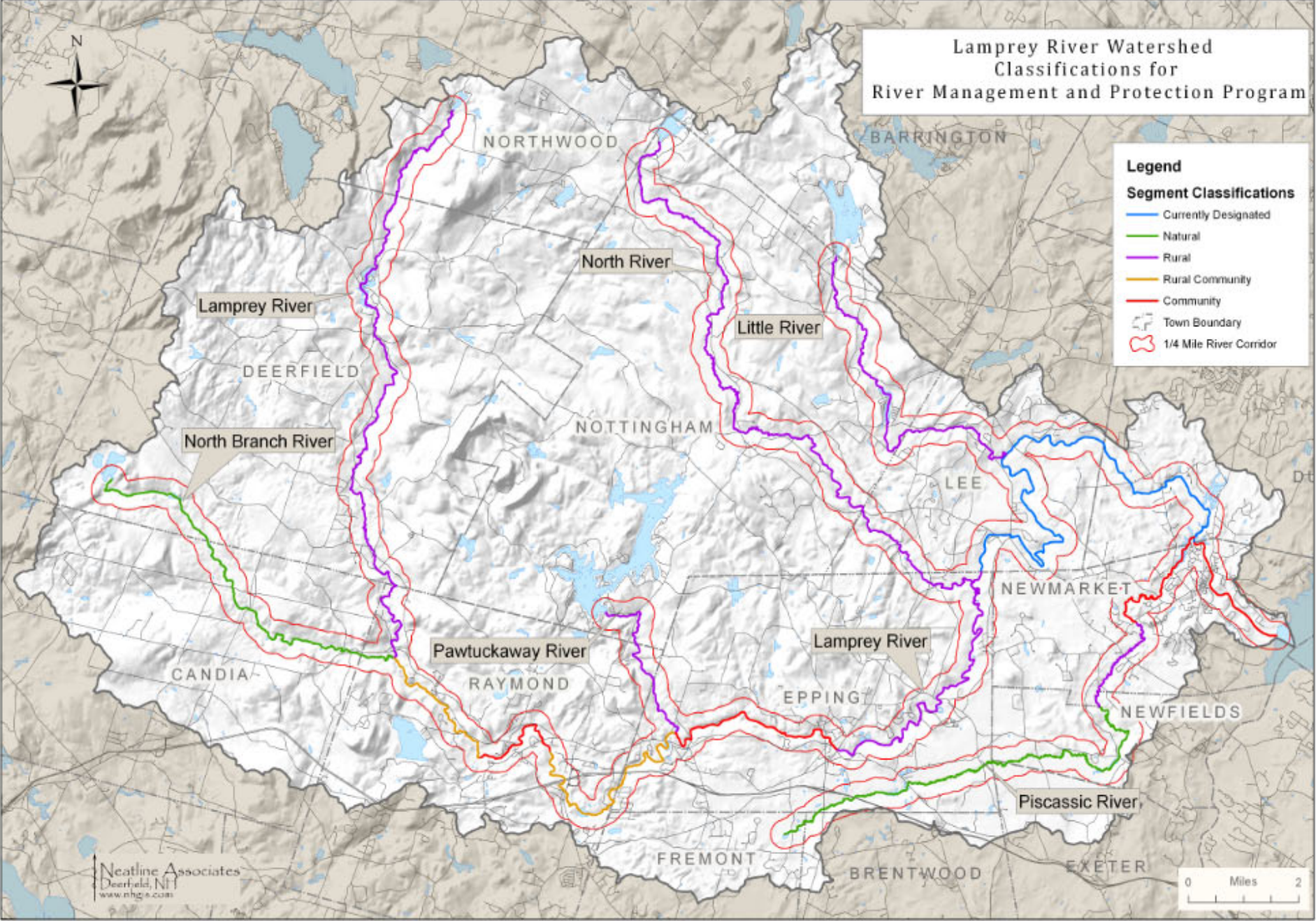
Pawtuckaway River in  
Raymond

## Four Categories:

1. Natural
2. Rural
3. Rural-Community
4. Community

**Different protections specified in statute for each category**

# Lamprey River Watershed Classifications for River Management and Protection Program



Neatline Associates  
Deerfield, NH  
www.nhg.com



**Designated River Classifications**

# Designated River Classifications

## 483:7-a River Classification Criteria; Management

<b>River</b>	<b>Segment</b>	<b>Miles</b>	<b>Classification</b>
Lamprey	1	13.5	Rural
Lamprey	2	3	Rural-Community
Lamprey	3	2	Community
Lamprey	4	5.1	Rural-Community
Lamprey	5	4	Community
Lamprey	6	7.3	Rural
Lamprey	7	2.6	Community
North Branch	1	8.2	Natural
Pawtuckaway	1	3.6	Rural
North	1	15.1	Rural
Little	1	7.8	Rural
Piscassic	1	9.4	Natural
Piscassic	2	3.3	Rural-Community
Piscassic	3	2.9	Community
<b>Total</b>		<b>87.8</b>	

# Regulatory Protections for Designated Rivers

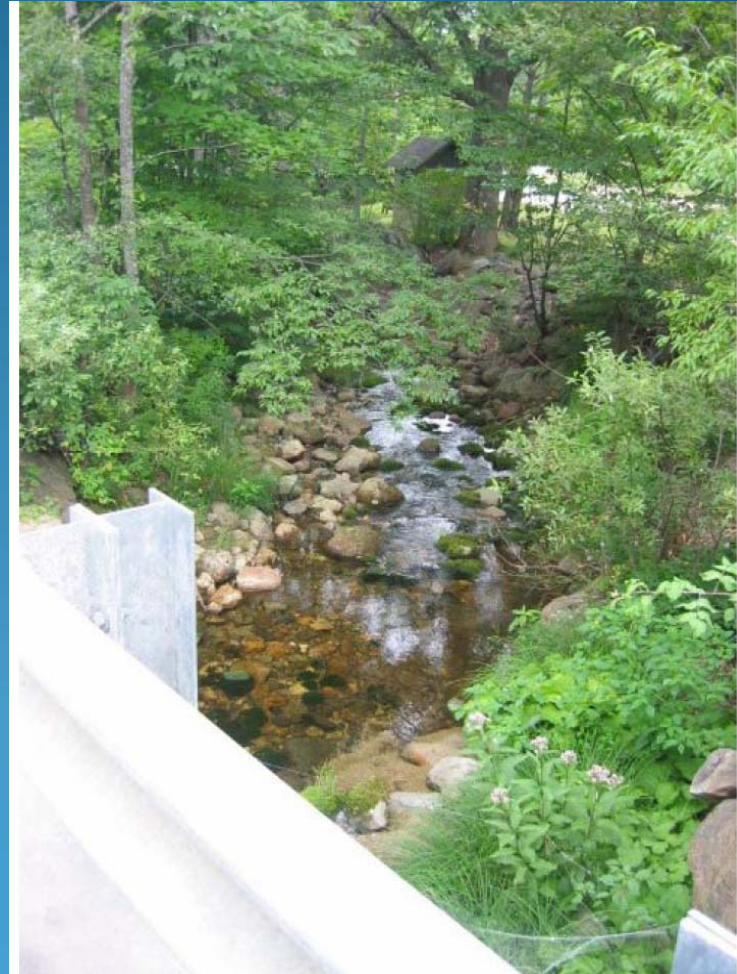
- ❖ **Inter-basin water transfers prohibited (HUC 6 level)**
- ❖ **Water quality protection measures reinforced**
- ❖ **Setback established for new solid and hazardous waste facilities (setback distance depends on “classification”)**
- ❖ **Motorized watercraft usage controlled**
- ❖ **Use of biosolids prohibited within 250' (septage, sludge, solid waste)**
- ❖ **SWQPA applies to all designated river miles\***
- ❖ **Long Range Management Plans for State Owned Lands**
- ❖ **Instream flow protection – Pilot Projects (Lamprey, Souhegan)**

# Local Advisory Committees



## Duties – per RSA 483:8-a:

- 1) Advise DES, RMAC, and the towns on matters pertaining to the management of the river
  - ❖ If FEH study, LAC is liaison between DoS OEM, DES Geological Survey and property owners.
- 2) Report biennially to the DES, RMAC advisory committee and annually to municipalities
  - ❖ Need the 2009/2010 report
- 3) Develop and adopt a local river corridor (watershed) management plan
  - ❖ Time to develop a new or expanded plan
- 4) Consider and comment on plans that could alter the resource values and characteristics for which the river was designated
  - ❖ Advisory - cannot approve or deny



# Regulatory Coordination for Designated Rivers

## Specific RSA's:

<b>RSA 12-E</b>	<b>Mining</b>
<b>RSA 147-A</b>	<b>Hazardous Waste</b>
<b>RSA 149-M</b>	<b>Solid Waste</b>
<b>RSA 270-12</b>	<b>Boat operating restrictions</b>
<b>RSA 482</b>	<b>Dams</b>
<b>RSA 482-A</b>	<b>Wetlands</b>
<b>RSA 483-B</b>	<b>Shoreland Surface Water Quality</b>
<b>RSA 485-A</b>	<b>WQ standards, AoT, Subsurface</b>

“..any state agency considering any actions affecting any river or segment shall notify the rivers coordinator prior to taking such action”

Local River Management Advisory Committees are also notified and can comment.

## 4) Consider and comment on plans that could alter the resource values and characteristics for which the river was designated

The subcommittee should make an informal “laundry list” of questions that can be applied to each proposed project, such as “how will the project impact...”

- Water quality
- Recreation in and near the river
- Fisheries, fish spawning areas, habitat
- Vegetation, including rare, threatened, & endangered species
- Wildlife, including rare, threatened, & endangered species
- Prime agricultural lands
- Surface water runoff
- Flood hazard
- Local aquifers and present or potential water supplies
- Riverbank stability
- Landowners on adjacent and opposite banks
- Riparian buffers
- Historic sites or structures, archeological sites
- Scenic attributes and river character
- Aesthetics (light, sound, appearance, etc.)
- Consistency with the recommendations of the Lamprey River Corridor Management Plan

Comments should be germane to the permitting program and to the river class  
Submit the applicable information from the Nomination document

# Activities Organized By Local Advisory Committees

- ❖ Coordinate Volunteer WQ Monitoring Programs
- ❖ Produce and Distribute Public Educational Materials
- ❖ Conduct Riparian Natural Resource Inventory
- ❖ Organize Local River Clean-Up Efforts
- ❖ Hold River Celebration Festivals
- ❖ Conduct Riparian Landowner Survey
- ❖ Undertake River Restoration Projects



North River in Nottingham



## 18 Rivers Designated Since 1990:

### 1031 Total Miles

106 Natural Miles

640 Rural Miles

112 Rural – Community Miles

173 Community Miles

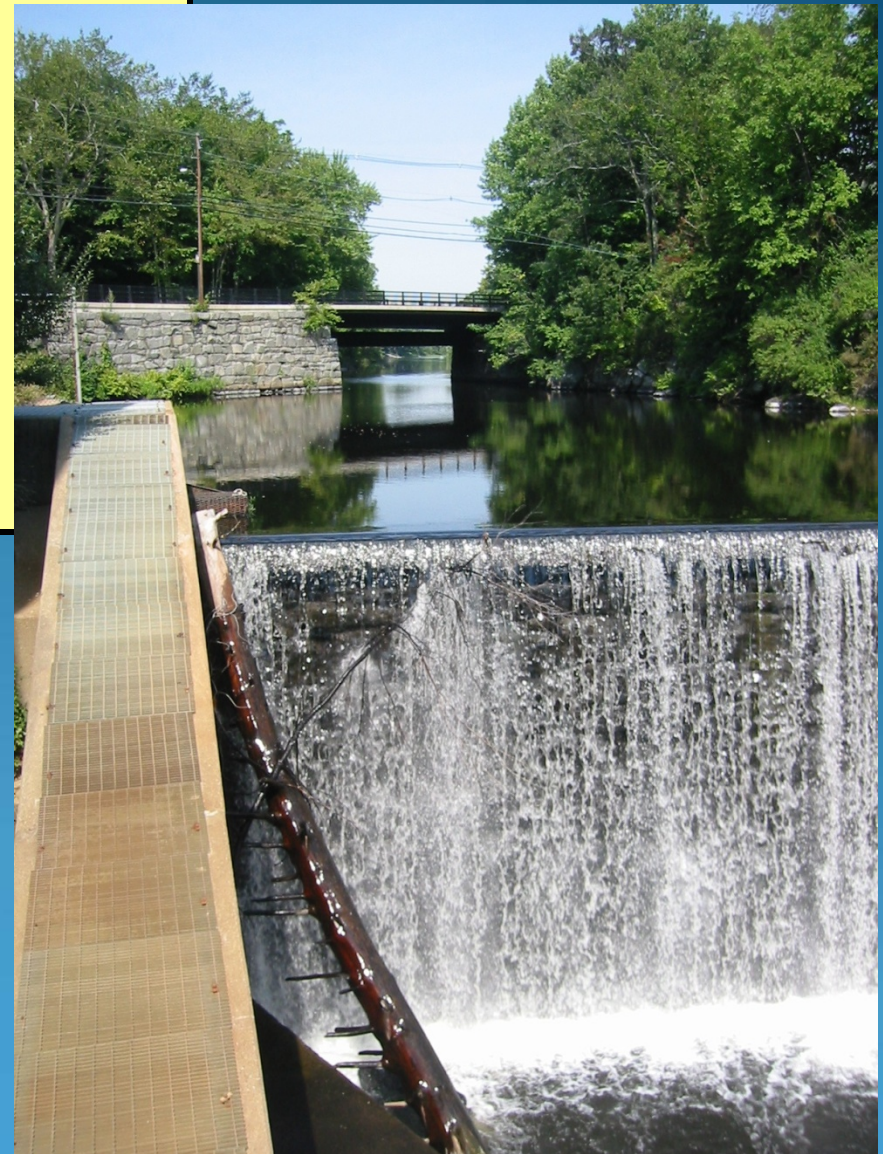
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132 Riverfront Communities

18 Local Advisory Committees (LACs)

# RMPP Statistics

Macallen Dam at Newmarket



# Protection of the entire Lamprey River and the major tributaries – the watershed approach

## Necessary:

- to deliver high quality water to Great Bay
- to protect high quality fish and wildlife habitat
- to protect an important recreational, cultural and aesthetic resource