

# Water Infrastructure Workshop

*Developing a long term vision for water infrastructure in the Nashua Region*

July 18, 2013

Nashua Regional  
Planning Commission





# The Basics

*Linking local, regional and state planning*



## CHAPTERS



- Community & Economic Vitality



- Transportation



- Housing



- Water Infrastructure



- Environment



- Energy Efficiency & Green Building



# The Basics

## Livability Principles

Housing Choices

Community &  
Economic Vitality

Climate Change &  
Energy Efficiency

Transportation  
Choices

Traditional  
Settlement  
Patterns

Natural Resource  
Functions &  
Quality



# Municipal Master Plans– Common Themes

## Most NRPC communities included the following water resource themes in their Master Plans:



Preservation of rural character



Increase protection/ordinances



Increase public outreach/education

Encourage low impact development for stormwater



Encourage land conservation



Develop technical studies and expertise



# Water Infrastructure- Fall 2012

## What is best about this area?

- Good Water Quality
- Good Environmental Quality
- Access to Amenities

## What could make this area even better?

- More Public Sewer
- Better Infrastructure
- More municipal water coverage

## Common Themes:

**More Public Water & Sewer, Good Water Quality, Better Infrastructure**



# Our Speakers

- ☐ Don Ware, Chief Operating Officer, Pennichuck Water Works

- ☐ Drinking Water

- ☐ Storm Water

- ☐ Getting to Know Your Watershed



- ☐ Jim Taylor, Merrimack Wastewater Treatment Facility, Merrimack, NH

- ☐ Wastewater



- ☐ Sarah Marchant, Community Development Director, Town of Amherst, NH

- ☐ Water Issues in Amherst

- ☐ Regulations

- ☐ Education





# What is water infrastructure?

**EPA: Only Public Water Systems**

**HUD: No Green Infrastructure**

**NRPC: Physical & Green Infrastructure**





# Green Infrastructure

## Benefit of Open Space Conservation

Maintain  
drinking water  
quality



Reduced stormwater runoff



Recreation



Habitat preservation







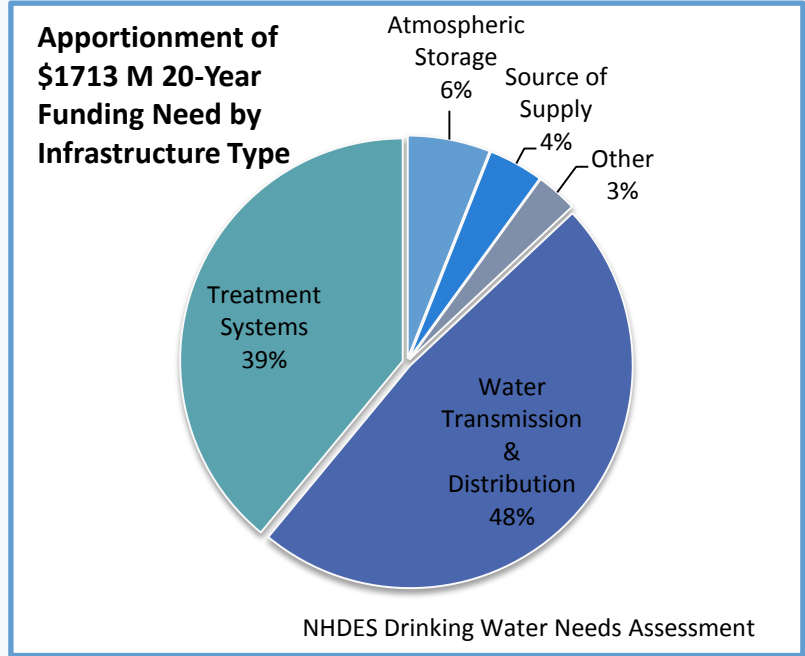
# Drinking Water

## Aging Infrastructure & Replacement Costs



**Water pipe from Manchester dated 1882, removed 2012**

Photo Sam Evans-Brown, NHPR



## Merrimack Water Works



# Storm Water



Photo courtesy of NHDES Watershed Bureau



Photo courtesy of NHDES Watershed Bureau



**Speaker: Don Ware,  
Chief Operating Officer,  
Pennichuck Water Works**



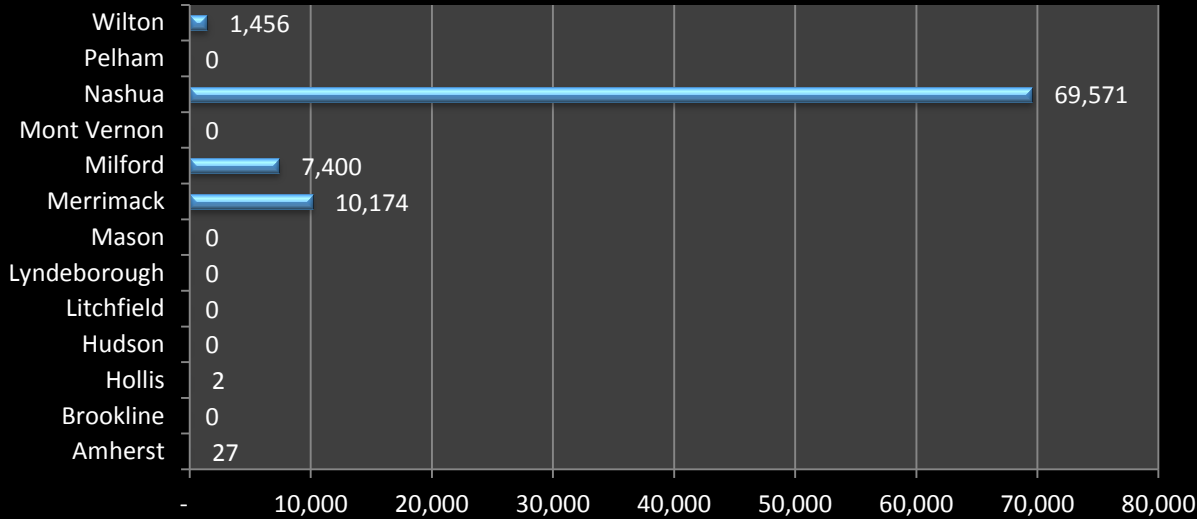
**Baboosic Lake, Amherst & Merrimack**





# Waste Water

## Wastewater Treatment Systems (Sewers)



SRPC Water Infrastructure Data, NHDES 2005



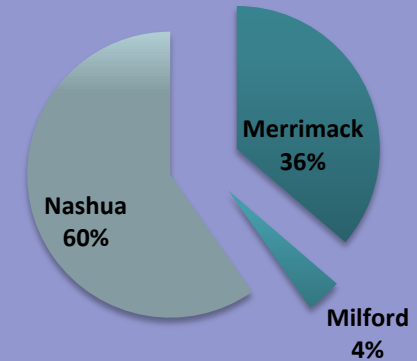
# \$80,885,237

Cost of Wastewater Treatment in NRPC region

**Speaker: Jim Taylor**  
**Merrimack Waste Water Treatment Facility**  
**Merrimack, NH**



## Wastewater Treatment Costs





# Regulations



Photo courtesy of Bob B. Brown, Flickr.com

**MS4 Permits:  
Opportunity for community collaboration  
on resources and public education**

**Prohibited Land Uses for Ground water from  
Model Ground water Ordinance, NHDES**



Photo courtesy of Steve Reid Photography, Flickr.com





# Public Education



**Speaker:  
Sarah Marchant,  
Community  
Development Director  
Amherst NH**



## Souhegan River Watershed

### The River

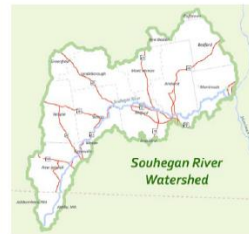
The 34-mile long Souhegan River is a pathway that connects communities and provides year-round recreation to swim, fish, paddle, walk along, and enjoy scenic views. The river adds to quality of life to residents and visitors alike. Flowing through several town centers, the river provides a sense of history, a connection to nature, and a diverse set of economic opportunities.

### The Watershed

The Souhegan River Watershed occupies approximately 220 square miles spanning seventeen communities in New Hampshire and Massachusetts. The Souhegan River Watershed Management Plan (SRWMP) analyzes the River at the watershed scale, which allows for water resource goals to be realized across community boundaries in an ecologically sound manner.

### The Plan

Creating the SRWMP was the first step in the process of protecting the Souhegan River Watershed under the NH Rivers Management and Protection Program. The Plan identifies watershed



conditions, priority management issues, and contains recommendations on ways local officials, state government, concerned citizens, and volunteer groups can help protect the river resource.

### Moving Forward

Formal adoption of the Plan by watershed communities is the next step toward fully implementing the Plan. Once incorporated into each watershed community's Master Plan, recommended management strategies will become part of a wide range of municipal management decisions that affect or involve the Souhegan River or its watershed.

### The Souhegan in the Town of Amherst

Ninety-two percent of the land area in Amherst is within the Souhegan River Watershed. Beaver Brook and Baboosic Brook also flow through Amherst and act as major tributaries to the River. Containing the region's most extensive wetland complex, floodplain area, and stratified-drift aquifer network, Amherst's portion of the Souhegan River Watershed provides several important functions for aquatic systems and people alike. Amherst also contains scenic portions of the river, which help residents and visitors learn to appreciate the river. A canoeport is located on Route 122 in Amherst, serving as an important recreational access opportunity for river paddlers in the area.



Souhegan River paddlers. Photo courtesy of the Amherst Conservation Commission.

## When It Rains It Drains

### Stormwater Education Curriculum

Prepared by



for the  
Nashua Region  
Stormwater Coalition

March 2010





# Break Out Groups

## Workshop Discussion

- ❑ Ask:
  - What are the existing strengths in the region?
  - What are the issues or challenges?
  - What are the regional water infrastructure needs?
- ❑ For 3 Topics:
  - Public Investment: Drinking, Storm, Waste
  - Regulations
  - Public Outreach/Education