

Climate and Energy Workshop

Developing a long term vision for climate and energy in the Nashua Region



September 10, 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 Plans– Common Themes

Most NRPC communities included the following resource themes in their Master Plans, Energy Action Plans and Hazard Mitigation Plans:



- Promote low impact, energy efficiency development



- Programs to support energy improvements and renewable sources



- Increase public outreach/education



- Audit and maintenance of buildings and vehicle fleets



- Increase community engagement and education

- Importance of emergency preparedness

- Potential risk identification



What We Heard – Fall 2012

What is best about this area?

- Beautiful rural atmosphere
- Good environmental quality
- Access to amenities



What could make this area even better?

- Energy efficient housing
- Redevelopment of old mills
- Unified plan for growth and roads



Common Themes:

Keeping farms and open space, preserving rural character, more recreation opportunities



Speakers

Jill Longval, Environmental Planner, NRPC



- Lower Merrimack Continuity Assessment
- Fluvial Erosion Hazard Program

Venu Rao, Energy Action Committee, Town of Hollis



- Town of Hollis Energy Action Plan
- SAU 41 Energy Action Plan

Justin Kates, Director of Emergency Management, City of Nashua



- Current emergency preparedness projects





Potential Climate Effects in the Nashua Region

Precipitation

- Larger rain events
- Increase in microbursts
- Decrease snow pack
- Changes in public infrastructure
- Increase in erosion and non point source pollution

Drought

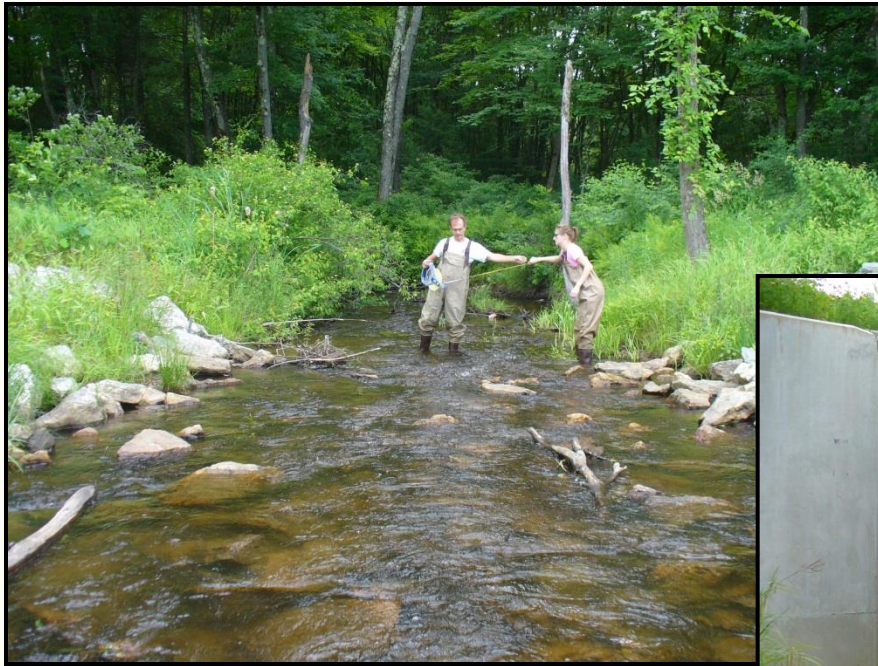
- Decreased number of growing days
- Reduced well withdrawal public and private
- In stream flow changes
- Effects on wildlife

Economic Development

- Positive and negative changes for Nashua area industries
- Increase in public health issues for vulnerable populations from temperature extremes and intense storm events



Lower Merrimack River Continuity Assessment





NRPC Culvert Assessment

Study Area—Lower Merrimack River Corridor: Hudson, Litchfield, Merrimack, Nashua

Steps

1. Determine culvert locations
2. Prioritize culverts for assessment
3. Conduct field assessments
4. Analyze data using Geomorphic Compatibility Tool (NH Geological Survey)



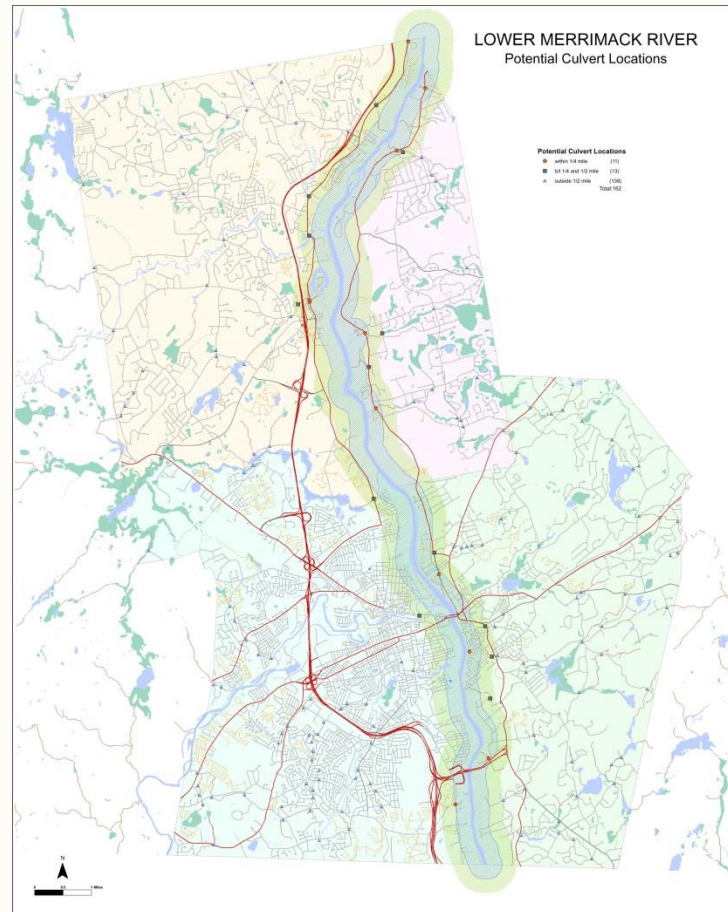
Assessments Completed

Merrimack

- DW Highway
- Cramer Hill Rd
- Thornton Rd (2)
- Bedford Rd
- Landau Way

Nashua

- Gilson Rd (2)



Litchfield

- Albuquerque Ave (2)
- Rt. 3A
- Brickyard Drive

Hudson

- Radcliffe Drive
- Kenyon Street



NRPC Culvert Assessment

Geomorphic Compatibility



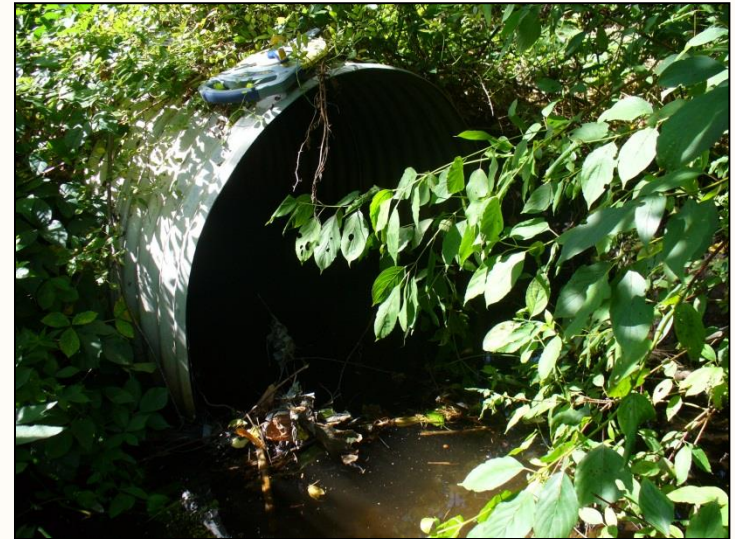
**Fully
Compatible**

**Mostly
Compatible**

**Partially
Compatible**

**Mostly
Incompatible**

**Fully
Incompatible**





Aquatic Organism Passage



Full AOP

Reduced AOP

**No AOP
except adult
salmon**

**No AOP
including
adult salmon**





Geomorphic Compatibility Results

	Hudson	Litchfield	Merrimack	Nashua
Fully Compatible		2	2	
Mostly Compatible	1	1	1	1
Partially Compatible		1		1
Mostly Incompatible	1		1	
Fully Incompatible				



Aquatic Organism Passage Results

	Hudson	Litchfield	Merrimack	Nashua
Full AOP		1	1	
Reduced AOP	1	3	2	2
No AOP except adult salmon	1			
No AOP including adult salmon			1	

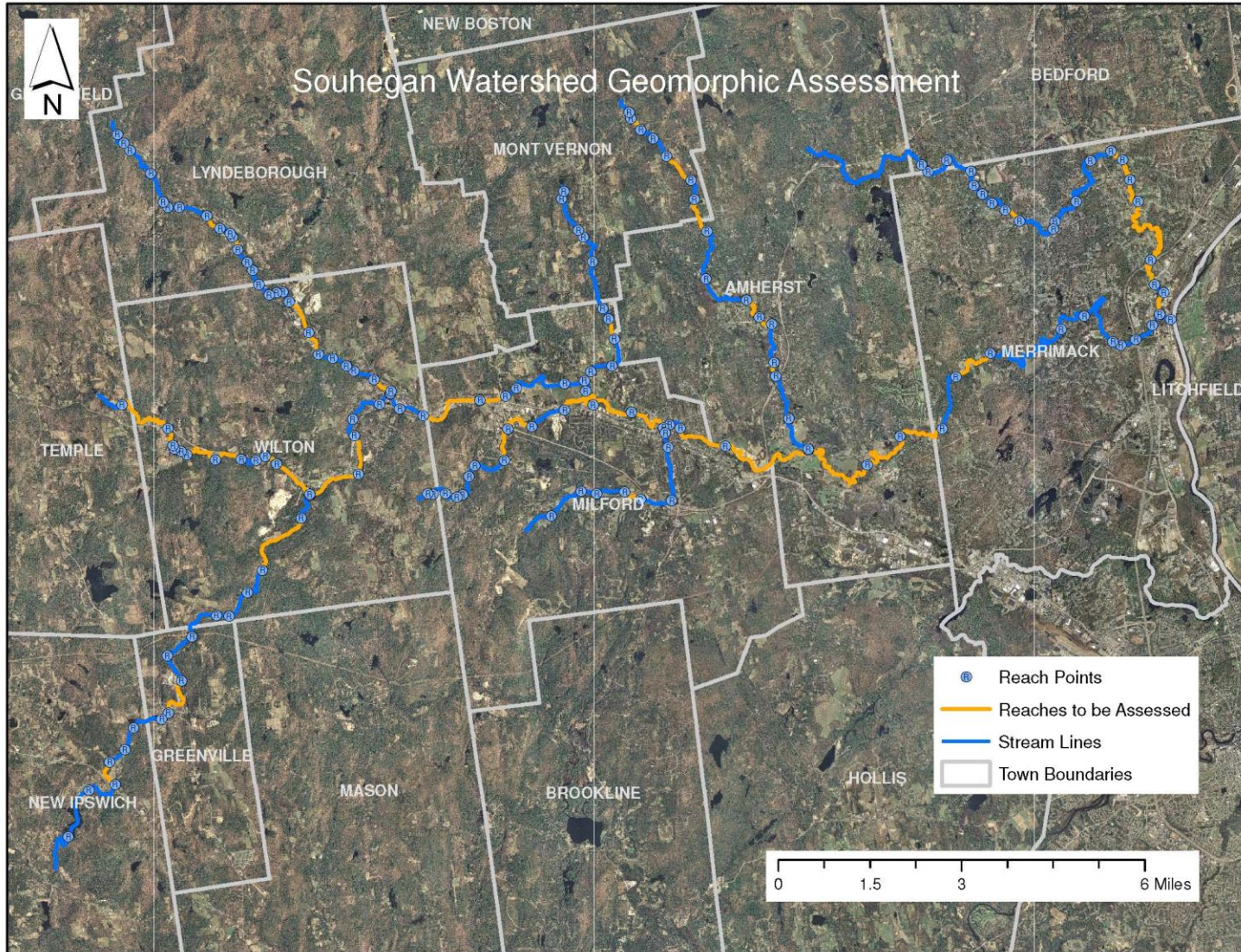


Fluvial Erosion Hazard Program





NRPC Fluvial Erosion





NRPC Fluvial Erosion

NH DES Tasks

- Field assessments
- Data analysis and interpretation

NRPC Tasks

- Outreach
- Fluvial Erosion Hazard Zone maps
- Hazard Mitigation Plan Updates

Project Completion—September 2014



Energy Action Plan for the Town of Hollis, NH

A recommended goal is to reduce municipal energy consumption by 15% below 2008 levels by 2015.



Nashua Emergency Preparedness

Previous Nashua Disasters:

- Hurricane Irene
- October 2011 Nor'easter



Prepare for an emergency:

- Make a Plan
- Build a Kit
- Stay Informed

CODE REDTM





LEED Certified Buildings in the Nashua Region

- ❖ Nike Store, Merrimack Premium Outlets - Merrimack, NH
- ❖ Stop and Shop - Milford, NH
- ❖ CEI NH LEED - Merrimack, NH
- ❖ Kohl's - Nashua, NH
- ❖ NH State Liquor Store #69 - Nashua, NH
- ❖ Greater Nashua YMCA - Nashua, NH
- ❖ Second Nature Academy - Nashua, NH





Green Energy and Green Building

- Energy Aggregation – a tool to reduce electrical costs by grouping organizations energy needs

NRPC Electricity Supply Aggregation Project

- Funded from Energy Technical Assistance and Planning Program
- 10 towns and 7 school districts
- 2012 annual Savings: approx. **\$299, 578**
- 2012 individual annual savings : **\$1,145 - \$72,678**





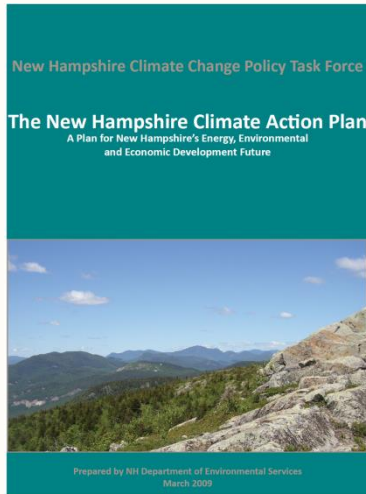
Toolkits for Municipalities

- ❖ Climate Adaptation Toolkit – Climate Adaptation Working Group
- ❖ Connecticut Adaptation Resource Toolkit (CART)
- ❖ Building Resilient Communities – RAND Corporation
- ❖ Small Town Carbon Calculator (SToCC)
- ❖ EPA Portfolio Manager – Energy Action Plans





Statewide and Regional Initiatives



THE REGIONAL GREENHOUSE GAS INITIATIVE

An Initiative of the Northeast and Mid-Atlantic States of the U.S.



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?
- Topics
 - Projects – What has your town done?
 - Financing
 - Implementation



CONCLUSIONS – Get Involved in the Regional Plan

www.granitestatefuture.org/regions/nashua-region/

DOCUMENTS

OUTREACH

Regional Plan Advisory Subcommittees' Roles and Responsibilities

Outreach Strategy (coming soon)

FALL 2012 OUTREACH RESULTS:

Outreach Summary

Full Outreach Report

Chapter Summary Sheets:

- Transportation
- Housing
- Economic Development

LOCAL MASTER PLAN REVIEW

A comparison of regional commonalities among the various local master plan chapters.

- Transportation