

## **Appendix D - May 8<sup>th</sup> Listening Session Report**

# What needs to be done to have enough clean water for future generations?

*A statewide conversation about the future of our water*

## Final Report

July 2012

Submitted to:  
NH Water Sustainability Commission

### Project Team

Michele Holt-Shannon, NH Listens  
Molly Donovan, NH Listens  
Bruce Mallory, NH Listens

**Compiled by NH Listens for the NH Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

<b>Contents</b>	<b>Pages</b>
Final Report	3 - 10
Appendix A      Promotional Flyer	11
Appendix B      Discussion Guide	12 - 28
Appendix C      Small Group Reports	29 - 49
Appendix D      Summary of Participant Evaluations	50
Appendix E      Initial Summary to Participants	51

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

## Introduction

On Tuesday evening, May 8th, 2012, more than 135 New Hampshire residents met for three hours to talk about their priorities, concerns and ideas for water sustainability in New Hampshire. Compiled here are the priority issues and ideas shared by those participants. New Hampshire Listens (NH Listens) hosted this event in service to the New Hampshire Water Sustainability Commission (NHWSC). The event was advertised widely and everyone was welcome to attend one of five locations. In keeping with NH Listens' approach, the purpose of these deliberations was to engage people in a constructive conversation about water sustainability, not to advance a particular set of goals or solutions. All views and perspectives were recorded and integrated into this report. Conversations such as this one help to augment (not replace) the traditional forms of government and policy-making. This report will be posted at <http://www.nh.gov/water-sustainability/> and at [www.NHListens.org](http://www.NHListens.org).

## Key Findings

What follows is a detailed description of the process and outcomes of the conversations. An analysis of all notes and small group reports identified several priority areas for further action. These priorities are explained in detail beginning on Page Five and include:

- **Management, Coordination and Protection of Water Resources,**
- **Education and Public Awareness of Water Issues,**
- **Effective Regulations and Incentives for Water Conservation, and**
- **Recognition of the need for a Funding Structure for Long Term and Proactive Investments in Water Infrastructure.**

## Why dialogue and public engagement?

At a time when many citizens are feeling an increase in partisanship and a decrease in civility, the rules of typical public meetings often seek to manage the expression of dissent more than facilitate a problem solving. Creating an opportunity for people to talk to each other constructively is a priority for the work of NH Listens. The National Coalition for Dialogue and Deliberation notes in its 2010 Resource Guide for Public Engagement, *"these engagement techniques strengthen the traditionally distant relationship between citizens and government, mitigate conflict between groups, improve the quality of buy-in for public decisions, and tap into community assets and citizen potential"* ([www.NCDD.org](http://www.NCDD.org)).

The people who participated in this project spent three hours on a weekday evening in a facilitated discussion about water. This effort was significant. We asked participants to share their top priorities and values regarding sustainably managing our state's water and to identify key recommendations (including the option of no recommendations) to the NHWSC.

Public deliberation is most constructive when differences of opinion are expressed. This project reached out widely to bring a diverse group of people together in a conversation that works with, not against disagreement, encourages curiosity, and yet discourages personal attacks. Participants were not pressured to reach consensus. Therefore, it is significant that our overall summary of input illuminates a number of areas of substantially overlapping concern.

When done well, these techniques create the space for real dialogue so everyone who shows up can tell their story and share their perspective on the topic at hand. Dialogue that engages the

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

public can improve relationships, improve institutional decision making, increase civic capacity, and improve community problem solving.

### **How New Hampshire Listens Collects and Reports Citizen Recommendations**

The work of NH Listens is based on small-group (typically 8 to 12 participants each) facilitated dialogue that produces specific outcomes, often in the form of concrete recommendations for action. Depending on the topic, the outcomes might be at a more general level, articulating broad sets of values or criteria for decision-making. Whether a dialogue is constructed as a one-time event that stretches over several hours or multiple events occurring over several weeks, participants typically move through a four-stage process guided by the facilitator. These stages include:

1. Introductions and personal stories about how participants relate to the focus topic of the dialogue (including their prior experiences with and opinions about the topic);
2. Review of the available data on the topic to assure common, comparable levels of knowledge among the participants (sometimes through use of a data summary report of the type prepared by the Commission and NH Listens for this project);
3. Analysis of the topic and its multiple dimensions, leading to selection by the group of a small number of key issues (3-4). These issues serve as the basis for subsequent discussion from which the group generates concrete actions and recommendations; and
4. In-depth discussion of the selected key issues and articulation of a final set of views, values, or recommended actions directed at relevant decision-makers.

Throughout the dialogue, facilitators and participants document the conversation on large flipcharts and identify recurring statements or themes. That is, the information that is gleaned from each small group is inductively analyzed, moving from specific comments made by group members to general statements that represent the shared sense of the group. Both agreements and disagreements are recorded, to assure that all points of view are heard and documented. Facilitators work with the group to draft final language reflecting areas of agreement and disagreement. Each small group “owns” the final statements that emerge from this process.

### **Framing Community Conversations**

In conjunction with the Public Engagement Subcommittee of the NHWSC, NH Listens developed a set of focus questions to guide the discussion. These questions were used as the basis for developing the framework for the community conversations.

#### *Focus Questions*

- What is the biggest challenge concerning water that we need to address?
- Do you feel that our waters are threatened in any way?
- How would you describe the key roles of water in our state?
- Are there competing uses now for our water and do you expect them to change over the next 25 years?
- What, if anything, do we owe to future generations regarding safe, clean, usable water?
- What are the primary values you hold regarding water and water sustainability?
- What action needs to be taken over the next 25 years?
- How can we ensure there is enough water for all uses in the future? Should we?

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Who do you believe is responsible to ensure safe, clean and sustainable water resources for the next 25 years?
- Who should make the investment in water infrastructure (our public water systems for drinking and wastewater) to ensure safe, healthy, clean and sustainable water for our state?
- Are you willing to make changes at home, work and in recreation to ensure enough clean water is available in the future? What do you do presently to achieve this at home? What would you be willing to do?
- Are you willing to act now (and/or pay) for safe, clean and sustainable water in the future?
- What needs to be done to ensure that water is safe, clean and available for all uses?

## Findings

NH Listens and the NHWSC had a goal of recruiting participants from across the state of NH representing “everyday people,” as well as residents active in local water concerns (Appendix A: Promotional Flyer). Outreach was conducted through e-mail and personal contact by NH Listens, Commission members, news releases, the Department of Environmental Services list, and an episode of The Exchange on NH Public Radio. There was much interest in the topic and more than 165 people registered to participate in the session on May 8<sup>th</sup>. In the end, more than 135 people attended as participants (excluding facilitators and Commissioners). The mix of participants was largely as intended with a few more water professionals attending sessions in Greenland and Manchester. The following locations were chosen to make sure there was a site in each Executive Councilor district and proximity to a key state watershed or water site.

<i>Attendance by site:</i>	<i>Total</i>	<i># of Small Groups</i>
Berlin	16	2
Greenland	59	6
Manchester	31	3
New London	19	2
Keene	11	1

In addition, an invitation was sent to water professionals and those whose work and businesses depend on water to encourage their involvement in a July 9<sup>th</sup> session specifically designed for experts, businesses and industry. The report from this event is forthcoming.

## A Broad View of Water

One of the first things facilitators asked of participants was to list the many ways they see water as important. Across the board, all small groups mentioned a broad array of water uses from sustaining life to industrial uses to aesthetic beauty to tourism. A sampling of comments that were frequently stated, or very similar phrases, includes:

- An abundance of water that people do not appreciate or take for granted
- Extraction/bottling for out of state export
- Can't live without water
- Water as a solvent/to clean
- Sustains wildlife

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Interconnection between surface water, groundwater and drinking water sources – watershed-scale issues
- The relationship between land use and sufficient quantity of clean water
- Small towns have problems maintaining water infrastructure
- Competing interests for water
- Wastewater and water pollution
- Power generation from water
- Not well protected
- Public health and safety
- Tourists come to New Hampshire for several water-related opportunities
- Recreation
- Food and agriculture
- Wildlife and ecosystem health
- Economic implications of doing nothing
- Water as an economic driver
- Fire protection
- Water rights
- Heals the spirit/ religious and spiritual connections

### ***Issues Viewed as Important***

After introductions within each group of 8 to 10 participants and a general exploration of water and water issues, participants were asked to explore the information provided in the discussion guide (Appendix B). The Discussion Guide adapted information from the NH Water Resources Primer published in 2008 by the N.H. Department of Environmental Services along with a 2011 update for the Commission and was specifically compiled with the “everyday person” in mind. Facilitators took each water challenge in turn and asked, “What do you notice about this information?” Facilitators often followed up with similar prompting questions, such as, “What stands out to you? What is most important to you? What seems like the most critical aspect of this challenge?” The following is a summary of the themes noted *most frequently* across all small groups for each challenge area:

Challenge 1: Changing patterns of land use and water use

*Integrated management and intentional policy needs*  
*Increasing population and development – a need for planning*  
*Very complicated issues of rights/ownership (who owns water)*  
*Conservation and protection*

Challenge 2: Impacts of changing precipitation and temperature patterns

*Flooding and flood management concerns*  
*Tensions between science and politics*  
*New and updated information needed to make good decisions*  
*Impact on infrastructure is greater*

Challenge 3: Aging and inadequate water infrastructure

*Costs are significant*  
*Systems are strained*

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

Challenge 4: Information needed to manage water differently in a new era  
*Education and information for the public*  
*Collaboration and sharing resources across political boundaries such as municipalities, counties and states*  
*Data collection needs*  
*Innovation*

Challenge 5: Financial and political limitations  
*The value of water*  
*Decreases in state and federal support*  
*Political culture of independence in NH*  
*Need for balanced and effective regulations*

### **Recommendations and Priorities**

Following the exploration of background information on water in New Hampshire, participants were asked to focus on key issues and recommendations. This is where they spent the majority of their time in the conversation. NH Listens collected information from each small group. Four strong themes emerged as participants identified key issues and priorities for consideration. The fact that the themes were mentioned repeatedly by participants across all groups around the state is noteworthy. A number of ideas emerged within each issue and are expanded upon below. The findings are a compilation of the data gathered from each small group report with supplemental information from flip chart notes (Appendix C). The themes identified across all groups were:

1. Management, coordination, and protection of water resources;
2. Education and public awareness of water issues;
3. Regulation and incentives for water conservation; and
4. Funding structure for long term and proactive investment in water infrastructure.

Participants as a whole spent significant time engaging in conversation, idea generation, and deliberation regarding both management issues (#1) and education and public awareness (#2). Regulation and incentives (#3) and funding and investment (#4) were also viewed as critical. There were fewer specific recommendations related to these second two areas, but they were not seen as less important. More accurately, they were generally seen as more difficult and complicated.

#### Management, Coordination and Protection of Water Resources

All groups spent time grappling with the best ways to safeguard “enough clean water for future generations.” It was acknowledged that a significant degree of the scope of work needed on water issues lies in management, coordination and protection of water. This work was seen as one of the largest spheres of influence for making the most effective changes.

A new way of coordinating across boundaries was called for, having implications for traditional forms of public policy and leadership. While some of the political dynamics are addressed later in this report, there was repeated recognition that management of water – a natural resource that transcends socio-political boundaries – will need new approaches requiring shared information and collaboration across local, state, and national boundaries. The ability to manage water on a watershed basis is significantly challenged by how we currently structure decision making. Participants recognized the difficulty in this challenge, but maintained their commitment to

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*



recommending water management based upon watersheds and new and innovative decision making structures dependent upon “working together.” Several participants communicated the need for a statewide water plan that is based on high quality information. This includes a need to address gaps in critical information and data as well as increased understanding of and planning for issues related to water security and water ownership.

While management issues cannot be fully separated from regulations and public policy, there was a strong voice among participants for structuring management and protections in a way that asks all of us to “do our part.” Within this complicated landscape, there was repeated emphasis on supporting and encouraging innovation. There are water stakeholders across all sectors, and efforts need to focus on building a strong alliance for water that is balanced and fair. This framing comes with a caution that “one size does not fit all” across sectors and across different parts of the state. Particularly, challenges face by northern and southern parts of the state differ significantly and should be so treated since population density and land use vary widely across the state.

Overall, the calls for increased water protection and conservation were focused on habits, personal responsibility, and creating an educated constituency for water. These issues were also raised in the context of a strategic use of regulations. A few of the ideas that were repeated included calls for waste water and grey water use and reuse, for a statewide water management plan, and accessible ways to share water data broadly between experts and decision makers at all levels, from towns to the state.

#### Education and Public Awareness of Water Issues

All groups acknowledged the challenge of asking NH residents to change water use behaviors. They acknowledged the perception that NH residents feel (and act) water “rich” and, therefore, as a whole, give little or only passing thought to the need for changes, planning, or investments in our water future. One participant stated directly, “We will need to be convinced.” Therefore, a focus on education at many levels emerged as necessary prior to any significant forward movement related to behavioral change, funding, and support for additional regulations.

The focus of this recommendation was across ages and sectors. While many mentioned the need for more environmental science in primary and secondary education, there was also an emphasis on public awareness campaigns, outreach to businesses, and information for decision makers at all levels of government. Participants do not feel local and state leaders are well informed about water issues as a whole. Participants expressed their desire for updated, factual information and increased access to that information. Decision-makers, at the local level and in smaller towns in particular, need access to expertise and assistance to negotiate the complicated decisions they are asked to make concerning land use and water. This access includes sharing best practices and new technology options with smaller towns.

Related to educational efforts is the identified need to have an informed constituency among New Hampshire residents. It will be difficult to make necessary decisions without a deeper recognition of the implications of *not* acting or acting too slowly. A few of the creative ideas shared included, the redesign of public water system bills into a teaching tool; designing water conservation and protection education for tourists, and a statewide (virtual) day without water.

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

### Regulation and incentives for water conservation

There was strong recognition across groups of the need for effective water regulations and new, creative incentives for water conservation. Several groups were mindful that regulation should not be the only solution and that it is the common need for water and the need to protect water for the common good that tipped the scales toward the need for some public policy intervention. Incentives for individuals, property owners, and business owners should emphasize conservation, health and safety, economic health and personal responsibility. Again, it was emphasized that care be taken across sectors and parts of the state to avoid blanket regulations that do not apply appropriately to local or sub-regional challenges. The way structures help or hinder water conservation and long term planning needs to be addressed so that it is possible to act on long term planning across the life of more than one Legislature and governor's term. Every single small group mentioned the tensions of balancing the rights of property owners with the protection of water for the common good.

### Funding structure for long term and proactive investment

It is not surprising that dealing with the funding sources for water infrastructure, land conservation to protect water sources and more was seen by most as a very difficult problem to solve. Across groups many options were mentioned that encompassed everything from changing how we charge for water, taxing bottled water, to creating a lottery for water infrastructure. Regardless of the solutions, there was a strong recognition that in order to be prepared in the future for multiple water-related challenges, sources of capital funding need to be identified including and beyond individual municipalities. At the same time, participants were very aware of the potential increases in their water bills. The question as to whether the state's public water systems be maintained by all in the state for economic and public health reasons was raised in at least one group. Nevertheless, a repeated idea was to revalue water and change the way residents pay for water so that infrastructure maintenance and replacement is reflected in the cost. The impact of larger businesses and industrial sites on infrastructure was also discussed.

### **Participant Evaluation Summary**

NH Listens surveyed all participants about their experience of the process and received 98 responses. A full summary of the results may be found in Appendix D. Much of this feedback assists NH Listens in improving facilitation and our engagement. For example, several participants wished they could have received the discussion guide in advance, and we plan to incorporate this into our process in the future (a link to the N.H. Water Resources Primer and the NHWSC website was shared instead).

Areas of improvement identified across groups included the need to more clearly convey how input from these conversations will "fit into future decisions," as well as more clearly exploring areas of disagreement. Some participants conveyed that there was a lack of representation of people who desire a significantly smaller role for government.

Strengths of the community conversations can be seen in the 98% of participants expressing "I am glad I participated in these conversations" and 82% agreeing that "the conversation helped me to become better informed about the issues." Similarly, most participants felt the facilitator and process helped them explore and "talk about different points of view" (91%).

### **A New Way Forward**

Finally, a significant number of participants mentioned the need for innovation and a new way of working. Working on problems in a new way and working together in new and strengthened

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

coalitions emerged as means to challenge old pathways of accomplishing work in the public sphere. For example, participants acknowledged the need for policy innovations that provide incentives for water responsible actions as well as the desire to see local and regional decision makers work together even though this was seen as difficult. Participants also sought creativity and innovation in developing incentives for behavioral changes (education and awareness raising) and finding resources for research. In the end, the event was viewed favorably by participants.

This report was compiled to assist decision makers as they determine the best ways to proceed. Participants at the May 8<sup>th</sup> sessions clearly expressed the need for systemic changes in collaboration and decision making in support of long term maintenance of water sustainability.

An initial summary of results was sent to all registered participants on Friday May, 11<sup>th</sup> (Appendix E). This report represents a more thorough exploration of the results and will also be sent directly to participants following acceptance by the NHWSC.

### **Conclusion**

An engaged and committed group of New Hampshire residents came out on a weekday evening to discuss their concerns and priorities for sustainably managing our waters. Decision-makers utilizing this report can consider participants' perceptions and recommendations – of what is included and, possibly, of what is omitted. There remain many areas in need of further exploration in order to find common ground. When asked if they felt this session covered the most important issues, 91 percent of respondents agreed. Participants articulated a broad range of issues and their desire to see something done. These areas are clear: effective approaches to management, education, regulation and funding were identified by participants as fundamental to moving New Hampshire forward in water sustainability. As members of the NHWSC noted in one of their meetings, this important conversation must find a way to continue in a coordinated manner after the Commission completes its report in the fall of 2012.

***NH Listens and the NH Water Sustainability Commission thank all who participated.***

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

# Let's talk about WATER

A resource for drinking, recreation,  
wildlife, business, and tourism in New Hampshire

What needs to be done to have enough  
clean water for future generations?

Join us for the statewide conversation  
about the future of our water

**May 8, 2012**

6:00 - 9:00pm

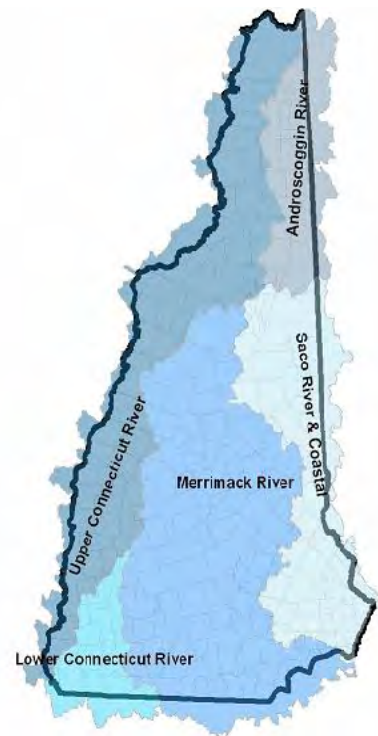
*registration is required and space is limited*

Register at [www.nhlistens.org](http://www.nhlistens.org)  
or call (603) 862-0692

Berlin - White Mountain Community College  
Greenland - Gregg Center at Great Bay Discovery  
Manchester - Manchester Water Works  
New London - Tracy Memorial Library  
Keene - Keene State College

The Governor's Water Sustainability Commission is partnering with NH Listens to convene public conversations about the future of our state's water. Our goal is to gather ideas, experiences and recommendations from a wide range of New Hampshire residents. [www.nh.gov/water-sustainability](http://www.nh.gov/water-sustainability)

NH Listens, a civic engagement initiative of the University of New Hampshire Carsey Institute brings people together for engaged conversations and informed community solutions. Our sessions are open to all community members.



**NH Listens**

The Carsey Institute at the  
University of New Hampshire

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

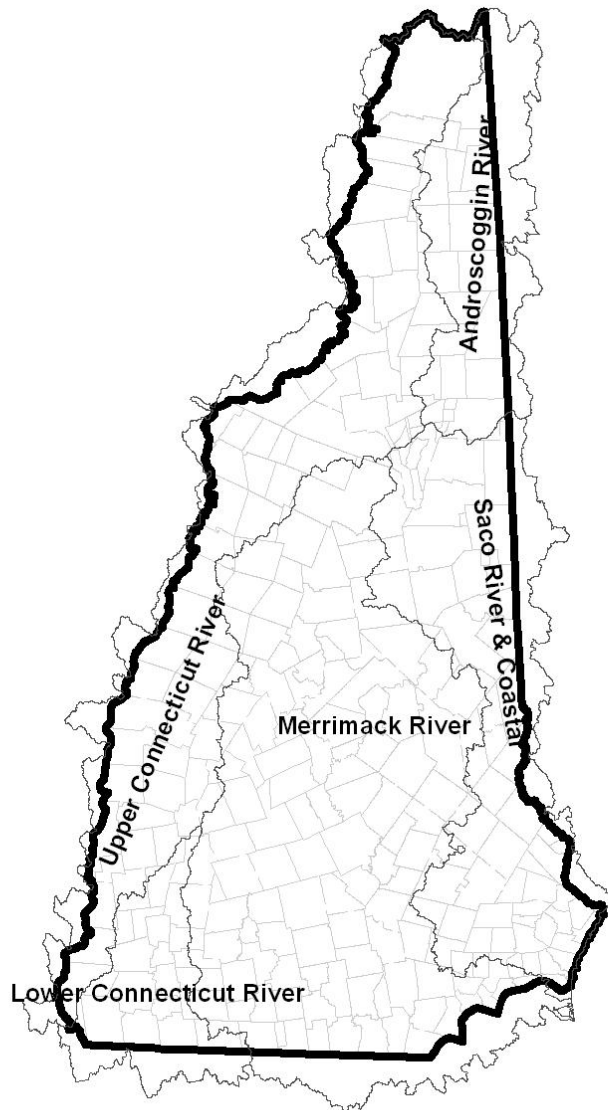
[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

# Discussion Guide

May 8, 2012

---



What needs to be done to have enough clean  
water for future generations?

*A statewide conversation about the future of our water*

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

## Welcome - Thank you for joining today's conversation!

We look forward to listening to your questions, concerns, ideas and hopes for the future of water in the state of NH and we welcome all perspectives. The Governor's Water Sustainability Commission has asked NH Listens to create the opportunity for NH residents to engage in an informed and productive conversation – we are not pushing a particular agenda or set of solutions, but are seeking to engage many people in order to gather ideas, experiences, and recommendations for the future of our state's water. This kind of conversation (taking place in five locations across the state) helps augment the traditional forms of government and problem solving. Your input will be compiled and shared by NH Listens with The Governor's Water Sustainability Commission and with all of you. NH Listens works at the state and local level to help convene conversations about complex issues. We don't take a position on issues but work to create a fair and open process for everyone.

**The Governor's Water Sustainability Commission** was formed by an Executive Order signed by Governor Lynch in 2011 and is working to identify strategies and management measures for ensuring that the quality and quantity of New Hampshire's water in 25 years is as good as or better than they are now. The executive order required a public meeting in each Executive Councilor District. Therefore sites the following sites were selected:

- Berlin - White Mountains Community College (District One)
- Greenland - Hugh Gregg Coastal Conservation Center at Great Bay Discovery Center (District Three)
- Manchester - Manchester Water Works (District Four)
- New London –Tracy Memorial Library (District Two)
- Keene - Keene State College, Young Student Center (District Five)

**NH Listens**, a civic engagement initiative of the University of New Hampshire Carsey Institute brings people together for engaged conversations and informed community solutions. Our sessions are open to all community members.

**Here is a general outline of our evening:**

<b>5:30 – 6:00 PM</b>	<b>Registration</b>
<b>6:00</b>	<b>Welcome</b>
<b>6:10</b>	<b>Small group conversations</b>
<b>8:35</b>	<b>Large group reporting out</b>
<b>8:55 PM</b>	<b>Next steps and closing</b>

This guide is the same for participants and facilitators. Your facilitator will help guide the conversation but we are all responsible for making sure the group is productive. Thank you!

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

## Detailed Outline

### **5:30 - 6:00**     **Registration**

- Welcome and sign in at registration table
- Please join your small group circle for the introduction and to start the dialogue immediately thereafter.

### **6:00 - 6:10**     **Welcome**

- Welcome from NH Listens Host –
  - Background of this event
  - ***The goal of this conversation is to:***  
Provide an open, facilitated conversation in which to get informed about water trends in the state and to identify and discuss the challenges and concerns you have for ensuring the quality and quantity of water for future generations.
- About the process: This conversation is...
  - Designed to generate information and identify common ground
  - Designed for participants to be here the whole time (please do what you need to do to be most present: phones, breaks, restrooms)
  - About a constructive focus – not about looking back at how things might have been done differently but about looking forward to desired actions and solutions
- Group agreements for a productive conversation...
  - Share “air time”
  - If you disagree, consider asking a question rather than arguing to prove your point
  - It’s OK to disagree, but don’t personalize it. Stick to the issue, not the person who is disagreeing with you
  - Speak up if the process doesn’t seem fair
  - Speak for yourself, not for others and not for an entire group (use “I” statements)
  - Personal stories stay in the group unless we all agree we can share them outside of the group
  - We all share responsibility for making the group productive
  - Be respectful and use respectful language
  - Respect the facilitator’s role
  - Listen first...

### **6:10 - 6:30**     **Introductions in small groups**

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Facilitator introduces him/herself and explains the role of the facilitator:
  - to help with the process
  - to serve as a reminder of our agreements to be fair and respectful, and
  - to make sure everyone gets a chance to participate
- Reminder: your group will need someone to **report out** for the group and to **take notes** for your Group Report, both of which you can decide now or after the group gets a chance to get to know each other a bit.
- Participants introduce themselves... Please share your
  - Name
  - One or two “hats” you wear in the community (business owner, parent with kids in schools, active in community organization/church, student, etc.)

We usually do two rounds of introductions in a Listens group. The first is a warm up but the second generally asks us to slow down a bit and share information about the topic that is important to you.

- Take a few moments to reflect; to gather your thoughts, maybe jot down 2-3 sentences/phrases in response to **ONE** of these questions:
  - *Describe a story or experience that illustrates how water has played an important role in your life in New Hampshire...*
  - *What is it that is important to you that you are here on a weekday talking about water for 3 hours?*
- When ready, **try to be concise**, yet this is important and not something to rush through – it helps us to hear more stories. **Ask if anyone would like to go first...**

After these stories, consider any commonalities or differences you hear. We are exploring together how people experience water as a resource for multiple uses - for drinking, recreation, wildlife, business, and tourism in New Hampshire.

#### **6:30 - 6:40 Initial Thoughts about Importance of Water**

We will spend the next few minutes brainstorming all of the ways we experience the importance of water and what issues we think are the most important topics to discuss.

- **Spend about 10 minutes brainstorming a list: How is water important to you and to our state now and in the future?**



**Group Report:** *List all of the ways participants see water as important.*

#### **6:40 - 7:20 Information Review**

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*



Before our break, take the time to look over the discussion guide and the information provided about water sustainability in NH. This is a lot of information but is not meant to be all inclusive. Note each challenge area. We will focus time on each one. Take a few minutes to read and allow for clarifying questions. (3 minutes)

There are pages of research on water in NH so we realize this can be overwhelming. For our purposes, we will be asking you “*what do you notice?*” or “*what is most important to you about this information?*” No one is expected to absorb all of this information tonight.

### **What do you notice? A brainstorm**

To simplify a very complicated topic, we will **take each challenge in turn** and ask you about each: What do you notice? What is most important to you about the information? We will do this briefly by challenge and then when we return from a break we will determine how best to spend our discussion time based on what you find important. (about 7 minutes for each challenge)

- Challenge 1: Changing patterns of land use and water use
- Challenge 2: Changing precipitation and temperature patterns
- Challenge 3: Aging and inadequate water infrastructure
- Challenge 4: Need to manage water differently in a new era
- Challenge 5: Financial and Political Limitations



**Group Report:** *Finalize a list of the key topics raised by your group for each challenge area and note the issues your group wants to address/discuss.*

### **7:20 BREAK - Please come back to the small group at 7:30**

#### **7:30 - 7:45**

#### **Patterns and Biggest Challenges**

Next, consider the framing question: *What needs to be done to have enough clean water for future generations?* Given your priorities when you came in and the information we have just reviewed, what are the **most important topics and issues** to be discussed? Do you see any patterns across the challenges? What is the root cause of the issues you identify?

You might use some of the questions listed below to elicit group responses:

- What is the biggest challenge that we need to address?
- Do you feel that our waters are threatened in any way?
- How would you describe the key roles of water in our state?
- Are there competing uses now for our water and do you expect them to change over the next 25 years?
- What, if anything, do we owe to future generations regarding safe, clean, usable water?
- What are the primary values you hold regarding water and water sustainability?

#### **7:45 - 8:15**

#### **Values and Priorities**

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

Based on the key issues your group has identified, you can choose to talk more in depth about a few more focused issues. If your group seems stuck here, it is ok to continue to identify a variety of solutions to a variety of issues (see below, questions for actions over 25 years). The group decides. If one or two topics are of interest, help the group first explore all of the aspects of the issue (what are the issues, barriers, challenges, opportunities related to this topic?).

What action needs to be taken over the next 25 years?

1. How can we ensure there is enough water for *all* uses in the future? Should we?
2. Who do you believe is responsible to ensure safe, clean and sustainable water resources for the next 25 years?
3. Who should make the investment in water infrastructure (our public water systems for drinking and wastewater) to ensure safe, healthy, clean and sustainable water for our state?
4. Are you willing to make changes at home, work and in recreation to ensure clean water is available in the future? What do you do presently to achieve this at home? What would you be willing to do?
5. Are you willing to act now (and/or pay) for safe, clean and sustainable water in the future?
6. What needs to be done to ensure that water is safe, clean and available for all uses?

Next, ask the group to focus on **actions that would move NH forward** on the issue they have identified. What are the fundamental values at hand? Chart these solutions and then move to final priorities and insights.

**8:15-8:35**

**Final Priorities**

Based on the conversations, you will ask, “Are there any common ground recommendations or key ideas in this group? If so, what do we want to say at the end of the day? If not, what diverse points of view do we want to convey?” Remind the group that a single consensus is not required, but if one emerges, or perhaps if the group wants to put forward two or three primary points of view, that is fine. Use whatever techniques you think appropriate to arrive at conclusions.



**Group Report:** *What are your group’s specific recommendations for having enough clean water for future generations?*

Your group will need to prioritize their top insights, etc. to report out to large group and *select someone to speak*. The reporting out should include **one or two** specific action statements. To arrive at this point, the group should take a step back and look for *both the unique ideas and those that seemed to recur*. Group ideas together that seem to be related, but don’t lose track of the unique ones. Your role is to help the group transform the brainstorming list into a workable, organized set of 1-2 key ideas to report out.



**Group Report:** *Please add any additional information that your group feels is important to pass*  
**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

*along to the Governor's Water Sustainability Commission.*

**8:35 – 8:55    Reporting Out**

Each group will be asked to provide a brief summary of their most important findings, concerns or recommendations. If asked to speak for your group, please be brief and share what has been compiled *by your group*. Please refrain from editorial comment as your views should be representing the group results.

**8:55 – 9:00    Wrap up comments – Site host**

- Thank you
- Next steps
- If you want to be involved – sign ups on NHWSC table
- **Please fill out the evaluation – it matters to us! We read these and always work to incorporate your feedback. Thank you!**

***Funding for the NH Listens Sessions on Water Sustainability  
was provided by the New Hampshire Charitable Foundation.***

*Special thanks to:*

New Hampshire Department of Environmental Services  
New Hampshire Rivers Council  
Great Bay Discovery Center

*Thank you to our site hosts:*

White Mountains Community College  
Manchester Water Works  
Tracy Memorial Library  
Hugh Gregg Coastal Conservation Center  
Keene State College

**Water Sustainability Commission**

**<http://www.nh.gov/water-sustainability/>**

*Please note: A Gathering for Water Professionals is being hosted by the Governor's Water Sustainability Commission on June 19<sup>th</sup> in the Concord area from 2:00 – 5:00 PM. For more information please contact the Commission.*

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

Small Group Facilitator Name: \_\_\_\_\_

1. List all of the ways participants see water as important.
2. Finalize a list of the key topics raised by your group for each challenge area and note the issues your group wants to address/discuss further. (use reverse if needed)
3. What are your group's specific recommendations for having enough clean water for future generations?

*Bringing people together for engaged conversations and informed community solutions*

(over please)

4. Please add any additional information that your group feels is important to pass along to the Governor's Water Sustainability Commission:

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

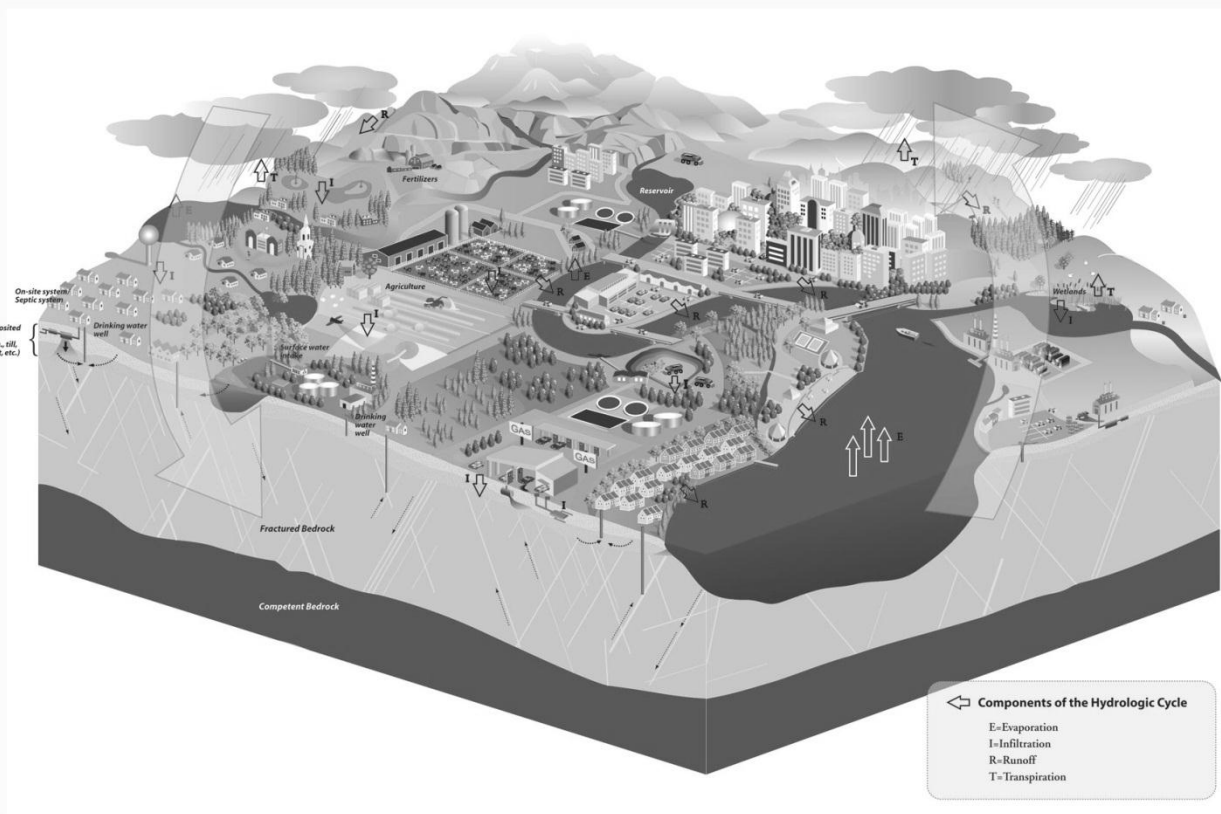
*Bringing people together for engaged conversations and informed community solutions*

## Water in New Hampshire – Background Information

*This information has been compiled to provide background on the challenges and issues facing New Hampshire's future water sustainability. It is not meant to be exhaustive and is used for the purposes of learning from everyday citizens what is noticeable and of interest to them. Unless noted, this information has been adapted from the NH Water Resources Primer<sup>1</sup> published in 2008. The full document and much more information are available at: <http://www.nh.gov/water-sustainability/>.*

### Overview

The water running through, over and by New Hampshire has shaped the state's history and will influence its future. Over the last decade New Hampshire has been the fastest growing New England state. Hundreds of thousands of visitors come to New Hampshire each year to enjoy the state's beautiful lakes, rivers and coast in the summer and its ski areas, snowmobile trails and ice-fishing spots in the winter. Whether it is needed for drinking, manufacturing, recreation, waste assimilation or ecosystem health, water is a cornerstone of New Hampshire's beauty and prosperity, and wise management and protection of water resources is critical to New Hampshire's economy, public health and environment.



Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

## Four Primary Water Challenges

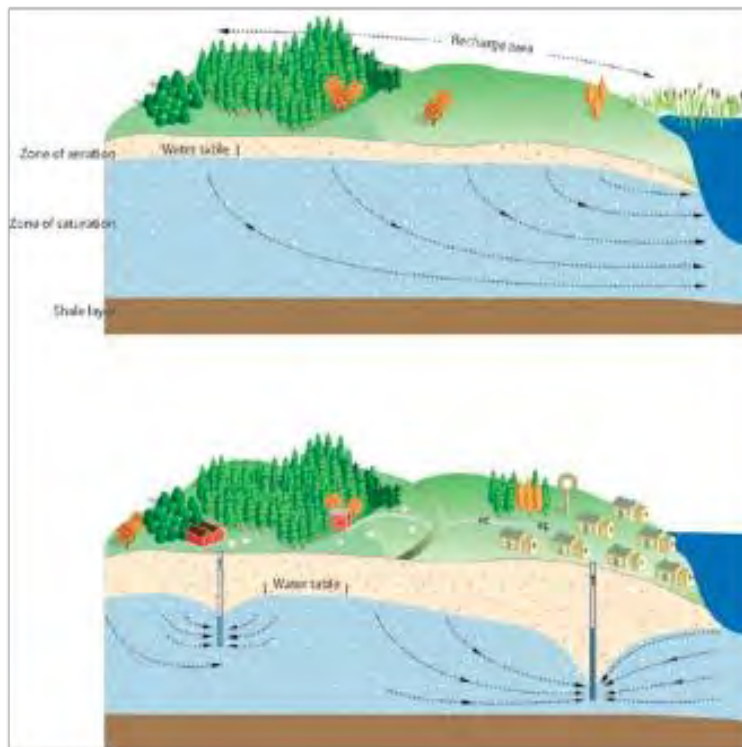
### **Challenge 1: Changing Patterns of Land Use and Water Use**

*Water use continues to increase over time with the state's growing population, increase in economic activity and landscape changes, impacting both water quality and availability.*

#### *Increasing Water Use*

The population growth rate for NH is projected to be 28 percent between 2000 and 2025. The number of towns classified as rural will drop to 72 by 2025, down from 139 in 1970. **Providing Clean Water into the Future: The Benefits of Land Conservation** *New Hampshire Town and City*, February 2011 By Alicia Carlson and Holly Green<sup>2</sup> ([http://nhlgc.org/publications/item\\_detail.asp?TCArticleID=371](http://nhlgc.org/publications/item_detail.asp?TCArticleID=371)).

- Of the 260,000 people expected to move to NH by 2030, 73% of them are expected to live in one of the four southeastern counties.
- The increasing population will result in more land development and more demand for water.
- Of the 211 million gallons of drinking water used per day, 127 million gallons are extracted from surface water and 84 million gallons are extracted from ground water.



**Figure 4-4.** Wells withdrawing large volumes of water can have detrimental effects by depleting both groundwater and nearby surface waters. In this case, the well reverses the direction of base flow, in effect drying up local streams and possibly pulling surface water contaminants closer to the well. Source: Ground Water Protection Council, 2007; Artwork by Poshen Wang.

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

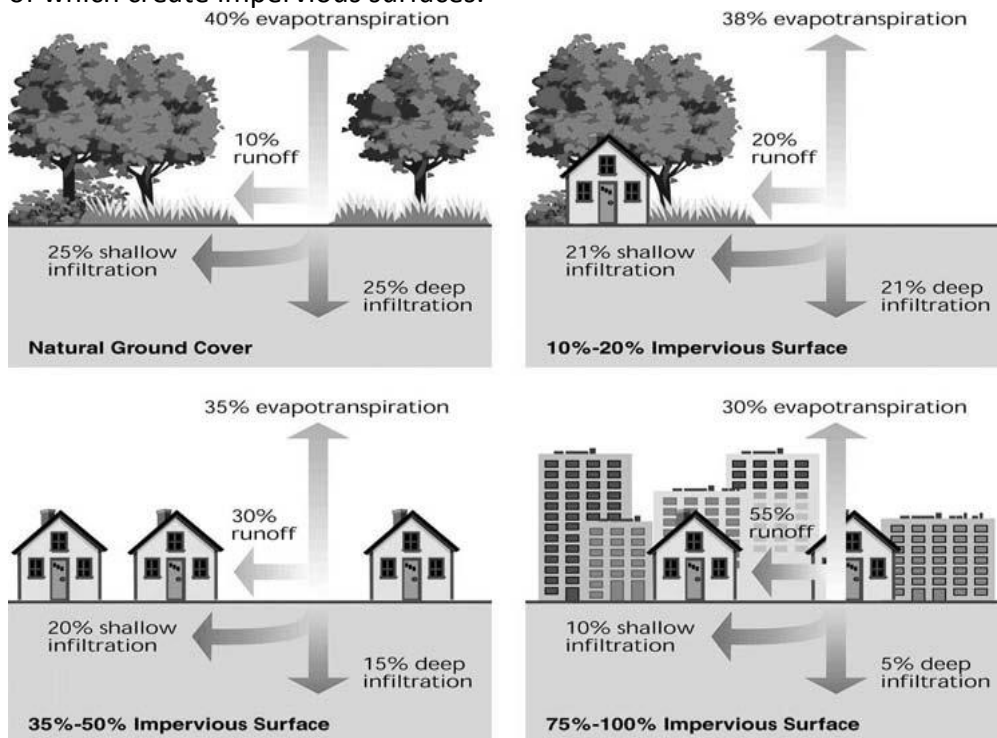
[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Community water systems, which supply water to homes, businesses and institutions, are the largest users of all water (and surface water) in the state.
- Cumulatively, self-supplied domestic water use, typically individual private wells, represents the largest use of groundwater in NH.
- Indoor use varies but is still around 70 gallons per day, half of which is going to toilets and clothes washers.
- Increased droughts, coupled with population growth in other parts of country/world may intensify demands for water from water-rich regions (e.g. NH)
- Although New Hampshire's growth has slowed recently, trends suggest future growth comes with a greater need for water than historic development.
- Increased demand for NH water from outside of NH and the region is anticipated.

### *Landscape Change and Managing Stormwater*

- Long-term trends show that an average of 13,500 acres of NH forest is converted to other uses each year.
- Declining forest cover in water supply watersheds is linked with lower water quality and increased water treatment costs.
- The NH Department of Environmental Services (DES) estimates that one acre of impervious surface where runoff is routed to surface water removes an estimated 250,000 to 500,000 gallons of water each year that would have otherwise replenished groundwater.
- Changes in the landscape means many more buildings, roads, driveways, and parking lot areas – all of which create impervious surfaces.



Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*



- The most obvious effect of increased imperviousness is increased flooding because less water can soak into the ground.
- The stormwater problem has frequently been described as “death by 1,000 cuts” because we all contribute to the problem. (Final report pg 8)<sup>3</sup>
- A recent study by DES showed that of the estimated 16,750 miles of rivers and streams in the state’s surface water supply watersheds (representing 80% of the state’s total area) only 5 percent are substantially protected by local ordinances; 7 percent by the Shoreland Water Quality Protection Act; and 25 percent by permanent protection measures such as the White Mountain National Forest, state parks, and other conservation lands.

### **Challenge 2: Impacts of changing precipitation and temperature patterns**

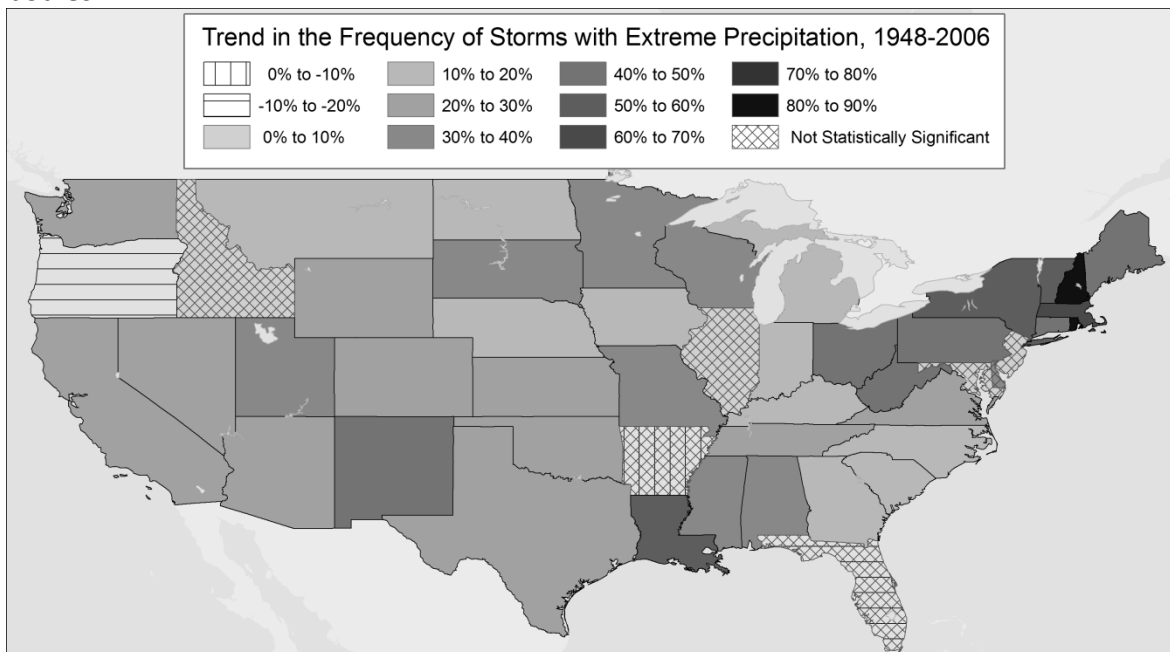
*New Hampshire, like most of the continental US has already experienced a statistically significant trend toward increasingly frequent storms, more intense storms, and warmer temperatures.*

#### *Increases in water pollution problems*

- Warmer water holds less dissolved oxygen, makes survival of native cold-water fish such as trout less likely.
- Warmer water fosters algal blooms and changes the toxicity of some pollutants. Therefore, even if pollution levels are stable, the number of impaired and threatened waters is likely to increase.

#### *More Extreme water-related events*

- Heavier precipitation will increase the risks of flooding; expand floodplains, increase variability and velocity of streamflows, and increase erosion.
- Increases in intense rainfall result in more nutrients, pathogens, and toxins being washed into water bodies.



**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

### *Changes to availability of water supplies*

- Increased water loss due to evaporation and longer growing seasons as a result of warmer air temperatures means less water available for drinking water and for uses such as agriculture, industry, and energy production.

### *Changes in Water Bodies and Shorelines*

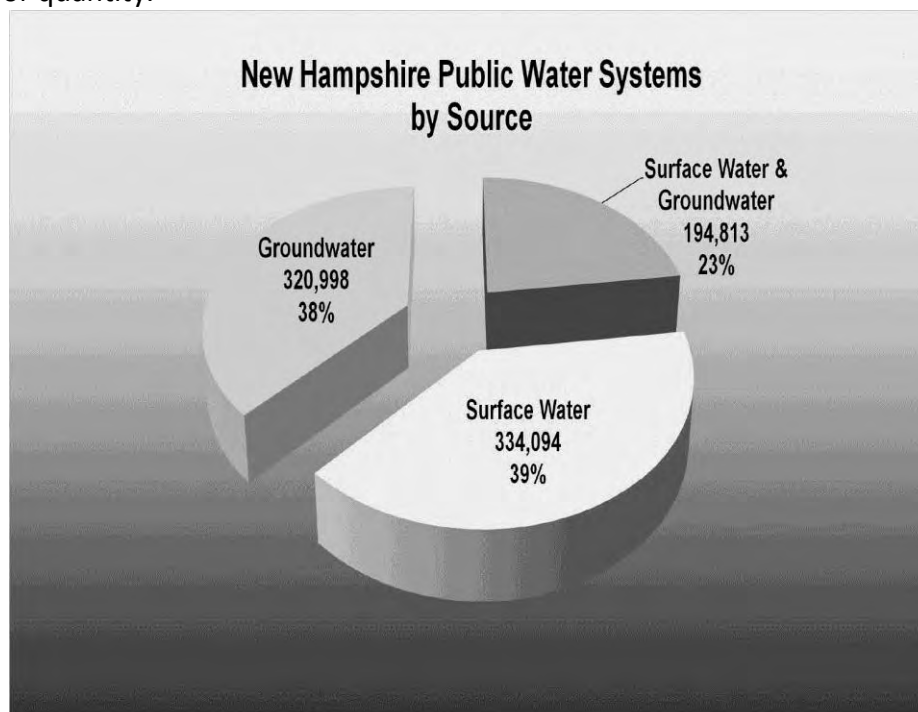
- Changing flows in lakes and streams will affect the size of wetlands and lakes.
- Changes include sea level rise, increased damage from floods and storms, changes in water supplies, and increasing temperature and acidification of the oceans.

### **Challenge 3: Aging and inadequate water infrastructure**

*The initial investment in water infrastructure (water supply systems, sewage systems, dams, stormwater networks) was made long ago and the programs that provided much of the money is no longer available to maintain and improve much of this infrastructure. This circumstance affects drinking water, wastewater, stormwater, and dams.*

#### *Drinking water*

- For most municipalities, the water infrastructure needs to be upgraded over the next 10 – 15 years to ensure capacity. The amount of federal monies available is much less than what is necessary.
- A commission that is studying funding issues related to water infrastructure in NH estimated in 2010 that \$2.3 billion in investments is needed over the next decade.
- Contamination in private residential wells, including naturally occurring contamination (e.g., radon and arsenic) is difficult to monitor or regulate. There are no clear requirements for minimum well water quality or quantity.



**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

### *Wastewater*

- As of 2007, 25% of municipal wastewater treatment plants were operating at about 80% or more of their capacity.

### *Stormwater*

- Research focusing on the Northeast has found that 35 % of culverts in some watersheds will be too small due to changing precipitation patterns, resulting in more frequent and expensive wash-outs during storms.
- Current analysis estimates capital costs for stormwater needs statewide of just over \$182.6 million.

### *Dams*

- There are 3,070 dams in NH that must be maintained to keep them safe.
- There are 2,358 privately owned dams in NH.
- The state owns 273 dams, utilities own 12, municipalities 389, and 38 are owned by the federal government.
- Many were built years ago for mills that no longer exist; According to studies, removal would mean significant improvement for many areas.

### **Challenge 4: Information Needed to Manage Water Differently in a New Era**

*Key information needs to be obtained and new ways of coordinating across state, local and regional entities will be critical in future watershed management.*

### *Coordination Needed*

- Planning and management needs to be coordinated between local, state and regional entities on a watershed basis

### *Information Needed for Informed Decisions*

- New and updated information on water quantity and quality needs to be collected, analyzed and incorporated into planning, management and decision-making processes
- *There is a need for information on/from:*
  - Stream gauges
  - River morphology (shape over time)
  - Well information
  - Surface water quality
  - Groundwater quality and information on naturally occurring contaminants (such as arsenic, radionuclides, fluoride, beryllium, etc. This information would be used to promote increased private well testing in high risk areas.
  - Lake carrying capacity
  - Invasive species and more comprehensive mapping of known infestations
  - Updated flood maps
  - Cost estimates of producing clean and available water
  - Data on cumulative impacts (wells on groundwater, withdrawals on river systems, etc.)

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

### *Need to Adapt New Principles for Decision Making*

- It is recommended that decision-making and regulatory processes need to be based on principles of adaptive management and the precautionary principle.
  - Adaptive management is a structured, process of optimal decision making in the face of uncertainty, with an aim to reducing uncertainty over time through system monitoring.
  - The precautionary principle implies there is a social responsibility to protect the public from exposure to harm - to first “do no harm.”

### **Challenge 5: Financial and Political Limitations**

In addition to the challenges identified in the *Water Resources Primer*, the Water Sustainability Commission has identified the following challenges:

- ◆ The financial investments needed for water are significant and represent a tremendous barrier to effective water management.
- ◆ Currently, what we pay for water services (water supply and wastewater disposal) do not reflect the full costs of providing those services, leading in some cases to over-use of water.
- ◆ There is a need for a coordinated constituency for water that will continue to build the understanding and awareness on NH citizens about their role and responsibility in water management and to help develop and support public policy, programs, and investments what will ensure the future quality and availability of NH’s water.
- ◆ Public policy for water management is complicated by the fact that water boundaries do not coincide with political boundaries.

### **In Summary**

The Governor’s Water Sustainability Commission will present a set of recommendations regarding sustainable management of the state’s water resources and infrastructure in September 2012. The following is a summary of preliminary recommendations presented in the *NH Water Resources Primer*, which was prepared at the request of the NH Legislature’s Water Resources Committee in 2008. Specific recommendations may be found in the *Primer* and in subsequent reports of several commissions which have since addressed specific issues such as stormwater management and infrastructure financing.

*General recommendations include the need for:*

- Improve knowledge – data characterization and evaluation
- Increase water use efficiency
- Improve land use patterns – directing development
- Improve stormwater management
- Adapt to changing patterns of precipitation
- Address infrastructure needs
- Improve integration of protection programs
- Shift towards watershed/regional vs. municipal planning and regulation
- Increase emergency preparedness

### **Definitions of Key Terms and Acronyms**

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

**Groundwater** - The water beneath the surface of the land. In New Hampshire, groundwater resides within bedrock fractures and between particles of soil, sediment, and loose rock that lie on top of bedrock. The upper boundary of an underground area that is completely filled with water is called the “water table.”

**Surface Water** - Surface waters include rivers, lakes, ponds, tidal waters, perennial (year-round) and seasonal streams, marshes, swamps, wetlands and other bodies of water, natural or artificial.

**Stormwater** - The water from rain or melting snow that does not soak into the ground. Stormwater can become polluted when it runs off streets, lawns, farms, and construction and industrial sites if there are fertilizers, dirt, pesticides, oil and grease, or other pollutants in its path.

**Impervious surfaces** – Surfaces that prevent rain or melting snow from soaking into the ground, such as rooftops, roads, parking lots and driveways.

**Impaired waterbody:** A waterbody that is clean enough and has enough water to support its designated uses (e.g., swimming, fishing, boating, and water supply) is called supporting, and one that is not is called impaired.

#### **Definition of Sustainable Water Use**

“Sustainable water use does not harm ecosystems, degrade water quality, or compromise the ability of future generations to meet their own needs.” —Minnesota Laws 2009, Chapter 172

#### **Watershed**

A region draining into a river, river system, or other body of water

#### **Self-Supplied domestic water**

Private well water

#### *Sources:*

<sup>1</sup> *The NH Water Resources Primer*. December 2008, NH DES. Prepared by: Thomas S. Burack, Michael J. Walls, Harry Steward, P.E..

<sup>2</sup> ([http://nhlgc.org/publications/item\\_detail.asp?TCArticleID=371](http://nhlgc.org/publications/item_detail.asp?TCArticleID=371)) - **Providing Clean Water into the Future: The Benefits of Land Conservation** New Hampshire Town and City, February 2011 By Alicia Carlson and Holly Green

<sup>3</sup> *Final Report: Nordstrom, Anne Ph.D; The Economic Impact of Potential Decline in New Hampshire Water Quality: The Link Between Visitor Perceptions, Usage and Spending*. May 2007. Prepared for The New Hampshire Lakes, Rivers, Streams and Ponds Partnership

Additional information on the Governor’s Water Sustainability Commission website:

<http://www.nh.gov/water-sustainability/publications/index.htm>

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

## Appendix C: Group Reports

### Berlin

#### Group A

1. List all of the ways participants see water as important.
  - Abundance of water people do not appreciate – take for granted
  - Extraction/bottling for out of state export
  - Can't live without water - need pure
  - Part of economy – water important and connection to wildlife
  - Interconnection between surface and drinking water sources – watershed issues
  - Small towns have problems maintaining infrastructure
  - Competing interests for water
  - Water pollution
2. Key topics
  - Challenge 1:
    - Keeping growth out of the flood plains
    - Defining wetlands
    - Disparity in growth patterns – south and north infrastructure unable to be supported
    - Many towns have antiquated development plans
    - Who owns water
    - Limited resource
  - Challenge 2:
    - Identify flood plains, prevent development
    - Drought also possible
    - Sustainability of small community at stake
    - Storm water management (not combined with sewage)
    - Culverts adequate prioritize with limited number of dollars
  - Challenge 3:
    - Educate public/outreach re: limited resource (need for understanding of action, support)
    - Very expensive to maintain infrastructure
    - Investment in infrastructure (asset management)
    - Potential cost savings through investment in infrastructure
    - 2 NH's challenges not the same
  - Challenge 4:
    - Watershed management approach/organize 42 towns
    - Resource based political organization
    - Public watershed sign
    - State going backwards regarding shutting of stream-gape
    - Funding going down
  - Challenge 5:
    - Water and sewer rates going up
    - Lack of funds

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Lack of local control
- Imposition (top down) of standards/mandate
- Individual responsibility

### 3. Recommendations

- There are 2 NH's: Different approaches and policies will be needed in the north and the south; issues and priorities are very different; how might the south help the north? Tourism revenue from meals and rooms needs to pay to renovate infrastructure. One size does not fit all. Technical help is needed to understand the costs and maintenance issues;
- It is difficult for small towns to maintain water infrastructure (grey water): Need help with resources AND expertise.
- Tourist water conservation: Use the tourism trade to education residents and tourists about water issues and conservation tips.

### 4. Additional information

- One size does not fit all
- Manage decline
- Failing infrastructure
- Expertise
- Land use
- Flood plains
- Repair buffer
- Create incentives
- Small towns maintenance viable water/sewage treatment
- Community water systems/infrastructure
- Local but also tourist behavior with respect to water education
- Flood plains development – what can be stored
- Land use: Need to look ahead to the future and prepare now (strong riparian buffers)

### *Group B*

#### I. How is water important to you? Top of mind issues

- Drinking water
- Infrastructure
- Cost/distribution “not free” “not cheap”
- Recreation (economy)
- Food production/agriculture
- Business
- Power generation
- Biomass/use of water
- Wildlife
- Water supply
- Water quality
- Part of scenery
- Industrial demand
- Household – waste/cleaning

#### 2. What do you notice?

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

### Challenge 1:

- Most of growth in SE – differences in how folks handle the issue in northern part vs southern part of state – could be in conflict
- Trend in conversion of forestland to development + impervious surfaces – losing green space/recharge capacity.
- DES study – miles of rivers and streams – how much of shoreline/wetlands, corridors are available for protection/conservation – help land trust/communities set goals
- No net loss of wetlands – mitigation for taking doesn't necessarily mean results in no net loss (trading upland for wetlands).
- Landscape design that you can do with permeable surfaces – problem in North Country – no professional planning staff – in south communities with staff know about and can implement more innovative techniques. How do communities get information/training on very technical information? Fall off in use of new techniques in North Country (north of Plymouth). Cost issue with innovative design – often can be 6X as much as standard paving – but water from parking lots “dirty”
- By now gov't doesn't process surface water/runoff – feds don't protect rivers – surface water treatment plants still expel sand from runoff into rivers. Berlin doesn't have enough capacity.
- QUESTION – who owns water? Discussion about different ownership
- Access – land and water issue
- Flooding on CT. River – pretty devastating – discussion about culverts:
- Groveton 100% of damage from tropical storms due to culvert size: problem: STATE standards – when you go to replace can't increase by more than a fraction
- camping on Saco during Irene – story about how the 17' rise in Saco flooded campground
- Mentioned Dam at Nash Stream breaking [comment during discussion about noticing from information the number of dams in state – impressed by number]
- Comment: disconnect between people on the ground seeing impacts and need for change and movement at state and federal levels – Groveton no \$\$ in budget for ditching last year – learned after storms and now ditching \$\$ in budget this year.

### Challenge #2:

- Growing season is longer
- 10" increase in precipitation/year – Hubbard Brook data
- More intense storms
- Flooding rivers not dam controlled – Saco, Pemi,
- Question: what would be figures for trends in frequency 2006-2012?
- Way more impact on infrastructure
- Flood plain ordinances along Connecticut – only 1 town has flood plain plan or ordinances
  - new buildings allowed on flood plain
  - safety
  - flood storage
  - impact on tax payers for buyouts
  - Impact of changes in flood plains on real estate values – Berlin making new maps – need to purchase flood insurance if in new flood plain
  - impact of removal of vegetation on flood control capacity

### Challenge #3:

- Rapid increase in cost for improved infrastructure – rapid decrease in availability of funds

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*



- More significant events – exacerbating impacts
- Impressed by number of dams – suspect a lot of aging
- Importance/value of dams for flood control
- From selectman's point of view – frustrating to see fed funds available for new facades/building improvements [cited Governor's announcement for Concord downtown improvements] and no \$ for infrastructure improvements.

#### Challenge #4:

- Cost of producing water
- Ecosystem services – developing program (Hubbard Brook) to compensate landowners to do something that protects water – described effort to name website for this program “Northern Forest Watershed market” or “Watershed Market Place” – found that word “watershed” doesn't resonate with people – language is important to engage people.
- Uncertainty in regulatory future – tough to get ahead of curve – DES comes out with new rules and then scrambles to implement without information/technical assistance.
- Uncertainty in funding – state and federal
- Unfunded mandates/unassisted regulations
- Need to synchronize funding cycles – Towns in March – State in June

#### Challenge #5:

- Don't pay enough for water and we waste it
- Ex. Groveton – people run water so pipes won't freeze rather than wrap with heat tape (cost of water vs. cost of heating). In Berlin, graphed use of water – high use in cold weather with people running water to keep pipes from freezing.
- Water doesn't respect political boundaries – ex. Groundwater; Groveton supplies water for Guildhall, VT
- No particular sense of urgency – political will = people would rather not deal with issue until there is a crisis – always acting in crisis mode – enabled to do that – rather replace what is lost instead of preventing loss. Political barriers to making improvements to avoid costs – focus on prevention – reactive vs. proactive – tons of help to fix but not to plan. Example of New Orleans
- Feeling that towns/individuals left to own devices more and more – we may be looking to other sources for clean water because we are letting our infrastructure deteriorate.
- Each individual citizen needs to understand this – how do you put it out there to get them to care – so that it matters now instead of later
- Cost of extracting, treating, distributing – disincentives against conservation – If you save you pay more
- Start with kids – behavior change – 2<sup>nd</sup> grade

#### 3. Key Issues:

- Funding/Policy – spend 10% more but get longer life – tie the two together so there is funding for preventative and corrective work. Not just corrective.
- Get rid of disincentives to conservation
- Preventative rather than corrective – materials better now, last longer – size that will be right capacity
- Planning – incorporate conservation into planning – preventive side
- Education – individual responsibility “kids”

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- behavior change – changes in beliefs leads to political will
- NH DAY WITHOUT WATER
- North Country has resource (water) – hold on to it, take care of it – then sell it? - as long as you don't drain it dry. North Country doesn't have much power – take control of it – help economy.
- Privatizing public resource
- Value recreation side of economy
- NEED A KITTY
- LOTTERY : CLEAN WATER LOTTERY TICKET
- Issue: Recreation/Economy
- Economic activity – depends on clean water – boating, swimming etc.
- Can get it for free – no fees

Two main issues:

1) Education

2) Funding/policy – tie generating funding with spending \$\$

\*\*\* Preventative vs. corrective – “thrifty” – conservation/prevention more fiscally responsible – make investment in prevention. Frame funding/cost discussion – outlook has to be clear  
COMMENT: “If you are always looking down at your feet you won't see the cliff” Quit looking at everything that happens now – get eyes up – looking at the horizon”

Issue: Policy/Funding:

- Invest in prevention
- Look further out so we can plan ahead
- Lottery for clean water
- Policies need to make sense:
- ex – culvert size – need to change policy to meet new needs – adjust to environment, who are “they”?
- ex. – Saco River rain gage – last year's flooding left deposits – campground owner wants FEMA to dredge
- Collaborative leadership – pulls together a lot of people to form the “they” – so many groups, who's in charge? All the players (feds, state, army corps of engineers) – are they talking?
- Incentives are reversed – e.g., flood insurance
- Synchronized (compatible) funding cycles – timing of budgets between local/county/state/feds
- Science – take advantage of experience in towns, science (Hubbard Brook) – makes decisions/programs based on knowledge
- Can we learn anything from Vermont? Are they learning from experience – can they inform our decisions?
- Interesting relationship between Union Water company (Androscoggin) and Berlin – timing of flows – UWC contacts city with exact timing/volume of flows.
- Need to consider the influence of big industry – impacts of growing industrial sector on water/sewage. Ex. 100 years ago Groveton's water system was 1 block long – town budget showed allocation of \$\$ to fill water troughs. In the 1800's Berlin's water systems were all wells.; Biomass/prison – water use will keep rates down.
- QUESTION: Where does water fit in general plan of state? It is critical – where does it rate? If state doesn't think it is important then why would individual citizens think it was important?

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Need clarity of financial impact of policy changes – no Cadillac's required when a Buick will do.

#### Issue: Education/behavior change

- Start young – 2<sup>nd</sup> grade
- “ Education is better than legislation”
- Explain “Why” – a lot easier to change when you know why – then can own it. Why do we do something just because DES says so – if we know why will help – get to same goal much more effectively
- Water is so plentiful – who would think there's a problem.
- DAY WITHOUT WATER – probably needs to be virtual
- Crisis in infrastructure: If you don't think about it now – may have to react. Don't have to address everything at once (infrastructure investments/repair/ replacement/upgrades) Ask questions to make people think about it:
- What would you do if there is a fire in school and the sprinkler system wouldn't run?
- How would you feel if the State of NH decided to sell water to Utah?
- Who owns the water? North has more water than south – Concord could make decisions about water that affects us without us knowing. Does it matter who owns/has rights to water? How we talk about water – whose water it is – it is “ours” EDUCATION: We see our water bills as tax rather than a bill for service/use.
- What if Maine decided it needs more water? You know what they say about “living downstream” – issues of water quality
- 3) Fracking
- 4) Artesian wells prevent Berlin from salting streets
- 5) Water is not a one state issue

#### Considerations for the Commission

- Northern NH needs/Southern NH needs not the same – one size does not fit all
- South – expanding infrastructure needed to meet growing demands
- North – managing decline/failing – lack of expertise in north country
- Land use – feeling that we should have better management of flood plains and riparian buffers
- Tourist trade – beneficial to create incentives for tourist industry to do education on water - incentives for tourist industry to reduce consumption
- Crisis in infrastructure
  - at all levels focus on feet not horizon – no vision, don't look up until crisis
  - \$\$ goes to fixing not permanent prevention
  - water supply and safety
- Who owns and has rights to water? Quality/usage
  - drawing down in one place affects another
  - fracking
  - neighbors
  - multi-state
- Need to consider impact of big industry on water supplies (biomass, prisons, breweries)
- Where does water fit into overall plan of the state – where does it rate?
- Concern about priorities – with Governor announcing \$3.5 million grant for downtown revitalization for Concord – can't get \$\$ for water systems. Need to “make water sexy”

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Consider tradeoffs – if we have a high priority for attracting industry for economic development – what are we giving away?

## **Greenland**

### *Group A*

#### 1. Key topics

##### Challenge 1:

- Lack of river and stream protection
- Increasing population
- Developing and creating impervious surfaces
- Increase runoff
- Decrease recharge
- Lots of data
- What are we doing with it?
- Pressure of demands outside of NH/worldwide
- Politically it will take a federal solution
- Use of efficiency practices and affordability

##### Challenge 2:

- Flood and drought cycles
- Water incentives concentrate toxins and pathogen – destructive force
- Changes in water quality will change biodiversity
- Seasonality more extreme periods of demand lengthen periods of rain more extreme
- Difficult to capture water for needed recharge, instead all runs off
- Issue is NH doesn't have large natural storage geologically

##### Challenge 3:

- Lack of financial resources
- Questions of values and political will – priority
- Give water a higher value – users pay adequately
- Lack of education – concerns over priority use
- Emphasis on education
- Since aquifers draw across municipalities make usage priority agreement important
- Challenge 4:
- Water districts for a non-political districts
- Education on use
- Invasive species
- Personal understanding of impact (money impact, health, etc.)
- If you don't take care of infrastructure tax base will increase anyway through financial impact
- State not supporting

##### Challenge 5:

- We don't know/understand true cost for having and keeping clean water
- Customers not being charge true cost
- Need to understand the real importance
- Priority on storm water
- This is big loss

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Regulations of water uses
- How do we decide use priorities

#### Key Issues:

- Creating a sense of urgency towards addressing water issues
- Stop water from leaving the state (bottled water)
- Management structures to help municipalities
- Need to put a higher value on water
- Ideological conflict on values in NH (LFOD) versus need for coordinated efforts
- Local versus federal and regional concerns
- Need to introduce financial disincentives for overuse of water
- Wastewater has federally demanded updates to infrastructure (this is a funding issue)
- Stormwater and flooding management
- Education: state needs to do public education on the state of water and focus on actions, systems of awareness for children, and awareness of a disconnect between the sources of water and the impacts.

#### Action ideas:

- Wastewater reuse and broader options for sustainable systems.
- Make biofuel from wastewater
- Artificial recharge
- Educational programming by state and local region
- Marketing toward a new understanding of water issues
- Legal and political infrastructure that encourages conservation

#### Final Priorities: (diversity of opinions within this list)

- Consider efficiency of scale – no one intervention will be a “silver bullet.” It is very difficult to address collective responsibility for regional issues in NH. (SQPA should be changed back)
- This is a collaborative issue and needs to build relationships and structures to enable collaboration.
- There is a demand for action and understanding of technology and small actions we can take
- Define “critical situations” early and how people impact critical situations (education about)

#### Group B

##### 1. List all of the ways participants see water as important.

- Can't live without it/industrial process
- Important economic contributor/tourism
- Water quality – economic growth
- Water protections antiquated – use/overuse of water
- Biological/hydro impacts
- Shared resource treated as private property
- Personal care/pharmaceuticals/all water is interconnected
- Should not be commodity in marketplace
- Drinking water undervalued
- Public safety/preparedness/storm water
- Surface water vs. groundwater impacts/issues
- Aging infrastructure/lost impacts to commodities

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Regionalization/sharing of water

## 2. Key topics

### Challenge 1:

- Better land regulation
- Private property rights ownership
- In state attitude and mindset of issues without infrastructure
- No opportunity for density
- Conflicts of rural vs. urban
- Strong need for state regulation
- People/towns controlling growth with big lots

### Challenge 2:

- More severe weather – flooding/drought/rising sea levels/impacts on freshwater sources
- Resource allocation
- Science is working/politics is not
- Need more conservation
- How do you plan in this area of uncertainty
- Flood insurance plans/FEMA – insurance industry will drive changes
- Regional/watershed management/contingency plans
- Southeast Water Alliance
- Fluvial studies not released to public/DES holds data
- Change will happen at local level
- Durham draws water from Lee wells

### Challenge 3:

- Requires maintenance/upgrades
- Sink holes – infrastructure crumbling
- EPA monies and evaporated – no federal money for water municipalities neglected long term investments
- Everyone pays if we do nothing
- Out of sight/out of mind
- Financing infrastructure/everyone should pay

### Challenge 4:

- Stream/aquifer gauges
- UNH/great resource/DES
- Volunteer efforts
- Downshifting to local government
- Manage by watersheds
- At what level should be managed?
- Mandatory curriculum/water course-public education
- Citizen lacking right resources to do the right thing consumer trade off

### Challenge 5:

- Privatize water systems/Pros/Cons
- Re-evaluate property tax system

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Public education to break down barriers
- Grassroots groundswell is critical
- Education will help
- Corporate America – dumbing down citizens

### 3. Recommendations

- Public recognition of the problem
- Change property tax system
- Public education
- Determining/inadequate infrastructure
- Science being challenged/water-downed
- Incremental costs for doing nothing
- Keep contamination out of water supply/product bans
- Equitable distribution of water to share water regulation
- Identify contaminants of threat
- Funding
- Sub groups – regional efforts
- Training of municipal official
- Storm water utility groups
- Identify who benefits
- Ownership of water regulation – no multi/international company owners
- Public awareness campaign/education
- Home wells/water testing/septic inspections
- Contingency planning – floods/drought
- Watershed management
- Change property tax structure

### TOP 3 Categories:

- Education
- Funding
- Regulation

### Key Challenges

- Regulation
- Private property rights (interferes with land use controls\_
- How is water a public resource and t what degree subject to regulation?
- Enacting regulations requires public awareness and support
- Funding
- The tax system provides too little public money
- Storm water and wastewater infrastructure and needs money
- Overall, decide who benefits and who pays?
- General obligation vs. revenue – based municipal infrastructure funding
- The system of funding infrastructure is clearly broken
- There are incremental costs increases for doing nothing

### 3. Final Recommendations

- We need to determine an equitable way to share and use water.

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Education and raising awareness
- Including schools, public officials, and general public
- Including training municipal officials
- Public awareness campaigns
- Management
- Need contingency planning for climate change
- Watersheds need to be the basis for water planning
- Water sovereignty is an issue with many uncertainties
- Who should manage
- Local?
- State?
- We need to identify contaminants of threat
- Can test water and have septic inspections with home sales

### Group C

#### 1. List all of the ways participants see water as important.

- Sustains life
- Recreation
- Limited resource
- Transportation
- Connects community
- Key for economics and money
- Food, energy, industry
- Aesthetics/spiritual
- Can be destructive
- Weather and climate connections
- Spiritual and aesthetic
- Essential for manufacturing and food production
- Cleans/solvent
- Shapes our topography

#### 2. Challenges

- Decision makers in communities are not heeding the concerns of citizens and experts regarding the studies on the impact of development.
- Population is increasing and so is development
- Safety standards are out of date
- There is a gap between the changing reality and how we did business in the past
- Energy producers are in conflict
- Weather patterns now are potentially more dangerous
- Need wastewater and water supply management
- City water bills – put some money aside for future needs.
- Septic systems need to be maintained, otherwise, they impact neighbors and community
- Lack of maintenance impacts water quality
- We are not managing our water in a smart way
- We are operating by town/city and not regionally – water doesn't observe these boundaries
- Need to recognize and act by watershed
- Need to track changing patterns and how infrastructure is impacted

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*



- Water conservation education would have a strong impact – NH is behind other states in this regard
- Main protects its shoreline – NH does not.
- Not enough community concern/awareness
- NH culture – rights of the individual vs. public good
- Need a focus also on individual responsibility and regulation to protect the common good

### 3. Recommendations

- Need to recognize and act by the watershed, not political boundaries
- Rethinking how development happens with present and future realities in mind
- Honest evaluation of the aging infrastructure and plans for capital investment
- Involve a different demographic in this conversation
- How?
- Use a statewide public involvement
- A statewide plan would be good!
- Lake side communities and other communities need to work together to upgrade systems – incentives for doing so should be put into place
- Track changing patterns more frequently
- Tax will be necessary to fund a healthy system
- Water conservation needs to be a central part of the equation
- Education and engagement are critical
- Redefine “community: to be more broad/regional
- Look at what connects us – common purpose
- Combine the community leaders (who know their community values with the experts (scientific)
- Get “Forging the Link” to every community in NH

### Group D

#### 1. List all of the ways participants see water as important.

- It's the most critical resource and a paradigm shift in how it is valued
- Its true cost is needed (ecosystem services, etc.)
- 'Water' is an integrator; must be managed
- wildlife should be factored into Riparian Doctrine

#### 2. Key topics

##### Challenge 1:

- Increase perviousness
- Increased storm water impacts
- Increased infrastructure overloads
- Decreased habitat for wildlife

##### Challenge 2:

- Natural systems change
- Infrastructure demands
- Municipal preparedness
- Environmental ecological losses

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

## Challenge 3:

- Money
- Loss of sources/funding for upgrade and new technology
- Increase costs unfairly (?)
- What about obsolete infrastructure?

## Challenge 4:

- Paradigm shift on "true cost" of this resource/ecosystem services
- Rethink outreach
- Bottom(s) up approach beginning with NH science framework for elementary and up
- Include NPS

## Challenge 5:

- Timing with legislatures
- Lack of regulation
- Lack of support
- Complicated

## 3. Recommendations for quality water in 25 years

- Take in 5 year segments and re-assess
- Use wastewater
- Value water and make it more difficult to overindulge
- Need a watershed based water authority

## Group E

## 1. List all of the ways participants see water as important.

- Personal use
- Personal conservation
- Pollution
- Recreation
- Commercial, agriculture/corporate
- Energy production
- Sustainability – ecological
- Local and state management of resources
- For now and future with anticipated population growth
- Great Bay health
- Wastewater treatment
- Success stories
- Wastewater prevention and innovation
- Economic implications

## 2. Key topics

## Challenge 1:

- Declines in water quality
- Planning boards planning appropriate for growth
- Mandate pervious paving
- Including lots, roads, highways, driveways

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Salt and chemical use/contaminate reductions by private, municipal, state, and public entities
- Consumption reductions
- Dam removal
- Increased regional planning/water sheds
- Preserve local cycle/water resources for people not non-NH entities

#### Challenge 2:

- Increase water temperatures
- Flood plain planning
- Setbacks from waterways
- Undersized bridge and culverts
- Address projected rise and sea links (coastal) and related flooding
- Food security

#### Challenge 3:

- Flooding concerns, issues related to roads and culverts
- Sewage leaks
- Storm water can overwhelm treatment facilities
- Public education so political will is fostered
- Current systems not designed for modern pollutants

#### Challenge 4:

- Personal use needs to change
- Including towns
- Greater innovation needed (European model)
- Can we capture instead of wasting excess water
- Innovation for docks
- Manage for ecosystem considerations
- Invest in research and monitoring
- Businesses need to help fund solutions

#### Challenge 5:

- Politicians don't get it
- Be innovating with taxing structure to appropriate fund water qualities
- Hard to keep lawmakers educated
- Lawmakers/state agencies capitulate to business interests at expense of community
- Work to educate people on real costs of clean water
- Need to take long view when planning

#### Key issues:

*Be forward thinking and innovative*

- Watershed planning not by town, region or state boundaries
- Integrated approach to problem solving. We need a coordinated vision and response among players – stop the “whack a mole” approach.
- Financially support and reward research and innovation – including tax incentives to drive behavioral change.

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

### *Education is needed*

- Needs to take place across the population, lawmakers, decision makers and employees
- Combined visuals and new thinking/ social marketing to improve water consciousness and use.
- Need education about implications and realities of growth – Start young!
- Connect environment, health and growing expenses
- Listen to communities
- Laws need to allow the people to be heard.
- State should partner with USNH to research issues
- Education decision makers and stake holders on policies they can implement to manage water.

### *Addressing Costs*

- Charge more for water to drive change
- Encourage conservation and discourage waste
- Be innovative to use water to its fullest efficiency. Recapture, capture thermal energy for heat, nutrients,
- Offer incentives to innovate
- Hydropower
- Need to look to the greater good versus personal gain
- Resources need to be managed for the whole ecosystem, not just people.

## **Keene**

### *Group A*

#### Challenges:

- Need to maintain infrastructure
- Statewide system needed to monitor impact of changing precipitation
- Is smart growth enough?
- Need to be innovative (use of waste water)
- Need to protect land that carries water to the city (Keene)
- More testing and sharing of results
- Need updated flood maps
- Deal with the cost of water
- Issues of ownership
- Regulate extraction for profit

#### Key Topics:

- Population growth
- Regulation of land use
- Paying the real cost of water
- Regulation of water use
- Septic systems
- Well drilling - can drill a well that draws up to 57000 gal/day with no permit
- Water security
- Sharing boundaries with multiple states/entities
- Ashuleet River in Keene was once a target to be dammed and used for water in Boston

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

Final priorities:

- Planning
- Regulation
- Build in flexibility
- Taxing
- No real solution was reached about how to tax water
- One idea was to have a tax on bottled water
- Utility bills to reflect the cost of infrastructure maintenance
- Water Bill that shows the gallons used as well as cubic feet, more people understand gallons
- Break it out by month instead, easier to understand that trend/usage
- Educating the public about the real issues with water, many people feel that we have plenty of it and it's not a problem
- Risks of pollution
- Awareness for those that are living right above the aquifer/source they get their water from.
- State mandated, or encouraged, school curriculum on water
- Engaging Adult Education programs
- Septic data shared with towns upon septic maintenance visits
- Tanks are always inspected on a general maintenance visit done every couple of years, sharing this with the town would help ensure that they are kept up to date to avoid any rusting pipes and other issues
- Capping water withdrawal at town levels instead of state/per usage rates. Each town is different and a one-size-fits-all-approach will not work.
- Need to fund effective management, regulation and enforcement
- Make water a state symbol

## **Manchester**

### *Group A*

List all of the ways participants see water as important.

- Irrigation for crops
- Recreational use
- Drinking – surface water and ground water
- Sewage treatment
- Stormwater treatment
- Water rights
- Public health
- Economic development
- Tourism
- Water rich state
- Commercial uses
- Non-farm irrigation

Finalize a list of the key topics raised by your group for each challenge area and note the issues your group wants to address/discuss further. (use reverse if needed)

- Sprawl, careful planning/land use, open space, development, planning issue, low impact development tools, watershed protection

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Feast or famine rainfall – need to plan for lean periods, heavy storms drive pollution into water supply, permitting process with DES, longer growing season demands more water, Manchester has 500 miles of distribution (infrastructure) – 40% older than 1935 and 15% over 100 years old. Average life expectancy is 100 years and situation is similar in other communities.
- Not enough investment in infrastructure, must begin investigating, wastewater systems are in same boat as water systems. Also an issue is dam removal (lost capacity? Expensive to maintain, breaches have dire consequences, budget cuts and lack of funding for needed improvements.
- COST and lack of information, very few areas monitored for groundwater. Prioritization of uses – set up reasonable allocation plan (private homes, water quality and volume could be tracked to help with baseline.
- Challenges 3, 4 and 5 are closely linked.

What are your group's specific recommendations for having enough clean water for future generations?

- Promote conservation
- Rate payers should pay
- Prioritization of uses

Please add any additional information that your group feels is important to pass along to the Governor's Water Sustainability Commission:

- Prioritization of uses
- Public waters are priority
- More science and technology used to gather information
- Emphasize importance of agriculture – local food production
- Drought management
- Make modifications in use before crisis (drought)
- Good information would allow for good planning.

#### *Group B*

List all of the ways participants see water as important.

- Essential
- Water is life
- Threatened
- Not understood
- Finite
- Invisible
- Connection between ground water and surface water
- Provides ecosystem services
- Quality and quantity taken for granted
- Necessary for economic development
- Tax base dependent on clean water
- Water has value
- Used for recreation, food preparation, fire protection, agriculture, waste treatment,
- Tourism
- Who owns it/ is it a public trust?
- Delicate/fragile

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Power production
- 3 physical states
- Management of water

Finalize a list of the key topics raised by your group for each challenge area and note the issues your group wants to address/discuss further. (use reverse if needed)

- Harness storm water as utility – use water effectively
  - \*\*Land development as related to water usage
  - \*\*Education needed – all stakeholders (see specific challenge sheets)
  - Financial issues challenge – how revenues are generated
  - Need to understand limits – set limits
  - Understanding and managing consequences of changing precipitation statewide
  - Good data needed
- \*\* discussed as a group

What are your group's specific recommendations for having enough clean water for future generations?

- Innovative education is needed – use social media and mass media
- Institutionalize the educational process on water sustainability report

#### Group C

List all of the ways participants see water as important.

- Local food supply
- Enough potable water
- Tourism and recreation – skiing, fishing, beaches, wildlife, boating, swimming, scenic
- Hydropower
- Sustain natural landscape
- Public health and safety
- Water as property
- Fire protection
- Maintain wildlife – birds and fish

Finalize a list of the key topics raised by your group for each challenge area and note the issues your group wants to address/discuss further. (use reverse if needed)

- #1 Impervious surfaces decreasing water quality: increasing population, elitism of NGOs, educate to a common level, conservation is key, land disturbance and land use regulation, erosion and sedimentation, decrease building lots, local ordinances, state conservation – what towns have to do, Downstream issues – Water is all connected
- #2 Changing temperatures, river levels, maple sugar season
- #3 Infrastructure – old pipes, water bans, wastewater disposal, grey water systems, fine tune the old system, septic recharging system,
- #4 Not enough information being generated, small water users, water foot print and personal watermark,
- #5 NH Legislature make up of state (?), small local communities resistant, live free or die approach, (LUCT?)

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

What are your group's specific recommendations for having enough clean water for future generations?

- #1 Educate public
- #2 Conservation
- #3 Challenge bad information

Please add any additional information that your group feels is important to pass along to the Governor's Water Sustainability Commission:

- Gathering information to inform our decisions seems an urgent priority

#### Group D

- List all of the ways participants see water as important.
- Public health
- Regulated use
- Recreation
- 7 generation ethics
- Education and understanding
- Cost – clean-up/maintenance
- Points of impact
- Cumulative affects
- Conservation
- Catastrophe/incidents
- Public awareness – fact and science based outreach
- Unregulated use
- Water rights
- Wastewater
- Protection – watersheds
- Invasive species
- Tourism – recreational balance
- Point source pollutants and non-point

Finalize a list of the key topics raised by your group for each challenge area and note the issues your group wants to address/discuss further. (use reverse if needed)

- Fiscal mechanisms
- Education for everyone
- Economic stability of the state
- Quality of life issues
- Where do we want to be in 100 years?

What are your group's specific recommendations for having enough clean water for future generations?

- #1 reuse current use to protect water supply properties regardless of ownership
- #2 PUC or legislation to allow for collection to pay for capitol repairs (over sight of reserves)
- #3 regulate ornamental lawn fertilization or incentivize companies to change their practices
- #4 Identify issues that cross boundaries and help plan statewide picture/watershed resource management, long term planning
- #5 Education – in schools, specific to water and consumers

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*



- #6 support enviro-thon, water week, etc.
- #7 accountability for stormwater management – regional and local

Please add any additional information that your group feels is important to pass along to the Governor's Water Sustainability Commission:

- Security of water is an important issue

## **New London**

### *Group A*

1. List all of the ways participants see water as important.
  - Drinking – key to life. Balances your system-health
  - Can't live without water, cooking
  - Sewage needs to “flush”
  - Food/agriculture
  - Animals/recreation
  - Heals the spirit – “mental health”
  - Water cycle – nature – as cleaning “solvent”
  - Vegetation, trees, plants
  - Ski/snow making – commercial needs
  - Tourism
  - Business/factory needs
  - Property values/tax revenue
2. Key topics
  - Education
  - Planning and zoning
  - Seeking alternative and lower impacts creative ways
  - Conservation
  - Regulation
  - Rights of community vs. individuals
  - Enforcement
3. Recommendations
  - Educate the public about ways to keep water resources safe
  - Statewide policies – with drinking water a top priority
  - Recognize a Hierarchy of water uses – drinking, recreation, etc.
  - Education through schools k - 12
4. Additional information
  - Coordinate and cross pollinate ideas between departments and divisions

### *Group B*

- List all of the ways participants see water as important.
- Beauty
- Water pollution
- Insufficient information and knowledge – education one another
- Share environmental concerns throughout the state

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

- Development and preservation
- How do we balance – informed
- Decision making
- Inform and be informed
- We need to manage water and land as a single system - whole
- Management practices
- Monitoring and regulation
- Education
- Basics in school
- Infrastructure knowledge
- Personal responsibility for sustainability
- Lack of resources
- Silos and balkanizing services
- Oversight needs to be on state level
- Water as a #1 economic driver

#### Key topics

- #1 Maintaining adequate supply of quality water, Infrastructure, Pollution and agriculture
- #2 Quality water at economic driver
- #3 impervious surfaces, personal responsibility for ground water infiltration, property owner accountability (how do enforce?) EDUCATION, OVERUSE of H<sub>2</sub>O, importance of what we have (experience woods)

#### Recommendations

Educate, Legislate, Enforce

#### #1 Education

- Education in schools – curriculum change, good models
- Pay more for water use – need a new scale/threshold/cubic feet
- Regulatory framework
- Compensation to farmers
- Best management practices – corporate, agricultural, industrial
- Don't underestimate citizen activism – change occurs, especially in a small state.

#### #2 Who is responsible?

- State oversight and regulation, but we all need to do our part
- How do we get more jobs/growth versus water use?
- Work on a watershed basis
- Regional planning and master plans for water needed
- Advertise promote what works and market best practices
- Lots of technical advances and new alternatives
- Businesses depend on clean water
- Agriculture depends on clean water

#### #3 Be visionary, invest, consider our collective ownership of water

- Get to elected officials – Need a systemic approach to land, water, air, and soil.

**Compiled by NH *Listens* for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

## Appendix D: Summary of Evaluation feedback

Over 165 people registered to attend the May 8<sup>th</sup> session and over 130+ participants attended (not including facilitators and commissioners). Ninety eight people filled out an evaluation form about their experience with the community conversation.

1. The facilitator(s) were always prepared.	96%
2. The facilitator(s) helped the group set ground rules and stick to them.	95%
3. The facilitator(s) helped us talk about different points of view.	91%
4. The facilitator(s) made sure everyone took part in the dialogue.	92%
5. The facilitator(s) helped the group work out disagreements.	71%
<i>**the % reflects that any N/A were scored a 3 (no opinion @ 29%) as participants pointed out repeatedly that there were no significant disagreements;</i>	
6. The facilitator(s) helped us come up with our own ideas for action and change.	92%
7. The facilitator(s) explained how our input fits into future decisions	77%
8. The participant guide was easy to understand.	84%
9. The information was helpful for our conversations.	84%
10. Our group talked about the most important issues.	91%
11. It seemed as though everyone had an equal chance to express their views.	93%
12. Our group identified the most important steps that should be taken.	84%
13. I learned new things from other members of my group.	91%
14. The conversation helped me to become better informed about the issues.	82%
15. Because of this conversation, I had a better understanding of people who I disagree with and their opinions.	60%
<i>**37% had no opinion</i>	
16. The amount of sessions were: <i>Just the Right Amount of Time</i>	67%
17. I am glad I participated in these community conversations.	98%
18. I would attend another community conversation on this or a different topic.	95%
20. Would you be willing to be contacted for a future one-on-one or phone interview? Yes	79%

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*

## **APPENDIX E: Water Summary to Participants**

*The following summary was sent to participants on Friday May 11, 2012*

Dear Participants of the Water Conversation,

Thank you all for your time and thoughtful participation on Tuesday evening. Over 160 people attended across the five locations and we are looking forward to compiling a full report of the results for you and for the Governor's Water Sustainability Commission. In the meantime, we've assembled a list of key issues and recommendations raised in common across sites and small groups. This is not a complete list and is not in an order of priority. The final wording of the themes and recommendations will be more fully developed in the full report to follow in a few weeks.

Again, thank you for engaging in this conversation.

Best regards on behalf of NH Listens,  
Michele Holt-Shannon

### **Key Issues and Recommendations from May 8th Water Conversation**

---

#### *Education and Public Awareness of Water Issues*

- \* The need for public education and awareness on water issues was noted repeatedly across groups and sites.
- \* Participants emphasized education for all ages and residents, including tourists.
- \* Informative PSAs could help raise awareness across the state
- \* Give decision makers access to experts
- \* Emphasize conservation in education efforts

#### *Management, Coordination and Protection of Water Resources*

- \* Move toward watershed-based water management (across political boundaries)
- \* Create a statewide water plan based on quality information
- \* State and local entities need to work together
- \* Address and plan for concerns about water security and water ownership
- \* Share data broadly
- \* Support innovation: e.g., wastewater reuse,

#### *Regulation and Incentives for Conservation*

- \* Focus regulation on the common good
- \* Keep in mind that one size does not fit all (differences in northern and southern NH, for example)
- \* Need regulation that considers the long term and that incentivizes conservation and responsibility of property owners
- \* Support and reward research and innovation
- \* Update legal and political infrastructures for conservation and long term planning

#### *Create a Funding Structure for Long Term and Proactive Investments*

- \* Charge a price for water that is reflective of the cost, including infrastructure maintenance
- \* Create funding stream for capitol repairs
- \* Consider long term funding needs and begin to address resource issues
- \* Need to invest proactively

**Compiled by NH Listens for the New Hampshire Water Sustainability Commission**

[www.nhlistens.org](http://www.nhlistens.org)

*Bringing people together for engaged conversations and informed community solutions*