



**Summary of 2010
targeted water
strategy
consultations**



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Introduction

This document is a summary analysis of the second round of consultations conducted during the development of a Water Strategy for Nova Scotia; a government commitment under Nova Scotia's *Environmental Goals and Sustainable Prosperity Act* (EGSPA). EGSPA commits government to develop a comprehensive Water Resource Management Strategy by 2010. In early 2008, Nova Scotia Environment (NSE) released a document called *Towards a Water Resource Management Strategy for Nova Scotia*. Public feedback on this document was gathered through written submissions and 14 workshops held throughout the province. In September 2008, the results of this feedback were released in a second document entitled *What We Heard: A Public Feedback Report*. Public consultation efforts were followed by extensive consultation within provincial agencies who share responsibilities for water resource management.

The last phase in the development of a Water Resources Management Strategy for Nova Scotia was involved targeted consultations with key stakeholder groups on options proposed in a third document: *Options for a Water Resource Management Strategy for Nova Scotia*. Consultations to date have helped identify key issues and priorities to be considered in a comprehensive water resource management strategy (water strategy). Five goals have been identified including: human health; economic prosperity; ecosystem integrity; emergency and hazards preparedness; and monitoring and knowledge.

NSE conducted targeted consultations with key stakeholder groups from April 7 – June 7 2010.

"We measure the quality of our land by the quality of our water. It tells the story of who we are. It's all right there in the water"

– Nova Scotia
Environmental
Network – Water
Caucus

Invitations for feedback were sent to a cross-section of stakeholders (see Appendix A for a full list of participants). Not all organizations contacted chose to respond or provide feedback on the options. Feedback was received orally, through face-to-face meetings and through written comments.

Regional meetings were held with members of the Union of Nova Scotia Municipalities (UNSM) and the Association of Municipal Administrators (AMA) in Yarmouth, Halifax and Port Hawkesbury (see Appendix B for a list of participating municipalities). NSE also met with the Municipal/Provincial Joint Advisory Committee on Water and Wastewater. NSE received a total of 58 written submissions, 40 of which are on behalf of an organization; the remaining 18 submissions were submitted by individuals. Comments were documented, compiled and analyzed to determine priorities, major gaps and improvements essential for the development of a comprehensive Water Strategy.

The 'Options' document is organized into seven option categories:

1. Protect the Quality & Quantity of Water
2. Increase the Understanding of, and the Value Placed on, the Water We Have and Use
3. Plan and Build With Water in Mind
4. Enhance the Management of Drinking Water and Wastewater Systems
5. Encourage Water Efficiency and Conservation
6. Improve Access to Information About Water Resources
7. Support Community Water-Stewardship Efforts

Priorities

When all comments are combined, the seven option categories are prioritized as follows:

1. Protect the Quality & Quantity of Water (74 people listed as a priority)
2. Enhance the Management of Drinking Water and Wastewater Systems (41)
3. Plan and Build With Water in Mind (39)
4. Increase the Understanding of, and the Value Placed on, the Water We Have and Use (29)
5. Encourage Water Efficiency and Conservation (23)
6. Support Community Water-Stewardship Efforts (21)
7. Improve Access to Information About Water Resources (18)

Despite the fact that *Protect the Quality & Quantity of Water* was cited as the highest priority option area, almost all written submissions and in-person meetings highlighted the importance of having access to information about water quality and quantity in order to be able to adequately protect the resource. Although *Improve Access to Information About Water Resources* was listed as a low priority item, it nevertheless underscored discussion about every other option category. The public feels strongly that access to information is crucial to the successful implementation of the strategy. Industry in particular felt that they were contributing significant amounts of data to NSE but are frustrated by their inability to access data submitted by other industries. The NGO and agriculture sectors voiced their frustration about the lack of data available to them which they feel is necessary if they are to contribute to the management of water resources.

Protect the Quality & Quantity of Water was the highest priority item. Stakeholders commented on a range of issues pertaining to this option category with the emphasis resting primarily on the need to better quantify water resources in Nova Scotia. Many stakeholders feel that provincial and municipal governments, industry, NGOs and individuals are often prevented from taking action to protect water resources because they lack information about flow rates, background levels of minerals, biological materials and contaminants, baseline aquatic and riparian ecology, other users in an area, etc.

Stakeholders feel that if the government of Nova Scotia provides the raw data (preferably in an online database), that this will empower other groups and individuals to better protect our water resources. Emphasis was placed on quantifying both the quality as well as the quantity of water in Nova Scotia. Industry and others emphasize the need to collect scientific data and to use science as the basis for creating water quality standards as well as water budgets. The request for science-based data collection and sharing highlights a need for improved information analysis and management systems including online databases and Geographic Information Systems (GIS) within the Government of Nova Scotia. Industry members noted concerns respecting the protection of privacy of some of the data they collect and share with Nova Scotia Environment.

"Provide support for integrated water/watershed resource governance including land-use restriction for drinking water protection, and water design standards for effluent discharge limits, sewer use limits, storm water storage, etc."

– Canadian Petroleum Products Institute

Many stakeholders linked *Protect the Quality & Quantity of Water* and *Plan and Build with Water in Mind* and pointed to the need for more thoughtful and effective land use practices, particularly for the forestry, mining and construction (particularly residential development) sectors as a way to protect water quality in Nova Scotia.

Related to *Enhance the Management of Drinking Water and Wastewater Systems* option, stakeholders identified rural well water quality and septic system issues as integral to the overall quality of water in the province. There is recognition that both the agricultural use of fertilizers, as well as failing rural septic systems are to blame for nutrient-related water quality issues. Stakeholders were very supportive of the Environmental Home Assessment Program but felt that it was too difficult to access in rural areas (i.e.: areas far from community partners) and did not offer enough financial support for improving well, whereas funding is available for failing septic systems. Stakeholders felt that more strict enforcement/punitive action is required for failing septic systems.

Comments related to *Plan and Build with Water in Mind* include surprise that developments are allowed to proceed without conducting water quantity/hydrogeological studies, support for residential water conservation technologies, support for riparian buffer zones and support for revising Provincial Interest Statements. The siting of geothermal boreholes, wells and septic systems was also identified as area which requires regulation or policy.

Municipal Priorities

When all municipal comments are combined, the seven option categories are prioritized as follows:

“The finest regulatory framework is of no value without effective, integrated enforcement”

- Halifax Watershed Advisory Board

1. Protect the Quality & Quantity of Water (49 people listed as a priority)
2. Plan and Build With Water in Mind (34)
3. Enhance the Management of Drinking Water and Wastewater Systems (31)
4. Support Community Water-Stewardship Efforts (30)
5. Increase Our Understanding of, and the Value Placed On, the Water We Have and Use (28)
6. Encourage Water Efficiency and Conservation (18)
7. Improve Access to Information About Water-Resources (15)

Once again, while the *Improve Access to Information About Water-Resources* option was identified as a priority, however issues relating to the availability of information were repeatedly raised in relation to other proposed options during municipal consultations. Municipalities were vocal in their support of the establishment of a publicly-accessible central online source of information.

Protect the Quality & Quantity of Water was the highest priority option category. Emphasis was placed on the need to develop a central website where information on various parameters such as quality, quantity, and contaminants etc. are easily obtained for effective management and planning.

Representatives from various municipalities stated that barriers to achieving the *Protect the Quality & Quantity of Water* option include a lack of resources at the municipal level, and lack of research and enforcement at the provincial level. Many stated a need for NSE to ensure consistency when creating or amending guidelines and regulations. Municipalities felt that development of water quality standards and improvements to assessment and monitoring tools will help to mitigate potential risk of contaminants to our water source.

In relation to *Plan and Build with Water in Mind*, many municipal representatives stated that the province should develop appropriate guidelines for assessing the feasibility of developments based on local water capacity. Municipalities felt that information should be accessible for planners, developers, and various levels of government to determine high risk areas where development would threaten groundwater quality and quantity. There was a general agreement about the need to regulate developers with stringent guidelines. Concerns that surface water uses are not being accounted for were also linked to inadequate information. The need for more information was a common theme throughout the municipal consultations. Many believe that the provision of more information will allow municipalities to better address water resource management challenges.

According to participants, all levels of government need to take responsibility for the management of wastewater systems (*Enhance the Management of Drinking Water and Wastewater Systems*). Municipalities felt that improved management of septic systems would decrease negative impacts on drinking water. Participants voiced concern that many septic systems are managed solely by homeowners who are unaware of the negative environmental effects of poorly managed wastewater systems. Participants felt that this could be overcome by implementing educational campaigns as well as strict regulations can help mitigate potential risks to groundwater resources. Municipalities are seeking additional support from other levels of government for the maintenance of existing programs and policies and the implementation of this strategy.

Municipalities indicated that communities are seeking non-financial support from government in order to protect water resources (*Support Community Water-Stewardship Efforts*). Participants felt that efforts from various community groups should be recognized and supported to increase their effectiveness. There was emphasis that the industrial sector should be encouraged to implement water conservation Best Management Practices. Municipalities felt that partnerships and pilot projects require support from the province in order to be valuable.

Participants highlighted Nova Scotia's long history of stewardship and community involvement which they felt would operate most effectively through integrated partnerships, educational campaigns, workshops, and meetings.

"It's wonderful that many rural municipalities have source water protection plans. We must integrate and cooperate between all individualized management plans since we are all drawing our water source from the same watershed"

- Village of Port Williams

Gaps & Improvements

A key word analysis was performed on the responses to three questions posed in the *Options for a Water Resource Management Strategy for Nova Scotia*:

- Are there any other actions that are missing that should be included in a water resource management strategy? (hereafter called ‘gaps’)
- Are there suggestions you can make that will improve the strategy? (hereafter called ‘improvements’)
- Other comments (hereafter called ‘other’).

To provide consistent analysis of the 2008 and 2010 consultations, the same keyword list was used to review the feedback. Several new keywords were added in order to capture additional issues raised in the 2010 targeted consultations. Of the complete list of key words (see Appendix C) several key issues were identified during the 2010 round of consultations. These issues are highlighted below and include municipal opinions regarding each issue raised.

Watershed Level Management

“The development of a water strategy is an essential component in the future economic, social and ecology viability of the province”

-Clean Annapolis River Project

The feedback received showed overwhelming support from all sectors for watershed-level planning and management. There is recognition that we must manage water at the scale at which it naturally operates and that failing to adopt a watershed approach will prevent us from fully and properly managing this resource. Several people highlighted the Ontario model of watershed-level conservation authorities as a model that could be adapted for use in Nova Scotia.

Municipal

A watershed approach was supported throughout the UNSM/AMA consultations. Provincial Interest Statements could outline various watershed-level actions that would apply to any municipality with land within a given watershed. Municipalities feel that integration and co-operation between all watershed management plans is crucial given that water resources are shared by multiple users within and a single watershed. Municipalities felt that a watershed approach would be successful if supported by the water resource management strategy and provincial government.

Land Use Planning

Stakeholders feel that land use planning has heretofore proceeded with little regard for the protection and conservation of water resources in Nova Scotia. Many stakeholders see new developments and construction as having adverse affects on water quality (due to increased runoff from paved surfaces, increased erosion from construction, increased pollution due from cosmetic pesticides and fertilizers), and as a result support the use of riparian buffer zones for watercourses. Many stakeholders expressed dismay that new subdivisions did not require hydrogeological studies to determine if an adequate water supply exist before being built. While recent changes to the Halifax Charter have addressed this issue in HRM, it remains a challenge for other regions in the province.

Feedback received indicates that policy tools are needed to regulate the drilling of geothermal boreholes and that the drilling of boreholes must be coordinated with the installation of wells and septic systems. Currently it is felt that there is no coordination between these three industries, and that homeowners suffer the consequences of water shortages for drinking water supplies and for geothermal systems, contaminated well water as well as the financial burden of having problematic systems repaired or replaced.

Some stakeholders suggested that some degree of land use planning should occur at the provincial level via new Provincial Interest Statements. Others felt that the province should urge municipalities to implement new land use bylaws in their Municipal Planning Strategies; however new municipal bylaws may be incongruous and would only apply to municipalities with Municipal Planning Strategies.

The agricultural sector would like to see an Alternative Land Use Services program created in Nova Scotia, similar to the one established in PEI, which would provide financial compensation to farmers who implement low impact land use practices.

Municipal

Municipal representatives expressed concern about the strain on water resources posed by new developments. Municipalities feel the need for regulations and guidelines for developers and planners when building subdivisions. Participants felt that baseline data and educational resources can aid developers when designing and building new subdivisions.

Intergovernmental Management

The lack of clarity around interdepartmental co-operation during the planning & implementation of the strategy was identified as a gap by a large number of stakeholders. The feedback received strongly encourages coordination between provincial departments (particularly between Environment, Natural Resources and Fisheries and Aquaculture) and between provincial and municipal governments. Coordination with NGOs, academia and industry was also encouraged.

Municipal

Municipalities feel that information sharing practices between all levels of government are unsatisfactory. Municipalities have limited success in managing water resources due to insufficient information and resources from other levels of government. Municipalities feel they should have access to data even if they do not choose to use the data. Participants voiced confusion about the roles and responsibilities for water resource management of various levels of government and government departments, both currently and with regards to the implementation of the water strategy. Participants felt that once these roles are clarified, the provincial government can provide useful resources to municipalities.

“A better understanding of the role each individual can play in protecting water quality and quantity will lead to a societal change in attitude similar to shifts like non-smoking, scent free environments, reduce/reuse/re-cycle etc.”

- Anonymous

While most municipal representatives felt that intergovernmental and interdepartmental co-operation was key, the Halifax Regional Municipality felt that “A clear governance structure dealing with Water Resource Management under a single agency/department would be a huge benefit in delivering effective service.”

Support of Local Communities

Many respondents, particularly NGO representatives, voiced the need for the provincial government to support NGOs and stewardship groups in a more coordinated way. Nova Scotians recognize the large number of stewardship groups in the province and believe that these groups should be better supported in order to continue conducting research and water monitoring activities. Many respondents suggested that stewardship groups should be able to submit water monitoring data to a provincial database and that they should be able to access water quality data collected by others in the area (i.e.: industry, other stewardship groups, government). Financial support was also suggested by several respondents.

Municipal

Several municipal representatives stated that well organized and funded community and stewardship groups can help municipal governments manage water resources and that the province should actively support these groups.

“Water is not an election issue, it is a prosperity issue”

- NS Federation of Agriculture

Protection of Ecological Values

The majority of stakeholders value healthy ecosystems for their inherent value as well as for the numerous services they provide to society. A strong ethic of stewardship was apparent among respondents, particularly NGOs and individuals. Respondents voiced a strong connection to the natural environment and a concern about threats to wildlife habitat.

Municipal

Municipal emphasis in this category focused on the services provided by healthy ecosystems (flood and erosion control, absorption of runoff and pollutants) than on the inherent value of healthy ecosystems.

Protected Areas (Buffers/Setbacks)

The *Options for a Water Resource Management Strategy for Nova Scotia* document lists several possible protective measures such as “buffer zones, road salt-management plans, watercourse alteration procedures, risk assessments of water-control structures, the identification of ecologically significant water resources such as wetlands, and the identification of areas critical to recharging water resources”. Of these measures, buffer zones were by far the most popular. Many stakeholders feel that buffer zones should be legislated for all watercourses (streams in particular). Some people feel that buffers should be legislated by the province rather than by municipalities despite the fact that land use planning is a municipal jurisdiction. A province-wide buffer regulation would ensure that all watercourses in the

province are protected rather than only the watercourses managed by municipalities with Municipal Planning Strategies. The agriculture sector feels that adequately sized buffers are particularly important if biosolids are being used in the area.

Municipal

Due to regional variation in geography, municipalities feel it is unreasonable to demand a standardized minimum buffer width. Municipalities feel that buffers need to be delineated based on the degree of ecological functioning, rareness of habitat, and adjacent land use which will differ from one region to the next. Information about topography, hydrology, soil type, and land use are needed to determine the distance of setbacks and size of buffer zones for each region.

Municipalities feel that buffers should be administered at the municipal level and should apply to all land uses and sectors. Participants suggested that a province-wide minimum buffer could be implemented (via Provincial Interest Statements) which municipalities could then augment in their jurisdictions if desired. However, if setbacks are included in the Provincial Interest Statements, municipalities may not have the capacity to implement setbacks due to inadequate staffing and resources. Municipalities suggested that this barrier may be overcome by creating provincial guidelines (rather than regulations) that are paired with municipal bylaws.

Storm Water Management

Many stakeholders highlighted the absence of any programs or policies to address storm water management in the *Options for a Water Resource Management Strategy for Nova Scotia* document. Storm water can affect water quality (via contaminants carried in overland runoff) and quantity (via changes to peak flows and flooding regimes).

Municipal

This topic was not specifically raised in the UNSM/AMA consultation sessions. However, some municipalities identified it as an issue in their written submissions. For example, the Halifax Regional Municipality feels that a revision of provincial storm water management regulations and guidelines is essential to maintaining water quality objectives in receiving water courses and that further development of impervious surface minimization, on-site storm water quantity and quality controls, erosion and sedimentation guidelines are fundamental and should not be overlooked.

“All businesses and organizations need to strive to change how they use and dispose of water to lessen their impact on the environment.”
- Staff in the Southwest District Health Authority

Regulation

Many NGOs and individuals feel that regulations are necessary in order to achieve the goals set out in the strategy. Industry would like to see other industrial and non-industrial sectors regulated in an effort to establish a more level regulatory playing field (all users should be treated the same). For

example, the forestry sector would like to see minimum riparian buffers required for all other sectors. Likewise the mining sector would like to see water withdrawal approvals and reporting for all sectors.

Municipal

Regulation was a common concern in areas such as groundwater, surface water, and private wells. Municipalities suggested that the absence of information and data were an impediment to the establishment of sound regulations and guidelines.

“You can't effectively manage what you don't understand”

-Anonymous

Enforcement

Stakeholders feel that a) any commitments made under the Water Strategy must be enforced and b) that NSE is not currently enforcing existing regulations to a sufficient degree. Stakeholders feel that leaking septic systems should receive more attention from NSE's Environmental Monitoring and Compliance division.

Municipal

This topic was not specifically raised in the UNSM/AMA consultation sessions. However, some municipalities identified it as an issue in their written submissions.

Rural Sewage Treatment

Many respondents felt that not enough was being done to a) support rural homeowners properly manage their septic systems (either by providing more information or financial incentives) and b) to enforce/penalize failing septic systems. Stakeholders were supportive of the Environmental Home Assessment Program but feel that it needs to be available to more homeowners. Currently there are only a few community partners delivering this program for entire regions (i.e.: ACAP services all of Cape Breton) and that more community partners are required to make this program more accessible to rural Nova Scotians. In addition, some respondents have highlighted the need for subsidies for new wells in addition to subsidies for new septic systems. Several stakeholders felt that point-of-sale education about or inspection of septic and well systems should be provided for rural homes.

Municipal

Municipalities feel that there is insufficient management and regulation of wastewater systems, specifically in rural areas. Participants see benefits to assessing on-site septic systems at the property point of sale. According to participants, there are subsidies in place at the municipal level; however, rural communities need further financial incentives to adequately maintain septic systems.

Participants feel that the development of a new program or enhancement of the Environmental Home Assessment Program should be a provincial priority in order to meet the EGSPA-mandated 2017 primary wastewater treatment target. Municipalities voiced concern that any new federal or provincial water-related policies will impose additional costs on municipalities and that this is not effective without financial resources to meet specific standards.

Municipal representatives feel that maintaining high water quality is a priority but can not be achieved if the public remains unaware of the impacts that poorly managed septic systems have on water resources. Many septic systems are installed in areas with insufficient soil systems. Municipalities dissolve many issues pertaining to septic systems only when adverse effects take place. Municipalities see a need for additional provincial support for Source Water Protection Plans as a means to improve water quality in rural communities.

Emergency Preparedness

Some stakeholders feel that the *Options for a Water Resource Management Strategy for Nova Scotia* document did not address emergency-related risks to human health and safety from flooding, contamination or water shortages.

Municipal

This topic was not specifically raised in the UNSM/AMA consultation sessions. However, some municipalities identified it as an issue in their written submissions.

Recreation

This topic was raised by the Tourism Industry Association of Nova Scotia, but was not seen as a significant gap by other stakeholders.

Municipal

Participants would like to see guidelines put in place that protect water quality and public access to water for recreational activities with an emphasis on swimming, boating and fishing activities.

Other Gaps

Links to Academia

In addition to partnerships between provincial government and NGOs and stewardship groups, some stakeholders believe that stronger and more formalized connections should be forged with academic institutions.

Water as a Human Right

Some stakeholders feel that water quality and affordability as a human right should be included in the final strategy document.

Public Access to Watercourses

Some stakeholders feel that the government of Nova Scotia should work to ensure public access to watercourses.

“Our response to our water issues must be based on good science. A scientific approach must be the cornerstone of our water strategy”

- Anonymous

Appendix A

A1. Stakeholder groups invited to participate in the 2010 targeted consultations

Municipalities

Union of Nova Scotia Municipalities
Association of Municipal Administrators

Water/waste water industry

Nova Scotia Groundwater Association
Wastewater Nova Scotia Society

Real Estate Industry/ Property Owners

NS Home Builders Association
Urban Development Institute

Consulting

Environmental Services Association of NS

NGOs

Nova Scotia Environmental Network – Water
Caucus

Aboriginal/ First Nation groups

Native Council of Nova Scotia

Business & Industry

Nova Scotia Federation of Agriculture
Nova Scotia Golf Association
Nova Forest Alliance
Forest Products Association of Nova Scotia
Canadian Manufacturers and Exporters
Halifax Water Commission
Mining Association of Nova Scotia
Canadian Federation of Independent Business
Canadian Petroleum Products Institute
Canadian Water Bottlers Association
Nova Scotia Power Inc.
Tourism Industry Association of NS

Health

District Health Authorities
Doctors NS

A2. Stakeholder groups who submitted written comments for the 2010 targeted consultations

Municipalities

Halifax Regional Municipality
Municipality of East Hants
Municipality of the District of Lunenburg

Water/waste water industry

Wastewater Nova Scotia Society

Real Estate Industry/ Property Owners

Aylesford & Loon Lake Property Owners
Association

Consulting

R.V. Anderson Associates Ltd

NGOs

Nova Scotia Environmental Network – Water
Caucus
Halifax Watershed Advisory Committee
Sackville Rivers Association
Partnership for the Sustainable Development of
Digby Neck & Islands
Southwest Paddlers Association

Shubenacadie Watershed Environmental
Protection Society
South Shore Naturalists Club
Bras d'Or Stewardship Society
Clean Nova Scotia
Clean Annapolis River Project
Council of Canadians
Canadian Union of Public Employees

Business & Industry

Nova Scotia Federation of Agriculture
Forest Products Association of Nova Scotia
Halifax Water Commission
Canadian Petroleum Products Institute

Health

Cape Breton District Health Authority
Staff from Southwest District Health Authority
Clare Community Health Board
Yarmouth Community Health Board
Shelburne Community Health Board
Lunenburg County Community Health Board

A3. Stakeholder groups with whom NSE had face-to-face meetings for the 2010 targeted consultations

Municipalities

Union of Nova Scotia Municipalities
 Association of Municipal Administrators

Water/wastewater industry

Nova Scotia Groundwater Association
 Wastewater Nova Scotia Society

Consulting

Environmental Services Association of NS

NGOs

Nova Scotia Environmental Network – Water
 Caucus

Aboriginal/ First Nation groups

Native Council of Nova Scotia

Business & Industry

Nova Scotia Federation of Agriculture
 Mining Association of Nova Scotia
 Canadian Petroleum Products Institute
 Tourism Industry Association of NS

Appendix B

List of municipalities or municipal organizations represented at the Union of Nova Scotia Municipalities and the Association of Municipal Administrators consultations in Yarmouth, Halifax and Port Hawkesbury on June 16th, 22nd, and 24th 2010 respectively.

Cape Breton Regional Municipality
 Cumberland County Municipality Corporation
 Richmond County
 Municipality of the County of Annapolis
 Municipality of the District of Argyle
 Municipality of the District of Barrington
 Municipality of the County of Colchester
 Municipality of the District of Digby
 Municipality of East Hants
 Municipality of the District of Guysborough
 Municipality of the District of Lunenburg

Municipality of the District of Shelburne
 Municipality of the District of St. Mary's
 Municipality of the District of Yarmouth
 Town of Amherst
 Town of Berwick
 Town of Bridgewater
 Town of Hantsport
 Village of Port Williams
 Halifax Regional Water Commission
 Strait-Highlands Regional Developmental Agency

Appendix C

List of Keywords used for analysis of Gaps, Improvements and Other
 (X) = number of times cited as a Gap, Improvement or Other

Aboriginal/First Nations (1)	Geothermal (3)	Reuse (2)
Affordability/Accessibility (3)	Heritage/Culture (0)	Risk Assessment (3)
Agriculture (1)	Human Rights (2)	Sewage Treatment (7)
Allocation (6)	Innovation (Technology) (0)	Storm Water Management (6)
Availability (Shortages) (2)	Intergovernmental	Support of Local Communities
Bottled Water (4)	Management (14)	(11)
Climate Change (9)	Land Use Planning (12)	Tourism (2)
Drinking Water Safety (4)	Links to Academia (5)	Taxation (3)
Ecological/Ecosystems (8)	Monitoring (5)	Tiered Payments for Water Use
Education (11)	Pollution Prevention (8)	(0)
Efficiency (7)	Private Sector (as	Value (3)
Emergency (6)	Stakeholders) (8)	Water Quality (17)
Enforcement (12)	Privatization/Exportation (5)	Water Quantity (6)
Environmental Assessment (1)	Protected Areas (Buffers) (7)	Watershed Level Planning (20)
Financing by User (6)	Public Access to Watercourses	Wellfield Zone Planning (7)
Fines (2)	(2)	Wetlands (8)
Ground/Surface Water (6)	Regulation (20)	Withdrawal Approval (2)