

Tools for Healthy Watersheds

Final Report



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Ecology Action Centre
40 YEARS OF ACTION

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Introduction

The Ecology Action Centre (EAC), in partnership with Bay of Fundy Ecosystem Partnership (BoFEP), hosted three workshops for the Bay of Fundy planning community in March 2011. The 'Tools for Healthy Watersheds' workshops were part of a broader BoFEP project considering impacts of contaminants in coastal waters, entitled: "Protecting the Bay of Fundy from Pollution from Land-Based Activities: a) Assessing Ecological Risks of Chemical Contamination; b) Working with Municipal Planners to Reduce Chemical Risks from the Urban Environment."

The workshops took place on March 16th (Digby, NS), March 24 (Saint John, New Brunswick) and March 25th (Sackville, NB). The workshops targeted land use planners. The purpose of the workshops was to increase municipal and regional planners' awareness of the many complex linkages between land-based activities within their municipalities and the health of coastal habitats and watersheds, as well as to provide information on appropriate tools for watershed protection. The workshop objectives were to:

- Identify priority issues related to land-based activities impacting water quality within the Bay of Fundy watershed;
- Inform planners of information resources, support tools and best management practices that are currently available to help planners minimize impacts of these issues in their region
- Identify information requirements such as data gaps and planning tools required by the planning community to effectively manage impacts of pollutants, sewage, climate change and other land-based activities on coastal ecosystems and water quality; and
- Assess how groups like BoFEP can work to develop support tools and information resources to better meet the needs of planners

An advisory committee was established to help guide the content of the workshop. Committee members included Peter Wells (BoFEP), Jon Percy (BoFEP), Robert Capozzi - Coastal Planner (New Brunswick Environment), Justin Huston – Coastal Zone Coordinator (Nova Scotia Fisheries and Aquaculture) and Crawford MacPherson - Director of Community Development (Municipality of the County of Colchester). Funding support for these workshops was provided by Environment Canada. The advisory committee met by telephone 2 times and provided advice on workshop content, contacting planners, workshop location and final reporting. Advisory committee members attended each workshop.

Project Deliverables

The contractor, Ashley Sprague (Ecology Action Centre), completed the following tasks:

January:

- Teleconference with Advisory Committee
- Identified past outreach/education projects involving the planning community
- Identified members of planning community around the Bay of Fundy and create database with contact information

February

- Invitations emailed to 70 members of the planning community
- Follow-up phone calls made two weeks following the invitation distribution
- Planned agenda/topics for discussion
- Confirmed speakers and resource people
- Secured workshop venues and catering
- Finalized presentations, background material and resource list

March

- Held three 'Tools for Healthy Watersheds' workshops

April

- Advisory Committee debrief call
- Final reporting

Workshop Overview

The workshops were designed to provide content and new information as well as to allow organizers to conduct a needs assessment. The content focused on understanding water and its circulation in watershed and coastal areas, as well as how land based activities could affect water quality and quantify.

Each day-long workshop was designed to focus on local water issues during the morning session and to explore practical tools to deal with these issues in the afternoon session. The workshops followed a similar format in each location, but the specific topics and speakers were adjusted to each local context.

Each workshop began with a presentation called 'The Bay of Fundy and It's Water' by Ashley Sprague (EAC). This presentation was developed specifically for this project to help land use

planners understand the basics of water movement through a landscape, and to learn more about the specific characteristics of the Bay of Fundy. The presentation explored the connections between land, water and the coast and demonstrated the importance healthy watersheds to communities.

The rest of the morning was devoted to understanding local water issues, with a presentation on water quality issues and ecotoxicology. This was done through an issue identification activity and small group discussion.

All presentations can be found at (www.bofep.org).

The afternoon sessions began with a presentation titled 'Introduction to Tools' by Jennifer Graham (EAC) that outlined different types of tools available to land use planners to reduce impact of land-based activities on the Bay of Fundy. The presentation included examples of useful legislative, monitoring, mapping and educational tools. Other presentations expanded on the use of specific tools and included case studies municipalities could use to deal with the impacts of land-based activities. The afternoon session also included an assessment of current tools, small group discussion, and a confirming needs discussion.

A total of thirty participants from around the Bay of Fundy attended the 'Tools for Healthy Watersheds' workshops. Seven members of the planning community attended the Digby workshop, thirteen attended the Saint John workshop and ten attended the Sackville workshop. There were eighteen participants from New Brunswick and twelve from Nova Scotia. Participants included Planners, Development Officers and Chief Administration Officers from cities, towns, municipalities and District Planning Commissions.

The first workshop was held in Digby, NS, on March 16th at the Digby Municipal Office. Presentations were given by:

- Levi Cliche (Manager Program Delivery, Clean Annapolis River Project) – Riparian Zone Restoration
- Dale Hebb (Consulting Engineer/Researcher, Agriculture Canada) – Monitoring of Thomas Brook
- Kate Greene (Consultant/Planner, Stantec) – Tools for Municipalities
- Leanne Jennings (Planner, Municipality of Kings) – Lake Monitoring Program

On March 23rd, the second workshop was held in Saint John, NB, at the Rockwood Interpretive Centre. Presentations were given by:

- Thijs Bosker (Post-doctoral Fellow, UNBSJ) – Toxins in the Environment

- Tim Arciszewski (Environmental Monitoring Manager, Canadian Rivers Institute) – Saint John Water Consortium
- Rob Capozzi (Coastal Planner, New Brunswick Environment) – New Brunswick Coastal Areas Policy

The final workshop was held on March 24th in Sackville, NB, at Mount Allison University. Presentations were given by:

- Les Burrige (Research Scientist, Department of Fisheries and Oceans) – Toxins in the Environment
- Tim Arciszewski (Environmental Monitoring Manager, Canadian Rivers Institute) – Saint John Water Consortium
- Rob Capozzi (Coastal Planner, New Brunswick Environment) – New Brunswick Coastal Areas Policy
- Jeff Ollerhead (Dean of Science, Mount Allison University) – Salt Marsh Restoration

Workshop Findings

The workshops were set up as a needs assessment to determine which local issues are of most concern, and what are the existing tools and needs of the planning community.

Local Water Issues

In order to better understand the local water issues, each workshop participant was asked to share with the group the three most pressing water issues their communities are facing. This exercise allowed participants to get a sense of what issues others are dealing with and allowed for commonalities to be identified. Many common themes were brought up at all three workshops, while some issues were area specific, such as mink-farming (Digby workshop) and shale gas exploration (Sackville workshop). Climate change was mentioned by over half of the participants at the Saint John and Sackville workshop, but was only mentioned by 2 of 10 participants at the Digby workshop.

Common Water Issue: Digby Workshop

Issue	Said by (x/of 10) people
Land-based Practices: mink farms, agricultural run-off, aquaculture	6 (60%)
Water Quality/Quantity: identification and protection of water supplies, sewage treatment issues, on site septic malfunctions	5 (50%)
Leadership: lack of consistent Provincial regulations, lack of cooperation b/w levels of government and b/w municipalities (ie. for protection of source water), lack of enforcement, need for Province wide water quality monitoring program, lack of	5 (50%)

adequate watercourse buffers, better regulations and monitoring of municipal treatment plants	
Insufficient Planning: coastal access, living too close to the coast, poor planning decisions	4 (40%)
Climate Change: coastal erosion, flooding, sea level rise	2 (20%)
Water Flow: infilling, drainage, lack of impervious surfaces	1 (10%)

Common Water Issues: Saint John Workshop

Issue	Said by (x/16) people
Leadership: lack of enforcement of existing regulations, Provincial leadership, need for coastal areas policy to become regulation, lack of inspection, lack of watershed plans, lack of coastal zone planning, too many layers of government involved, poor communication and guidance, no coordination of stakeholders, poor linkages between municipalities and other programs	10 (62.5 %)
Climate Change: need for long range planning, sea level rise, flooding, erosion, storm surges, stormwater controls, impacts on infrastructure	9 (56.25 %)
Water Quality/Quantity: solid wastes, gravel pits, arsenic, industrial effluents, sewage, well water quality/quantity	8 (50 %)
Insufficient Planning: riparian zone destruction, development of flood plains/ flood prone areas, settlement patterns of communities, shoreline development, need to rebuild sewage plants existing in low-lying areas	7 (43.5%)
Education and Awareness: increased awareness of severity of problems (climate change/subsidence), lack of available information, education of land developers, need to concentrate on advantages and be positive to get buy-in	5 (31.5%)
Land-based Practices: forestry, clearcutting, aquaculture, development and construction activities, food production	5 (31.5%)
Wetlands protection: conflicts b/w wetland protection and economic development, uncertainty about direction of wetland protection in NB	3 (18.75%)

Common Water Issues: Sackville Workshop

Issue	Said by (x/10) people
Climate Change: flooding, sealevel rise, storm surges, erosion	8 (80%)
Land-based Practices: shale gas exploration (fracking), clear-cutting, agricultural runoff	6 (60%)
Leadership: salt marshes, wetland and dykeland protection, lack of information on water quality/quantity in rural areas, educating people	5 (50%)
Water Quality/Quantity: sedimentation, E.Coli, blue green algae blooms, salt water infiltration	3 (30%)
Armouring of shoreline: problems with using rock to protection against coastal erosion	3 (30%)

The top three common issues at each workshop:

Top Issues	Digby	Saint John	Sackville
1	Land-based practices	Leadership	Climate change
2	Water quality/quantity	Climate change	Land-based practices
3	Leadership	Water quality/quantity	Leadership

Assessment of Tools

The participants were asked to complete a worksheet designed to gather information on what tools planners are currently using, what these limitations of the tools are, what other tools would be useful and where they access information on water quality. This exercise revealed significant differences in resources, capacity and expertise between municipalities. Some municipalities have limited to no mapping and monitoring capabilities while others have teams of highly trained staff using current tools to inform their decision making processes.

The municipalities in attendance at the Digby workshop tended to have much stronger partnerships with community groups and local NGOs than was evident at the other workshops. Municipalities with these partnerships were further ahead with water quality data collection, monitoring and mapping. Several of the participants at the Digby workshop had the capacity to monitor larger systems such as rivers and lakes, where as in the Saint John workshop, only monitoring of septic systems and wells was mentioned. Participants at the Sackville workshop said they were doing limited to no water quality monitoring.

Assessment of Different Tools Currently Used by the Planning Community:

Type of Tool	Digby (said by # of people)	Saint John	Sackville
Regulatory	<ul style="list-style-type: none"> • municipal planning strategy (4) • land use by-law (3) • subdivision bylaw • proposing to implement watercourse buffers restricting intensive livestock operations • protection of coastal wetlands 	<ul style="list-style-type: none"> • Watercourse alteration permit (3) • Community Planning Act (2) • Municipal plan • Dept of Health regulations (2) • Zoning and subdivision bylaws (2) • Rural plans (2) • Coastal Policy (2) • Clean Water Act • Clean Environment Act • Building permits 	<ul style="list-style-type: none"> • 30 m buffer from areas prone to flooding (3) • Watercourse and Wetlands Alteration (2) • Community Planning Act • Health Act

Mapping	<ul style="list-style-type: none"> • GIS (3) • All provincial mapping (2) • DNR datasets to overlay on zoning maps to protect/setback from sensitive/vulnerable areas • In house planning technicians and mapping capabilities • Orthophotos • Topographic/Soils/hydrology/geology • Wetlands • None 	<ul style="list-style-type: none"> • GeoNB (3) • GIS • Flood plain mapping (2) • DoE/DNR maps (wetlands, watercourses) • DNR • Municipal plan and zoning plan • Wetlands predictive layer • DoT road book/maps • Service New Brunswick 	<ul style="list-style-type: none"> • Coastal features mappings • LIDAR coming soon • RAC • GeoNB • Limited to none (2)
Monitoring	<ul style="list-style-type: none"> • Mostly done through community or local programs (3) • Lake monitoring program • Coastline erosion monitoring program • None (2) 	<ul style="list-style-type: none"> • Contractor • Water and sewer testing at treatment plants (2) • Testing domestic water supply • Building inspection • Approvals to operate 	<ul style="list-style-type: none"> • No watershed group • Very little baseline information • Only when there is a storm • None (2) •
Best Management Practices	<ul style="list-style-type: none"> • Stormwater management • Incorporating agriculture BMPs into Municipal Planning Strategy and Land Use By-Law requirements (Argyle) • None 	<ul style="list-style-type: none"> • Certified water and sewer operator • Sustainable development BMPs • Learning and listening • Building practices (build above flood plain, no foundations in flood plains) 	<ul style="list-style-type: none"> • ICSPs recommendations • Under development/not much (2)
Education (for public)	<ul style="list-style-type: none"> • Public meetings • Consultation • Public involvement in bi-law review process • Issue focused groups involved in planning • ICSP public engagement process • Brochures on proper shoreline management (kings) • Shoreline tours through lake monitoring program 	<ul style="list-style-type: none"> • Public presentations • Information sessions • Open houses for rural plans • Workshops • Brochures • Guide to stormwater management 	<ul style="list-style-type: none"> • Public presentations • Hearings for regulations • Brochures • Under development • None (2)
Web sites and Web-based tools	<ul style="list-style-type: none"> • NS Environment (2) • Maryland • Researching Provincial Strategy 	<ul style="list-style-type: none"> • GNB • Rural Planning District Commission 	<ul style="list-style-type: none"> • By-laws online • GeoNB • Spatialfusion

	initiatives <ul style="list-style-type: none"> • Various NGO/environmental groups, other municipalities • List-serves • Municipal websites • None 	<ul style="list-style-type: none"> • GeoNB • Open City • Webinars 	<ul style="list-style-type: none"> • None (2)
Other	<ul style="list-style-type: none"> • Ecosystem-based management • Citizen research offerings • ICSP (not yet regulation) • Partnerships with NGOs 		

The Assessing Tools worksheet also asked the following questions. The answers are summarized from all three workshops.

What are the limitations of these tools?

- Limited resources/capacity
- Time
- Political Will – need stronger regulations than can be enforced (Need floodplain and coastal regulations; better wetland protection framework)
- Requires cooperation between different levels of government
- Need more training
- Data available is incomplete, out of date, too general or hard to access

What other tools would allow you to better manage impacts of land-based activities on water quality and the coastal environment?

- Research data from research groups/universities
- Better data identifying sensitive lands and erosion susceptibility
- Public education
- More information on BMPs for coastal development (what else besides setbacks?)
- Additional regulatory and mapping tools
- Stronger regulations for agriculture and forestry
- LIDAR (mentioned several times)
- Having a GIS mapping system

Where do you access data or information on local water quality?

- Through the Province (Department of Environment or Department of Health)
- Provincial Water Portal
- Municipality (in-house)
- NGOs
- Local citizens
- Local media

How do you learn about new tools and BMPs?

- Workshops/conferences
- Online/Email list serves
- Networking with other municipal planners
- Webinars
- Government
- Professional publications
- School projects

How do you consult with others (municipalities, towns, community groups, universities, Province?)

- Phone/Email/List serves
- Networking at conferences/meetings/focus groups/workshops
- Lake Monitoring Program Technical Advisory Committee (Kings)
- Webinars
- Networking with Provincial Government

Confirming Needs

Each workshop ended with a ‘Confirming Needs’ exercise to establish priorities and identify what participants need to more effectively manage impacts of land-based activities on water quality and the coastal environment. The need for more political will, accessible data and mapping information, LIDAR maps, educational materials, funding and stronger partnerships with community groups were mentioned at all three workshops.

	Digby	Saint John	Sackville
Government/ Regulatory	<ul style="list-style-type: none"> • Water quality standards • Standards in statements of provincial interest • Provincially protected water supply areas. • Enforcement 	<ul style="list-style-type: none"> • Political will • People to become champions and provide backing • Statement of Provincial Interest around floodplains • District and municipal plans 	<ul style="list-style-type: none"> • Political will

	<ul style="list-style-type: none"> • Cooperation between municipalities and different levels of government • Statement of Provincial Interest 		
Monitoring	<ul style="list-style-type: none"> • Encourage more volunteer involvement • Setting targets and goals for the watersheds 	<ul style="list-style-type: none"> • Community groups/partnerships 	<ul style="list-style-type: none"> • Funding for monitoring is limited and specific • Lack of capacity for monitoring • More joint activities between municipalities and community groups with committed volunteer base
Mapping	<ul style="list-style-type: none"> • Accessible mapping information from Federal and Provincial sources • Watershed maps • Orthophotos • LIDAR 	<ul style="list-style-type: none"> • Accessible information • Geology layer • Information sharing • Consistent and compatible systems and layers • Information on NB Water Classification Systems • Flood plains • LIDAR 	<ul style="list-style-type: none"> • need more information on the geological layers • Accessible information on water quality • LIDAR
Education	<ul style="list-style-type: none"> • Better communications tools • Need community buy-in 	<ul style="list-style-type: none"> • Public materials and presentations specific to issues • More information on BMPs 	<ul style="list-style-type: none"> • Public materials on septic systems, shoreline development
Other	<ul style="list-style-type: none"> • Funds to deal with problems (Feds – infrastructure) • NGOs play role of pressing governments to move on issues/watchdog • Enhance networking and bringing different groups together on issues • Academics/Researchers can be advisory Bodies 	<ul style="list-style-type: none"> • Funding/Capacity • Better consultation 	

Conclusions

What worked well?

The workshops provided an excellent opportunity to bring people together to network, talk about local issues, share information on available resources and tools and discuss what is needed to help planners deal more effectively with water and watershed issues. In some cases,

this was the first time that many of the planners had met. Other factors that made the workshop successful were:

- Small group size
- Local workshops around the Bay, as opposed to asking participants to travel to Moncton or Halifax
- Information presented was relevant and needed by the planning community, and speakers were excellent

What to improve?

The workshops were very successful and positive feedback was received from the organizers, presenters and participants. However, following are some suggestions to consider when planning future initiatives:

- Use more of a 'watershed approach' to workshops
 - Identify which watershed we in and make sure to have good representation from within watershed.
 - Include a presentation on watershed management
 - Include local watershed groups at each workshop
- Include a field trip to visit a local problem area
- Do a more thorough needs assessment to help plan topics for workshops
 - What do planners want to know?
 - Try talking to the School of Planning to find out what knowledge gaps planners have
- Have more presentations by planners
- Have a small workshop fee to avoid last minute cancellations/or people not turning up
- Larger rooms with more space to move into groups
- More large group and small group discussions

Recommended Next Steps

Feedback from the workshops and a follow up consultation with the Advisory Committee has indicated that there would be strong support for future workshops of for the planning community. There is a particular interest in workshops that are small, local, allow planners from different communities to connect with each other, and help connect local watershed groups, planers, and other government and academic institutions.

The priority topics might be:

- Coastal development planning tools aside from setbacks
- Stormwater management
- Building leadership

- Accessing available, up-to-date data
- Building partnerships within your watershed

Further workshops could focus more clearly on watershed management and include participants from all over a watershed. The themes could reflect the concerns in the watershed from headwater to ocean, and look at various aspects of watershed management from managing water quality to protecting against floods.

The workshops revealed the planning community is not always aware of ongoing research or activity in their area. We should make sure to include watershed groups and other initiatives so can increase local networking. Case studies were very popular, especially those given by other planners. Further workshops should include some real examples that can be learned from.

Valuable information was collected from and shared among members of the planning community. It is important to try and bring the planning community together with government, researchers and community groups to facilitate information sharing and identify opportunities for collaboration.

Planners should also be made aware of upcoming provincial and federal government initiatives. The Atlantic Climate Adaptation Solutions Association (ACASA) has received funding to conduct impervious surface mapping using the Impervious Surface Analysis Tool (NOAA) in a few communities around Atlantic Canada. Some pilot studies will be done in New Brunswick and Nova Scotia. This tool could be very useful to help planners predict how different management scenarios could impact local water quality.

Results from this workshop should be shared with government departments mandated to deal with water and coastal issues. Keeping regulatory authorities informed facilitate better information exchange and allow for exploration of opportunities to build upon what has been done. For example, the Nova Scotia Department of Environment recently released the Nova Scotia Water Resource Management Strategy which outlines several actions to protect provincial water quality and quantity. The outcomes of the 'Tools for Healthy Watersheds' workshops relate directly to several of the actions in the strategy, such as *sharing resources and information while working with partners to manage water, engaging with post-secondary institutions, industry, and communities in order to improve knowledge about water related issues across the province and enhancing the system for receiving and sharing water quality and quantity information with government and the public.*

Need for leadership is about political will and public will. Should target elected officials with some of the education activities, and should also support public outreach efforts.

Future Role for BoFEP and other Non-government Groups

BoFEP should continue to play an important role in helping to bring people from around the Bay of Fundy together to develop a deeper understanding and appreciation of the Bay of Fundy. BoFEP can convene meetings, support research and disseminate the findings, and help connect stakeholders around the Bay.

The results of this workshop show that many planners have time and funding constraints about attending workshops that are far away with no direct relevance to their jobs. BoFEP should whenever possible go to the planning community. BoFEP should support presentations and workshops at the local level or go to where the planners are convening: annual conferences and workshops.

The biannual BoFEP Workshop will not likely reach planners from everywhere in the Bay since it is too big, too general and too far to appeal to many planners. However, the workshop can attract the local planners and municipal officials by organizing sessions that will appeal to them, inviting them as speakers or panellists, and promoting the workshop within their networks. Clearly indicating which sessions will be useful for planners and when those sessions will take place will also help in attracting these participants.

The upcoming BoFEP Workshop in Saint John (September 2011) will be an excellent opportunity to bring together members of the planning community, community groups, researchers and government to further discuss water issues in the Saint John River watershed. An entire workshop session could be dedicated to watershed issues with possible presentation topics being:

- What we heard: 'Tools for Healthy Watersheds' workshops
- Watershed Management (Planners or Watershed Group)
- Impervious Surface Analysis Tool (NS Department of Fisheries and Aquaculture)
- Best Management Practices for coastal development/stormwater management

BoFEP could also play an important role in supporting the development of educational materials that would be distributed to land-owners and general public. Many participants stated there is a need for more public awareness and education, however most do not have the time, money or capacity to develop educational materials in house. BoFEP has access to expertise, while some local NGOs have expertise in developing materials and public engagement. Specific information requested was on how to care for you septic system and Best Management Practices for coastal and shoreline development.

Finally, BoFEP could provide more information on the Bay of Fundy, particularly on outflow water quality, and make this information accessible to the planning community.

BOFEP is a network and its members have much expertise. Groups like the EAC have excellent contacts and a high profile. They can work with BOFEP to reach new constituencies, support local action, and engage with on the ground local groups.

Appendix

Evaluation Form Summary

	Digby	Saint John	Sackville
Overall, how satisfied were you with this workshop?	3 – very satisfied 3- satisfied 1 - neutral	1- Very satisfied 5 - satisfied	3 – very satisfied 3 - satisfied
The content of this workshop was:	6 – just right for your knowledge 1 – no answer	7 – just right for your knowledge	6 – just right for your knowledge
The information presented was:	3 – extremely useful 4 – somewhat useful	5- extremely useful 2-Somewhat useful	5 – extremely useful 1 – somewhat useful
How satisfied were you with the opportunity for discussion?	2 – very satisfied 4 – satisfied 1 - neutral	1 – very satisfied 6 - satisfied	3 – very satisfied 2 – satisfied 1 - neutral
What did you like most about the workshop?	Facilitation, small group size, focus on the BoF, good discussion, Kate’s presentation, presentations, all information very interesting	Learned important facts to share with others, meeting new contacts, info on future forums, questions answered by presenters, Thijs presentation, Rob’s presentation, learn about groups working in BoF, well chaired, moved along nicely	Discussions on current issues, presentations, well organized, right length, great information, interaction with others who share watershed and similar issues, marsh restoration, good facilitation
What did you like least?	Some presentations too specific, more focus on planning alternatives, more planners present, room too warm	Coffee, no tea at lunch, too many topics covered	Room too small

Participant List and Contact Information

Digby Participant List:

Name	Affiliation	Role	Email
Brad Fulton	Yarmouth Argyle Barrington Planning Commission	Participant	bfulton@munargyle.com
Karen Dempsey	Yarmouth Argyle Barrington Planning Commission	Participant	kdempsey@munargyle.com
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Saint John Workshop participants:

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Sackville Participants List:

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Workshop Agenda (Digby)

Tools for Healthy Watersheds

March 16th, 2011

9:00 am - 4:00 pm

Time	Activity	Speaker
9:00	Overview of day/workshop objectives	
9:15	Introductions	
9:30	'Tools for Healthy Watersheds'	Ashley Sprague, Ecology Action Centre
10:00	Identifying local and common issues	All participants
10:30	Break	
10:45	Presentation: Watershed evaluation of BMPs: Observations from Thomas Brook	Dale Hebb, Agriculture Canada
11:30	Presentation: Riparian zones and water quality monitoring of the Annapolis River	Levi Cliche, Clean Annapolis River Project
12:00	LUNCH	
1:00	Introduction to tools	Jen Graham, Ecology Action Centre
1:20	Presentation: An in-depth look at a specific tool	Kate Greene, Stantec
2:00	Assessing available tools and resources	All participants
2:30	Break	
2:45	Case Study: Kings County	Leanne Jennings, Municipality of Kings
3:15	Confirming needs	All participants
3:45	Wrap up/ evaluation	

Workshop Invitation

Dear _____,

This letter is to invite you to attend 'Tools for Healthy Watersheds', a one-day, interactive workshop for the planning community focused on managing impacts of land-based activities on the Bay of Fundy's coastal environment. Hosted by the Ecology Action Centre (www.ecologyaction.ca) and the Bay of Fundy Ecosystem Partnership (www.bofep.org), the workshops are designed to increase municipal and regional planners' awareness of the many complex linkages between land-based activities within their municipalities and the health of coastal habitats and watersheds. Healthy watersheds are essential for coastal communities to preserve the environment, protect the local water supply, prepare for climate change and save money.

The Ecology Action Centre has worked towards sustainability for Nova Scotia's communities and environment for 40 years with a reputation of offering well-researched, cost-effective, solutions to environmental challenges facing Nova Scotia's communities. BoFEP aims to promote the vitality, biodiversity and productivity of the Bay of Fundy ecosystem, as well as the social well-being and economic sustainability of its coastal communities. With support from Environment Canada, we are developing presentations, case studies and resource material on local level options for effectively managing impacts of pollutants, sewage, storm-water runoff and other land-based activities on coastal ecosystems and water quality.

The 'Tools for Healthy Watersheds' workshop will provide information, resources and opportunities to discuss topics such as:

- ❖ Importance and value of healthy coastal watersheds to municipalities
- ❖ Specific threats to coastal environments and water quality around the Bay of Fundy
- ❖ Environmental and economic impacts of land-based activities on coastal environments
- ❖ Current resources, practical tools and best management practices for reducing risk and costs

The workshops will also aim to assess knowledge gaps and information requirements in order to determine what future resources the planning community might benefit from and ways that groups such as BoFEP can work to develop tools and resources to better meet the needs of planners.

This information will enhance existing coastal planning and sustainability initiatives such as the developing Integrated Community Sustainability Plans; Nova Scotia's

Sustainable Coastal Development Strategy; and New Brunswick's Coastal Area Protection Policy.

The workshops will be offered free of charge, from 9:00 am - 4:00 pm, in the following locations:

March 16 – Digby, Digby Municipal Building

March 23 – Saint John, Rockwood Park Interpretive Centre

March 24 – Sackville, Mount Allison University

To register please contact Ashley Sprague by March 4th if you are interested in this opportunity as spaces are limited.

Sincerely,

Ashley Sprague

Coastal Outreach Coordinator, Ecology Action Centre

coastaloutreach@ecologyaction.ca

902-442-5046

Jen Graham

Coastal Coordinator, Ecology Action Centre