# Shediac Bay Watershed Association
# Association du bassin versant de la baie de Shediac

## Fiscal Year 2006-2007
## Année fiscale 2006-2007

Partners in Water Quality:

November 8, 2007

# ACKNOWLEDGEMENTS

We would like to extend our thanks to the following individuals and organizations for their interest and involvement with the Shediac Bay Watershed Association during the 2006-2007 fiscal year.

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- New Brunswick Wildlife Trust Fund
- Fisheries and Oceans Canada
- Environment Canada
- Ducks Unlimited Canada
- TD Friends of the Environment
- Shell Environmental Fund
- New Brunswick Department of the Environment and Local Government
- New Brunswick Department of Health and Wellness
- New Brunswick Department of Agriculture, Fisheries and Aquaculture
- Shediac Rotary Club
- Groupe de développement durable du pays de Cocagne
- South-eastern Anglers Association
- Cap-Pelé Watershed Group
- Beaubassin Planning Commission
- Town of Shediac
- Shediac Bay Marina
- Shediac Lobster Shop Ltd.
- The Paint Recycling Company
- Shediac Bay Marina
- Dupuis Printing
- Coop Atlantic
- Cott's Beverages Ltd.
- Tim Horton's
- Parlee Beach Provincial Park
- The Southern Gulf of St. Lawrence Coalition on Sustainability
- The office of Dominic LeBlanc, MP

Many other groups and individuals contributed to make our programs a success again this year and the SBWA whishes to extend their sincere gratitude.

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# 1 INTRODUCTION

## 1.1 Description of the Shediac Bay Watershed Association

The Shediac Bay Watershed Association (SBWA) was founded in 1999 as a result of growing concerns among residents from various local communities over the ecological health of Shediac Bay. The Association deals with issues related to water quality and habitat integrity.

The SBWA has been involved in numerous projects and initiatives over the past seven years including water quality monitoring and remediation projects as well as awareness programs.

The Shediac Bay Watershed Association vision and mission statements are as follows:

**Our Vision** – Communities working together to foster a healthy ecosystem that will sustain the quality of water for future generations.
**Our Mission** – The SBWA will accomplish its vision through education and community stewardship.
**Our Purpose** – To enable persons, associations and communities within the Shediac Bay watershed to participate in the development and implementation of a comprehensive environmental management plan for the bodies of water within the coastal area of Shediac Bay.

A Board of Directors consisting of sixteen members representing the various regions and interest groups of the watershed manages the Shediac Bay Watershed Association. The Board of Directors meets on a bi-monthly basis and includes the following members:

| | | |
|---|---|---|
| Mr. Bill Murray, President | Mr. Pierre Landry, Past President | Mr. Bob Ford |
| Mr. Victorin Mallet, 1st Vice-President | Mr. Erick Bataller | Ms. Helen Hall |
| Ms. Odette Babineau, 2nd Vice-President | Mr. Sebastien Doiron | Mr. Louis LeBlanc |
| Ms. Michelle Marcil, Treasurer | Mr. Joe Caissie | Mr. Neil LeBlanc |
| Ms. Francis Kelly, Secretary | Ms. Connie Doyle | Mr. Jamie Storey |

The Shediac Bay Watershed Association gratefully receives guidance, donations and in-kind support from various organizations and interest groups. SBWA has a database of over 300 stakeholders consisting of business-owners, industry, foresters, farmers, local residents, cottage owners, recreation boaters and swimmers, conservation groups and community organizations within the Shediac Bay Watershed.

## 1.2 Overview of the Shediac Bay Watershed's Region

The Shediac Bay Watershed covers 400 $km^2$ of land area and stretches along 36 km of coastline, from Cap Bîmet to Cap de Cocagne (Fig. 1). The Shediac and the Scoudouc rivers are characterized by dendritic patterns of small tributaries covering a watershed of 201.8 and 143.3 $km^2$, respectively. The Shediac River is composed of two major water arms. The northern water arm is created by the convergence of the McQuade Brook, the Weisner and the Calhoon Brooks.

The southern large water arm of the Shediac River is the continuation of the Batemans Brook. Water velocity in both rivers is weak due to the gentle regional elevation. The Watershed also reaches inland as far as Lutes Mountain near Moncton. The Shediac Bay Watershed is composed of two major river systems: the Shediac River and the Scoudouc River. Both rivers empty into Shediac Bay. The watershed also has many smaller tributaries that empty either into one of the two major rivers or directly into the bay. The watershed boundaries stretch into both Kent and Westmorland County and cross into both the Shediac and Moncton Parish. The Watershed region consists of a population of approximately 15,000 people.

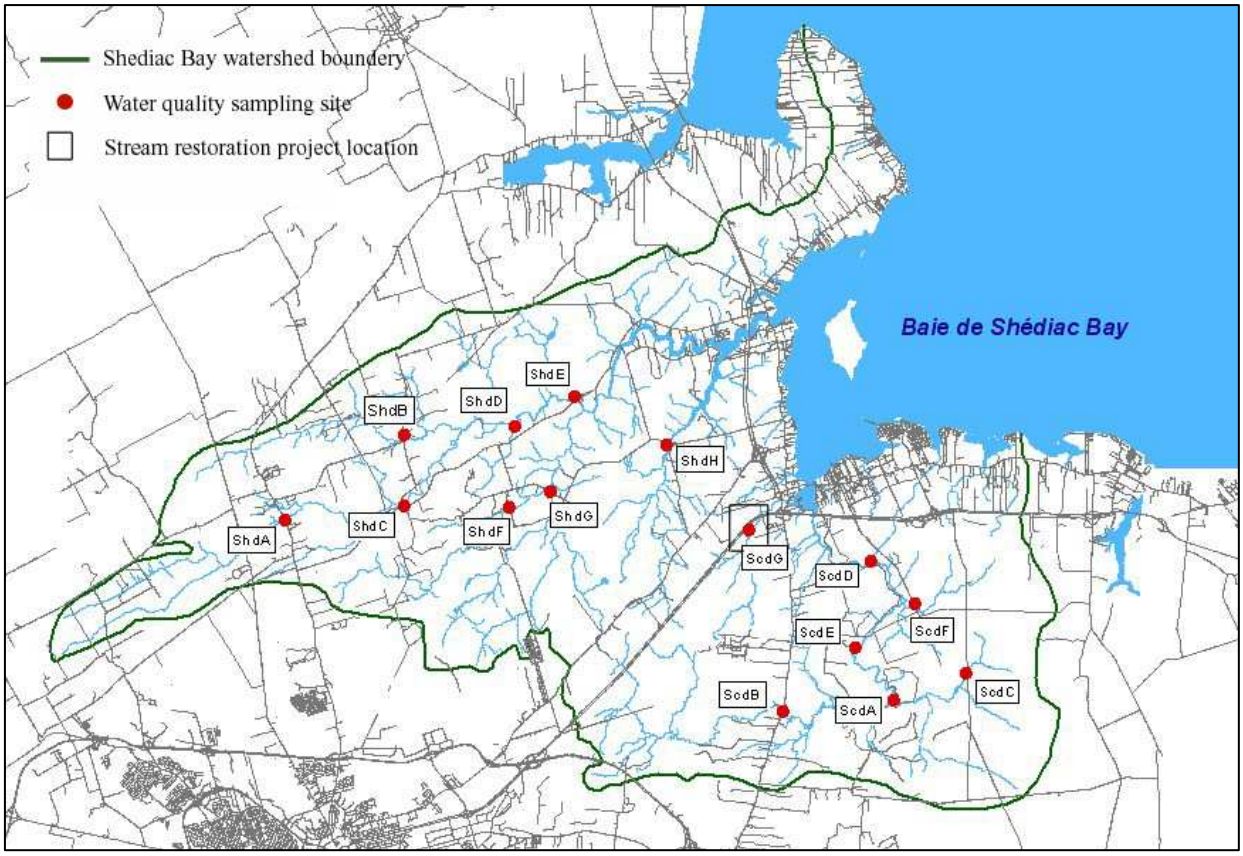


Figure 1. Map of Shediac Bay watershed including water quality sampling site and stream restoration locations

# 2 CORNWALL BROOK HABITAT RESTORATION PROJECT

## 2.1 Introduction

Streams and rivers are dynamic and complex systems bearing various habitats and wildlife assemblages. Any changes to the system, may it be to the channel, the floodplain, the vegetation or the benthos can result in major imbalance causing habitat and species loss (Doll et al., 2003). Such changes are usually but not only linked to a variety of land management activities such as livestock grazing, road construction, agriculture, urbanization, timber harvesting and many more. It is the improper management of these activities that can create the imbalance which is translated in stream habitat changes in water quality, hydrology, riparian vegetation and aquatic biota (Kershner et al., 2004).

To remediate a highly impacted river system, the most effective actions are to address the pressure sources and to develop a habitat restoration plan based on an ecological study of the river. The Department of Fisheries and Oceans (2006) describes an ecological restoration as "the process of re-establishing the health and integrity of an ecosystem that has been negatively impacted". Furthermore, they encourage the use of a holistic approach which is to include and treat equally all the species and trophic levels found in the ecosystem in question when doing the restoration.

The stream restoration project was undertaken in the Cornwall Brook and covered an area impacted by cattle activities originating from two adjacent farms. These sites have been identified during the preliminary survey performed in 2005. The cattle access to the stream has been limited by an old fence, but the cattle's tripling action has caused major deterioration of the bank resulting in important siltation problems downstream.

The first phase of the stream restoration project consisted in performing a detailed stream habitat survey in the section of the Cornwall Brook where habitat alteration was observed. This detailed stream survey was done prior to the habitat restoration work in order to gather accurate information allowing us to develop the types and location of the restoration structures. Also, the stream survey will allow us to evaluate success of the remediation efforts in the next few years.

## 2.2 Material and Methods

### 2.2.1 Stream Habitat Survey

The stream habitat survey was performed in a section of the Cornwall Brook (Fig. 1) part of the Scoudouc River system. The stream habitat survey was performed using the protocol set-out by the New Brunswick department of Environment and the Federal Department of Fisheries and Oceans. A total of 34 reaches of 50 m each for a total distance of 1.7 km were analysed from July 25$^{th}$ to August 11$^{th}$. During the survey, physico-chemical and morphological parameters were recorded at each stream reach. Riparian bank characteristics and potential pollution point sources were also identified.

The equipment needed to perform the stream habitat assessment included clipboard and pencils, waders, GPS unit, digital camera, water-condition instrument (YSI), reference documents (identification key), meter stick and measuring tape as well as waterproof board and field sheets.

### 2.2.2 Electrofishing

A fish species inventory was performed using a Smith Root 12B electrofishing gear. The fish species richness, diversity and abundance were studied using a successive removal capture method (Zippin). A triple pass search will be performed on a 105 $m^2$ area.

## 2.3 Results

### 2.3.1 Cornwall Brook Characteristics

#### 2.3.1.1 Stream Morphology

The mean wetted width of the stream was 3.65 m and the mean bank width was 4.86 m. The mean wetted depth was 0.318 m and the mean bank depth was 0.682 m. No dry areas where noted during the inventory.

The alternating presence of slow water (pools) and fast water (riffles, runs, etc.) is very important in a river system. For instance pools are ideal areas for fish to lay there eggs and for aquatic life to rest, and riffles are important in the oxygenation of the river and the transportation of food. It is the balance between both that ensures a healthy stream. The pools represented 19.71% of the section or 335 meters and the riffles and runs represented 80.29% or the section or 1365 meters.

Undercut banks can contribute to the erosion, but they have a very important role in the stream ecosystem. For example, undercut banks serve as a hiding place for salmonides where they can feed and rest without being vulnerable to predators. Furthermore, most of the undercut banks recorded in the inventory where caused naturally by the river's movements. In the stream section studied, undercut banks and overhanging vegetation represented 30.90% and 49.75%, respectively. Most of the overhanging vegetation was composed of tall grasses and shrubs, such as dense alder growths.

Bank stability is a very important factor for the study of sedimentation loading sources. In general, bank stability appeared fairly good on the left bank and right banks. The eroded portions of the river were found to be where the cattle and motor vehicle accessed the river. These sections represented 5.19% on the left bank and 4.56% on the right bank.

Finally, the mean flow measured for the entire area was 32.09 cm/sec. It ranged from 2.93 cm/sec to 72.52 cm/sec, in pools and riffles. Also, it is important to note that flow measurements were not possible at some sites because major wood debris jams prevented the team to record data. Flow measurements were performed at 17 of the 34.

#### 2.3.1.2 Substrate

The substrate of a stream is of various organic and inorganic substances and its composition is influenced by the surrounding geology, stream, riparian condition, and human activities. Substrate play an important role for aquatic life as organisms can hide from predators, forage for food, reproduce and rest. A healthy stream substrate is characterized by a reasonable amount of stream debris and a mixture of substrate materials including fine, sand, gravel, cobble, boulder and bedrock. Excess fine sedimentation, often caused by bank deterioration, affects fish reproduction success, reduces the biodiversity and the overall health of the stream.

In the impacted stream section, sand and fines represented over 80% of the substrate found in the entire section.

#### 2.3.1.3 Riparian Zone

Riparian zones are one of the most biologically diverse natural communities by providing wildlife with food, burrow sites, nursery areas, travel corridors, and protection from weather and predators. Consequently, it is very important to maintain their natural state to reduce our impact on wildlife habitat and on our watercourses. Furthermore, by maintaining a natural shoreline, the vegetation will help protect the water quality by slowing down runoff, retaining contaminants before they enter the water and by increasing infiltration.

The stream section studied was mostly covered by trees (46.21%) and grass (42.81%). Un-vegetated riparian zones represented only 7.54% of the 1.7km studied stream section.

### 2.3.2 Electrofishing in Cornwall Brook

The electrofishing survey performed in the impacted section of the Cornwall Brook revealed that the specific diversity was poor as only brook trout were captured. The abundance was estimated at 25.7 brook trout/100 $m^2$.

### 2.3.3 Ecosystem Stressors along the Cornwall Brook

The major ecosystem stressors encountered were bank erosion caused by cattle access (Fig. 2) creating important siltation loading downstream, overabundant alder growth along the banks, in-stream wood debris jams (Fig. 3) and excessive amount of aquatic plants (Fig. 4).


Figure 2. Cattle access in Cornwall Brook


Figure 3. Wood debris accumulation in Cornwall Brook


Figure 4. Excessive algae growth in Cornwall Brook

## 2.4 Discussion

The SBWA performed initial observation visits in both areas in 2005 and problems such as erosion and over siltation due to cattle activities, logjams and debris accumulations as well as buffer zone restoration needs were identified. Phase 1 of the project consisted in a stream habitat inventory. During this period, physical, chemical and morphological parameters were recorded on a 1.7 km stream section.

Water quality in the river section to be restored appears to be affected by agricultural activities. Some results indicated potential problems in specific areas due to low DO and high conductivity. Low DO levels were observed at seven reaches where measurements between 5 and 6 mg/l were recorded. Consequently, a low DO level for the tributary is of concern since this can have a direct influence on aquatic life. Also, in some areas conductivity appeared relatively high for the monitored river system. This could indicate potential problems related to the amount of inorganic dissolved solids entering the system. It is considered that sedimentation loading and agricultural runoff could be the cause of the problem. The SBWA will pursue phase two of the project in order to remediate these problems in the riparian zones during the next season.

Substrate composition indicates a sedimentation loading issue in the studied river system. Over 80% of the stream benthos is covered by sand and fines. These results confirm that cattle access is causing bank erosion and sedimentation loading.

During phase 1 of the restoration project, a total of 12 wood debris jams were strategically and partially cleared to allow fish passage and to prevent further blockage. During phase 2 of the restoration project, tree deflectors will be strategically installed to address the siltation problem and to restore the pool/riffle pattern. The introduction of tree deflectors will help flush out silt deposits and allow the redistribution of the silt against the stream banks. This project will also involve restoring the damaged riparian zones and developing a solution with the farmers in order to resolve the problems caused by cattle.

Finally, this project is very important in the wellbeing of Cornwall Brook, but also the Scoudouc River and the Shediac Watershed. By minimizing or eliminating sedimentation loading in the stream and bringing the stream to its natural state, we will improve the water quality, the fish habitat and the overall health of the stream.

# 3 SHEDIAC AND SCOUDOUC RIVERS WATER QUALITY MONITORING

## 3.1 Introduction

A long term stream water quality monitoring program was initiated in 2006 and will be perused annually. Basic parameters, such as level of dissolved $O_2$ (DO) and water temperature, conductivity, and pH were recorded on a monthly basis. It is of outmost importance to have accurate and continuous data of water quality parameters for the watershed. This allows for effective management strategies and the creation of remediation plans. Monitoring allows for the evaluation of the effectiveness of remediation/action plans. Water quality monitoring allow us to track water quality changes, identify point source pollution sites, and evaluate the stream status related to aquatic life needs. These monitoring tools are also used when responding to related point source pollution cases as initial indicator measurements.

## 3.2 Material and Methods

Water quality testing was conducted between July 6$^{th}$ and November 2$^{nd}$. Sampling sessions were conducted on a monthly basis at 15 different sites (Fig. 1). However, few sampling sites were no accessible during certain period of the year.

Water quality testing was performed using the protocol set-out by the New Brunswick department of Environment.

The equipment needed to perform the stream habitat assessment included clipboard and pencils, waders, GPS unit, digital camera, water-condition instrument (YSI), reference documents (identification key), meter stick and measuring tape as well as waterproof board and field sheets.

During the sampling season, the SBWA changed the equipment to measure basic water quality parameters. Some parameter values, such as DO showed significant increase in the subsequent measurements. A regular YSI meter was previously used and was upgraded with a YSI 600QS sounder.

## 3.3 Results

### 3.3.1 Shediac and Scoudouc Rrivers Physico-chemical Characteristics

#### 3.3.1.1 Water Temperature

Water temperature can fluctuate depending on the period of the day and during season changes. Values are influenced by numerous factors such as shade covering the stream, water velocity and water depth. There are no set criteria for water quality, but it is considered that

water above 25 or 29 degrees Celsius (°C) tends to be of poor quality because less oxygen can be dissolved. Therefore, water temperature directly influences the dissolved oxygen levels.

The overall water temperature in the watershed was 13.5 °C which are acceptable values. The overall mean for both rivers was 12.61 °C for the Scoudouc River (Fig. 5) and 14.21 °C for the Shediac River (Fig. 6). The highest temperature recorded was 20.5 °C at site ShdD on July 6th and the lowest temperature recorded was 5.47 °C at site ScdB on November 2nd. There was no past available data to compare evolution of water quality.

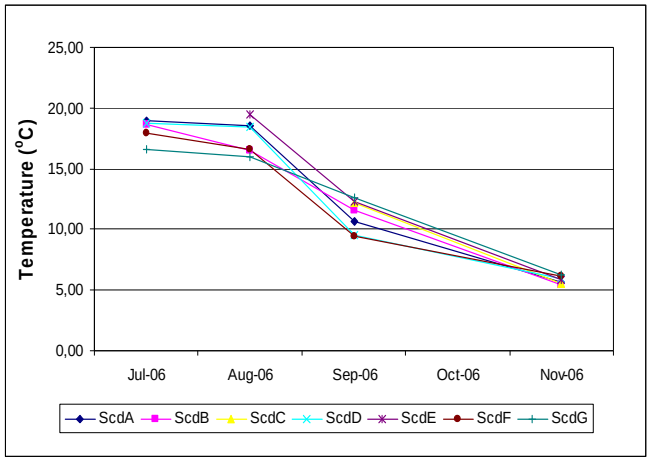


Figure 5. Water temperatures for the Scoudouc River

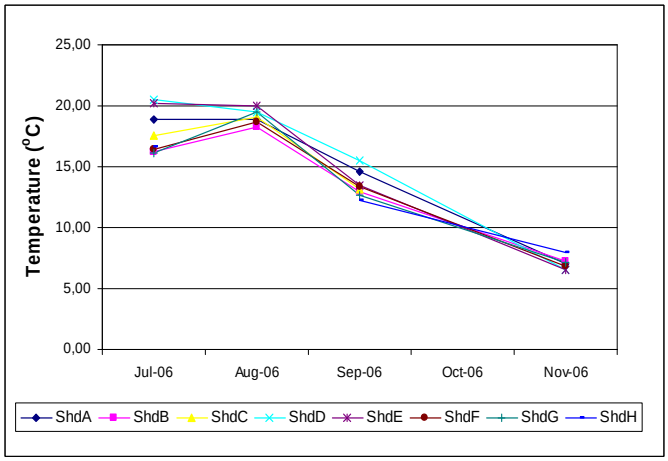


Figure 6. Water temperatures for the Shediac River

### 3.3.1.2 Dissolved Oxygen

Dissolved oxygen (DO) represents the concentration of oxygen in gaseous form in the water column. Most of the oxygen in the water comes from the surface atmosphere and is mixed in the water by turbulence and current. The measurement of the concentration of dissolved oxygen in surface waters is essential for measuring changes in water condition and rating water quality. It has a direct effect on aquatic life and can be influenced by stream habitat alteration. DO is essential for fish and many other forms of aquatic life. DO varies with temperature, tending to be higher when the water temperature is low. According to the Canadian Council of Ministers of the Environment's (CCME) Canadian water quality guidelines, the minimal amount of DO required for cold water aquatic life is 9.5 mg/l (early life stages) and 6.5 mg/l (other life stages).

The overall DO mean for all the sites was 9.2 mg/l, and the overall mean using only the data obtained with the new YSI, is 11.26 mg/l. From 1999 to 2002 the overall mean was 12.93 mg/l and no significant change over time was observed. The overall mean for the Scoudouc River (Fig. 7) was 8.96 mg/l (10.77mg/l for new YSI only) and 9.39 mg/l for the Shediac River (Fig. 8) (11.68mg/l for new YSI only). The highest level recorded was 15.09 mg/l at site ScdG on September 28th and the lowest level recorded was 1.86 mg/l at site ScdC on September 28th. Furthermore, only three samples where below 6 mg/l. They were ScdC at 1.86 mg/l on September 28th, ScdE at 5.3 mg/l on August 10th and finally ShdH at 5.81 mg/l on July 6th.

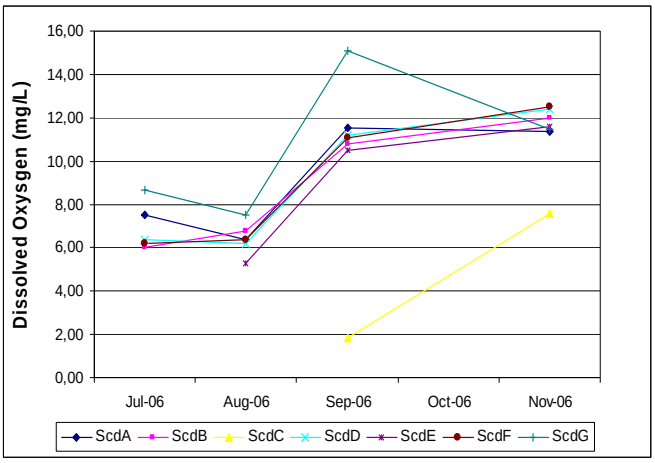


Figure 7. DO levels for the Scoudouc River

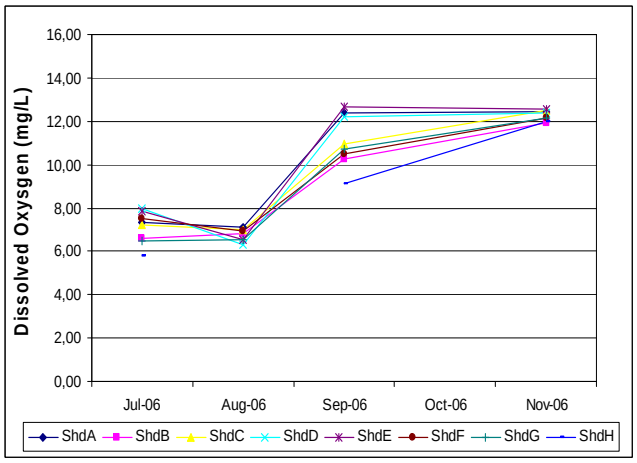


Figure 8. DO level s for the Shediac River

### 3.3.1.3 Potential Hydrogen

The potential hydrogen (pH) level indicates the acidity level of a stream. It affects how much other substances (such as metals) dissolve in the water. Many organisms that live in water are sensitive to changes in pH and may be adversely affected by pH that is either too high or low. The pH varies naturally depending on bedrock, climate and vegetation cover, but may also be affected by industrial or other effluents, the exposure of some kinds of rock (for example during road construction) or drainage from some mining operations. According to the CCME's Canadian water quality guidelines, pH should be between 6.5 and 9. Levels under or above these may cause some problems for aquatic life in the streams.

The overall pH mean for all the sites was 7.08. The overall pH means for the Scoudouc River and Shediac River were 6.65 and 7.46, respectively. The highest level recorded was 8.46 at ScdG on September 28$^{th}$ and the lowest level recorded was 4.56 at ScdC on November 2$^{nd}$. From 1999 to 2002, the overall mean was 7.46. Furthermore, 5 samples (4 sites) where less than 6 and only one of those was under 5. It is important to note that all these samples where recorded in the Scoudouc River system.

### 3.3.1.4 Conductivity

Conductivity is the measurement of the ability of water to pass an electrical current. It is affected by the amount of inorganic dissolved solids (nitrate, chloride, sulfate, sodium, etc.) found in the water. The conductivity level may be influenced by rainwater, agricultural or urban runoff and the geology of the area. There are no set criteria for conductivity levels for water quality, but the US Environmental Protection Agency states that streams conductivity levels ranging between 150 and 500 µS/cm usually seem to support a good mixed fisheries. Consequently, a higher conductivity level may indicate a higher amount of dissolved material in the water and the presence of contaminants.

The overall conductivity mean for all sites was 0.107 mS/cm. The overall conductivity mean for Scoudouc River was 0.109 mS/cm and for Shediac River it was 0.105 mS/cm. The highest conductivity level recorded was 0.348 mS/cm at site ScdG on August 10th and the lowest level recorded was 0.033 mS/cm at site ScdC on November 2nd. From 1999 to 2002, the overall mean was 0.161 mS/cm.

## 3.3.2 Shediac and Scoudouc Rrivers General Characteristics

### 3.3.2.1 Rivers General Morphology

The overall wet depth mean for all the sites was 0.669 meters. The overall wet depth mean for the Scoudouc River was 0.98 m and for the Shediac River it was 0.422 m. The highest level recorded was 4 m at site ScdD on July 7th and the lowest level recorded was 0.09 m at site ShdE on September 25th.

The overall wet width mean for all the sites was 8.52 m. The overall wet width mean for the Scoudouc River was 8.47 m and for the Shediac River it was 8.56 m. The largest width recorded was 20 m at site ScdE on August 10th and the narrowest recorded was 2.23 m at site ScdF on September 28th.

### 3.3.2.2 Riparian Zones

Overall, the banks where mostly composed of hardwood and mixed forest with 24.00% and 21.33% coverage, respectively. Scoudouc River riparian zone was characterized with hardwood (27.86%) and mixed (23.04%) forest, while the Shediac River riparian zone was mainly covered with shrubs (18.91%) and meadows/tall grasses (14.38%). In addition, many wetlands are part of the Scoudouc River system.

### 3.3.2.3 Substrate

In general, the Shediac River is mostly represented by coarser substrate (rubble, gravel, rock and bedrock), while the Scoudouc River is mostly (over 60%) characterized by finer sediment (fine and sand). Bedrock is only found in Shediac River mainly (87.5%) at site ShdC.

## 3.3.3 Potential Problems and Pollution Sources along the Shediac and Scoudouc Rivers

During the monitoring period, areas of concern were identified. Bank erosion issues were observed at various locations in both Shediac and Scoudouc river systems (Fig. 9, 10). Improper culverts were also identified to cause habitat fragmentation (Fig. 11). Riparian zone without buffer zone are also present in the watershed in residential areas (Fig. 12).

Figure 9. ScdG Tractor access

Figure 10. ScdA ATV crossing (eroding bank on left side)

Figure 11. ShdB Blocked culvert

Figure 12. ShdF Altered shoreline

## 3.4 Discussion

General water quality in both river systems was considered good. Water temperature and pH values were acceptable. The Scoudouc River is deeper and the riparian zone is covered by danced vegetation that provides more shade. Therefore, water temperature is generally lower in the Scoudouc River. The acidic level of the Scoudouc River may be of concern since 4 sites showed samples below 6. This could be a result of the surrounding geology but some investigation should be done to make sure this is a natural phenomenon and not a form of pollution. In addition, it is important to note that site ScdC is a marsh and explains the low pH level measured during the monitoring period.

There where no extreme values for the DO but some caution should be used when looking at the values due the change of equipment during the field season. In September, the SBWA upgraded their equipment by changing their YSI DO meter. The new sounder YSI QS 600 is more efficient and more accurate. For this reason, the DO values measured over the season significantly increased when using the new instrument, but the trend shows a natural increase due to the cooling of the water. By comparing all the means, we can see that there is a difference of

about 2 mg/l between the old YSI values and new YSI values. By comparing with previous data (1999-2002), it is observed that the overall mean DO level dropped (1.67 mg/l) over time.

The conductivity measurements support the fact that sedimentation loading and agricultural runoff could be a problem at site ScdG, where values are of highly over the recommended levels (0.309 µS/cm).

As for the potential problems and pollution sources, the major concerns for the SBWA were sedimentation loading in the Scoudouc River tributary (caused by cattle and tractor and ATV crossings), barrier culverts, and eroding banks. Most problems resulted from poor practices and will be addressed by the SBWA during the next few years.

Continuing to perform water quality monitoring and adopt new methods of doing so is of the utmost importance in making sure our watershed is properly managed. Such activities complement remediation work by determining not only where this work is needed most, but also if such work is accomplishing its purpose.

In order to adequately evaluate water quality in the watershed, complementary analysis should be regularly performed which will be done as part of the proposed Pilot Project. The SBWA will begin in 2007 monthly evaluation of other parameters such as nitrates and phosphate levels as well as coliforms concentrations at the 15 sampling sites. The SMART2 from LaMotte will allow testing multiple parameters. This monitoring will ensure that the water quality at each classified tributaries is enhanced or maintained. Moreover, this will allow us to objectively evaluate the success of our remediation efforts.

# 4 PARTNERSHIP WITH STAKEHOLDERS

## 4.1 Success Stories

Through its monitoring efforts, the SBWA identified a very serious polluting activity that has been occurring at a provincially sponsored senior's home in Scoudouc, namely the direct outflow of raw sewage into the Scoudouc River.

In partnership with the senior's home, the SBWA began the process to have this system repaired in 2005 seeking support from various governmental organizations. The SBWA initiated steps to organize a meeting with interested stakeholders to develop a plan to co-operatively put a stop to this illegal and very damaging activity. With a little bit of persistence we were able to found an attentive ear and support from the Department of the Environment to develop the ideal long-term solution for this ongoing problem.

The installation of a regular septic bed and the replacement of the actual sewage treatment system were not considerable solutions for the problematic site. Among several suggestions to rapidly remediate the situation, it was proposed to install a septic system connected to peat moss cells acting as draining fields. This system is very compact and can accommodate large households or small institutions. The peat moss filtering system is very advantageous for those who have soil type or space issues. Extensive water quality testing revealed that these types of systems are very efficient and therefore acceptable for residential use.

The peat moss filtering system installed in Scoudouc in October 2006 was the third of its kind in New Brunswick (Fig. 13). The technology is however much more developed in Nova Scotia where hundreds of these systems are in activity.

We invite all interested residents to contact the SBWA for more information regarding this type of environmentally friendly septic system. Visits to the site can also be organized to explain the concept of the system.



Figure 13. Installation of a peat system drainage field at the senior residence in Scoudouc, NB

## 4.2 Strong Partnership

In addition, the SBWA developed a strong partnership with the Shediac Rotary Club, a well established community group in the watershed. The Shediac Rotary Club provided $20,000 for equipment to monitor water quality, and material to heighten public awareness of the importance of water to the health of the local environment and the economy of the Shediac area. Rotary also assess longer term funding possibilities with the Association.

The Shediac Rotary Club is demonstrating an important commitment by our community to water quality and the health of our aquatic ecosystem. This partnership reflects the confidence developed in our community for the Shediac Bay Watershed Association. This project also reflects the high priority Rotary places on water-related issues to health, conservation, and sustainability.

# 5 HABITAT AND WATER QUALITY ENHANCEMENT

## 5.1 Community Aquatic Community Program

Again this year, we were able to monitor the water quality within the Shediac Bay Watershed by partnering with the Department of Fisheries and Oceans on the Community Aquatic Monitoring Program (CAMP) from May to October of 2006. This is our fourth year of involvement in this project. This is a long-term monitoring program aiming to study ecosystem evolution and changes over time. This ecosystem assessment tool is sill in the development stage and could be established in the future years.

The SBWA gained great visibility when a group of media covered the first field trip of the season in 2006 (Fig. 14).


Figure 14. DFO Community Aquatic Monitoring Program performed during the 2006 season (CAMP)

## 5.2 Shellfish Restoration Project

A Shellfish Restoration project was perused during the 2006 field season with the recruitment monitoring success evaluation.

Shellfish play an ecologically important role by filtering the water column. They contribute by reducing water turbidity and nutrient pollution effect (for example algal blooms). They also contribute to the recycling of nutrients and organic material. The project was put together to enhance oyster (*Crassostrea virginica*) habitat in the bays as well as to establish quahaug (*Mercenaria mercenaria*) reproductive sanctuaries in Shediac Bay.

Spat recruitment monitoring is a long term project that will allow us to better understand the recruitment cycle in Shediac Bay to extend the restoration efforts. The SBWA plans to establish a community based program to restore oyster habitat. Therefore, a project will be

developed in 2007 to describe the oyster population in various sections of the Bay. A detailed bathymetric profile and bottom type description will also be performed.

## 5.3 Septic Improvement Program

The SBWA conducted for the third season the Septic System Improvement program as part of the remediation efforts. The NB Environmental Trust Fund also funded this project. A total of 12 faulty systems have been successfully upgraded during the 2006 season. A total of $32,000.00 in subsidies was given to participants.

# 6 PUBLIC OUTREACH AND EDUCATION

## 6.1 Meetings and Information Sessions / Workshops

In order to accomplish the various objectives of the 2006-2007 fiscal year, regular meetings between various members and partners were required. The board of directors of the SBWA met to discuss and implement the various activities of the Association as per the following dates:

- May 4, 2006 – Executive Meeting
- May 24 2006 – Regular Board Meeting
- June 21, 2006 – Regular Board Meeting
- June 29, 2006 – Executive Meeting
- September 12, 2006 – Regular Board Meeting
- September 20, 2006 – Executive Meeting
- **October 12, 2006 – 2005-2006 AGM**
- November 28, 2006 – Regular Board Meeting
- February 21, 2007 – Executive Meeting
- February 26, 2007 – Board Meeting

The 2005-2006 fiscal year Annual General Meeting took place on October 12, 2006 and coincide with the official launch of the *Status of Shediac Bay ant its Watershed – An Introduction* (Fig. 15). The guest speaker for the event was Patrice Godin from the Department of Environment Canada. The meeting allowed for information about the Association to be relayed to stakeholders as well as government and non-government agencies on the activities and events that took place in the past year.


Figure 15. Annual General Meeting held in October 2006 at the Shediac Island Interpretation Centre in Shediac.

In addition, the Science Committee, chaired by Jamie Storey, gathered on a regular basis during the year to discuss current conditions and issues of the Shediac Bay Watershed. Special meeting with stakeholders to remediate specific situations were also organized by the Science

Committee. The mandate of the Committee is to ensure that the Association conducts projects within the realm of its vision and mission. The Science Committee also oversees that data is collected and analyzed properly. The mission of the Committee also involves dealing with complaint cases brought to the attention of the Board. A panel of expert can be invited to take part of discussion with stakeholders when necessary.

A Fundraising Committee, chaired by Pierre Landry, also met on multiple occasions to develop the future fundraising strategy. Multiple activities took place such as a picture draw and the development of a future Duck Race in Shediac Bay.

The coordinator is involved in the Northumberland Strait Ecosystem Initiative that was established to bring focus to increasing concerns over disturbing changes in the state of Northumberland Strait ecosystem and the aquatic resources that it supports. Also, the coordinator is part of the Marine Environmental Quality ad hoc committee. The Coordinator participated at various meetings during the year.

Multiple other meetings and workshops were attended during the fiscal year including the Healthy Watershed Conference. Also, the Coordinator attended a workshop organised by DELG to follow-up on the Water Classification program. In addition, the SBWA participated in a Coastal Joint Action Group meeting organized by the Charlotte Waterways.

These meetings and continued learning conference and workshops are vital to help plan a remediation action plan for the Shediac Bay Watershed. As well, the open communication forum between the various agencies to prevent duplicating efforts with respect to sampling a problem area and it also serves as an efficient means of solving problems within the Watershed.

## 6.2 Ducks Unlimited – Webfoot Project

The Association collaborated with Ducks Unlimited for the second year to offer the Adopt-A-Class Wetland Education program. Grade 3 and 4 students (160 students) from four different schools were received at the Interpretation Centre for indoor wetland values awareness activities. A field trip to the Pointe-du-Chene wetland allowed us to present the importance of wetlands ecosystems and their protection using concrete examples (Fig. 16). The wetland's flora and fauna was studied using minnow traps for benthic and fish species as well as binoculars to identify bird species.


Figure 16.Webfoot Education program with Ducks Unlimited in Pointe-du-Chene, 2006

An Education Program was developed in 2004 as part of the outreach program with the help of the TD Friends of the Environment. The education program focuses on presenting the importance of maintaining a good water quality in coastal habitats. Presentation was offered in to small groups, such as local Girl Guides groups (28 kids from 8-10 years old). The EnviroScape was also used to represent watershed's characteristics and best management practices as well as the influences and impacts of human activities in a watershed ecosystem. I also discussed the importance of the Shellfish Restoration Project in Shediac Bay and did present few shellfish species found in the Bay.

## 6.3 Beach Sweep

This event, which took place on June 10th, in Shediac wanted to address the problem of marine garbage and to contribute to the protection and conservation of our marine environment and its natural resources.

During this beach sweep, nearly 15 volunteers from the Shediac Bay watershed cleaned nearly 8 km of shoreline and picked up more than 25 bags of garbage and drifted material, including many tires, pieces of metal and Styrofoam (from floating docks and buoys). Common items found included various types of bottles, plastic bags, cigarette butts, plastic and Styrofoam items, as well as construction debris. This year particularly many small and big Styrofoam pieces were collected throughout the Bay. Garbage was inventoried and the results will be added to a provincial database. We salute the dedication of the residents from Shediac Bay who certainly helped contribute to the maintenance of our shorelines.

## 6.4 Publications

The first issue of the *Status of Shediac Bay and its Watershed – An Introduction* was launched and distributed in the watershed (Fig. 17). The launch was covered by multiple media and ads were posted in new papers and broadcasted at Radio Beausejour. The documents were

produced in 1000 bilingual copies. This document will replace the production of Newsletters for the year 2006-2007 and ETF contribution was acknowledged on the cover of the document.

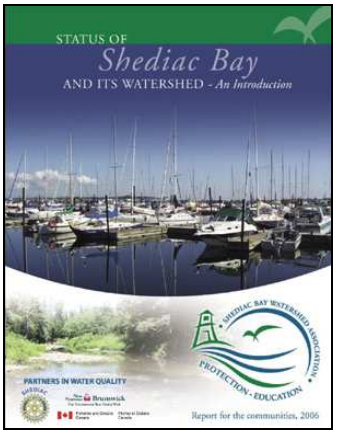


Figure 17. Status of Shediac Bay and itsWatershed – An Introduction. Report to the communities. 2006. Published by the SBWA, Shediac, NB

## 6.5 Green Boating

The Blue Bay project was the continuation of the Green Boating – What's up with your wastes? project. This project was once again conducted with assistance from Environment Canada's EcoAction Community Funding Program. This project aimed to promote better boating practices.

As part of the awareness campaign we offered a presentation on green boating strategies at the sailing school on a weekly basis from July to September. The first presentation was held Wednesday July 19 and presented by Melissa Daigle (Student).

We performed an awareness sessions at each marina on July 26th, August 30th and September 3rd. These sessions were done during sailing races which always attract many boaters. During these sessions we distributed goody packs. The goody packs included our Green boating – What's up with your Wastes pamphlet, the Marine Clean Boating Guide from the Bluenose Coastal Action Foundation and a complimentary bilge absorbent pad. We also distributed pamphlets supplied by a company producing holding tank treatment products that are environmentally friendly.

The Coordinator participated in a preliminary meeting organized by Env. Can. to develop a Clean Marine Program in Atlantic Canada. This program is based on the Clean Marine program established in Ontario. The Clean Marine Green Leaf™ Eco-Rating Program is a voluntary program with over 240 Ontario marinas participating and is currently being established in the province of Québec. The Program enables "Canadian marinas to participate in establishing standards and practices that protect the health of their employees, boaters and the environment". Marina achievements are ranked through a reward system of 1–5 Green Leafs. Some marinas in New Brunswick and Nova Scotia expressed interest in the program.

The Coordinator offered a presentation on green boating strategies and the new proposed legislation of Pollution Prevention from TC. The presentation was offered for “Les Causeries de Cocagne”. This allowed us to gather valuable feedbacks from the boating community in order to better understand the way boaters in our region will be able to compile with the regulation. The presentation was advertised in local papers and church bulletins as well as broadcasted during 3 weeks at Radio Beauséjour.

The SBWA participated at the Moncton Boat Show in March 2007 to promote green boating practices among recreational boaters (Fig. 18). The public responded very well to the awareness efforts and documents and information were distributed to approximately 400 persons.


Figure 18. Green Boating public awareness event at the Moncton Boat Show in March 2006.

# 7 CLOSING COMMENTS

During the 2006-2007 fiscal year, the Coordinator, Dominique Audet, was the only full time employee working towards the development of the *Water Quality Remediation and Public Outreach Program*. With support from the Science Horizons program (Env. Can.) the SBWA was able to hire a Field Technician for a six month period. Also, with the support of HRDC Summer Career Program, the SBWA hired a Biology student for an 8 week period.

The work performed during the development of the project included different activities related to water remediation planning and public outreach. Objectives were attained by completing the stream habitat assessment in the Cornwall Brook and completing the first phase of the stream restoration project. Also the water quality monitoring program was resumed as part of a long term monitoring program based on ecosystem indicators. This program is crucial for the management of the watershed and will allow us to gain credibility among the community. The first year of the monitoring program allowed us to identify problematic areas and water quality trends will be measured over time during the next few years.

Continuing to perform water quality monitoring and adopt new methods of doing so is of the utmost importance in making sure our watershed is properly managed. Such activities complement remediation work by determining not only where this work is needed most, but also if such work is properly accomplished. All these efforts should be distributed on a long period of time in order to produce accurate indicators of water quality and habitat integrity.

The stability of the SBWA was also reinforced by increased grants that helped us work with better tools. Strong partnership formed with the Rotary Club also contributed to the success of the organization this season.

Public outreach within our watershed took many different forms throughout the year. The *Status of Shediac Bay and its Watershed – An Introduction* has gained momentum throughout the year and is well recognized by residents. The local media also plays a huge role in enhancing the association's profile. With various articles being published in prominent local newspapers and local radio stations on announcing our project and events (Annex A), the SBWA has built a name among the community. Every time we have projects going on in the area, we take this opportunity to make interviews with different media. This way, the public can refer to us as a complete group performing many projects to aiming to maintain the water quality. The SBWA also installed their booth a various events during the year.

Furthermore, developing and implementing an annual environmental education program with local schools has proven especially useful in sensitizing our youth on watershed issues and the importance of our protecting our waterways. The children respond very well to our presentations and the schools greatly appreciate our efforts. The awareness of the Association and its purpose has been greatly enhanced through this ongoing project. As well, hosting events such as the beach sweeps also served to enhance the awareness of the association while helping members of the community realize that their participation can have an enormous positive impact on our watershed.

Directly working with various government agencies has helped in reaching many stakeholders. The Department of Fisheries and Oceans, Fisheries and Aquaculture, for example has assisted the SBWA in organizing different projects such as the Beach Sweep and the Shediac Bay Health Committee. Increasing our visibility among those government agencies is crucial for the long-term development of a watershed group. We believe that we can greatly contribute at multiple levels for the management of bays and watersheds.

The SBWA also enjoyed the support of multiple volunteers during the year. Their support always ensures the stability of the group and allows us to pursue great activities.

The Shediac Bay Watershed Association is definitively making a difference. Our work needs to be performed on a long-term basis in order to obtain positive results. However, we are confident that our group can enhance and maintain the water quality for future years since action taken at a watershed scale has proven to be successful.

# 8 APPENDIX A – MEDIA COVERAGE

Times & Transcript NEWS MONDAY, JUNE 12, 2006

# Shediac beach cleanup yields 25 bags of garba

## l Environmental group opes to track refuse ound along shoreline ack to sources

BY ALOMA JARDINE
TIMES & TRANSCRIPT STAFF

They didn't have the best weath- r for it, but the 15 people who took art in the Shediac Bay Watershed ssociation's fifth annual beach weep on Saturday still managed collect a whopping 25 bags of arbage.

Dominique Audet, executive di- ector of the watershed association, ys the volunteers covered about ght kilometres of beach, from ointe-du-Chêne to Cornwall Point.

"There were a lot of plastic ottles, plastic bags, plastics pieces nd cans. Those are usually the ost common," she said.

"But this year there was a lot of yrofoam. We'll try to find out the urce. It's a good example of why e keep a record of everything we ck up, because we want to address e source if possible."

Audet says they also usually find lot of construction material. Last year they picked up a number of tires so there weren't any of those lying around this year, but they did find two lawn chairs.

Audet says besides the esthetic value of getting the garbage off the beach, the annual cleanup helps the association raise awareness among local residents.

"We always hope there are a lot of kids that will participate," she said.

"I know that many people that do participate will ultimately do it on their own. Even if we don't organize a clean up, they will go out once or twice a year with their kids and pick up garbage in their neighbourhoods. It is a habit they are forming."

Audet says the day of the clean up isn't always convenient for everyone, so the watershed association will continue to supply materials for the rest of this month to people who want to head out and pick up garbage on their own time. The only catch is that volunteers have to record each piece of garbage they collect so the watershed association can keep track of what kind of waste is continuing to show up on the beach.

JOËL CULLIGAN/TIM

Bill and Barbara of the Shediac Bay Watershed Association Saturday take note of contents as they fill a ga bag during the annual cleanup of the Shediac coastline as part of the World Ocean Day Beach Sweep.

Times & Transcript May 31st 2006 NEWS

# Program tracks watershed's health

**■ Community groups play important role in survey of animal life and water quality**

BY JACQUELINE LEBLANC
TIMES AND TRANSCRIPT STAFF

Jim Weldon was up to his waist in the chilly waters of the Scoudouc River yesterday morning.

He was teaching members of the Shediac Bay Watershed Association how to gather a water and sea life sample.

The association, along with other non-governmental organizations, is collaborating with Fisheries and Oceans Canada for the Community Aquatic Monitoring Program (CAMP), which involves researchers gathering data and tracking changes in animal life or water quality in different estuaries.

Weldon, the education co-ordinator with Fisheries and Oceans Canada, taught members of the association the correct procedure to collect a sample of water and animal life.

Once a month for five months, all the collected creatures are identified, counted, recorded and released. The researchers must also measure the water for its temperature, salinity and oxygen.

The idea behind the project is to help community groups and citizens learn what creatures live in the estuaries near them, and track various changes.

The changes may be linked to a variety of factors from climate change, rising sea levels to increasing shore-line development, among others.

Although Weldon was at the head of the training session, he said it's the non-governmental organizations that play the most important role.

"The NGOs can't be emphasized enough," he said.

"This is an NGO-driven program. We're only there to give guidance."

Dominique Audet is the executive director of the Shediac Bay Watershed Association. She said their goal is to maintain the water quality in the watershed including the Shediac River and the Scoudouc River.

This is the third year she has teamed up with the governmental department for CAMP.

She said her association is committed to participate in CAMP yearly, because she knows that it will take more than a year to establish a health indicator and understand the different baselines studied.

"We want to monitor the changes to see if there is evolution in the community. If we lose species, that's going to be a good indicator. But if a specie rises over time, we would ask the question 'why'," she said.

"You know, it's not written in a book exactly, so it's a long-term process."

Audet hopes the program will one day include the entire Shediac Bay watershed.

"These habitats are rich in species, and that's why they are important.

They are linked to what's happening in the ocean, so we want to monitor those to have an indicator for the health of our whole watershed. It's the mouth of one of our rivers. We need to know what's happening in it," she said.

GAETAN LANTEIGNE/TIMES & TRANSCRIPT

**Dominique Audet, executive director of the Shediac Bay Watershed Association, and Jim Weldon (background), DFO Community Aquatic Monitoring Program co-ordinator, place a net in the Scoudouc River in Shediac yesterday where they were sampling water and sea life.**

TIMES & TRANSCRIPT

**A sampling of marine life, from left, includes Fourspine stickleback, Blackspotted stickleback, Sand shrimp, Atlantic silverside, Threespine stickleback, Flounder and Mummichog.**

# Quel est l'état de la baie de Shédiac?

Par Dominic Leger
*de L'Étoile*

À l'approche de la saison des baignades, la baie, qui confère à Shédiac son charme et qui attire chaque année des milliers de touristes, est-elle encore saine? Certains iraient jusqu'à affirmer que le succès économique de la région en dépend. Selon eux, la prospérité de tous les secteurs d'activité de la région, que ce soit au niveau de la pêche, du tourisme ou encore de l'agriculture, est intimement lié à la préservation d'un cours d'eau propre. Après tout, une baie trop polluée n'attire pas de touriste ni de développement résidentiel et encore moins de vie marine.

**Sources de pollution**

C'est justement pour éviter un tel scénario que l'Association du bassin versant de la baie de Shédiac tente de sensibiliser la population à la conservation du milieu marin. La directrice exécutive de l'organisme, Dominique Audet, relève plusieurs sources de pollution dans le bassin versant de 400 km carrés qui comprend la baie de Shédiac. « Les problèmes de ce bassin versant sont sensiblement les mêmes que les autres bassins de la région. Alors c'est surtout l'agriculture, la foresterie, les contaminations par la bactérie E. Coli. qui vient de fosses septiques défectueuses et des animaux de ferme et la navigation qui sont des sources de pollutions.» La directrice explique que l'agriculture et la foresterie peuvent amener plusieurs sédiments à se jeter dans les cours d'eau et avoir un impact négatif sur la vie marine. «Lorsqu'il y a un énorme apport en nutriments qui se déverse à la mer, ça peut être de l'engrais qu'on met sur nos gazons ou bien tous ce qui est matière organique comme les rejets d'usines de poisson, les fertilisants et le fumier, les algues grossissent trop vite et viennent prendre toute l'oxygène dans l'eau. Ultimement, le manque d'oxygène favorise la création de bactéries qui décomposent les algues et amènent une odeur désagréable.» Elle donne en exemple le cas dans la Péninsule acadienne où le problèmes de gaz causé par les algues en décomposition est devenu tellement grave qu'il est maintenant nocif à la santé des gens. La navigation est une autre cause de pollution lorsque les plaisanciers déversent leurs réservoirs de rétention à la mer au lieu de se se servir du service de pompage des marinas.

**Comment passer à l'action**

L'Association du bassin versant de la baie de Shédiac propose plusieurs actions à prendre afin de réduire l'impact des activités humaines sur les cours d'eau. D'abord, tous les gens doivent faire attention à ce qu'ils jettent dans l'environnement car tous les déchets finissent par se retrouver dans la baie. Les propriétaires d'animaux devraient ramasser les déchets fécaux de leurs animaux et tous devraient diminuer leur consommation d'eau potable selon l'association. Une attention particulière est requise de tous ceux qui demeurent aux abords des cours d'eau. Selon Dominique Audet, les résidants côtiers devrait s'abstenir d'utiliser des pesticides et de l'engrais. Elle donne l'exemple d'un cas récent qui démontre les effets nocifs de cette pratique. «J'ai été sur un terrain et le propriétaire venait tout juste de vaporiser son terrain avec des pesticides. Au courant de la fin de semaine, il est tombé environ 100 ml de pluie et toutes les pesticides se sont retrouvés dans la baie. Cette contamination a un impact direct sur la chaîne alimentaire», explique-t-elle. Les propriétaires côtiers devraient planter une bordure d'arbustes entre leur gazon et la rive afin de créer une zone tampon capable de retenir les écoulements dangereux avant qu'ils arrivent à la mer.

De plus, le remplissage de marais est

*suite à la page 10*

Photo de Dominic Leger

**Environ 25 sacs de déchets ont été ramassés en quelques heures par des bénévoles lors du ménage du rivage.**

*suite de la page 5*

à éviter selon la biologiste car ces derniers agissent comme filtre qui éponge les produits nocifs avant qu'ils puissent se rendre à la mer. «Les marais ont toutes sortes de bénéfices qu'on oublie car on aime bien avoir le plus de terrain possible mais c'est des choses que les gens doivent être conscients avant qu'il ne soit trop tard.» En effet, les terres humides dans le bassin versant de la baie de Shédiac auraient diminué de moitié au fil des années en raison de l'urbanisation.

La baie de Shédiac est-elle polluée?

Bien que l'Association du bassin versant de la baie de Shédiac aie identifié des secteurs dans la baie où la pollution est plus présente, comme à proximité des rives où l'on retrouve une forte concentration de roulottes et de chalets par exemple, la baie de Shédiac est encore en bon état. «C'est sûr qu'il y a des sources de pollution mais ce n'est pas un endroit qui est considéré comme pollué», précise la directrice générale de l'association. À moins d'un événement ponctuel où de fortes pluies amèneraient un déversement substantiel de la bactérie E.Coli., dans la baie, la qualité de l'eau demeure bonne pour la baignade. L'Association du bassin versant de la baie de Shédiac continuera donc ses projets pour tenter de préserver un bassin versant sain. Un projet de classification des eaux pour faire suite à celui de 2003 est au menu ainsi qu'un projet pour remédier à la qualité de l'eau. À ces projets s'ajoutent la restauration des cours d'eau, le programme de remplacement de fosses septiques et le programme d'éducation et de sensibilisation notamment au niveau de la navigation écologique.

PHOTO CONTRIBUTION

**Chaque année, des milliers de gens comptent sur la propreté de la baie de Shédiac pour venir se baigner.**

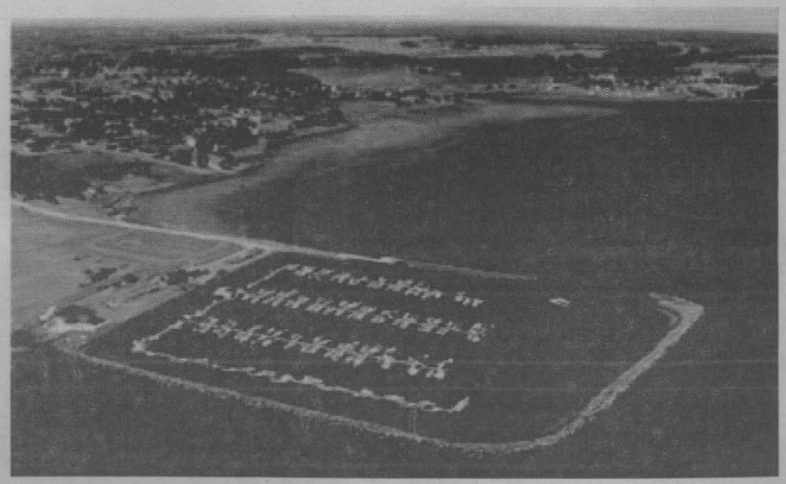

PHOTO CONTRIBUTION

**La baie de Shédiac fait partie du bassin versant qui s'étend de Cap de Cocagne à Cap-Bimet.**

A8 SATURDAY, JULY 29, 2006 NEWS

# Watershed group receives funds

TIMES & TRANSCRIPT STAFF

SHEDIAC — The Shediac Rotary Club has provided a $20,000 contribution to assist the Shediac Bay Watershed Association with its high quality aquatic environment program.

The contribution will be used for equipment to monitor water quality and promotional material to raise public awareness of the importance of water to health and the economy of the region, said a joint press release.

The club also promised to look at the possibility of longer term funding in this important work.

"This project reflects the high priority Rotary places on water-related issues to health, conservation, and sustainability, and complements a school washroom development project Shediac Rotary launched in South Africa earlier this year," said Shediac Rotary Club president Chuck Collins.

The association promotes community stewardship to improve environmental practices in the region.

22 L'Étoile Shédiac 10 février 2007 D

# Gagnant du triage de l'ABVBS


PHOTO CONTRIBUTION

**L'Association du bassin versant de la baie de Shédiac (ABVBS), un organisme à but-non-lucratif traitant des questions reliées au maintien de la qualité de l'eau et de l'intégrité des habitats, a annoncé en début de semaine la gagnante du tirage pour la collecte de fonds 2006. La photo ancienne prise au quai de la baie de Shédiac vers les années 1930 a été gagnée par Pascale Landry que l'on voit au centre de la photo. De gauche à droite : Michelle Marcil (trésorière de l'ABVBS), Pascale Landry et Dominique Audet (directrice générale de l'ABVBS). L'ABVBS remercie tous les participants de leur appui continu pour l'environnement.**

## 20 000 $ pour le bassin versant à Shédiac

SHÉDIAC - Le Club Rotary de Shédiac a octroyé 20 000 $ à l'Association du bassin versant de la baie de Shédiac pour permettre la création d'un programme de maintien de la qualité des milieux aquatiques de la région. Ces fonds iront pour l'achat d'équipement de surveillance de la qualité de l'eau et d'outils de sensibilisation sur la protection de l'environnement dans le bassin hydrographique de la baie de Shédiac et sur l'économie de la région. Le Club Rotary évaluera également la possibilité de créer un partenariat financier à long terme avec l'association du bassin versant. - **KR**

Acadie Nouvelle, 28 juillet

Le samedi 21 octobre 2006 COMMUNAUTÉ L'Etoile Shédiac 3

# AGA de l'Association du bassin versant de la baie de Shédiac

Diane Richard • 533.9599
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Le jeudi 12 octobre dernier s'est déroulée l'assemblée générale annuelle de l'Association du bassin versant de la baie de Shédiac. Cette association a pour mission d'éduquer et de sensibiliser la population afin de préserver la qualité de l'eau dans la région. La région du bassin versant de la baie de Shédiac s'étant du Cap de Cocagne à Cap-Bimet et comprend environ 36 km de côte. Deux réseaux de rivières composent celui-ci, soit la rivière de Shédiac et la rivière Scoudouc. Le bassin de la baie de Shédiac est peu profond et contient une variété d'habitats. C'est ce qui en fait sa particularité et son importance. Lors de la réunion, le rapport aux communautés 2006 a été présenté.

Les points saillants de la réunion sont surtout le coup de pouce apporté à l'association grâce au don du Club Rotary. Ce don leur a permis d'acheter de l'équipement pour faire le monitoring des cours de la région. Mme Dominique Audet, directrice générale de l'Association, a expliqué que, selon les systèmes de classification d'eau, même celle classifiée dans la catégorie la plus faible n'est pas pour autant mauvaise. Parmi les sources de pollution, on retrouve les activités agricoles inappropriées, les mauvaises pratiques de foresterie, les effluents de déchets industriels et les fosses septiques défectueuses. Grâce au travail d'intervention de l'Association, la population est beaucoup plus sensibilisée et prend plus de précautions.

Lors de cette soirée, M. Patrice Godin d'Environnement Canada était le conférencier invité pour parler de l'état de la baie de Shédiac. En raison de pluies abondantes en 2001, on a dû fermer une zone qui était considérée dangereuse mais depuis quelques semaines, puisque les tests effectués se sont avérés bons, cette zone a été ouverte à nouveau. Une zone est considérée dangereuse tout simplement parce qu'on y retrouve des bactéries en grand nombre mais elle n'est pas pour autant alarmante. M. Godin a expliqué que ce n'est qu'une mesure de précaution. Il ajoute qu'en général, la qualité de l'eau est très bonne dans nos régions et continuera de l'être en autant que des efforts soient fait de tous pour éviter la pollution. Des échantillons d'eau sont prélevés aux trois ans à raisons de cinq fois par année.

Les gens qui désirent obtenir une copie du rapport aux communautés ou avoir de l'information peuvent s'adresser à l'Association au 164 rue Pleasant, suite A ou encore par téléphone au 533-8880.

Photo de Diane Richard

**À gauche, le président de l'Association, M. William (Bill) Murray et à droite, la directrice générale de l'Association, Mme Dominique Audet.**

Photo de Diane Richard

**M. Patrice Godin, d'Environnement Canada, était le conférencier invité lors de la soirée.**