

Winter River – Tracadie Bay Watershed Association (WRTBWA)

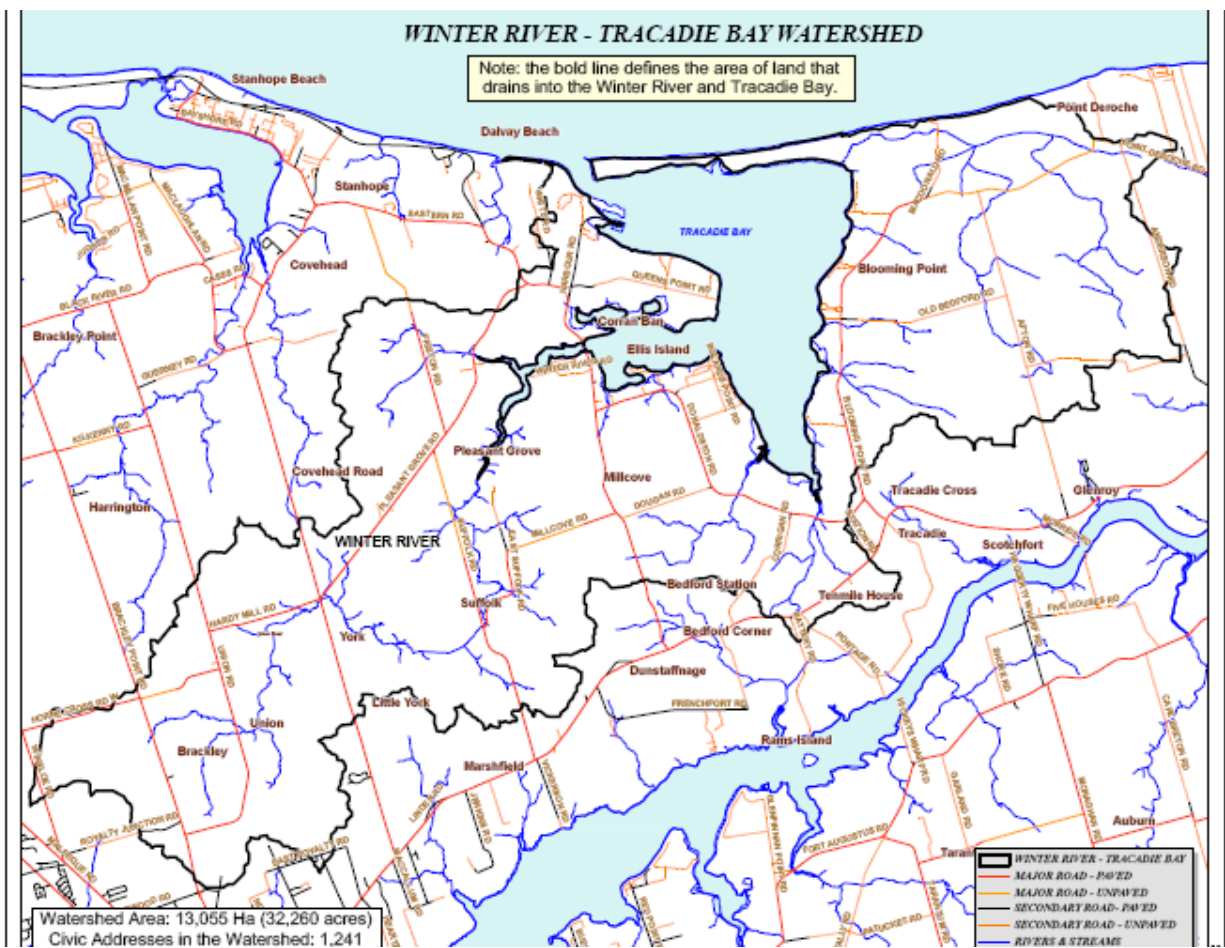
Final Report – Summer 2009

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BACKGROUND

The *Winter River-Tracadie Bay* watershed encompasses a very large area on PEI and includes several small communities including: Brackley, York, Union Road, Suffolk, Pleasant Grove, Millcove, Grand Tracadie, Donaldston, Corran Ban, Ten Mile House, Tracadie Cross and Blooming Point. Each of these communities has its own unique qualities and historical traditions; yet the one thing they all have in common is that they share the same water source for domestic and commercial use. This is important to note because people are not always aware that they actually live in a watershed and that they share this water source with other residents and businesses over a considerable area. In fact, one of the largest operations to use water from our watershed is the City of Charlottetown.



WATERSHED MANAGEMENT PLANNING

The WRTBWA is a community-based, non-profit volunteer organization that was established in 2008 by members of the local watershed community. The members of the Association, along with residents of the area, are concerned with the health and sustainability of the WRTB

watershed area and work towards protecting and enhancing the natural environment, aesthetic qualities and biodiversity for now and for future generations. We are in the early stages of developing a Watershed Management Plan and aim to strengthen the Association by involving diverse residents and stakeholders within the community to actively participate in all our projects. We have a special focus on educating and encouraging our youth to become involved in all that we do and we endeavour to increase public awareness in general and commit to working with the City of Charlottetown on developing a watershed conservation plan.

In addition to the work of our organization, we have a partnership with the *Tracadie Area Residents for Resource Protection (TARRP)* who has been actively involved in environmental stewardship and watershed work for a number of years in the Eastern Tracadie Bay area. They have the responsibility of managing an important natural area, and are involved in various projects in that part of our watershed.

SPRING RIVER SURVEY 2009

It was a great summer season for the Winter River – Tracadie Bay area, as we got much accomplished despite the limited resources available to us. Although, we were fortunate to have been awarded funding from the City of Charlottetown for a river survey and additional funding from the *PEI Watershed Management Fund* to hire summer employees and carry out some summer stream enhancement projects.

The work began in the spring (May 09) with a river survey carried out by two surveyors – Brian Gauthier & Devin Parkman – who walked the stream from the head of the tide (around Pleasant Grove area) up through the communities of Suffolk, York, Union Road and Brackley to the uppermost source of the Winter River. The survey was a qualitative, first step in determining the general health of the overall watershed area and was designed to assess the quality and state of land within the watershed and to help identify areas of concern and future work priorities. Based on 10 key elements important in watershed health and biodiversity, the following were measured, assessed and documented: *fish habitat, springs, blockages to flow, impediments to fish passage, siltation sources & deposits, potential brush mat areas, fish spawning areas, planting areas, danger trees, and road crossings.*



Figure 13. One of the few major blockage areas located near the head of the tide of the Winter River, by Gauthier & Parkman.

The overall findings of the surveyed area revealed 25 favourable areas – i.e. fish habitat, healthy springs, and good fish spawning areas. However, the report also revealed that there were several areas – 176 in total – needing work! Issues like blockages to flow, impediments to fish passage, major silt deposits, etc were of concern in maintaining a healthy, productive watershed system. We used this valuable information to prioritize the summer stream enhancement work and focused on dealing with as much of these problem areas as time and resources would allow. Wildlife diversity was of notable consideration, as there were many species and species habitat observed. To name only a few: frogs & frog spawn areas, wood pecker habitat, beaver activity, barred owls, duck and goose habitat, racoon tracks, ospreys and ruffed grouse habitat. Not to mention that there were several areas where fish were spotted and appeared to be healthy in size and population.

Table 1. The occurrences of positive areas of minor, moderate and major ratings in the Winter River-Tracadie Bay Watershed, created by Gauthier & Parkman, 19 May 2009.

CRITERIA	Minor	Moderate	Major	Total
Fish Habitat	2	3	6	11
Springs	1	3	2	6
Fish Spawning Areas	1	3	4	8
Total	4	9	12	25

Table 2. The occurrences of minor, moderate and major rated areas that need work in the Winter River-Tracadie Bay Watershed, created by Gauthier & Parkman, 19 May 2009.

CRITERIA	Minor	Moderate	Major	Total
Blockage to flow	27	40	17	84
Impediments to Fish Passage	5	3	3	11
Siltation	2	10	7	19
Brush Mat Areas	17	15	8	40
Planting Areas	2	7	6	15
Danger Trees	1	2	4	7
Total	54	77	45	176

SUMMER PROJECTS 2009

With funding from the PEI Watershed Management Fund, and through the Jobs for Youth Program, the WRTBWA was able to hire a Coordinator for 19 weeks and 2 Field Workers for 8-9 weeks. The Association got official word of funding approval in early June and hired the Coordinator shortly after that on June 15. My first responsibility was to review any and all information available to begin the task of setting out the work priorities for the summer season. I began with reviewing the information in the River Survey and determined that the best place to start was in the area needing the most work – I determined this to be the upper section of the Winter River around the Union Road and Brackley areas. I contacted the landowners in the area where we would be working and thanked them for their support and enthusiasm for our commitment on improving the quality of the watershed. Other tasks I focused on were arranging office space; purchasing items to set up office; identifying, screening and interviewing potential field workers, purchasing tools & equipment for the stream enhancement work, developing an initial newsletter and designing a Nitrate Testing Clinic flyer.

During the week of July 6, 2009, we confirmed our field staff and had them start their first 2 weeks: July 13th – 24th. We began at the upper end of the watershed and worked our way to where the Trans Canada Trail crossed the stream. This section of the stream we didn't find to be too bad with the exception of a couple of places where brush mats would be useful and where a culvert needs to be removed - it is laying completely (and parallel) in the stream. We tried to remove by hand, but the culvert was too big and will need to be removed by a tractor and chains. There were several favourable sections here with a good rock/gravel bottom. The stream debris and obstructions were removed and we continued to work in this area for the rest of the week, early into the next.

We identified a section, after a small dam, where the buffer is almost non-existent. This would be the same location identified in the River Survey Report and is an area needing brush mats and lots of tree planting. We opened the dam up for better water flow where it narrowed significantly, but this will probably need extra work because it collects debris easily cutting off the water flow. The dam appears to be full of silt and has a fairly shallow layer of water. I'm speculating that the dam was created long ago by the construction of a road to gain access to the other side of the stream. There are concrete blocks that could probably be removed to allow for better water flow, if that was the best course of action and had the support of the landowner. An assessment of this particular area should be carried out by a qualified watercourse technician and a decision made by the stakeholders involved.



The second week we lost one of our field workers, but were joined by Paul Strain's (DEEF) group and had hired another worker. There was a lot of major work to be done on the second part of the stream. In several places there were fairly large trees, logs and lots of debris to remove. As well, there were several areas along the second part where there is much silt deposited; sometimes like quicksand. It is likely that several brush mats will need to be constructed and placed in the stream in this section. Additionally, from this point on, the alder growth was excessive. By the end of the week, we had finished the stream up to Union Road. The water was flowing nicely and all of the major blockages have been removed, or have been fixed in such a way to let the water pass more easily.

July 27th – Aug 7th: For the first week, we began on the east side of the Union Road and worked our way up to the 'Y' where the stream turns back west. We completed this section then split up and worked on two different parts of the stream. Mark and I worked our way toward the driveway leading to the City's Union Station pump house while Mick, Morgan and Jeremy started at the top end where the three streams break off from the main river. This is the section that completes the middle stream. By the end of the week, we had completed the section from the road (middle stream) to the 'Y' and back to the driveway where we crossed over to finish the mini-section by the house, back to the main road. We also had a small start on the 'connector section'.



There were some areas from the road to the 'Y' where we found some silt, but otherwise in good condition as far as having a gravel bottom. The section beginning the 2nd stream (west from the 'Y') is in great shape...long sections of nice gravel bottom. Only one area where there is a lot of silt. Found a dead trout ~2" long at the pool where there are 3 culverts under the pumphouse driveway. The mini-section (past the house) was a complete nightmare as far as work goes. There was a great deal of alder growth here to the point where you couldn't see past 2-3 feet. In any case, we completed clearing this back on one of the hottest days (36°C humidex). We didn't want to have to go back! Fairly silty in this area and we did see schools of fish some ~6" long.



The second week we continued along the 2nd stream from Union Road and got to about the halfway point in the early part of the week. Some parts of the stream have silty areas, but nothing too serious. They may wash out after a few weeks/months of clear running water. We then began to work on what I call the 'connector section'. This is the area where the main river splits off and flows to the 'Y' section. Some major work areas along here and a few spots where there is a lot of silt – in one place up to our knees! We completed this section and moved onto doing the third stream (east). The 3rd stream is in fairly decent shape – lots of areas where there is a nice gravel bottom and there weren't too many areas where there was *major* clearing to do. For the most part, the 3rd river needed moderate clearing and we managed to work our way well past where the TC Trail crosses. We may need to go back and clear a couple of 'major' areas as were reported in the survey, but otherwise it is completed.

Aug 10th – 21st: The beginning of the first week started out at the Brackley Point Rd where our intention was to work toward where we left off coming from the other direction. However, we walked in quite far but could find no real stream. We then packed up and decided that we would continue from where we left off the previous week at the Union Road side. There was no work on Tuesday, due to the fact that I nearly fried myself from a burn accident. I took the rest of the week off and Mark/Mick went to work with FCBB.

The second week began with me attending the Beaver Management meeting in Montague and Mark/Mick going to FCBB. Tuesday, Mark and I continued to work up on the 2nd stream. This section had much lower levels of water than 2 weeks ago and there was still some alder growth to be removed, but can be done in subsequent years. On Wednesday and Thursday, we began constructing brushmats in the center stream on the pumphouse side of the Union Road. Fairly silty areas in and around the pumphouse station and we will likely continue to build brushmats in this area for the next couple of weeks. Friday was a welcomed holiday!



By the end of the summer stream enhancement work, we removed numerous blockages throughout the ~5.3 km area and cleared a great deal of excessive alder growth to allow for improved stream flow. We also installed approximately 20-25 brushmats in the 'connector' section behind the Union Road pumphouse. We had Candy MacDonald (DEEF) and Darryl Guignon (ret. UPEI) come out and do a walk/assessment of this particular section and to offer some ideas about how to deal with it. In-stream silt traps were recommended and we are following up with an application to DEEF to get this on the agenda for next summer. I also met with Paul Strain regarding some of the hung culvert issues that we have, especially on the Union Road, and hope that these can be dealt with in a prioritized manner. The Union Road culvert that has been washing out will hopefully be replaced next year as it is one at the top of the list.

The latter part of the summer/fall work focused on developing a Fall newsletter, developing and delivering three Community Watershed Information Sessions given in Brackley, York and Corran Ban, writing and submitting a funding proposal to EcoAction for 2010 projects and writing the final Summer Report, to name a few.

Recommendations:

1. Pursuance of funding support for:
 - Establishment of a permanent office and complete set-up
 - Hiring of a coordinator on a year round basis
 - Installation of in-stream silt traps for the section behind the Union Road pumping station
 - Identification and acquisition of trees to be planted in areas where required – see recommendations in River Survey report 2009
 - Ongoing stream restoration work as was completed in Summer 2009
 - Completion of a river survey for the areas not included in River Survey report of Spring 2009
 - Watershed mapping
 - Riparian Assessment
2. Partnership development and confirmed financial support from the City of Charlottetown – need to submit a proposal for funding by end of year.
3. Development and submission of a funding proposal to the Provincial Watershed Management Fund
4. Follow-up with EcoAction application