

2009 SOCIAL-ECONOMIC SURVEY OF THE ST. MARY'S RIVER WATERSHED,
GUYSBOROUGH COUNTY, NOVA SCOTIA



Prepared by:
Danielle Murray, Megan Myers, Peter Dowd, Duncan Pulsifer, and Sean Mitchell

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Finally, thank you to the residents of the St. Mary's River watershed for returning completed surveys and expressing your opinions and values. The information the St. Mary's River Association has gathered from these survey results will be beneficial for future work and activities within the Association and the watershed.

EXECUTIVE SUMMARY

Previous social surveys in the St. Mary's River watershed have taken place in 1965, 1986, and 1988. In 2009 the St. Mary's River Association (SMRA) conducted a mail out survey of the public in the watershed to provide the SMRA with information on the wishes and visions of the St. Mary's River residents, and to initiate engaging the residents in stewardship, education and natural resource planning initiatives. Between March 9-12, 2009, a total of 299 surveys were mailed to residents of the St. Mary's River watershed. Distribution of surveys was stratified by community. A \$5.00 bill was included in the survey as incentive/reward to complete and return the survey. the survey consisted of 55 questions asking about (i) nature and use of the watershed, (ii) land use and management, (iii) economics, (iv) awareness of the St. Mary's River Association and activities, (v) vision and wishes, (vi) natural history book, and (viii) statistical questions. Of the 299 surveys, 132 (44.2%) were returned completed. The majority of respondents were male and greater than 40 years of age.

The most frequently expressed values associated with the St. Mary's River revolve around conservation, nature, water, viewsapes, quiet lifestyles, education, historical places, and opportunities for nature. Commercial values (forestry, agriculture, business, employment) were identified of value less frequently that those previous listed. Tourism was identified as a value twice as frequently as resource-based activities.

The most frequently identified recreational activities that respondents took part in were fishing/angling, berry picking, hiking, photography, birdwatching, and canoeing/kayaking, and these were undertaken twice or more as commonly as other activities. Favoured recreation areas when respondent were young were primarily on the East and North Branches; there was little recreation in the past on the West Branch. This pattern has been maintained into the present as well. Identified activities for youth for the future were focused on fishing, hiking, canoeing/kayaking, with other activities receiving less frequent mention. Water-related and hiking/camping opportunities formed the majority of the activities and locations residents would like to see set aside or encouraged in the St. Mary's River. There were a number of suggestions on methods to promote recreation in the watershed. There does not appear to be significant conflict between motorized and non-motorized recreational users, or with landowners, in the watershed. The majority of respondents are not concerned with land ownership issues and recreation and would like to see more Crown and private land protected for conservation.

Brook trout are more frequently identified as the species fished for than salmon by resident anglers, and these anglers generally have several decades angling experience. Anglers began fishing for trout at a younger age than salmon (frequently less than 10 years old for trout). In the last 5 years, about one half of the trout anglers fished 5-10 days per year. Forty four percent have not fished salmon and 11% fished more than 50 days in a year. Clearly, salmon anglers are either (i) committed and fish a great deal, or (ii) "dabble" and spend relatively few days fishing. Salmon are valued primarily for tourism, recreation, food source, intrinsic value and as a symbol of clean water and healthy ecosystem. The majority of respondents thought it important to very important to

restore the Atlantic salmon of the St. Mary's River, and the primary reasons given for this were river health, tourism and recreation; biological and conservation rationale were surprisingly low values. A relatively small percentage were not satisfied with DFO management of Atlantic salmon; the remainder were either somewhat satisfied or had no opinion. Concerns with salmon management focused primarily on management, satisfaction with DFO performance, poaching/enforcement and restoration/enhancement. Recommendations to improve fisheries management in the St. Mary's River focussed on working together among various groups, agencies, industry and public and ensuring information transfer.

The majority of residents have lived in the St. Mary's River area more than 20 years and own land. Agriculture and forestry activities are pursued to some extent by about one-half of the residents in the watershed. Principle concerns with land management have to do with forestry; all other land uses had low response rates as issues of concern. Principle concerns with water management were water quality, forestry related practices, physical changes to the channel, and river hydrology. Non-government organizations (NGOs) are seen primarily to act as advocacy or watchdog groups and to play an important role in resource management because they are involved with stewardship and public engagement. The largest group of people (47% of population sampled) had no opinion with respect to decision-making processes of natural resources. A small proportion between 18-28% of respondents expressed dissatisfaction with this. Twice the number were satisfied with natural resource decision-making processes than were dissatisfied, and approximately equal numbers felt the process did or did not adequately reflect all interested parties. Local citizens and community groups within the watershed were most frequently identified to be involved in planning for the future of the watershed. There appears to be a sense that people would like to be more involved in resource management decisions.

Tourism and angling were the most frequently identified avenues for economic development and resiliency. Many of the comments expressed here were reiterations of comments previously expressed under different sections. Almost one-half of those surveyed had no opinion on the economic conditions in the watershed, and only a small proportion were not satisfied with conditions. About 40% of respondents were not satisfied with economic opportunities for youth in the watershed and suggestions were made to increase the opportunities. The majority of local residents are somewhat familiar to familiar with the SMRA and its activities. The response was split on whether the SMRA communicates its projects well to the public. Suggested vehicles of communication are provided. The primary values of residents were water quality, outdoor activities and interests, and the character of the area's jobs, economics, and natural resource extraction were cited surprisingly few times. Questions were asked of the residents to gauge interest and marketability of developing a natural history book of the St. Mary's River watershed.

The results are discussed and recommendation made flowing out of this survey.

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1.0 INTRODUCTION

The St. Mary's River Association (SMRA) embarked on an ambitious watershed restoration and management initiative in the summer of 2008 titled "*Healthy River, Vibrant Communities*". The goal of this initiative is "*to restore the ecological integrity of the St. Mary's River watershed to the benefit of the natural environment and the people that live and work within the drainage.*" As part of this initiative the SMRA recognized that to be effective watershed level restoration or management activities must have the support and input of those that live within the watershed and are, therefore, most affected by activities and planning.

Previous social surveys have been done in the St. Mary's River area. MacDonald and Clare (1965) conducted a survey with the objective of determining: (i) the human and physical resources available within the St. Mary's River area, (ii) which of these resources can be developed with assistance from the Antigonish Regional Development Authority and government legislation, and (iii) the degree to which flooding by the St. Mary's River affects the economy of the area. A total of 390 questionnaires were distributed, and 247 returned. Results included information on demography, occupation, income, land ownership, effects of flooding (areas flooded, effects on income generation), and conditions of agriculture, forestry, tourism and business within the St. Mary's River watershed. Twenty one years later, Archibald and Cruikshank (1986) conducted a survey of 236 people between Ecum Secum and Goshen. Of these, 192 surveys were returned. Results included information on demography, occupations, and utilization of resources (agriculture, forestry, mining, tourism). Lastly, in 1988, Hurley Fisheries Consultants surveyed a small number of people covering 44 formal interviews and 35 informal conversations. Their results provide a description of the history of the area, the recreational and commercial fisheries, fishery-economic impacts, tourism, and other recreational uses. Their report also describes forestry, forestry-economic impacts, agriculture, mining, trapping, pollution sources and environmental change, and miscellaneous other subjects (acid precipitation, mine tailings, stream cleaning, fire damage, forestry/river conflicts). In the 21 years between 1988 and 2009 there have not been any directed social surveys regarding opinions, values or concerns of the residents of the St. Mary's River watershed.

The SMRA identified the need to gather current information on opinions and values by watershed residents to guide future actions. The goal of the survey was to provide the SMRA with information on the wishes and vision of the residents, and to initiate engaging the residents in stewardship, education and natural resource planning initiatives. The survey is one part of a community engagement campaign soliciting responses from, and empowering, the community to assist in the development of a common vision toward which all interested groups can work.

2.0 METHODS

During the period of March 9-12, 2009 a total of 299 surveys (representing approximately 40% of the households in the watershed) were mailed to residents of the St. Mary's River watershed. Each package mailed out contained the survey (see Appendix 1: *2009 Social-Economic Survey*), a postage-paid, self-addressed return envelope, and a \$5.00 bill as incentive to return the survey. The survey design was stratified by distribution of households within the watershed (as determined by examining the phone book for the Sherbrooke, Goshen, Melrose, and Thorburn areas; Table 1). The original selection of 300 households was randomly selected from a "universe" of 750 households identified in the watershed. Randomization was generated from random numbers in Microsoft Excel, based on the last two digits of the phone number. This selection was then edited to identify and remove people known to have died or moved out of the watershed (~20 persons). Replacement for these exclusions was by finding that person in the phone book and selecting the next available household, in that strata, listed above or below that person. After this process there remained 13 addresses for which postal codes could not be located and so households from Sherbrooke (n=5), Lochaber (n=5), Aspen (n=2) and Stillwater (n=1) were selected non-randomly (i.e., by eye and first encountered with full address in the phone book in each strata). Thus, we estimate that about 33 of 299 (11%) of the recipients were selected in a non-random manner. One survey was misplaced prior to the surveys being mailed; therefore, a total of 299 surveys were sent.

The survey was divided into sections addressing various issues including: (i) nature and use of the watershed, (ii) land use and management, (iii) economics, (iv) awareness of the SMRA and activities, (v) vision and wishes, (vi) natural history book, and (vii) statistical questions (see Appendix 1 for the survey). For the purposes of this report, the statistical questions have been incorporated into the first paragraph of the results and discussion below. The survey consisted of 55 questions. The questions within each section were designed to assess resident's values of the environment of the St. Mary's watershed. This is important information for future planning and development to reflect the wishes of the residents. The format of each question depended upon the nature of the question; some questions had a yes or no response, others involved ranking and some were freeform. Not all participants responded to every question, so the analysis provides the percent of respondents per question.

There are two caveats important in interpreting the results provided: (1) In the analysis that follows, percentages frequently sum to greater than 100%. This is due to respondents having the freedom, or being encouraged, to select more than one answer within a question. (2) In condensing the freeform answers into forms presentable as tables categorization of the answers was a necessity. This categorization is, by its nature, somewhat arbitrary. The reader is directed to Appendix 2 for all of the comments verbatim.

Table 1: Number of surveys and percent of total surveys mailed to each strata in the St. Mary's River watershed.

Area by phone book	Strata (Community)	Number of surveys	Percent of total surveys
Sherbrooke	Sherbrooke	67	22.3
Goshen	Lochaber	67	22.3
Sherbrooke	Sonora	26	8.6
Melrose	Aspen	17	5.7
Sherbrooke	Stillwater	15	5.0
Melrose	Glenelg	13	4.3
Thorburn	Garden of Eden	13	4.3
Thorburn	East River St. Mary's	9	3.0
Melrose	Newtown	8	2.7
Melrose	Caledonia/New Caledonia	7	2.3
Melrose	Denver	7	2.3
Melrose	Melrose	6	2.0
Goshen	Lochiel	5	1.7
Melrose	Smithfield	5	1.7
Thorburn	Eden Lake	5	1.7
Thorburn	Moose River	5	1.7
Sherbrooke	Waternish	3	1.0
Melrose	Cameron Settlement	3	1.0
Thorburn	Rocky Mountain	3	1.0
Thorburn	Willowdale	2	0.7
Other ¹	None	14	4.7
Total		300	100

¹ = "Other" is ambiguous locations in the watershed (i.e., not a "community") such as Fishers Mills, Highway 7, Highway 347, Highway 348, Black Brook Road, Lead Mines Road, St. Mary's.

3.0 RESULTS

A total of 202 of the 299 surveys were returned; 132 of these were completed and 70 returned as not deliverable. The majority (66.4%) of the respondents that completed the survey were male. A total of 60.8% of the respondents were between the ages of 41 and 70, 31.2% were greater than 70, and 8% between the ages of 18 and 40. Of the 30 respondents that replied to the question of affiliation with an organization, 60% were involved with the St. Mary's River Association and 56.7% were part of an environmental or conservation organization. All results, comments and response rate for each question are available in Appendix 2: *2009 Social-Economic Survey Data*.

NATURE AND USE OF WATERSHED

General Values

Participants were asked to select those reasons they value the St. Mary's River watershed. The most common values of residents revolve around conservation, nature, water, viewscape, quiet lifestyle, education, opportunities for nature and historical places (Table 2). Few respondents (7.8%) indicated they did not have, or had not thought about their values of the watershed. Less than 40% of respondents value motorized vehicles as a use of recreation. The use of non-motorized vehicles were valued twice that of non-motorized vehicles. Commercial use of the watershed is a lesser value than the previously identified values, ranging from 26% to 36% of respondents for uses of agriculture, forestry, non-timber products, or potential for developing business. Tourism opportunities were identified as a value almost twice as frequently as those four previous activities.

Table 2: Percent of response by participants to question on general values of watershed to residents. Number of respondents to question was 128. Note percentages sum to greater than 100% as individual respondent could select more than one value.

General Values	Percent of respondents
1. Work-related values	
Tourism opportunities	64.1
Non-timber forest products	36.7
Forest harvesting and silvaculture opportunities	35.2
Potential for development of business/industries	32.8
Agricultural opportunities	26.6
Employment: I am able to work because of the resources in the watershed	4.7
2. Recreation-related values	
Non-motorized recreation	80.5
Motorized recreation	39.8
3. Conservation-related values	
Provides fish and wildlife habitat	91.4
Conservation potential	72.7
4. Intrinsic natural values	
Abundant and clean water flowing in rivers	92.9
Scenic landscape views	87.5
Forests: a variety of trees, shrubs and habitat	51.6
5. Lifestyle values	
Quiet lifestyle	82.0
Low density of people	75.8
Good place to raise a family	75.0

Table 2 (Cont'd)

General Values	Percent of respondents
6. Other values	
Education ¹	85.2
Historical places in the watershed	74.2
Other reasons ²	7.8
I have not considered the values I have for the watershed	7.0
I do not value the watershed	0.8

¹ = Education: natural areas where children and adults can appreciate nature and learn more about the watershed.

² = See Appendix 2 for other reasons provided by respondents.

Recreation

Participants were asked what recreational activities they undertook during a typical year. Fishing and angling were the most popular recreational activities (Figure 1). The first six activities (fishing/angling, berry picking, hiking, photography, bird watching and canoeing/kayaking) all have high involvement (>70%); whereas, the last six activities have lesser involvement (each <43%). Each of these first six activities are undertaken by twice, or more, as many individuals as each of the following six. Other identified recreational activities not listed included swimming, picnicking, ATV and snow machine recreational use, cycling, sustainable forestry, plant and mushroom identification, geological identification, clam digging, tubing and horseback riding.

Participants were then asked a three part question: (i) Where were your favorite recreation locations when you were young, (ii) what did you do at these areas, and (iii) are these areas still in the same condition? Only the first of these three questions was answered by respondents. We are unsure whether this represents an unwillingness of people to share the information related to the latter two questions due to: (i) they did not see the relevance of the question, (ii) they considered the question unduly personal, (iii) they were not familiar with the current state of these locations, or (iv) as a multi-part question the respondents did not look past the first part. It is surprising however, that not a single participant responded to this.

Past favoured recreation locations were primarily identified on the East Branch (89.6% of respondents) and North Branch (22% of respondents) (Figure 2). Only 35.2% of respondents reported past recreational activities in the West Branch or Main Branch. Other favourite locations identified by respondents included: Harrison, Aspen, Leanord's, Caledonia, East St. Mary's, West River, Cummings Lake, MacDonald Mill Brook, Sonora Wharf, Sherbrooke Village and Rock Island Pool. Areas identified outside of the watershed included Deep Hole, Covered Bridge, Liscomb, Fourth and Fifth Lakes, and Watershed Lake.

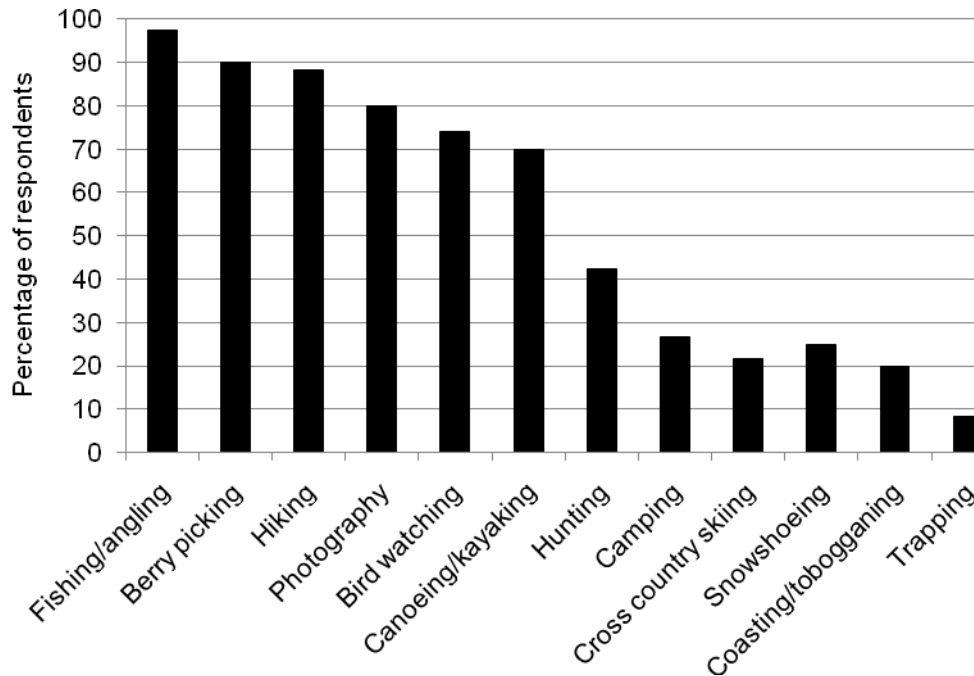


Figure 1: Percent of response by participants to question about recreational activities respondents participated in. Number of respondents to question was 118. Note percentages sum to greater than 100% as individual respondent could select more than one value.

The following question was similar. Participants were asked a two-part question: (i) What outdoor recreation areas do you visit now, and (ii) what activities do you do in these areas? As in the previous question, only the first part of this question was answered and the second omitted. This consistency between questions suggests that multi-part questions are a poor approach as respondents appear not to look past the first part. Present favoured locations are distributed as 85.8% East Branch, 32.5% North Branch, 22.1% West Branch and 28.6% Main Branch (Figure 2). There is little change from historical distribution of recreation, with the East and North Branches remaining the principal areas. The other branches appear to have remained constant with relatively low use for recreational purposes. Other present favoured locations included: West Branch, Denver, Newtown, Gunn's Hole, Archibald Mill Brook, Cummings Lake, Number 7 Highway, Silver's Pool, Rock Island Pool, Lead Mine Road, Cove in Sherbrooke, Barren Brook, Sherbrooke, Sherbrooke Lake, Nimrod's, and Old Guysborough railroad.

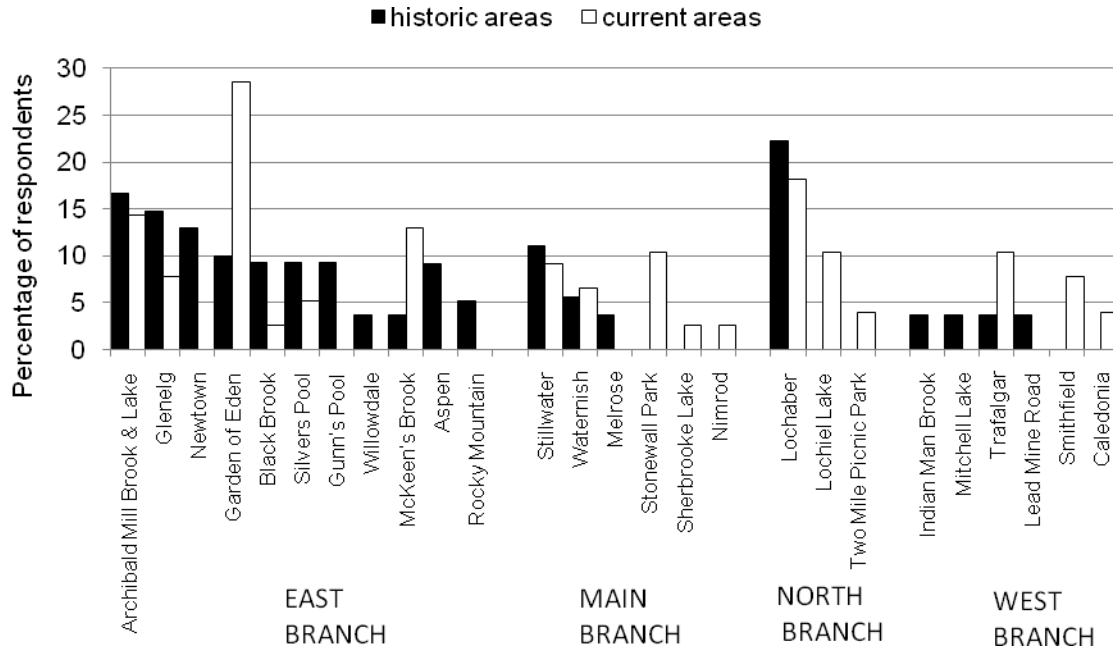


Figure 2: Percent of response by participants to questions about recreational locations from respondent's childhood and those currently used. Number of respondents to question was 53 (answering areas used in childhood) and 77 (answering those areas currently used). Note percentages sum to greater than 100% as individual respondent could select more than one value.

Following the questions of past and present locations of favoured recreational areas, participants were asked what activities they would like to see continued by youth in the future. Fishing, hiking and canoeing/kayaking were the most frequently cited (Figure 3), occurring twice as frequently as the next most common activities (swimming, hunting, berry picking). The majority of respondents would like to see youth continue fishing in the future, which is consistent with the respondents most popular annual activity (fishing/angling) under "*Nature and Use of Watershed – Recreation*". Also consistent with that previous question is the emphasis on non-motorized activities; motorized recreation received infrequent mention (i.e., ATV and snow machine use each <11%). Other less popular recreational activities identified as important for youth to continue in the future include: trapping, log rolling, picnicking, environmental education, eco-touring, naturalist club, biking, motor boating, swimming lessons, equipment rentals and tree planting.

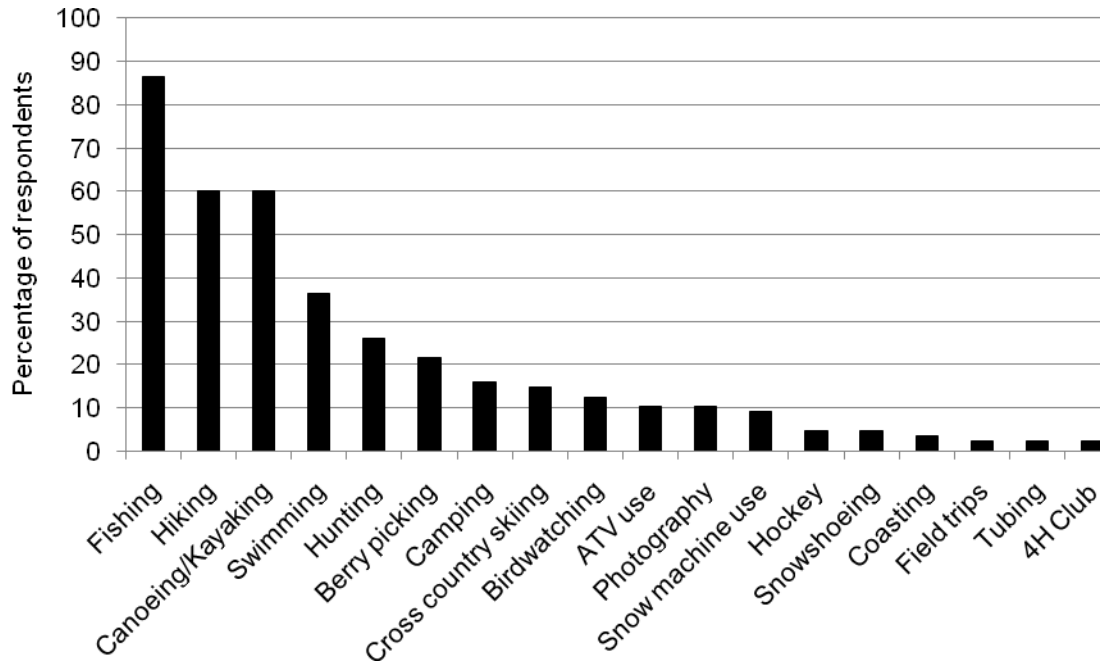


Figure 3: Percent of response by participants to question about those recreational activities participants' would like to see youth continue in the future. Number of respondents to question was 87.

Participants were asked what areas and forms of recreation they would like to see set aside for recreational purposes within the watershed. A total of 47.8% of respondents indicated a specific location for recreational activities while the remainder provided non-specific locations (Table 3). Eight of the respondents did not explicitly answer either part of the question (location or activity), but provided a general comment. There were 11 comments specific to the water-related activities, six of which indicated swimming should be set aside as a recreational activity; however only two locations were suggested by three respondents, Eden Lake and Leonard's Hole. Boating was also mentioned, with 2 of these 11 respondents wishing to see Lochaber Lake set aside for non-motorized boats. Six comments indicated a wish for motor-free recreation on land or water and 3 comments expressed an interest in promoting or expanding motorized recreation opportunities. There were 18 comments specific to hiking/camping, with 10 indicating hiking (including trails for walking, bird watching, ski trails etc.) should be set aside for recreational use. Eight respondents indicated four locations (Lochaber Lake, Sherbrooke Village to Waternish, Garden of Eden/Barrens and Footbridge to Stillwater) for these activities, with Lochaber being the most popular. There were only four comments regarding team sport related activities, with these respondents indicating three locations (behind United Church, Lochiel Lake and Nimrods) where recreational sports such as soccer and baseball could take place. Finally, despite tourism being participant's most valued work-related selection found under the "*Nature and Use of the Watershed – General Values*", only one respondent indicated an activity that would directly benefit

tourism, which was to create more rest areas for picnicking along Highway # 7. We interpret this as tourism being a general value but there being few specific wishes or actions to be undertaken to encourage this value.

Table 3: Percent of response by participants to question about locations and activities for recreational opportunities in the St. Mary's River watershed. Number of respondents to question was 46. See Appendix 2 for specific comments.

Recreational activity theme	Percent of respondents
SPECIFIC LOCATIONS	
Water related	10.8
Hiking/camping	17.4
Team sport	8.7
Tourism	2.2
No explicit recreational activities	8.7
NON SPECIFIC LOCATIONS	
Water related	13.0
Hiking/camping	21.7
General comments	17.4

Participants were asked how they would like recreation promoted in the St. Mary's River watershed. One half of the comments provided mechanisms for promoting recreational activities (Figure 4); one participant felt that recreation should not be promoted. The remaining comments indicated required infrastructure to promote recreation. The most frequent suggestions for how these activities should be promoted were the monthly municipal newsletter, educational field trips and local schools and family fun days. In terms of promoting recreation in the area there were surprisingly few comments on fishing (n=1) given the previously identified high value of it. The activity that received the most comments was canoeing/kayaking (5 comments).

Participants were asked whether they perceived conflict among users of outdoor recreation opportunities in the watershed, and if so, among which groups and how might conflict be reduced. ATV users and landowners, and motorized and non-motorized vehicles have the most commonly mentioned conflict of interest (Table 4). However, the number of respondents mentioning these points is sufficiently low (10/132) that these do not appear to be pressing issues in the St. Mary's River watershed. Suggestions on how these conflicts could be reduced include restricting ATV users to particular trails and having a non-motorized section for boats on Lochaber Lake. Other comments made by participants included that there would not be any conflict if there were designated areas (i.e., zoning) for activities in general. One participant felt that there are no issues with guidelines and policies and that people are mature and care about the environment.

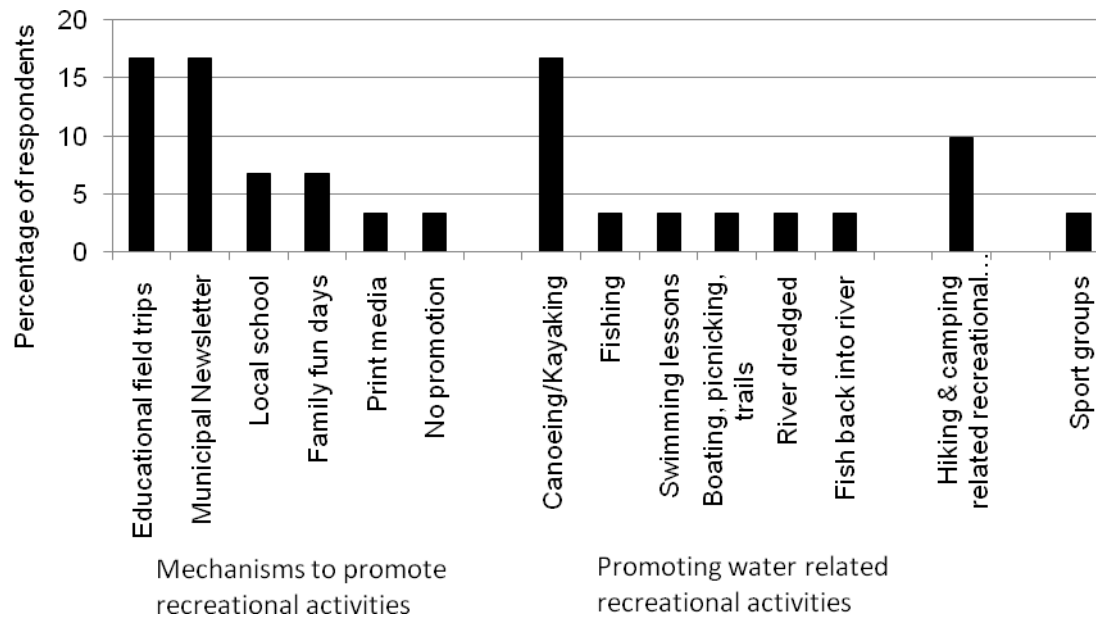


Figure 4: Percent of response by participants to question about promoting outdoor recreation in the St. Mary's River watershed. Number of respondents to question was 14; number of comments was 30. See Appendix 2 for specific comments.

Table 4: Percent of response by participants to question about perceived conflict among outdoor recreational users. Number of respondents to question was 26.

Perceived conflict	Percent of respondents that identified conflict
Motorized and non-motorized uses	19.2
ATVs and landowners	19.2
Landowners and recreational users	11.5
Salmon fisherman and swimmers	7.7
Boaters and swimmers	7.7
Runners, hikers, bikers	3.8
Non-recreational perceived conflicts mentioned	
Pesticides and land use	7.7
Snowmobile and forestry	11.5
Farmers	3.8
Comment	
Older people should be considered	7.7

Of the 132 respondents, 115 responded to the question of concern over land ownership versus recreational opportunities, with 73 of the respondents (63.2%) not concerned with this. Of the 132 respondents, 109 responded to the question of whether more Crown or private land should be protected in the watershed, of which 84 (75.7%) stated they would like to see this.

Angling

Within the watershed 102 of 132 respondents replied to a question about participation in angling in the St. Mary's River. None of the respondents indicated they fish only for salmon. Trout fishing was identified as the most common form of angling (76.5% of respondents) followed by salmon fishing (31.4%) at less than one-half the frequency of trout anglers. When asked how many years participants have been fishing for salmon and trout, 93 participants responded. The length of time participants have angled ranged from 1 to 80 years for salmon and 1 to 90 years for trout (Figure 5). Salmon anglers had most frequently spent between 1 and 10 years fishing, with 54.1% of anglers having fished for salmon less than 40 years. Of note is that each of the decades of experience less than 70 years range from 11.6% to 19.3% of the sampled population, with the exception of the range of experience of 10-20 years which is lower (3.9%). We suggest from this that fishing interest has been relatively constant for the last 70 years in the local area with the exception of approximately 1990-2000 when interest declined and has since increased again in the last 10 years. Anglers fishing trout generally have greater experience than those after salmon; more than one-quarter of respondents had been fishing trout between 50 and 60 years, and 76.2% had been trout fishing between 30 and 70 years. Interest in trout fishing appears to have declined in more recent years with new entrants into this fishery being few (i.e., 3.0% of respondent with less than 10 years experience, 7.5% with less than 20 years experience). Clearly the anglers fishing salmon and trout in this watershed are highly experienced.

Of the 132 respondents, 32 responded to the question of what age they started salmon fishing and 77 indicated the age they started trout fishing (Figure 6). It is more common to start trout fishing at a younger age (<10 years, 70.1%) than salmon fishing (i.e., only 18.5% began at less than 10 years old). By the time the respondents were 15 years old, 40.4% had started salmon fishing and more than double that (88.3%) had started trout fishing. Almost a third of the salmon anglers began when they were 30 years of age or older.

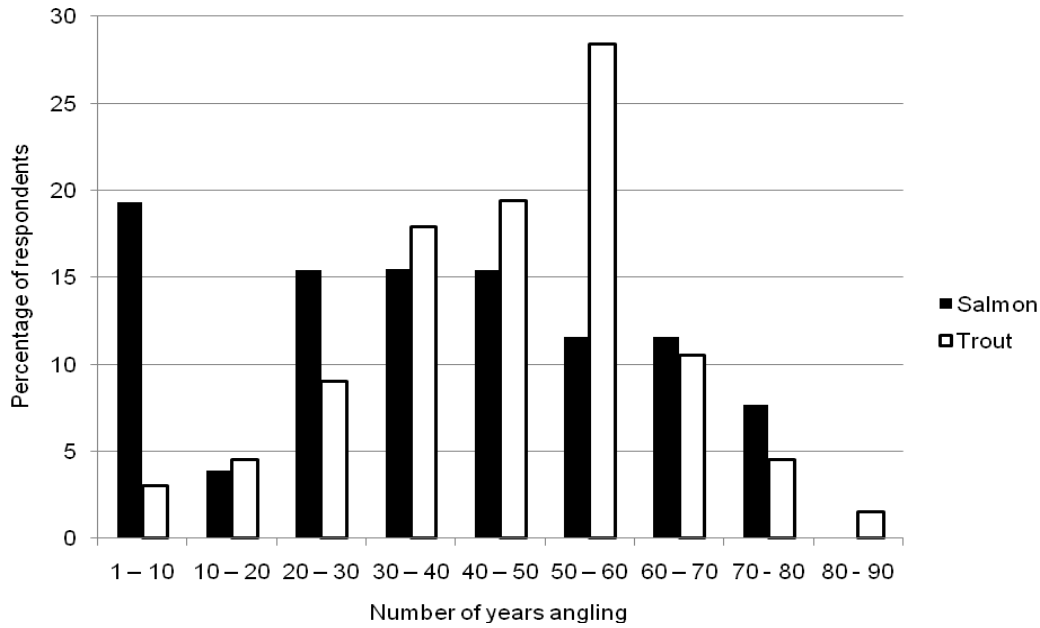


Figure 5: Experience of St. Mary's River residents in angling for salmon and trout. Categories are range of years and data are presented as percent of respondents in each category. Number of respondents was 26 (salmon) and 67 (trout).

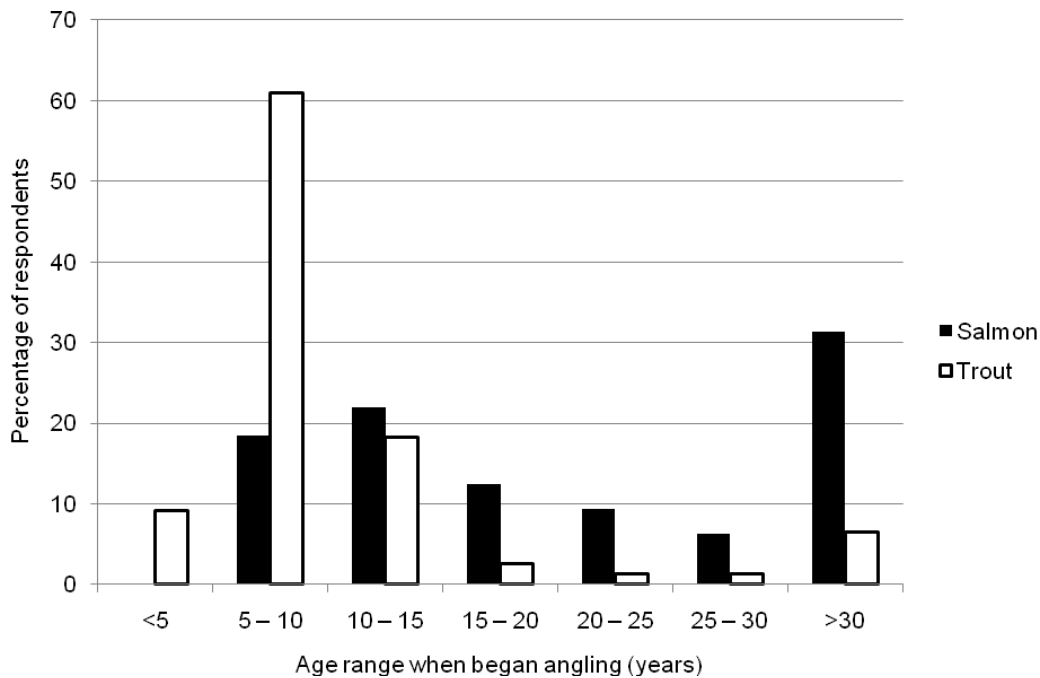


Figure 6: Age range and percent response that respondents started to fish for salmon and trout. Number of respondents was 32 (salmon) and 77 (trout).

When the participants were asked on average how many days they spent fishing in the last five years, of the 132 respondents, 27 indicated their response for salmon fishing and 73 for trout fishing. Forty four percent of the respondents have not fished for salmon in the last five years (Figure 7). Approximately one-quarter of the respondents fished salmon 10-50 days a year, and smaller percentages fished either fewer days (18.5% fished 1-10 days) or many more days (11.1% fished 50-200 days). This last group represent a very committed class of anglers, particularly given that the St. Mary's River salmon angling season has been only 42 days (6 weeks) long in recent years. We interpret this as these anglers include fishing other geographic areas during their open seasons. Trout anglers indicated approximately one-half of them fish 10-50 days in a year, 31.5% fish 1-10 days, and 9.3% fish 50-200 days. Overall, the apparent picture is that anglers spend more days per year trout fishing than salmon fishing.

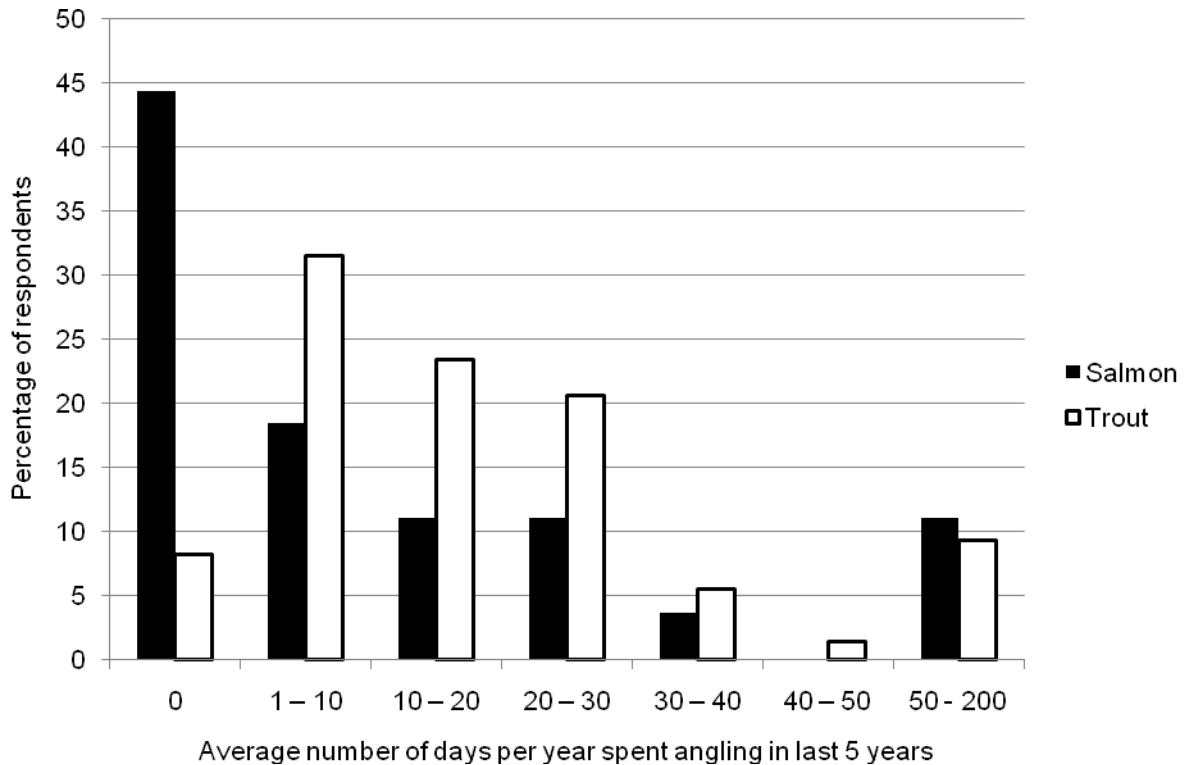


Figure 7: Range of average number of days participants spent salmon and trout fishing in the last five years and the percent response. Number of respondents was 27 (salmon) and 73 (trout).

A total of 63 of 132 respondents indicated who taught them how to fish for trout or salmon. It was most common to be taught by the father (61.9%), followed by friends and self-teaching (each 22.2%), other family (12.7%), brother (11.1%), mother and grandfather (each 6.4%) and through a course (1.6%). Seventy four respondents indicated that fishing can be an individual (64.9%) or social activity with friends (62.2%) or family

(68.9%). Respondents were asked why they think Atlantic salmon are important in the St. Mary's River, to which 107 indicated their values (Figure 8).

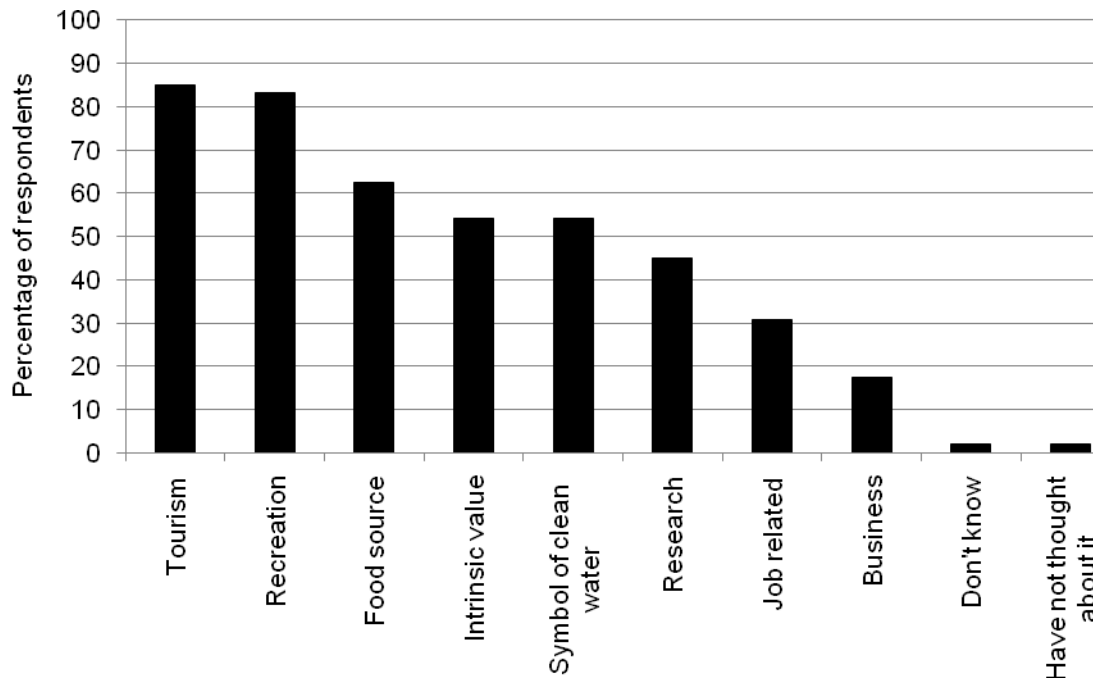


Figure 8: Respondents values of Atlantic salmon in the St. Mary's River watershed. Number of respondents was 107.

Respondents valued salmon for various reasons; no one indicated they do not value salmon. However, 4% of the respondents indicated they do not know why they value salmon or have not thought about it. The top reasons (i.e., frequency of response >50%) for valuing salmon includes tourism (85.1%), recreation (83.2%), food source (62.6%), intrinsic value (54.2%) and symbol of clean water and healthy ecosystem (54.2%). We are uncertain how to interpret the high frequency valuing salmon as a food source given that retention of salmon in the recreational fishery has been illegal in the recent past. Respondents may have been replying from a historical context (i.e., that they valued salmon for food when they could be retained) or from a practical context (i.e., they value salmon on the table from the grocery store- not specifically wild St. Mary's River salmon).

Almost all respondents (121) knew the Atlantic salmon population was declining. The majority of 125 (74.4%) respondents to the follow-up question on the importance of restoring the salmon population indicated it was very important, 18.4% felt it was important, and 7.2% felt it was somewhat important or not important. It is evident from these responses that the residents of the St. Mary's River watershed value salmon. Of the

participants that felt it was somewhat to very important to restore the salmon population, 73.6% explained why they felt this way (Table 5).

Table 5: Provided comments why respondents feel the Atlantic salmon population should be restored. The suggestions were divided into nine themes, and general comments. Number of respondents was 92. See Appendix 2 for specific comments.

Theme	Percent of responses
River Health	23.9
Tourism	21.7
Recreation	18.5
General conservation	9.8
Food	5.4
Intrinsic value	5.4
Symbolism	2.2
Cultural & Historical values	2.2
Biological	1.1
General comments	9.8

The theme with the most comments was river health, with tourism and recreation providing rationale for 21.7% and 18.5%, of respondents, respectively. Together, these three reasons account for 64.1% of the responses. Of interest is the low frequency of response for “General conservation” or “Biological” (together accounting for only 10.9% of responses).

The Department of Fisheries and Oceans manages salmon in Atlantic Canada. When watershed residents were asked if they were satisfied with the current salmon management in the St. Mary’s River, 117 of 132 participants responded. A large proportion (35%) of the participants had no opinion, 29.9% were not satisfied, 32.5% were somewhat satisfied, and 2.6% were very satisfied. Of the participants that indicated they had no opinion, less than half indicated they lacked the knowledge to make a decision. Of the 117 respondents, 67 commented on those aspects with which they were satisfied or dissatisfied with respect to salmon management in the St. Mary’s River (Table 6). As mentioned in “*Methods*”, many responses fall into more than one category and so categorizing responses is somewhat arbitrary but done for the sake of interpretation and readability.

Of the seven themes, management and satisfaction with DFO performance received the most comments (almost 40% of total). Some of the issues with DFO management include: overfishing offshore, license and regulations, communication between departments, aquaculture permits, not informing the public, and the need for more resources. Generally, participants were satisfied with DFO’s performance because they recognize that they do what they can with the resources they have and that there are some

enthusiastic and qualified biologists within the department. Respondent's main concern with poaching is that there are not enough enforcement and conservation patrols on the river. Respondent's main concern with restoration/enhancement was that (i) there does not appear to be much effort invested in restoring, and (ii) islands of gravel should be removed from the river. Another concern is that nets are being used to remove spawners from the river for eggs. The major concerns with angling opportunities have to do with catch-and-release regulations (5 of 7 comments). Four of the comments were against catch-and-release and the fifth simply wanted a retention fishery. Not all anglers appear to agree with the argument of the conservation value of catch-and-release

Table 6: Percent of responses by participants to question of satisfaction with DFO salmon management. Comments were divided into seven themes, and general comments. Number of respondents was 67. See Appendix 2 for specific comments.

Theme	Percent of responses
Management	19.4
Satisfaction with DFO performance	19.4
Poaching/enforcement	14.9
Restoration/enhancement	13.4
Angling opportunities	10.4
Science/conservation	4.5
Predation	3.0
General comments	14.9

Under science/conservation, respondents felt that DFO should ask the residents about problems on the river. Respondents felt that cormorants, mergansers and seals are the main predators that are consuming the salmon. The general comments suggested that courses should be offered to interested anglers prior to receiving a license, more research should be carried out and one respondent was not happy with how DFO consults with the Native Council of Nova Scotia. Many of the comments can be construed as poor communication between DFO and the public (i.e., they believe DFO not doing anything and not putting effort into the river) or the SMRA and public (i.e., they are not familiar with the restoration we have done).

Of the 67 respondents that indicated why they are or are not satisfied with DFO management of salmon, 48 respondents suggested how individuals, community groups and/or government agencies can work together to improve fisheries management in the St. Mary's River (Table 7).

The theme that received the most comments was management. The common wish reflected in the majority (14 of 21 comments) was a need to work together among individuals, NGO, governments, First Nations and industry, and also to provide information to the public. The remaining seven comments were more specific

suggestions regarding individual management activities. Comments regarding restoration and enhancement focused on habitat improvement and use of hatcheries. Comments on predation were few (5 comments). The common recommendation was to cull cormorants, mergansers and seals. Comments on angling opportunities, science/conservation, and poaching/enforcement were few (7 comments in total in these three themes). Interestingly, there were comments by two individuals to terminate catch-and-release fishing of salmon in the St. Mary's River.

Table 7: Percent of responses by participants to question of how to improve salmon management in the St. Mary's River. Comments were divided into six themes, and general comments. Number of respondents was 48. See Appendix 2 for specific comments.

Theme	Percent of responses
Management	44.0
Restoration/enhancement	12.0
Predation	10.0
Angling opportunities	8.0
Science/conservation	4.0
Poaching/enforcement	2.0
General comments	20.0

3.2 LAND USE AND MANAGEMENT

Participants were asked a series of questions regarding how long they had lived in the watershed, whether they rent or own land, and the characteristics that describe their property. Of the 124 respondents to this question, 79% reported having lived within the St. Mary's River watershed for more than 20 years, and 14.6% from 5 to 20 years. There are few newcomers moving into the area (i.e., 6.5% of respondents have lived here less than 5 years). Ninety four percent of the respondents own property, characteristics of which are indicated in Figure 9.

When asked in which activities residents engaged on their property, the most popular activities were vegetable gardens (45.3%) and growing berries (35.2%). Commercial crops and pastures accounted for only 14.8% and 13.0%, respectively, of respondents. Of those who grew berries, 18.9% had blueberries growing on their property (other berries included blackberries, raspberries, strawberries, cranberries, gooseberries, and red currants). A total of 10.2% of people listed other agricultural activities which included flower gardens and raising poultry. Under the forestry section, 57.4% made use of the softwoods on their property and 55.6% used hardwoods; these values sum to >100% as some people made use of both softwoods and hardwoods. Only a small percentage of respondents checked value-added products (6.5%), Christmas trees or crafts (5.5%) or operated sawmills (3.7%).

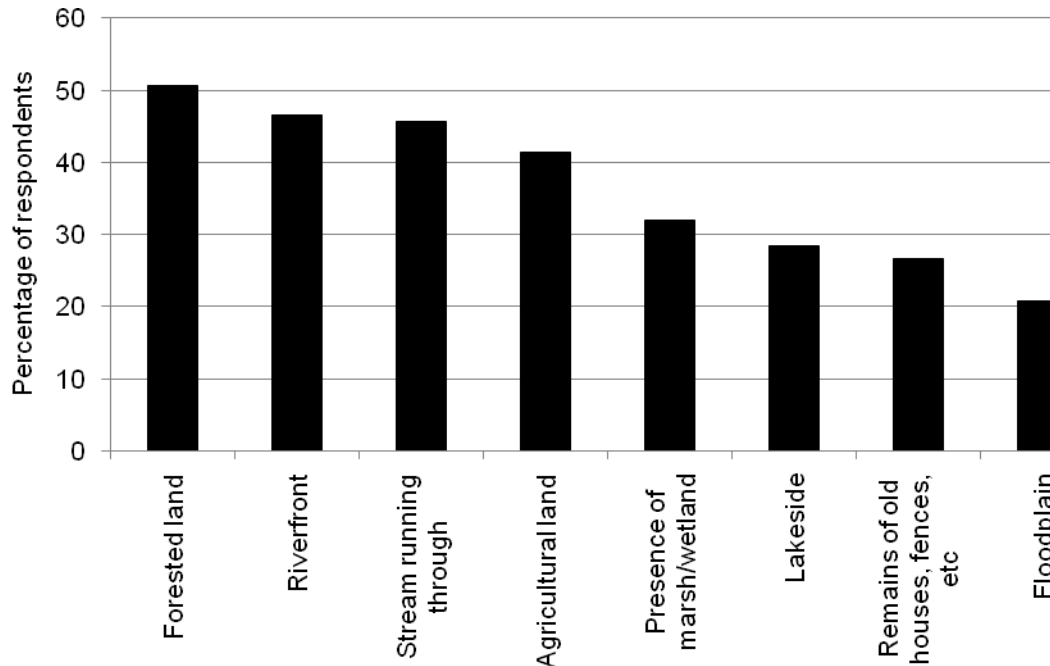


Figure 9: Percent of responses by participants to question of property characteristics. Number of respondents was 116.

With respect to land and water management practices in the watershed, 47.4% and 44.8%, respectively, of respondents said that they had concerns. The majority of concerns regarding land management had to do with forestry activities, with other areas of management arousing little concern (Table 8). Concerns with management of water had to do with water quality, forestry related practices, physical changes to the river and hydrology (Table 9).

Table 8: Percent of responses by participants to question of concerns over historical or present land management practices in the St. Mary's River watershed. Comments were divided into seven themes, and general comments. Number of respondents was 35. See Appendix 2 for specific comments.

Concern	Percent of respondents
Forestry	62.8
Agriculture	8.6
Crown versus private lands	5.7
Contaminants/pollutants	5.7
Development	2.8
Protected areas/preservation	2.8
Garbage/litter	2.8
General comments	8.6

Table 9: Percent of responses by participants to question of concerns over historical or present water management practices in the St. Mary's River watershed. Comments were divided into six themes, and general comments. Number of respondents was 22. See Appendix 2 for specific comments.

Concern	Percent of respondents
Water quality	27.3
Forestry related practices	22.7
Physical changes to the river	22.7
Hydrology	13.6
Agricultural related practices	4.5
Development related impacts	4.5
General comments	4.5

Of the 47.4% of participants who had concerns with the historical or current land management practices, the majority of comments addressed clear cutting, green belts along waterways, and other poor forestry practices. Of the 44.8% of respondents who had an issue with historical and present water management the major concerns included flooding and siltation of the river, biosolids being sprayed on fields near the river, erosion, and sewage leaching into the lakes.

When participants were asked if they believed Non-Government Organizations (NGOs) have an important role to play in resource management, 112 respondents answered this question of which 73.2% indicated they agreed, 2.7% thought not, and 24.1% had no opinion. The majority of respondents indicated the role of NGOs was that of an advocacy or "watchdog" group (Table 10). Only a small proportion saw the roles as including management, research or education. According to participants' comments, many of them believe that non-governmental organizations play an important role in resource management because they are more involved with stewardship and public engagement than the governmental organizations, as well as the protection and preservation of resources. They also feel that the role of the NGOs is to keep an eye on the government and businesses.

Participants were asked if they were satisfied with the current decision making processes regarding natural resource use in the St. Mary's River watershed, of which 112 replied. Responses indicated that 34.8% were satisfied, 18.8% were not, and 46.4% had no opinion. The number satisfied was almost twice that not satisfied suggesting there is not a deep level of dissatisfaction. They were also asked if they felt these decisions adequately reflected all interested parties (113 responses); 25.7% agreed, 27.4% disagreed, and 46.9% had no opinion. The large percentage of people with no opinions may be due to people not being aware of, or not fully understanding the decision making processes, and so not feeling qualified to voice an opinion.

Table 10: Percent of responses by participants to question of role of NGOs in resource management. Comments were divided into four themes, and general comments. Number of respondents was 51. See Appendix 2 for specific comments.

Role of NGOs in resource management	Percent of respondents
Advocacy/ watchdog	54.9
Management	11.8
Education	6.0
Research	2.0
General comments	25.5

Survey recipients were asked specifically which groups they thought should be involved in planning for the future of the watershed. Overwhelmingly, local citizens and local community groups were seen as important contributors, with youth, government and interest groups from outside the watershed playing a smaller role (Figure 10).

Interestingly, few respondents felt that temporary residents should be involved. Under “Others” respondents listed the St. Mary’s River Association, St. Mary’s Municipality, museums and historic Sherbrooke Village, landowners, committed government staff and university professors, volunteers, businesses, and users of the river for whatever purpose.

The survey then asked “*Given the current economic state of the world, Canada and northeastern Nova Scotia, do you think that the formation of a St. Mary’s Watershed Planning Council would be useful to address current and proposed future developments in the watershed area*”. One hundred and eleven people completed this, of which, 92.8% indicated it would be useful while only 7.2% thought not. Thus it appears the people would like a more active involvement in resource management, and feel that this should be done primarily by local residents.

Participants were asked how they thought the SMRA should reach out to residents of the watershed to exchange information and engage people. The most popular ways to reach out were educational field trips and mail out information (Figure 11), though workshops, open houses and public celebrations were all popular as well. Under “Other”, respondents listed the monthly municipal newsletter, the Guysborough Journal, local schools, and collaboration with the village to conduct educational field trips to get larger crowds. From this we conclude that there is no single “best” vehicle of engagement, but rather that several approaches should be used.

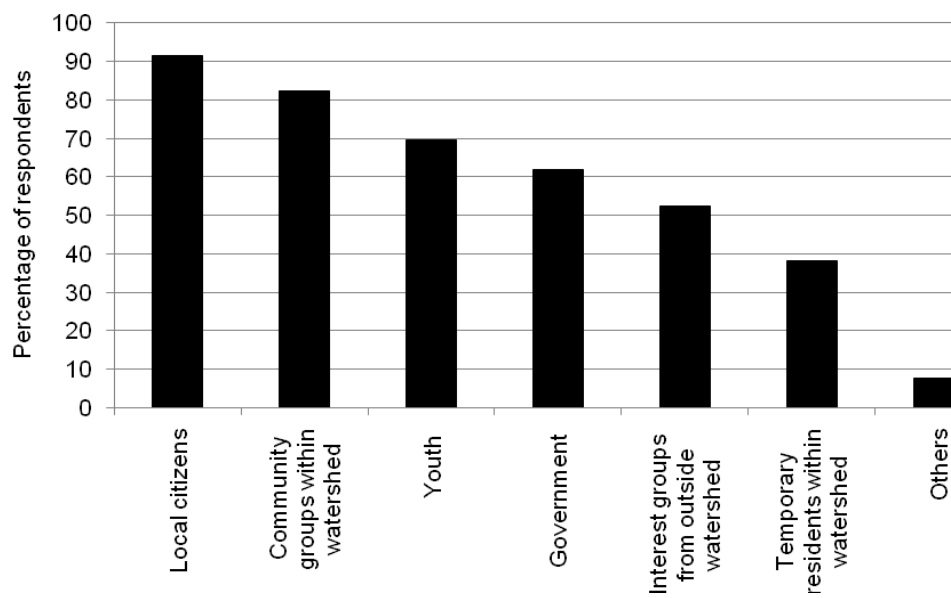


Figure 10: Percent of responses by participants to question of individuals and groups that should be involved in planning for the future of the watershed. Number of respondents was 118.

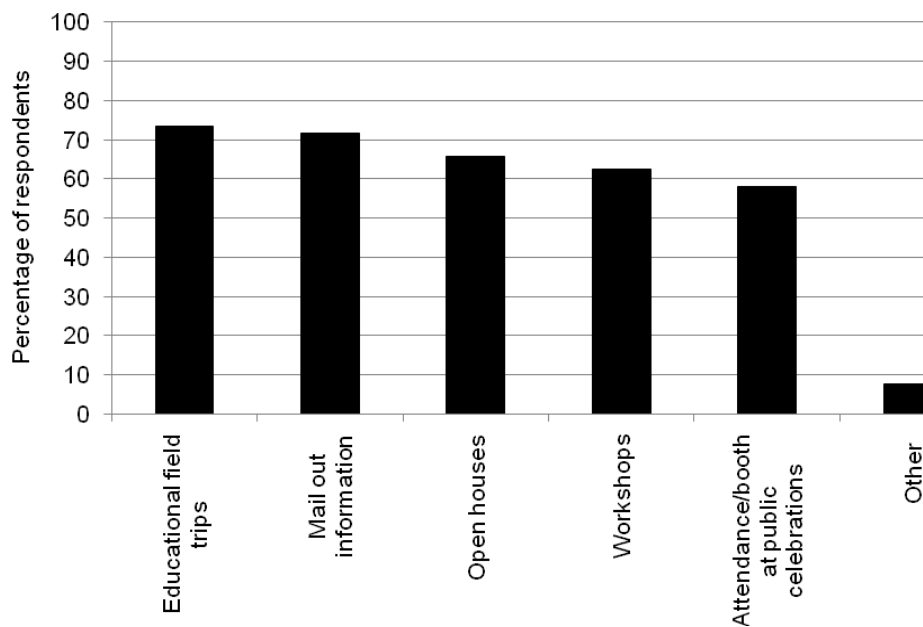


Figure 11: Percent of responses by participants to question of how the SMRA should reach out to residents. Number of respondents was 117.

3.3 ECONOMICS

One hundred and twenty respondents completed the question of whether they were concerned with the local economic conditions in the St. Mary's River watershed, with 70.6% being concerned, 14.3% not concerned, and 15.1% having no opinion. The majority (70.0%) of participants did not feel that the St. Mary's River watershed is resilient to outside economic forces, with 13.6% believing it is, and 16.36% having no opinion; 112 participants responded to this question. Fifty-seven of the 132 respondents provided suggestions on how the St. Mary's River watershed could be more economically vigorous; the responses are presented in Table 11.

Table 11: Percent of responses by participants to question of how the St. Mary's River watershed can be more economically vigorous. Comments were divided into seven themes, and general comments. Number of respondents was 57. See Appendix 2 for specific comments.

Theme	Percent of respondents
Tourism	18.9
Angling	17.2
Outdoor recreation	15.4
Industrial development	9.6
Advertising/marketing	6.9
Small business	5.2
Education	3.4
General comments	24.1

The themes of tourism and angling received the greatest number of suggestions (together accounting for 36.1% of all suggestions). The most popular comment under the theme of angling was to restore the salmon population; respondents suggested the activities of proper management, stocking of salmon or removing gravel from the river to achieve this. A common suggestion under outdoor recreation was development of trails. In order to increase tourism, many respondents felt that the roads should be fixed. The common suggestion under industrial development was to improve forestry, with suggested activities being better woodlot management and to stop harvesting forests on Crown land. Encouraging a green image (eco-tourism, green businesses) was a common suggestion under small business. Education should be promoted through workshops and supported by St. Mary's watershed residents and people employed within the watershed. Again eco-friendly tourism came up as a common suggestion under advertising and marketing as well as promoting Sherbrooke Village. Under general comments there were 14 responses; however, there was no commonality among suggestions.

Of the 132 respondents, 112 indicated they were satisfied (46%), not satisfied (9%) or had no opinion (45%) on the economic opportunities in the watershed. Those not

satisfied with current economic conditions was surprisingly small (<10%). Reasons respondents gave for not being satisfied with economic opportunities are indicated in Table 12.

Table 12: Percent of responses by participants to question of why respondents are not satisfied with economic opportunities in the St. Mary's watershed. Comments were divided into three themes. Number of respondents was 13. See Appendix 2 for specific comments.

Theme	percent of respondents
Retired/self-employed	38.5
Comments about business opportunities	38.5
Opportunities for youth	23.1

The two themes retired/self employed and business opportunities had the same number of suggestions (5 each), whereas youth opportunities only had three suggestions. To increase business opportunities respondents would like more jobs to be available; some suggestions were in areas of natural resources, tourism, and organic farming. Finally, three respondents indicated that more jobs opportunities would encourage youth to stay in the St. Mary's River watershed.

One hundred and seventeen of the 132 respondents replied to the question regarding youth employment opportunities indicating they were not satisfied (41.8%) with these opportunities in the community. A lower percentage of respondents had no opinion (36.5%) or were satisfied (21.7%). A total of 34 respondents indicated those employment opportunities they would like to see for the future (Table 13).

Table 13: Percent of responses by participants to question of youth economic opportunities in the St. Mary's watershed. Comments were divided into two themes and general comments. Number of respondents was 34. See Appendix 2 for specific comments.

Theme	Percent of respondents
Suggested opportunities	47.0
Concerns with retention of youth	29.4
General comments	23.5

Suggestions for youth economic opportunities received the most comments. A common suggestion was nature-related or conservation job opportunities and starting up small

businesses (e.g., natural resources, trades and internet technology) through financial support/grants from the government. Common concerns for not retaining youth are a lack of employment opportunities, which could be improved by encouraging entrepreneurship and providing a course on the value of the river through a High School Economics Class. It was suggested by respondents that youth leave the watershed to continue their education and pay back debt. If there were more and higher paying jobs youth would be encouraged to stay. The common suggestion under general comments was to increase employment opportunities; respondents did not however, suggest how this should be done.

Of the 132 respondents, 117 indicated they felt, yes (67%) resource use and/or extraction and the conservation needs can both be met within the watershed, only 7.8% indicated no, and 25.2% had no opinion.

3.4 AWARENESS OF ST. MARY'S RIVER ASSOCIATION AND ACTIVITIES

Of the 132 respondents, 126 answered the question about familiarity with the St. Mary's River Association and its activities, of which 18.6% are familiar, 58.1% somewhat familiar, and 23.4% not familiar. A total of 96.9% responded to whether they heard (61.1%) or did not hear (38.9%) that an Atlantic salmon recovery plan is being developed. However, of the 117 respondents to this question only 23.5% have spoken to someone about the plan.

From the 126 respondents, a total of 41.9% of the participants feel that the SMRA communicates its projects moderately well to very well to the community; 29% indicate not well at all, 16.9% do not know, and 12.1% have no opinion. A total of 116 respondents indicate their source of current SMRA information: 60.5% of these cited word of mouth, 54.4% Guysborough Journal newspaper, 30.7% SMRA newsletter, 14.9% community bulletin board and 12.3% other (visible, Casket Newspaper, Neighbour, E-mail, Nature Nova Scotia, Municipal Newsletter, Chronicle Herald, television and mail).

The majority of the 116 participants indicated, yes (89.4%) they would like to be informed by the SMRA about future planning in the watershed. A total of 111 participants preferred communication as newspaper articles (70.6%), direct mail (47.7%), community meetings (37.6%), radio advertisement/programming (22.9%), email (20.2%), other (11%, Municipal Newsletter, community newsletter, post office, bulletin board, facebook, evening news, Casket, high speed internet would improve communication) and telephone (3.7%).

3.5 VISION/WISHES

Of the 132 survey respondents, 115 completed the '*Vision/Wishes*' section. When asked to list in order of importance (1 being the most and 9 the least important) personal values,

public water supply/clean water was the highest value (Figure 12). This is consistent with the previously noted principal concern with water quality (Table 9). Outdoor activities and interests (healthy forests/wildlife, fishing/boating) comprised 36.6% of the total responses. The character of the area (small rural communities, solitude/wilderness character, history & historical sites) were important values to 42.6% of respondents. Jobs/economics and natural resources extraction were identified as values surprisingly infrequently (18.3%).

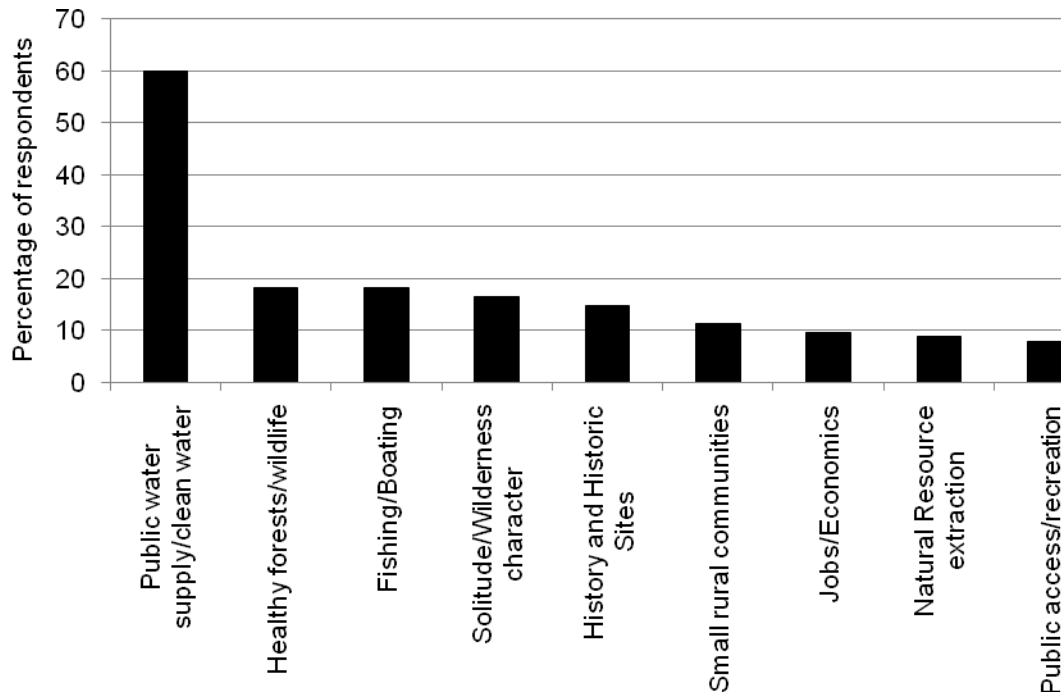


Figure 12: Percent of responses by participants to question of personal values and Vision/Wishes for the St. Mary's watershed. Comments were divided into nine themes. Number of respondents was 115. See Appendix 2 for specific comments.

3.6 NATURAL HISTORY BOOK

Of the 132 survey respondents, 120 participated in the 'Natural History Book' component. Of those that participated in this component, 73% stated that they would be interested in purchasing a natural history book about the St. Mary's River watershed, 22% that they would not be interested, and 5% left the question unanswered. A large proportion of respondents (45%) indicated that they would be willing to purchase the book if it was priced between the amounts of \$15 and \$25, while 20% chose less than \$15, and 8% felt that \$25 or more was reasonable. The remainder of participants (27%) left this question blank; this was largely dependant on the participant not being interested in purchasing the book.

Figure 13 indicates the interest level of respondents when asked about subject matter they would like to see detailed in the book. Other subject matter suggested by participants included ATV trail information, the tourist industry, future plans and ideas of the SMRA, shipbuilding, fur trading, forts, dykes, and river punts. It was also suggested that more than one book could be developed from the featured subject matter. When asked about types of additional material that may encourage the consumer to purchase the book, the majority of respondents (82%) indicated that photographs would be most enticing, followed in descending order by anecdotes (68%), community contributions (63%), illustrations (59%), and lastly, scientific information (47%).

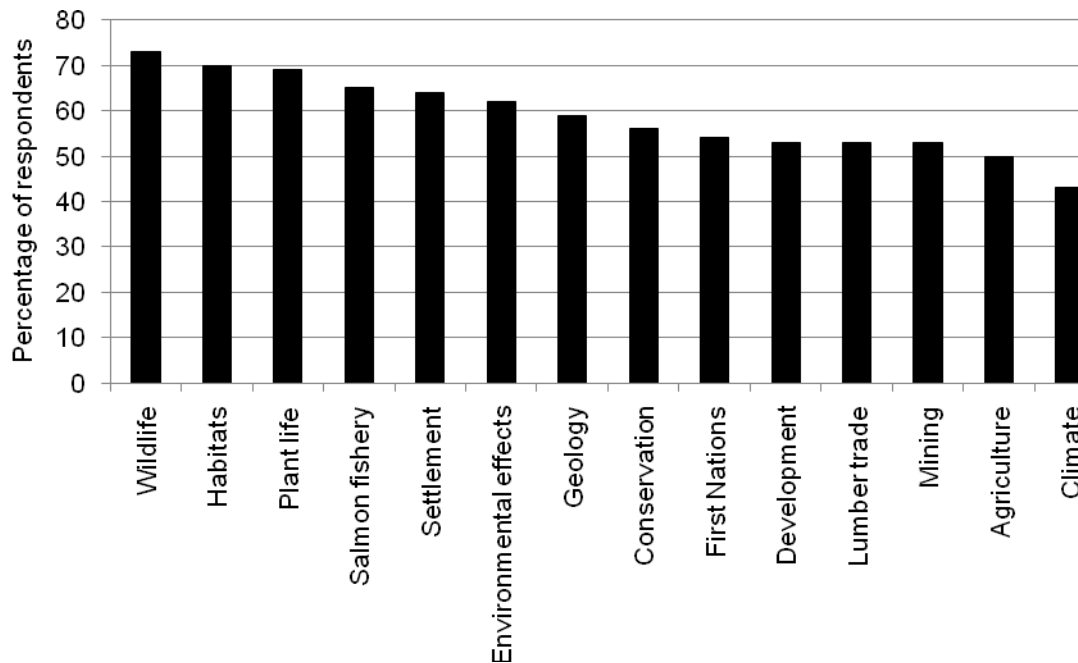


Figure 13: Percent of responses by participants to question of subjects they would like to see in a book on the natural history of the St. Mary's River. Number of respondents was 120. Each value represents the percentage of participating individuals who checked that particular box for the survey question based on their desired subject matter.

4.0 DISCUSSION

Our response rate to this survey was 44.2%; this is considerably lower than similar surveys by MacDonald and Clare (63.3% response) and Archibald and Cruikshank (81.4% response). Archibald and Cruikshank hand delivered surveys and then returned to pick them up which clearly encourages survey completion. We suggest that our response rate, which represents 17.6% of the households in the watershed is acceptable; increasing response rate further would require considerable effort and resources. Given the random selection of participants and the large sample size ($n=132$) of the responses,

we believe that it is safe to infer that these survey responses capture the watershed population as a whole.

Conservation, nature and lifestyle values were more frequently identified by respondents than work-related values, such as agriculture, forestry and business. This may, in part, be a function of the demographic who answered the survey (66% male and majority of respondents over 40 years of age). An older well-established population may be less concerned with economics, job opportunities, and business than a younger population trying to exploit these things for a living. Commonly identified recreation features valued in this survey were water-related (fishing, canoeing/kayaking, swimming) and hiking/camping activities. Of interest in this rural environment is the higher frequency of interest in non-motorized versus motorized recreation. Motorized recreation (ATV, snowmachine, and powerboat use) was infrequently identified as a value or a future recreation for youth. There were overall a greater number of comments for motor-free areas of various kinds, than for opportunities for motorized recreation. However, a caveat is required. Because in the questions, ATV or snowmachine use was not explicitly included, the true interest may be higher than reported here; the only responses we received on this were from individuals that chose to write in activities or comments. Thus, we likely received comments only from those for whom these activities are important, but not the casual users (*Recommendation #1*). Notwithstanding that, the explicit questions regarding conflict among motorized and non-motorized users suggested that there is little conflict in the watershed among users. Indeed there appears to be little conflict among recreationalists and landowners or land protection. This low conflict may be due simply to the low density of people and that favoured recreation areas are distributed throughout the watershed. The overall picture that emerges regarding recreation in the St. Mary's River is one of a largely non-consumptive nature (angling, camping/hiking, canoeing/kayaking, berry picking, photography, birdwatching) often with a focus on water-related activities, and little conflict among users and landowners.

Angling was highlighted in this survey with several questions of its own due to the common practice of it in the watershed and it is one of the primary interests of the St. Mary's River Association. Trout are more frequently angled by residents than Atlantic salmon, despite the St. Mary's River being famous as a "salmon" river (see *Recommendation #2*). Resident anglers have a great deal (decades) of experience fishing these two species and are therefore, presumably, efficient anglers. There are differences in the populations between trout and salmon fishermen, with trout anglers tending to begin earlier in life and consequently have greater experience with that species at a given age than salmon anglers.

Atlantic salmon are valued for a variety of reasons (e.g., tourism, recreation, food source, intrinsic value, symbolism). Interestingly, though the majority of respondents thought it important to very important to restore the Atlantic salmon, the primary reasons given were river health, tourism and recreation; biological and conservation rationale were rarely mentioned. We interpret this as salmon are valued from the very pragmatic point of view of "*what do they provide us?*" (tourism = dollars; recreation = enjoyment; river

health= clean water and fish, wildlife and recreation opportunities). There appeared to be little value placed on intrinsic worth, biological or conservation values. Whatever the rationale for the values however, the very large number of comments (n=92) regarding salmon restoration compared with other issues raised in this survey suggest that continued presence of salmon in the St. Mary's River is very important to residents.

In terms of satisfaction with salmon management, the majority of people are either satisfied to some degree or had no opinion on this; only about 30% expressed dissatisfaction with DFO performance in managing the stock. This is not an insignificant percentage but it does indicate that those dissatisfied are in the minority. Interestingly, one of the common comments that came up repeatedly with respect to management was disagreement with the policy of catch-and-release as a fishery. Several comments expressed that this was problematic and should be discouraged or ended. To improve fisheries management, a large proportion of respondents felt that we need to focus on working together and also work on providing information to the public (see below for more on this last point).

Principal concerns with land and water management were focused on (i) forestry activities, (ii) water quality, and (iii) physical changes to the river and its hydrology. There is some indication of lack of empowerment in the decision-making process of natural resources management in the watershed in that a large proportion of people had no opinion on this topic. However, among those that did express satisfaction or dissatisfaction approximately equal numbers were in each group suggesting that there is not a significant feeling of unhappiness with the process by those who feel qualified to speak to it. There does appear to be a sense that people in the watershed would like to be more involved in resource management decisions.

There was little apparent concern with the economic conditions within the watershed; only a small proportion were not satisfied with current conditions. However, a sizeable proportion (40%) of respondents were not satisfied with economic opportunities for youth. This may be interpreted as being consistent with the demographic (primarily greater than 40 years of age) that responded to the survey. These older age groups are generally economically settled and relatively stable, and their concern shifts from themselves to their children. Further, comments were frequently received indicating the respondent was retired, which implies that they are somewhat removed from daily economic conditions and change.

Based on that almost a quarter of the participants have not heard of the SMRA, the Association needs to work on its public engagement, let people know what the Association does, and inform them on the current projects (*Recommendation #3*).

One of the take home messages from this survey, and particularly comments provided by respondents, is the clear need to communicate more clearly with the public and ensure they are kept current with activities and conditions. Criticisms of DFO inaction or conducting studies but not being actively engaged could be curbed by informing the public of the resources and effort DFO does, in fact, put into the St. Mary's River each

year (smolt wheel, electrofishing juveniles) or under special circumstances (live gene banking). Comments and criticism of forestry practices could be curtailed by informing the public of the policies and philosophies of NewPage with respect to land management in the St. Mary's River (e.g., their obligations, responsibilities and limitations by defining the St. Mary's River as a High Conservation Value Forest within the Forest Standards Certification framework). And the St. Mary's River Association needs to inform the public about research programs (e.g., Governor Lake, water quality monitoring) in order to allow them to change their opinions as new information becomes available, and also to understand apparent inaction by the Association or agencies. Much of this could be done under Recommendation #3.

This survey has been a valuable project and not only provided the SMRA with information on opinions and values of residents, but also highlighted a role for the Association to play in the future – to convey information from management or industry to the residents and *vice-versa*. The consistency in values among respondents was strong with the environment and recreational opportunities in that environment being highly valued. Therefore, another role for the SMRA is protection of existing opportunities and development/promotion of other opportunities (e.g., trout fishing in addition to salmon). The success of the SMRA at these roles could be measured by the responses in future surveys (*Recommendation #4*).

The year 2009 marked the 30th Anniversary of the St. Mary's River Association; this survey will greatly assist the Association to work for the residents of the St. Mary's River for the next 30 years.

5.0 RECOMMENDATIONS

The following recommendations are presented in order of appearance in text, not in order of priority

Recommendation #1: This survey may have been inadequate in addressing motorized versus non-motorized recreational use and opportunities. This is a point of conflict in other jurisdictions and the relative recreational use of these two forms of activity remain somewhat obscure here. Future surveys should explicitly address this and determine relative frequency of use of motorized and non-motorized recreation.

Recommendation #2: Given that trout angling is apparently more popular than salmon angling in the St. Mary's River, and includes a broader demographic of anglers, and the Atlantic salmon populations throughout the Southern Uplands are declining, the St. Mary's River Association should consider broadening its emphasis and areas of promotion and advocacy to include brook trout. This could include promoting fishing to children to develop responsible anglers and stewards, and conducting research (creel surveys, biological sampling of catches) on the trout fishery in the watershed. Historically the salmon fishery eclipsed the trout fishery, but it may now be time for the Association to re-focus its efforts on the more prominent and dominant fishery.

Recommendation #3: The St. Mary's River Association needs to work at more fully engaging residents of the St. Mary's River on issues of ecological or natural resources concern. It is clear that a large proportion of the residents are unaware of the Association activities or current information available which could be provided by the SMRA. This engaging of the public should take place via traditional methods (mail outs, Municipal newsletter, newspaper) but should also include hosting open houses, workshops, and field trips. We recommend the SMRA develop a public engagement strategy to work with and inform the residents of the watershed.

Recommendation #4: A survey is most useful when it has similar information from the past to compare with in order to evaluate changes over time. For this reason it is recommended that a survey similar to this be conducted every 5 years in order to monitor changes in values, opinions and wishes of residents of the watershed.

6.0 LITERATURE CITED

Archibald, T. and E. Cruikshank. 1986. The Municipality of the District of St. Mary's. A community economic development study. Summer, 1986. Prepared for the St. Mary's Economic Development Commission.

Hurley Fisheries Consultants. 1988. Dependency survey: St. Mary's River. Prepared for St. Mary's River Association.

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APPENDIX 1:
2009 SOCIAL-ECONOMIC SURVEY

March 1, 2009

Dear Participant:

My name is Sean Mitchell and I am the Executive Director of the St. Mary's River Association (SMRA). In 2008, the SMRA has embarked on an ambitious restoration and management initiative titled "*Healthy River, Vibrant Communities*", the development of which was guided by our association vision and mission. The goal of this initiative is to "*Restore the ecological integrity of the St. Mary's River watershed to the benefit of the natural environment and the people that live and work within the drainage*". This program is multi-faceted and incorporates large-scale restoration, management and research activities. To learn more, you can obtain a copy of this document by contacting the SMRA office. In order to accomplish the tasks outlined in *Healthy River, Vibrant Communities*, we need the support and input of the people in the watershed. As such, I am asking you to complete the attached survey to gather information on values and opinions of the current state and uses of the St. Mary's River watershed. This mail-out survey is an important initial step to understanding the values and wishes of all people using the landscape in the watershed. This will help ensure our restoration and management activities reflect the values and opinions of the entire community. This is an initial step, and we will be following up with further public participation to keep residents informed of what we are doing, and guide us in our actions as appropriate to reflect the wishes of the community.

This mail-out survey is being sent to a random sample of St. Mary's River watershed residents. We ask that someone over the age of 18 complete it and return it by March 31st, 2009 to the St. Mary's River Association using the enclosed, self-addressed, postage-paid envelope. The survey will require between 20 to 30 minutes to complete, and recognizing that your time is valuable we are enclosing \$5.00 to thank you for your efforts. Once returned your completed survey will remain confidential. Results, once analyzed will be available to the public at our office, through our website (<http://www.geocities.com/stmarysriverassociation/>) and upon request. The results will also be presented at local public meetings such as open houses and workshops.

I thank you in advance for your help with this. With your response we believe that we can develop a common vision among the residents of the watershed.

Thank you,

Sean C. Mitchell, PhD.
Executive Director
St. Mary's River Association

GENERAL INTRODUCTION

The St. Mary's River Association (SMRA) embarked on an ambitious watershed restoration and management initiative in summer 2008. We recognize that to be effective, watershed level restoration or management activities must have the support of those that live within the watershed. Thus, we wish to ensure that the activities and efforts of the SMRA are consistent with the feelings and wishes of the people that live in the St. Mary's River watershed. This survey will provide the SMRA with information on the wishes and vision of the residents, and is one part of a "public involvement" campaign in which we are attempting to solicit public engagement in the development of a "common vision" that we can all work toward.

The survey asks your thoughts and opinions on a series of five categories:

1. Nature and recreational use of watershed
2. Land use & management
3. Economics
4. Awareness of SMRA and activities
5. Vision/Wishes

In addition, there are a few questions about a book project we are developing. Your answers to these questions will help us construct a better book reflecting the watershed.

Confidentiality: Confidentiality of responses is assured as the return addresses on the self-addressed, stamped return envelopes are St. Mary's River Association. The participants name and address remain unknown upon receipt of the survey.

Results of this survey will be made available to the public via future open houses and workshops. Results will be available on the SMRA website and upon request.

The SMRA recognizes that your time is valuable and so as an incentive to complete and return this survey we have included \$5.00. We request that surveys be returned by **March 31st, 2009.**

NATURE AND USE OF WATERSHED

The following questions are to assess the values placed on the environment of the St. Mary's River watershed by residents. This is very important information for future planning and development to reflect the wishes of local people.

General Values

- (1) The St. Mary's River watershed is important to me / I value the watershed for the following reasons: *Please check all that apply.*

Work-related Values

- ☐ Employment: I am able to work because of resources in the watershed
- ☐ Agricultural opportunities
- ☐ Forest harvesting & silviculture opportunities (e.g., logging)
- ☐ Non-timber forest products (i.e., berries, source of wild plants to transplant, collecting medicinal plants and herbs, etc.)
- ☐ Tourism opportunities
- ☐ Potential for development of businesses and / or industries

Recreation-related Values

- ☐ Non-motorized recreation: camping, hiking, biking, birdwatching, swimming, canoeing, fishing, hunting, trapping, etc.
- ☐ Motorized recreation: boating, ATV, snowmobile use, etc.

Conservation-related Values

- ☐ Provides fish and wildlife habitat
- ☐ Conservation potential: land, wildlife, endangered species, rare plants, etc.

Intrinsic Natural Values

- ☐ Scenic landscape views
- ☐ Forests: a variety of trees, shrubs and forest habitat in the watershed
- ☐ Abundant and clean water flowing in rivers

Lifestyle Values

- ☐ Low density of people
- ☐ Quiet lifestyle
- ☐ Good place to raise a family.

Other Values

- ☐ Education: natural areas where children and adults can appreciate nature and learn more about the watershed
- ☐ Historical places in the watershed (i.e., evidence of settlement and development by people (old foundations and stone walls, burial grounds and cemeteries, etc.)
- ☐ other _____

☐ other _____

☐ I have not considered the values that I have for the watershed

☐ I do not value the watershed.

Please use an additional page if necessary to add your ideas about why the St. Mary's River area is important to you.

Recreation

(2) Please indicate which of the following activities you do in/near the St. Mary's River during a typical year. *Please check all that apply.*

☐ Canoeing/kayaking

☐ Bird watching

☐ Fishing/angling

☐ Photography

☐ Hunting

☐ Berry picking

☐ Trapping

☐ Coasting/Tobogganing

☐ Camping

☐ Snowshoeing

☐ Hiking

☐ Cross country skiing

Other activities not in list:

(3) Where were your favourite outdoor recreation locations in the St. Mary's River watershed when you were young? What did you do at these areas? Are they still in the same condition (or altered) e.g., roaded, logged, private land, etc.

(4) What outdoor recreation areas do you visit now? What activities do you do when visiting this area? *The general area is fine (e.g., Garden of Eden Barrens); you do not have to be specific (e.g., Jock's Lake)*

(5) What outdoor recreational activities would you like to see our youth continue into the future?

- (6) Are there areas within the St. Mary's watershed that you would like to see set aside for outdoor recreation purposes? Where? What form of recreation?

- (7) How would you like to see outdoor recreation promoted in the St. Mary's River area?

- (8) Do you perceive conflict among users of the outdoor recreation opportunities in the watershed? If so among which groups? How might this conflict (perceived or real) be reduced?

- (9) Are you concerned with land ownership issues (e.g., private land, Protected Areas) interfering with your recreational opportunities?

☐ Yes ☐ No

- (10) Do you think that more Crown and private land should be protected for conservation in the watershed?

☐ Yes ☐ No

Angling

- (11) Do you fish for salmon or trout? (If you do not angle, proceed to Question 16)

Salmon: ☐ Yes ☐ No
 Trout: ☐ Yes ☐ No

- (12) How many years have you been fishing for salmon? For trout?

Salmon: _____ years
 Trout: _____ years

- (13) Approximately what age did you start fishing for salmon and/or trout?

Atlantic salmon

☐ Less than 5 years old
☐ 5-10 years old

Trout

☐ Less than 5 years old
☐ 5-10 years old

- | | |
|---|---|
| <input type="checkbox"/> 10-15 years old | <input type="checkbox"/> 10-15 years old |
| <input type="checkbox"/> 15-20 years old | <input type="checkbox"/> 15-20 years old |
| <input type="checkbox"/> 20-25 years old | <input type="checkbox"/> 20-25 years old |
| <input type="checkbox"/> 24-30 years old | <input type="checkbox"/> 24-30 years old |
| <input type="checkbox"/> More than 30 years old | <input type="checkbox"/> More than 30 years old |

(14) Who taught you how to fish for salmon and/or trout?

(15) On average, how many days in a year have you fished for Atlantic salmon or trout in the last five years?

Salmon: _____ days

Trout: _____ days

(16) Who do you normally go fishing with? *Check all that apply.*

☐ By yourself

☐ With friends

☐ With family

(17) What values do you place on salmon. That is, why do you think Atlantic salmon are important in the St. Mary's River? *Check all that apply.*

☐ Food source

☐ Tourism

☐ Recreation

☐ Their own intrinsic value

☐ Job related

☐ Symbol of clean water and healthy ecosystem

☐ Research

☐ I don't know

☐ Ceremonial purposes

☐ I have not thought about it

☐ Business

☐ I do not value salmon

☐

(18) Did you know the salmon population has been declining in the St. Mary's River?

☐ Yes

☐ No

(19) How important do you feel it is to work to restore the salmon population?

☐ Not important

☐ Somewhat important

☐ Important

☐ Very important

Please explain why you made that selection.

(20) Atlantic salmon fisheries are managed by the federal Department of Fisheries and Oceans. How satisfied are you with the current salmon management of the St. Mary's River? Please check the appropriate box.

- ☐ No opinion
☐ Not satisfied
☐ Somewhat satisfied
☐ Very Satisfied

(21) With what aspects are you satisfied? Not satisfied?

(22) Do you have suggestions for how individuals, community groups and/or government agencies can work to improve fisheries management in the St. Mary's River?

LAND USE & MANAGEMENT

The following questions are intended to provide us with information on the general use of the land and water in the St. Mary's and the satisfaction of the residents with current management practices.

(23) How long have you lived in the St. Mary's River watershed?

- ☐ < 2 years
☐ 2-5 years
☐ 5-10 years
☐ 10-20 years
☐ more than 20 years

(24) Do you rent or own land/property located in the St. Mary's River watershed?

- ☐ Rent
 ☐ Own

(25) Please check all of the following characteristics that describe areas of your property:

- | | |
|--|---|
| <input type="checkbox"/> floodplain | <input type="checkbox"/> presence of marsh/wetland/bog |
| <input type="checkbox"/> riverfront | <input type="checkbox"/> agricultural land |
| <input type="checkbox"/> creek or stream running through | <input type="checkbox"/> forested land |
| <input type="checkbox"/> lakeside | <input type="checkbox"/> remains of old houses, fences, |
| etc | |

(26) Which of the following activities are you currently engaged in on your property; for personal or household use, to trade, to sell or to give away?

Agriculture:

- ☐ pasture.
- ☐ crops. Please list types_____.
- ☐ berries. Please list types_____.
- ☐ vegetable garden.
- ☐ orchard. Please list types_____.
- ☐ others. Please list _____.

Forestry:

- ☐ softwoods.
- ☐ hardwoods.
- ☐ tree farm
- ☐ sawmill
- ☐ old growth/very mature stand(s)
- ☐ value-added products from natural sources (i.e., furniture or birdhouses from softwoods or hardwoods; honey from beekeeping; jams and sauces from your berries and fruits; medicines; holiday decorations, etc.). Please list types of products:

- ☐ other _____

(27) Are you concerned about historical or present land management practices on your land, or on Crown land in the St. Mary's River watershed. Please describe your concerns.

- ☐ Yes ☐ No ☐ No opinion

(28) Are you concerned about historical or present water management practices on your land, or on Crown land in the St. Mary's River watershed. Please describe your concerns.

☐ Yes☐ No☐ No opinion

(29) Do you believe Non-Government organizations (NGOs; for example St. Mary's River Association, Ecology Action Centre, etc.) have an important role to play in resource management? What do you see as the role of NGOs in resource management?

☐ Yes☐ No☐ No opinion

(30) Are you satisfied with the current decision making processes regarding natural resource use in the St. Mary's River watershed?

☐ Yes☐ No☐ No opinion

(31) Do you feel decisions adequately reflect all interested parties?

☐ Yes☐ No☐ No opinion

(32) I think that the following groups or individuals should be involved in planning for the future of the watershed.

☐ local citizens☐ community groups within the watershed☐ interest groups from outside the watershed (i.e., Ducks Unlimited, Outdoor Adventure Tourism groups, the Sierra Club of Canada, etc.)☐ government officials and departments☐ temporary residents within the watershed☐ youth (people under 30)☐ others: _____

(33) Given the current (2008/09) economic state of the world, Canada and northeastern Nova Scotia, do you think that the formation of a St. Mary's River Watershed Planning Council would be useful to address current and proposed future developments in the watershed area?

☐ Yes☐ No

(34) In what ways do you think the SMRA should reach out to the residents of the watershed to exchange information and engage the people in action? *Please check all that apply.*

- ☐ workshops
- ☐ open houses
- ☐ educational field trips
- ☐ Mail out information
- ☐ Attendance/booths at public celebrations
- ☐ Other _____ .

ECONOMICS

Economics play a great role in people's happiness and use of the landscape. The following questions are intended to provide some information on the general feelings on the economics of the area.

(35) Are you concerned with local economic conditions in the St. Mary's River watershed? ?

☐ Yes ☐ No ☐ No opinion

(36) Do you believe the economics of the area are resilient and not affected by outside (global or national) economic forces?

☐ Yes ☐ No ☐ No opinion

(37) In your opinion, what could be done to make the St. Mary's River watershed more economically vigorous?

(38) Are you satisfied with the economic opportunities for yourself in the watershed? If "no" what opportunities would you like to see?

☐ Yes ☐ No ☐ No opinion

(39) Are you satisfied with the economic opportunities for youth (people under 30 years) in the watershed? If "no" what opportunities would you like to see?

☐ Yes ☐ No ☐ No opinion

(40) Do you perceive that resource use/extraction opportunities and environmental conservation needs can both be met within the watershed?

☐ Yes

☐ No

☐ No opinion

AWARENESS OF SMRA AND ACTIVITIES

The SMRA has been active in restoration, conservation and management issues for 30 years, but we realize that our role within the watershed may not be as well known as we would like. The following questions are to gauge the public's awareness of the Association and to provide information on how we may improve our interactions with the residents of the watershed.

(41) Are you familiar with the St. Mary's River Association and their activities?

☐ Familiar

☐ Somewhat familiar

☐ Not familiar

(42) Are you aware the St. Mary's River Association is currently developing a recovery plan for the salmon in the St. Mary's River?

☐ Yes

☐ No

(43) If you answered yes to Question 43, have you spoken with someone from the St. Mary's River Association about the recovery plan?

☐ Yes

☐ No

(44) How well do you feel the St. Mary's River Association communicates its projects to you as a member of the watershed community?

☐ I do not know

☐ Moderately well

☐ No opinion

☐ Very well

☐ Not well at all

(45) How do you find out about current news and projects that the St. Mary's River Association is working on?

☐ Guysborough Journal newspaper

☐ Community bulletin board

☐ St. Mary's River Association newsletter

☐ Word of mouth

☐ Other (*Please describe*):

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(46) Would you like to be informed about future planning in the St. Mary's River watershed. This may include forestry, agriculture, industry, employment, tourism, etc.

☐ Yes

☐ No

(47) What are the best ways to inform you about developments that pertain to the St. Mary's River watershed?

- | | |
|---|--|
| <input type="checkbox"/> Telephone | <input type="checkbox"/> Radio advertising/programming |
| <input type="checkbox"/> e-mail | <input type="checkbox"/> Community meetings |
| <input type="checkbox"/> Direct mail | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Newspaper articles in my local paper | |

VISION/WISHES

The SMRA is striving to reflect the wishes and visions of residents of the watershed in future activities and planning. The following questions re intended to provide some indication of what residents consider most important within the watershed, to assist the SMRA to advocate for appropriate management, conservation or resource extraction.

(48) Please list in order of importance the personal values listed below that are most important to you when you think of the St. Mary's Watershed; including the river, floodplains, forests, communities, etc. (1 = most important; 9 = least important).
You may list more than one value as the most important.

- ☐ Public access/recreation
- ☐ Public water supply/clean water
- ☐ Natural resource extraction
- ☐ Jobs/economics
- ☐ Small rural community
- ☐ Solitude/Wilderness character
- ☐ Healthy forests/Wildlife
- ☐ Fishing/boating
- ☐ History and historic sites
- ☐ Other (enter here): _____

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NATURAL HISTORY BOOK

The SMRA is developing a book on the natural history and human relationships with the landscape of the St. Mary's River watershed. The intent is to foster local stewardship and pride and showcase the watershed to tourists travelling through. Your input to the following questions will assist us in developing a book that truly reflects the character of the watershed.

(49) Would you be interested in purchasing a professionally produced book about the natural and human history of the St. Mary's River Watershed?

☐ Yes

☐ No

(50) If yes, what would you consider a reasonable price to pay?

☐ \$15 or less

☐ \$15 - \$25

☐ \$25+

(51) What subject matter would you like to see detailed in the book. Check all that apply.

☐ Geology

☐ Development

☐ Climate

☐ Salmon Fishery

☐ Plant Life

☐ Lumber Trade

☐ Wildlife

☐ Agriculture

☐ Habitats in the Watershed

☐ Mining

☐ First Nations use/History

☐ Environmental Effects

☐ Settlement

☐ Conservation Movement

Other: _____

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(52) Would you be more willing to purchase a book if it contained:

Please check all that apply.

☐ Photographs

☐ Illustrations

☐ Anecdotal Stories: Local Legend and Lore

☐ Contributions from community members

☐ Scientific Information

FREE FORM

Please use the following lines to provide thoughts or opinions on any subject not dealt with above or to elaborate on points from above.

STATISTICAL QUESTIONS

The following questions are optional for completion; if there is a question you do not want to answer, please leave it blank.

(53) Please select your age class.

- ☐ Less than 18 years of age
- ☐ Between 18-40
- ☐ Between 41-70
- ☐ Greater than 70 years of age

(54) Please indicate your gender.

- ☐ Male
- ☐ Female

(55) Do you belong to any of the following organizations? *Check all that apply.*

- ☐ St. Mary's River Association
- ☐ Another fishing organization
- ☐ An environmental or conservation organization

THANK YOU

The SMRA thanks you for completing this survey. We believe the results from this will help to guide us in the coming years and ensure that our activities reflect the wishes and support of the people of the watershed.

APPENDIX 2: 2009 SOCIAL-ECONOMIC SURVEY DATA

INTRODUCTION

The following are the detailed results of the *2009 Social-Economic Survey of the St. Mary's River watershed, Guysborough County, Nova Scotia*. This appendix provides the numbered questions from the original survey with the results for each question. This appendix is intended for the reader wishing to pursue information or analyses beyond that reported in this report.

Note that comments are reproduced verbatim including original spelling and grammatical errors

NATURE AND USE OF WATERSHED

The following questions are to assess the values placed on the environment of the St. Mary's River watershed by residents. This is very important information for future planning and development to reflect the wishes of local people.

General Values

- (1) The St. Mary's River watershed is important to me / I value the watershed for the following reasons:

Work-related Values

- [4.7%] Employment: I am able to work because of resources in the watershed
- [26.6%] Agricultural opportunities
- [35.2%] Forest harvesting & Siva culture opportunities (e.g., logging)
- [36.7%] Non-timber forest products (i.e. berries, source of wild plants to transplant, collecting medicinal plants and herbs, etc.)
- [64.1%] Tourism opportunities
- [32.8%] Potential for development of businesses and / or industries

Recreation-related Values

- [80.5%] Non-motorized recreation: camping, hiking, biking, bird watching, swimming, canoeing, fishing, hunting, trapping, etc.
- [39.8%] Motorized recreation: boating, ATV, snowmobile use, etc.

Conservation-related Values

- [91.4%] Provides fish and wildlife habitat
- [72.7%] Conservation potential: land, wildlife, endangered species, rare plants

Intrinsic Natural Values

- [87.5%] Scenic landscape views
- [51.6%] Forests: a variety of trees, shrubs and forest habitat in the watershed
- [92.9%] Abundant and clean water flowing in rivers

Lifestyle Values

- [75.8%] Low density of people
- [82%] Quiet lifestyle
- [75%] Good place to raise a family.

Other Values

- [85.2%] Education: natural areas where children and adults can appreciate nature and learn more about the watershed

[74.2%] Historical places in the watershed (i.e., evidence of settlement and development by people (old foundations and stone walls, burial grounds and cemeteries, etc.)

[7.8%] Other

[7.0%] I have not considered the values that I have for the watershed

[0.8%] I do not value the watershed.

Of the 7.8% of the participants that indicated they value the watershed for other reasons, these reasons were:

1. Natural study area for St. Francis Xavier University students
2. Without the salmon, the river has little value, without a healthy river the salmon can't survive
3. Valuable attraction for animals and birds, for its past history of food supply for early settlers (First Nations and French)
4. General heritage
5. Healthy environment
6. Beaver dams, ducks
7. Geological formations, eskers, drumlins, sand deposits, since the last glaciations
8. People who grew up here enjoy coming home
9. Investment in different resources, lower input as others place on the land and increase turnover. People move here because they value nature and the environment, much easier to reach a goal, safe environment and green living.
10. Ancestral connection, my children are the sixth generation living in the watershed.

Response: 97.9%

Recreation

(2) Please indicate which of the following activities you do in/near the St. Mary's River during a typical year.

[70%] Canoeing/kayaking

[97.5%] Fishing/angling

[42.5%] Hunting

[8.3%] Trapping

[26.7%] Camping

[88.3%] Hiking

[74.2%] Bird watching

[80%] Photography

[90%] Berry picking

[20%] Coasting/Tobogganing

[25%] Snowshoeing

[21.7%] Cross country skiing

Other submitted activities not on original list: Swimming, picnicking, ATV and snowmobile use, cycling, sustainable forestry, plant and mushroom identification, geological identification, clam digging, tubing and horse back riding.

Response: 89.6%

- (3) Where were your favourite outdoor recreation locations in the St. Mary's River watershed when you were young? What did you do at these areas? Are they still in the same condition (or altered) e.g., road, logged, private land, etc.

Location	Percent (%)
Lochaber	22.2
Archibald Mill Lake & Brook	16.7
Glenelg	14.8
Newtown	12.9
Stillwater	11.1
Garden of Eden	9.9
Black Brook	9.3
Silver's Pool	9.3
Gunn's Pool	9.3
Watershed Lake	5.6
Waternish	5.6
Indian Man Brook	3.7
Melrose	3.7
Willowdale	3.7
McKeen's Brook	3.7
Mitchell Lake	3.7
Trafalgar	3.7
Lead Mine Road	3.7

Other areas included: McKeen, Harrison, Aspen, Leanord's, Caledonia, East St. Mary's, Deep Hole, Covered Bridge, West River, Cummings Lake, MacDonald Mill Brook, Liscomb, Fourth and Fifth Lake, Sonora Wharf, Sherbrooke Village and Rock Island Pool.

Response: 40.3%

- (4) What outdoor recreation areas do you visit now? What activities do you do when visiting this area? *The general area is fine (e.g., Garden of Eden Barrens); you do not have to be specific (e.g., Jock's Lake)*

Location	Percent (%)
Garden of Eden	28.6
Lochaber	18.2
Archibald Lake	14.3
McKeen's Brook	13.0
Lochiel Lake	10.4
Stonewall Park	10.4
Trafalgar	10.4
Aspen	9.1
Stillwater	9.1
Glenelg	7.8
Smithfield	7.8
Waternish	6.5
Rocky Mountain	5.2
Indian Harbour Lake	5.2
Silver's Pool	5.2
Caledonia	3.9
Two Mile Picnic Park	3.9
Cameron Lake	3.9
Black Brook Falls	2.6
Dykeens Hill	2.6
Cooper Lake	2.6
Gillen's Pond	2.6
Sherbrooke Lake	2.6
Nimrod	2.6
Elbow Lake	2.6

Other areas included: Watershed Lake, West Branch, North West Arm, Denver, Newtown, Gunn's Hole, Archibald Mill Brook, Cummings Lake, Highway 7, Silver's Pool, Rock Island Pool, Indian River Road, Gaspereau Lakes, Liscomb River Road, Eight Mile Lake, Lead Mine Road., Cove in Sherbrooke, Wine Harbour, Barrens Brook, Port Hilford Beach, Sherbrooke, Country Harbour, Old Guysborough railroad.

Response: 58.5%

- (5) What outdoor recreational activities would you like to see our youth continue into the future?

Recreational Activity	Percent (%)
Fishing	86.4
Hiking	60.2
Canoeing/Kayaking	60.2
Swimming	36.4
Hunting	26.1
Berry picking	21.6
Camping	15.9
Cross country skiing	14.8
Birdwatching	12.5
ATV use	10.2
Photography	10.2
Snow machine use	9.1
Hockey	4.6
Snowshoeing	4.6
Coasting	3.4
Field trips	2.3
Tubing	2.3
4H Club	2.3

Other recreational activities to continue: trapping, log rolling, picnic, environmental education, eco-touring, naturalist club, biking, motor boating, lessons, equipment rentals and tree planting.

Response: 65.7%

- (6) Are there areas within the St. Mary's watershed that you would like to see set aside for outdoor recreation purposes? Where? What form of recreation?

Locations to be set aside for recreational purposes

SPECIFIC LOCATIONS

Water related recreational activities

- 1 Leonard's Hole for swimming (West side of Newtown)
- 2 Lochaber Lake- part of it for canoeing and kayaking; no boats with motors in that area
- 3 Eden Lake-swimming lessons, sheltered area of lake for outdoor rink for skating on the water
- 4 St. Mary's River-fishing, hiking. Lochaber Lake- non-motorized boating.
- 5 Fresh water swimming-Eden Lake

Hiking & camping related recreational activities

- 6 Lochaber Lake; walking trail along west side, non-motorized area for boating
- 7 Garden of Eden/ Barrens; camping, swimming, skating, coasting/tobogganing, warm up shelter, ATV trails
- 8 Sherbrooke Village; boardwalk the river for walking trail
- 9 Footbridge at Stillwater Community Centre
- 10 I'm not sure if you consider a board walk along the St. Mary's that would take in the historic village which would get people active and help tourism.
- 11 West side of Lochaber on the ridge (hiking)
- 12 Hiking trails along the west of the river (Watnash to Sherbrooke); footbridge replaced across river at Stillwater community center; TransCanada Trail (our contribution)
- 13 Lochaber Lake; walking trail along west side, non-motorized area for boating

Team sport related recreational activities

- 14 Nimrods area back to public area for sport competitions
- 15 Soccer and baseball area behind United Church
- 16 Baseball and soccer area in the picnic park area behind the United Church in Sherbrooke
- 17 Park at Lochiel Lake- ball games, races, etc.

Tourism related recreational activities

- 18 Along Highway # 7; more rest areas, garbage cans and picnic areas

Identified areas but no explicit recreational activity

- 19 Archibald Mills Lake and Brook
 - 20 Areas of old growth forest that still remain along the banks of the St. Mary's and a few tributaries, Lower Caledonia, Smithfield, Glenelg, and Lead Mines. These areas are only small in acreage but left mainly because of their steep inaccessible terrain in the past.
 - 21 Along the river from Sherbrooke to Stillwater
 - 22 Stillwater, fish and games grounds
-

NON-SPECIFIC LOCATIONS

Water related recreational activities

- 23 Swimming area with rescue equipment available, swimming holes cleaned up and deeper St. Mary's River,
- 24 Swimming area, fishermen do not like to see children in their fishing pools
- 25 Swimming and canoeing
- 26 We need a clearly defined swimming area for children and youth with proper rescue equipment on hand
- 27 It would be nice to see more canoeing and kayaking in our area

28 Fishing, boating, swimming

Hiking & camping related recreational activities

29 Trans Canada Trail and others; ATV trail, ATV monitoring and policy, horseback riding, bird
watching, history, motor free areas,
30 Winter area; groomed cross country ski trails, snowshoe trails, warm up shelter, skating,
coasting/ toboggan, snow machine trails
31 Camping areas
32 Hiking trails and campsites
33 More hiking trails. Especially along the river where you can find old basements, old
cemeteries, old mill sites, etc.
34 Huge opportunity to develop a system of trails, bird watching, hiking, fishing, hunting
35 I am not too familiar with the areas now, but it used to be great for picnicking and exploring.
Also fishing
36 Hiking trails along parts of the river would be nice.
37 No. It should be protected unless used as some sort of hiking trail
38 Some areas should be motor free. Hunting trails and parking so they can minimize the danger
for everyone.

Team sport related recreational activities

NO COMMENTS

Tourism related recreational activities

NO COMMENTS

No explicit recreational activity (General Comments)

39 Old railway bed
40 No I don't think you need to set areas aside. I have lived here all my life and did what I
wanted to do in the river
41 Opportunities are endless for where and what activities could be offered
42 I am not familiar with specific areas; much has changed over the years
43 Yes, major setback from the river with no forest harvesting. Soft recreation- non-motorized
area
44 Joint usage. All crown lands and land owned by large pulp companies including roads should
be available to the public providing no damage is done. Some old growth areas historical
grounds could be set aside for visiting/hiking/walking- low impact on lands
45 There shouldn't be too many areas designated as recreational areas because of human
disturbance (i.e. Garbage, litter, and interference with nature, destruction of land and
vegetation
46 Since we are in our 70s and have a large property (200 acres) and have a community hall
with recreational facilities this question does not apply to us

Response: 34.9%

(7) How would you like to see outdoor recreation promoted in the St. Mary's River area?

How to promote outdoor recreation	
<i>Mechanismsto promote recreational activities</i>	
1	Educational field trips (5 comments)
2	Municipal Newsletter (5 comments)
3	Local school (2 comments)
4	Family fun days (2 comments)
5	Newsletter, tourism information, fliers, radio, bulletin Board, SMRA, Municipality Recreation, newspaper
6	Would not like to see any promotion
<i>Promoting water related recreational activities</i>	
7	More canoe kayaks in area, guided canoe/ kayak trips, Canoe poker rally and events (5 comments)
8	Fishing techniques, fly tying, annual fishing derby
9	Swimming lessons
10	Boat launch area, picnic park, trails, look offs
11	River dredged
12	Get fish back into river
<i>Hiking & camping related recreational activities</i>	
13	Trail events bird watching, wildflower, biking
14	Trails and rest stops
15	Bring back the sportsman meet, Stillwater, More use of Stonewall Park, fishing and duck derbies
<i>No explicit recreational activity (General Comments)</i>	
16	Sport Groups

Response: 53%

(8) Do you perceive conflict among users of the outdoor recreation opportunities in the watershed? If so among which groups? How might this conflict (perceived or real) be reduced?

Number of respondents that identified conflict	Perceived conflict
5	Motorized and non-motorized uses
5	ATVs and landowners
3	Landowners and recreational users
2	Salmon fisherman and swimmers
2	Boaters and swimmers
2	Pesticides and land use
3	Snowmobile and forestry
1	Runners, hikers, bikers
1	Farmers
<i>Comment</i>	
2	Older people should be considered

Response: 51.5%

Are you concerned with land ownership issues (e.g., private land, Protected Areas) interfering with your recreational opportunities?

[36.8%] Yes

[63.2%] No

Response: 87.3%

(9) Do you think that more Crown and private land should be protected for conservation in the watershed?

[75.7%] Yes

[23.3%] No

Response: 82.8%

Angling

(10) Do you fish for salmon or trout? (If you do not angle, proceed to Question 16)

Salmon: [31.4%] Yes

[40.2%] No

Trout: [76.5%] Yes

[23.5%] No

Response: 77.3%

(11) How many years have you been fishing for salmon? For trout?

Years spent fishing	Salmon Percent (%)	Trout Percent (%)
1 – 10	19.3	3.0
10 – 20	3.9	4.5
20 – 30	15.4	9.0
30 – 40	15.5	17.9
40 – 50	15.4	19.4
50 – 60	11.6	28.4
60 – 70	11.6	10.5
70 – 80	7.7	4.5
80 – 90	-	1.5

Salmon Response: 19.7%

Trout Response: 50.8%

(12) Approximately what age did you start fishing for salmon and/or trout?

Atlantic salmon

[0%] Less than 5 years old

[18.5%] 5-10 years old

[21.9%] 10-15 years old

Trout

[9.1%] Less than 5 years old

[61%] 5-10 years old

[18.2%] 10-15 years old

[12.5%] 15-20 years old
 [9.4%] 20-25 years old
 [6.3%] 24-30 years old
 [31.3%] More than 30 years old

Response: 24.2%

[2.6%] 15-20 years old
 [1.3%] 20-25 years old
 [1.3%] 24-30 years old
 [6.5%] More than 30 years old

Response: 58.3%

(13) Who taught you how to fish for salmon and/or trout?

[61.9%] Father
 [22.2%] Friends
 [22.2%] Self Taught
 [12.7%] Other Family
 [11.1%] Brother
 [6.4%] Mother
 [6.4%] Grandfather
 [1.6%] Course

Response: 47.4%

(14) On average, how many days in a year have you fished for Atlantic salmon or trout in the last five years?

Age Range (years)	Atlantic salmon percentage (%)	Trout percentage (%)
<5	0	9.1
5 – 10	18.5	61.0
10 – 15	21.9	18.2
15 – 20	12.5	2.6
20 – 25	9.4	1.3
25 – 30	6.3	1.3
>30	31.3	6.5

Salmon Response: 20.5%

Trout Response: 55.3%

(15) Who do you normally go fishing with? *Check all that apply.*

[64.9%] By yourself
 [62.2%] With friends
 [68.9%] With family

Response: 81.1%

(16) What values do you place on salmon? That is, why do you think Atlantic salmon are important in the St. Mary's River?

Value	Percentage (%)
Tourism	85.1
Recreation	83.2
Food source	62.6
Intrinsic value	54.2
Symbol of clean water and healthy ecosystem	54.2
Research	44.9
Job related	30.8
Business	17.4
I do not know	1.9
I have not thought about it	1.9
I do not value salmon	0

Response: 81.1%

(17) Did you know the salmon population has been declining in the St. Mary's River?
 [90.1%] Yes [9.9%] No

Response: 91.7%

(18) How important do you feel it is to work to restore the salmon population?
 [0.8%] Not important
 [6.4%] Somewhat important
 [18.4%] Important
 [74.4%] Very important

Response: 94.7%

Please explain why you made that selection:

Explanation for why the salmon population should be restored	
	<i>River Health</i>
1	Salmon are just one species in the hierarchy, bringing them back brings a resemblance of what is worthwhile and healthy in life
2	My understanding is that this restoration would also mean the restoration of many other issues on the river
3	If the salmon cannot live in the river it means the water is getting too foul for our use
4	When there gone there gone "never see them again as they travel up the river, beautiful to see them jumping through the air"
5	Taking care of our environment is so important and yet we are stupid about it, our evolution requires us to grow up and stop treating life like our toy, sorry get impassioned
6	The decline of the salmon population is a serious problem and viable solutions have to be found to this problem
7	Salmon have ALWAYS been an important part of the river system and to have them in such low numbers or not at all would be devastating
8	For the life of the river and for the support that anglers from "away" give to the community and local businesses

9 By restoring, you restore natural habitat
 10 Because salmon and other wildlife are indicators of river health
 11 It all goes back to having a healthy environment
 12 Salmon are quite a delicacy and when fish were plentiful you knew the river was healthy
 13 A healthy salmon population would certainly mean a healthier river, improved pH values
 and otherwise
 14 It is part of the history of the river and a sign of the health of the river
 15 To maintain homeostasis within the rivers habitants
 16 You have to have a healthy river
 17 If the salmon are back, the environment is healthier. But the river is too wide and low, this
 needs to be addressed
 18 Overall health of the river, would allow retention of caught fish
 19 The St. Mary's River is a barometer of our ecosystem, which is in trouble
 20 A restored forest = restored water = restored salmon
 21 If salmon population is healthy, the rest of the system is healthy.
 22 They are nature to this river, if the salmon die out the river has to be affected too.

Tourism

23 For tourism, sportsmen-ship
 24 Good salmon fishery would increase tourism
 25 The river was important for fishing for sports
 26 Promote tourism, recover endangered species, recreation business
 27 Very important for tourism and to stimulate the economy of the area. Also important for
 the recreational value of myself and family
 28 I feel that our tourism would be up and than that would create more business in the area
 29 The area was known for salmon fishing it drew people to the area. It would be good for
 the economy to restore the population as well as the ecosystem
 30 Tourism has dropped and I feel a lot has to do with the salmon fishing
 31 In the past we had many from far away come here for salmon season
 32 To continue the species for a future economic benefit and pleasure
 33 Brings tourists to area
 34 It would bring more people around which in turn would be good for local business
 35 Tourism/recreation
 36 It will bring more tourist to the area
 37 From an economic viewpoint good salmon fishing would increase the tourist numbers
 meaning business increase for guides, accommodations, stores, gas stations, etc. etc.
 38 If the salmon population is plentiful the river is in good shape, and is very good for
 tourism, a lot of people fly fish
 39 Same as above, tourism, intrinsic value, symbol of clean water
 40 To bring people into the area for fishing like it use too
 41 Improving the salmon population will help the area economically and esthetically.
 42 The more salmon, the better chance for tourism.

Recreation

43 For the purpose of recreation and food value for some
 44 I believe salmon fishing has been a tradition for many people both in and out of the area. It
 brings business and food source for many.
 45 Food resource, recreation, research, tourism and symbol of clean water and healthy
 ecosystem
 46 People enjoy salmon fishing, I use to see men fishing at Silver's Pool down in Sherbrooke,
 but not anymore, it would be nice to see this again
 47 I remember when my father could catch two 18lb salmon?
 48 For recreation, tourism, intrinsic value, clean water (Q 17), I am also a realist and believe
 that until the acid rain issue is solved, erosion problems cosseted, poaching stopped and
 governments at the work 'stop' overfishing on the spawning grounds we will remain on a
 slippery slope

49 The St. Mary's is known world wide for its Atlantic salmon fishing
 50 It was always a joy to see a salmon fishermen in the St. Mary's River fishing
 51 I have a nephew that likes to fish and he talks about it all the time, fishing is his life.
 52 Since, the drop in salmon lead to the closure of the catch and retain recreational salmon
 fishery on St. Mary's and other rivers (e.g. Liscomb, Ecum Secum) there is less activity on
 river possibly less importance is given to it by both residents and outsiders. This has
 affected tourism, small related business growth is a loss of identity in communities
 53 Fishermen from all over the world used to come to fish here. Salmon are special, used to
 watch them from the bridges, very few now
 54 I think that it is important because of recreation and tourism
 55 We need to keep our salmon population in control for our children so they can experience
 the joy of fishing
 56 So that other generations are able to enjoy the sport of salmon fishing and it will be a
 boost for the economy in this area
 57 If we don't act proactive there will be no salmon. I think a system like they have in the
 Margaree Fish Hatchery would be a step in the right direction.
 58 It used to be good, a good sport and there were lots of tourism people came from all over
 Canada and USA. Now the pulp company came and ruined that.
 59 It doesn't help to restore the salmon population if people can not catch and use them

Symbolism

60 Salmon is a symbol for this area and it makes it attractive
 61 The salmon is the hallmark of the area. It is important to protect all species of wildlife.

Food

62 Because when salmon were plentiful they provided a source of food, attracted tourists,
 provided employment for guides
 63 For food, recreation purposes
 64 For food, recreation, job related, research, business, tourism, and intrinsic value, symbol
 of clean water, also to prevent extinction of Atlantic salmon and protect and enhance the
 multi sea winter fish genetics.
 65 We have salmon once a week at our dinner table, fresh salmon out of the St. Mary's River
 is clearly very important to us
 66 For the values I checked above, food source, recreation, job related, research, tourism,
 own intrinsic value and symbol of clean water

Biological

67 Lots of salmon in the river last year, appears to be a seven year cycle.

Intrinsic value

68 I just think they were always there and should continue to be
 69 I would love to see salmon under Melrose bridge as they were 20-30 years ago. Would
 often count 10 or more under the bridge
 70 There is nothing more beautiful than when a salmon is breaching the water on its way to
 the spawning ground. It seems to be a sight that is sorely lacking compared to when I was
 a youth.
 71 To make sure the species survive in the wild and also for recreational fishing
 72 I think they are a magnificent fish and they should be researched and brought back for the
 generations to come.

Cultural & Historical values

73 Culture - historical reasons
 74 Good for the community

General Conservation

75 St. Mary's is one of a few rivers that have salmon, I think that it's important to try and

- keep the salmon population up.
- 76 Too many animals and fish are being depleted soon they will be extinct
- 77 It is important to preserve the species and perhaps re-open fishing to bring in tourists in future
- 78 Years ago there was an abundance of salmon but they have declined. It would be nice to see the numbers up again
- 79 Hate to see salmon population decline
- 80 For future generations to come
- 81 I fished in the 60's and 70's when it was sound, I would like to see it returned
- 82 Loss of numbers or extinction of any species is something to be concerned with. The salmon should be restored (as much as possible) to previous numbers.
- 83 For all to appreciate conservation and restoration, to encourage tourism and to restore pride of past history and the early family of this area.

General Comments

- 84 Don't fish for salmon since government took salmon berth's away from fisher's
- 85 Because I knew that the salmon were getting scarce
- 86 Restoring the salmon is a sinking ship if you don't stop commercial fishing, sport fishing never harmed salmon populations
- 87 Maybe the sewage disposal around St. Mary's River should be looked at in more detail
- 88 It will help with other fundraising
- 89 I have been connected to the Saint Mary's River since a child. I have seen many changes in my time not for the better. I would like to see this reversed and back to what I remember as a kid.
- 90 Logging companies have caused a high level of erosion and increased water temperature on the St. Mary's watershed.
- 91 While I feel restoring the salmon population is very important. I feel much of what the SMRA works at is counterproductive, we should be improving the water quality, i.e. pH level by putting lime in lakes on the West Branch, which might prove useful, temp, and water volume by restoring the forests in the watershed, not by molesting the parr and smolts as they head to sea by catching smolt and tagging them, decreases their chances for ocean survival and return to river to spawn. Or not to the pools pre-spawning.
- 92 To have not area, it is an area for growth, renewal. "It is an area for personal growth and renewal".
-

Response: 73.6% (of those participants that answered question 19)

(19) Atlantic salmon fisheries are managed by the federal Department of Fisheries and Oceans. How satisfied are you with the current salmon management of the St. Mary's River?

[35.0%] No opinion
 [29.9%] Not satisfied
 [32.5%] Somewhat satisfied
 [2.6%] Very Satisfied

Response: 88.6%

(20) With what aspects are you satisfied? Not satisfied?

Aspects respondents are satisfied and dissatisfied with in regards to DFO's management of salmon in the St. Mary's River.

Management

- 1 Over the years DFO allowed salmon to be overfished offshore
- 2 It is a large area which requires resources necessary to enforce the law, they can't manage the ocean so how will they manage a river
- 3 Licensing and regulation
- 4 The different government agencies need to cooperate and coordinate their efforts in a more effective fashion
- 5 More should be done to protect the river/salmon from clear cutting, use of pesticides, overfishing and raw sewage
- 6 History of mismanagement, i.e. lack of funding adequate for research purposes
- 7 Too many secret meetings
- 8 Work together towards a common goal and plan
- 9 They are probably doing what they feel is best
- 10 I don't think it is being managed. All I have ever seen are biologists talking and not acting.
- 11 DFO needs more resources, people and money
- 12 Decisions from afar
- 13 DFO are doing the best they can with resources they have. Not satisfied with cutbacks in Government funding to reduce staff and resources. Not enough involvement from local people in voicing

DFO performance

- 14 I know the salmon numbers are up slightly the last couple of years so they should have started to work on it but they should continue
- 15 I am satisfied with work done to get the fish back in the river, I realize you can only do so much with the capital you have to work with
- 16 They do what they can with the resources they have
- 17 The DFO do a good job for what resources they have, their desire to do a great job is evident.
- 18 That they actually pay some attention to the population
- 19 That action is being taken
- 20 They seem to be paying good people to work on it, I meet a very enthusiastic and well qualified marine biologist last season and you write a very good survey, a rare thing.
- 21 If the population is in decline there should be more done
- 22 It does not seem that Federal Government is doing enough for the St. Mary's as compared to other areas
- 23 The federal government could provide more funding
- 24 DFO does very little to protect or increase the salmon population
- 25 Not really sure what is going on to help salmon population
- 26 Could be more visible

Poaching /Enforcement

- 27 Lack of protection, too much on science
- 28 I don't know all of the issues but I feel that DFO is mainly enforcement
- 29 Illegal fishing, management

- 30 No protection for the few salmon that do come into the river system! Jigging and netting go on all the time once the salmon come in, in the isolated pools are "too far" for the wardens to walk to also they are only around during "working hours"
- 31 Enforcement
- 32 Since no longer a salmon season very little enforcement by DFO and few residents on river to be eyes and ears. If it does go on, I haven't heard of any extensive research or salmon enforcement projects on St. Mary's
- 33 They don't monitor poaching sufficiently, no fish stocking programs and no habitat restoration
- 34 Not enough surveillance for netting that's going on in area of Caledonia Bridge
- 35 Because of the lack of guidelines being established to protect the rivers from chemicals and sludge being allowed to be used on land adjacent to rivers and brooks
- 36 Conservation patrols, conditions for aquaculture permits

Restoration / Enhancement

- 37 There should be a fish ladder at the falls in Sherbrook.
- 38 Take island out of river at Cecil Hattie
- 39 Not much interest or effort to restore stocks apartment
- 40 Need to work to repopulate stocks, need to better protect habitat
- 41 Not cleaning out the gravel that piles up in the centre of river
- 42 Need habitat restoration work carried out on the river, need enforcement presence
- 43 Not satisfied with restocking
- 44 Netting spawners for eggs which are sent to hatcheries, this gives us inferior fish to spawn naturally. Many of these eggs (parr/smolt) are used to stock other rivers for aquaculture (DFO official, pers. comm.). While ocean and river mouth netting have ceased. The St. Mary's salmon have been in continual decline from the time salmon were caught and milked to produce eggs in a hatchery particularly large 2SW and 3SW fish, the hatchery is not working.
- 45 Cribbing work, though I think we should see how well the cribbing put in holds up over the next 10 years before continuing.

Angling Opportunities

- 46 I do not believe in catch and release, if you are going to spend one hour to bring a fish in, some day go to the river and see what a salmon looks like when it is let go, not good
- 47 Not satisfied with fly fishing only being stopped at the county line. It should be extended to Eden Lake. The river has many small salmon in the Pictou County area.
- 48 Would like to see anglers allowed to keep one fish
- 49 I don't believe in the hook and release laws, personally, I would prefer to see no salmon fishing
- 50 I don't agree with the hook and release, does more damage to fish. Federal gov wants revenue not conservation
- 51 Hook and release. Recreational fishing is ineffectual and causes the death of salmon. More often than not the released salmon is so played out it dies. Then the eels get them, anyone who thinks otherwise is an idiot
- 52 I would like to see more brown trout and speckled trout

Science / Conservation

- 53 Should have more work in bringing back the salmon populations
- 54 The studying has been going on since (at least) 1940's...in all that time, some recommendations must have been made that could be acted upon. But what has been done?
- 55 What they are doing does not seem to be having any beneficial effect on the salmon population, also they send in their "experts"? And in the past have not questioned locals re what the problems are. These local people have been fishing the St. Mary's for years and they know the river

Predation

- 56 I myself believe that the shags and shell ducks and seals have a major factor in the decline of the
salmon and DFO will not admit it. Also acid rain. Fifty years ago you could catch trout in any
57 little stream or dead water (Stillwater), now most of the streams and Stillwater are dead.
The government is not doing enough to deplete the over abundance of seals

General Comments

- 58 That the population is declining
59 In comparison to when I moved to this area many years ago salmon and I believe other fish are
quite scarce, the branch where I live is very different
60 DFO's dealing with the Native Council
61 Protecting the fish and giving them an opportunity to "come back"
62 Education, for hunting I have to go through courses to respect wildlife, where as for fishing you
do not, reading the fishing guide doesn't mean you understand it.
63 Research
64 Local participation
65 Control
66 Research, tests and the work done.
67 They are not doing enough
-

Response: 52.1% (of those respondents that answered question 19)

(21) Do you have suggestions for how individuals, community groups and/or government agencies can work to improve fisheries management in the St. Mary's River?

How to improve fisheries management in the St. Mary's River

Management

- 1 In a fishery that is catch and release, I feel it would be beneficial to the salmon to have the
season open for the entire length of the trout season. This would, monitor the river as to
poaching by concerned anglers and create more interest in the river and the SMRA. Catch
and release season should be extended for salmon (May 1 – Sept. 30). Only 1 acre in 80
should be cut each year in the watershed. All the water from Governor Lake should be
diverted back into the St. Mary's watershed. As this was its natural course. Lakes on the
West Branch should be limed. The tagging of smolts should be stopped and all spawning
activity should occur naturally in the river. It should be realized that if catch and release
salmon fishing is allowed on the river, the tourist anglers will come back in 2-3 years, with
no promotion.
2 Work together and apply pressure on Ottawa for funding. Look to private industry away
and locally for help with funding. Local business to outfitters should help as well.
3 Improving health of forestry and it will reduce run off unto rivers. Improve pH and water
levels.
4 Maybe the river/watershed in same way, a protected area
5 Try to get more groups involved, hands on
6 By becoming aware of all the problems and participating in all the solutions
7 Stop the factory ships from fishing salmon
8 Try to work together
9 More information released to public
10 Work together as a community group in cooperation with DFO

- 11 Community in St. Mary's River watershed should get more involved with SMRA to help
with its work. DFO should hire more people instead of cutting back
- 12 Landowners along the river could be made aware what they do on their land affects the
river. Government agencies could give more talks to the landowners keeping them
educated about this
- 13 Local employment if only seasonal is important especially in this rural area of Nova
Scotia. However, I hate to see public monies spend in the "name of conservation" if the
main purpose of the organization receiving funding is mainly to create jobs. This is very
short sighted and if funding does not create positive conservation results future funding
will cease
- 14 Users/governments (3 levels)/ New Page landowners etc. get together create a master plan
and get on with it
- 15 Work together on habitat and population improvement
- 16 Keep making us aware and make us help educate us on how we can improve
- 17 Try to get a good dialogue with Native Council to understand there role in deciding where
and when the angling seasons for salmon are decided
- 18 Joint effort partnerships, funding, people (public) have to see actual habitat projects being
carried out
- 19 Promote more careful use of the land by farmers, foresters and recreational groups
- 20 Reduce building development along side water ways
- 21 Have open forums where local people can make suggestions that the "powers can be
consider and act upon." The SMRA is to be commended for the work they are doing. The
government people should listen to what they have to say!

Poaching / Enforcement

- 22 Individuals, follow rules and regulations, community groups report irregularities to
authority government, follow up on complaints in a timely manner.

Restoration /Enhancement

- 23 Improve the habitat and the fish will come back. With catch and release the fish will
manage themselves.
- 24 Keep it cleaned out, I mean take gravel out of the river like they used to do as that keeps
the pools and do not let the pulp companies at least 200 ft from the river banks.
- 25 River has become too wide and less deep, diversions from ice and trees have led to shallow
river
- 26 Regional stocking programs, fish hatcheries run by community groups with federal
assistance
- 27 Put bulldozer in river and clean it out
- 28 Fish Hatchery and proactive river stabilization

Angling opportunities

- 29 Stop the hook, kill and release program. Start a program where each fisherman get one tag
and gets to keep the first salmon caught, then his season is over. Thus bringing in many
more people (money) and killing less salmon.
- 30 Salmon fishing used to bring many tourists to the St. Mary's River, which helped the
economy of the area. Salmon in the river would bring them back.
- 31 If salmon stocks can be improve it would promote development, the people will come,
they want to be able to catch these fish, not necessarily keep them, catch and release, if
stocks could be improved to the point where a couple of tags would be available per fisher
with proceeds going to stock improvement even better.
- 32 Stop catch and release

Science / Conservation

- 33 Act on the recommendations from the various studies; work with university community for
guidance
- 34 Trying to get people to stop polluting the water ways

Predation

- 35 Yes. There is not enough salmon/trout for all the seals, shags and shell ducks as they eat them when they are just hatched up to adults. They don't have a chance. Years ago the people shot these birds and animals for food, now they are protected and nearly no one hunts them anymore.
- 36 Have an open season on seals in the mouth of the St. Mary's River, I live at the mouth of the St. Mary's River and we know when the salmon are going by the amount of seals in the river
- 37 More wardens for protection of adult salmon also a reduction of the number of mergansers (duck) families that live on the river all summer eating the smolt/fry, sometimes flocks of 30 or more sweeping the river clean of everything. Also cormorants have moved into the river system in the summer and stuff themselves full they can't even fly. Should be allowed to destroy some of these birds!
- 38 Shoot all the shags
- 39 River specific management, no one in Ottawa cares or knows about St. Mary's River, things that work on other rivers don't work on St. Mary's. A yearly cull for cormorants, fish eating ducks and seals would increase the salmon population by 80%

General Comments

- 40 less paper pushers and more on hands work
- 41 Throw some community events, like litter pick-up, picnics, encourage people to take some ownership. The Government should listen to the experts and not selling our environment to the highest bidder.
- 42 Stay involved and make evidence based decisions
- 43 I am not in the position to comment on this, it seems to me that the SMRA is working hard on the river and is doing a good job. It is also nice to see that the wood turtle is in good hands
- 44 More community based river activities and events
- 45 There should be someone in the department of Fisheries with an open mind to their job
- 46 More information
- 47 Fishing courses
- 48 Get more involved
- 49 Get involved
-

Response: 41.9% (of those participants that answered question 21)

LAND USE & MANAGEMENT

The following questions are intended to provide us with information on the general use of the land and water in the St. Mary's and the satisfaction of the residents with current management practices.

(22) How long have you lived in the St. Mary's River watershed?

- [0.8%] < 2 years
- [5.7%] 2-5 years
- [6.5%] 5-10 years
- [8.1%] 10-20 years
- [79.0%] more than 20 years

Response: 93.9%

(23) Do you rent or own land/property located in the St. Mary's River watershed?

- [5.7%] Rent
- [94.4%] Own

Response: 93.9%

(24) Please check all of the following characteristics that describe areas of your property:

Characteristic	Percent (%)
Forested land	50.7
Riverfront	46.6
Creek or stream running through	45.7
Agricultural land	41.4
Presence of marsh/wetland/bog	31.9
Lakeside	28.5
Remains of old houses, fences, etc	26.7
Floodplain	20.7

Response: 87.9%

(25) Which of the following activities are you currently engaged in on your property; for personal or household use, to trade, to sell or to give away?

Agriculture:

- [13.0%] pasture
- [14.8%] crops, please list types
- [35.2%] berries, please list types
- [45.3%] vegetable garden.
- [14.8%] Orchard, please list types
- [10.2%] Others, please list: flower gardens, raising poultry

Forestry:

[57.4%] softwoods
 [55.6%] hardwoods
 [11.1%] tree farm
 [3.7%] sawmill
 [17.6%] old growth/very mature stand(s)
 [6.5%] Value-added products from natural sources (i.e., furniture or birdhouses from softwoods or hardwoods; honey from beekeeping; jams and sauces from your berries and fruits; medicines; holiday decorations, etc.). Please list types of products: make jam from berries

[5.6%] other: 6 Christmas trees and 1 crafts

(26) Are you concerned about historical or present land management practices on your land, or on Crown land in the St. Mary's River watershed? Please describe your concerns.

[47.4%] Yes

[19.8%] No

[32.8%] No opinion

Concerns about historical or present water management practices on your land, or on Crown land in the St. Mary's River watershed

Forestry related practices

- 1 Many streams were straightened and channelized to drive logs and pulpwood many years ago.
- 2 Present guidelines seem to be sufficient for the most part. The cutting of trees along #7 Highway on bank of Lochiel Lake in fall/winter of 2007-08 was not a good thing to do by the N.S. Dept of Transportation.
- 3 Culverts in streams and log driving.
- 4 Yes I am concerned about management practices on watershed areas. I feel there should be stricter guidelines for harvesting wood and road building, farming, etc. on private and crown lands in our watershed.
- 5 Old forests are all cut and there's nothing to hold the water back which will result in siltation and flooding. Old dams are all gone which kept the water level stable.

Agricultural related impacts

- 6 On crown land I have concerns about taking water from brooks and lakes for agricultural purposes

Development related impacts

- 7 The watershed system should always be considered with any type of development.

Water Quality

- 8 We really keep in mind the value of the river on our land but other people may not feel the same and pollute.
- 9 I'm concerned about sewage in the lake.
- 10 What am I filtering out of my drinking water? How is our sewage being treated? Are people using dangerous chemicals on lawns?

- 11 Water management practices are much better than they used to be; forest harvesting machines are kept out of streams much better than they used to be. I'm also concerned about the liquid fertilizer being spread on the corn fields in Glenelg, especially when they flood and wash gunk into the river.
- 12 I'm concerned regarding manure on fields which are on watershed as well as storage facility for waste (human) from New Glasgow.
- 13 Sewage in the river in Sherbrooke

Hydrology

- 14 I think the water from Governor Lake at the head of the West Branch should be returned to the St. Mary's watershed. At present a large percentage of this water has been diverted into the Sheet Harbour river for Hydro electric generation.
- 15 River flooding due to condition of river
- 16 I'm hugely concerned about erosion and low water levels.

Physical changes to the river

- 17 I'm worried about bank erosion and the widening and shallowing of the river.
- 18 I think we should take old trees out of the river.
- 19 I think we should be removing soil and gravel close to river
- 20 I'm concerned about run off silt from some private roads and more often public gravel roads which often cause more siltation than forestry roads. Simple things like the use of gravel on roads that silt heavily after rains would lessen this siltation impact.
- 21 I'm concerned with siltation from forestry and agriculture

General Comments

- 22 I generally feel no concern has been given over the years to the effects of land practices on the river/waterways
-

Response: 87.9%

(27) Are you concerned about historical or present water management practices on your land, or on Crown land in the St. Mary's River watershed? *Please describe your concerns.*

[44.8%] Yes

[24.8%] No

[30.5%] No opinion

Response: 79.6%

(28) Do you believe Non-Government organizations (NGOs; for example St. Mary's River Association, Ecology Action Centre, etc.) have an important role to play in resource management? What do you see as the role of NGOs in resource management?

[73.2%] Yes

[2.7%] No

[24.0%] No opinion

Response: 84.9%

1	NGOs should do what they can to improve the resource and work with DFO management.
2	They should focus on the protection of salmon, trout, etc and see that trees are left near the river so the
3	It is run by local volunteers, for the specific benefit of the area.
4	To keep the watershed area safe for birds and wildlife
5	They should be involved at all levels
6	I feel that unless the SMRA follows the government's agenda they are not listened to. They only get t
7	I believe they're managing the river, brooks, etc to the best of their ability to leave things the way nat
8	Education, funding, & awareness.
9	To keep an eye on government and business.
10	Pressuring the government to preserve these areas.
11	They need to be independent and not have a vested interest in filling their own pockets.
12	They're hands on.
13	They should work with other groups to ensure the work is being done.
14	Provide expertise, be trustworthy, arms-length from government, advocate.
15	Independent
16	To help protect and preserve our resources.
17	Help co-ordinate efforts of all groups involved; bring people together to plan and share information.
18	NGOs are the pro-active side who work from passion to make it better. The Feds just draw a pay che
19	These organizations monitor our resources; educate the public and the government.
20	Can provide a venue for people opposed to government management. Lobby group.
21	Better able to promote paper management techniques.
22	Promotion of good stewardship of our resources. The bottom line of a financial page isn't the only de
23	These are people (NGOs) who have researched and studied local problems and should continue to pre
24	Keep interest and activity focused on the watershed areas.
25	Specific interest groups. Neighborhood watch dogs.
26	Keep brooks free of trees and check on small salmon.

27	To point out problem areas; to suggest and act on solutions; to be a watchdog for river/water areas.
28	To be more realistic than ecology action center.
29	Keep people informed and keep knocking heads with the government officials.
30	They should be the informant to the public.
31	Work in cooperation with government organizations for preservation and control.
32	Be a watchdog for village practices along the watershed or anything that might harm the environment.
33	Education
34	They keep an eye on things and bring any concerns to the public.
35	Yes as long as there priorities are truly in resource management; that their priorities mandate and resu
36	Sometimes such groups are one sided and don't see the whole picture. I believe most landowners take
37	Local people have a more vested interest in their community area than government.
38	NGOs working with communities and government.
39	Ongoing promotion of resource management to maintain its priority with various levels of government
40	Public awareness and lobbying
41	It's good to see non-government organizations. Hopefully they have more interest.
42	These organizations have an important role only if they actually do something to better things.
43	Someone has to make the government departments accountable. These organizations are the way to g
44	They're an informed voice for public concerns.
45	They should pressure dept. of fisheries to smarten up.
46	Government organizations see most things from a more extracted point of view. NGOs are closer to
47	More or better stewardship of entire river system
48	I believe localized groups can focus on a concern with more effectiveness than government agencies.
49	Awareness
50	Advocacy, liaison to government, promotion of local concerns to government.
51	People, who lived on the rivers, fished the river and the St. Mary's River Association have more know

(29) Are you satisfied with the current decision making processes regarding natural resource use in the St. Mary's River watershed?

[34.8%] Yes [18.8%] No [46.4%] No opinion

Response: 84.9%

(30) Do you feel decisions adequately reflect all interested parties?

[25.6%] Yes [27.4%] No [46.9%] No opinion

Response: 85.6%

(31) I think that the following groups or individuals should be involved in planning for the future of the watershed.

Individuals involved in planning for the future of the watershed	Percent (%)
--	-------------

Local citizens	91.5
Community groups within the watershed	82.2
Youth (people under 30)	69.5
Government officials and departments	61.9
Interest groups from outside the watershed (Ducks Unlimited, Outdoor Adventure, Tourism groups, the Sierra Club of Canada etc.)	52.5
Temporary residents within the watershed	38.1
Others	7.6

Response: 89.4%

(32) Given the current (2008/09) economic state of the world, Canada and northeastern Nova Scotia, do you think that the formation of a St. Mary's River Watershed Planning Council would be useful to address current and proposed future developments in the watershed area?

[92.8%] Yes [7.2%] No

Response: 84.1%

(33) In what ways do you think the SMRA should reach out to the residents of the watershed to exchange information and engage the people in action?

Ways to reach out to the public	Percent (%)
Educational field trips	73.50
Mail out information	71.79
Open houses	65.81
Workshops	62.39
Attendance/booths at public celebrations	58.12
Other	7.69

Response: 88.6%

ECONOMICS

Economics play a great role in people's happiness and use of the landscape. The following questions are intended to provide some information on the general feelings on the economics of the area.

(34) Are you concerned with local economic conditions in the St. Mary's River watershed?

[70.6%] Yes

[14.3%] No

[15.1%] No opinion

Response: 91.5%

(35) Do you believe the economics of the area are resilient and not affected by outside (global or national) economic forces?

[13.6%] Yes

[70%] No

[16.4%] No opinion

Response: 84.6%

(36) In your opinion, what could be done to make the St. Mary's River watershed more economically vigorous?

How to make economics more dynamic in the St. Mary's watershed

Tourism

- 1 Tourism and ecotourism to promote all leave dollars behind. We have wood turtles on our beach so get tours regarding them, bring people to the area too view its beauty and spend their dollars in Sherbrooke for food, gas and promote the village, make a day of it!
- 2 Tourism
- 3 Tourism/jobs and better roads for tourists and locals to travel on, more for families with young children
- 4 Preserve or restore to its natural state let tourism and recreation grow
- 5 Eco-tourism is a growing field and activity around the world, with this there needs to be a mix of commercial activities to attract those who enjoy that life style also
- 6 Keep it beautiful, get the roads fixed! Invite people to visit, improve parks, trails and campgrounds
- 7 Canteens, gift shops?
- 8 Repair and maintain the roads during the summer and winter so that tourists will travel on them. Allow a person to keep a salmon or two during the season
- 9 Better roads to increase tourism and more travel in the area
- 10 Somehow stimulate tourism; there is a great amount of roadwork required. Try to improve water quality and hydrology in the river and eliminate obstacles in waterway
- 11 Tourist things

Angling

- 12 Improve the fishing to attract tourists
- 13 Keep the pools and river cleaned out, there should be more gravel taken out of the river as it is getting wider and nothing to hold the water, could put dams with fish ladder in dams
- 14 Control the birds that prey on the little fish and "sol herds"?

- 15 Bring back the salmon, develop tourism and recreational attractions, ATV's
- 16 More salmon, better eco-tourism promotion
- 17 Proper management, narrowing of the river in places made wide by large gravel banks which tend to raise water temperatures which will not support salmon habitat
- 18 There would be more people in the area spending money if they were allowed to fly fish for salmon
- 19 Stock the river with salmon, rainbow trout. Build a hiking trail including a foot bridge over the St. Mary's River. Build a hiking trail and bicycle trail. Protect fish habitat. Encourage small business related to these watershed activities e.g. canoe shop.
- 20 Restore salmon population
- 21 Get a fish limit on the river to get anglers back. Then hit the majors for financial support.

Outdoor recreation

- 22 More promotions as a recreational area, wilderness camping etc.
- 23 Having outdoor trails, well advertised and maintained for non motorized activities!
- 24 Build dams (if possible) close to headwaters of each branch, to regulate water levels throughout dry spells. Tourism, canoeing and kayaking possible throughout spring/summer and fall and not just when there is a heavy rain, also might improve angling downstream
- 25 Canoeing, tubing, nature hikes, establish more trails along the river
- 26 Making crown land more accessible
- 27 Creation of recreational trails, stronger supports in communities (i.e. restaurants, gas stations etc.) to make the area a recreational tourist attraction
- 28 Clean river banks
- 29 I believe dredging the St. Mary's River would help, allow the Melrose Bridge grass grows almost across the river in summer; doesn't this grass take a lot of water? My opinion

Industrial development

- 30 Industry, oil, forestry, tourism related
- 31 Economics in St. Mary's watershed area is largely based on forestry and tourism, both of which are hurting in the present and projected future economic climate. World economics will for the most part determine the demand for forest products. Travel costs (petroleum) will affect tourism unless there is a way to attract tourists to St. Mary's as their destination for an extended stay and not as a pass by point. The day of the drive-by or sight seeing vacation is becoming a thing of the past.
- 32 Better woodlot management
- 33 I feel there should be no more cutting of crown lands in the watershed area. What has been cut and replanted should not be cut again. I feel that Private Land owners should be subsidized by the government not to cut lands in watershed area and a larger buffer by our rivers and lakes.
- 34 Increase in local job opportunities, value added forest industry, improved highways and an aggressive municipal council staff

Advertising / Marketing

- 35 More advertising of the area "I still meet people in Nova Scotia that do not know of the Historical Sherbrooke Village"?
- 36 Promotion and management, both fiscally and responsibility
- 37 Promote eco-friendly tourism and support present tourism efforts that are already eco-friendly such as Sherbrooke Village
- 38 Promote ecotourism, promote the use of wind mills and water power

Small Business

- 39 Improve roads, encourage value added small business
- 40 Attract environment friendly business and add green life and healthy area, green energy, bio products etc. green tourism
- 41 Encouraging a "green image" and selling it as a small business operations base and a retirement base

Education

- 42 Educational workshops
 43 More involvement of citizens, more information to the people and schools

General Comments

- 44 Retired communities with maintenance and caretakers to look after property in winter if people go south for a few months. I do not feel that the Economy is the mandate of the SMRA other than to act as a watch dog in case of any river destruction, economic activity was being planned.
 45 Nothing, the area is to remote from concentrated populations
 46 More initiation from the Municipal Council
 47 Healthy river
 48 Do nothing, retirement district only
 49 Not familiar with the management of the river, so I can't comment on this question
 50 With the economic state right now I do not know what can be done. In my opinion I do not think this section of the St. Mary's River is as wide or there is as much water as there used to be
 51 More work shop and better maintain the river and water courses
 52 Attraction to area
 53 More money more people to take interest in same, more people lending a hand with projects
 54 Sound financial management, business plans, fundraising efforts
 55 Educate me and give me some ideas
 56 More attraction by SMRA
 57 Cooperating movement, i.e. Moses Cody Developed approach. Look at St. Andrew's, Antigonish County as an example as well as Tatamagouche
-

Response: 43.9%

(37) Are you satisfied with the economic opportunities for yourself in the watershed?
 If "no" what opportunities would you like to see?

[45.9%] Yes

[9%] No

[45.1%] No opinion

Response: 85.4%

Reasons why respondents are not satisfied with economic opportunities in the St. Mary's watershed

Retired/Self employed

- 1 Self-employed
 2 My wife and I are retired, as long as the fishing (trout) is food I am satisfied. We have many hiking trails on our property that we enjoy very much.
 3 I'm retired, but if I wanted to start my business up again I need a properly defined salmon season as it was historically (did not check)
 4 Not concerned about myself as I am self-employed and retired
 5 Retired

Opportunities for youth

- 6 I work outside the watershed area, but enjoy living in it. More employment opportunities would encourage our youth to stay and help with development of resources
 7 More needs to be done to bring more people into the area
 8 Jobs for youth that sustain the natural history and quiet beauty of the area. If the youth

stay then there are more opportunities for everyone.

Comments about business opportunities

- | | |
|----|---|
| 9 | Presently working but stay after retirement and for others who choose to stay in area for the life style even some seasonal employment in the tourist section of Resource Management would help the economy. Will not replace full time employment but would help the area. |
| 10 | More opportunity for employment |
| 11 | I started a farm (blueberries and poultry), need more support from go to start green business |
| 12 | I would love to make a living here but currently there are no options |
| 13 | Value added forest products manufacturing |
-

Response: 11.7% (of participants commented on question 37)

(38) Are you satisfied with the economic opportunities for youth (people under 30 years) in the watershed? If “no” what opportunities would you like to see?

[21.7%] Yes

[41.7%] No

[36.5%] No opinion

How youth economic opportunities can be improved

Suggested opportunities

- | | |
|----|---|
| 1 | Professional guides, fishing, hunting, eco-tourist guide, canoeing, birding etc. |
| 2 | Pay more of them to do conservation? |
| 3 | Jobs for youth that sustain the natural history and quiet beauty of the area. If the youth stay then there are more opportunities for everyone. |
| 4 | Development of a community college centering around water management |
| 5 | There does not seem to be many economic opportunities within the watershed area. The area needs investment, the need to adopt environmental practices will also prove to be valuable. |
| 6 | More businesses could be set up - fisheries, berry fields, forestry, camping |
| 7 | It would be nice to see good paying jobs for people who wish to stay in this area for the lifestyle it offers them. However, if those jobs are outside the Resource Management/Tourism sections say in heavy industry we may see an erosion of the lifestyle we enjoy for good paying jobs. |
| 8 | Jobs are needed to match their skills; there is not enough industry in area at present. Also a declining population makes it harder to provide service jobs especially! |
| 9 | Job offering with possible government grant |
| 10 | Any small business start ups would be great |
| 11 | Need more non resource dependent jobs |
| 12 | Eco-tourism |
| 13 | employment, entertainment |
| 14 | Encouraging growth of IT companies to start up in the area to serve such areas as offshore. That would encourage more young persons to remain, many are looking for quality of life |
| 15 | NSCC graduates be able to be hired in this area/ set up business to practice and develop their learned skills, i.e. electric, plumbing, painting and from other schools - forestry management |
| 16 | Possibly some aspects of government operations could be stationed in the area, using the abilities of our youth. Also some financial assistance for youth to start up businesses of their own. |

Concerned with retention of youth

- | | |
|----|--|
| 17 | All are leaving for other areas. Have what youth left here given a course at St. Mary's on |
|----|--|

- the value of the River, maybe a will coincide with an economics grade 10 to 12 Class.
- 18 With modern equipment and machinery the forest can only employ a small fraction of the workers it could when all wood was harvested with a chain saw. This means that most new jobs will be in service industries unless people can work for the city offices from St. Mary's over the internet.
- 19 More local jobs in tourism and research etc.
- 20 Nothing at all in this area for young people. Our kids are both school teachers and had to move away to find work as an example.
- 21 Programs to employ and keep youth in the area. Decent wages at local business to enhance youth to stay and work in the area
- 22 Not much to keep youth in area other than the beauty of the land and family
- 23 Encourage entrepreneurship among young people
- 24 People under 30 undergoing education, they have to leave the area for this, often they stay away, better income to pay off debt from education debt are the worst problems in my opinion to get the youth back to our area. But this is a NS problem
- 25 Jobs in area to keep youth here so they can become involved in watershed
- 26 I would like to see more opportunity for youth to be employed, so they don't have to leave community

General Comments

- 27 Job opportunities
- 28 Jobs
- 29 More job opportunities
- 30 More job opportunities in this area
- 31 More education as to opportunities
- 32 We need more information for our children in respect to care and uses
- 33 Government could make money more easily obtained for farmers and hobby farmers
- 34 More employment opportunities from all economic sectors
-

Response: 29.6%

(39) Do you perceive that resource use/extraction opportunities and environmental conservation needs can both be met within the watershed?

[67%] Yes

[7.8%] No

[25.2%] No opinion

Response: 88.5%

AWARENESS OF SMRA AND ACTIVITIES

The SMRA has been active in restoration, conservation and management issues for 30 years, but we realize that our role within the watershed may not be as well known as we would like. The following questions are to gauge the public's awareness of the Association and to provide information on how we may improve our interactions with the residents of the watershed.

(40) Are you familiar with the St. Mary's River Association and their activities?

[18.6%] Familiar [58.1%] Somewhat familiar [23.4%] Not familiar

Response: 95.4%

(41) Are you aware the St. Mary's River Association is currently developing a recovery plan for the salmon in the St. Mary's River?

[61.1%] Yes [38.9%] No

Response: 96.9%

(42) If you answered yes to Question 42, have you spoken with someone from the St. Mary's River Association about the recovery plan?

[23.5%] Yes [76.5%] No

Response: 88.5%

(43) How well do you feel the St. Mary's River Association communicates its projects to you as a member of the watershed community?

[16.9%] I do not know	[36.3%] Moderately well
[12.1%] No opinion	[5.6%] Very well
[29%] Not well at all	

Response: 95.4%

(44) How do you find out about current news and projects that the St. Mary's River Association is working on?

[54.4%] Guysborough Journal newspaper	[14.9%] Community bulletin board
[30.7%] SMRA Newsletter	[60.5%] Word of mouth
[12.3%] Other (<i>Please describe</i>): Visible, Casket Newspaper, Neighbour, E-mail, Nature Nova Scotia, Municipal Newsletter, Chronical Herald, TV, Mail	

Response: 87.7%

- (45) Would you like to be informed about future planning in the St. Mary's River watershed? This may include forestry, agriculture, industry, employment, tourism, etc.

[89.4%] Yes

[10.6%] No

Response: 86.9%

- (46) What are the best ways to inform you about developments that pertain to the St. Mary's River watershed?

[3.7%] Telephone

[22.9%] Radio advertising/programming

[20.2%] E-mail

[37.6%] Community meetings

[47.7%] Direct mail

[70.6%] Newspaper articles in my local paper

[11%] *Other:* Municipal newsletter, Community newsletter, Post Office bulletin board, Facebook, Evening news, Casket, High speed internet would improve communication

Response: 83.9%

VISION/WISHES

The SMRA is striving to reflect the wishes and visions of residents of the watershed in future activities and planning. The following questions are intended to provide some indication of what residents consider most important within the watershed, to assist the SMRA to advocate for appropriate management, conservation or resource extraction.

- (47) Please list in order of importance the personal values listed below that are most important to you when you think of the St. Mary's Watershed; including the river, floodplains, forests, communities, etc. (1 = most important; 9 = least important). You may list more than one value as the most important.

[60%] Public water supply/clean water

[18.3%] Healthy forests/wildlife

[18.3%] Fishing/boating

[11.3%] Small rural communities

[16.5%] Solitude/wilderness character

[14.8%] History & historic sites

[9.6%] Jobs/economics

[8.7%] Natural resources extraction

[7.8%] Public access/recreation

Response:

NATURAL HISTORY BOOK

The SMRA is developing a book on the natural history and human relationships with the landscape of the St. Mary's River watershed. The intent is to foster local stewardship and pride and showcase the watershed to tourists travelling through. Your input to the following questions will assist us in developing a book that truly reflects the character of the watershed.

(48) Would you be interested in purchasing a professionally produced book about the natural and human history of the St. Mary's River Watershed?

[78.8%] Yes

[21.2%] No

Response: 89.4%

(49) If yes, what would you consider a reasonable price to pay?

[26.1%] \$15 or less

[62.5%] \$15 - \$25

[11.4%] \$25+

Response: 66.7%

(50) What subject matter would you like to see detailed in the book.

[71] Geology

[64] Development

[52] Climate

[78] Salmon Fishery

[83] Plant Life

[64] Lumber Trade

[87] Wildlife

[60] Agriculture

[84] Habitats in the Watershed

[54] Mining

[65] First Nations Use/History

[74] Environmental Effects

[77] Settlement

[67] Conservation Movement

Other: ATV Trail information, tourist industry, future ideas/plans of the SMRA, shipbuilding, fur trading, forts, dykes, river punts.

Response: 75.6%

(51) Would you be more willing to purchase a book if it contained: *Please check all that apply.*

[95] Photographs

[70] Illustrations

[80] Anecdotal Stories: Local Legend and Lore

[74] Contributions from community members

[54] Scientific Information

Response: 75.6%

STATISTICAL QUESTIONS

The following questions are optional for completion; if there is a question you do not want to answer, please leave it blank.

(52) Please select your age class.

- | | |
|---------|------------------------------|
| [0%] | Less than 18 years of age |
| [8%] | Between 18-40 |
| [60.8%] | Between 41-70 |
| [31.2%] | Greater than 70 years of age |

Response: 94.7%

(53) Please indicate your gender.

- | | |
|---------|--------|
| [66.4%] | Male |
| [33.6%] | Female |

Response: 92.4%

(54) Do you belong to any of the following organizations? *Check all that apply.*

- | | |
|---------|---|
| [60%] | St. Mary's River Association |
| [13.3%] | Another fishing organization |
| [56.7%] | An environmental or conservation organization |

Response: 22.7%