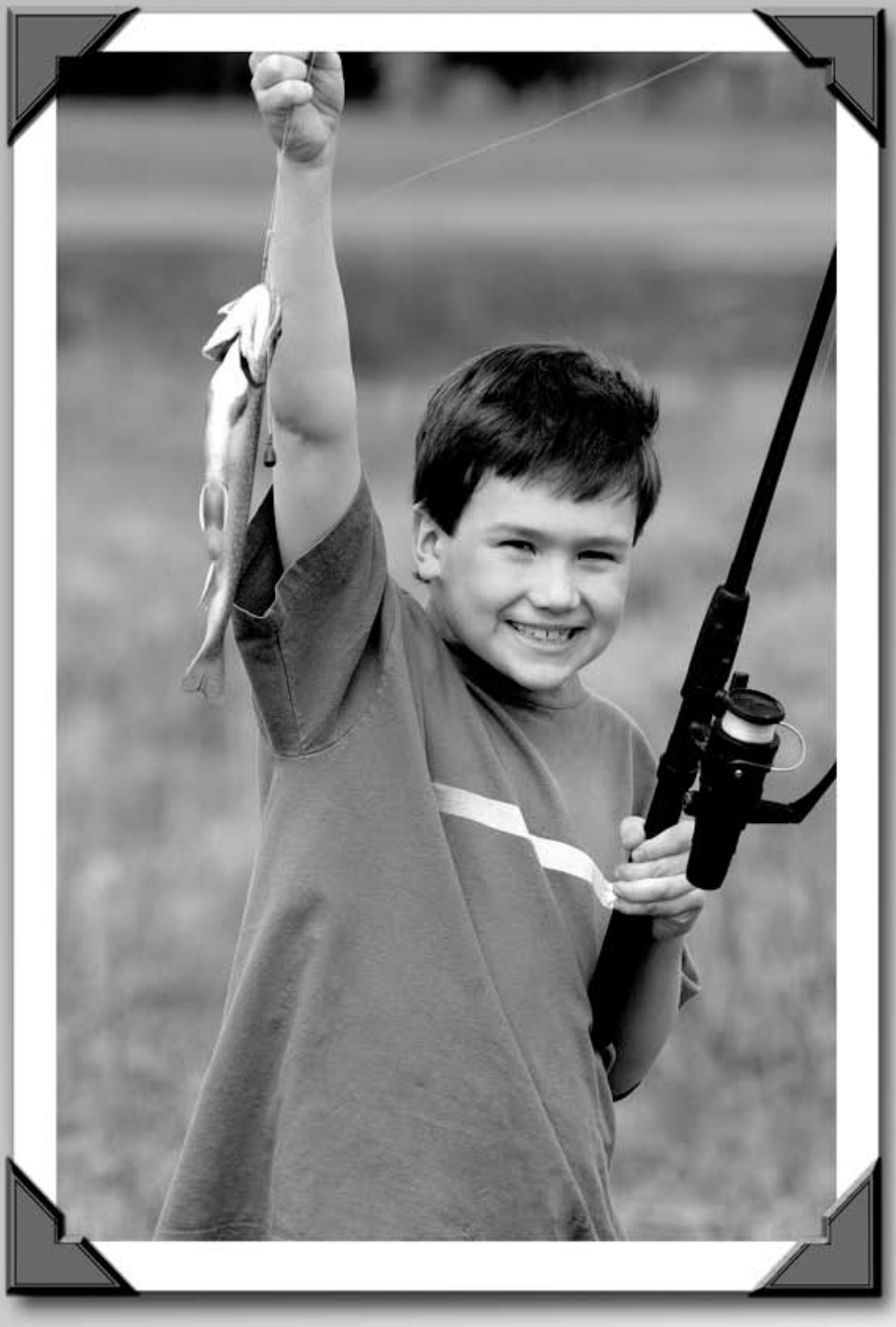
Fostering a Quality and Sustainable Angling Experience in Prince Edward Island

Report to the Minister of Environment, Energy and Forestry, March 2008

Prepared by the Prince Edward Island Recreational Fisheries Advisory Committee



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Acknowledgements

The PEI Recreational Fisheries Advisory Committee would like to thank Crystal McDonald, Carpe Diem Consulting, for her facilitation of the public consultation process and for assisting the committee with its efforts to develop the following, comprehensive report. We would also like to thank the staff of the PEI Department of Environment, Energy and Forestry for providing the Committee with assorted information, graphs and pictures to emphasize the recommendations contained within this report.

Recreational Fishery Policy Public Consultation

1 Our Mission

"…by word and action foster a sustainable, quality sport fishery and fishing experience."

The Prince Edward Island Recreational Fisheries Advisory Committee is a volunteer committee comprised of dedicated anglers and biologists. Together we have over 100 years experience in watershed improvement and recreational fisheries management. Over the winter we, the Committee members, were tasked by the Minister of the PEI Department of Environment, Energy and Forestry to gather public input into the development of a recreational fisheries policy for Prince Edward Island. Interested Islanders participated in five public meetings with formal presentations, informal discussions, and written or e-mailed submissions.

Our committee was impressed with the interest, knowledge and concern expressed by anglers. We have carefully considered the comments and advice in the context of our mission statement. We feel that the following represent the key areas which need to be addressed in a recreational fisheries policy and offer recommendations for Government to consider when formulating this policy.

2 A Sustainable, Quality Sport Fishery

A sustainable, quality recreational fishery is reliant upon optimum water quality and ideal habitat for local fish species to survive and flourish. The Committee received opinions and advice on four key areas related to retaining a sustainable, quality sport fishery: Aquatic Habitat Quality, Fish Passage and Impoundment Management, Conservation and Enhancement of Fish Stocks, and Angling Regulations.

2.1 Aquatic Habitat Quality

Currently, about two percent of Prince Edward Island's surface is wetland.[1] It also has approximately 263 watersheds[2] comprising more than 4,000 kilometers of streams, a few freshwater lakes (e.g., O'Keefe's Lake, Glenfinnan Lake), and hundreds of man-made ponds.[3] These watercourses and wetlands contain a diverse range of habitat which supports a variety of terrestrial wildlife, plants and aquatic species.

While habitat requirements vary with each stage of the fish's life cycle, most species require uncontaminated, clear water, clean substrates, abundant food, as well as suitable water temperatures and dissolved oxygen levels. The Island's highly erodible soils, via

wind and water, contribute to the contamination of water quality and destruction of aquatic habitat.

Soils erode from agricultural land, highway maintenance/construction sites, un-stabilized urban/rural development areas and forestry access roads. Sediment infills pools but more importantly, it covers spawning substrate which smothers countless numbers of salmonid eggs. These "fish kills" go unnoticed and undetected each year. The public is much more familiar with pesticide-related fish kills. Since 1962, there have been 47 documented fish kills related to pesticides – 31 of these since 1990. A river can take five to seven years to recover to pre-fish kill conditions.

The health of Island estuaries is also threatened as infilling and nutrient over-enrichment lead to algal blooms and depleted oxygen concentrations. This anoxic condition is found in many estuaries and can have profound effects on the fish species present within them. It is well documented that many of Prince Edward Island's fin fish species rely on the estuaries for part of their life cycle and its health will directly impact the quality of the recreational fishery. The estuaries play an integral role on the health of the Island watersheds and their importance must not be overlooked.

The need to identify critical habitat is recognized by scientists and resource managers as vital to the management of fish species. Particular habitats are often disproportionately important to fish populations and therefore they represent priorities for habitat protection. Spawning grounds, nursery sites and other critical areas on which fish species depend directly or indirectly in order to carry out their life processes need to be identified and protected.

Angling and wildlife organizations on Prince Edward Island have been actively involved in stream habitat restoration for more than forty years. Much of the work has been debris and blockage removal, as well as installation of instream restoration structures. Groups have also worked with government agencies and landowners to improve land use practices. Work in upland areas has included the planting of trees and shrubs along watercourses and the fencing of livestock from streams. Many farmers have also signed on to environmental farm management plans that incorporate soil conservation and watershed protection measures into their farming techniques. The emphasis has recently shifted to watershed management, as opposed to stream restoration, and groups are now

involved in water quality monitoring and the development of comprehensive watershed management plans.

2.1.1 Integrated Watershed Management

Prince Edward Island is the most densely populated province in Canada and the current state of health of its watersheds reflects centuries of poor land use. Many are currently experiencing serious problems related to soil erosion, loss of forest cover, pesticide use, nutrient loading and unregulated development.[4] Integrated watershed planning can address priority issues such as protection of drinking water and biodiversity conservation in a process that engages and builds the partnerships necessary to carry out the work described in the plans. Sustainable use of aquatic resources requires a shift in the way the people living, working and doing business in the watershed regard the management of land and water. A successful integrated watershed management approach will need to involve all user groups who are interested in implementing the necessary changes to protect and improve their immediate environment.

Many industries in Canada are supporting watershed planning because the process helps maintain the public support they require to continue operating. Like government agencies and industry, non-government conservation groups also seek to achieve the best results from their limited resources. They recognize that integrated watershed planning provides a unique mechanism for them to work with partners to create context for the application of policy and development and management standards. It also allows them to identify areas where biodiversity, including fish habitat, is at risk and yet has high potential for conservation and restoration.

Recommendation 1:
That Government support the development and implementation of community driven integrated watershed management plans by increasing its scientific, human and financial support.

Recommendation 2:
That Government ensure that integrated watershed management plans address fish and fish habitat issues by:

- **requiring a fish habitat management component for each plan; and**
- **requiring stream habitat inventories to identify critical fish habitat.**

2.1.2 Sustainable Watershed Land Use Practices

The quality of Island waterways was repeatedly the top priority of those participating in the public consultation process. As well, the Committee was told that Islanders need to

change land use practices and keep nutrients and other pollutants out of the water. *"[The] problem starts at the top of the hill, not at the bottom. Manage the whole thing to reduce soil loss."*[5]

Prince Edward Island soil is easily eroded by wind and water. Agricultural activities, particularly row crop production, are a principle cause of soil erosion. In some watersheds, however, the input of sediment from unpaved roads eclipses that from all other sources. As well, subdivision development and other urban development can cause considerable damage to watercourses. Once in the aquatic environment, sediment covers important spawning habitat, in-fills pools and ponds and reduces the quality of the habitat necessary for thriving populations of cold-water fish like trout and salmon. The nitrates in fertilizers, manure and sewage lead to over-enriched watercourses that contribute to decreased oxygen levels (i.e., anoxic conditions) and in some cases localized mortality of estuarial species. In addition, pesticide kill events can have devastating, long term effects on PEI fish populations, watershed groups, anglers and others.

Prince Edward Island's Environmental Protection Act was amended in 1999 to include the requirement of buffer zones along Prince Edward Island's watercourses and wetlands.[6] The amendments were in response to the recommendations in the Round Table on Resource Land Use and Stewardship report *Cultivating Solutions* (1997) which called for heightened protection of our Island aquatic resource. The Round Table also expressed concern for the monoculture trend of agriculture and forestry, "the loss of hedgerows, field consolidation and the general lack of understanding about the societal benefits of biodiversity."

Buffer zones protect the aquatic environment by restricting a landowner's activities within the zone and provide valuable habitat and travel corridors for most of PEI's wildlife species. While the area next to a stream has been referred to as a "buffer zone", its actual ability to filter or absorb nutrients is limited and virtually negligible during intense storm events. The true value of riparian buffer zones is that of providing exceptional wildlife habitat and offering a "wilderness" setting in a densely settled province like Prince Edward Island. The Committee heard strong public support for the use of buffer zones as a watershed management tool. However, many individuals recommended wider buffer zones - as wide as 30 metres – and increased enforcement of

the protection areas. During the consultations, more than one participant extolled the virtues of the Morell River Conservation Zone. This 60 metre wide zone has protected much of the Morell River from cutting or development and those who canoe or fish the river appreciate its beauty and the feeling of isolation.

The current buffer zone legislation/regulations are often confusing and provide loop-holes that permit the clear-cutting of valuable forest cover along Island waterways. The Committee repeatedly heard that the loopholes in existing legislation need to be closed and the legislation/regulations need to be strictly enforced. The continuing deforestation of PEI has resulted in the degradation of many headwater streams which are critical to the ecology of our Island rivers.

Recommendation 3:
That Government re-visit and implement those recommendations still unaddressed (especially those relating to land use) from the following reports:

- **the Boylan Report of the Royal Commission on the Land (1990)[7],**
- **the Renewed Conservation Strategy for Prince Edward Island (1994)[8],**
- **the Round Table on Resource Land Use and Stewardship report (1997),**
- **the Report of the Action Committee on Agricultural Run-off Control (1999), and**
- **the Report on the Public Consultations on Managing Land and Water on a Watershed Basis (2007).[9]**

Recommendation 4:
That Government have effective, land use and buffer zone regulations and enforce such regulations.

Recommendation 5:
That Government develop a policy to acquire, maintain and retain in perpetuity riparian buffer zones along our Island streams.

Recommendation 6:
That Government take immediate steps to quantify and remediate soil erosion impacts from clay roads.

2.1.3 Ecological Goods and Services

Tools for the implementation of integrated watershed management plans include ecological goods and services incentives. Ecological goods and services (EG&S) provided by private landowners are becoming progressively more important as more land is developed and converted from its natural state.[10] In EGandS projects, rural landowners who provide ecological goods and services are given incentives (e.g., to set-aside portions of their land or to implement best management practices).

In 2007 the Souris and Area Branch of the PEI Wildlife Federation, in partnership with the Trout River Environmental Committee, was approved by Agriculture and Agri-Food Canada to participate in a pilot Ecological Goods and Services pilot project. The project provided farmers within the Founds River and Souris River watersheds with financial incentives to set aside portions of their land that may be advantageous to local efforts to curtail soil erosion. They were also encouraged to integrate best management practices that reduce the impact of farming processes (e.g., larger buffers, elimination of fall mould board tillage, fencing livestock from watercourses). The federally funded Ecological Goods and Services project that was implemented in Souris was repeatedly mentioned during the public consultation as a viable means to provide incentive to landholders and make a difference in a watershed.

In April 2008 the Ministers responsible for Environment, Energy and Forestry and Agriculture announced a new funding program to assist rural Prince Edward Island protect its landscape. The Alternative Land Use Services (ALUS) Program is to reward rural landowners for proper land use services.[11] The Committee applauds the provincial government for launching the ALUS program and encourages government to continue supporting such programs in the future. However, while it is important that an EGandS program has been developed to entice Island landowners to make change and address issues like soil erosion, the Committee feels it is equally important that the program only cover those initiatives that are over and above the requirements mandated by legislation/regulation.

2.2 Water Quality and Fish Passage

Unobstructed passage, like favourable water conditions, is critical to the health of any fish population. Anadromous fish – those that hatch in fresh water, migrate to salt water, and return to spawn in fresh water – should have access to sections of the stream (including the headwaters) necessary for their various life stages. These species (e.g., brook and rainbow trout, Atlantic salmon, gaspereaux, smelts) are especially affected by barriers to passage such as improperly installed culverts, beaver dams and man-made dams (impoundments). Therefore, regardless of the size of the stream it is important that Islanders consider and protect fish access.

2.2.1 Culverts

Improperly installed road culverts, both publicly and privately owned, can result in a disruption of fish passage. These culverts can pose a water velocity barrier to fish moving upstream but in most cases, the problem is with a structure that is hanging or "perched", resulting in a vertical drop at the culvert outlet. Some species are better able to jump than others, but juvenile salmonids and species such as gaspereaux and smelts can have difficult ascending a poorly installed culvert. Undersized, poorly constructed culverts can also pose a problem to fish habitat as they periodically washout – thereby contributing large quantities of sediment into nearby watercourses. In designing or planning the installation of a culvert, it is important to consider fish passage requirements for all species of fish and all life stages of fish that would normally migrate to that site.

The best solution for a perched culvert is its removal and replacement with a structure installed at the appropriate level. This is a costly solution, and given budgetary limitations, cannot be applied in all circumstances. Many community groups have partnered with the Department of Transportation and Public Works or private land owners to construct rock pools downstream from a perched culvert. This effectively raises the water level into the culvert allowing for better upstream passage of fish. Some community groups have also removed existing bridges and built new structures for landowners.

Recommendation 7:
That Government, in cooperation with community groups:

- **complete a thorough inventory of all public and private culverts on Prince Edward Island watercourses (including the headwaters) to identify fish passage issues;**
- **develop a timely plan to address the identified fish passage issues; and**
- **provide funding support for landowners seeking to replace aging stream crossings.**

2.2.2 Beaver Management

Beavers have the ability to create wetlands and can provide habitat for a variety of wildlife species. However, the establishment of one or many beaver dams can bring about chemical and physical changes to an aquatic system. A beaver dam can completely block upstream passage of anadromous fish. In some rivers, critical spawning habitat can be cut off from salmonids moving upstream to spawn. When a beaver dam occurs at or near the head of a tide, entire runs of anadromous fish can be lost if the dam remains in place for a number of years. Beaver dams can also prevent fish from moving down stream. There have been instances on Prince Edward Island where salmon smolts heading towards the sea have been prevented from leaving a river because of beaver blockages. With at-sea survival of Atlantic salmon at an all time low, any factor which limits freshwater production can have a serious impact on overall salmon populations.

Aside from fish passage concerns, beaver dams can also affect stream habitat. The impounded areas capture silt and it can take decades before the habitat can be restored. Water quality may also be compromised, particularly in cases where there are multiple impoundments. Water temperatures can exceed levels suitable for salmonids and dissolved oxygen concentrations can drop to levels inhospitable for fish. The cumulative impact of a series of beaver dams, particularly on a low gradient watercourse, is of concern to fisheries managers. There are many examples of severely degraded water quality in watercourses caused by too many beaver blockages. For example in the 1980s, almost two hundred beaver dams were removed from the Fortune River alone.

Beaver and beaver dams are protected under the *Prince Edward Island Wildlife Conservation Act.* Trappers or watershed groups wishing to remove inactive beaver dams must apply for approval prior to removing beaver related blockages. Beaver dam removals are carried out under the PEI Beaver Policy. When inactive beaver dams are removed precautions must be taken to ensure that the released water and contained sediments will not negatively impact fish populations and aquatic habitat.

Some watershed groups are growing frustrated with the constant vigilance required to monitor beaver dams and the effort needed to remove them. In some cases, crews remove a dam on a weekly basis until fall, at which time a trapper can remove the

animals. This can be a waste of valuable time when the duration of summer projects and the number of crew members can be quite limited.

In King's County, a two week delay in the opening of the beaver season, as compared with the rest of the province, has also made it difficult to have beavers removed. Deteriorating weather and road conditions in mid-November can prevent trappers from getting to sites. With trapper numbers declining, it can also be difficult for watershed groups to enlist a trapper's services in their area. Trappers themselves would like to see watershed groups take a more active role in locating active beaver dams and obtaining landowner permission for the trapper to trap the animals on private property.

Recommendation 8:
That Government put more emphasis on managing beaver populations and assist Island watershed groups in their efforts to minimize beaver impacts to Island streams, by:

- **completing an inventory of active beaver dams across Prince Edward Island on an annual basis and use this information for effective population management;**
- **identifying priority rivers/areas and maintaining these areas beaver free;**
- **implementing a timely, beaver dam removal permitting process;**
- **involving Island trappers in the management of beavers in their respective systems;**
- **rescinding the two week delay in the beaver season in Kings County; and by**
- **locating active and inactive beaver dams on streams where there is no watershed group and arranging for trappers to remove beavers and beaver dams from the priority areas.**

2.2.3 Impoundment Management

Impoundments are ponds of water created by man made structures (i.e., dams) that collect and retain water. There are currently more than 550 ponds or man made impoundments on PEI.[12] Some of these ponds were created more than a century ago to operate mills (e.g., saw, grist, woolen, starch). In more recent years, ponds were developed for agricultural, hunting and fishing activities and in the 1970s and 1980s to provide habitat for waterfowl and other wildlife species. Historically, impoundments restricted upstream migration of fish to spawning habitats. More recently dams were constructed or modified to include fish ladders that allowed trout and salmon to migrate but still restricted the movement of species like smelts and gaspereaux.

While many of Prince Edward Island's ponds are valued for their "historical significance, recreational, economic or aesthetic value"[13], they also have a complex range of issues requiring decisions on maintenance and management. The Committee was told by numerous participants at the public meetings that ponds on PEI were in disrepair.

"…ponds that used to be deep, cool and full of trout are now shallow, weed filled pools that are unfit for fishing. Stocking is just a band-aid solution. If the real problems are fixed, the wild fish will come back on their own."[14]

Many Island anglers learned to fish in ponds and the deterioration of these fishing spots has severely limited the opportunities for youth and others to participate in the sport. Most of our ponds are becoming infilled – creating problems for both water quality (stagnation, warmer water) and fish habitat. To be of recreational value and to serve as fish habitat, these ponds will require repair or removal. Ideally, Government should carry out an evaluation of Prince Edward Island's existing impoundments and short-list those that can be reasonably repaired and those that should be completely decommissioned. In the interim Government should provide better access for fish passage into, or around, these ponds.

The ASE Consultants Inc and UPEI Biology Department completed a study titled *Impact of Impoundments and Their Suitability for Resident and Anadromous Fish Species on Prince Edward Island* in the mid-1990s. It clearly documented the major issues associated with impoundments on Prince Edward Island and provided a number of excellent recommendations.

Recommendation 9:
That Government:
- **revisit the ASE study on impoundments and recommendations;**
- **carry out an evaluation of Prince Edward Island's existing impoundments and short-list those that can be reasonably repaired as well as those that should be completely decommissioned;**
- **provide additional resources – human and financial - to manage these impoundments; and**
- **ensure that all fish ladders within publicly managed ponds be maintained or improved to ensure effective passage of all fish of all age classes that migrate to that point.**

2.3 Conservation and Enhancement

Many participants in the public consultations supported the use of stocking Island streams as a short term solution. Conserving fish stocks and improving fish habitat was felt to be more important than stocking which was seen by some as a *"band-aid solution."*[15] *"In the long term, the better approach is to ensure that rivers are cleaned and habitat is healthy."*[16] Efforts to *"all work together to improve our water quality and streams"*[17] (i.e., aquatic habitat conditions) were repeatedly noted as the best approach. However, there was a recognition that stocking efforts would be needed to assist areas with depleted

fish stocks, for example rivers affected by fish kills or which experience significant fishing pressure.

In an effort to enhance fishing opportunities and restore fish populations, fish have been stocked into Island streams for more than 100 years. Historically, the Federal Government played a major role in fish stocking activities with their hatcheries in Southport (until the 1960's) and Cardigan (until the 1990's). In more recent years community groups have struggled to develop and maintain stocking programs. In 2007 the Federal and Provincial Governments provided funding for the Cardigan Fish Hatchery to resume its fish stocking efforts for two years. However, no long term stocking plans or resources have been determined or dedicated.

The Committee recognizes that habitat protection and restoration is the key to a sustainable fishery – with stocking as a last resort. Both the *Recreational Fisheries Development Plan for Prince Edward Island* (1992) and the Recreational Fisheries Advisory Committee Stocking Report *A Proposal for Fish Stocking on Prince Edward Island* (2007) place more emphasis on brook trout than Atlantic salmon, and support a hatchery program as a means to provide angling opportunities, especially in urban areas, rivers with heavy angling pressure, or specific estuaries (e.g., Foxley River). Stocking is also seen as a valuable tool in assisting rivers to rebound following fish kills. For salmon, angling opportunities rely on stocking, but this program needs to be limited and focused with emphasis put on developing a long term strategy for Atlantic salmon conservation in Island rivers.

> *"Stocking can play a very important role in the health of the recreational fishery here on PEI. There are healthy rivers with good natural stocks which don't need to be stocked provided we conserve what is there. However, having a stocking program in place is a huge asset in jump starting the fish population in a system where the stocks have been depleted, in restoring stocks to areas after fish kills, and in stocking areas for events such as youth fish days."*[18]

Recommendation 10:
That Government:
- **implement a formal long term government funding commitment for a stocking initiative**
- **use the Recreational Fisheries Advisory Committee's Report on Stocking (2007) to form the basis of the stocking program; and**
- **implement a process to periodically review the stocking program.**

2.3.1 Predation

The issue of predation was not covered in the discussion document but was raised at every public meeting. While both seals and cormorants were mentioned, it was cormorants which received the greatest attention.

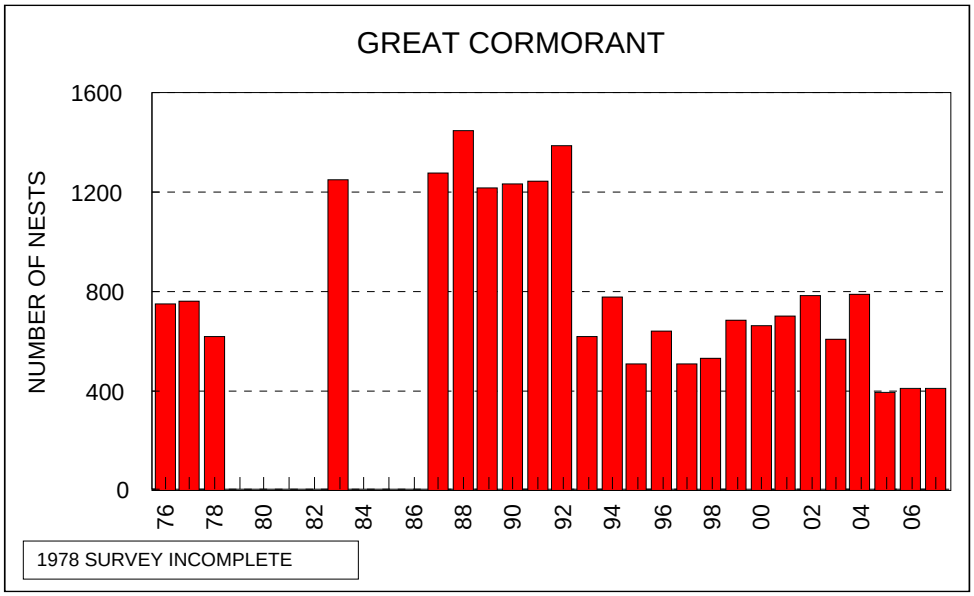
One angler who has inspected cormorants' stomach contents told the Committee of finding smelts, eels, trout, sea perch, blackbacks, rock eels, cobblers, silversides, sand lance eels, small black ducks, gaspereau, herring, rock crab, mud gudgeons and green crab.[19]

> *"There is no point in doing stream enhancement if there are cormorants. At North Lake, around the breakwater, you can see all kinds of trout coming in. Cormorants sit on the breakwater, diving constantly for fish."*[20]

While great cormorant populations on Prince Edward Island have declined over the last 20 years, double-crested cormorant populations have doubled in the same timeframe. The range of these predators has also changed dramatically over the years to the extent that, not only are there large numbers in the lower sections of rivers, they are now being seen in small feeder streams as well.

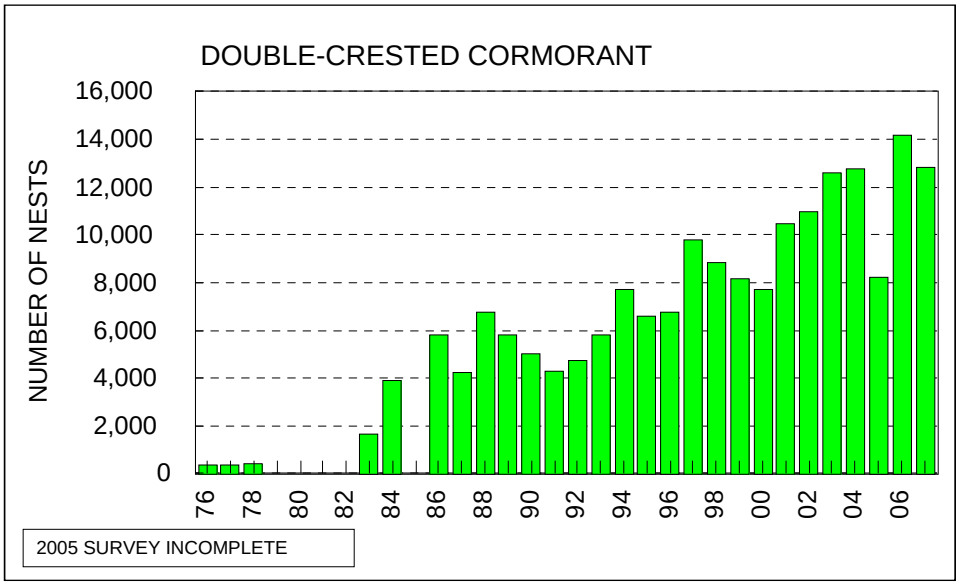
Many anglers propose a cull, yet past experiences with this management technique have proven unsuccessful. Government needs to look at the impacts the current cormorant populations are having on fish populations. However, given the huge number of cormorants migrating through Prince Edward Island from elsewhere, effective control (if needed) of the Prince Edward Island population of cormorants will require a concerted management effort by Prince Edward Island in conjunction with governments in adjacent provinces.

Great Cormorant Populations 1976 to 2007



Courtesy of Randy Dibblee, PEI Department of Environment, Energy and Forestry

Double-Crested Cormorant Populations



Courtesy of Randy Dibblee, PEI Department of Environment, Energy and Forestry

Recommendation 11:
That the Government assess the impact of predation by cormorants and develop an appropriate management response.

2.4 Angling Regulations

It is not surprising that the issue of angling regulations was the most contentious of all topics discussed at the consultation meetings. Most anglers who participated in the consultations expressed concern about fish stocks and showed a strong interest in conservation. However, ask anglers about regulations and you will likely get as many different answers as there are respondents.

The Committee recognizes that Prince Edward Island's recreational sport fishery is comprised of a number of different sectors: those who exclusively fish with bait, those who exclusively fly fish, and those anglers who use a variety of methods. In the 2006 angler's survey carried out by the province, 35 percent of the anglers who responded indicated they fish with fly only while 43 percent indicated they fish with bait only. Some anglers fish primarily the first couple of weeks of the season, whereas others carry on throughout the angling season. Some keep everything they catch, while others release everything. It will be critical that the recreational fishery policy recognize these differing interests and achieve a balance between them. To be easily managed and enforced, angling regulations should, where possible, be simple and consistent.

2.4.1 River Specific Management

River specific regulations can be applied to an entire river but are more often used in defined portions of the stream. Examples of regulations which could be adjusted in special management areas include: season opening and closing dates, creel limits, sanctuary areas, catch and release zones and gear restrictions.

There are already examples of river specific management on Prince Edward Island. The Province routinely adjusts angling regulations on a river which has been affected by a fish kill. There is an identified "sanctuary zone" on the Morell River which is off limits to angling at certain times of the year and a portion of the Morell River is restricted to the use of flies during the salmon season.

Perhaps the most notable example of river specific management on Prince Edward Island is the Trout River in Coleman which has a delayed season, different size limit and reduced creel limit. As one participant explained, "*the Trout River worked so well partly because Dave Biggar set up specific regulations just for that river. It may be difficult to*

have different regulations in different areas but this system has value and should be permitted."[21]

There are anglers, particularly commercial fishers, who feel that the restrictions on the Trout River unduly limit the time that they have available to participate in the recreational fishery. However, creel surveys indicate that these measures have increased the number and size of fish on the river.

> *"Since introducing river specific regulations in Trout River (Coleman) in 2004 the annual creel survey has shown a 40% increase in the number of Trout. Since delaying the estuary opening until May 1 in 2006 there has been a 46% increase in the number of 10-14 inches Trout and an increase of 83% in the number of Trout exceeding 14 inches. The numbers speak for themselves. More broodstock getting upstream to spawn means a better chance for a healthy fishery in the future."*[22]

Other provinces have made use of river specific regulations to protect or enhance fisheries. For example, a quick glance at the Nova Scotia Angler's Handbook will show that each of their Recreational Fishing Areas have Special Trout Management Areas. Within these rivers, or sections of rivers, there have been changes to bag limit, season length, length limit of fish retained and gear type. "Ongoing studies in Nova Scotia and in other provinces and states indicate that special management regulations have been very successful in improving recreational fisheries by increasing the number of larger fish caught by anglers."[23] New Brunswick has a number of license classifications and like Nova Scotia, has numerous recreational fishing areas with specific regulations. Four years ago, the Maine Department of Inland Fisheries and Wildlife implemented its "Quality Fishing Initiative". This involved the implementation in certain areas of about 100 special, highly restrictive regulations including low bag limits, higher length limits and restrictions on terminal tackle to reduce hooking mortality.[24] Newfoundland has classified its salmon bearing rivers into four classes, with corresponding class/river specific regulations. [25]

The Committee believes that there is a place for river specific management on Prince Edward Island. While it is unlikely that there will be many Island rivers requiring different regulations, it is unrealistic to expect that conditions are the same in all rivers across the province – there are situations which warrant special regulations. The use of an uncomplicated river classification system should allow for a relatively straight forward approach to the regulation of those areas that require special consideration (i.e., priority streams).

Recommendation 12:
That Government develop a classification system for Island watercourses that allows for river specific regulations on priority streams.

Recommendation 13:
That Government:
- **allow the use of river specific management in those rivers where there is a demonstrated and documented need/benefit;**
- **require a management plan and public input before river specific regulations are enacted;**
- **implement river specific regulations for a sufficient period of time to allow any changes to occur and to monitor and assess the results of the river specific regulations.**

2.4.2 Trophy Trout Tags

A concept which appears to have support from a broad sector of anglers, both in the public consultations and in the 2006 angler survey, is that of a trophy trout tag.

- *"We are in times where the bag limits are too high and we take too many big fish. One big fish every day is too much. During moose season, you only get one or two trophies. We are taking too many big fish. A tagging system for the big fish would be great (e.g. one or two per year)."*[26]

- *"How often do anglers catch the 5 or 6 lb trout, take it home for bragging rights and the following year, they throw the freezer-burned fish out. An important part of angling gear should be a camera."*[27]

Anglers are aware that large fish have tremendous value as broodstock and many anglers now voluntarily release large fish for this reason. Under current regulations, anglers are allowed to retain one large trout (>40 cm) per day.

If a trophy trout tag system were implemented on Prince Edward Island anglers with regular licenses would still be able to retain trout to a specified size. Any angler wishing to retain trophy trout (i.e., trout larger than those covered by the regular license) would be able to purchase a limited number of trout tags at specified vendors for an additional fee. This system would recognize the value of large trout to the population and ensure that large spawners are available in the future.

It is not the Committee's mandate to determine how the trophy tag system would be implemented. Nonetheless, the Committee feels the concept has merit and is worth pursuing.

Recommendation 14:
That Government put in place a trophy tag system for brook trout.

2.4.3 Opening Date

The traditional opening day for trout season on Prince Edward Island is April 15th. This was altered in the mid 1990s when the season was changed to a weekend opening in an attempt to make angling available for a broader range of participants. This change was not received well by many anglers who favoured the traditional opening date. In the 2006 angler survey, 77% of respondents preferred an April 15th opening. The Committee members do not see any reason to change the opening date at this time.

Recommendation 15:
That the opening date for the trout season on Prince Edward Island continue to be April 15th - with the exception of rivers with specific regulations.

2.4.4 Daily Creel Limit for Trout

The daily creel limit has long been a topic of discussion amongst Island anglers. From the anglers, we heard conflicting views:

- *If the limit is lowered, you will lose more fishermen and their kids…What is wrong with getting ten trout on a day when the fishing is good?"*[28]
- *"The Wildlife Federation strongly supports efforts to shift the emphasis of a successful fishing day from being able to catch ones limit to spending a day enjoying nature, enjoying being around the waterway and actively fishing, regardless of the number of fish caught. For very few is the retention of fish a matter of economic necessity, so anglers should be urged to release uninjured or larger fish. Government support in helping to change angling values would be very beneficial."*[29]

The creel limit on Prince Edward Island, ten trout per day, is quite generous in comparison with other provinces or states. For example, the general creel limit in Nova Scotia, New Brunswick and Maine is five (less in special management areas). As mentioned in the section on river specific regulations, many jurisdictions are implementing more restrictive regulations in certain areas.

The majority of people who responded to the 2006 angler's survey (64%) were satisfied with the current creel limit of ten trout per day. However, the response to the survey was low (approximately four percent of anglers licensed to fish in PEI in 2006) and the Committee got a sense that many anglers were concerned about trout stocks and felt that conservation should be given higher priority. Some anglers were suggesting that the limit be dropped to five or six trout per day. Committee members, while not unanimous, arrived at and recommend the following compromise.

Recommendation 16:
That Government reduce the creel limit for trout on PEI to eight fish per day - with the exception of rivers with specific regulations.

2.4.5 Barbless Hooks

Each season, countless numbers of juvenile salmonids are hooked and released by anglers. Many of these fish will be injured and die shortly after release. With Atlantic salmon disappearing from a number of Island streams, the Committee recommends that anglers do all that is possible to ensure that every young salmon has a chance to go to sea.

Studies have shown that the use of barbless hooks greatly reduces the mortality of fish upon release; this is particularly true for lure and fly. Anglers who responded to the 2006 survey were evenly split on the question of mandatory use of barbless hooks. In 2008, the Fish and Wildlife Section implemented a barbless hook - fly and lure only - restriction on the Dunk River as a conservation measure to allow fish stocks to recover following the 2007 fish kill.

It is not difficult to shift to barbless hooks. A pair of pliers can be used to simply "pinch down" the barb, with no extra cost to the angler. Angling success is also not affected by the use of barbless hooks.

Recommendation 17:
That Government promote the use of barbless hooks as a conservation tool.

Recommendation 18:
That Government make barbless hooks mandatory in fresh water on priority rivers.

2.4.6 Atlantic Salmon Angling

While small runs of Atlantic salmon remain in approximately 27 of PEI's rivers, salmon angling now primarily occurs in the Mill, Dunk, West and Morell rivers. The extended "salmon fishery" had occurred on eight Island rivers: the Mill, Trout, Dunk, West, Morell, Valleyfield, Midgell and Naufrage. However, in 2005, the Naufrage, Midgell and Valleyfield rivers were removed from the extended season because salmon numbers on these systems were quite low. Anglers in the eastern and southeastern parts of the Island have complained that there are no rivers in their areas with extended seasons. Those anglers who take part in the extended season enjoy catching and releasing both salmon and trout.

It has been argued that anglers on the river in late fall can keep an eye on things and reduce poaching. Currently, the extended season for each river, with the exception of Leards Pond on the Morell River, ends on October 31st. By this time, some trout would have begun spawning and there is a risk that anglers could be interfering with trout redds. The Committee supports having additional angling opportunities, but feels that the number one priority should be conservation of trout stocks.

Recommendation 19:
That Government review its list of rivers with an extended season and:

- **expand this list to include other rivers with potential to support a fall catch-and-release fly-fishing season using barbless hooks; and**
- **close the extended catch-and-release fly-fishing season on October 15th to prevent potential interference with trout spawning activity.**

For many years, the Atlantic salmon fishery was dependent upon the stocking of smolts in selected rivers, in particular the Morell River. At its peak, there were almost one thousand salmon licenses sold. With the stocking of salmon now sporadic, at best, and without a long term commitment to the stocking program, it makes little sense to encourage harvest of salmon in Island rivers.

Recommendation 20:
That Government allow only a barbless hook, catch and release salmon fishery until

- **a long term stock enhancement program which would ensure adequate runs of Atlantic salmon in selected rivers is in place, or**
- **Island rivers can naturally produce adequate Atlantic salmon populations.**

2.4.7 Expanding the Winter Fishery

The winter sport fishery on Prince Edward Island is limited by the lack of species commonly targeted in winter fisheries in other provinces. Many Islanders fish smelts through the ice on bays and estuaries across the province. In fresh water, a put-and-take fishery in O'Keefes Lake and Glenfinnan Lake is dependent upon regular stocking of rainbow trout. Regularly 200 to 300 people take advantage of this fishery each year.

There is one species of fish in Island waters which could lend itself to a winter fishery. Winter perch, a member of the bass family, lives predominantly in freshwater lakes and ponds, although it also inhabits some coastal rivers and estuaries. Island white perch populations were historically restricted to barrier beach ponds but in recent years their range has expanded to include a few artificial impoundments and estuaries.[30] White perch tolerate a wide range of salinities[31], do well in waters reaching summer temperatures of 24 degrees Celcius[32] and in Island waters can grow upwards of 13 inches in length and weigh one to three pounds. White perch are both prey (consumed by trout, etc.) and predator (consume aquatic insects, fish eggs and fry) and as such play an important role in the aquatic environment. However, they are also more prolific than other fish of a similar size and this allows them to out-compete other species – often resulting in the overpopulation of areas.[33]

Anglers living outside the central portion of the Island have complained that they must drive to O'Keefes Lake to participate in the winter fishery. One participant in the O'Leary meeting expressed a desire to have a white perch ice fishery in the Tignish area. Currently on PEI, white perch can be fished from May until September. White perch are an underutilized fish on Prince Edward Island but in other areas, a successful sport fishery has been built around this species. They are also fished commercially in the United States and the Great Lakes.

Recommendation 21:
That Government examine the potential for a white perch fishery by initiating a pilot ice-fishery in selected areas.

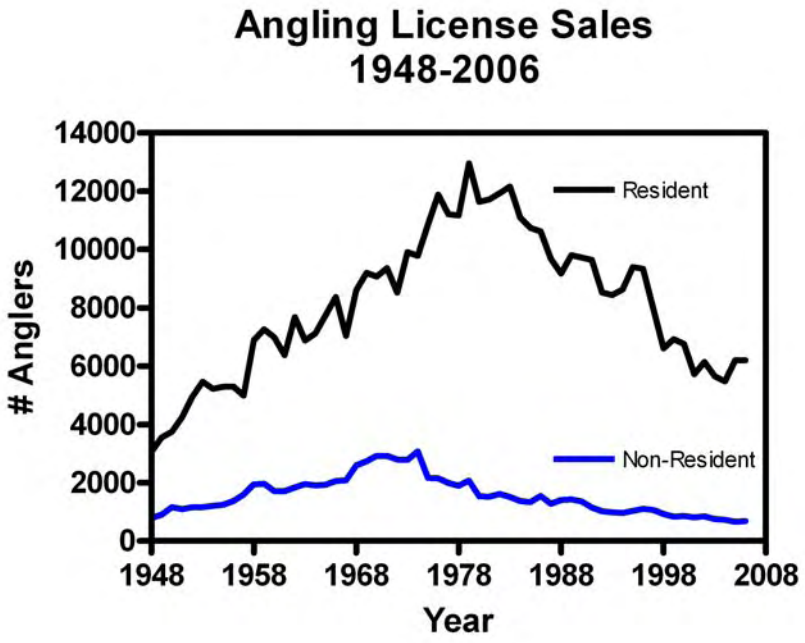
3 A Sustainable, Quality Experience

A sustainable, quality fishing experience is reliant upon individuals who are interested in the social and wellness benefits offered by angling but who also recognize their responsibility to have minimal impact on the area where they are fishing and the species being caught. During the public consultation, participants voiced concerns and provided advice on six key areas regarding a sustainable, quality fishing experience: Angler

Recruitment, Angler Access and Awareness, Community Based Restoration Groups, Management and Policing of the Fishery, Future Threats and Funding.

3.1 Angler Recruitment

National angling surveys and license sales show a continued decline in angling participation on PEI and across Canada. For example, the PEI angling license sales for 1948 to 2006 shows the ups and downs experienced over the past 58 years, including a 40 percent drop in resident angling licenses over the past decade.



The decline in angler numbers is significant and distressing for numerous reasons. Angling has an important cultural aspect and has been enjoyed by Islanders since the first European settlers arrived on our shore. Angling encourages families to become active in the outdoors, something that is of increasing importance when more and more children are considered overweight or obese. Anglers are often the driving force in the initiation and development of watershed restoration projects, investing time and effort into in-stream and up-land environmental initiatives. Last but not least, angling is also an important social, economic and environmental activity for Islanders. It currently involves approximately 7,000 Islanders and 600 non-residents each year. According to the Fisheries and Oceans Survey of Recreational Fishing in Canada 2005, Islanders spent $4.1 million on purchases at least partially attributable to the recreational fishery - $2.4 million of which was spent on major purchases directly attributable to the fishery (e.g., fishing, boating and camping equipment, special vehicles, land and buildings).

It is evident that anglers have changed in the last 25 years. Where many anglers once focused on ponds, there is now an increased emphasis on estuaries. Some anglers have become proficient at catching large sea-run trout in salt water and focus on these areas exclusively.

If the attendance at the public consultation meetings is any indication, the majority of the current angling community appears to be more than 30 years old and male. While the average age of Island anglers completing the 2005 *Survey of Recreational Fishing in Canada* was 49 for males and 43 for females, female anglers made up only 5% of resident anglers.[34] The long term viability of the recreational fishery on PEI will require an infusion of new anglers. We especially need to find more innovative ways to involve Island youth.

The issues of access and opportunity were highlighted at the public meetings. Some participants reminisced about walking or bicycling to nearby streams or ponds to fish when they were young. The lack of angling opportunities within walking or cycling distance of residential areas was identified as an area of concern. Many dedicated anglers believe the number of fish to be caught has declined and that the quality of the experience has diminished. There was considerable discussion at the public consultations regarding the need for new anglers to catch fish in order to get hooked on the angling experience. The stocking of put-and-take areas in each county seemed to have some support as a means of offering anglers a rewarding experience. However, other individuals indicated that the fishing experience was more about enjoying a social relationship with their fellow anglers, partaking in the therapeutic benefits of the fishery and appreciating the environment.

There were suggestions that government could do more to improve public awareness of angling. The sport has definite health and wellness benefits which could be emphasized, particularly as a means to get families, especially children, active in the outdoors. Perhaps government could look at reducing the cost by implementing day or family passes, providing fishing courses, or additional family fishing days to assist with introducing families and targeted demographics (i.e., women, disabled anglers, children, teens) to the recreational fishing experience. It should be noted that the general public doesn't seem aware that youth under the age of 16 are not required to purchase a license, or that an accompanying parent/adult doesn't require a license either as long as they are not actively fishing.

Public consultation participants repeatedly indicated that the provision of a mentor to assist inexperienced anglers would support angler recruitment efforts. Various anglers indicated that with the increase in one-parent families and the urbanization of rural areas much of the traditional fishing knowledge was lacking. They indicated that they had participated in informal mentoring efforts and that the participants were eager to fish once they were shown how.

Recommendation 22:
That Government encourage a broader utilization of the recreational fishery resource by:

- **supporting a cooperative (government and community groups) mentoring program to introduce new anglers to the sport;**
- **encouraging women, children, teens and disabled anglers to participate in the recreational fishery; and by**
- **modifying its existing fishing license to allow for short term licenses (e.g., two day passes) and/or additional family fishing days to assist with introducing new anglers to the fishery.**

Recommendation 23:
That Government improve its recreational fishery outreach program to ensure that staff is available to promote the angling experience and that information is accessible to the public, including website, written information, pamphlets, brochures and maps.

Recommendation 24:
That Government:

- **play an integral role in establishing/maintaining put-and-take fisheries, particularly in urban areas; and**
- **create fishing opportunities for youth within walking/cycling distance of residential areas.**

3.2 Angler Access and Awareness

It is evident from comments heard throughout the public consultation process that those individuals using private property on Prince Edward Island for personal reasons (e.g., angling, hunting, camping) need to be more appreciative of:

- the opportunities that are available to them; and
- the environment in which they are carrying out the intended activity.

With the development of local watershed groups, the Provincial Government has the ideal opportunity to promote the sustainable and respectful use of PEI's beautiful terrestrial and aquatic environments.

3.2.1 Angler Access

Approximately 91 percent of land on Prince Edward Island is privately owned. Landowner permission is required to use private land for recreational purposes on PEI and traditionally landowners have been generous with access to their property. In fact, access to privately owned property does not appear to be a major issue in most areas. However, anglers and land owners did indicate seeing a trend towards vandalism and destruction of private property that could potentially lead to private landowners restricting access to stream banks. During the consultation there were at least two examples of property being posted off limits after sustaining continued damage.

> *"Private landowners deserve respect by anglers. Anglers should ensure the minimal impact occurs as a result of their activity. Angler respect for the environment and the landowner is paramount with no exception."*[35]

All terrain vehicles (ATVs) also appear to be posing problems for landowners along Island waterways. Consultation participants relayed incidents of ATVs tearing up paths near watercourses. The continual use of these areas has resulted in property damage (i.e., deep ruts) as well as erosion and subsequent habitat degradation.

> *"People take ATVs into bogs or wetlands just to see if they can. Anywhere there is a bridge, the grass is worn off where they are going up and down the slopes….There is a lot of silt entering streams because of this."*[36]

Access to many angling areas, particularly publicly-managed ponds, is reduced because of poor or absent parking, dense vegetation on the dams and limited or no visibility. As angling opportunities increase so too will the need for updates to infrastructure (i.e., boat slips, parking lots), pool creation and pond excavation.

There have been instances of landowners with good angling spots restricting access to those that are willing to pay to fish. Participants across the Island expressed concerns that recreational fishing access could go the way of hunting, with outfitters leasing access to prime areas at exorbitant rates. Some groups have recognized this possibility and have made arrangements to secure land before carrying out major restoration activities. For example, the late Dave Biggar worked out a cooperative agreement between the Island Nature Trust, the Atlantic Salmon Federation and the O'Leary Wildlife Federation to purchase land in the lower reaches of the Trout River (Coleman). Also, the Morell River Management Co-op encouraged the Island Nature Trust to purchase land at the Mooney Road section of the Morell River – an area which had received extensive restoration and was a key destination for anglers.

Recommendation 25:
That Government actively enforce buffer zone regulations to ensure that motorized vehicles are prevented from using riparian buffer zones.

Recommendation 26:
That Government encourage community groups to acquire or obtain a long term lease agreement on properties slated for the major development of angling opportunities.

Recommendation 27:
That when Government sells land to the private sector, the riparian zone and any current or potential areas of access to rivers be retained.

Recommendation 28:
That Government improve recreational fishery access (e.g., boat slips, parking, walking trails, visibility) to provincial properties.

3.2.2 Public Awareness and Education

The Province does very little to promote angling on Prince Edward Island. The 2008 Prince Edward Island Visitors Guide, for example, makes no mention of the angling opportunities available to tourists planning a visit to the Island. Visitors who stop at the Tourist Information Centres find it difficult, if not impossible, to get any information about angling. Even resident anglers who are seeking information on where to fish or what gear to use are limited in the resources available in print or online. Vendors are required to supply an angling summary to each person purchasing a license but many anglers participating in the consultations indicated that they were not receiving it from local license vendors.

Participants also complained about the cost of the Wildlife Conservation Fund (WCF) and an absence of information regarding how the funds were spent. The Wildlife Conservation Fund has been in place since 1998 and has provided over a million dollars in wildlife habitat restoration and conservation initiatives. While a copy of the WCF annual report is supposed to be supplied to each angler upon purchasing a license, not all vendors have had the report or supply it.

From the number of comments at the public meetings, the dumping of garbage and other acts of disrespect and vandalism along PEI's waterways appears to be on the rise. The Committee was told repeatedly of the increased disregard for private property that anglers and property owners are witnessing. Meeting participants gave examples of people littering, willfully damaging sites, lighting fires with whatever material is close to hand and damaging property, cottages, ramps and equipment (e.g., canoes, boats). Numerous individuals reported having to pick up litter along Island streams and feeling the effects of other people's disregard for property and the environment (e.g., worst cases being the denial of access to traditional fishing areas).

Recommendation 29:
That the Wildlife Conservation Fund improve its methods of promoting the fund and informing the public about the projects funded through its program.

Recommendation 30:
That Government supply adequate recreational fishery materials to all vendors (e.g., licenses, angling summaries, Wildlife Conservation Fund reports) and follow-up to ensure the materials have been distributed and are in the hands of the intended audience (i.e., resident and non-resident anglers).

Recommendation 31:
That those Government Departments responsible for Environment, Fishing, Forestry, Tourism, Health and Community and Cultural Affairs work with the

Island's angling community to develop a public education package that includes promotion of the angling experience, respect for property and the environment and the wellness benefits of participating in PEI's recreational sport fishery (e.g., stress management, active lifestyle). We further recommend that the Department of Environment, Energy and Forestry take the lead on this initiative.

3.3 Community Based Restoration Groups

The majority of watershed groups are comprised of dedicated, local volunteers that continue to invest tremendous amounts of time and energy into watershed restoration. The value of these efforts cannot be stressed enough.

> *"Communities play a critical role in improving and conserving their environment."*[37]

Historically, when public funds for stream remediation and watershed restoration have been all but absent the watershed groups have continued to enhance the water quality and fishing experience along Island streams. These dedicated people are one of the key elements in a community's ability to plan on a watershed basis.[38] The associations, however, will also require mobile, technical expertise (likely provided by extension staff) and financial support to carry out any restoration and remediation work.

Traditionally, each watershed would have its own watershed organization. However, there are benefits to be had by amalgamating smaller groups into larger watershed entities. The Department should work with the various associations and groups to determine where amalgamation or sharing of resources would benefit watersheds. Groups would benefit from sharing information on watershed issues and could pass on tips of successful restoration techniques. Collectively, they would also have a stronger voice when dealing with various federal and provincial government agencies.

Recommendation 32:
That Government encourage the organization of multi-stakeholder watershed groups and give priority to views and resource requirements of those with a successful, long term track record.

Recommendation 33:
That Government implement the recommendations outlined in the Environmental Advisory Committee Watershed Report *We are all downstream. We are all upstream. We are all part of a watershed.* (2007) and provide watershed groups with the technical expertise required to address aquatic habitat and species issues.

Recommendation 34:
That Government implement a more timely process to approve watershed improvement projects for the upcoming season and provide additional staff or monetary resources to assist not-for-profit watershed groups with the administrative aspects of their projects.

Recommendation 35:
That Government place a greater emphasis on cooperation, training and information sharing by:
- **holding an annual workshop for watershed groups:**
- **ensuring that Watershed Coordinators receive updated training in river restoration techniques.**

3.4 Management and Policing of the Fishery

The management of Prince Edward Island's recreational fishery is primarily the responsibility of the Provincial Department of Environment, Energy and Forestry. While the enforcement of angling regulations falls under Fisheries and Oceans Canada's jurisdiction, the Province's conservation officers enforce both the federal and provincial legislation. The two departments work cooperatively to regulate the fishery and the Province, through the Department, works to expand angling opportunities while protecting the Island's recreational fish stocks from over-fishing and other activities that might negatively impact the fish or fish habitat.

3.4.1 Recreational Fisheries Advisory Committee

The current Recreational Fisheries Advisory Committee was formed in 2005 to advise government on recreational fishery issues. The process to date has been ad hoc with the Committee meeting as required. Since its formation in 2005 the Committee has written *A Proposal for Fish Stocking on Prince Edward Island* (2007) and participated in this winter's public consultation process.

The current Committee membership consists of eight dedicated anglers from across PEI. The Department of Environment, Energy and Forestry's freshwater fisheries biologist

provides technical support to the Committee. Each of the Committee members has had a long time involvement in local enhancement/restoration initiatives. Two members of the Committee are biologists who have extensive background in recreational fisheries management on Prince Edward Island.

The recreational fishery faces numerous challenges each fishing season. For this reason, the recreational fisheries advisory body must, at a minimum, be comprised of a well-rounded group of individuals with knowledge/experience in aquatic and environmental sciences, as well as the history of the Island's watersheds. A good advisory body should also cover the Island's geographical areas.

While the Committee feels that it has played an important role since its inception three years ago, it also recognizes that there has been no formal process to determine the optimum structure for the committee. The Committee members feel it is important that the Province determine the ideal advisory method and that the resulting body (which may in fact be the current Recreational Fishery Advisory Committee approach) be given a strengthened mandate. The review should also determine the optimum structure including a selection process for the "committee" membership.

Recommendation 36:
That Government determine and formalize the process for making recommendations to the Minister (e.g., the Recreational Fisheries Advisory Committee) and develop a clear mandate, selection process and structure.

3.4.2 Enforcement

There was unity on the need for a stronger enforcement presence on the Island's waterways. Without any noticeable increase in staff, enforcement duties have expanded in recent years to include 10 statutes/acts and 27 corresponding regulations,[39] including (but not limited to):

- The Wildlife Conservation Act (including Angling Regulations);
- The Pesticides Control Act and Regulations;
- The Agricultural Crop Rotation Act and Regulations;
- The Environmental Protection Act (including Buffer Zone regulations, Petroleum Storage Tanks Regulations, Litter Control Regulations and Waste Resource Management Regulations); and
- The Forest Management Act.

In effect, Conservation Officers are now responsible for environmental protection areas (e.g., buffer legislation, cans, garbage disposal and burn barrels) as well as the traditional wildlife conservation responsibilities. As one participant stated, the Island *"…can have*

all the regulations and legislation in the world, but if they are not enforced with some degree of enthusiasm,[the legislation/ regulations are] not worth anything."

Land use legislation that impacts PEI's waterways should also have adequate enforcement personnel to ensure that there are consequences to violations and infractions of these critical pieces of legislation. Violators must be held accountable for their actions and the resulting negative impacts.

The Committee agrees with the public consensus that there is a need to see an increase in the number of Conservation Officers along PEI streams. There should be fishing wardens dedicated to enforcing the rules and regulations specific to angling and wildlife issues. These Conservation Officers' main responsibilities should be to enforce the established angling rules and regulations, support those individuals and groups that are attempting to maintain or improve Island streams and monitor angling activities throughout the year (not just the first week or two of the fishing season as is reportedly happening now).

There were several references to illegal activities like winter fishing of trout. It is quite clear that anglers need to take a more active role in reporting offences to the Conservation Officers. Recognizing that enforcement officers can't be everywhere, Government and watershed groups should develop a "river warden" system similar to that used on the Confederation Trail.

Recommendation 37:
That Government substantially increase the environmental protection presence on the banks of PEI's streams and provide conservation officers with distinct responsibilities toward the recreational sport fishery.

Recommendation 38:
That Government and watershed groups collectively develop a program to assist fisheries conservation officers in their efforts to monitor PEI streams and protect the recreational sport fishery.

3.4.3 Aboriginal Fishery

Some concerns were also raised regarding the Aboriginal fishery (e.g., individual fishing outside of the recreational season and without license or noticeable limits). Most anglers are unaware of aboriginal regulations or fishing practices and express concern when they observe individuals fishing at times which fall outside of the recreational season, fishing without a standard angling license or retaining greater numbers of fish than would be expected. Existing Federal agreements accord the Island's Aboriginal people a right to harvest fish from the inland and coastal waters of PEI. Allocations have been made under these agreements for an Aboriginal Food, Social and Ceremonial Fishery. The Native

Council of PEI manages the harvesting activities of its harvesters. The Committee believes there is:

- a need for the aboriginal community to be more proactive in informing non-natives about their fishery and how it is managed; and that there is
- a need to encourage involvement of aboriginal communities in watershed groups.

3.5 Future Challenges

Two future challenges/threats to PEI's recreational fishery were detailed in the Discussion Paper: climate change and invasive species.

During the consultation process future threats like climate change and aquatic invasive species were not considered to be an immediate priority and ranked low in comparison to other issues like land use. However, there is no doubt that both future threats will pose serious problems for PEI's recreational fishery if the current trends continue. Climate change trends/predictions include warmer weather with less rain and snow, warmer water temperatures and resulting negative impacts on aquatic habitat. Invasive species like tunicates and green crab are already having a negative impact on the saltwater fishery and aquaculture industries. It is anticipated that new invasive species have the potential to negatively impact the recreational fishery. The Committee recommends that Government provide support for research and monitoring of these potential threats so that we as a province are best able to manage them as the impacts are experienced.

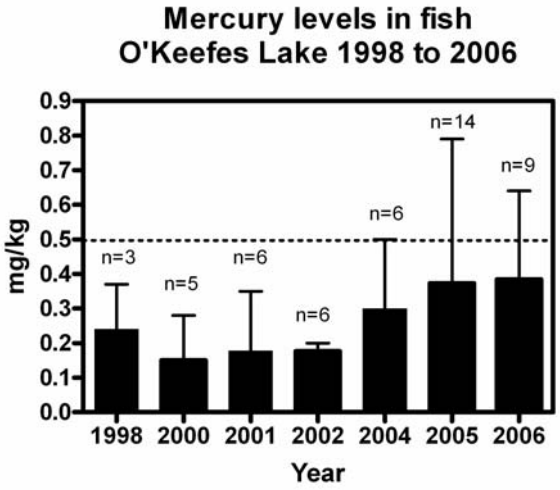
An additional future threat that is of concern to the Committee is the illegal, but intentional, introduction of smallmouth bass into Island streams.

> *"Illegal introductions of fish (a,k.a. the bucket biologist) remains a major threat to recreational fishing in this province. We can see what it has done in mainland rivers, and hopefully it will not happen here, but this attitude may be naïve. We should consider a major proactive campaign to discourage illegal introductions of fish. We have some non-native fish species in the Province now, but they are generally not major competitors with brook trout. This could change very quickly if someone lands here with a bucket or live well of pickerel or smallmouth bass."*[40]

The intentional introduction of smallmouth bass by an angler also poses a future threat to the existing recreational fishery. Nova Scotia's experience with this species is a perfect example. According to a 1995 overview of the smallmouth bass fishery that was in the North American Journal of Fisheries Management, illegal transfers of small mouth bass within NS from 1980 to 1993 spread this species throughout the province (i.e., watersheds inhabited by the species increased from nine to 23). Only two government

sanctioned introductions occurred between 1971 and 1995 ('71 and '84), yet during this same timeframe the number of Nova Scotia lakes inhabited by the species almost doubled.[41] It would appear that this introduced species presents competition to existing trout and salmon fish stocks in the aquatic habitat. For example, literature (MacNeil, 1995) indicates that smallmouth bass prefer to nest over gravel or rocky substrate rather than over mud or silt and there are reports (Catt, 1949) of rapid reductions in brook trout and land-locked Atlantic salmon following the introduction of the species in New Brunswick watersheds.[42]

In addition, as a member of the New England Governors and Eastern Canadian Premiers Mercury Task Force, PEI annually monitors mercury levels in fish at a number of locations. While there have been detectable levels of mercury in fish at various sites, rainbow trout from O'Keefes Lake have been the only fish sampled which contain mercury levels higher than recommended for human health. Consequently the PEI Department of Heath has advised the public that, as a precaution, women in child bearing years and children eight or younger should avoid eating trout from this area. With the recent increase in mercury levels in Island trout tissues, the Committee feels that attention should focus on ways to reduce long term transport of pollutants from industrial areas of the continent to Atlantic Canada.



Recommendation 39:
That Government:

- **initiate a public awareness program to explain threats imposed by the importation of exotic, non-native fish species to Prince Edward Island; and**
- **impose severe penalties on anyone caught introducing illegal, exotic, non-native fish species into Prince Edward Island waters.**

3.6 Funding

The funding issue was not included in the Discussion Paper. However, it was one of the main questions for each of the issues and is one of the key challenges to implementing the remedies that are required.

> *"…low levels of funding have hampered the pace of change."*[43]

Although provincial government responsibilities for wildlife and environmental protection on PEI date back to the 1960s, the Department of Environment was formally established in 1989. Since the Department's inception there has been a reduction in staff and enforcement officers[44] but a continued increase in regulation enforcement requirements (e.g., buffer zone, waste, burn barrels, petroleum storage). The budget for the department has not increased in conjunction with the increased demands and is in fact relatively small (slightly more than one percent of the total program expenditures) in comparison to the overall provincial budget.[45] The Department of Environment, Energy and Forestry budget needs to be augmented to be able to address the increased demands on the department and the environment.

> *"The work of the watershed groups here on PEI cannot be stressed enough. Nor can the need for more funding for these groups. These groups have been taking a leading role in stream work for years and more recently with watershed management planning. The opportunity for them to increase their role in the area of [angler] recruitment is plain to see. However, the dollars must be there for them to work with. This can be said for the environment budget in general. Whether we are talking watershed groups, stocking, or any of the other issues mentioned there needs to be more dollars available for the environment."*[46]

In addition to enforcement, funding will be required for watershed restoration work and stocking efforts. Given current rates of run-off and siltation in Island streams there will be a requirement for on-going, regular maintenance and restoration activities.

Recommendation 40:
That Government provide the necessary resources (including adequate staff) to monitor fish stocks as well as the impact of restoration activities and/or river-specific management regulations.

Recommendation 41:
That the percentage of the total budget allocated by Government to the Department of Environment be elevated to a level of support that allows for the implementation of the 40 recommendations contained within this report.

4 Conclusion

The Committee was pleasantly surprised by the number of participants and quality of dialogue that occurred during the public consultation process. The written and verbal input afforded us with an opportunity to hear from numerous anglers and watershed groups. Participants were generally environmentally conscientious and voiced their opinions in a respectful manner.

Without a doubt habitat restoration and land use are the key issues to the future of our recreational fishery. Watershed groups and the public rely on government to ensure that habitat restoration work is being carried out in the most biologically sensitive and cost effective manner.

As we have stated in several sections of the document there are a number of issues, particularly in the areas of regulation and conservation, where there appears to be no clear consensus. The participants in the public consultation process represent various interests - often conflicting ones. However, we have faith that the Department of Environment, Energy and Forestry, when formulating the recreational fishery policy, will take into account the research and data that are available and develop policies that foremost have an obligation to the quality and sustainability of the fishery.

The Recreational Fisheries Advisory Committee would like to acknowledge the continued, dedicated efforts of watershed restoration and angler groups across the province. Their dedication and enthusiasm have had, and will continue to have, a lasting impression on the landscape and aquatic environment of our province.

The Committee also wishes to thank the Minister of Environment, Energy and Forestry for entrusting us with the recreational fishery policy consultation process. We have made every effort to capture the consensus of the many individuals who participated. And in the absence of consensus, we have strived to make recommendations based on the research at hand and our collective knowledge and experience. We look forward to the Department's timely development and implementation of a recreational fishery policy for Prince Edward Island.

> *"Government needs to lend its leadership, support and cooperation, if any of these issues are to be developed and enhanced in a viable and successful manner."*[47]

We, the undersigned respectfully submit this report to the Minister of Environment, Energy and Forestry for Prince Edward Island on this 20th day of June, 2008:

Todd Dupuis, Chair

Dale Cameron

Steve Cheverie

Daryl Guignion

John Jamieson

Walter McEwen

Steve Murphy

5 Sources and Works Sited

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6 Recreational Fishery Policy Public Consultation and Project Methodology

In December 2007, the Minister of the Prince Edward Island Department of Environment, Energy and Forestry (PEIDEEF) released the Recreational Fisheries Policy Discussion Paper and website, www.gov.pe.ca/go/fishpolicy. This was the first step in launching a process to create a recreational fisheries policy for Prince Edward Island. The Discussion Paper was circulated to approximately 100 groups and individuals across the Island and provided background on six core issues: angler recruitment, access, habitat restoration and land use, stocking, regulations and future threats. The list was not prioritized or meant to be limiting but rather it was meant to encourage thought, discussion and public comment about a recreational fishery policy for Prince Edward Island.

The Recreational Fisheries Advisory Committee (the Committee), a non-governmental body formed in 2005 to advise government on recreational fishery issues, agreed to act as host and consultative body for the public hearings. RFAC membership includes Steve Cheverie of Souris, Todd Dupuis and Steve Murphy of Cornwall, John Jamieson of Bonshaw, Daryl Guignon of Desable, Walter McEwan of Summerside and Dale Cameron of Milburn. Crystal McDonald, Carpe Diem Consulting was contracted to facilitate the public meetings and assist the committee in writing its report while Roseanne MacFarlane, Freshwater Fisheries Biologist with the Forests, Fish and Wildlife Division of the PEIDEEF acted as rapporteur and resource throughout the consultations. The Recreational Fisheries Policy Public Consultation Schedule included the following meetings:

- Charlottetown, Farm Centre, January 17, 2008
- Montague, Montague Curling Club, January 23, 2008
- Rollo Bay, Rollo Bay Inn, January 29, 2008
- Summerside, Loyalist Inn, February 5, 2008
- O'Leary, O'Leary Fire Hall, February 12, 2008

In addition to the five well attended public meetings, the Committee also received written submissions. The comments and advice provided by the consultations were carefully considered by the Committee in context with their collective mission ("*…by word and action foster a sustainable, quality sport fishery and fishing experience*") and individual knowledge of watershed improvement and recreational fisheries management. The Committee then wrote a comprehensive report that:

- provides an overview of the various comments/advice that were received from the public;

- documents the key areas which need to be addressed in a recreational fisheries policy; and
- offers recommendations for Government to consider when formulating this policy.