

**1.  
INTRODUCTION**

In November 1997, the Standing Committee on Agriculture, Forestry and Environment issued "A Discussion Paper on Watercourse Buffer Zones" and invited public comment on its contents. The discussion paper was an attempt by the Legislative Assembly to explain the ramifications of Bill 60 - An Act to Amend the Environmental Protection Act by providing the public with a more comprehensive description of the buffer zone proposal. The discussion paper also served to focus debate on recommendations 16 and 25 of the Round Table on Resource Land Use and Stewardship concerning the establishment of buffer zones.

During the months of January, February and March of this year, the Committee held public hearings in Charlottetown, Montague and Summerside to hear from interested parties. Input was received from more than 70 groups and individuals, resulting in over 900 pages of transcripts and submissions on the single issue of watercourse buffer zones and their implication for agriculture and the environment.

The membership of the Standing Committee on Agriculture, Forestry and Environment is as follows:

Jamie Ballem, MLA, Stanhope - East Royalty, Chair  
Hon. Chester Gillan, MLA, Parkdale - Belvedere  
Hon. Mike Currie, MLA, Georgetown - Baldwin Road  
Andy Mooney, MLA, Souris - Elmira  
Jim Bagnall, MLA, Montague - Kilmuir  
Norman MacPhee, MLA, Crapaud - Hazelgrove  
Ron MacKinley, MLA, North River - Rice Point  
Robert Maddix, MLA, Évangéline - Miscouche  
Hector MacLeod, MLA, Alberton - Miminegash  
Dr. Herb Dickieson, MLA, West Point - Bloomfield

The Standing Committee was assisted in its work by Jean-Paul Arsenault, Department of Agriculture and Forestry, Rochelle Gallant, Policy Secretariat and Charles MacKay, Clerk Assistant of the Legislative Assembly.

**2. GENERAL  
CONCLUSIONS**

Bill 60 - An Act to Amend the Environmental Protection Act was introduced in May of 1997, four months before the report of the Round Table was made public. The purpose of Bill 60 was to give government the power to enact regulations which would establish watercourse buffer zones and prescribe what could and could not be done within and adjacent to these zones. The Round Table also recommended that the *Environmental Protection Act* be amended, but it was far more specific

in how this should be done. For example, the Round Table recommended that riparian buffer zones be from 10 to 30 metres in width, depending on slope and topography. It also advised government to "... make it illegal for all forms of livestock to have access to watercourses and to travel within the designated riparian (buffer) zone." It is this recommendation regarding livestock that elicited such overwhelming and conflicting responses from the public.

With the benefit of many submissions from farmers, environmental groups and concerned citizens, this Committee has arrived at the following general conclusions:

1. The legislative, one-size-fits-all solution advocated by Bill 60 will not work. It ignores the fact that livestock production and row crop production are vastly different in their respective impacts on aquatic habitat, it ignores other sources of contamination which have nothing to do with agriculture and forestry and, finally, it does nothing to help farmers and other land owners to make the transition.
2. When it comes to soil and water conservation, most farmers are doing a good job. This Committee heard many presentations from farmers who understand the meaning of sustainable production better than the so-called environmentalists. These farmers practice good stewardship, not because it's the law but because it's the right thing to do. They want to see their neighbours do the same and they believe that education is the best way to change behaviour, not legislation. Because of the Round Table report and the discussion on buffer zones, awareness of environmental issues is at an all-time high in the agricultural community and there is a positive climate for change.
3. Farmers and farm organizations agree with the Round Table that many of today's farming practices are not sustainable and that the non-farming public has every right to demand change. Farmers are saying, and this Committee agrees, that the financial burden of change must be borne by society as a whole. Since it is simply not possible to recover these costs in the marketplace, the best alternative is a publicly funded incentive program.
4. The Environmental Farm Plan is an excellent educational tool for farmers to diagnose and correct problems on their own farms. The Plan was designed by farmers and it is being delivered by a farm organization. This Committee believes that, in future, government incentives for environmental work should be tied to the completion of a Plan.

5. Despite the many pleas heard for stronger legislation, this Committee believes existing rules under the provincial *Environmental Protection Act* and the federal *Fisheries Act* can bring about significant improvements if the laws are enforced adequately and consistently.
6. The Committee acknowledges the efforts of the Department of Transportation and Public Works to improve its practices in the area of highway construction and maintenance and expects that these will result in a reduction of watercourse pollution by silt and other surface runoff from public roads and ditches.

Finally, it is time for government, together with the agriculture and forestry industries, to lay out a new policy and legislative framework which will strengthen efforts to protect our soil and water resources. The Committee proposes that government introduce amendments to the *Environmental Protection Act* in the fall of 1998. The sections which follow present the Committee's findings and recommendations on buffer zones and how they should apply to a variety of situations: row crops and continuous cereals, pasture and forage, land in non-crop uses, livestock operations and forested riparian zones. Also included is a revised definition of watercourse and a proposed definition of intensive livestock operation.

**3. BILL 60 - AN  
ACT TO AMEND  
THE ENVIRON-  
MENTAL PRO-  
TECTION ACT**

To quote from the explanatory notes contained in Bill 60, the proposed amendment to the *Environmental Protection Act* would give government "... explicit authority to create a buffer zone on lands within a prescribed distance of a watercourse and to prohibit or regulate activities within that area." Further, under Bill 60, the authority to make buffer zone regulations would be the exclusive domain of the Lieutenant-Governor-in-Council. This Committee takes the position that the issue of watercourse buffer zones is of such great importance that, if changes are made to the *Environmental Protection Act*, then these should be made by the Legislative Assembly. Consequently, this Committee believes Bill 60 should not proceed to second reading.

**The Standing Committee recommends that the Minister of Fisheries and Environment not proceed with second reading of Bill 60 - An Act to Amend the Environmental Protection Act.**

**4. EDUCATION**

The Standing Committee believes that education is the key to bringing about a change in the way farmers and woodlot owners manage the

riparian areas adjacent to aquatic systems. The Environmental Farm Plan is a proven educational tool for farmers and the Woodlot Management Plan can play a similar role in improving forestry practices.

**The Standing Committee recommends that farmers be encouraged to take the necessary Environmental Farm Plan training and to develop action plans for their farm operations and, the Committee further recommends that completion of such training be considered a prior condition to receipt of government financial assistance for soil and water conservation projects.**

## 5. INCENTIVES

The Standing Committee has heard many positive comments about the Eastern Habitat Joint Venture program. It provides technical and financial assistance to livestock farmers for fencing and alternate watering systems. There are technical problems associated with alternate watering systems and in some situations these cannot be overcome at a reasonable cost. Nevertheless, farmers have fenced cattle out of streams voluntarily for a variety of reasons, and incentives have eased the financial burden.

Recently, Agriculture and Agri-Food Canada and the provincial ADAPT Council announced a new two-year program designed to assist farmers to improve soil and water management practices.

These programs provide the financial incentives farmers seek and this Committee believes that, in combination with education, they are the right place to start. However, both programs are of relatively short duration and, considering the magnitude of the task ahead, a longer funding horizon is definitely called for. In its report to the Legislative Assembly last fall, this Committee asked that the provincial government undertake negotiations with the federal government in an attempt to secure long-term funding for this purpose. This Committee hereby reiterates that resolution and looks forward to the announcement of successful negotiations before the end of the current fiscal year.

**The Standing Committee recommends that the Department of Agriculture and Forestry continue working on the development of an incentive program for on-farm projects, including financial support for improvements identified in Environmental Farm Plans.**

## 6. DEFINITION OF WATERCOURSE

A new definition of watercourse will be required when amendments are made to the *Environmental Protection Act* to establish buffer zones. The

definition which follows is similar to the one which appeared in the Discussion Paper on Watercourse Buffer Zones. It is the position of this Committee that future amendments to the *Environmental Protection Act* should limit the requirement for mandatory buffer zones to areas adjacent to watercourses; wetlands, as defined in the present *Act* should not therefore require buffer zones.

**The Standing Committee recommends that the definition of watercourse contained in the *Environmental Protection Act* be amended to read as follows:**

**“watercourse” means**

- (i) any permanent stream, brook, river, lake, pond, bay or estuary, and**
- (ii) any intermittent stream, brook or spring with a definable sediment bed and continuous defined banks, which maintains continuous flow during any 72 hour period between July 1 and October 31, inclusive**

**but does not include**

- (iii) “wetlands” as defined in the *Environmental Protection Act*,**
- (iv) landlocked ponds,**
- (v) man-made ponds with no permanently-flowing outlet, and**
- (vi) the perimeter coastline (as further defined on a map contained in the *Environmental Protection Act*).**

**7. BUFFER ZONES  
NEAR  
AGRICULTURAL  
LAND**

Many presentations to the Standing Committee called for stricter controls on row crop production, particularly potatoes, and on those who grow cereal crops in what is known as “continuous cereals”. Just as many presentations, most of them from farmers and farm groups, pleaded with this Committee to allow some form of agriculture within buffers which are now farmed. It was argued that forage production is not detrimental to aquatic habitat and that some form of management is needed to limit the spread of noxious weeds. The recommendation which follows is, admittedly, an attempt to satisfy both objectives, the protection of aquatic habitat and the preservation of agricultural land.

The recommendation also deals with the issue of buffer zones adjacent to land in non-crop uses. Watercourse buffer zones are just as important

where land is being used for residential, commercial, industrial, institutional and recreational purposes because the potential for damage to aquatic habitat is just as great. Although this Committee is not prepared to recommend that all watercourse buffers be forested, the recommendation which follows calls on government to encourage land owners to plant trees and shrubs through a subsidized planting service. Finally, in order to reward those producers who practice good soil management, this Committee suggests strongly that buffer zone legislation must include a provision allowing for a reduced width.

With respect to the Round Table's recommendation that livestock not be allowed to access watercourses to drink, this Committee does not agree that this would be in the best interests of the livestock industry or that it is necessary for the protection of aquatic habitat, where livestock are pastured at low densities. This report will deal with the issue of intensive livestock operations in a later section.

**The Standing Committee recommends that mandatory watercourse buffer zones be established under the *Environmental Protection Act*, that the amendments come into effect no sooner than April 1, 2001 and that the necessary amendments be based on the following:**

**Conditions Which Would Apply to 10 Metre Buffer Zones**

- (a) No fall tillage is allowed under any circumstances;**
- (b) For land in forage production, the following conditions apply:**
  - i) mowing and harvest are allowed as frequently as required; and**
  - ii) renewal of forages is allowed through the use of an under seeded cereal crop or the technique known as "frost seeding";**
- (c) For land in non-crop uses S residential, commercial, industrial, institutional, recreational S the following conditions apply:**
  - i) mowing is allowed as frequently as required;**
  - ii) any significant soil disturbance within the 10 metre buffer zone will require a Watercourse Alteration Permit issued under Section 10 of the *Environmental Protection Act*;**

- (d) Regeneration of trees and shrubs, through natural and artificial means, is encouraged; government will provide seedlings and a planting service to the landowner at a reduced cost of \$40 per thousand (= per acre).

**Conditions Which Would Apply to 20 Metre Buffer Zones**

- (a) A 20 metre buffer zone is required where the slope of the land within the 20 metre buffer zone is 9% or less and where the land adjacent to the watercourse is planted in:
- i) a row crop; or
  - ii) a cereal crop or a succession of cereal crops grown over two or more consecutive years;
- (b) All of the conditions which apply to the 10 metre buffer zone also apply to the 20 metre buffer zone when the adjacent land is in row crop or long-term cereal production, including:
- i) tillage restrictions;
  - ii) management and renewal of forages;
  - iii) land in non-crop uses; and
  - iv) subsidized tree and shrub planting;
- (c) Exception to the 20 metre buffer zone rule

If adjacent fields in row crop or long-term cereal production are managed in accordance with a soil conservation plan approved by the Department of Agriculture and Forestry, the width of the buffer zone may be reduced.

**Conditions Which Would Apply to 30 Metre Buffer Zones**

- (a) A 30 metre buffer zone is required where the slope of the land within the 30 metre buffer zone is greater than 9% and where the land adjacent to the watercourse is planted in:
- i) a row crop; or
  - ii) a cereal crop or a succession of cereal crops grown over two or more consecutive years;
- (b) All of the conditions which apply to the 10 metre buffer zone also apply to the 30 metre buffer zone when the

**adjacent land is in row crop or long-term cereal production, including:**

- i) tillage restrictions;**
- ii) management and renewal of forages;**
- iii) land in non-crop uses; and**
- iv) subsidized tree and shrub planting;**

**(c) Exception to the 30 metre buffer zone rule**

**If adjacent fields in row crop or long-term cereal production are managed in accordance with a soil conservation plan approved by the Department of Agriculture and Forestry, the width of the buffer zone may be reduced.**

**8. MANAGEMENT  
OF LIVESTOCK  
OPERATIONS  
NEAR WATER-  
COURSES**

**A. General Observations**

Input received from the public on the proposed watercourse buffer zones leads this Committee to conclude as follows:

- (a) the scientific evidence presented does not prove conclusively that low-density livestock operations by themselves pose a serious threat to the health of aquatic systems;
- (b) other sources of contamination such as highways and municipal sewage systems bear a share of the responsibility for damage to aquatic system;
- (c) livestock producers are now more aware of their responsibility to protect aquatic systems and to consider the interests of other users of these aquatic systems;
- (d) livestock producers are quite willing to take preventive and restorative action, where required, but ask that governments provide incentives to reduce the financial burden; and
- (e) federal and provincial agencies have had the power to regulate livestock operations for some time.

What follows is a discussion of alternative approaches to dealing with problems caused by intensive livestock operations, suggestions for cooperative watershed projects, tailored solutions and information on existing legislation and how it could be used to alleviate some of the problems brought to the attention of this Committee.

**B. Cooperative Watershed Projects**



Of the many groups and individuals who spoke to this Committee about livestock, riparian zones and aquatic systems, few offered compromise solutions. Most presented recommendations which were diametrically opposed; either legislate a blanket solution or let farmers solve proven problems on a case-by-case basis. This Committee does not believe that a single approach will work.

The health of aquatic systems associated with a number of watersheds appears to be in decline and, in this regard, this Committee heard evidence about negative trends in the Mill River watershed, the Bedeque Bay watershed, the Sea View watershed and the Orwell Bay watershed. A way must be found to bring all interests to the table in each of these cases and to agree on causes and solutions. The provincial government must take the lead. In some cases, the causes may be obvious, while in others they are not. If further research is required then it must be done, but this Committee would rather see scarce resources applied to solutions.

**The Standing Committee recommends that the provincial government initiate the development of watershed improvement committees, especially in those watersheds where pollution is a threat to users of aquatic systems, and further, that all such groups must include farmers and shellfish operators if they are to receive any funding from government sources.**

### **C. Dealing with Other Pollution Sources**

This Committee supports the initiative taken by the Department of Transportation and Public Works to reduce the impact of highway construction and maintenance on aquatic systems. Corrective measures should insure that government's activities are in compliance with the federal *Fisheries Act* and the provincial *Environmental Protection Act*. Regarding municipal sewage treatment systems, this Committee has heard that these may discharge untreated sewage into watercourses during periods of heavy storm water runoff. This untreated sewage may be contaminated with faecal coliform bacteria, bacteria which is indistinguishable from that produced by livestock or any other warm-blooded animal.

This Committee wishes to emphasize that the problem of bacterial contamination and shellfish closures cannot be solved just by keeping livestock out of watercourses. The blame must be shared by all those responsible, and a solution can be achieved only through a joint effort.

#### **D. Enforcing Existing Legislation**

As pointed out in the report of the Round Table and in a number of submissions to this Committee, the federal *Fisheries Act* and the provincial *Environmental Protection Act* establish clearly that water is a public resource and, furthermore, that all users have a responsibility to protect aquatic systems and a duty to prevent pollution. These laws prohibit the discharge of contaminants into watercourses as well as the destruction of aquatic habitat from all causes, including agriculture and they have been used effectively to force offenders to take appropriate corrective measures. They enunciate the principle of “Thou shalt not pollute”.

No one from the livestock industry who appeared before this Committee objected to the present law or to the notion that violators should be dealt with by the authorities.

#### **E. Strengthening Legislation for Intensive Livestock Operations**

Common sense and scientific evidence lead this Committee to conclude that stricter controls are required on intensive livestock operations, also referred to as open feedlots. These are sites where high numbers of livestock are confined within a fenced area, whether inside or outside of buildings, and where all feed and water are delivered to the site.

**The Standing Committee recommends that the *Environmental Protection Act* be amended, effective no sooner than April 1, 1999, so that intensive livestock operations are restricted as follows:**

##### **Definition**

**“intensive livestock operation” means where**

- **animals are housed in a confined area, with or without access to a yard;**
- **density is greater than 7 livestock units per acre; and**
- **feed and water are delivered to the animals.**

##### **Conditions Which Would Apply to All Intensive Livestock Operations**

**Runoff from an intensive livestock operation must be prevented from entering a watercourse by the construction of a berm or other physical barrier or by the diversion of liquid runoff containing animal waste into an approved, self-contained holding facility;**

**Conditions Which Would Apply to All New Operations and to Existing Operations, Where Possible**

- (a) A 20 metre buffer zone is required between the intensive livestock operation and the edge of the watercourse where the slope of the land within the 20 metre buffer zone is 9% or less;
- (b) A 30 metre buffer zone is required between the intensive livestock operation and the edge of the watercourse where the slope of the land within the 30 metre buffer zone is greater than 9%;
- (c) The following conditions apply within the buffer zone adjacent to intensive livestock operations:
  - (i) for land in forage production, mowing and harvest are allowed and renewal of forages is allowed through the use of an under seeded cereal crop or the technique known as “frost seeding”;
  - (ii) production of row crops and continuous cereals is not allowed; and
  - (iii) regeneration of trees and shrubs, through natural and artificial means is encouraged; government will provide seedlings and a planting service to the landowner at a reduced cost of \$40 per thousand (= per acre).

**F. Incentives**

As with necessary improvements to crop production systems, a strong case can be made for assisting intensive livestock operations. While the existing Manure Management Guidelines, in combination with the Environmental Impact Assessment procedure outlined in Section 9 of the *Environmental Protection Act*, require that new or expanded livestock operations meet strict rules, there is no complementary system for older establishments. Neither is there any government assistance program for upgrading manure management systems to meet the recommendations put forward by this Committee.

**9. MANAGEMENT  
OF FORESTED  
RIPARIAN  
ZONES**

**The Standing Committee recommends that the provincial government offer incentives to owners of intensive livestock operations equal to 85% of the cost of systems to prevent the contamination of watercourses by animal wastes.**

There was general agreement among forest industry and environmental groups which appeared before this Committee that stricter controls on harvesting are required in riparian zones adjacent to watercourses.

**The Standing Committee recommends that forested riparian zones be protected under the *Environmental Protection Act*, that the amendments come into effect as soon as possible and that the necessary amendments be based on the following:**

**Definitions**

**“heavy equipment” means**

- (i) equipment classified as excavators, mechanical harvesters, porters, skidders and wood processors;**
- (ii) farm tractors over 50 horsepower; and**
- (iii) trucks and bulldozers.**

**but does not include**

- (iv) wheeled and tracked equipment when it is being used in the active suppression of wildfire.**

**Preservation of Forested Riparian Zones**

**Forested riparian zones include the area:**

- (i) within 20 metres of a watercourse, where the slope of the land is 9% or less; or**
- (ii) within 30 metres of a watercourse, where the slope of the land is greater than 9%.**

**Forested riparian zones cannot be converted to other uses.**

**Regulation of Activities Within the Forested Riparian Zone**

- (i) no broadcast application of pesticides is allowed;**

- (ii) no roads shall be constructed within 10 metres of a watercourse except by permit under the *Environmental Protection Act*;
- (iii) no ditch run-outs are permitted within the zone adjacent to a watercourse which has a width measured as follows: minimum 10 metres plus 1.5 times the slope percent;
- (iv) no soil exposure is allowed within the forested riparian zone except at permitted stream crossings and for planting site preparation,
- (v) no heavy equipment is permitted within 10 metres of a watercourse; and
- (vi) a maximum of one-third of the basal area may be removed through a selective harvest, no more frequently than once every ten years, and in a manner which ensures that the riparian zone progresses toward a mixed-wood, uneven-aged stand.

## 10. CONCLUSION

The successful adoption of a new idea requires clear objectives, careful planning and good leadership. In the case of watercourse buffer zones, it also requires a certain level of acceptance by all parties. Those most directly affected by the Round Table's recommendations, in this case the land owners, made it clear to this Committee that they are not prepared to accept the changes proposed to the *Environmental Protection Act* at this time. They have accepted that water is a public resource and that the law requires them to take all necessary measures to protect aquatic habitat. There is no question of what the ultimate objectives must be: to keep the soil where it belongs and to keep the water clean.

**This Committee recommends that the introduction of legislation creating watercourse buffer zones be delayed until the fall 1998 session of the Legislative Assembly and that the necessary amendments to the *Environmental Protection Act* be introduced at that time.**