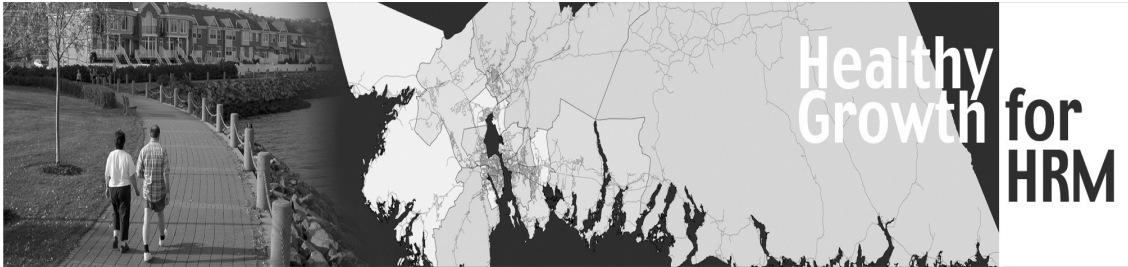


**Regional
Planning**

HALIFAX
REGIONAL MUNICIPALITY



Regional Plan Draft #2 Response to Public Input (Supplementary)

**Period to Receive Submissions:
December 6, 2005 - January 31, 2006**

February 14, 2006

Soil and Water Conservation Society Submission

As submission has been received from the Soil and Water Conservation Society of Metro Halifax (SWCSMH) containing a host of issues regarding the protection of watercourses in terms of the proposed Regional Plan policy and HRM operations. The following sections (1-7) provides a response to those issues for which a recommendation was made regarding the Regional Plan. One additional issue concerning the SWCSMH's request to specify the CCME's guidelines on phosphorus enrichment as the method for assessing and setting standards for phosphorus loading under future watershed studies, is still under assessment and will be presented to the RPC at its subsequent meeting.

1. Lakes Authority

Issue/Concern

The provision of in-house applied (practical) limnology resources is necessary to conduct studies, undertake monitoring, review reports, and develop lake carrying capacities. Set up a Lakes Authority with two qualified applied limnologists (Section 2 in SWCSMH submission)

Discussion/Options

This recommendation was brought to HRM previously and was the subject of an Information Report to Council on Oct. 9, 2001. The report indicated that decisions could be made following completion of the Water Resources Management Study, which is now complete (as of 2003). HRM staff currently includes one individual with formal limnological training (Tony Blouin, PhD, Dalhousie 1985). Following the Water Resources study recommendations, HRM intends to initiate a general water quality monitoring program which will initially be delivered through outsourcing. Lake carrying capacities have not yet been defined. The development agreement for Russell Lake West requires the developer's water quality program to provide a suggested carrying capacity in the form of a phosphorus threshold value (in progress). Such work could be done in-house with existing or new resources. Field investigations of water quality issues are conducted by the EMS Pollution Prevention staff, but this is outside and in addition to their regular duties enforcing by-law W-101. Management of freshwater is a provincial responsibility, and HRM's role is restricted to managing impacts on lakes through land use regulation or infrastructure.

Options:

1. Adopt recommendation if budget is available
2. Defer until budget and Council direction allow, or
3. Defer lake management to NSDEL as a provincial responsibility

Recommendation

Defer until budget seek Council direction. There are currently no additional resources available to support additional staff. Any staff hiring in future must go through normal channels with definition of roles and duties, justification, budget approval.

2. Chemical vs Biological Monitoring in Limnology

Issue/Concern

Information is provided on biological vs chemical monitoring. There is no specific recommendation. Implied is a recommendation to conduct biological monitoring (Section 7 in SWCSMH submission).

Discussion/Options

“Biological monitoring” may range from tissue sampling for specific contaminants to ecosystem assessments of species diversity and populations. Reference is made to use of Chironomid (midge larvae) deformities as an indicator of biological community health. Conduct of biological monitoring is specialised work and carries a cost.

Options:

1. Adopt a requirement for biological monitoring in addition to chemical monitoring as a matter of HRM policy; or
2. Decline to do so

Recommendation

HRM intends to initiate a water quality (chemical) monitoring program under the Regional Plan. While it may be possible and desirable to include some biological monitoring in future (as recommended by Dillon, 2003) there is currently no additional budget available to add this to the monitoring. Consideration will be given under future program enhancements.

3. Advanced Assessments on STPs

Issue/Concern

Advanced Assessments (by qualified limnologists on sewage treatment plants prior to construction or upgrading; investigate EDCs) (Section 9 in SWCSMH submission)
Impacts of nutrients and endocrine disrupting compounds (EDC) in STP effluent and assessment of those impacts (Subsection 9.2 in SWCSMH submission).

Discussion/Options

NSDEL requires receiving water assimilative capacity studies whenever an STP is constructed or expanded, in accordance with the Atlantic Canada Standards and Guidelines Manual, 2000. HRM has expressed the intention to build no further STPs discharging to freshwater, and in fact to decommission such STPs where feasible and affordable. The Harbour Solutions plants under construction have received federal and provincial approvals for marine discharge, as will any future STPs. Future upgrading of inland STPs will have to meet all applicable federal or provincial approvals and specifications. HRM does not have capacity to undertake research in the appropriate methods to treat EDCs, as this is an emerging field.

Options:

1. Abide by all requirements of the NSDEL who are the regulators of sewage treatment and licensors of treatment plants (currently done); or
2. Undertake an additional level of assessment as recommended; including investigating methods to treat EDCs.

Recommendation

HRM will continue to meet all applicable federal and provincial regulations for sewage treatment plants, and await further national developments in the treatment and regulation of EDCs.

4. Total Stormwater Treatment

Issue/Concern

Mandate total stormwater treatment systems capable of removing the myriad of post-development stressors, not silt/soils alone, in new major developments (Section 10 in SWCSMH submission). Use constructed wetlands for stormwater treatment (Subsection 10.1 in SWCSMH submission).

Discussion/Options

The issues raised in the recommendations by the Soil and Water Conservation Society will be addressed in a more holistic manner under future watershed studies. These studies will look at the density and form of development in conjunction with best management practises to minimize the impact on lakes and rivers. Best management practises may include treatment systems like engineered wetlands and total treatment systems, but more importantly will first look at what can be done to prevent the need for these treatment systems in the first place.

Recommendation

No change

5. Buffer Strip SizeIssue/Concern

Use sound technical criteria (i.e. soils, slope and anticipated stormwater flows) to properly size buffers or take the precautionary approach, recommended in research by Environment Canada, and legislate a minimum buffer of one hundred metres, where possible, for long-term protection (Section 11 in SWCSMH submission).

Discussion/Options

The riparian buffer proposed under the Regional Plan requires the retention of a 20 metre buffer which maybe increased to 60 metres depending on the degree of slope exceeding 20%. It is a moderate approach which provides for stream bank stability, temperature control, partial sediment removal and flood mitigation. It does not remove all pollutants and is only one of many mechanisms that can be used to protect watercourses in the future. The use of further criteria to determine buffer width would be costly to implement and the size of the buffer required for the uptake of all pollutants or a 100 metre buffer may not be considered reasonable in all locations. A holistic approach toward water course protection will be taken for various communities throughout HRM pending the completion of detailed analysis under future watershed studies. Larger buffers, density of development limitations, extent of impervious surface limitations and other mechanisms maybe established to address the water quality objectives set for receiving watercourses under future secondary plans.

Recommendation

No change

6. Prohibit Walkways in BuffersIssue/Concern

Enact a by-law to ban walkways in buffer strips even if the local community supports them (Section 11 in SWCSMH submission).

Discussion/Options

The establishment of riparian buffers is a substantial policy change for HRM and its citizens. It is intended to support of the protection of receiving watercourses, add aesthetic value to the

municipality, and allow some limited recreation and marine dependant uses. There are limitations on the extent of accessory structures and decks which may be located in the buffer (maximum of 20 square metres). However, there are no limitations on the extent of the walkway system that maybe developed in the buffer. The policy and regulations also allow public roads within the buffers which can heavily impact the buffer if a road system parallels a shoreline. It is not reasonable to ban all walkways from development within these buffers but it may be reasonable to establish limitations on the type and extent of walkways (e.g. permit private footpaths which are less intrusive, public walkways that have to be built to a standard for accessibility, and specify that the trails and walkways cannot exceed 10% of the buffer). The policy and regulation should also be adjusted to clarify that only public road crossings and private driveways that have received approval from NSDEL are permitted in the buffers.

Recommendation

Amend the Policy E-10 and its regulations to limit the extent of walkway development in riparian buffers and to clarify that only public road crossings and private driveways that have received approval from NSDEL are permitted in riparian buffers.

7. Septic Systems

Issue/Concern

Abandon unfounded and negative impressions about the potential for failure of post 1988 on-site septic systems and aim for a 100 metre setback of development from lakes to prevent nutrient enrichment over multi-decadal time scales (Section 12 in SWCSMH submission).

Discussion/Options

The Regional Plan expresses concern about the environmental effects of malfunctioning on-site septic systems but does not make any judgements about the potential risk to failure in systems installed in accordance with the pre or post 1988 On-site Septic Regulations. It simply acknowledges that malfunctioning systems are a cause for environmental concern and that the risk to failure is high in areas that are serviced with municipal unless the systems are properly maintained.

Greater setbacks from watercourses maybe established in rural areas pending the completion of watershed studies under future secondary plans.

Recommendation

No change