## 9.1.2 Watershed Management and Water Quality Monitoring Program Review- continuation

Cameron Deacoff, Environmental Performance Officer reviewed the process taking place for water quality monitoring and watershed planning. The Board was asked to consider the objectives and make recommendations. An electronic copy of the presentation is on file.

The results of this review are due in December of 2017. The watershed planning review will address a Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis, the context of watershed management in HRM, the connection of watershed management and water resource management and to identify emerging watershed management issues. Cameron Deacoff reviewed the history, timelines and milestones to date. Between 2006-2013 there have been 10 watershed studies (2 major, 8 minor) completed using DA-based monitoring. The Board felt that identifying the number of watersheds in HRM is an important staring point. The current scope of watershed management functions falls within the Regional Municipal Planning Strategy (RMPS) in the areas of: water resources; watershed planning; water, wastewater and storm water services. It was identified that municipal support for water programs and initiatives was crucial to their success. Water Quality Monitoring and Water Quality Assessment were defined. The logical sequence of this work is: monitoring, assessment, management with a feedback loop. Retention of water quality data is very important. Cameron Deacoff then reviewed why water quality is monitored, the components of a successful monitoring program and the types of monitoring that takes place. This monitoring must be clearly defined and tied to an objective to be meaningful. A review of four key studies: Halifax Harbour Solutions Advisory Committee Final Report, Dillon's 2003 Water Resources Management Study, CCME's 2006 Framework for Water Quality Monitoring and Stantec's 2010 WQM Functional Plan all present consistent messages and recommendations for consideration. The corporate policy objectives to date were reviewed: RMPS 2006, RMPS 2014 which restated a similar objective and the current development of the Halifax Green Network Plan whose draft directions have been approved in principal by Halifax Regional Council.

The Board discussed areas to be addressed in this review. The managing of development is key and fundamental as urban development impacts on water quality. It was agreed that the definition presented in 2006's RMPS was more explicit than 2014's version. It is important to define our municipal policy objectives and how they relate to water issues. It seems that they are presently limited to secondary planning. Cameron Deacoff shared observations on how studies are presently used, mainly as background for future planning but not involved in policy changes which would create authority for future decisions. Part of the review proposes to bring clarity to concepts with definitions through the use of a glossary and consistent use of words and context. It was noted that biodiversity was not presently defined as an objective. The Green Network Plan is the first step in planning and policy which can focus on these areas. The Board noted that there can be competition between development and maintaining natural ecology and acknowledged that it is challenging for regional Council and HRM to balance green values and development. The Board also noted that there are costs to repair existing damage and prevent further damage and asked how we determine who bears the burden of these costs. To balance economics with ecology it is necessary to understand how each is valued. Cameron Deacoff shared some examples of water quality management objectives coming from recent watershed studies.

They concluded their presentation with a list of the currently stated objectives of the water quality and water policy monitoring to leave with the Board for its feedback and review. The Board would like to understand HRM's fundamental objectives and what it hopes to achieve. An opportunity exists to develop partnerships with other stakeholders, private companies and consultants. It was identified that there are

some overlapping mandates with other levels of government and the broad ambitions of these groups are only achieved through collaboration. The Board was also interested in understanding how work and data analysis is shared between HRM and Halifax Water. Stream gauging was noted as another important area which would help meet objectives. It may be necessary to increase HRM staffing levels to achieve these goals. For the work to get done it is necessary to set objectives, identify the resources and use data collected. Clearly defined objectives assist in addressing both human and ecological health. Costs obviously limit the work that can be done and it will be important to create new models which involve who pays and how the work gets done; for example, developers may be asked to carry some of these costs. Water guality initiatives need a realistic budget which reflects a serious commitment to getting this work done. It may prove necessary to have the monitoring plan prioritized and then done in phases. The Board felt that policy document language matters and provides an opportunity to get ahead of problems instead of chasing them. Public education also addresses this using prevention as the answer for example, grants to homeowners for rain barrels and solar options. These types of initiatives create an opportunity to partner with private companies, schools, community groups, etc. It was suggested that for this to hold weight it would need to be a part of the Regional Plan. The Board summarized some key steps; clear objectives answer the why, policy direction defines the how and there are numerous vehicles for implementation which include: programs, investments, partnerships, collaboration and development agreements. Managing priorities and managing development through regulation, incentivizing and restricting was seen as necessary for the success of both water quality monitoring and water quality management.

The Board reviewed the status of LiDAR mapping and asked if this covered the mapping of floodplains and watersheds. Urban flooding is being studied presently in identified flood prone areas focusing on street and storm drains. Another area of interest was how salt water, estuaries and coastal environments are presently monitored in HRM. It was noted that there is currently no regulation for the storing or piling of snow despite its impact as it melts.

The Chair asked the Board to come up with a definition of Watershed Management and bring it to the next meeting.