



# COMMITTEE REPORT

**DATE OF REPORT** November 9, 2015  
**MEETING TYPE & DATE** Regional Services Committee Meeting of November 25, 2015  
**FROM:** Environmental Services Division  
Engineering Services Department  
**SUBJECT:** Cowichan Water Balance Model  
**FILE:** 2240-20-PWS

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## PURPOSE/INTRODUCTION

The purpose of this report is to provide an update on the development of the Water Balance Express for Landowners web tool.

## RECOMMENDED RESOLUTION

That it be recommended to the Board that the Water Balance Express for Landowners tool be integrated into the planning approval framework to support watershed management objectives for single lot development.

## BACKGROUND

Through membership in the Partnership for Water Sustainability since 2007, the CVRD has benefited from access to information, tools and resources for maintaining and improving watershed health within the region. One such tool, the Water Balance Model Express for Landowners was introduced to this Committee in May of 2013. Acting on an April 2014 recommendation from this Committee, the Board passed a resolution to share this web-based tool (WBM Express) with the CVRD and partner municipal planning staff and recommended that planning staff consider integrating the tool into the planning framework to support watershed management objectives at the Official Community Plan and Development Permit level.

The tool has now been upgraded to utilize a Google map base making it more accessible to the general public while maintaining the engineering and analytical engine in the background to determine pre and post development run off and impacts on watershed health.

## ANALYSIS

The Cowichan WBM Express tool has been available online since April of 2015. This web-based tool allows homeowners or developers to quickly size and test landscape-based solutions, such as rain gardens, infiltration swales, or cisterns, to “slow, sink, and spread” the rainwater falling on their property, thereby helping to restore the natural balance of the region’s water. Starting with an undeveloped property, one can test out different sizes and designs of buildings, landscaping features, and rainwater slow-release features to see the impact of development illustrated by the stream health dial. Alternatively, a homeowner could use the tool to see what features could be added to a property to restore the stream health to a more natural level. Since the Cowichan WBM Express tool was introduced, 133 individuals have used the tool to create 186 projects, which may represent either separate properties or different options for a single property. Similar tools are being used in North Vancouver, Surrey, and the Comox Valley.

A limitation of the first version of the WBM Express tool was the resolution of the map provided for users to select the watershed in which their property was located. The Environmental Services Division has been working with the Partnership for Water Sustainability to prepare an updated version of the WBM Express tool which uses Google Maps to allow users to zoom in to

find their property or even search by civic address to determine the watershed in which their property lies. Additionally, the improved resolution allows for different targets for rainwater storage and infiltration based on the zoning of each property within the watershed. For example, a commercial property which may allow up to 100% of the parcel to be covered by impervious surfaces will have different targets than a neighbouring residential parcel on which lawns or other landscaping features allow more rainwater to infiltrate into the soil.

The new version of the WBM Express tool will be launching in the coming weeks and will serve as an even more useful tool for helping maintain the water balance in the Cowichan Region.

A short presentation of the tool will be provided to the committee.

### FINANCIAL CONSIDERATIONS

The cost of moving the WBM Express model to a WordPress / Google Maps platform has been covered by Partnership for Water Sustainability.

### COMMUNICATION CONSIDERATIONS

The community has expressed interest in more local control over watershed management but may be unclear as to how they can support these objectives themselves. A press release and information regarding the tool will be provided to local media. A training session for CVRD and municipal partner planning staff will help with the previous Board recommendation to integrate the tool into the planning framework. Promotional and education materials to help with the use of the WBM Express tool at the household level will be provided on the CVRD's website.

### STRATEGIC/BUSINESS PLAN CONSIDERATIONS

Supports the CVRD objectives of protecting, restoring and enhancing the natural environment and environmentally sensitive development. The tool specifically supports the strategic direction to develop a rain water management strategy and to provide information and support to residents interested in watershed sensitive development.

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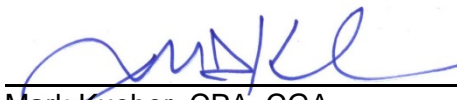


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