

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF MARCH 23, 2007

Prepared on February 27, 2007

ITEM NUMBER: 9

SUBJECT: Structural Post-construction Storm Water Best Management Practice Selection Tool

DISCUSSION

Jennifer Bitting was granted a one year leave of absence from the Central Coast Regional Water Quality Control Board for the purpose of completing a Master's degree in Engineering for Sustainable Development at Cambridge University. Ms. Bitting's dissertation is entitled *A Methodology and Evaluation Tool for Comparing Post-construction Storm Water Best Management Practices*, and is available on-line at: http://www.waterboards.ca.gov/centralcoast/stormwater/special_projects/spec_proj_index.htm. A summary of the dissertation is included here as Attachment 1. The result of her research is a tool for selecting the most effective structural post-construction storm water best management practices, included here as Attachment 2. Ms. Bitting will present this information to the Board as part of this item.

Sustainable Development

Sustainable Development, as defined in the 1987 Brundtland Report from the United Nations (UN), is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Sustainable Development was the central theme of the UN Earth Summit at Rio de Janeiro in 1992, which called on governments to produce their own strategies

for sustainable development. Urban areas place demands on the environment by using resources and producing waste. The urban environment is therefore one area where the strategies of sustainable development should be put into practice. Conventional drainage systems focus on evacuating storm water from the urban environment but do not consider water resources or wildlife habitat (SUDS, 2004). *Sustainable drainage* is a concept that includes long term environmental and social factors in decisions about drainage. It considers the quantity, quality, and value of storm water (SUDS, 2004).

Selection Tool

The purpose of the selection tool (Attachment 2) is to provide the information necessary to make decisions about the most effective post-construction Best Management Practices (BMPs), or combination of BMPs, for a given application. Information is presented in an easily comparable format for all parties to use as the basis of discussion.

A condensed summary (Attachment 1) explains how the selection tool was created. The reasoning and research behind the selection tool is explained in the full dissertation, available on-line as noted above,

Next Steps

Water Board staff is currently working with volunteers to test the use of the selection tool to ensure that it is intuitive and accurate. We need to test the tool in real world situations and get feedback from consultants and municipalities. We are also evaluating how to make this type of selection tool an integral part of the Water Board's requirements.

SUDS, 2004. National SUDS Working Group, July 2004. *Interim Code of Practice for Sustainable Drainage Systems*. Available from: <http://www.ciria.org/suds/> [Accessed 15 July 2006].

RECOMMENDATION

This is an information item only.

ATTACHMENTS

1. Dissertation Summary
2. Selection Tool

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