

Green Infrastructure

Ministry of Community Services
Municipal Engineering Services Branch
Michael Zbarsky



Joint Municipal Engineers Division, APEGBC, and Master Municipal Construction Document Association Annual Meeting – November 25th 2005 – Burnaby, BC.

Outline

- Introduce Municipal Engineering Services Branch
- Differentiate between Green & Green
- Overview Ministry Involvement with Green Infrastructure
- Outline Ministry Infrastructure Funding Opportunities for Green Infrastructure

Municipal Engineering Services Branch

- Infrastructure and Finance Division of Local Government Department
- Mandate:
 - Provide engineering coordination and evaluation for ministry programs.
 - Provide engineering advice to local governments regarding planning, construction and maintaining infrastructure.

Municipal Engineering Services Branch

- Funding:
 - Canada-BC Infrastructure Program
 - BC Community Water Improvement Program
 - Infrastructure Planning Grant Program

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Green Infrastructure

- Green VS. Green
- Design with Nature
- Why we like it:
 - Often less costly than hard infrastructure,
 - Aesthetic and recreational benefits,
 - Many Environmental benefits.

'Design with Nature' Means:

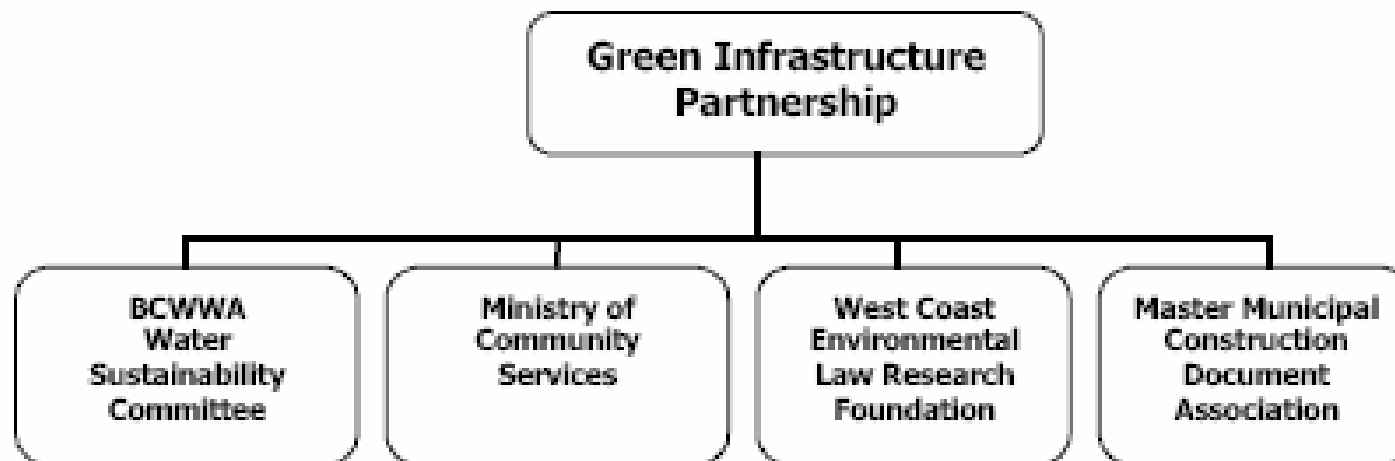
- Develop compact, complete communities
- Increase transportation options
- Reduce the loads on water, waste and energy systems
- Protect and restore urban greenspace
- Strive for a lighter 'hydrologic footprint'
- Achieve higher levels of stream protection

Source: Green Infrastructure Partnership

Green Infrastructure

- How are we involved:
 - BCWWA GIP
 - MMCD
 - WCEL
 - SmartGrowthBC
 - Other Ministry initiatives
 - Funding infrastructure planning
 - Funding infrastructure construction

BCWWA & GIP



www.waterbucket.ca

www.waterbalance.ca

West Coast Environmental Law

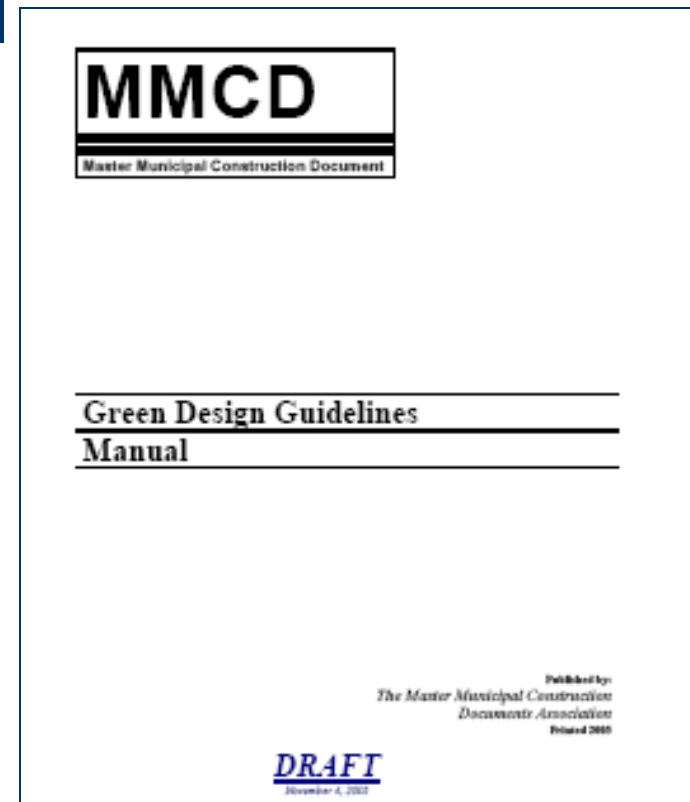
- Green bylaw information and examples,
- Smart growth guides and case studies
- *“Green Infrastructure Supplement for Subdivisions: Report on the Green Infrastructure Consultation Held on May 11 2004 in Vancouver”*
- www.wcel.org

SmartGrowthBC

- Smart Growth tool kit
 - See part 2 especially for Green Infrastructure info
- Lots of other useful info and case studies relevant to smart growth and Green Infrastructure
- www.smartgrowth.bc.ca

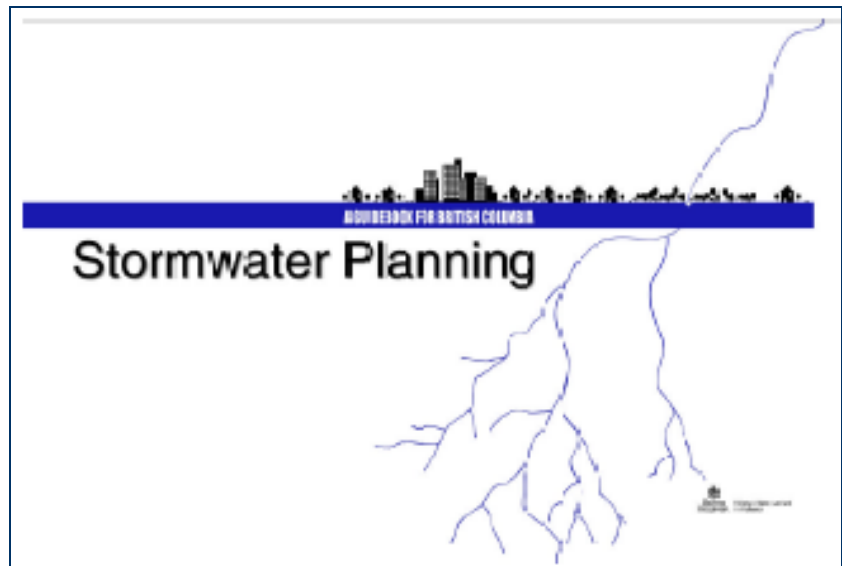
MMCD Green Design Guidelines

- Don't throw out the old MMCD design guidelines, supplement them with the Green Design Guidelines.
- <http://www.mmcd.net/>



Other Ministry Initiatives

- *Ministry of Environment*



Environmental Best Management Practices for Urban and Rural Land Development in British Columbia



June 2004

The Ministry of Water, Land and Air Protection will be updating this document over time. We would really appreciate your comments and feedback to make this a more useful and user-friendly document. Please complete the questionnaire in Appendix 1-1

DRAFT

Infrastructure Grants - Capital

- Review Process
 - Cost effective
 - Innovative
 - Sustainable rankings
 - Mandate

Here is your application



Infrastructure Funding

- BC Community Water Improvement Program
- Financial Review = 30 points
- Engineering Review = 40 points
 - Cost effective and acceptable technology
 - 15 of 40 points allocated for **Infrastructure Sustainability**
 - New Approaches and BMPs
 - Encouraging Innovation
 - DSM

Recently Funded Projects

- Integrated Stormwater Management
 - 100 Mile House “Bridge Creek Water Quality/Fisheries Enhancement” - \$997,000
 - Williams Lake “Overall Stormwater Management” - \$1,250,000
 - Smithers “Willowvale Storm Water/Wetlands Detention Area” - \$240,000
 - Surrey “East Clayton Drainage Performance Standards” - \$1,294,000
- Other
 - Oliver “Reclaimed Water Irrigation System Expansion” - \$1,799,000
 - Vernon “City of Vernon Water Reclamation Plant” - \$5,315,589
 - White Rock “Operations Green Building” - \$1,347,660
 - GVWD “Seymour-Capilano Filtration Project” – geothermal clearwell temperature control and LEED buildings

Other Projects

- CTW
 - Cumberland - \$5,194,101
 - enhanced secondary sewage treatment
 - urban runoff
 - Recreational, wildlife habitat, seasonal flow augmentation
- Biosolids Compost and Reuse
 - Powell River Regional District
 - Revelstoke
 - Capital Regional District

Infrastructure Grants - Planning

- Upto \$10,000
- Assess feasibility, costs, location, technology of Green Infrastructure.
- Biosolids composting and reuse
 - Comox-Strathcona Regional District, etc.
- Integrated Stormwater Management
 - Campbell River, Central Saanich, Oak Bay, Surrey, etc.
- Other
 - West Vancouver - Natural Landscapes Demonstration Project
 - Islands Trust – Rainwater Harvesting studies
 - Comox – Low Impact Development Standards
 - New Westminster, Quesnel, Revelstoke, North Vancouver District, Vancouver - Alternative Energy Guide

Other tools for Green Infrastructure

- Ministry of Community Services:
 - Low impact development bylaws,
 - Taxes,
 - Public involvement processes
 - OCPs
 - Regional Growth Strategies,
 - Governance, etc.

