

2013 Annual General Meeting
December 3, 2013

Water Sustainability Action Plan for British Columbia

10th Anniversary Celebration



the partnership
for water sustainability in bc

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the partnership
for water sustainability in bc

- We have a bridging role between Province, local government and community:
 - Foster alignment of regional and local actions with provincial goals
 - Facilitate inter-regional collaboration in local government setting
 - Promote a “design with nature” approach to land development

- We are building on the ‘collaborative model’ to implement *Living Water Smart* and *Green Communities*:
 - Deliver *Water Sustainability Action Plan* through partnerships
 - Stewards of *Stormwater Planning: A Guidebook for BC*
 - Hub for “convening for action” network in local government setting

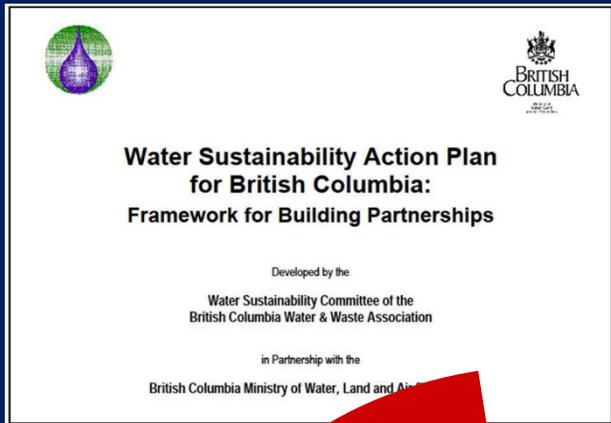
Released in February 2004....

The Water Sustainability Action Plan.....

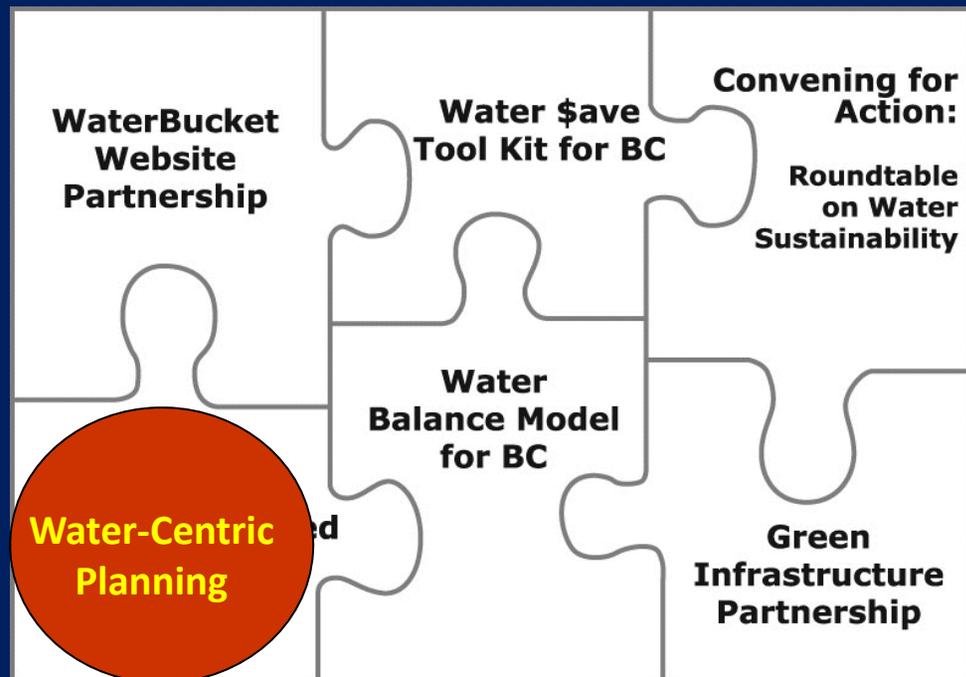


... provides an umbrella for demonstration projects that are informing Provincial policy through the 'shared responsibility' model

In 2003, we created a framework for building partnerships...
in the local government setting...and turning ideas into action

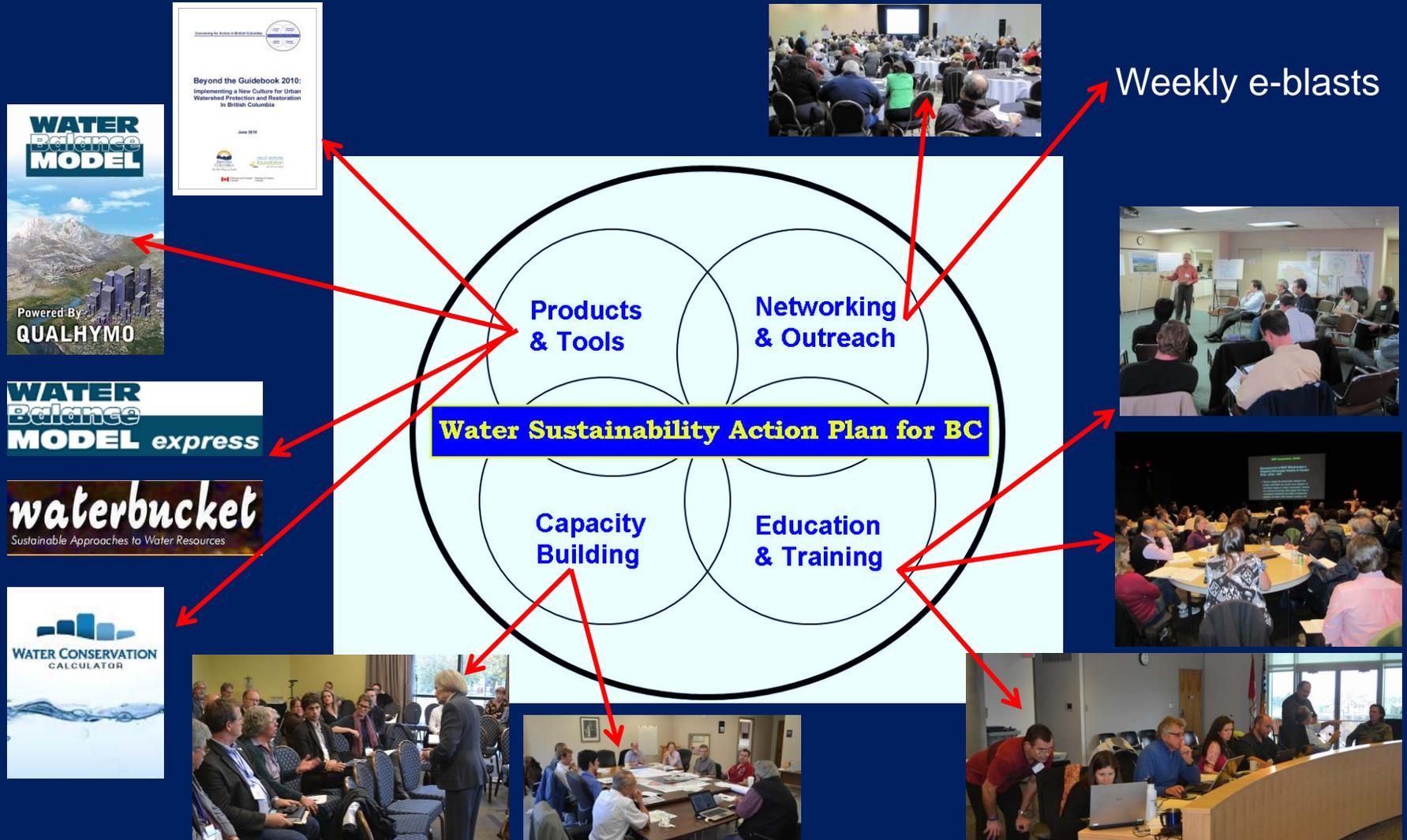


This is the original branding image:



WHAT IS: Water Sustainability Action Plan for BC

We develop tools. We develop talent. We focus on outcomes.



A large group of approximately 40 people, including men and women of various ages, are posed for a group photo in front of a modern building. The building has a prominent sign that reads "FRESHWATER CENTRE" in blue letters on a dark wooden background. The people are dressed in a variety of casual and business-casual attire, including jackets, blouses, and sweaters. The ground in front of the building is paved with red and grey bricks. The overall atmosphere is professional and collaborative.

MISSION POSSIBLE

The 'regional team approach' brings together....

- **The Province** - *those who provide legislative framework*
- **Local Government** - *those who plan, regulate and
operate, maintain and build*
- **Developers** - *those who build*
- **First Nations** – *those who connect to the land*
- **Stewardship Sector** – *those who advocate for conservation*
- **Agricultural Sector** – *those who grow food*
- **Academia** - *those who provide research*

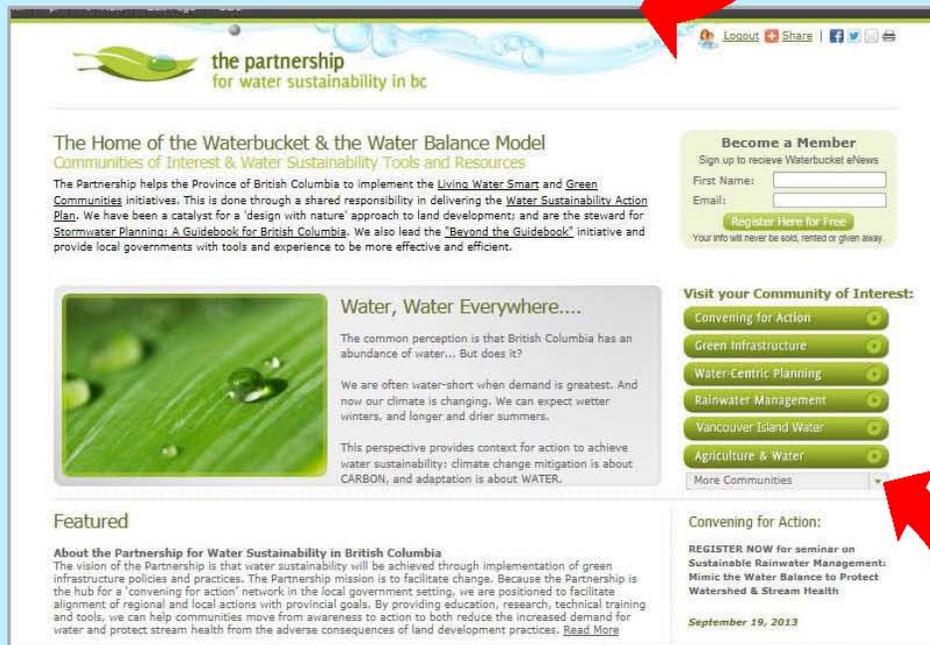
*“The Water Bucket is providing reasons to have the conversation about ‘why change’. The resulting awareness of **need** will help us obtain the mandate to implement watershed-based land use planning.”*

Marvin Kamenz, Municipal Planner
Town of Comox
September 2009



www.waterbucket.ca

The homepage



The screenshot shows the homepage of the Partnership for Water Sustainability in BC. At the top, there is a logo with a green leaf and the text "the partnership for water sustainability in bc". Below the logo, there is a navigation bar with "Logout" and "Share" buttons, and social media icons for Facebook, Twitter, and LinkedIn. The main content area is divided into several sections. On the left, there is a section titled "The Home of the Waterbucket & the Water Balance Model" with a sub-heading "Communities of Interest & Water Sustainability Tools and Resources". Below this, there is a paragraph describing the Partnership's role in implementing the Living Water Smart and Green Communities initiatives. In the center, there is a section titled "Water, Water Everywhere...." with a photograph of water droplets on a green leaf. To the right of this section, there is a "Become a Member" form with fields for "First Name" and "Email", and a "Register Here for Free" button. Below the form, there is a "Visit your Community of Interest:" section with a list of categories: "Convening for Action", "Green Infrastructure", "Water-Centric Planning", "Rainwater Management", "Vancouver Island Water", "Agriculture & Water", and "More Communities". At the bottom, there is a "Featured" section with a sub-heading "About the Partnership for Water Sustainability in British Columbia" and a paragraph describing the Partnership's vision and mission.

Founding Members of the Waterbucket.ca Website Partnership (formed in 2004)

1. Ministry of Environment
2. Ministry of Community Development
3. Ministry of Agriculture
4. Ministry of Health
5. Land & Water BC
6. BC Hydro PowerSmart
7. BC Gas
8. Metro Vancouver
9. Capital Regional District
10. Stewardship Centre of BC

Links to 8 Communities-of-Interest

What is the Water Balance Model?

A web-based scenario comparison tool so that users can quantify the impacts of land use changes on the Water Footprint and hence Stream Health



THREE SCALES

- watershed
- development
- site

Now, three user

LEVELS:

- engineering
- planning
- **landowner**

WBM Express for Landowners

THE GOAL: "Lighten the Water Footprint"



What is on the property now?

What is the planned change?

How will runoff volume and rates change?

How can the changes be reduced to support the local watershed objectives?

Interface is no more complex than the dash board of a car....

The screenshot displays the 'WATER Balance MODEL express' interface. At the top, there are navigation links: Home, My Projects, Create a Project, and Logout. The main content area is divided into several sections:

- Stream Health:** A circular gauge showing a reading of 0.32. Below it, it indicates 'Office: 4mm' and provides a link to 'Learn more about the site level result dials.'
- Site Builder:** A section titled 'Available Site Components' with the instruction 'Drag components on to the site below to setup and activate a component'. It features a grid of colored buttons: Building (gray), Hard Surface (Driveway, Patio, Path) (gray), Landscaping (green), Infiltration Swale (green), Rain Garden (green), Planter Box (green), Infiltration Swale with Storage (blue), and Rain Garden with Storage (blue).
- Project v6.1 Test Case:** A section with a 'Base Conditions Area' input field set to 779 m². Below this is a 3D site model showing various components placed on a site plan.
- Component Details:** A section showing details for 'Infiltration Swale - With Storage | My Swales', including a 3D model and a description: 'An infiltration swale with storage is typically a dished landscaped area where water may pond temporarily on the ground surface.'

Red arrows and text annotations highlight key features: 'Click and drag to define property' points to the Site Builder components; 'User choices drive the dial' points to the Stream Health gauge; and a large red arrow points from the legend on the right towards the Site Builder components.

Gray = hard & produce runoff

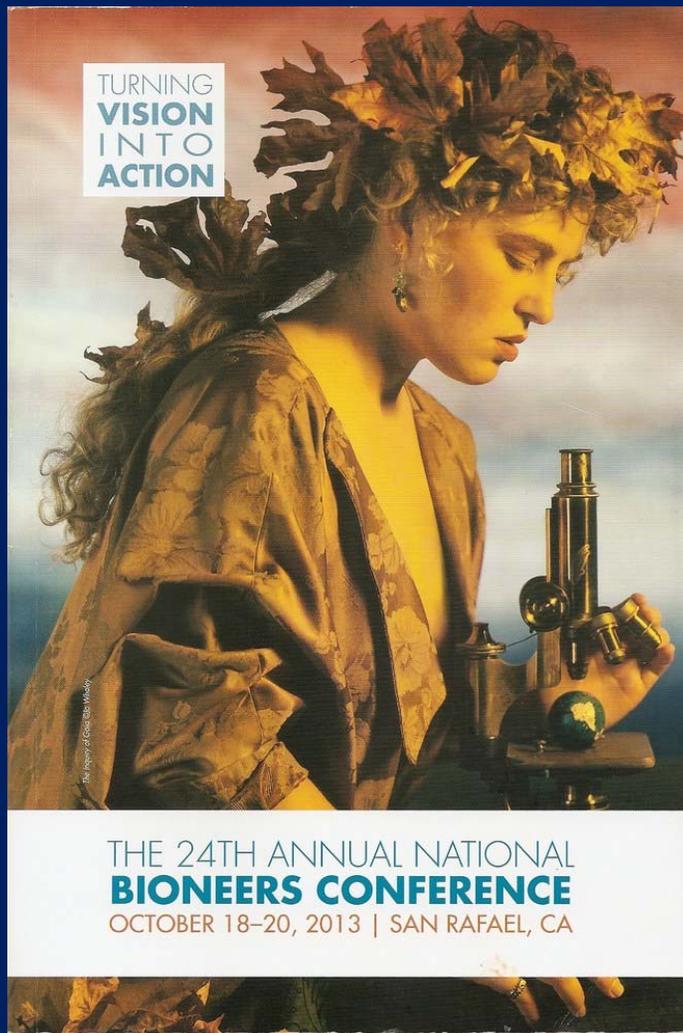
Green = absorbent & self-mitigating

Blue = storage areas & receive runoff

An aerial photograph of a lush green forest with a winding river or stream cutting through it. The image has a halftone or dithered texture. A dark green horizontal bar is overlaid on the middle of the image, containing the title text in yellow. Below the bar, the main text is also in yellow and italicized.

"Vancouver Island 2065"

***The decisions we make today will
ripple through time to create a legacy***



Settlement, Economy and Ecology in Balance

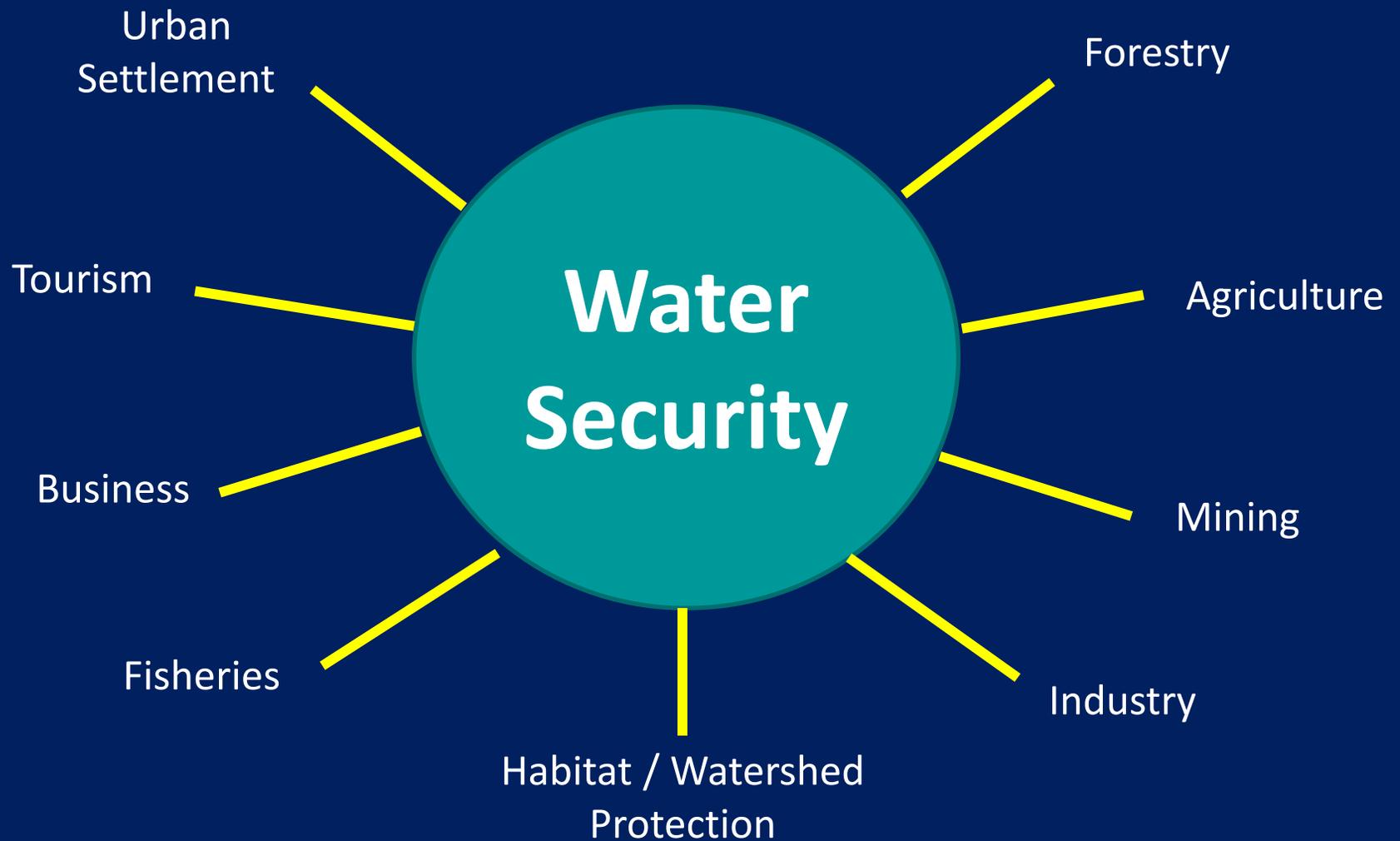
“Vancouver Island has the potential of becoming a sustainability development model for Canada.”

Eva Kras

Visionary, Scholar,
Traveler and Author



Water is the Vital Link



Agriculture Water Demand Model

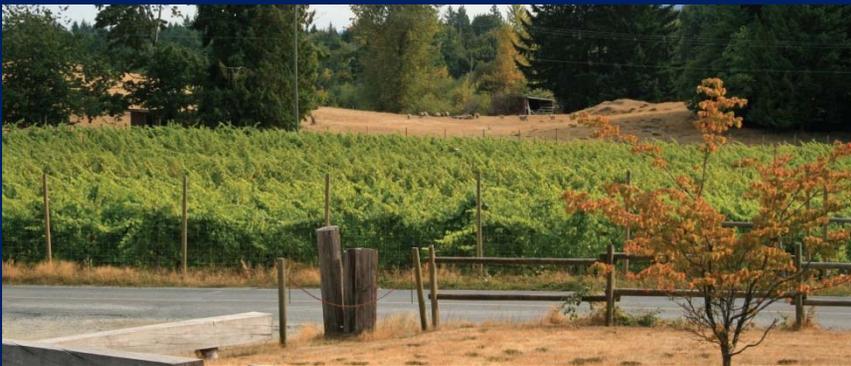
Results for Metro Vancouver by Water Source - 2003

Water Source	Irrigated Area (ha)	Irrigation Demand (m ³)
Water License	3104	15,382,000
Water Purveyor	8620	38,957,000
Groundwater	1232	5,723,000
Total	13,070	60,713,047

Assuming good management



Metro Vancouver Water Demand – Build out



Year	Irrigation Demand (m3)
Area (ha)	13070 ha
1997	31,269,000
2003	55,034,000
(including greenhouses)	60,713,000
Build out area	34,675 ha
2003	140,151,000
2050	164,300,000

AWDM: Metro Vancouver - Irrigation Expansion Potential

-  Area of Interest
-  Irrigation in use
-  Available Irrigation Potential Areas

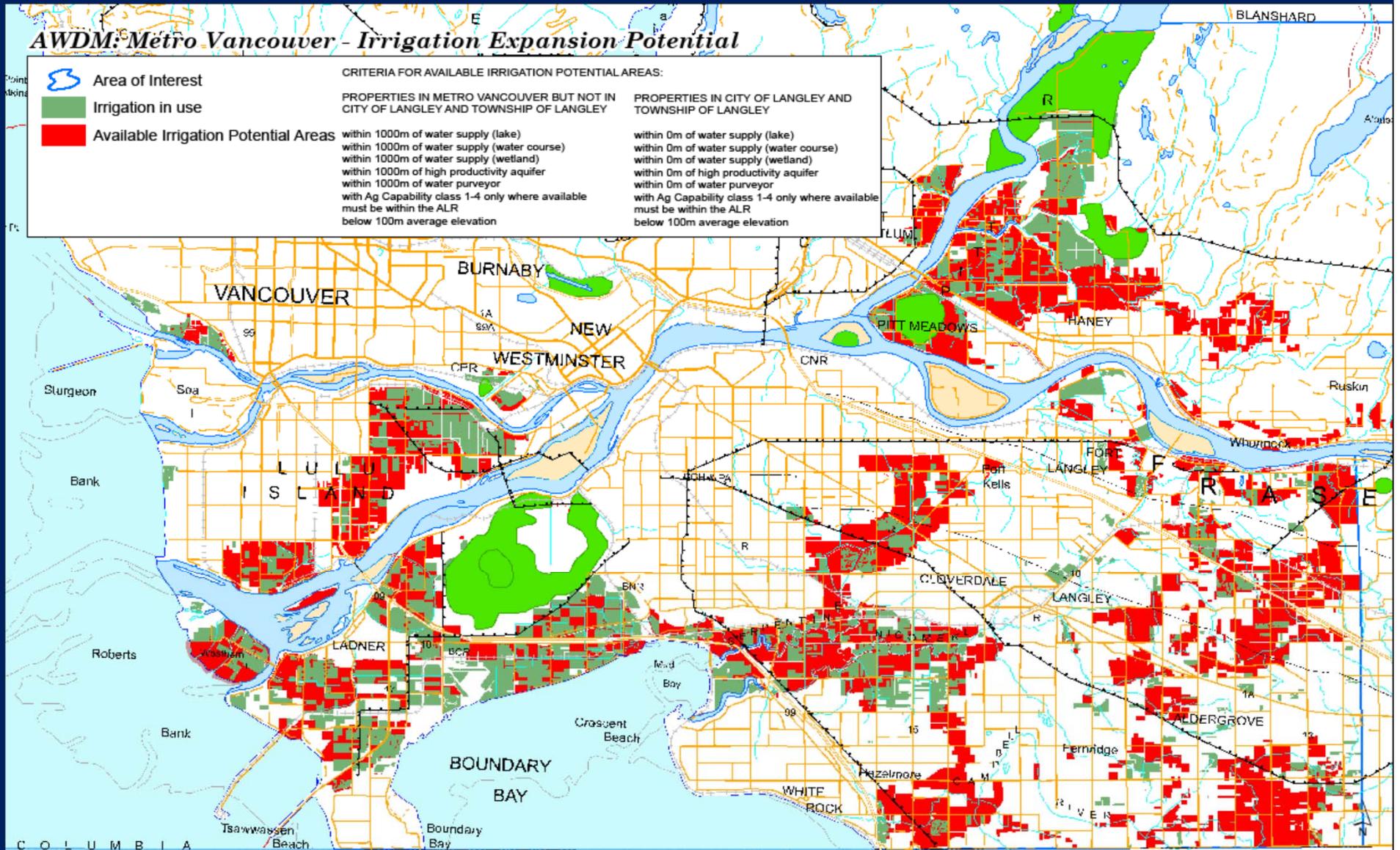
CRITERIA FOR AVAILABLE IRRIGATION POTENTIAL AREAS:

PROPERTIES IN METRO VANCOUVER BUT NOT IN CITY OF LANGLEY AND TOWNSHIP OF LANGLEY

- within 1000m of water supply (lake)
- within 1000m of water supply (water course)
- within 1000m of water supply (wetland)
- within 1000m of high productivity aquifer
- within 1000m of water purveyor
- with Ag Capability class 1-4 only where available
- must be within the ALR
- below 100m average elevation

PROPERTIES IN CITY OF LANGLEY AND TOWNSHIP OF LANGLEY

- within 0m of water supply (lake)
- within 0m of water supply (water course)
- within 0m of water supply (wetland)
- within 0m of high productivity aquifer
- within 0m of water purveyor
- with Ag Capability class 1-4 only where available
- must be within the ALR
- below 100m average elevation



Georgia Basin Inter-Regional Collaboration

“Through sharing & learning, ensure that where we are going is indeed the right way”



VISION:

Move beyond the rhetoric and into the substance of watershed health and how to effectively monitor it

DELIVERABLE:

“Towards a Watershed Health Legacy: Elements of An Adaptive Management Framework”

TURNING VISION INTO ACTION:

Community development activities and alteration of the Built Environment will result in cumulative benefits, not impacts

This is the “BC process” for moving from Awareness to Action

1. WHAT is the issue?

The form of land development impacts how water is used and how water runs off the land.

2. SO WHAT can be done?

Influence practitioners to ‘design with nature’

4. THEN WHAT?

Replicate in other communities

3. NOW WHAT can we do?

Implement the Water Sustainability Action Plan for British Columbia

