



Okanagan Basin

WATER BOARD

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Okanagan Basin Water Board

Okanagan Water Stewardship Council

2009 WORK PLAN

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Introduction

The Okanagan Water Stewardship Council (the “Council”) serves as a committee¹ of the Okanagan Basin Water Board (the “Board”). Over the past three years, the Board has referred questions on a range of subject matter to the Council, from groundwater issues to crown lands surrounding drinking water reservoirs. Subsequent Council recommendations have provided the Board with sober second thought and consideration, with the intention of providing perspective and input for decision making of the Board. The great strength of the Council is its collective diversity and expertise. The Board convened the Council to increase the Board’s interaction with the community of water professionals and benefit from an ongoing discussion, a water think tank – to provide timely advice, analysis and strategic planning for long-term sustainable water management.

One of the Council’s most critical activities has been, and will continue to be, to engage with one another about specific issues of particular importance for the watershed. Although everyone agrees there is an urgent need for better water management in the Okanagan, each stakeholder has a different perspective on the problem – how the issues should be defined and which issues are most critical to resolve – and on how we should proceed to reach solutions. By systematically discussing the breadth of Okanagan water issues, the Council will be prepared to produce informed and nuanced technical and policy recommendations to the Board.

The Council (including committees) convenes ten (10) times during the year (no July and August meetings). Council meetings are scheduled for the second Thursday of each alternate month from 12:30pm – 5:00pm in the Central Okanagan (locations vary). Meeting agenda, previous meeting notes and an information package is prepared and distributed by OBWB staff the first Friday of each month preceding a Council meeting.

The following work plan outlines important issues identified by the Board in the coming year(s). The goal of each discussion should be to share information and highlight potential areas of conflict that need resolution; as well as to identify existing knowledge gaps and feasible actions to move forward.

¹ The Council’s “liaison committee” role was identified in the 1970 Supplementary Letters Patent but only realized in 2006 with the implementation of the Okanagan Water Management program.

Technical support to the Board

The Council is responsible for providing strategic and technical advice to the Board. The following activities are encouraged to support the gathering of information, development of policy recommendations and the support in developing water management tools:

- Define problems and determine such factors as priorities, economic feasibility, responsibility, necessary support legislation and required action; and
- Present proposals and recommendations to the Board.

Transition: From Planning to Action

Sustainable Water Strategy – Action Plan 1.0²

The Sustainable Water Strategy (the “Strategy”) is an important strategic document that helps contextualize water management issues. With direction from the Board, Council developed the Strategy in 2008. The Strategy builds on the strong foundation of water science and management established during the 1974 Okanagan Basin Study³ and three years of dialogue at the Council table.

The Strategy was developed with the oversight of an editorial committee composed of water management professionals including: Bob Hrasko (chair), Dr. Bernie Bauer, Doug Geller, Hans Buchler, Dr. Anna Warwick Sears, Ted van der Gulik, Dr. Tom Siddon, Lorraine Bennest, Toby Pike, Kellie Garcia (technical writer) and Nelson Jatel (project manager).

The Strategy is grounded in action. Twelve guiding principles provide a framework for the Strategy (see Appendix A). The Strategy is a blue print for action in the Okanagan – providing a context for the proposed 45 actions identified. Over the next year, the Council has a pivotal role to play in reviewing, prioritizing and recommending actions.

In addition to the work undertaken by the OBWB, the BC Government developed the Living Water Smart plan (the “Plan”) that stated the BC government’s vision and commitment to ensure our water stays healthy and secure. The Plan presents 45 provincial priority actions. The Okanagan water Strategy complements the Province’s vision and commitment to ensure our water resources are well managed.

² (Okanagan Water Stewardship Council, 2008)

³ A joint Federal/Provincial initiative

Action Plan Matrix – Focus on Implementation⁴

In order to provide for focused discussion, planning and implementation of the Sustainable Water Strategy, Council has agreed to form six committees.

Each committee has two co-chairs to provide guidance and leadership. Committee members may include external water professionals to support committee efforts. The Water Stewardship Director will provide for membership oversight.

Members of the six committees are encouraged to speak up and say what is on their minds. The committees are intended to be an environment where “first-draft” ideas are welcome. The committees provide for an opportunity for discovery and acknowledgment of diversity of opinions and backgrounds inherent to the group.

Committee members recognize that they must be willing and able to be part of the project process. They also assume responsibility for designing the process that will result in project success. This contrasts sharply with the conventional assumption that everyone will be held accountable for the consequences of decisions made by a few key people.

Scope of an Action Plan

Stephens et al point out that from an elected official perspective⁵, the key deliverable for a watershed or catchment planning initiative is the action plan that defines the specific activities required to achieve the long-term vision. Staff can develop the following project information for each proposed activity:

- Time-frame for implementation
- Management objectives
- Priority (relative to other action items)
- Who takes the lead role
- Estimated cost and financing strategy

Table 1 identifies the six committees, their respective co-chairs and their corresponding objectives and goals identified in the Sustainable Water Strategy.

⁴ (Kaner, 2007)

⁵ (Stephens, Graham, & Reid, 2002)

Table 1. Committees of the Water Stewardship Council

Committee Name	Co-chairs	Goals	Objectives	Strategy Actions
Source protection	Jillian Tamblyn Rob Birtles	Improve water quality	Implement off-stream cattle watering stations to reduce fecal contamination.	2-1
			Protect, restore and enhance riparian and wetlands.	2-2
			Develop a basin wide source protection strategy.	2-3
			Consider water in community design.	2-6
			Implement stormwater management plans.	2-7
			Use best practice local government land-use bylaws to protect local water sources.	2-8
			Support and coordinate sustainable septic field development along sensitive waterways.	2-10
			Review accountability of “Authorized Person.”	2-11
			Ensure availability of potable water.	3-4
			Obtain local government representation on the Southern Interior Regional Drinking Water Team.	4-3
			Okanagan groundwater	Doug Geller Bernie Bauer
Implement bylaws and best practices for all geothermal groundwater wells.	2-5			
Develop and implement a groundwater bylaws toolkit and harmonize groundwater bylaws.	2-9			
Develop a groundwater regulation pilot program.	3-20			
Water Information management	Brian Guy Denise Neilson	Coordinate and improve water data	Research emerging health risks identified in other jurisdictions.	2-12
			Complete appropriate mapping.	2-13
			Implement storm water management plans.	2-14
			Create a streamlined on-line data reporting system for water quality and suppliers.	2-14
			Universal installation of water meters.	3-11

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Committee Name	Co-chairs	Goals	Objectives	Strategy Actions
			Maintain and expand the network of hydrometric and climate stations.	3-17
			Install flow measurement recorders at all reservoir spillways.	3-18
			Collect better information on evaporation & evapotranspiration.	3-19
			Develop a regional well/borehole database.	3-21
			Develop an OB Info Network.	4-4
			ID knowledge gaps and support research to strategically fill gaps.	4-5
			Develop water management reporting tools.	4-9
Water Supply & Drought management	Bob Hrasko Lorraine Bennest	Manage water quantity	Coordinate water supply in the Okanagan. Increase efficiencies.	3-1
			Establish an Agriculture Water Reserve.	3-2
			Extend the date on irrigation licenses.	3-3
			Review water licensing.	3-5
			Implement drought management plans.	3-6
			Prepare Water Use Plans for all fish bearing streams.	3-7
			Develop a Regional water conservation strategy.	3-9
			Reduce outdoor water use by using Certified Irrigation Designers.	3-10
			Apply best practices to the planning and management of Okanagan water supplies.	3-14
			Change water license structure associated with storage.	3-15
			Implement policies that support coordinated water storage by utilities.	3-16
Water Economics	John Janmaat Toby Pike	Equity & fairness	Conduct a water pricing assessment.	3-12
			Affordable water for agriculture.	3-13
			Analyze funding mechanisms to support water governance.	4-6
			Create an Okanagan water fund.	4-7

Committee Name	Co-chairs	Goals	Objectives	Strategy Actions
Communication & Outreach	Bryn White Anna Page	Clear and timely communication	Support and foster collaboration. Partner with aboriginal people in the development of Basin water strategies. Develop a Basin-wide community engagement strategy.	4-1 4-2 4-8

Connecting the dots: Focusing on Action

The 2008 Water Management Review document provided a three year assessment of activities undertaken by the OBWB Water Management Program (2006-08). In addition to assessing successes and areas requiring improvement, staff provided a summary of previously identified projects that were identified by the Board and Council. The identified project idea excerpts in Appendix B were part of the Board approved Water Management Program review. An updated project review⁶ that prioritizes the actions identified in Table 1 with input from the Water Stewardship Council will be developed for Board consideration.

2009-10 Flagship Recommendations

Flagship recommendations are thematic and significant long term projects that cut-across committee subject areas. Flagship projects benefit some or all of the committees (Table 1). Council will consider developing four flagship recommendations for Board review over the next 18 months.

Current flagships (Table 2) include developing an Okanagan Water management plan, Water Supply & Demand project and the Water Conservation Professionals program. Potential flagships include: Land-use management policy (i.e. sale of lots adjacent to upper reservoir drinking water reservoirs) and a First Nation capacity building initiative.

⁶ OBWB: Water Management Program. A review: 2009 Priority projects proposed by the Water Stewardship Council.

Table 2. Identified Flagship Initiatives

Flagship	Objectives
Water management Plan	Prepare a comprehensive Water Management Plan for the Okanagan Basin
Water Supply and Demand project	Provide a best estimate of present and future water need and availability, taking into account population growth and climate change.
Water Conservation Professionals program	Provide a network to share best practices, implement valley-wide projects of mutual benefit.

Proposed Council objectives (2009-2012)

Short-term (1 year)

Over the next year, the Council will work towards accomplishing the following tasks:

- Meet monthly (10 meetings) during the 2009 year – alternating between Council and committee meetings.
- Provide a forum for sharing of ideas, networking and strengthening relationships among water professionals in the Okanagan.
- Provide advice and recommendations to the Board as requested.
- Develop at least four (4) recommendations – building on the Sustainable Water Strategy and the BC Governments Living Water Smart Plan – recommending actions and policy to the Board.
- Identify important speakers to support and inform committee and flagship activities.

Long-term (3 year)

The activities of the Council will support the following long term objectives:

- Implement Sustainable Water Strategy actions.
- Develop communication support tools – implement the supply-demand project.
- Investigate the development of a water management plan for the Okanagan.
- Develop a drought management plan for the Okanagan.
- Host (or co-host) a water science, management and governance conference in 2011-2012.

Communication resources

The OBWB website contains a number of communication resources that are at the disposal of council and committees including:

- Okanagan Activity Matrix listing water-related projects taking place in the Basin,
- Index of water stewardship-related organizations and contacts,
- Web-based clearinghouse for water-related information, links to other organizations, water utilities, and government sites, and
- Source list of agencies and organizations that provide grant funding for water-related projects.

Operational Changes for 2009 Council meetings

Proposed changes for the upcoming year include:

- Invite guest speakers to support committee and flagship work.
- Form committees (i.e. Source protection, Okanagan Groundwater, Drought Management, etc.) to support the implementation of the Sustainable Water Strategy.
- Provide more time at monthly meetings for sharing of Council member issues and updating members on local projects (every second Council meetings).

Proposed policy statements

During the course of the first three-year term the Council intended to draft policy statements or propose bylaws on specific water management topics/policies. The following were implemented by the Board (2006-08):

- ✓ Statement on the Province's responsibility for hydrological monitoring
- ✓ Groundwater management
- ✓ Statement on universal metering

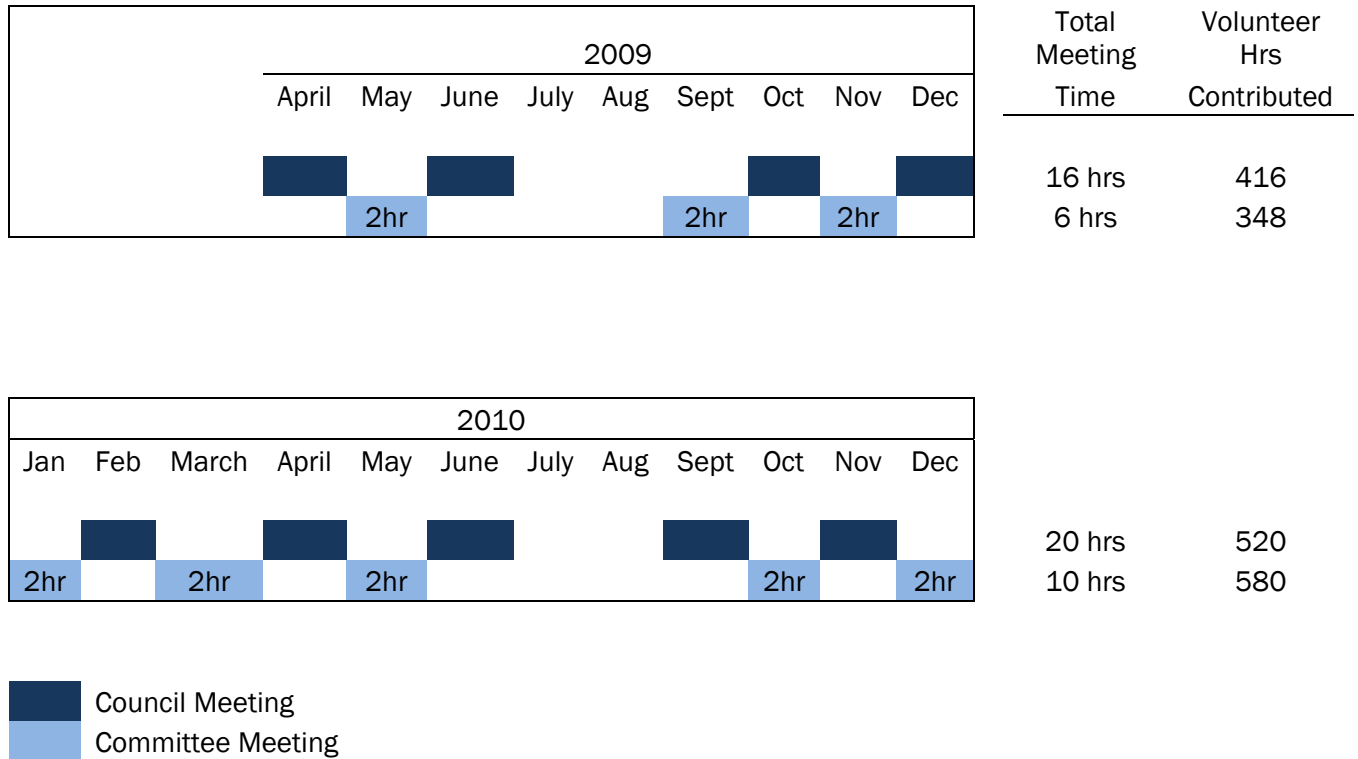
The following topics/policies have been proposed by of the Board for Council consideration in the upcoming three-year term:

- Okanagan water governance model and tools
- Use of supply-demand information to inform Okanagan water management issues
- Okanagan Basin Drought management policy
- Water pricing (based on equity)
- Source protection policy
- Uniform stormwater regulations for sediment and erosion control
- Statement/draft bylaw on soil amendments

Time Line & Meeting Schedule

The Council and Committees provide a venue for water professionals to exchange ideas and provide input to the Okanagan Basin Water Board. During the next two years, over 1,800 hours of volunteer time will be contributed towards these efforts.

Table 3. Water Stewardship Council & Committee meetings schedule



Appendix A. Okanagan Sustainable Water Strategy⁷

Critical questions the strategy explores include:

- How can we ensure high water quality is maintained and sensitive riparian and wetland ecosystems protected?
- How do we plan for a future with enough water for all priorities, including ecosystems?
- What happens in drought years: where is water allocated and in what proportions?
- What can we do to reduce our demand and use water more efficiently?
- How do we develop the required storage needed to capture water in the spring for use later in the year?
- What is the best structure for water governance in the basin?

Key actions recommended in the strategy include:

- Preparing source water assessments and source protection strategies
- Enacting land-use policies and bylaws to protect water
- Establishing environmental, agricultural, and urban water reserves
- Preparing drought management plans and water-use plans for individual utilities and the basin as a whole
- Developing a collaborative Okanagan water conservation strategy
- Implementing policies that support coordinated water storage
- Developing a community engagement strategy that highlights water conservation and pollution prevention

The Okanagan Sustainable Water Strategy is guided by 12 key principles:

1. Recognize the value of water.
2. Control pollution at its source.
3. Protect and enhance ecological stability and biodiversity.
4. Integrate land use planning and water resource management.
5. Clearly allocate water within the Okanagan water budget.
6. Promote a Basin-wide culture of water conservation and efficiency.
7. Ensure water supplies are flexible and resilient.
8. Think and act like a region.
9. Collect and disseminate scientific information.
10. Provide sufficient resources for local water management initiatives.
11. Encourage active community engagement, education, and participation in water management decisions.
12. Practice adaptive management.

⁷ (Okanagan Water Stewardship Council, 2008)

- Creating an Okanagan Basin Information Network
- Creating an Okanagan Water Fund
- Developing an Okanagan Water Management Plan
- Revisiting and reassessing the strategy every five to seven years.

Appendix B. Proposed Future Water Management Projects⁸ (2008 Water Management Review)

The most important contribution the OBWB can make in the next decade is to help local governments prepare for population growth, development and climate change impacts on water supplies. This requires a detailed understanding of the status of water resources, and close monitoring of change through time. It will also take an integrated basin-wide planning process for adapting to change including developing best practices, water use agreements and harmonized water policies.

Water Data Hosting and Management

The Water Supply & Demand Project is producing a large volume of essential data that form a baseline for predicting water trends in the valley. The data must be stored and updated over time and needs a stable location with ongoing tech support.

Box 1. Strategic Directions for Water Data Management

Okanagan Sustainable Water Strategy Recommendation

- *That the OBWB create and maintain an Okanagan Basin Information Network to support water management.*

Living Water Smart: The BC Water Strategy's Commitment

- *By 2012, government will require all large water users to measure and report their water use.*
- *Government will publish a report on the state of our water by 2012, and every five years after that.*

Groundwater Pilot Project

As Okanagan surface waters become fully allocated, residents and water utilities will turn to groundwater. There are few limits and no licence requirements for well development in BC, even where groundwater is closely linked to surface sources. It is especially important to be proactive where development relies on this water resource.

Box 2. Strategic Directions for Groundwater Management

Okanagan Sustainable Water Strategy Recommendations

- *Develop a Pilot Project in partnership with the Province and local governments to improve groundwater regulations and requirements for groundwater monitoring.*
- *Prepare a Water Management Plan for the Basin that addresses groundwater licensing.*

⁸ (Okanagan Basin Water Board, 2008)

Living Water Smart: The BC Water Strategy's Commitment

- *The Groundwater Protection Regulation will protect the quality and quantity of our groundwater.*
- *By 2012, government will regulate groundwater use in priority areas and large groundwater withdrawals.*
- *Government will support communities to do watershed management planning in priority areas.*
- *Government will improve the quality and protection of drinking water sources.*

Basin-wide Drought Plan or Water Use Plan

All Okanagan communities are connected hydrologically through the lake system. Some communities draw directly from the lakes, and others rely on reservoirs, diverting water before it can reach the lakes. As a consequence, lake levels and water availability during extended drought conditions are a shared responsibility of all Okanagan communities.

The process for basin-wide water use planning could proceed as follows:

1. Define the overall water balance for the Basin.
2. Establish the required flow regime for the Okanagan River, incorporating a 3-year drought scenario in the analysis.
3. Determine required contributions from each sub-basin for a range of drought conditions.
4. Complete water use plans for each sub-basin.
5. Revisit and refine the Okanagan River water use plan.

Box 3. Strategic Directions for Drought Planning

Okanagan Sustainable Water Strategy Recommendation

- *Ensure water purveyors prepare and implement drought plans based on the Provincial template, with triggers corresponding to mainstem lake conditions as well as upper reservoirs.*
- *Prepare Water Use Plans for all major fish-bearing watercourses in the Basin in coordination with a Basin-scale Water Use Agreement that specifies responses of all communities to lake-level trigger points.*

Living Water Smart: The BC Water Strategy's Commitment

- *Government will require all users to cut back their water use in time of drought or where stream health is threatened*

Regional Water Conservation Strategy

There is a need to coordinate water conservation in the Okanagan. Many communities with conservation programs are working independently. Water conservation professionals in the

Okanagan have voiced a strong desire to collaborate, reduce redundancy among jurisdictions, and establish a mechanism to form and apply best practices that are informed by science.

Box 4. Strategic Directions for Water Conservation

Okanagan Sustainable Water Strategy Recommendation

- *Develop a Regional Water Conservation Strategy that contains principles, policies, and practices for adoption and implementation by local governments.*
- *Conduct a basin-wide domestic water pricing assessment to determine an appropriate water rate for basic “lifeline” volumes and appropriate block rates for increasing metered use.*

Living Water Smart: The BC Water Strategy’s Commitment

- *By 2020, water use in BC will be 33 percent more efficient.*
- *Fifty percent of new municipal water needs will be acquired through conservation by 2020*
- *Government will require more efficient water use in the agricultural sector.*

First Nations Capacity Building

The bands of the Okanagan Nation are key partners for Okanagan water management. In part, because of their cultural and spiritual values for water, and in part because they have extensive reserve lands that have not yet been developed, and potentially substantial water claims to irrigate these lands. The Okanagan Nation Alliance Fisheries Department is actively involved in restoring kokanee and sockeye salmon runs to the Okanagan lake system, and all bands are concerned about the quality and sustainability of water supplies. Water resources are a central component of negotiations with the Province and the Government of Canada, for bands within and outside of the treaty process. The water claims of Okanagan bands – for irrigation and for protection of fisheries and the environment – will strongly impact the amount of water available for other Okanagan communities, potentially requiring buy-back of water license capacity and/or stringent conservation measures. These water needs are a large unknown in the Water Supply & Demand Project. It is in the best interest of Okanagan governments to have these claims resolved as swiftly as possible, to rationalize future license allocations to water utilities and drought response planning.

One of the primary obstacles to resolving claims is the lack of capacity – staff and resources – within Okanagan bands. This year, UBCM launched a pilot grant program for First Nations’ capacity building, matched by local governments. Whether or not this program is renewed, it would be a valuable investment to provide capacity-building funds for First Nations’ participation in water planning and data collection to move forward with their claims process.

Appendix C. 2009-10 Okanagan Water Stewardship Council members

First Name	Last Name	Organization
Aron	Chatten	OCEOLA Fish and Game Club (Alternate)
Bernie	Bauer	UBC Okanagan
Magnus	Bein	Okanagan Collaborative Conservation Program
Lorraine	Bennest	BC Fruit Growers Association
Rob	Birtles	Interior Health
Gwen	Bridge	Okanagan Nation Alliance (Alternate)
Alan	Boreham	Environment Canada - Pacific and Yukon Region
Hans	Buchler	BC Agriculture Council
Ken	Cunningham	Ministry of Environment - Water Stewardship Division
Lorne	Davies	OCEOLA Fish and Game Club
Don	Degen	City of Kelowna (Alternate)
Doug	Edwards	Agriculture and Agri-Food Canada
Doug	Geller	BC Groundwater Association
Brian	Guy	Canadian Water Resource Association
Vic	Harwood	Community Futures
Lee	Hesketh	BC Cattlemen's Association
Bob	Hrasko	Water Supply Association
Anthony	Kittel	Regional District of North Okanagan (Alternate)
Don	Main	Community Futures (Alternate)
Steve	Matthews	Ministry of Environment - Fish and Wildlife Science
Dan	Miller	Environment Canada - Pacific and Yukon Region (Alternate)
Mark	McKenney	Osoyoos Lake Water Quality Society
Denise	Neilsen	Agriculture Canada PARC / PFRA
Anna	Page	Regional District of North Okanagan
Bal	Poonian	Urban Development Institute
Chris	Radford	CORD Environmental Advisory Committee
Kirby	Reitze	Agriculture and Agri-Food Canada (Alternate)
Kerry	Rouck	Shuswap Okanagan Forestry Association
Jillian	Tamblyn	Regional District of Okanagan-Similkameen
Ted	van der Gulik	Ministry of Agriculture and Lands
Mark	Watt	City of Kelowna Water Conservation program
Bryn	White	South Okanagan Similkameen Conservation Program
Howie	Wright	Okanagan Nation Alliance

Works Cited

Kaner, S. (2007). *Facilitator's Guide to Participatory Decision-Making*. San Francisco: Jossey-Bass.

Okanagan Basin Water Board. (2008). *Water Management Program Review 2006-2009*. Vernon: Okanagan Basin Water Board.

Okanagan Water Stewardship Council. (2008). *Okanagan Sustainable Water Strategy*. Vernon: Okanagan Basin Water Board.

Stephens, K. A., Graham, P., & Reid, D. (2002). *Stormwater Planning: A guidebook for British Columbia*. Victoria: BC Ministry of Water, Land and Air protection.