

A Watershed Governance Case Study

The Cowichan Watershed Board: An Evolution of Collaborative Watershed Governance



by Rodger Hunter
with Oliver M. Brandes, Michele-Lee Moore, and
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August 2014



POLIS Project on Ecological Governance

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Preamble

Watershed governance is emerging as a critical, cross-cutting priority in British Columbia and, indeed, across Canada. The importance of this topic will only grow with the increasingly obvious impacts of a changing climate on the hydrological cycle, intensifying resource development and extraction, accelerating urban growth, and escalating water use across sectors. Finding the correct balance between the interests of key players in the watershed to ensure decisions that protect and improve the watershed is *the* challenge ahead; this includes government at all levels, including First Nations, private and public actors, civil society and community interests, and rights holders. New modes of thinking and innovative processes for decision-making are urgently needed, ideally informed by insights from actual, on-the-ground experiences where the concepts of collaborative watershed governance are being put into practice.

This case study is the first in a series that explores examples of watershed governance in action. By telling the stories of specific places, and how watershed-based approaches have emerged and are evolving within the hardscrabble everyday life of these local contexts, the series explores how governance can progress and transform over time, and offers an understanding of specific successful strategies, challenging social, political, or economic conditions, and institutional limitations or collective action barriers. By sharing these stories, our hope is that learning can be accelerated in other places.

The series is designed for a diverse audience, including watershed-based organizations, initiatives, or roundtables; stewardship groups; First Nations; local and senior governments; and experts and academic researchers with an interest in this field.

What We Mean by Watershed Governance

We certainly recognize there is no “one-size-fits-all” approach to watershed governance, nor do we believe in a simple “scale fix.” Simply reorganizing existing concerns or current modes of thinking about water management and decision-making to fit at a watershed scale will do little to address the sustainability challenges that lay ahead. Rather, we interpret “the watershed” in the broadest sense possible, recognizing that the notion of the local watershed could revolve around more than just the drainage of water, and also include critical spiritual, community, or other ecological considerations.

Fundamentally, watershed governance involves reorganizing our decision-making approaches to align with the ecological boundaries associated with watersheds, instead of political or jurisdictional boundaries. Importantly, it is also about changing modes of thinking and setting priorities to ensure decision-making is explicitly situated within a watershed (or ecological) context. In this sense, we are most interested in the broader social-ecological governance that promotes *thinking like a watershed*. This will integrate, cross political boundaries, engage those affected by decisions in decision-making processes, and, ultimately, prioritize the needs of healthy and functioning watersheds. The ultimate goal is to ensure sufficient, clean fresh water now and into the future as the foundation of both resilient communities and a robust economy.

A Path to Reform

Successful models are strongly influenced by local priorities, geography, history, culture, and economics. Context is everything. However, there are still lessons to be learned from those regions that are undertaking new practices and processes, embracing new ways of working together, and attempting to consider the environmental and community needs of their watershed in a holistic, whole-system way.

Building or redesigning institutions that better account for the health and function of watersheds is a major challenge, and nobody has figured out how to get it all right yet. But, we can learn from the experiences, successes, and, yes, failures of others. As such, the issues and lessons explored in each case study have applicability to other watersheds across the country. As new techniques are piloted in one watershed, other regions that may be considering similar reforms can learn what might be possible.

Why the Cowichan?

This Cowichan Watershed Board case study was inspired, in part, by the ongoing relationship between the Board and the POLIS Water Sustainability Project. Our team has supported and advised the Board through the years, beginning with the creation of the *Cowichan Basin Water Management Plan* almost ten years ago. We have also supported local workshops to build capacity and advance innovative governance thinking¹ and, recently, we collaborated on a focused discussion organized as part of the three-day forum *Watersheds 2014: Towards Watershed Governance in British Columbia and Beyond*, which was held on Cowichan Tribes territory in Duncan, B.C. in January 2014. In that discussion, a panel of local experts explored how the Cowichan Watershed Board is succeeding in building local trust and engaging in genuine collaborative governance to improve watershed management. This case study offers a glimpse of that good—and undeniably hard—work as they continue to grow and evolve their efforts to protect and enhance their home waters. We believe the work being done in the Cowichan watershed might just show the rest of the province, and indeed the whole country, how the challenges of putting collaborative watershed governance into practice could be approached in the future.



Oliver M. Brandes
on behalf of the
POLIS Water Sustainability Project team

Introduction

In the Cowichan Valley on eastern Vancouver Island, a remarkable story is unfolding. This story is about communities that have organized to lead and advocate for better management of their heritage watershed. Community opinion leaders have recognized that the cumulative impacts of a variety of factors are combining to push the Cowichan watershed towards a tipping point. These factors include:

- Past uncoordinated land and water use decisions by all levels of government related to, for example, urban and industrial development, transportation, and forest practices;
- Increased frequency and intensity of droughts related to climate change;
- Continued population growth and related water use pressures;
- The declining capacity of provincial and federal governments to fulfill their mandates due to severe budget cuts; and
- Issues related to rights, including First Nations' rights, property rights, and rights to clean water.

Governance and Why It Matters

Governance refers to the complex processes involving individuals, agencies and organizations, institutions (public, but also private), and civil society that make social choices. It involves both the *who* and the *how* of making collective decisions, and is thus inevitably concerned with power: the ability to influence, shape, and execute decisions, and to hold those making them to account.

In its formal sense, governance involves laws, regulations, and formal institutions and incentives. Just as important is how the norms, values, behaviours, and ethics influencing those decisions are constituted—how they flow through the social networks of influence and action. Behind the concept of governance are the notions of learning and adapting to change, and building social resilience to address an increasingly uncertain future.

Local community opinion leaders and elected officials understand that a different model of watershed governance and management is essential to ensure the Cowichan watershed continues to thrive (see Box *Governance and Why It Matters*). This case study describes the formative approaches that have been adopted in the Cowichan and some of the lessons learned, to date, from the Cowichan Watershed Board's continuing journey towards locally based collaborative watershed governance.

The Setting

The Cowichan watershed covers approximately 1,000 square kilometres on the eastern slopes of southern Vancouver Island. It is a watershed of contrasts, and climate change is exacerbating these contrasts as summer droughts and winter storms are increasingly becoming the norm. The mountainous headwaters in the west of the watershed receive five metres of precipitation a year, which feeds Cowichan Lake. At 32 kilometres in length, Cowichan Lake is the second largest lake on Vancouver Island and it, in turn, feeds the Cowichan River. This Canadian Heritage River is known for its beauty, salmon runs, and cultural significance. It flows about 50 kilometres into Cowichan's warm and dry wine country, and empties into the Strait of Georgia at the Cowichan and Koksilah estuary on the eastern border of the watershed.

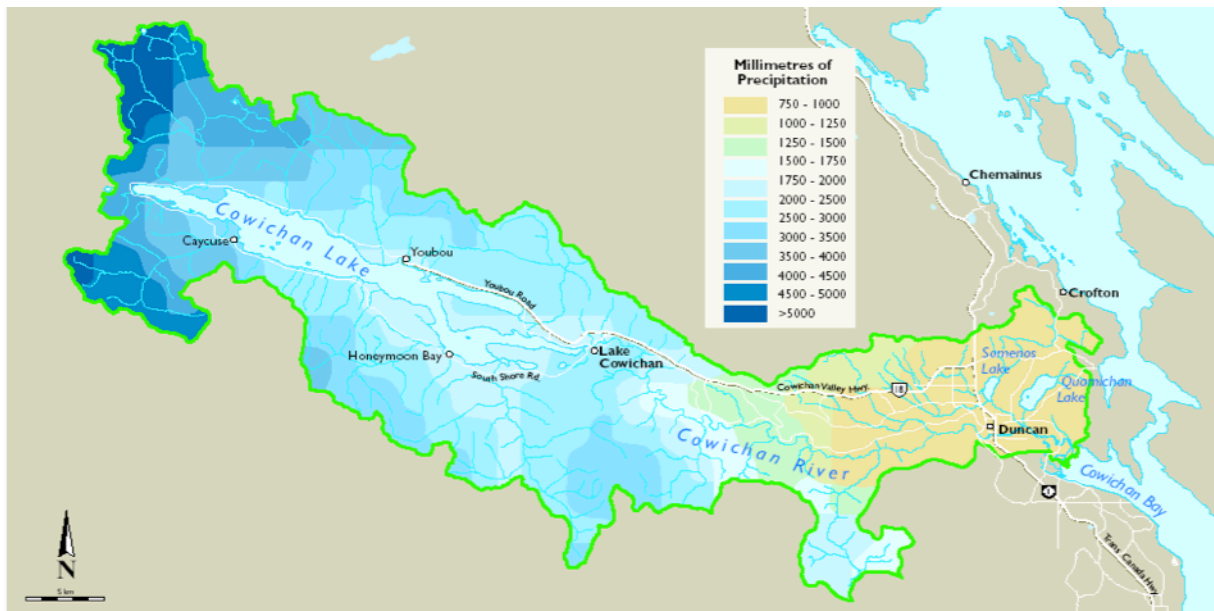


Figure 1. Map of the Cowichan watershed. Image: Westland Resource Group, Victoria, B.C. (Dr. David Harper)

For thousands of years the watershed was home to forests of massive Douglas fir and Western redcedar; numerous deer, elk, and bear; clean and plentiful lakes and streams rich with salmon; tidal flats abundant with shellfish; and great villages of the historic Cowichan Nation (see Box A *Brief History of Cowichan Tribes*). Before European contact, the rich watershed resources supported a population of roughly 8,000 Cowichan people. Over the past 150 years, however, there have been dramatic changes. At one point, due to the introduction of smallpox, measles, and other diseases, only 1,000 Cowichan people survived. Today, clear cuts and young forests dominate the landscape; salmon runs are threatened by land use, urbanization, and habitat degradation; shellfish beds are polluted; and the total population of the watershed has increased to 82,000—which includes over 4,600 Cowichan people—and continues to rise.

A Brief History of Cowichan Tribes

The Cowichan people have owned and occupied their territory for thousands of years. Archaeological evidence dates their existence to as long ago as 4,500 years, but historical memory says they have been in their territory since time immemorial.

The present-day Cowichan Tribes is the primary successor community to the historic Cowichan Nation. Cowichan Tribes was part of the Cowichan Nation before the arrival of the Europeans in the mid-1800s. The present-day Stz'uminus (Chemainus), Penelakut, Halalt, Lyackson, and Hwlitsum are also successors to the historic Cowichan Nation. Historically, the Cowichan were a people with territory through the shores of the Salish Sea, including the lower Fraser River. However, the Cowichan Nation was broken up by the government with the creation of the reserve system and imposition of the *Indian Act* in 1876.

Today, Cowichan Tribes specifically refers to those Cowichan Nation communities who trace their ancestry back to the communities who had winter villages on the Cowichan River, Koksilah River, and Cowichan Bay.

While Cowichan Tribes has evolved into a modern society, its cultural practices and traditions have been carried on for generations, and are still woven into the culture today.

Adapted from:

Cowichan Tribes Territory and Ownership. (n.d.) Retrieved July 25, 2014 from <http://www.cowichantribes.com/about-cowichan-tribes/history/origins/>

History of the Cowichan People. (n.d.) Retrieved July 25, 2014, from <http://www.cowichantribes.com/about-cowichan-tribes/history/>

Management Context

Effective, sustainable water management in the Cowichan watershed has been hampered by the fact that legislative authority and responsibility for water and water resources are complex and spread among federal, provincial, indigenous, and local governments—and multiple agencies or departments within them. Legislation associated with water lies in at least seven federal and 12 provincial acts, as well as at the local government level through powers delegated by the Province through the *Community Charter*, the *Local Government Act*, and other legislation.

In British Columbia the situation is further complicated by the fact that in much of the province, including the Cowichan watershed, there are no treaties with First Nations, so issues of rights and title related to water are unresolved. As a result, leadership and coordinated decision-making among the many bodies responsible for water and related resources has been challenging to achieve and, in the view of many, has been dysfunctional.

In the Cowichan watershed, crisis management became the default approach. In 2003, a summer drought resulted in critically low water levels in the Cowichan River. This drought was a wake-up call for the community and regulatory agencies. Extremely low flows caused grave concerns for Department of Fisheries and Oceans and Cowichan Tribes because the resulted in shallow impassable sections in the lower river and prevented Chinook salmon from migrating upstream to

their spawning grounds. Those same low flows also led to the imminent shutdown of Catalyst Paper, a pulp and paper mill in the town of Crofton, and the largest employer in the area. (In its operations, Catalyst extracts almost two cubic metres of water per second from the river in the lower watershed on a continuous basis.) In addition, there were issues related to insufficient water to dilute pollution that was being discharged into the river. The management situation of the day was not working and the risks to the river and its communities were great.

The response was the development of the *Cowichan Basin Water Management Plan* (the Plan).² The Plan was commissioned by the Cowichan Valley Regional District (CVRD), Cowichan Tribes, the B.C. Ministry of Water, Land and Air Protection (Environment), Fisheries and Oceans Canada, Catalyst Paper, and the Pacific Salmon Commission, who each recognized that a more formal and proactive approach to water management was necessary.

The Plan was completed in 2007 to provide a framework for:

- Learning more about the basin system and water issues;
- Protecting the ecological function of the system;
- Balancing water supply and use; and
- Building broad public understanding and support for the Plan.

The Plan, which won the Planning Institute of B.C.'s 2008 Planning Excellence Award, is very comprehensive. It includes six goals, 23 objectives, and 89 actions concerning water conservation, water supply management, water quality, habitat and biodiversity, flood management, governance, and communications. However, by 2009, two years after it was completed, implementation of the Plan was still minimal. The diffuse and diverse accountabilities for watershed management and the associated leadership "vacuum" were stalling progress.



Figure 2. Built in 1957 and managed by Catalyst Paper, the weir on Cowichan Lake is used to control the outflow from the lake to the Cowichan River. Photo: D. Fern

It was clear to stakeholders that some form of local leadership was required and that the sixth goal of the Plan, which addressed the need to improve governance, must become the number-one priority if the plan was to be effectively implemented. Specifically, the Plan proposed establishing and funding "a water management advisory council that represents basin-wide interests, maintains on-going dialogue among stakeholders, and builds trust and ownership among the participants and the public."³ In the summer of 2009, a local consultant was hired to identify and evaluate options, recommend a watershed governance model, and subsequently coordinate its implementation.

Based on a comprehensive review of watershed governance in other jurisdictions and an assessment of federal, provincial, and local

willingness and capacity, the model that was recommended, and subsequently implemented, was designed to support collaborative local

decision-making at the regional/watershed scale and function with variable degrees of authority within the existing institutional and legal framework. The resultant Cowichan Watershed Board (CWB) was established in 2010 to undertake that role and guide the implementation of the Plan.

The CVRD and Cowichan Tribes are full partners and co-chair the Board, which has been critical to its success. Reflecting back to the time when the CWB was established, both Lydia Hwitsum, then Chief of Cowichan Tribes, and Gerry Giles, then Chair of the CVRD, noted that the time was right to work from some recent successes and to build stronger relationships to ensure they could work constructively across jurisdictions for the overarching goal of bettering the watershed and its communities.⁴

As an advisory entity, the CWB's role includes actively working with and encouraging regulatory agencies to base their water management decisions on Board recommendations. This is done through both formal and informal means, including letters or requests sent to decision-makers or government staff or notifications sent to the local government, Cowichan Tribes, or provincial government. The CWB also communicates through Board members who belong to key agencies, such as the federal Department of Fisheries and Oceans.

Looking forward, it is anticipated that as the Province adopts water management reforms and enables the delegation of authority to local watershed entities under the new B.C. *Water Sustainability Act*, the CWB model will have the opportunity to evolve and receive some form of delegated authority to influence and/or make local water management decisions.

Cowichan Water Management Targets

1. **Water Quality**—*TSS levels (turbidity) in the watershed should meet accepted water quality guidelines and water quality should be safe for swimming anywhere in the watershed*
2. **Estuary Health**—*Shellfish from designated areas of Cowichan Bay will be harvested for human consumption by 2020*
3. **Water Use**—*Meet or beat the neighbouring Town of Ladysmith's per capita water consumption.*
4. **Watershed IQ**—*Grade four/five students know their watershed*
5. **Fish**—*Steelhead fry abundance in the Cowichan should meet or exceed target densities*
6. **Water Supply**—*Cowichan River summer flows need to be 7cm or higher*
7. **Riparian**—*50% of Cowichan Lake's intact riparian habitats protected by 2021; 10% of impacted riparian habitats restored by 2021*

Cowichan Watershed Board Approach To Date

Phase 1: Getting Established (2010–2011)

As of 2014, the CWB has been in operation for four years. The first year and a half was particularly difficult since the Board had only a modest operating budget and no project funding. During that time the CWB focused on:

- Developing a thorough understanding of the Plan, including its strengths and weaknesses;
- Building relationships and trust, both internally and with partners; and
- Assembling foundational information and developing essential processes for the effective management and governance of the watershed.

From a governance perspective, the CWB has largely focused on building collaborative working relationships with Board members and stakeholders, increasing understanding of the key watershed issues among key players, and building its capacity to undertake a broader role of influence over and responsibility for decisions affecting the watershed. Building strong collaborative relationships has required a considerable investment of time to support a common understanding amongst the CWB and its Technical Advisory Committee members about the watershed and issues affecting it.

At this time, the Technical Advisory Committee was also created. It is made up of government, industry, and stewardship partners, as well as those possessing special expertise to help move the Cowichan Watershed Board forward. Its mission is, in part, to provide balanced and considered technical advice and to develop options and recommendations for the CWB.⁵

Looking back, former Chief Hwitsum, one of the original co-chairs of the CWB, noted that the initial period of respectful relationship and trust building—both within the board and with external partners—has been absolutely critical to the Board’s success.

Phase 2: Building Understanding and Technical Capacity (2011–2014)

To give the Plan increased focus and to infuse it with more meaning for communicating with the general public, the Board, with the support of its Technical Advisory Committee, combined many of the Plan’s numerous actions into seven relevant and easily understandable targets (see Box *Cowichan Water Management Targets*).

The CWB has invested considerable time liaising with local stewardship groups. This has included providing and garnering solid information on watershed issues, and promoting dialogue with individuals and groups within the watershed. Priority issues addressed have included water quality, drought and low summer river flows, and concerns by a group of lakeshore property owners that storing additional water in Cowichan Lake would affect their property rights. However, to remain consistent with its “whole-of-watershed” approach, the Board has not become preoccupied with any one issue. Instead, it views each of the many issues affecting the watershed as being both important and interconnected.

On the management side, guiding the implementation of the Plan has required a focus on understanding the Plan and issues surrounding it, identifying key information gaps, prioritizing information requirements, and acquiring funding to address these issues. With its partners, the

CWB has supported a diverse array of initiatives required to support decision-making in the watershed. These include:

- LiDAR and cadastre mapping to show the relationship between increased seasonal water storage and lake levels and lakeshore property boundaries;⁶
- an erosion study;⁷
- riparian habitat mapping and prioritization;
- a water knowledge and conservation survey;⁸
- a comprehensive water quality survey;
- water conservation workshops for water purveyors and farmers;
- bathymetric mapping of the lake;⁹
- habitat restoration projects;¹⁰
- determining the status of groundwater information for the watershed;¹¹
- webcams to show drought and flood conditions;
- hydrological assessments; and
- legal advice related to lake levels and property rights.



Figure 3. Community members participate in a riparian restoration project, led by the Cowichan Lake and River Stewardship Society. Photo: P. Jefferson

Further resources, including reports and presentations, are available on the Cowichan Watershed Board website at <http://www.cowichanwatershedboard.ca/resources>.

Phase 3: Preparing to Govern (2014–)

Recent capacity building has included the incorporation of the Cowichan Watershed Society (CWS) under the B.C. *Society Act* with the support of West Coast Environmental Law. Establishing a legal entity was considered an important precursor to eventually drawing down powers from senior and local government, streamlining financial management, and expanding fundraising opportunities. The CWS is also seeking charitable status from the Canada Revenue Agency.

At the national *Watershed 2014* forum, which was held in January 2014 on Cowichan Tribes territory in Duncan, B.C., the Cowichan Watershed Board was profiled as an important case study. It offered insights into the development of (and the challenges faced when pursuing) such a “bottom-up” approach to watershed governance. This national-scale showcasing was important in furthering the collective thinking of Board members and advisors about necessary next steps for taking on more responsibilities related to governance as part of B.C.’s new *Water Sustainability Act*, as well as beginning to develop sustainable sources of operating revenue to engage in more direct management and to influence decision-making.

Success Factors

There are thirteen main characteristics, principles, and practices that the CWB has identified as important contributors to its success to date, and which can offer lessons for other watersheds considering moving towards or undertaking a similar collaborative watershed governance approach.

1. Tradition of Cooperation/Collaboration: In 1996, when B.C.'s first seven Provincial Heritage Rivers were announced (including the Cowichan River), the stated vision for the Cowichan watershed was that it would serve as *“a model of watershed cooperation among a wide variety of stakeholders to meet multiple resource use objectives...”*¹²

This vision of cooperative watershed management was not established by coincidence. The Cowichan has been modelling collaborative approaches to stewardship and advocacy since the 1970s, when the determination of local citizens to protect the Cowichan estuary resulted in the 1987 *Cowichan Estuary Environmental Management Plan*, which is the only estuary plan in the province to be established by Order in Council.¹³ High levels of engagement have continued since the 1980s through to today, as evidenced by the presence of many progressive stewardship groups and the Cowichan Stewardship Roundtable.¹⁴ The Roundtable provides a forum where interested individuals from a variety of backgrounds and organizations gather monthly to share information and discuss a shared passion: watershed stewardship. The CWB benefits greatly from operating within a community where there is a tradition of cooperation, collaboration, and engagement that is broad, deep, and informed.

2. Crisis and Windows of Opportunity for Change: The drought of 2003 represented a “near miss” that reignited concern about adequate summer flows in the watershed. Grave concerns about salmon access to spawning grounds, closure of the Cowichan Peoples’ food fishery, fear of a Catalyst Paper mill shutdown, and worry about water quality were powerful motivators that galvanized the commitment of opinion leaders to developing a comprehensive water management plan. Dry summers in 2006, 2009, 2010, and particularly in 2012¹⁵ have clearly demonstrated a lack of capacity or an unwillingness of senior governments to fulfill their legislated mandates to ensure proper drought planning with capacity to respond; source water and riparian area protection; and basic safeguarding of critical (or minimum) environmental flows to protect vulnerable watershed resources. Within the Cowichan, this has led to the realization that increased local control over the watershed is essential.

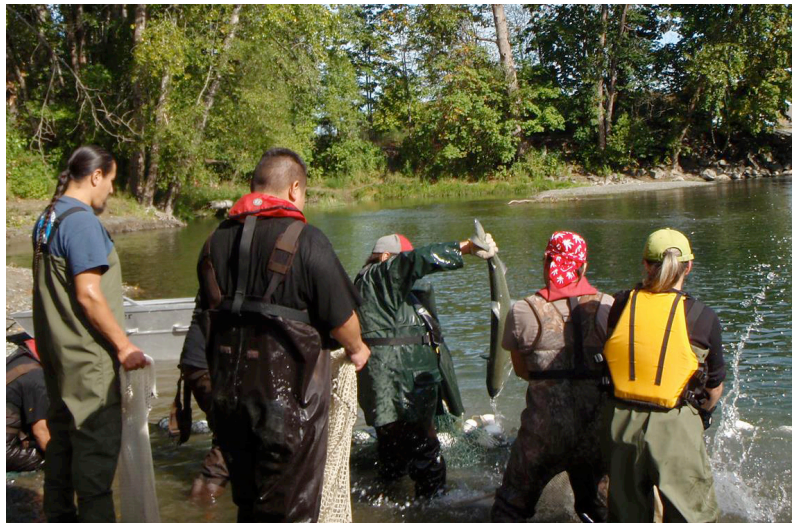


Figure 4. Cowichan Tribes and the Department of Fisheries and Oceans work together to capture Chinook salmon to be driven to spawning grounds upstream. Photo: T. Rutherford

3. The Plan and Planning Process: The *Cowichan Basin Water Management Plan* was completed in 2007. It was relatively comprehensive and has served as a valuable launching platform for the CWB.

Many stakeholders including a number of current members of the CWB's Technical Advisory Committee and the Cowichan Stewardship Roundtable invested substantial time and energy in the Plan's development and feel a sense of ownership towards it. Therefore, as the entity responsible for the implementation of the Plan, the CWB benefits from a significant amount of good will from a broad group of very knowledgeable and committed stakeholders. The CWB is keenly aware of that commitment and sense of ownership. The Board views watershed stakeholders as a powerful resource and has been deliberate in its efforts consult with and seek advice from them.

4. Co-Governance and Legitimacy: The CVRD and Cowichan Tribes are full partners and jointly lead the Board, with the chair of the CVRD and Chief of Cowichan Tribes serving as co-chairs. All other CWB members are either elected officials or appointed by elected officials. Cowichan Tribes names two elected members to the Board and the CVRD names three. Four other members at large and up to two individual members are nominated by the provincial and federal governments, and are jointly approved by the Cowichan Tribes Council and CVRD Board. These other members are carefully selected and include other elected representatives from Cowichan Tribes and the CVRD, as well as individuals who are recognized as local and regional opinion leaders. The CWB's governance document,¹⁶ coupled with its actions, make it clear that the Board was established to serve the best interests of the citizens of the watershed and the region as a whole. In 2013, the Cowichan Watershed Society (CWS) was incorporated to become an important supporting financial and operating arm of the CWB. It is made up of a subset of the CWB members and reviews and, as appropriate, implements CWB recommendations.

Adding to the CWB's legitimacy is the support and technical expertise provided by the Technical Advisory Committee and the Board's Special Advisors. CWB Special Advisors are individuals from a diversity of backgrounds, whose expertise is drawn upon by the Board from time to time. Their areas of expertise include governance, limnology, agricultural and forestry practices, tourism, community development, First Nations culture, fisheries, and governance. These are individuals with high standing, clear expertise, and strong track records of commitment to the watershed. Frequent consultation by the CWB with these and other stakeholders serves to further support the credibility and legitimacy of the CWB/CWS and their initiatives.

5. Whole-of-Watershed Thinking: Priorities and activities are guided by a vision for the watershed as a whole that is based on ecological sustainability and balancing a variety of needs related to the local economy, including recreation, river flows, fisheries resources, and cultural values. This principle embraces both the wisdom of systems thinking and resonates powerfully with the worldview of the Cowichan People, which guides their relationship with nature and with others. As a traditional Cowichan lesson says, "*Mukw'stem`i`u tun'u tumuhw,`o`huliitun tst mukw'stem`i`u tun'u tumuhw`o`slhiilhukw`ul*" or, in translation, "Everything on this earth is what sustains us, everything on this earth is connected together."

Adopting this whole-system philosophy when implementing a watershed plan is critical to establishing a common set of priorities, reduces the likelihood of misunderstanding, encourages respect, supports relationship building, and promotes partnerships through a common purpose.

6. Partnerships, Wily Veterans, and Enthusiastic Youth: The CWB is a collaborative partnership led by Cowichan Tribes and the CVRD that seeks to engage and bridge the interests of regulatory agencies, local water stakeholders, other rights holders, and citizens. As noted earlier, the heartland of Cowichan Tribes traditional territory is the Cowichan watershed, and their participation as a full and active partner on the Board is critical to the CWB's success, as are the relationships with a wide set of partners and stakeholders in and beyond the basin. The ongoing development and

maintenance of relationships with partners and stakeholders are priorities for the CWB. As Cowichan elders often say, "We all live here together. We have to work together for the watershed."

The stewardship community in the Cowichan watershed is characterized by a blend of wily veterans and enthusiastic youth. The CWB and advisors are a mature team of wise veterans who truly know and care about the watershed. They inspire each other and their passion inspires others in the community. At the same time, the youth that are involved in the watershed offer optimism, infectious energy, and, in many cases, exceptional networking and technical skills.



Figure 5. Cowichan's Water Woman alongside the City of Duncan's Town Crier. Photo: G. Iverson

7. Consensus: When deciding on any issue, the CWB works to achieve consensus. For routine, procedural, and minor decisions, "general consensus" decision-making (i.e. no strong objections) is used to efficiently move forward in meetings. When decisions are more substantive or complex, time is taken for members to learn about the issue and work together to develop a deep and common understanding so that consensus can be better reached. Because it is consistent with their worldview, the Cowichan Tribes members were immediately comfortable with this approach; the other members of the Board have also become strong supporters, and have noted that initiatives that are supported by a narrow majority do not carry the shared wisdom of the group and may not be durable. It is noteworthy that the governance documents of both the CWB and CWS include the ability to default to *Robert's Rules of Order*¹⁷ if consensus cannot be achieved. However, to date, that provision has never been necessary as issues have always proceeded based on consensus.

8. Transparency and Accessibility: The actions and decisions of both the CWB and CWS are, to the greatest extent possible, transparent and open. In addition, meetings are publicized and open to the community; agendas, minutes, technical studies, presentations, and a variety of other resource documents are made available on the website; and CWB members and the coordinator make time to be accessible.

9. Finances/Funding: As an organization evolves, it is extremely important to have the right amount of funding at the right time. The operating budget of the CWB continues to be very modest at approximately \$70,000. This comes from both Cowichan Tribes and the CVRD, primarily for basic administrative support, coordination, and communications. This provides enough to support meeting expenses, the website, and a part-time coordinator. After the CWB was established, it took over a year and a half for the Board to access project funding. In retrospect, that early lack of project funding resulted in some significant benefits. In the absence of such funding, the CWB and Technical Advisory Committee spent considerable time developing a detailed understanding of the issues affecting the watershed, building relationships, and establishing priorities. As a result, they were able to move forward with a common understanding and solid footing to set targets and, ultimately, to seek and invest further financial support. The Board has acknowledged that if it had had more funding in the beginning, some of it would likely have been wasted. Now, four years since

its inception, inadequate operation and project funding could potentially jeopardize its success by stifling the momentum that has been developing over the past few years.

10. Establishing, Clear Attainable Targets: The *Cowichan Basin Water Management Plan* is typical of traditional land use planning in B.C.: It is somewhat daunting because it is very technical and complex, and can be difficult to remember or relate to given its myriad of goals, principles, and action items. To address this issue, the Technical Advisory Committee was requested to combine a number of the Plan's recommended actions into a set of targets that would be meaningful and really resonate with people in the watershed (see Box *Cowichan Water Management Targets*). Perhaps the most engaging example is the "shellfish target." It involved aggregating a number of the Plan's recommended actions related to water quality and estuarine health into one simple, easy-to-understand target that focuses on being able to eat the shellfish in Cowichan Bay by 2020. Historically, Cowichan Bay clams were an extremely important food source for Cowichan People, but they have been closed for harvest since the 1970s due to contamination.

Like the other watershed targets, the shellfish target is powerful because it makes communicating about the Plan much easier and more relevant. Other powerful attributes of the targets are the collateral benefits that can be achieved. For example, by cleaning up conditions so that shellfish can be harvested, a number of important but lower profile outcomes related to water quality and estuarine health will also be addressed.

11. Informed by Science and Guided by Traditional Knowledge: The CWB is committed to making decisions and recommendations based on good science and the best available information. Building new knowledge, filling information gaps, and developing a better collective understanding of the Cowichan watershed is a priority. The CWB's success to date is largely due to the good hydrological and water quality research and monitoring that has provided a clear storyline to support the Board's actions. While modern science is important, CWB members also appreciate the wisdom and value of Cowichan traditional knowledge. As former Chief Lydia Hwitsum has pointed out, the absence of an indigenous voice in the Plan was disappointing. However, it is clear that as the Board continues to evolve and relationships deepen and broaden, the influence of traditional knowledge will continue to grow.

As the CWB moves forward, some areas where it will focus on obtaining better information are:

- Traditional values;
- Climate modelling;
- Cumulative impact assessment;
- Juvenile salmonid rearing requirements;
- The relative importance of various shoreline habitats;
- The impacts of forest practices on the watershed;
- Invasive species and how to control them;
- Groundwater recharge rates and interaction of surface and groundwater; and
- Wise practices for changing water use patterns.

The Board has recognized that proceeding without this information would seriously undermine its credibility and legitimacy.

12. Engaging the Community: Building and nurturing respectful relationships with the community is an extremely important aspect of the CWB's work. Within the stewardship community this work is made easy by the fact that so many networks already exist and the prevailing philosophy in the

watershed is one of cooperation and collaboration. The CWB's approach to community engagement is threefold:

- a. **Enabling Others:** The Board does not view itself as a doer. There are many local groups who can do things better and more cost effectively. As such, the CWB attempts to support local groups and initiatives through letters of support and, where possible, small amounts of funding to support of initiatives that benefit the watershed and are consistent with the Plan. In the longer term, the CWB hopes to access adequate funding to assist local stewardship groups with much-needed operating funding.
- b. **Encouraging Learning and Participation:** Working with partners to provide opportunities for the community to learn about the watershed and be involved as stewards is a priority. For example, the Board supports an annual lower river clean-up in partnership with Cowichan Tribes, the Cowichan Lake and River Stewardship Society, and, commencing in 2014, a local youth group. It also offers watershed tours and has recently partnered with Vancouver Island University to present a monthly watershed speaker series. In addition, through the Cowichan Land Trust it supports annual watershed learning experiences for grade four and grade five students in the region.
- c. **Respect and Dialogue:** When CWB members meet, it is striking how respectful they are of one another. That respect is also offered to others. Although there have been times when it would have been easy to marginalize groups in the watershed or call for regulatory action against them, the first response by CWB members is always to assemble pertinent facts and engage people in dialogue. For example, when a survey sponsored by the CWB identified a water quality problem that was attributable to one specific stakeholder group in the watershed, a situation that could have resulted in conflict transformed into cooperative problem-solving initiative. The Board met with individual stakeholders and encouraged them to participate in a collaborative program to address the issue.



Figure 6. Community and CWB members participate in a Cowichan River cleanup in 2012. Photo: I. Graeme

Accomplishments and Areas of Improvement

In an effort to assess and more fully understand the impact and success of the CWB, in 2011 the CWB's Coordinator surveyed CWB members and a number of key stakeholders, asking them the following two questions:

1. What are the two or three best things that the CWB has accomplished?
2. What are two or three areas where you feel the CWB can improve?

The most frequent responses to the first question included:

- Building and maintaining relationships and partnerships;
- The full partnership with Cowichan Tribes;
- Providing leadership at the local level (where the results of decisions have greatest impacts);
- CWB's consensus-based approach;
- CWB's commitment to science;
- The commitment of the Board and Technical Advisory Committee members to its mission and mandate;
- Developing and pursuing targets that link the *Cowichan Basin Water Management Plan* to tangible, on-the-ground benefits in the watershed; and
- Filling leadership/governance "vacuums."

Responses relating to where the CWB could improve tended to indicate general satisfaction with progress to date. However, the majority of respondents did identify securing source(s) of funding as a key area where improvement was required. Other responses included:

- Gaining more influence over private forest lands;
- Commitment from provincial ministries;
- Obtaining more up-to-date information/data, specifically on groundwater and water quality
- Establishing a target for Chinook salmon.

In response to this survey, the CWB is planning a workshop on climate change, hydrology, and forest practices. A major water quality study of the watershed will be completed later in 2014, and another on groundwater/surface water interaction will be completed in early 2015. Although it has not had adequate resources to support inventory and research to support a Chinook salmon target, the Board is aware of encouraging work that may help to support such a target. Unfortunately, due to resourcing issues, commitment from provincial ministries is still an area where improvement is required. However, the Board is hopeful that the new *B.C. Water Sustainability Act* will offer opportunities and resources for more meaningful collaboration with the Province.



Figure 7. Tim Kulchyski, Cowichan Tribes biologist and member of the CWB, speaks to 200 delegates at *Watersheds 2014* about resilience and the importance of being able to deal with crisis and change in a watershed. Photo: J. Swift

Further Research on the Cowichan Watershed Board

The role of public participation in effective watershed governance

In 2013, a comprehensive University of Victoria Honours Thesis studied the CWB to examine the role of public participation in effective watershed governance. The student researcher identified public participation/engagement as involving a large number of participants, with a high degree of involvement from each. The CWB approach was seen as contributing significantly to that participation in its ongoing pursuit towards achieving effective collaborative water governance. The key role of local stewardship groups in the watershed; partnerships; the composition of the Board and Technical Advisory Committee; interaction with interest groups; inclusiveness; pursuit and use of information; and flexibility in distilling the Plan into easily understandable targets were all seen as important strengths for achieving watershed outcomes. However, a lack of delegated authority and lack of funding were identified as barriers to achieving outcomes in the watershed, including those related to awareness, public education, and outreach, which also affect the CWB's profile.

The author concluded that, *"The challenges and opportunities reflected in water governance efforts in the Cowichan Basin are not unlike those that many other locally-based groups in British Columbia are facing. Therefore, water governance efforts in the Cowichan Basin have the potential to offer important lessons learned, and act as an example for other locally-based watershed groups seeking to implement effective watershed governance"* (Marshall, 2013, p. 106).

Source: Marshall, S. (2013). *Collaborative water governance in the Cowichan Basin: Examining the Role of Public Participation in Effective Watershed Governance (Bachelor's Honours Thesis)*. Victoria, B.C.: University of Victoria, Department of Geography.

The effectiveness of approaches to local watershed governance

A concurrent University of Northern B.C. Masters Thesis examined the effectiveness of approaches to local watershed governance in three areas of B.C. The researcher noted that, *"Perhaps due to its many economic and environmental values, the Cowichan has become an important case study for watershed governance in the province, with recent successes in this respect. The grassroots and collaborative Cowichan Basin Water Management Plan ... was a first in the province to explicitly consider new governance arrangements, developing and finally instituting a multi-stakeholder governance body now known as the Cowichan Watershed Board..."* (Rose, 2014, p. 65).

The following factors were identified as contributors to the CWB's success:

- The *Cowichan Basin Water Management Plan* and the collaborative processes that it was based on;
- Local leadership from the CVRD and Cowichan Tribes, as well as formal and informal NGO leadership;
- The crisis (drought of 2003) that resulted in the Plan, coupled with ongoing crises in the watershed;
- Public interest and engagement and volunteer support;
- Strong partnerships, inclusiveness, and common interests among Board members;
- Technical information developed for the Plan and by the CWB and its partners;
- Funding, including support for the Plan and subsequent project funding (via the federal Gas Tax Fund).

Factors negatively affecting the CWB's success were identified as:

- Lack of regulatory authority;
- Lack of clear accountability among agencies regarding water/watershed issues;
- Entrenched water rights and lack of groundwater regulation;
- The unwillingness of provincial ministries (e.g. Ministry of Forests, Lands and Natural Resource Operations) to accept advice from the CWB;
- A lack of sustainable funding or authority-related sustained funding;
- The ongoing requirement for monitoring and research;
- Boundary issues, including consistency with political boundaries and the fact that the watershed's major aquifer extends beyond the boundary that was used for the Plan (although not the natural watershed boundary).

The author concluded by noting that, *"While this research outlined some of the Cowichan's successes ... evaluation of the board's continued work and success over time will be critical for the evolution of watershed governance bodies in the province"* (Rose, 2014, p. 132).

Source: Rose, C. (2014). *Towards watershed governance: emerging lessons from community-based water governance approaches in British Columbia (Master's Thesis in Natural Resources and Environmental Studies)*. Prince George, B.C.: University of Northern B.C.

Looking Ahead

The next three years will be pivotal for the CWB. The Board recognizes that senior governments (particularly the provincial government) may no longer have the capacity to effectively fulfill their historical mandates related to data collection, scientific understanding of watershed dynamics, freshwater and habitat protection, and watershed management. The Board also recognizes that in the face of a changing climate, with more extreme droughts and floods, increasing demands for water use, and ongoing local growth, the support and engagement of senior government regarding those management functions is increasingly critical.

To begin addressing this current governance void, the CVRD has commenced a substantive review of water governance in the entire region. The lessons learned from the CWB's successes are likely to shape possible reforms by the local government. These eventual reforms may ultimately influence the CVRD's role in and use of the CWB going forward. The results of the CVRD's water management and governance review are expected in fall 2014.

In April 2014, the Province passed the new *Water Sustainability Act*, which will enable delegation of authority to local watershed entities (under Section 126). In addition, regulations developed under the new act will hopefully authorize the appropriate sustainable sources of funding to support local governance and management activities for such watershed governance and management entities. From the beginning, the CWB was designed to be more than a local stewardship group and, over the past few years, it has positioned itself as a candidate for acquiring increased formal influence—and even decision-making powers—over the watershed from senior governments.

The CWB has been considering the degree of empowerment that would be appropriate—ranging from influencing decisions to ultimately making decisions regarding the watershed. During the coming period of transition as the new *Water Sustainability Act* is implemented, more detailed discussions with the Province will be initiated to explore the steps needed to acquire increased local influence and potentially authority over aspects of watershed management and governance. This kind of sharing of authority and decision-making would be the first of its type in the province, and would provide a potential novel pilot project to further explore the evolution of governance in action in B.C.

In the meantime, the CWB intends to continue to implement the *Cowichan Basin Water Management Plan* and pursue the targets it has established for the watershed. Priority initiatives related to the Plan will continue to include ensuring adequate summer and fall flows in the river, addressing water quality issues, protecting shoreline habitat, promoting public education, encouraging water conservation, and continuing to build and maintain relationships and partnerships.



Figure 8. The Cowichan Estuary. Photo: T. O'Riordan

As the CWB has worked on water quality issues over the past year and a half, it has become clear that the adjacent Koksilah watershed, which joins the Cowichan River at the Cowichan estuary, should be considered part of the Cowichan watershed. Over the coming months, funding will be sought to integrate the Koksilah watershed into the *Cowichan Basin Water Management Plan*.

The top priority for the CWB will continue to be building and maintaining relationships and partnerships with stewardship groups; First Nations, local, provincial, and federal government; schools at all levels; and others who influence or are influenced by the Board. In addition, with the support of the Real Estate Foundation of British Columbia the CWB will invite individuals from other watershed stewardship groups across the province to join them in the Cowichan to experience the work being done there and to share lessons learned with each other.

Sources and Citations

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- ¹ See summary of June 2013 Cowichan resilience analysis workshop, co-led by researchers from the POLIS Water Sustainability Project at the University of Victoria's Centre for Global Studies and Brock University's Environmental
- ² Westland Resource Group Inc. (2007). Cowichan Basin Water Management Plan. Retrieved from <http://www.cowichanwatershedboard.ca/sites/default/files/CowichanBasinWaterManagementPlan-March2007.pdf>
- ³ Westland Resource Group Inc., 2007, p. 22
- ⁴ Personal communication, August 2014.
- ⁵ For more information see <http://www.cowichanwatershedboard.ca/content/technical-advisory-committee-tac>
- ⁶ For more information see <http://www.cowichanwatershedboard.ca/sites/default/files/CowichanLakeWaterLevels.pdf>
- ⁷ For more information see http://www.cowichanwatershedboard.ca/sites/default/files/20110216_Cowichan_Lk_Erosion.pdf
- ⁸ For more information see <http://www.cowichanwatershedboard.ca/sites/default/files/WaterConservationHouseholdSurvey-preliminary-RodgerHunter-Oct2011.pdf>
- ⁹ For more information see <http://cowichanwatershedboard.ca/doc/cowichan-lake-bathymetry-sample>
- ¹⁰ For more information see, for example, <http://cowichanwatershedboard.ca/sites/default/files/SaywellPark-ShorelineRestoration-Report.pdf>
- ¹¹ For more information see <http://cowichanwatershedboard.ca/sites/default/files/DRAFT-GroundwaterInTheCowichanWatershed-Phase1-Lapcevic-Gellein-Ormond-FLNRO.pdf>
- ¹² Minister's CHRS Advisory Committee. (1993, March). What's in it for the River? A Review of British Columbia's Potential Participation in the Canadian Heritage Rivers System and the Implications for Provincial River Management. Victoria: BC, Ministry of Environment, Lands and Parks, p. Retrieved from http://www.env.gov.bc.ca/bcparks/heritage_rivers_program/reports/the_river.pdf
- ¹³ Lambertsen, G.K. (1987). Cowichan Estuary Environmental Management Plan. Victoria: BC, Ministry of Environment and Parks. Retrieved from <http://www.cvr.bc.ca/DocumentCenter/Home/View/6363>
- ¹⁴ For more information see <http://www.cowichanwatershedboard.ca/sites/default/files/CWB-Governance-Manual-2010.pdf>
- ¹⁵ Extremely low flows in 2006 and 2012 led the federal Department of Fisheries and Oceans and Cowichan Tribes to work together to trap Chinook salmon in pools in the lower river and transport them upstream in trucks past shallow, impassable sections of the river.
- ¹⁶ Cowichan Watershed Board. (2010, March). Cowichan Watershed Board Governance Manual. Retrieved from <http://cowichanwatershedboard.ca/sites/default/files/CWB-Governance-Manual-2010.pdf>
- ¹⁷ *Robert's Rules of Order* is a recognized guide that prescribes procedure for running meetings both effectively and fairly. For more information see <http://www.robertsrules.com/>

POLIS Project on Ecological Governance

Created in 2000, the POLIS Project on Ecological Governance is a research-based organization that is part of the Centre for Global Studies at the University of Victoria. Researchers who are also community activists work to make ecological thinking and practice a core value in all aspects of society and dismantle the notion that the environment is merely another sector. Among the many research centres investigating and promoting sustainability worldwide, POLIS represents a unique blend of multidisciplinary academic research and community action. polisproject.org

POLIS Water Sustainability Project

The POLIS Water Sustainability Project (WSP) is an action-based research group that recognizes water scarcity is a social dilemma that cannot be addressed by technical solutions alone. The project focuses on four themes crucial to a sustainable water future:

- Water Conservation and the Water Soft Path;
- The Water-Energy Nexus;
- Watershed Governance; and
- Water Law and Policy.

The WSP works with industry, government, civil society, environmental not-for-profits, and individuals to develop and embed water conservation strategies that benefit the economy, communities, and the environment. The WSP is an initiative of the POLIS Project on Ecological Governance at the Centre for Global Studies, University of Victoria. poliswaterproject.org



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