

Workshop on Water Issues in BC's Peace Region



Workshop Report¹

**May 30, 2013
Fort St. John, BC**

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¹ Photo Credit: Gaven Crites, Alaska Highway News

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The Council would also like to thank all of the workshop speakers for sharing their knowledge, experience and expertise.

Lastly, the Council expresses our sincere appreciation to all of the workshop participants for sharing their knowledge, energy and enthusiasm throughout the day.

EXECUTIVE SUMMARY

Given the complexity of issues and variety of players involved in the management and planning of watersheds, collaboration and the formation of diverse networks have proven to be successful strategies to advance the sustainability of watersheds. As such, the Workshop on Water Issues in BC's Peace Region aimed to facilitate learning and engage a regional network of watershed stewards and practitioners, inspire and catalyze new work through networking and identify priorities and actions moving forward.

Participants were engaged in a number of ways including institutional and community expert presentations on topics related to priority water issues in the Peace River region and how to address these issues. Participants also engaged in roundtable discussions and a plenary session giving them an opportunity to verbally share their ideas as well as share additional thoughts through note-taking forms.

The roundtable dialogues posed the following questions aimed to establish the context of stewardship actions and projects in the Peace River region:

1. What do you believe are the priority water issues in the Peace River region?
2. What actions are you advancing or would like to advance to address these issues?
3. What are some priority actions to advance through collaboration?

The facilitated plenary session posed questions related to the implementation of the actions discussed in the previous discussion:

1. What action must we take to address the issues?
2. What are the key outstanding research questions that remain to be addressed to help resolves these issues?
3. Who is going to do what and when?
4. How should these actions be resourced?

The priority water issues and suggested actions generally related to the following categories:

- Water Quality and Pollution
- Water Quantity, Use and Conservation (both supply and demand)
- Data, Information and Research (and information sharing)

- Water Planning, Management and Governance
- Public Awareness and Engagement
- Local and Regional Collaboration (across government, industry and non-government sectors)
- Increase Capacity, Funding and Resources

Some initial key actions for these groups were identified, including:

1. Workshop reporting and follow-up;
2. Meeting of local and provincial government and First Nations leaders to discuss water issues and actions
3. Organizing for collaboration (including drafting a Terms of Reference); and,
4. Setting priorities to work on together.

This report reflects an initial scan of current water issues in the Peace Region as well as current and potential future actions that can be taken to address key water issues. The Fraser Basin Council invites workshop participants to share their feedback on this draft report to help refine the suggested actions.

Subject to interest, capacity and resources, it is envisioned that this initial dialogue may lead to the development of an action plan as a basis for collaboration to address priority water issues in the Peace Region.

The following are the near-term actions that were identified as the workshop wrapped up:

1. Workshop reporting and follow-up;
2. Convene a meeting of regional leaders (e.g. Mayors, Chiefs, Councils, MLAs and Regional District Board Chairs) to discuss water issues, interests, roles, responsibilities and suggested actions;
3. Explore ways to strengthen local and regional collaboration among the various agencies and organizations (including drafting Terms of Reference for such a collaborative process); and,
4. Setting priorities to work on together.

These near-term actions can help establish a foundation to address some of the broader issues and advance more substantive progress with respect to water management in the Peace Region in the medium to long-term.

INTRODUCTION

On May 30, 2013, the Fraser Basin Council hosted and facilitated a full-day workshop engaging water stewards, practitioners, and other relevant interests from the Peace River region and beyond. There was a large turnout of 70 participants representing a diversity of non-government organizations as well as local, provincial and First Nations governments, industry, the private sector and interested citizens.

The following were the workshop objectives:

- To facilitate learning through knowledge exchange, presentations;
- Develop a regional collaborative network of water resources stewards and practitioners;
- Inspire and catalyze new work through networking, sharing of ideas and actions; and,
- Identify key research questions to address priorities and actions.

The first part of the day began with welcoming and introductory remarks from Liz Logan, the Tribal Chief of Treaty 8 First Nations and Byron Stewart, Acting Mayor of Fort St. John as well as Steve Litke (Senior Manager) and David Marshall (Executive Director) of the Fraser Basin Council who also emceed and co-facilitated the event (see Appendix Workshop Agenda).

This was followed by a series of presentations on Institutional Perspectives featuring Shannon Anderson (Peace River Regional District), Kristy Ciruna (Ministry of Forests, Lands and Natural Resource Operations), Don Irwin (North East Oil and Gas Health Advisory Committee), Liz Logan (Treaty 8 First Nations), Sheila Withrow (Northern Health) and Julie Robinson (Ministry of Agriculture).

After a short break, a roundtable discussion on Advancing Action in the Peace Region addressed questions related to the identification of priority water issues in the region, actions currently being taken and some priority actions that participants would like to advance through collaboration.

After lunch, a second round of presentations focused on Community Expert Perspectives and featured speakers Jackie Allen (Mile 162, Alaska Highway), Gwen Johannson (Hudson's Hope), Richard Koechl (Fort St. John), Reg Whiten (Dawson Creek) and Renee Ardill (Fort St. John).

A facilitated plenary session followed discussing issues on the implementation of actions including the identification of outstanding research questions to help resolve issues, who is going to do what and when and how these actions should be resourced.

This report represents a summary of participant responses to and commentary on the presentations, roundtable discussion and facilitated plenary session. Participants were given the opportunity to respond verbally as well as through note taking forms. These, in addition to flip chart notes were collated, summarized and analysed for the purposes of this report.

This report is organized into six sections that follow the workshop's activities. The first section provides an overview of the institutional perspectives on priority water issues in the Peace River region as discussed by the panellists. The second section summarizes participant feedback from the roundtable discussions related to advancing action to address these priority issues. Section three provides an overview of priority water issues as seen by community experts. This is followed by a summary of the ideas discussed during the facilitated plenary session, which focused on the implementation of actions proposed. The final section concludes the report with some key actions proposed and the next steps for implementation.



Photo Credit: Sandra Helin

1 INSTITUTIONAL PERSPECTIVE

The workshop continued with a panel of speakers to share a variety of sectoral and institutional perspectives. Panellists included the following:

- Shannon Anderson, Peace River Regional District
- Kristy Ciruna, Ministry of Forests, Lands and Natural Resource Operations
- Don Irwin, North East Oil and Gas Health Advisory Committee
- Tribal Chief Liz Logan, Treaty 8
- Sheila Winthrow, Northern Health
- Julie Robinson, BC Ministry of Agriculture

Shannon Anderson, Peace River Regional District

Shannon Anderson provided an overview of the roles of the regional district with respect to water including development of water sources such as deep wells and springs as well as management of land use in unincorporated areas (e.g. development permits and lakeshore guidelines). There is also a regional district role to advocate for water quantity and quality. This is expressed in the regional district's Strategic Plan as well as in input to the proposed Water Sustainability Act. The regional district has also provided funds to interest groups to complete watershed studies.

Shannon profiled several regional water issues, including:

- Fragmented approach to water management. No big picture.
- Lack of knowledge and management of underground aquifers.
- Need further investigation on the potential effects of industry on aquifers.
- The impacts of the Safe Water Drinking Regulations on PRRD public and water infrastructure.
- The use of potable water for industrial purposes (oil and gas)
- Provincial leadership required in addressing uncertainty with respect to water quantity, quality and allocation (in collaboration with local governments and interest groups).

Kristy Ciruna, Ministry of Forests, Lands and Natural Resource Operations

Kristy shared her perspectives on current water issues in the region and identified the top three issues as:

1. Monitoring to look at increased economic activity going forward (quality and quantity).
2. Key critical gaps in knowledge – look at an applied research agenda in the northeast (e.g. groundwater mapping, climate change and hydrological change)

3. Continue to provide tools for access to data (e.g. monitoring data)

Kristy noted that there are five agencies as well as the Oil and Gas Commission working to manage water in the province. The province is looking for opportunities for more effective collaboration and coordination, particularly with respect to enhancing information and data, strengthening the regulatory regime, coordinating decisions, and building a water stewardship ethic. Water stewardship is a shared responsibility so there is a real need to work collaboratively with First Nations, industry and stakeholders. There is also an important role for academia. It was noted that all jurisdictions face a challenge related to long-term funding mechanisms, governance and monitoring.

Don Irwin, North East Oil and Gas Health Advisory Committee

The Northeast Oil and Gas Health Advisory Committee (NEOGHAC) is a non-government, non-profit, community-based multi-stakeholder organization with a mission of improving the overall health and well being of communities in North Eastern British Columbia as they relate to up-stream oil and gas development in the region composed of representatives from oil & gas industry, governments, community members and Oil & Gas Commission. See <http://neoghac.com>.

Don described the three most important water issues in the Peace Region as:

- Water Supply – sufficient for all – residents, wildlife, industry, agriculture. Is there enough water for all? What are the priority water uses? What is the health risk of low water supply?
- Effect of fracking fluids on groundwater – health effect
- Effect of fracking fluids on drinking water – health effect

Don noted that the solutions to address these issues lie in a collaborative approach (e.g. province, industry, etc.). A specific innovation that Don highlighted is the water recycling line with Shell and the City of Dawson Creek.

Tribal Chief Liz Logan, Treaty 8

Chief Liz Logan began her presentation by highlighting that Water is the lifeblood of Mother Earth. Treaty 8 is over 100 years old and includes promises to exercise rights on the land. However, she noted that her people couldn't drink the water in the oil patch anymore. Elders have shared many concerns about water, animals and health. Water has been excluded from many resource management agreements.

Key water concerns include:

- Hydraulic fracturing
- Water use permits / licenses
- Contamination of aquifers
- First Nations are interested in strengthening regulatory oversight concerning water.
- Short-term water use approvals are a particular concern.

Chief Logan expressed an interest in cumulative impacts assessment and review of the Water Act, particularly pertaining to oil and gas. She shared some points about water management including:

- FLNRO manages all long-term water licenses and short term permits for non-oil and gas activities.
- FLNRO has designated BC Oil and Gas Commission as Regional Water Manager under Section 1 of the Water Act for oil and gas purposes
- New Northeast Water Tool – a hydrologic model for NEBC.

Chief Logan highlighted several considerations to implement solutions including:

- Collaboration – Our neighbours are our allies, people who are concerned about water quality and quantity.
- Honour and respect – For Mother Earth and future generations. The decisions we make today will have consequences for tomorrow.
- Support research and technology to maximize and protect our watersheds, aquifers and groundwater
- Stricter water management, policies and legislation.

Chief Logan identified the following obstacles:

- Economic greed
- Impacts of too much development, too fast.
- Lack of understanding the water crisis and how it affects the entire earth.
- Lack of political will.

She concluded her presentation with a quote from a Hopi Elder – “We are the ones we have been waiting for”.

Sheila Winthrow, Northern Health

Sheila focused her presentation on the role of Northern Health in water, particularly their role in ensuring compliance with the *Drinking Water Protection Act* and regulations through inspections, issuing permits, monitoring, sampling and investigations

She described the three most important water issues as follows:

1. Water quality and quantity – source assessment and protection, exploring alternative sources, access to potable water other than hauling
2. Private water system owners/users information (to help people protect their own health in relation to their own water supply)
3. Environmental Assessment Technical Reviews of proposed major industrial projects

Northern Health works with numerous other agencies and organizations, including local government, Ministries of Forests, Lands, and Natural Resource Operations, Agriculture, Environment, Health, and Transportation, as well as the First Nations Health Authority and the Environmental Assessment Office.

Sheila suggested the following actions:

- Recommend creation of and/or updating of watershed / water source assessment plans
- Supporting aquifer mapping – updating database
- Interagency group to work on private system information package and education campaign
- Improve health impact assessments for major industrial projects.

Some obstacles were also identified:

- Water system assessments are not mandatory
- Barriers to further research – resources and time
- No coordinated approach to health impact assessments for major industrial projects.

To overcome obstacles:

- Drinking water officer training or legislative amendments to outline when water source / watershed assessments must be made.
- Develop centralized capacity for health impact assessments.
- Support and fund further water source assessments, research and mapping
- Fund a position at Provincial Health Services Authority to respond to environmental health issues

Julie Robinson, BC Ministry of Agriculture

Julie noted that there are staffing and dollar limitations within the Ministry and water is addressed “on the corner of the desk”. The Ministry is working with water stewardship groups. She noted that the

BC Grain Producers Association has been active in the Water Act Modernization process as well as climate adaptation. There is a need to undertake water modelling of agricultural water needs and demands. This has been done in some parts of the province.

In the agriculture sector, access to a supply of clean water is a concern. Julie noted that in some cases individual farms develop their own supply while in other cases producers access water from the Regional District.

Groundwater licensing may be a challenge in the future. The agriculture sector wants secure future access to water. Farmers primarily rely on shallow aquifers, which are not licensed at this time. How do we license effectively without hindering producers?

Collaboration is key. She has brought together ministries and stakeholders, however, there is still a need to follow-up and follow through on meaningful collaboration.

She mentioned challenges within the agriculture sector such as erosion control and management of water runoff. Many producers rely on dugouts. New roads and development change surface hydrology, which can impact flooding, water shortages, erosion and sedimentation, as well as water quality.

Consultation has to improve and be given the proper time rather than rush things when the political timing is good.

Questions and Discussion

Water quality risk assessments are not mandatory. Is a recommendation to the province needed to make it mandatory? The regulation is ambiguous right now. A Drinking Water Officer (DWO) can order an assessment. What triggers this? A water purveyor can request that a DWO issues an order. Training could help with consistent understanding of what should trigger an Order and an assessment.

There is a lack of coordinated water management. What would it take to bring some coordination? The Regional District wants to work with the province through the Water Sustainability Act to improve coordination and look at an overarching perspective. The Peace River Regional District (PRRD) is participating in the Water Act Modernization process to encourage this. First Nations want to be involved as well. Coordination is a challenge because no one has the mandate to

coordinate. There was a multi-agency meeting recently on drinking water to help strengthen coordination and collaboration.

There is concern about potential contamination of groundwater and drinking water caused from fracking. Does the government test the chemicals? Is there a procedure to test for the public? BC has high environmental standards. See fracfocus.ca which is a website developed in collaboration by BC and Alberta with public reporting and disclosure of fracturing fluids. The government does test groundwater.

There have been serious infractions in the Horn River Basin where the BC Oil and Gas Commission ignored what was going on. The cost for private landowners to do their own testing is prohibitive. The government and oil companies should be providing this. Many people are concerned about personal water supplies (i.e. residential wells). Fracking fluids are not fully disclosed and are not on fracfocus.ca. It is possible for a landowner to require pre and post water testing when negotiating an agreement regarding a well on their property.

Everyone has a piece of the pie. MLAs should make water a priority. They can be the glue.

The mining industry is responsible for liability. The oil and gas industry is not. Water is the gold of the future. We need to work with the industry, not against them.

Lack of water regulation impedes investment.

First Nations are not stakeholders. We have constitutional rights and must be consulted. We want to be involved and we do not want to impede the process.

2 DISCUSSION SESSION: ADVANCING ACTION IN THE PEACE REGION

The next session in the workshop involved dialogue among participants at each of the round tables. The following questions were posed to workshop participants.

- What do you believe are the priority water issues in the Peace River region?
- What actions are you advancing or would like to advance to address these issues?
- What actions would you like to see advanced through collaboration?

The following notes are a combination of verbal reporting from each of the tables as well as handwritten notes that were collected.

1. What do you believe are the priority water issues in the Peace River region?

Water Quality and Pollution

- Contamination of groundwater and source water by industry, agriculture and municipal (X2)
- Contamination (real and potential) of drinking water
- Agricultural waste in our water ways
- Pesticide use – in forestry, by landowners and the oil and gas industry, etc.
- Who contribute to water contamination? Everything ends up in our rivers / lakes / groundwater in the spring run off
- Immediate notifications of contamination or potential contamination of source (i.e. Chetwynd)
- Protect rivers – water treatment not an option
- Protection of water quality
 - No regulations for groundwater
 - Identifying casing integrity before and after
- Protection of water sources
- Road development and deforestation can cause changes to surface runoff and drainage flow paths, leading to changes in hydrology as well as erosion and sedimentation

Fracking

- Is fracking affecting groundwater?
- The highest CSA standards should be used for casing
- Casings
 - Leakage into groundwater

- Casings before and after fracking
- Material composition of casings / CSA standards

Water Quantity, Use, And Conservation

- Rural water supply from the Peace river secure and available for all rural communities (X2)
- Quantity - protecting all water elements including wetlands (which provide natural storage) and groundwater recharge
- Road development and deforestation can cause changes to surface runoff and drainage flow paths, leading to changes in hydrology as well as erosion and sedimentation

Data, Information and Research

- Baseline water quality data
- Create an impact inventory of threats to water in the region
- Research on supply and demand (what do we have and what do we need and who needs it)
- Regional assessment process (baseline)
- Follow up on recommendations
- Mapping of aquifers (there is a current lack of this) (X2)
 - Need pre and post fracking data
- Understanding the relationships and connections between surface and groundwater
- Groundwater impact study
- Need to address challenges related to water testing (i.e. the need for timely delivery and analysis of water samples to the testing labs).

Water Planning, Management and Governance

- We need to better manage conflicts among water users (e.g. public, industry, agriculture, recreation, etc.)
- Allocation of supply among users (e.g. oil and gas should not be allowed to pull water from surface when ranchers have been told to get their cattle off the range)
- Put a realistic value on water, a cost on water would lead to conservation and protection

Legislation and Enforcement

- Legislation – interaction with the Province, the issues should be taken to the Province by MLAs
- Legal liability for protection and remediation of water quality and supply management (e.g. Ombudsman)
- Modernization of the Water Act
- Lack of water regulations

Fragmentation versus Collaboration

- There are too many different agencies responsible for water management and their roles are fragmented
- Collaborative and big picture approach
 - Industry involved and needed
 - Across provincial boundaries
 - Regional advisory committee
- Agricultural Land Commission and Oil and Gas Commission need to work together
- Collaborative approach with everybody at the table

Water Management and Planning

- Management Plan for industry, agriculture and municipal
- No big focus on water / water management, lack of funding
- Water management data and processes to make proper management decisions

Water Licensing

- Water licensing – too much control, who regulates, no groundwater
- Catchment based oil and gas referral for both surface and groundwater characterization
- Registering wells

Public Awareness and Engagement

- There is a lack of understanding on water issues / quality / quantity
- Public interests are not being heard
- There is a lack of education (Northeast Water Tool - NEWT)
- Lack of clear and factual information for the public (X2)
 - Access to information
 - Knowing what is out there – who has it? Where is it? How to access it?
- No opportunity for public input into water licenses
- More meetings and public input like this
- There exists an element of inherent mistrust
 - Oil and Gas Commission says something but public doesn't trust it because it is in their interest

2. What actions are you advancing or would like to advance to address these issues?

Data, Information and Research

- Establish a water testing lab in the North Peace River (X2)
- Groundwater monitoring with more testing and staff to protect groundwater
- Data sharing and central storage and management
- Northeast Water Stewardship Group, FLNRO and Oil and Gas Commission looking at data sharing, even this is a challenges for only surface quantity licensing data
- Base line information

Information Sharing, Education and Raising Awareness

- Information sharing and communication with all stakeholders (x2)
- Education of usage in anecdotal terms
 - The public can understand (homes use # of swimming pools of water/year, industry uses # of swimming pools of water/well, etc.)
- Acknowledgement that all have an impact on the water source (e.g. municipalities, transportation, agriculture, forestry, industry)
- Working towards being eco-responsible
 - Identifying gaps and solutions
 - Raise awareness

Water Planning, Management and Governance

Collaboration

- Effective collaboration between First Nations, agencies, ministries and other stakeholders (X2)
- Northern Health – be sure to be part of the conversation, keeping health parameters as part of the discussion
- Regional training collaborative
- Collaborating with all land users to assess water quality / quantity
- Form alliances

Regulation and Enforcement

- Working with regulatory bodies to ensure compliance
- Pushing better regulations
- Government – continuing to advance education about water
- More transparency in water licenses

Working With Industry

- Working in industry to create new ways of using wastewater
- Continue working with oil and gas industry to improve ways to use water and source protection
- Industry – followed rules and regulations and must adhere to all regulators
 - It is not the wild west in industry
 - Industry takes a risk based approach
 - Northeast Water Tool (NEWT)
- Determining chemical composition (DNA) of well bores

Other

- Wetlands preservation

3. What are some priority actions to advance through collaboration?

Data, Information and Research

- Source water protection areas of risk
 - Oil and gas
 - Industry
 - OSB
 - Pipelines
 - Lease sumps
 - Mining effluent
- Consolidation of quantity and quality data
 - From industry, levels of government
 - Sharing publicly
 - E.g. Northeast Water Tool (NEWT), including government, quality data
- Identify data gaps
- Get the information together – get factual information and figure out who can present it that the public will trust
- Research focus on how to balance environment and economics

Education and Awareness-Raising

- Educate / raise awareness on shale gas impacts
- Make 'water' a priority

Water Planning, Management and Governance

- Water Modernization Act (X2)
- Demand an environmental assessment
- Regional strategic assessment
- Break down government silos

Increase Capacity, Funding and Resources

- Increase capacity / resources
- Secure funding from royalties collected from our resource extraction

Local and Regional Collaboration

- Develop stakeholder contact list
- Identify key individuals to make things happen
- Creation of local / regional (northeast) water working group
 - One place for questions to be asked and responded to
 - Look at best practices from the Okanagan group working on water issues.



Photo Credit: Sandra Helin

3 COMMUNITY EXPERT PERSPECTIVES

The workshop continued with a panel of speakers to share a variety of community perspectives. Panellists included the following:

- Jackie Allen, Mile 162, Alaska Highway
- Mayor Gwen Johannson, Hudson's Hope
- Richard Koechl, Fort St. John
- Reg Whiten, City of Dawson Creek
- Renee Ardill, Fort St. John

Jackie Allen, Mile 162, Alaska Highway

Energy companies and staff from the Oil and Gas Commission approached Jackie and her husband regarding plans to build a water loading facility on the river near their campground / RV park. The industry needed easy access for a lot of water. Multiple companies were pursuing piecemeal actions (e.g. a road here, a pipeline there).

Jackie and her husband expressed their concerns about what was happening and asked about the rights of landowners when infrastructure was adjacent to private property. There was a significant learning curve. What was industry allowed to do and not do? They had to prepare written submission about their concerns – especially peace and quiet at the campground, positive riverbank experiences for their guests, etc.

Initially they were able to limit water withdrawal to the off-season (Sept – May). There was significant noise from generators to pump the water. The industry then requested a new site around the bend in the river. A berm of land, limiting the operation to one generator (with housing), and mufflers all helped to reduce the noise level. The situation is not ideal, but much improved. Now that gas extraction is happening year-round the conflicts with other users have increased. Regulations and policies can be changed. It took a lot of effort, learning, and emotional energy.

Mayor Gwen Johannson, Hudson's Hope

Jackie's scenario is re-occurring time after time after time with various developments throughout the region. The individual residents seem to have to make the concessions.

We have confused what is essential (clean water, air, and productive topsoil), with what is nice (oil and gas). And we have prioritized these inversely. I recommend that a Ministry of Essentials be paramount and the resource ministries would follow.

We need to put some thought into how things fit together before we proceed with “development”. We need to do the science to understand the role of the muskeg for the health of the ecosystem in the northeast. We need science-based information and we need to heed that information. Muzzling of scientists is a big issue.

About 40% of Hudson’s Hope residents get their own water (mostly wells). If you don’t have water, you don’t have value in the property. If there is risk to aquifers then that is a huge detriment to the rural population. There seems to be an increase in the number of problems with private wells – both quantity and quality.

Her community has recently obtained funding for a preliminary study to identify potential short and long-term impacts to shallow wells and illustrate connections between deep and shallow wells. Sixteen domestic wells have been sampled to date. Results are available, but the analysis is not yet available. Now we have the baseline in place. Results indicated that the gas in the water is coming from industry through a pathway between the deep zones and shallow aquifers.

Richard Koechl, Fort St. John

It takes an amazing amount of unpaid time and energy to deal with something that has landed on our plates that we don’t want there (i.e. natural gas and now Site C). Around 2002 conventional gas drilling was proposed and undertaken in our neighbourhood. The neighbours worked together over 11-12 years.

A key lesson learned is that companies want certainty.

The BC *Water Act* must be updated. About 30-40,000 gas wells have been drilled in BC. Some are active, some are abandoned, and some have been suspended. One tends to forget about them after they are abandoned or suspended. Some portion (10%) will have defective casings, which are pathways for water going up or down. There is no monitoring of this.

There is no one single regulator. This is a challenge in terms of accountability.

Where is the money? We don’t have funding dedicated to groups to deal with policy, regulations, compliance, etc. Industry could/should pay up front for performance bonds in case there are clean-up costs, etc. Funding needs to be dedicated to protect and manage the resource.

Cumulative impacts have been overlooked. Cumulative studies / environmental assessment need to be undertaken before, during and after projects with continuous monitoring. Assessments for each and every well should be done and then we need to look at cumulative effects.

Financial liability is critical (e.g. performance bond).
Who is culpable if/when a water supply is destroyed?

Reg Whiten, Dawson Creek

Reg profiled several water initiatives that he has been involved with as well as some of the challenges, barriers and opportunities that he sees.

Peace River Watershed Council – Reg described the Council as a working group to bring various interests together. This was established through Fisheries Renewal BC (1999-2007). Funding was distributed to communities and groups. The Board of Directors included local / regional government, First Nations and others. Industry was actively engaged at the table. The Council served as a conduit for processing information and communicating the science. The process got people engaged in sampling and restoration.

Dawson Creek Integrated Water Stewardship – Reg described two parallel tracks for water stewardship in Dawson Creek:

1. Source to Tap: watershed, treatment, distribution, waste, and reclaim
2. Community outreach, research and monitoring, and planning and policy.

Kiskatinaw River Watershed Research Project – Need to get better metrics regarding hydrology, groundwater flows, and interactions with the Kiskatinaw River. Last year we had a flood event and also 0 flow. As a result of the drought, people are asking if we can rely on the Kiskatinaw for the next 60 years? Are we managing for all these risks? Perhaps a new reservoir?

The current focus is on the following:

1. Source water protection as per Kiskatinaw Source Water Protection Plan (update)
2. Watershed characterization /monitoring for improved decision-making on water supply allocation, water quality risk assessment
3. Groundwater assessment and protection. Challenges along the way:
 - Groundwater characterization and surface interactions

- Compliance monitoring and prevention for water quality protection
- Institutional capacity/collaboration for water stewardship

Reg noted some key barriers, including:

- Need for a regional and local water stewardship mandate
- Defining strategic goals (gap analysis; drinking water risk assessment / plan / implementation, agency service plans tied to regional / community objective, drought management / water allocation plans)
- Resources / Partnerships (e.g. continuation of the northeast groundwater project)

If Reg were Premier for a day he would work to advance the following:

- Fast-track implementation of new Water Act
- Establish a Provincial drinking water authority and regional watershed governance bodies
- Review regional land use plans / results-based management for water stewardship
- Put in place Water stewardship resourcing mechanisms
- Provide direction for proceeding with priority water issues (pilot watersheds to develop Water Sustainability Plans)

Renee Ardill, Fort St. John

We all need access to clean water; therefore we need to be aware of what we are doing on the land. Water is important to ranching as with many sectors.

Ranchers utilize water from wells, dugouts and springs. Ranchers are very concerned about pollution on the ground. They are very concerned about the implications of fracking. The impacts of climate change are a real concern with potential for both severe drought and severe precipitation.

Water storage with small dams and dugouts would help alleviate current and future water shortages. Ranchers and other people who work on the land would know where to put them.

We all need to work together. Local solutions are needed because we cannot wait for government.

Questions and Discussion

Northeast Water Stewardship Strategy – what is its content and how is it being developed and what teeth will it have?

I don't know yet, but I am looking out for more information as it becomes available.

How would you fast track WAM?

A lot of consultation has been done. A lot of solid ideas have been formulated. Focus on input from forums with local government, First Nations and others. Highlight regional priorities. Government has been working hard at it, but the system does take some time.

Have you thought about a comparison of the Kiskatinaw with the Peace?

Dawson Creek focused on the Kiskatinaw as a community water supply. The only tool we have to drive the process is the Drinking Water Protection Act. There is federal funding available for source protection plans.

In 1991 a water strategy was developed. This was updated in 2003 with an aim to update the source protection plan later. Now we are trying to put teeth into the plan.

Part of the problem is that studies never come to fruition. We need to focus on the questions of highest need and put together a strategy in short order. A source protection plan could be completed within a year. Look at key sub-basins and build up from there.

We all need clean air, water and healthy ecosystems and it would be nice to have oil, gas, hydroelectricity, etc. The government sets out to maximize resource development as fast as possible to generate revenue. We don't know the value of the boreal wetlands and the impacts from development.

Regional Strategic Environmental Assessment – this is a Cumulative Effects Assessment to look at and identify different options for development. How do you think we could advocate for and implement this so it would be capable of identifying the best development scenario? We need to ask what we really need and why? E.g. Site C.

The past is not the future. Change is happening so fast with climate change and water (e.g. severe storms, reduced snowpack). My

approach would be to get a sense of vulnerability and focus on the greatest risks, vulnerabilities and sensitivities. We need to get the current government to stop and think. Talk with elected officials to raise their awareness about the importance of these issues.

We are better off to do it ourselves rather than have government take control of it. Get as much good data as you can to articulate what the problem is and then see which direction to go. Then build support within the community for your problem, and then take it to government to get it through.



Photo Credit: Sandra Helin

4 FACILITATED PLENARY SESSION

The next session in the workshop involved dialogue among participants at each of the round tables followed by an open plenary dialogue. The following questions were posed to workshop participants.

- What actions must we take to address the issues?
- What are the key outstanding research questions that remain to be addressed to help resolve these issues?
- Who is going to do what and when?
- How should these actions be resourced?

The following notes are a combination of verbal reporting from each of the tables as well as handwritten notes that were collected.

1. What actions must we take to address the issues?

Collaboration

- Clarify responsibilities around water before entering into a collaborative water governance structure.
- Collaboration – multi-agency, stakeholders (X2)
 - Northeast Water Stewardship Committee
 - Industry
 - Oil and Gas Commission
 - Institutional
- Establish a regional working group (i.e. Peace Watershed Council, Northeast Water Stewardship Action Committee) (X2)

One suggestion was to establish a Northeast Water Stewardship Action Committee (perhaps similar to the former Peace River Watershed Council or the Cowichan Watershed Board). We would need to work out government relationships. We don't have a clear understanding between First Nations governments and regional/local governments about rights, duties and how to interact. Therefore, it is difficult to join processes. Voices either get lost, or if heard, government doesn't implement the recommendations. Therefore First Nations try to have government-to-government relationships with decision makers. It is difficult to interact with others who do not have government powers or if government powers conflict with First Nations. Therefore need mutual understanding of who is responsible for water stewardship mandates. The Water Act Modernization process assumes that the province owns all the water and is fully responsible for management. Water on Indian Reserves is federal water. There is a provincial obligation to protect the source of that water. WAM has not included meaningful consultation with First Nations. It was noted that the Peace River Watershed Council was not mandated by the province but was

established by community as a facilitating body. First Nations were on this Council.

Actions for Government

- Modernize the *Water Sustainability Act*
- Clarify(?) government liability for water losses
- Empower local authorities through the *Water Sustainability Act*
- Establish independent Ombudsman to assess water problems experienced by land owners

Other

- There has to be a large public involvement to get government and industry to act on our concerns
- Data sharing should be made mandatory, including access to raw data
- Full disclosure on fracking fluids for baseline studies
- Funding to groups not only government positions (X2)
- Third party “independents”
 - Peer reviewed data
- Identify key common issues and goals (X2)
- Conduct an environmental assessment for massive gas pool areas – Montney Zone’s Horn River Basin

2. What are the key outstanding research questions that remain to be addressed to help resolve these issues?

Groundwater

- Characterizing the aquifers (shallow and deep)
 - Recharge, residency, water quality
- Connections between surface water and de-pressurization of deep groundwater should be examined.
- Aquifers should be mapped and quality determined. (X2)
- Is there a link between fracking and groundwater and what is it? (X2)

Water Supply and Demand

- What are the water demands in northeast BC? Is that sustainable?
- What is the water availability at low flows?
- Water demand / water supply studies.

Other

- Explore the advantages for local community authorities in current source water areas and how can we have real legislated authority versus enabled legislative authority.

- Research options to undertake a region-wide environmental strategic plan.
- Assess risks and vulnerabilities to water.
- Develop a method to track individual oil companies drilling activities. This should be developed before further drilling and fracking.
- Commission research to understand water rights.

3. Who is going to do what and when?

Research

- Hire students for summer support, especially for research:
 - Peer reviewed and often published
 - Increase partnerships
 - Less money but gain new stewards

Water Management and Governance

- Ministry of Environment should have oversight on all aspects related to the environment on Crown and private land with regards to industrial use.
- Regarding WAM – don't fast track it, but listen carefully to regional needs.
- Undertake research on how different regions can have real authority rather than enabling legislation or advisory bodies.

First Nations

- The First Nations Fisheries Council is looking at water for fish.
- The Leadership Council is working on a BC Water Strategy.
- First Nations participation in advisory bodies would be seen as downloading the duty to consult. Therefore we need more empowered rather than enabled bodies.

Elected Leadership

- Set a meeting with leadership (Mayors, Chiefs and Councils) in the region to discuss how are we going to do this? How are we going to get local MLAs to listen about the importance of water? We need to put aside our differences and work as a team. First Nations are stewards of the land but are perceived as the "bad guys" always trying to stop development. We are not so different. We all need water. We have to put aside our differences.
- It has been great to hear real stories from real people about how important water is. First Nations have been dealing with the provincial government on many issues, but there is not a single

place to address water. If water is such a key issue, we need to start pounding the door of elected representatives.

- We should not forget – it doesn't matter who you are. Water is our resource to protect. Make yourself heard by governments. Start with your own local elected officials and work your way up the ranks.

Organizing for Collaboration

- If you want First Nations to participate in a local/regional process, sit down and sort out relationships with First Nation leaders. Facilitate dialogues with municipal Councils. This dialogue needs to be grounded in respective roles (First Nations, provincial, local).
- Set up a Terms of Reference to describe how to address issues. This would help the various organizations figure out how to participate in a collaborative process.
- The people in the room want to have a governance role, not an advisory role. First Nations share this interest – a regional governance body responsible for water decision-making. Use this as the orientation for a Terms of Reference and articulate respective governance roles. We should start with the relationship among the parties in the room.
- The regional district is interested in being involved but does not want to be the lead responsible organization for "governing" water.

Setting Priorities

- There are a number of different groups that have different interests.
- A regional collaborative can start by exploring what issues need to be addressed and then take action.
- Is there one key water issue that we can all agree on? Protection of water. Then get agreement on the endpoint and the process to get there. Agree on a fundamental issue first.

Workshop Reporting and Follow-Up

- Prepare a synopsis of what we have heard and profile this through the media. Send it to the Premier. I.e. this is our reflection of what we heard.
- Get together again to continue dialogue and collaboration for action.
- Think about informal conversations and gatherings such as "blue drinks" events to talk about water issues.

4. How should these actions be resourced?

- The taxpayer-funded Geoscience BC could allocate some of its funding to look at shallow aquifers. Currently funding for research has been to support industrial growth not the people. This should fund work with no strings attached.
- 1% of all resource activity could be allocated towards a non-industry based fund for independent scientific research
- These actions should be resourced through the industries that desire them.
- Portion of royalties

5 CONCLUSIONS

This report reflects an initial scan of current water issues in the Peace Region as well as current and potential future actions that can be taken to address key water issues. The Fraser Basin Council invites workshop participants to share their feedback on this draft report to help refine the suggested actions.

Subject to interest, capacity and resources, it is envisioned that this initial dialogue may lead to further refinement of an action plan as a basis for collaboration to address priority water issues in the Peace Region.

The following are the near-term actions that were identified as the workshop wrapped up:

1. Workshop reporting and follow-up;
2. Convene a meeting of regional leaders (e.g. Mayors, Chiefs, Councils, MLAs and Regional District Board Chairs) to discuss water issues, interests, roles, responsibilities and suggested actions;
3. Explore ways to strengthen local and regional collaboration among the various agencies and organizations (including drafting Terms of Reference for such a collaborative process); and,
4. Setting priorities to work on together.

These near-term actions can help establish a foundation to address some of the bigger issues and advance more substantive progress with respect to water management in the Peace Region in the medium to long-term.

6 APPENDIX – Workshop Agenda

Workshop on Water Issues in BC’s Peace Region

Thursday, May 30, 2013
Pomeroy Hotel, Fort St John, BC

Workshop Objectives:

- Facilitate learning through knowledge exchange and presentations
- Develop a regional collaborative network of water resources stewards and practitioners
- Inspire and catalyze new work through networking, sharing of ideas and actions; and,
- Identify key research questions to address priorities and actions

AGENDA

8:30	Arrival and Refreshments	
9:00-9:15	Welcome and Introductions Welcome and Opening Remarks	Pat Pimm, MLA - elect Liz Logan, Tribal Chief, Treaty 8 Byron Stewart, Acting Mayor, Fort St John David Marshall and Steve Litke
	Introduce Objectives and Agenda	
9:15-10:45	Institutional Perspectives <ul style="list-style-type: none"> • Shannon Anderson, Peace River Regional District • Kristy Ciruna, Ministry of Forests, Lands and Natural Resource Operations • Don Irwin, North East Oil and Gas Health Advisory Committee • Liz Logan, Treaty 8 • Sheila Withrow, Northern Health 	What are the priority water issues in the Peace River region and what needs to be done to address them?
10:45	Refreshment Break	
11:00-12:00	Discussion Session: Advancing Action in the Peace Region Round table dialogues <ul style="list-style-type: none"> • What do you believe are the priority water issues in the Peace River region? • What actions are you advancing or would like to advance to address these issues? • What are some priority actions to advance through collaboration? 	
12:00	Lunch and Networking	
1:00-2:15	Community Expert Perspectives <ul style="list-style-type: none"> • Jackie Allen, Mile 162, Alaska Highway • Gwen Johannson, Hudson’s Hope • Richard Koechl, Fort St John • Reg Whiten, Dawson Creek 	What are the priority water issues in the Peace River region and what needs to be done to address them?
2:15-4:00	Facilitated Plenary Session <ul style="list-style-type: none"> • What actions must we take to address the issues? • What are the key outstanding research questions that remain to be addressed to help resolve these issues? • Who is going to do what and when? • How should these actions be resourced? 	