

Yukon Water Forum 2016

“The Water Cooler Conversations”

Workshop Summary Report



Prepared by:



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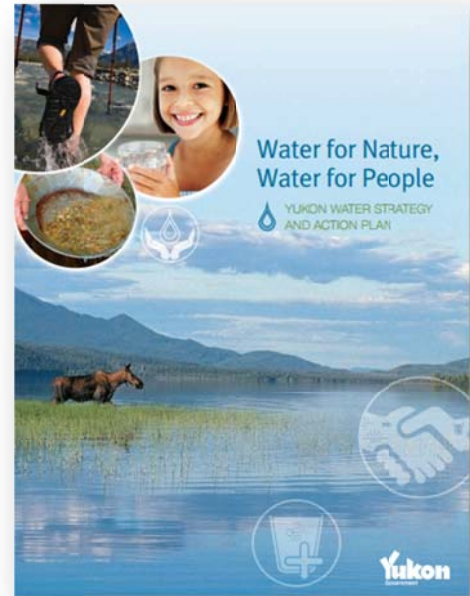
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I. Background and Context

Why do we have a Yukon Water Forum?

The Yukon Water Forum is a commitment in the *Yukon Water Strategy and Action Plan* (the ‘Strategy’ herein), which was released in June 2014. Throughout the development of the Strategy, Yukon government conducted an extensive stakeholder engagement process regarding water management and priorities within the territory. It was during this engagement that we heard it would be a good thing to come together annually or biennially to enhance cooperation, coordination and collaboration among water managers. Based on this feedback, the Strategy includes an action item to “host an annual or biennial Water Forum to exchange information, collaboratively address water issues and promote continuous improvements.”

In 2015, the Water Forum focused on gathering feedback on how to execute several of the 55 different action items from within the Strategy. This year, the focus shifted to build on the networking from last year’s forum and cultivate partnerships within Yukon’s water management community. This community includes water managers from federal, territorial, First Nation and municipal governments, as well as NGOs and boards and councils with water management responsibilities.



Work to be undertaken...

Enhance cooperation, coordination and collaboration with other water managers.

- Host an annual or biennial Water Forum in Yukon to exchange information, collaboratively address water issues and promote continuous improvements.
- Communicate more with First Nation governments regarding water issues in their traditional territories.
- Enhance intergovernmental communication on specific water issues such as flood risk and climate change.

or People YUKON W

Trying Something New

The 2016 Yukon Water Forum, “the Water Cooler Conversations” was held on **February 3 and 4, 2016** at the Kwanlin Dün Cultural Centre in Whitehorse, Yukon.

We tried a new format and approach at the forum. The approach was based on the notion that some of the best ideas – the ones that lead to real action – are shared during the in-between moments at work. Great conversations can



SELECT PARTICIPANT FEEDBACK ON FORUM APPROACH

Participant quotes from evaluation forms:

“The approach was a good way to facilitate interaction and spark ideas.”

“I got more from talking to people I did not know than from sitting watching a power point presentation. I gathered many ideas.”

“Participants were highly engaged (listening actively, asking questions, sharing ideas...). However, there were few visual aids, which could’ve enriched discussions...”

“Need to be out in communities and near water so that we are more aware and can give clearer stronger decisions in relation to WATER.”

“The forum was a great ‘one-stop-shop’ to learn about many water projects and challenges/opportunities.”

happen before a meeting begins or around the “water cooler”.

The format allowed participants to co-create the agenda based on topics and projects that are important to their organizations. The facilitation method is called the Art of Hosting (www.ArtofHosting.org) and it uses engaging methods to tap into participants’ knowledge and interests.



The Yukon Water Forum objectives were to:

- Identify and learn from stories of success and challenges;
- Share experiences and get help overcoming obstacles; and
- Collectively develop new approaches to projects and initiatives.

The facilitators guided participants through three sessions specifically designed to meet each of the three objectives and set out a path for a more coordinated, effective approach to water management in the Yukon.

The participants themselves developed the forum content – they brought their issues and needs forward to get turned into actions like starting/refining a project, linking up partners, providing the seeds for a broader Yukon-wide initiative or re-directing policies that impact them.



Who Came?

Sixty-eight participants attended the forum from a variety of organizations and communities throughout the territory. Participants represented a wide range of governments, NGOs, boards and councils, university and college researchers. This year a limited number of seats were reserved for industry representatives and consultants. For a complete list of participants, please go to **Appendix A**.

The participants brought a huge wealth of knowledge about water resources. Whether the participants' work is focused on Yukon's riparian zones, lakes and rivers, underground or the end of a pipe, each person brought relevant expertise rooted in some aspect of water management. Using the participatory approach, the participants were able to get both experts and community-based knowledge and feedback on any projects or initiatives that their organizations are working on.



In general, there was a very diverse group that attended. However, the municipal and First Nation water operators were under-represented in part because operator training courses were scheduled concurrently. We heard suggestions that the forum would benefit from youth representation and more First Nation elders next year. This feedback will be carefully considered upon planning the 2017 event.

Water Forum Report Purpose and Content

This report speaks to the forum process and content that emerged, the successes, learning points, wide range of feedback and where and how we turn the work at the forum into action. It highlights some of the main ideas and concepts heard throughout the day and a half. The content is organized by the three facilitation methods used during the forum:

1. **Collective Story Harvesting;**
2. **Open Space; and**
3. **Pro-action café.**

Because of the participatory approach used we thought it would also be useful to report on what we heard from participants about the effectiveness of *each* method; what they brought to it, and learned from it. Since the focus of this forum was to help individuals launch, re-tool or re-direct their own water projects, initiatives or policies, some next steps and follow up actions are also included.



II. Introduction to the 2016 Water Forum Process

In advance of the forum, participants were encouraged to think about the following two items and be ready to bring them forward for discussion at the forum:

1. a water project that you are just starting or have been working on where you could use some help; and/or
2. a conversation that you are keen to have with other colleagues in the broad field of water management.

During the forum, three of the Art of Hosting participatory methods were used to engage and explore ideas together, help advance conversations, and encourage collaboration among water managers attending the event. These methods are described below:

1. Collective Story Harvesting (Day 1 Morning)

A number of pre-selected participants were given a set amount of time to tell a story (without a prepared presentation such as power point) to a group of dedicated listeners, each of whom has been tasked with listening for a thread or a theme in the story. The listeners then shared what they heard back to the small group, followed by a discussion of the common thread “learnings” with the whole group.

This process is sometimes used to replace a traditional set of keynote presentations. It supports targeted listening skills and group learning through the threads of the story that are simultaneously tracked. The method helps both storytellers and listeners identify insights and innovations because they naturally connect more easily through the story format.

2. Open Space (Day 1 Afternoon)

Open Space is a process that allows participants to co-create an agenda of breakout sessions. The conversations had a pre-set amount of time and participants rotated through multiple conversations during a session. The conversations happened in self-organized small groups and the results were documented and shared. This process has the advantage of instantly creating a conference program that reflects the topics that are top of mind for the people in the room. It is intended as a powerful networking and learning method, as participants are free to post topics for discussion and attend the sessions that are most important to them.



3. Pro-action Café (Day 2 Morning)

Participants were invited to bring their project, ideas or questions forward to the group and, in turn, they got help from the group to advance their work or answering their question. This action-based process is used to accelerate ideas and projects by creating a chance for participants to coach one another in project development.

It is intended to use the collective intelligence of a group to coach and support the evolution of work. The hope is that participants will leave with a deeper understanding about their projects and some concrete next steps for moving it along.

Additional information about the processes is available through published guides. These guides are available upon request from Water Resources Branch, Environment Yukon at (867)-667-3171 or email at water.resources@gov.yk.ca.



III. 2016 Water Forum “The Water Cooler Conversations” Components

A. Collective Story Harvesting

Nine participants at the forum were invited in advance, to tell a 30 minute “water” story from a first person perspective to a group of six to eight people. They were instructed to focus the story around a water project, activity, or process from the past or present. The story could highlight successes, challenges, failures, re-directions, dormant periods, etc. They were encouraged to answer the following questions through the story telling: What happened? How did it happen? Why does it matter?

The following stories were presented:

1. ***Groundwater in the Ni’iinlii Njik (Fishing Branch) Territorial Park***

- A story of how a partnership between VGFN, Environmental Dynamics Inc. (EDI) and Yukon government developed based upon a concern for salmon survival and an exploration of the groundwater conditions in Ni’iinlii Njik Territorial Park
by John Miller, Hydrogeologist, Water Resources Branch, Environment Yukon

2. ***Developing a Vuntut Gwichin First Nation (VGFN) Water Strategy***

- A story about how VGFN is taking steps to develop a water strategy to guide water management in VGFN’s Traditional Territory.
by Rosa Brown and Erika Tizya, Natural Resources Branch, Government of VGFN

3. ***Building Partnerships to Better Understand Lake Vulnerability***

- A story about the evolution of research on the hydrology in the Old Crow Flats and the relationships/ partnerships that were formed.
by Kevin Turner, Assistant Professor, Brock University
- 4. Building capacity in NWT aquatic monitoring**
 - A story about identifying the need for community monitoring in the NWT and how the community-based aquatic monitoring program for the NWT was developed.
by Katherine Trembath, Government of Northwest Territories
 - 5. Next Generation Hydro**
 - A story about finding a renewable energy- hydro - solution that will meet the needs of Yukoners 20 to 50 years from now.
by Lisa Badenhorst, Yukon Development Corporation
 - 6. Water: In the Eyes of the Beholder**
 - A story about the evolving relationship between the regulatory regime and First Nations’ holistic vision of ecosystems, their focus on water and natural boundaries on maps.
by Bob Van Dijken, Council of Yukon First Nations
 - 7. Water Temperature Monitoring and Open Access to Data**
 - A story about the need for determining how annual fluctuations in water temperature and flow data affect fish habitat.
by Al von Finster, Fisheries Biologist
 - 8. Everything Old is New Again**
 - A story about using one’s work and life experience to guide the development of a large-scale project that moves the important components (community, capacity, etc) to the front.
by Allison Rippen Armstrong, Kaminak Gold Corporation
 - 9. Community Hazard Reports**
 - A story about the evolution of hydrological research in the Yukon.
by Bronwyn Benkert, Northern Climate Exchange

The story listeners were instructed to listen to one of the following threads:

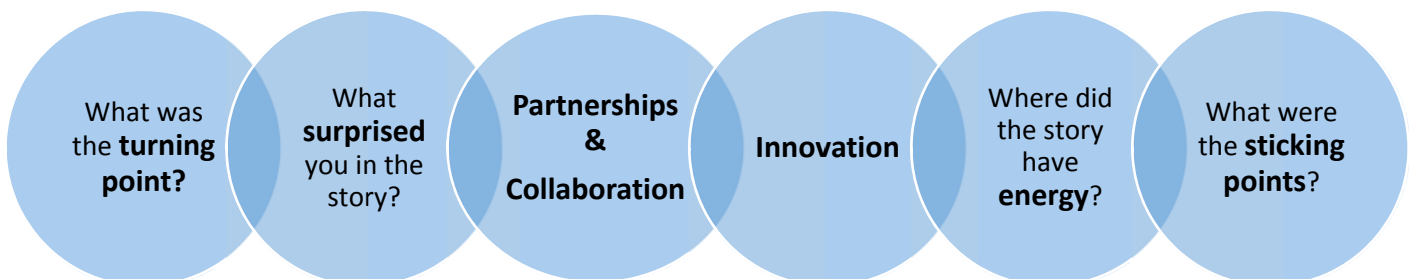


Figure 1. Story Threads

The story listeners then shared what they heard and learned from the story with the story teller and the other listeners in their group.

From there the room was divided into “thread groups” (Step 2 in the below illustration) where participants shared what they heard and collectively developed a set of common elements and patterns.

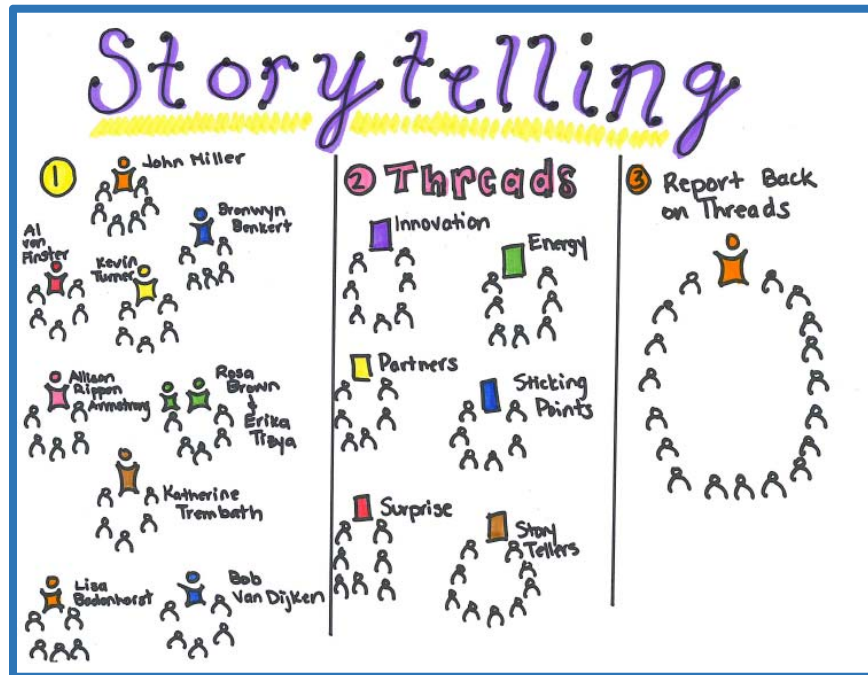


Figure 2. Collective Story Harvesting Process

The thread groups were asked to present three to five key elements or patterns to the whole circle (Step 3). These key elements are summarized on the following page. Some groups brainstormed a broader list and then prioritized. An example of a brainstormed list for the *Innovation Thread* is captured below:

Table 1. Innovation Thread Brainstorm

INNOVATION	
What are we learning about how innovation happens?	
<ul style="list-style-type: none"> • Leader to spearhead initiative • Team to procure funding – partnerships with outside groups • Unique/innovative techniques to gather TK & scientific Knowledge • Holistic approach to EA (cumulative effects) • Following First Nation practices • Proactive data collection & storage • Proactive recruitment of outside experts to facilitate communication • Need for data that didn't already exist • Using existing technology in new ways • Creating training • Passionate leadership 	<ul style="list-style-type: none"> • Finding new & innovative ways to collect data • Traditional Knowledge incorporation • Collaborating between disciplines (removing silos) • New technology (e.g. drones) • Looking at broader data sources • Backing by a resource-rich group (government vs. NGO) • Look for consensus from ground floor to secure buy-in • Communication materials that bring together imagery + data (calendars, posters etc.) • Empowering the community to answer their own questions (building community capacity) • data sharing – groups collecting for other reasons

Common Elements and Patterns reported by the Six Thread Groups

Surprise

- surprise elements often translate to "challenges you don't expect"
- these challenges can simply be linked to how language and terminology is used and interpreted
- surprise elements can create opportunities for engagement and partnership-building
- surprise elements can be used to harness human or financial collaborations

Innovation

- requires passionate leadership
- requires risk-taking and pioneering new techniques and approaches
- in general innovation is needed in data management and integration of traditional knowledge
- many stories had elements of innovative training and capacity building or identified the need

Energy

- solutions and successes keeps people excited about projects
- leadership, happening at all levels, builds momentum
- relationships -- partnerships and collaboration -- keeps people engaged
- there is inertia in the growing interest in the vital importance of water & access to clean water

Turning Points

- positive project turning points relate to how well the proponent LISTENS to people / communities
- listening allows identification of the problems that people really care about; and builds trust that opens doors to collaboration and effective project adaptation
- once critical issues - that people care about - are identified then access to funding, resources, etc. happens
- effectively navigating around turning points leads to successful outcomes

Partnership & Collaboration

- RESPECT is at the heart of this thread.
- the time and energy needs to be put into building relationships in order for partnerships to really thrive
- communication needs to be OPEN; not one way
- listening respectfully may directly lead to better ways of doing things and adapting project components
- it is important to broadly share information

Sticking Points

- what communities want doesn't always align with the demands of the 21st Century
- there is limited capacity to deal with increasingly complex issues around balancing development with cultural and environmental protection

Story Teller Experience

- the story tellers conceded that 30 minutes seemed daunting but not once the story was underway
- they liked that the onus of the story telling experience was shared with the listener through their feedback
- they all appreciated and learned from the direct listener feedback and liked that devices were shut off
- like the story tellers, the listeners often related personal insights/experiences as part of their feedback

The following pictorial summarizing the story telling harvest was produced from the participants' work:

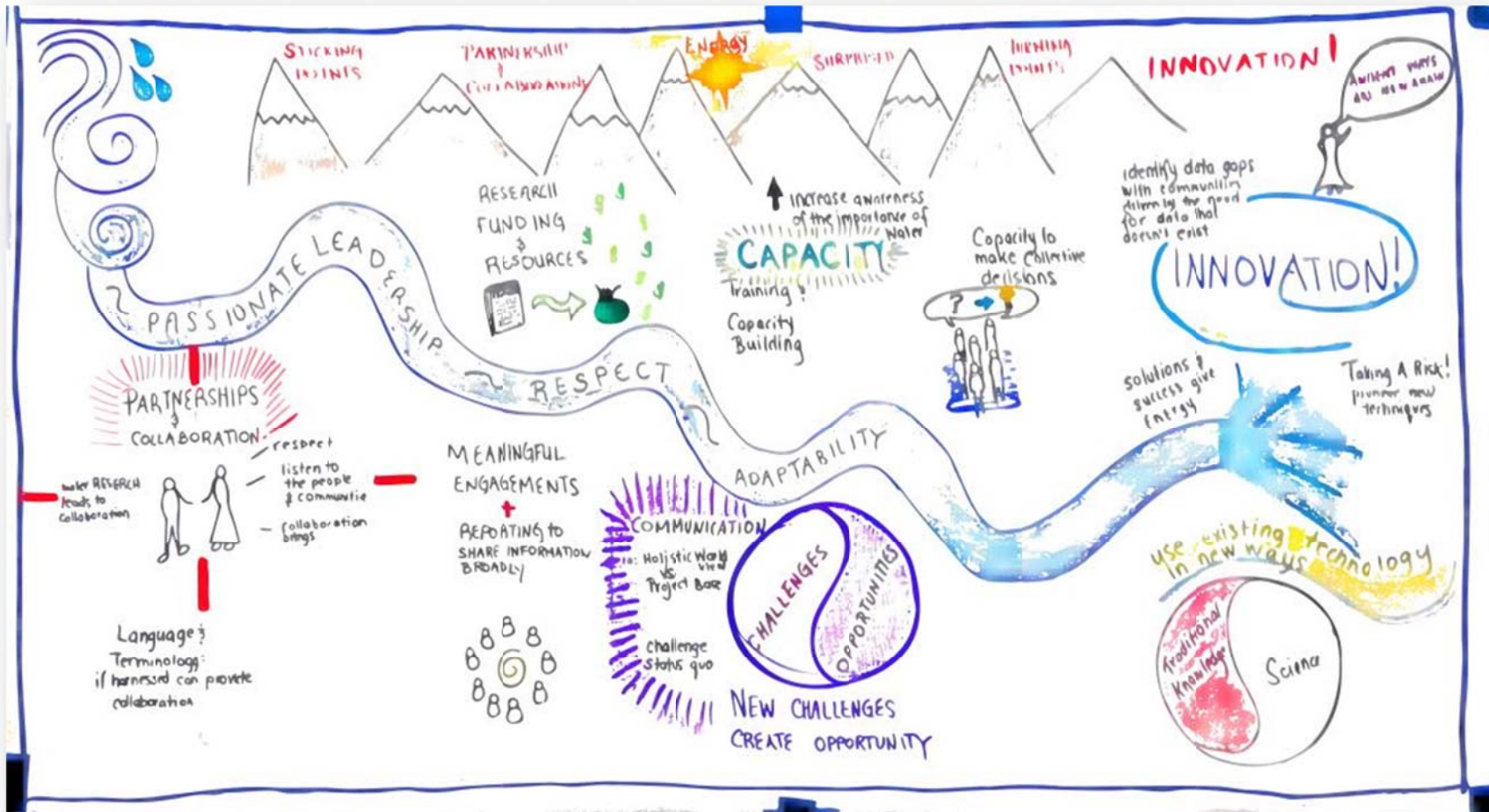


Figure 3. Collective Story Harvest Outcome

B. Open Space

Participants helped to co-create the agenda for the afternoon. The Open Space process was used so that individuals or organizations could bring forward questions or topics that they would like to discuss and use the wealth of knowledge in the room to move projects or ideas forward. Participants who put topics forward then hosted a breakout session on the topic identified. This allowed for flexibility in the agenda as participants were free to both post topics for discussion and pick sessions to attend that were most important to them. In total, over the course of two sessions, 20 different topics were hosted on a wide variety of water-related topics (Table 1).

Table 2. Open Space Topics Posted

Topics or Questions from Session 1	Topics or Questions from Session 2
What should future Water Forums look like?	Sewer sludge and biosolids: are the current management and regulations adequate in the Yukon? Is there room for innovation? Would you use it as fertilizer?
We need to know the importance of our groundwater aquifers.	Are there sufficient measures in place to conserve wetlands?
We've heard about the importance of collaboration. How do we balance collaboration and lack of time/money and resources?	What support do water and wastewater operators need?
Community lagoon: ducks, geese, leakage into the streams and rivers and underground waters.	What are potential water science collaborative research projects in the Yukon?
What should a community monitoring program look like in Yukon?	How can we build on TK or traditional ways of doing research to design projects for and by communities?
Community learning about and conducting water quality analysis.	What do you know or want to know about contaminated sites in the Yukon?
How to fix the situation with the groundwater in Keno City?	Why do we need so many Yukon Government departments and branches that deal with various aspects of the same topic? Water use, water data, water research. Isn't the public confused?
What are the most effective ways to communicate the technical aspects of water science to broader audiences?	Why do you want to pollute the water and then try to fix it?
There are a lot of good water resources in VGFN traditional territory. How do we do a better job of working with researchers and research data to frame and inform management?	Chapter 14 of UFA states First Nations have the right to substantially unaltered water quality/quantity on /adjacent to settlement lands. What does substantial mean to you?
Yukon First Nation Water Authority, like the Atlantic Region. How do we move forward?	With millions and billions of dollars in projects, why is it so difficult to get "industry" to simply "do better?"

Sample of Open Space Discussions

Below, we have highlighted some of the discussions that were documented on the topics or questions brought forward by the participants.

How to build on Traditional Knowledge and indigenous ways to design projects for and by communities?

Host

Dr. Amelie Janin, Yukon Research Centre

Discussion

This is a very complex issue but it was noted that incorporation of TK builds trust and respect between peoples and government. As such, we should work together with an open mind, bringing together the two sides of the story, the western science way and the traditional knowledge.



We need to know the importance of our groundwater aquifers.

Host

Coralee Johns, Laberge RRC

Discussion

It is important to have information about groundwater (e.g. direction of water flow and mapping aquifers) in order to evaluate the impacts of potential sources of contamination. The surface water and groundwater interaction needs to be better understood.

What should community monitoring look like?

Host

Erin Light, Environment Yukon

Discussion

The extent of community monitoring should be commensurate with funding. Funding and partnerships are key and there are many different partners. Reporting is also an essential element and the community should get the data first.



Are there sufficient measures in place to conserve wetlands?

Host

Jamie Kenyon, Ducks Unlimited

Discussion

Discussion focused on what values were important to people regarding wetlands. Issues that were identified to help conserve wetlands included monitoring wetland health / contaminants; inventory of wetlands; inclusion of wetlands in proposals.



Chapter 14 of the UFA states that First Nations have the right to substantially unaltered water quality and water quantity on and adjacent to settlement lands. What does substantial mean to you?

Host

Jean Beckerton, Environment Yukon

Discussion

A very focused question, but a huge discussion. This discussion was around how to determine what 'substantial means'. In order to make a determination, good baseline data is required. This sets the foundation for understanding impacts of climate change on water resources. However, there are questions around the responsibility for establishing baseline.

What do you want to know about contaminated sites in Yukon?

Host

Brendan Mulligan, Environment Yukon

Discussion

There is a desire for more information on contaminated sites online and easily accessible by the public. Said information should include a map and list of contaminated sites in Yukon and facts on how contaminated sites are regulated and how the clean-up is prioritized (and at what cost).





What are potential water science collaborative research projects in Yukon?

Host

Dr. Kevin Turner, Brock University

Discussion

It is important to define the question and this often depends on priorities for the funding agencies. Some of the topical issues surrounding water include:

- Permafrost and water
- Landscape changes
- Industrial development

Community members, including youth, should be involved with the projects.

Sludge and Biosolid Questions

Host

Ethan Allen, Core Geoscience Services Inc.

Discussion

Sewage sludge is a potentially valuable commodity for agriculture, reclamation or energy. Yukon is facing an impending necessity to deal with sewage sludge from municipal sewage treatment systems. Management options are limited due to public perception issues.

Education and discussions about the facts will alleviate public fear and make more innovative and sustainable uses of biosolids. Who will lead these necessary conversations? Perhaps it is the right time to develop Yukon guidelines and regulations around sewage sludge.



What are the most effective ways to communicate the technical aspects of water science to a broader audience?

Host

Jane Bachman, Environmental Dynamics Inc.

Discussion

Effective methods to communicate the technical aspects of water science to a broader audience begin with establishing relationships with water scientists. To communicate the technical aspects of water science and developing them into effective management actions requires a commitment to educating the people who are making management decisions. Access to easily understood data is critical and map based access to data is important.

C. Pro-action Café

Eleven participants brought forth projects to be worked on, and they were guided through two rounds of coaching, joined by three to five other participants. Each round took participants and project hosts through specific questions:

Round 1

- What is the quest behind your question? What is the purpose of your project?

Round 2

- What is missing? What would make your project better?
- What help do you still need? What are your next steps?

Discussion summaries from the eleven groups are provided in the table below:

Table 3. Pro-action Cafe Project Discussion Summaries

Topic	Host/Contact	Summary	Next Steps
I. How should I approach engaging/training First Nation youth in environmental monitoring programs?	Christiane Buie SLR Consulting	<ul style="list-style-type: none"> • Work with the FN human resources manager to identify interested candidates; • Develop a job description that is not overly technical, and focuses on land management and stewardship; • Set-up training program with goals and objectives that would help guide performance expectations. 	Will use the outcome of this session to help guide future work on environmental monitoring programs
II. How to get water data out there?	Tyler Williams Water Resources Branch, YG	<ul style="list-style-type: none"> • Start with the simple datasets. • Graphics and interactive maps are very effective but require good data and dedicated resources (human / \$). • Issues are numerous and include: data ownership; data quality; and data access. <p>Consider:</p> <ul style="list-style-type: none"> • following lead of other jurisdictions; • using open data platforms /expertise; and • using data management contracts. 	WRB to advance discussions about data management, collaboration, and other partners with Cold Climate Innovation Centre and expertise at H&PW-Electronic Services Branch

Topic	Host/Contact	Summary	Next Steps
III. How to set up a source water protection framework for the Yukon?	Laura Prentice Water Resources Branch, YG	<ul style="list-style-type: none"> • Create a living drinking water source protection process (not a “plan”) that is map-based and contributes to other water information needs; • Tie to community actions and community life and engage people in the community first; • Link to existing planning processes – regional, OCPs, LAPs etc; • Needs a living water resources on-line mapping platform /atlas for info access. 	Pro-action café outcomes have been provided to Community Services, who is leading Water Strategy action on source water protection.
IV. Innovative enhancement projects	Bronwyn Benkert Brian Horton Northern Climate ExChange	<ul style="list-style-type: none"> • Need private sector partners. • Need to find ideas and craft research questions that are relevant to project partners. • Climate projections feed into the research focus and questions that need to be investigated. • Data management will play a large role. • Mobile labs may support training, monitoring and other activities that support research. 	Will advance some of these ideas to help grow research beyond limits of funding when applying for funding programs.
V. What should the next water forum look like?	Erin Light Water Resources Branch YG	<ul style="list-style-type: none"> • Go to other communities. • Do a water roadshow for larger forums • Use a pro-action café for smaller expertise-targeted groups • Find tools to engage youth. • Start the roadshow at the headwaters and move downstream. 	Ideas and next steps are provided in Section VII, in this report.

Topic	Host/Contact	Summary	Next Steps
VI. Guidelines for Small Drinking Water Wells	Tamra Reynolds Golder Associates	<ul style="list-style-type: none"> • Do a jurisdictional scan • But then talk to people – drillers, regulators etc – to ground truth; get feedback about what is/ isn’t working. • The scope of work is beyond permitting; it includes information/data gathering and education. The idea of a ‘water permit’ to capture all activities – septic installs, drilling etc—that could impact water quality—was brought forward and needs more exploration. • The concept of what makes water clean and individual responsibility is a large area of work. • Regional mapping to start to build and map out our knowledge strengths and weaknesses. 	Will include these steps and considerations in current contract to develop these guidelines.
VII. Certifying water & wastewater operators	Elise Bingeman Infrastructure Development Branch, YG	<ul style="list-style-type: none"> • Currently operators are at the right certification level but we need to take a long term focus to address broader issues. • Need a collaborative model with the operators, trainers, funders, and regulators. 	The Operator Training Program at the College has been funded for an additional 3 years. Discussion of longer term, broader training/ certification issues should be included in this program.
VIII. Keno drinking water issue	Leo Martel Community of Keno City	<ul style="list-style-type: none"> • We’ve have an on-going drinking water quality issue. • I was hoping to find some answers here but with all the layers of government there is no easy solution. • We’ve had some discussions with researchers at the College and maybe they 	Community Services will continue to monitor the quality of water from the Keno community well in order to build a sufficient dataset to inform next steps. Community Services will continue to share test

Topic	Host/Contact	Summary	Next Steps
		can help us.	results with Keno residents.
IX. Management and use of sewage sludge	Ethan Allen Core Geosciences	<ul style="list-style-type: none"> • There are a lot of ick factor concerns with this topic. • No clear pathways were identified but some good contacts were made to advance further discussion about this topic. 	A public education campaign needs to be part of any next steps
X. VGFN Water Strategy	Rosa Brown Erika Tizya VGFN	<ul style="list-style-type: none"> • VGFN staff are looking at ways to build capacity and training opportunities for environmental monitors to support community-based water monitoring and other services in Old Crow through the development of their Water Strategy. 	To include discussions with WRB-YG to look at piloting water monitoring projects with VGFN in the Old Crow area.
XI. Next Generation Hydro	Lisa Badenhorst Yukon Development Corporation	<ul style="list-style-type: none"> • Was unable to present the outcomes to the whole group. 	The discussions will be considered in future steps of the Next Generation Hydro process.

SELECT FEEDBACK ON THE FORUM COMPONENTS



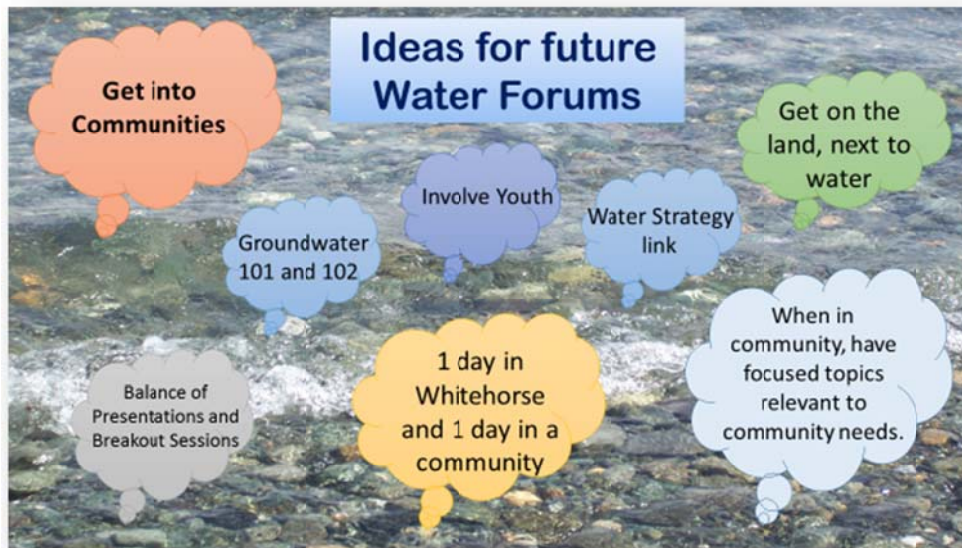
IV. Vision for Future Water Forums

Future Water Forums must meet the main criteria outlined in the *Yukon Water Strategy*, which is to “...exchange information, collaboratively address water issues and promote continuous improvements”. We recognize that there are many ways this can be accomplished. The 2015 and 2016 Water Forums are examples of how different the approaches can be. We went from heavy presentations and intense work planning in 2015 to a very free approach (agenda that was set collectively) with heavy dialogue and limited presentations this year.

Based on the feedback from forum participants received at a Pro-action Café table about future water forums, as well as from the evaluation forms, the overall recommendation is that it is best to find a middle ground between the two contrasting approaches taken in 2015 and 2016. Some ideas brought forward include (shown in image below):

- Get into communities and outside of Whitehorse;
- Involve youth as they are the future;
- Get on the land next to water as being next to water always helps bring clarity and focus;
- Have a balance of presentations and breakout sessions;
- One day in Whitehorse and take a smaller group out to the community (based on community needs, the right people can be selected);
- When in a community, ensure that the topics are based on the needs of community members;
- Link content back to the *Yukon Water Strategy*; and
- Have a groundwater 101 and 102 as this is still an emerging issue.

Figure 4. Illustration of Water Forum Ideas



The Strategic Waters Initiatives Group (SWIG) is an internal working group within YG that is responsible for coordinating and facilitating the implementation of the *Yukon Water Strategy* in accordance with its vision, principles and goals. SWIG will take these suggestions when planning for the next water forum.

V. What We've Heard and What We've Learned

Our goal at this forum was to harness collaboration, launch new partnerships and infuse energy into existing water projects. Like any event, we heard a wide range of feedback from the forum. Overall, the forum was well-received, similar to 2015.

Some overall impressions, based on the forum evaluation forms are summarized here:

- In general, participants appreciated the participatory approach of the forum and thought that the best path forward is to mix participatory methods with the content and visuals that were part of the 2015 Water Forum;
- We heard that some people would like to link back to the *Yukon Water Strategy* to hear about all of the great work that has been done;
- Some smaller communities of practice within the broader water manager audience— a number of the researchers and scientists in the room – reported that the conversational approach used throughout the forum could work particularly well to coordinate scientific work;
- We heard that it would be great to have more information coming into the forum so that each person could have maximized utility of the participatory method;
- Many participants reported feeling apprehensive about the large circle plenary format at first but concluded it allowed for a more casual atmosphere and a more level playing field, conducive to information sharing;
- Participants noted there was a broader range of participants including Elders and consultants/industry and moving forward it would be nice to have more Elders and youth involved;
- Most participants seemed to connect the most with the Collective Story Harvest (first morning session);
- A higher percentage of participants didn't stay for the whole forum compared to the 2015 forum. A number of people noted that they were only able to participate for one of the days.

All of this feedback was very useful and appreciated. Your thoughts will be used when developing the next forum. Please contact Water Resources at 667-3171 or water.resources@gov.yk.ca for a complete Evaluation Summary Report.

VI. Summary of Water Management Issues

Water issues and water management –water stories in its many forms—are priorities for all levels of government, multiple organizations and important to all Yukon citizens. Water is interwoven into the cultural fabric of all Yukon First Nations. However, water by its fluid, expansive and mutable nature is truly challenging to “manage.”

As part of reviewing what was learned from this year's forum we tried to identify some common and often intersecting issue areas that:

- span the broad water resource management field;
- extend beyond individual agency mandates; and
- require a long term approach to begin to address.

These issue areas require collaborative approaches to ensure work is effective and far-reaching, and complements existing projects or programs. In the issue areas identified, there is limited to extensive work already being done. This current or past work isn't summarized here but it is assumed that it would provide the starting points – the sharing of knowledge—to advance collaborative work in these areas.

We reviewed the content brought forth at this year's forum, the presentations from the 2015 Water Forum and evaluations from both in order to identify and summarize these issue areas. We are highlighting our findings here to help identify some starting points for future forums and areas for collaborative work going forward.

1. **Water Data Management** is a diverse area of work requiring general programs and focused projects to improve our knowledge base. Some highlighted needs are:
 - Mapping out where some types of water data (and who “owns” it) is currently available
 - historical and current data, data collection points and methods, data gaps and overlaps, data owners, active networks;
 - there are many water managers (and data collectors/owners) and who does what, where needs to be determined and shared so that we can look at how we can better coordinate resources and efforts;
 - Establishing data needs – ascertaining data needs by a variety of categories – agency/group, water resource component (groundwater, water flows, etc), watershed/ geographical area, project or project type, etc.;
 - Assessing data gaps – by matching data available with data needs begin to map out data gaps;
 - Improving access to and use of data – development of appropriate access portals, distribution interfaces, data integration platforms and foundation products (e.g. hazard mapping);
 - Tracking water work -- tracking of monitoring networks (short and long term), baseline study programs and targeted research Yukon-wide will enable program and project benefits to multiply through data and knowledge sharing, and data integration.

2. **Community Engagement, Participation and Capacity Building** around water management issues are, collectively, an increasing priority for all levels of government. Changes to hydrological regimes and Yukon communities' ability to forecast the changes and adapt to them is an area of increasing study and need. Community members have a depth of knowledge and some of the clearest and most direct questions related to the changes they are seeing. Tapping into this knowledge and targeting research to answer community-based and science-based questions is essential and involves multiple approaches, such as:
 - Skills training for water monitors living in communities, to complement their traditions and land-based skills, and expand local operation of long term water networks;
 - On-going training of water operators (and back up operators) to maintain and upgrade skills;
 - Community-directed and/or influenced research programs;
 - Community contribution to baseline study program design for industry and government; and
 - Community-based water monitoring programs to target baseline studies and targeted research.

3. **Water** needs to be considered in a **more deliberate, comprehensive and pro-active way in Planning and Regulatory Assessment processes** (regional, community, project-based, regulatory—e.g. YESAA, Water Licensing). Drinking water, headwaters, wetlands etc are often identified as priorities during planning processes for communities or projects but planning processes don't necessarily target appropriate or effective water data collection and protection measures. The following approaches may help address this gap:
- Integrating source protection planning components (e.g. contaminant source/hazards, water source and water use mapping) within existing planning processes – regional, official and local area planning would be a good start to increasing community knowledge about water source vulnerabilities and protection;
 - Improving baseline water monitoring in advance of specific industry projects or in areas of known/anticipated change (e.g. climate change impacted areas); and
 - Creating living water source protection planning processes as opposed to a “plan” that could be hosted regionally (by community or watershed?) with regions linked by common web-based platforms. These sites/platforms could be map-based and expandable as projects and initiatives come on line and map content and layers are added. Because source protection planning requires a broad spectrum of water, contaminant and land use mapping and modelling, the associated information would provide a natural repository of water data for other uses.

VII. Next Steps and Follow Up

Water management in Yukon is shared between Government of Canada, Yukon government, First Nations, municipalities and boards and councils. Non-governmental organizations also have an interest in water management. Partnerships, collaboration and coordination are critical and this type of forum is a vital means to ensuring gaps are addressed and opportunities for doing things better are seized.

The work that Yukon's water managers do together and individually is important. They put the ideals of sustainability and aquatic ecosystem health, safe drinking water into practice and they are at the front lines of ensuring safe and sufficient water for Nature and for People, which are appropriately the two goals of the Yukon Water Strategy.

Whether the goal is to find more funding, find a more innovative approach, provide more accessible information, working together, across boundaries will always lead to more sustainable and successful outcomes. That is what this forum is all about.

Yukon government through The Strategic Waters Initiatives Group (SWIG) will be following up with the leads of the Pro-action Café in the months ahead in order to report on and, where appropriate, support their work.

We will be designing and planning future Water forums using the feedback provided in this report and reaching out to water managers to help refine the structure and the format.

For more information, please contact the Water Resources Branch, Environment Yukon at (867)-667-3171) or email at water.resources@gov.yk.ca. The report will be made available on YukonWater.ca.



Appendix A – Participant Organizations

Organizations represented at the 2016 Yukon Water Forum include:

Bolded Organizations = Attended the forum; others listed were invited but were unable to attend

Federal Government

Health Canada

Aboriginal Affairs and Northern Development

Department of Fisheries and Oceans

Environment Canada

Territorial Governments

Department of HSS

Executive Council Office

Department of Community Services

Department of Economic Development

Department of Energy, Mines and Resources

Department of Environment

Department of HPW

Yukon Development Corporation

Yukon Energy Corporation

Yukon Water Board Secretariat

GNWT -- Water Stewardship

First Nation Governments

Champagne and Aishihik First Nations

Gwi'chin Tribal Council

Inuvialuit Regional Corporation

Ta'an Kwäch'än Council

Taku River Tlingit First Nation

Teslin Tlingit Council

Tetlit Gwich'in Council

Vuntut Gwitchin FN

Carcross/Tagish First Nation

First Nation of Na-Cho Nyak Dun

Kluane First Nation

Kwanlin Dün First Nation

Liard First Nation

Little Salmon Carmacks First Nation

Ross River Dena Council

Selkirk First Nation

Tr'ondek Hwech'in

White River First Nation

Boards and Associations

Yukon Fish and Wildlife Management Board

Yukon Land Use Planning Council

Yukon Minerals Advisory Board

Yukon River Intertribal Watershed Council

Yukon Salmon Sub-Committee

Association of Professional Engineers Yukon

Association of Yukon Communities

Council of Yukon First Nations

Mackenzie River Basin Board

TIA Yukon

YESAB

BC Water and Wastewater Association

Whitehorse Chamber of Commerce

Wilderness Tourism Association of Yukon

Yukon Agricultural Association

Yukon Chamber of Commerce

Yukon Chamber of Mines

NGOs

Yukon Conservation Society

Friends of McIntyre Creek

Ducks Unlimited Canada

Marsh Lake Community Society

Utilities Consumers Group

Canadian Parks and Wilderness Society Yukon

Keno Community Club

Resource Councils

Alsek Renewable Resources Council

Carcross Tagish Renewable Resource Council

Carmacks Renewable Resource Council

Dan Keyi Renewable Resource Council

Dawson District Renewable Resource Council

Laberge RRC

Mayo District RRC

North Yukon RRC

Selkirk RRC

Teslin RRC

Municipal Governments and LACs

City of Dawson

City of Whitehorse

Town of Faro

Town of Watson Lake

Village of Carmacks

Village of Haines Junction

Village of Mayo

Village of Teslin

Tagish Local Advisory Council

South Klondike Local Advisory Council

Hamlet of Ibex Valley

Hamlet of Mount Lorne

Marsh Lake Local Advisory Council

Researchers /Educators

Northern Climate Exchange

Yukon College

Yukon Research Centre

Brock University

Consultants and Industry

Aperture Consulting

Associated Environmental Consultants

Core Geoscience Services

Environmental Dynamics Inc.

Golder Associates Ltd.

Hemmera

Kaminak Gold Corporation

SLR Consulting