

ALBERTA WATER COUNCIL

MEETING #51

June 25, 2019

McDougall Centre, Calgary, Alberta

Executive Summary

This general meeting of the AWC board was convened immediately following the 2019 AGM, which is documented separately. The board welcomed Morris Nesdole, the new alternate director for WPACs, and John Van Ham, who is returning to the board, now as the alternate for Alberta Innovates.

Updates were provided on two AWC projects. The Protecting Sources of Drinking Water in Alberta Project Team has completed drafts of two key documents (a companion report on the team's work and the Guidance Document) and both have been through one round of sector engagement. Round two will take place over the summer and the final report is expected to come to the board for approval in November. The *Water for Life (WfL)* Implementation Review Committee has begun the AWC's sixth review of the *WfL* strategy and terms of reference for this review were approved by the board.

The board also heard three very informative presentations on:

- Alberta Innovates Water Innovation Program (WIP). Projects supported through the WIP fall under four key themes: 1) future water supply and watershed management, 2) healthy aquatic ecosystems, 3) water use conservation, efficiency and productivity, and 4) water quality protection.
- The Environmental Law Centre (ELC) and some of its recent work. The ELC's mandate is education and law reform. Two recent water policy documents produced by the ELC were the focus of the presentation.
- Advancing Canadian Wastewater Assets (ACWA), which is a collaboration between the University of Calgary and the City of Calgary. ACWA is integrated into the Pine Creek Wastewater Treatment facility in Calgary, and also has four labs that deal with analytical, stable isotope, aquatic and microbiology aspects.

After hearing two statements of opportunity (SOO) for potential new work, the board decided to establish a working group to develop terms of reference for a drought simulation project that would come forward to the November board meeting. Several board members also agreed to informally provide feedback to the proponent of the other SOO on revising Alberta's Lake Stewardship Reference Guide. Given the new provincial government's focus on reducing red tape and striving for regulatory excellence, a director volunteered to lead discussion within the Industry caucus regarding drafting a SOO focused on regulatory excellence for discussion by the board via email.

The next board meeting will be held November 8th in Edmonton, with a celebration of the AWC's 15th anniversary the evening before.

Summary of Discussion

Jay White convened the board meeting at 9:20 a.m. immediately following the AGM.

1 Administration

1.1 Welcome, Review Health and Safety, Approve Agenda

The Chair reviewed the agenda, which was adopted.

1.2 Action Items from Last Meeting

There were no administrative action items from the last meeting.

1.3 Summary Report from February 28, 2019 Meeting

The summary report was approved by consensus.

Decision 51.1: The summary report for the February 28, 2019 meeting was adopted by consensus and will be posted to the website.

1.4 Authorize Executive Committee to Allocate Unspent Project Funds

The executive committee proposed a process to address this matter as described in the briefing package.

Decision 51.2: The board agreed by consensus to authorize the executive committee to allocate AWC's unspent project funds.

2 Protecting Sources of Drinking Water in Alberta Project Team Update

Phil Boehme provided an update on the work of the Protecting Sources of Drinking Water in Alberta project team. The team has synthesized source water protection (SWP) practices, processes, and risks for drinking water in Alberta and documented complementary source water-related initiatives. A jurisdictional scan was also completed by a consultant and Phil briefly presented some of the approaches used in other places, their relevance to Alberta, and some of the lessons learned. The team has prepared a SWP guidance document and a companion report with information and analysis from the various pieces of completed work. Documents have been through one round of sector engagement, and round two will occur after the board meeting. Remaining tasks are to incorporate feedback from sector engagement, develop a communications plan, and present the final versions to the board. The team is looking at a subsequent project to develop a SWP toolkit and offer workshops to introduce the tools and provide training. A statement of opportunity is expected to come forward from the GoA to the board at the November meeting.

Discussion

Andre Asselin noted that sector engagement is an important part of AWC board member work. The upcoming second round is an opportunity for all board members to contribute and ensure that any sector concerns are dealt with before the final report comes to the board for approval. A package for sector engagement will be circulated in the next couple of weeks.

- What components will be part of sector engagement? Also, with respect to the proposed project on a toolkit, objective 5 for the current team talks about best practices; how does the toolkit differ from this?
 - The guidance document and the companion document will be the key focus for sector engagement. The jurisdictional scan is already available on the AWC website and we are not looking for feedback on it. Regarding best practices, we did look at these at a high level, but did not develop specific tools and would need to do more work. Some tools are already in place but not easily accessible or centralized. We want to make it easier for groups to do this type of work.
- Comment: July and August is a challenging time for people to engage so the team might want to provide more time.

3 **Water for Life Implementation Review (WFLIR) Committee Update**

Co-chairs Jason Unger and Nancy Stalker provided an update on the work to date of the *Water for Life* Implementation Review Committee. The WFLIR is one of the key pieces of work undertaken by the AWC. The three new tasks and methodology for this review were briefly described:

1. Review and renew WFLIR process and How-to Guide
2. Develop meaningful *WFL* performance measures
3. Conduct *WFL* review

Discussion

- Do you have a sense of what the sector survey will contain?
 - It will be similar to past surveys. The team has looked at a draft and may add some questions on metrics.
- Will the survey go out before task 1 is done, and if so, do we risk having to redo work?
 - Task 1 is really an ongoing piece of work. That should not be a problem.
- Do the draft survey questions come back to the board for approval? If not, should they?
 - This would not typically be done. Board members are represented on the team so would have an opportunity to provide feedback that way.
- I think the idea of initiating metrics is a good step for the committee to take.
 - There will be a suite of metrics, although we know this will be a challenge.

Decision 51.3: The board approved the terms of reference with changes proposed by the committee in the briefing package.

4 **Alberta Innovates Water Innovation Program**

John Van Ham provided brief background on the structure and operations of Alberta Innovates, with a focus on the Water Innovation Program (WIP). He noted the main areas in which investment is occurring through the WIP. A key intent is to learn about the current and emerging challenges facing water management in Alberta and to generate opportunities for science and research to meet these challenges. Projects supported through the WIP fall under four key themes: 1) future water supply and watershed management, 2) healthy aquatic ecosystems, 3) water use conservation, efficiency and productivity, and 4) water quality

protection. John summarized some of the 25 projects that were presented at the recent WIP forum in May. Material from that forum will be available on the Alberta Innovates website.

Discussion

- Is there public access to the intellectual property (IP) that is produced?
 - We do require projects to provide a report at completion, but when it comes to IP we don't take ownership of the IP, we leave the IP with the technology developers for them to commercialize and make available for licensing.
- Has any company eventually become sustainable financially as a result of the technology developed through these initiatives? Also, urban municipalities are interested in getting involved in some of these innovative things; what can we do to make it easier for municipalities to take on such projects?
 - In terms of financial sustainability, we only started investing in tech companies more recently (in the last few years) so we do hope to see the maturing that you describe happen over time. For the second question, one ongoing challenge is knowledge dissemination and transfer. We are focusing on this to ensure the work we fund is shared widely with the public and other audiences. With these projects, we expect there will be a receptor for the work and through them the work also spreads.
- Are any projects looking at better ways to treat wastewater?
 - There is a presentation later today on this topic, the ACWA centre has a plug and play capability for testing waste water treatment tech. Through sites such as this, we hope to see some technologies emerge through collaborative centres like ACWA.

5 Environmental Law Centre Presentation

Jason Unger described the work of the Environmental Law Centre (ELC), whose mandate is education and law reform. In terms of education and outreach, their target audience is interested stakeholders. He focused on two recent water policy documents produced by the ELC, noting that water law and reform has a lot of uncertainty and complexity. He described several research projects that affirmed the importance of these elements, particularly when it comes to climate change. The question is how regulatory responses can address uncertainty; we can either use adaptive management, in which case we need to change our governance model, or we accept the status quo. Jason briefly noted some of the challenges related to groundwater management and policy and how we achieve sustainable groundwater management.

Discussion

- In the design principles you noted, there is limited flexibility in terms of prior allocation [inaudible]. Have you been able to confirm this? I think licences are issued based on current information and new information has to be presented if things change. Have you looked at alternatives?
 - We did look at different situations. It is difficult to alter a licence and there is some discretion, but it's unclear how this plays out. One recommendation for AEP is that if they don't have the information in writing, there should be a legal assessment of conditions as they have evolved, and a resulting legal opinion. Recently the Alberta Energy Regulator has said a licence can be changed based on instream flow needs, with 12 months' notice. Justification

for government changes becomes tenuous in the face of other challenges, especially economic ones.

- There are a lot of challenges in how we assess things in a given time frame. I think our water resources are over-allocated and flows are low, so there is a risk of harm and damage to aquatic ecosystems. Our report does talk about how the water management system can be adapted to get around the discretionary aspects.

6 Advancing Canadian Wastewater Assets (ACWA) Presentation

Christine O’Grady and Kevin Frankowski presented information on the ACWA project. ACWA is a partnership between the University of Calgary and the City of Calgary, under the Urban Alliance. They described ACWA’s integration into the Pine Creek Wastewater Treatment facility in Calgary. In addition to the ACWA facilities at Pine Creek, they have four labs that deal with analytical, stable isotope, aquatic and microbiology aspects. This facility is a place to learn and develop technologies. Kevin provided more details on current conditions and constraints and options for responding to wastewater challenges. He briefly described how ACWA can help industry, municipalities, technology developers, regulators, researchers, and NGOs address their wastewater management issues. The facility is run on a cost recovery basis, with options to do pilot scale testing at the site.

Discussion

- Based on your experience, is there any information to indicate whether one large facility is better than several small facilities?
 - ACWA as an entity facilitates research, so if this question came to them, they could help. But previous studies at ACWA have not looked at this question.
- Is there an opportunity to test and evaluate wastewater approvals?
 - Definitely. We welcome the opportunity to support these projects.
- A researcher at U of A has said it’s hard to change the regulatory approach to wastewater treatment. Has anything come out of this work that might be helpful for smaller municipalities; for example, to help us move beyond the lagoon approach that we know is not effective?
 - The complexity of challenges is increasing so we need more information and more tools in our toolbox. Other countries are driving innovation, and we look forward to working with innovators in developing these new approaches.
- AUMA would be interested in helping spread the word about this work, as most municipalities see barriers with respect to water and wastewater treatment.

Keith Murray took the chair

7 Presentations of Statements of Opportunity

7.1 Revising Alberta’s Lake Stewardship Reference Guide

Beverly Smith, on behalf of the Alberta Summer Villages Association (ASVA), presented the statement of opportunity to revise Alberta’s Lake Stewardship Reference Guide. She described the history of the Lake Stewardship Guide, which was published in 2006, and provided some background on the ASVA. All summer villages are adjacent to a lake or other water body. Recommendation #9 from the AWC’s Lake Watershed Management Project Team noted the need to continue to promote information, tools and guidance documents related to lake watershed management planning; substantial progress should be made by

2019. The existing Guide has 14 main areas of content, which Beverly briefly summarized. The Guide focuses on natural lakes (rather than reservoirs). Appendices related to federal and provincial legislation are particularly outdated. ASVA needs an updated Guide but does not have the resources to do it, so sees an opportunity to collaborate with others to take on the work.

Discussion

- Is there any data on how often the Guide has been referenced or cited?
 - I don't know that number. All copies have been distributed, and we still get requests so it is in demand.
- Did ASVA approach agencies that provided support previously? This is a good project but may need an expert consultant to pull the information together.
 - We have talked to ALMS, the Lake Stewardship Centre, and the GoA, all of which were interested but unable to provide funding. From an AWC perspective, this project serves more than one purpose, including follow-up on the recommendation.
- AUMA has discussed this project and acknowledges it needs technical expertise. AUMA supports it and will look for ways to contribute.
- Education challenges are key with lake stewardship so it would be good to look at a broader education and regulatory component for this project.
- There may be an opportunity to expand the scope to also look at best management practices (BMPs).
 - A lot of work has been done on BMPs. The current resource is aimed at municipal councillors and has been useful to them.
- Could the product be done as a website to avoid print material becoming dated?
 - There is no expectation that it would be a paper document.
- The Guide needs to be at a high level as it affects everyone. It will take more than one generation to accomplish its goals.
- AWC has been able to reallocate funds from prior projects so could support this project if it is chosen, though if the scope is increasing to include BMPs or online portals, the funds would be insufficient.

7.2 Improving Resilience to Drought in Alberta Through a Simulation

Wendy Giamberardino with AEP summarized (remotely) a proposal to design and facilitate an exercise next winter to test the proposed drought management approach. She provided a short high-level overview of the project. This project would present municipalities and communities with tools on how to understand, monitor, and plan for drought, including communications strategies. The exercise would allow them to take those affected by drought in a safe environment to test how they would respond, and give each agency a better understanding of the challenges and opportunities at different scales; for example, what are the critical trigger points where certain resources or plans would have to be engaged.

Discussion

- The SOO is a bit short on capturing what would be learned from this exercise and how to share the results.
 - Such an exercise is often designed around modules and people work in small groups to consider what is their role at a point in time, what data would you look at, what do you have to do, etc. All of this would be recorded and compiled and each table could look at the results of others. Some work would

need to be done in advance, but the assessment would need to be turned into results.

- Would the learnings be shared beyond the participants?
 - We would pick the community and share the results with other communities. We could perhaps do exercises in two different types of communities.

There was some reference to the relationship between the project proposed in this SOO and the drought toolkit being developed by the AWC. If the simulation proceeds, the drought project team and the WPACs may want to consider updating the toolkit based on any learnings that come out of the simulation exercise.

8 Project Selection

Before discussing the two projects in more detail, Andre noted that work has been done on the four matters identified in February. He is trying to determine from GoA policy staff whether there is any interest in these topics and what the options might be. However, AEP is awaiting policy direction and it is likely to be a few more months before that direction is known. AWC continues to be frugal with its resources. AWC has set aside \$20,000 for the Lake Stewardship Reference Guide; this would count as GoA funds and no additional GoA funding would be provided.

Board members discussed the two projects, noting the following comments.

Lake Stewardship Reference Guide

- This project affects a lot of people but it needs better scoping. If it becomes a planning document, then a lot of people will want to be at the table. It should be a living document and is likely to take more than \$20,000 to do it right. Ideally other partners could be brought to the table and we should keep this on our plate.

Drought Simulation

- It may be premature to launch this project before the drought team is done.
- The drought team's workshop with a WPAC should be done in November.
- WPACs will help municipalities work with the toolkit and will take feedback to inform the final product.
- There is a difference between the toolkit and a simulation. Are there adequate resources to support a simulation? We should motivate municipalities to look at and use the toolkit to get some experience with it. This is a good project but now might not be the right time.

AEP has a drought resiliency group in place and the drought simulation SOO is thought to have gone through the drought coordinating committee.

At this point, an industry member suggested that it might be timely for AWC and CASA to jointly develop some solutions related to the GoA's red tape reduction process with respect to air and water. If the board agrees, the industry caucus would take the lead in drafting an appropriate SOO. Additional clarity and consistency from GoA with respect to interpretation and application would be helpful. AEP noted that the department is working on this already, but that AWC should be cautious in terms of what it ends up advocating for, particularly because different sectors within industry may have different views on what constitutes "red tape." The term now being used formally in GoA is "regulatory excellency."

Decision 51.4: The board agreed to establish a working group to develop terms of reference for a drought simulation project that would come forward to the November board meeting.

Regarding the Lake Stewardship Reference Guide, Jason Unger, Paul McLauchlin, and Che-Wei Chung offered to provide feedback to ASVA to help flesh out that SOO for future discussion by the board.

Action 51.1: Jason Unger will convene an ad hoc group by email to provide feedback to ASVA on the Lake Stewardship Reference Guide SOO.

The industry caucus agreed to further discuss whether it wants to draft a SOO on regulatory excellency for board consideration by email.

Action 51.2: Deanna Cottrell will work with the Industry caucus to consider drafting a statement of opportunity in the area of regulatory excellence.

9 Information Reports and Questions

GoA update

- Is there an opportunity for municipalities to participate in the work on streamlining and regulatory excellency?
 - AEP: The door is always open to conversations. The executive team has met with the minister to talk about government priorities and initiatives and AEP is still learning what direction the government wants to take. But stakeholders can certainly meet with the DM or ADMs.
- Could we get an update on regional planning as it tends to drive a lot of the water work?
 - AEP: Yes, it is a priority. The government will likely come out with a more definitive statement after the budget.
- I don't think my sector was involved in stakeholder engagement on the water reuse guidebook and feedback is now being considered. I could not find the document online, so how can we find out more about this work?
 - AEP: There is nothing new right now. We can check with the water policy group and get back to you.

ED update

- The presentation to the Water and Wastewater Association will be shared with the board.

10 New or Other Business

There was no new or other business.

The next board meeting will be November 8 in Edmonton and the AWC's 15th anniversary will be celebrated the night before.

The board meeting adjourned at 2:45 p.m.

Attachment 1: Meeting #51 Attendees

AWC Directors and Alternates

Maureen Bell, NGO (Environmental)
Roxane Bretzlaff, NGO (WPACs)
Carolyn Campbell, NGO (Environmental)
Chi-Wei Chung, Government (Small Urban)
Deanna Cottrell, Industry (Oil and Gas)
James Guthrie, Industry (Mining)
Jim Hackett, Industry (Power Generation)
Rob Hoffman, Industry (Chemical and Petrochemical)
Paul McLauchlin, Government (Rural)
Dan Moore, Industry (Forestry)
Keith Murray, Industry (Forestry)

Morris Nesdole, NGO (WPACs)
Margo Jarvis Redelback, Industry (Irrigation)
Jason Unger, NGO (Environmental)
John Van Ham, GoA and Provincial Authorities (Alberta Innovates)
Jay White, NGO (Lake Environment Conservation)
Andre Asselin, Executive Director (ex-officio)

Presenters:

Phil Boehme, *Protecting Alberta's Sources of Water* (Item 2)
Nancy Stalker and Jason Unger, *Water for Life Implementation Review Committee* (Item 3)
John Van Ham, *Alberta Innovates Water Innovation Program* (Item 4)
Jason Unger, *Environmental Law Centre* (Item 5)
Christine O'Grady and Kevin Frankowski, *Advancing Canadian Wastewater Assets* (Item 6)
Beverly Smith, *Revising Alberta's Lake Stewardship Guide* (Item 7)
Wendy Giamberardino, *Improving Resilience to Drought in Alberta through a Simulation* (Item 7)

Guests:

Jenna Curtis, Robert Stokes, Alberta Environment and Parks
Holly Johnson Rattlesnake, Samson Cree Nation

AWC Staff and Contractors:

Katie Duffett, Cara McInnis, Anuja Ramgoolam, Petra Rowell, Kim Sanderson

Absent with Regrets:

Bev Yee, GoA and Provincial Authorities (Alberta Environment and Parks)
Mark Brostrom, Government (Large Urban)
Dave Burdek, GoA and Provincial Authorities (Alberta Agriculture and Forestry)
Darren Calliou, Government (Métis Settlements)
Stephanie Clarke, GoA and Provincial Authorities (Alberta Energy)
Silvia D'Amelio, NGO (Fisheries Habitat Conservation)
Brett Purdy, GoA and Provincial Authorities (Alberta Innovates)
Tracy Scott, NGO (Wetlands)
Tanya Thorn, Government (Small Urban)

Attachment 2: Meeting #51 Decision Log and Action Items

Decisions

Decision 51.1: The summary report for the February 28, 2019 meeting was adopted by consensus and will be posted to the website.

Decision 51.2: The board agreed by consensus to authorize the executive committee to allocate AWC's unspent project funds.

Decision 51.3: The board approved the terms of reference with changes proposed by the committee in the briefing package.

Decision 51.4: The board agreed to establish a working group to develop terms of reference for a drought simulation project that would come forward to the November board meeting.

Action Items

Action 51.1: Jason Unger will convene an ad hoc group by email to provide feedback to ASVA on the Lake Stewardship Reference Guide SOO.

Action 51.2: Deanna Cottrell will work with the Industry caucus to consider drafting a statement of opportunity in the area of regulatory excellence.