



ALBERTA WATER COUNCIL

MEETING #53

February 25, 2020

McDougall Centre, Calgary, Alberta

Executive Summary

The key administrative decision at this meeting was to ratify AEP Deputy Minister Bev Yee as the Alberta Water Council's president. The board also approved terms of reference for a new project team to improve resiliency to drought in Alberta through a simulation. Some funds have been set aside by AWC to support this work, but additional funding will be needed and stakeholders will have an opportunity to contribute. The project is expected to be completed by June 2022.

Updates from two AWC projects were presented to the board:

- The Building Resiliency to Multi-Year Drought in Alberta Project Team held a successful pilot workshop in December with the Battle River Watershed Alliance. Feedback is now being incorporated and the team will present its deliverables to the board in June following broad sector engagement.
- The *Water for Life* Implementation Review Committee gave an update on its work, which is expected come to the board in June as well, although an extension may be requested at that time. Issues related to data and data access continue to be noted as well as the challenges associated with developing performance metrics.

Building on the earlier work to protect sources of drinking water in Alberta, a Statement of Opportunity (SoO) was presented to form a working group that would develop terms of reference for creating a Source Water Protection Toolkit. The board discussed this potential project in some detail, raising points for clarification around capacity, audience, risk identification and mitigation, and a client for the project. It was agreed that the SoO needed to be narrowed down and more sharply focused, with the goal of having a refined SoO ready for discussion at the next board meeting.

The board heard three very informative presentations from:

- The Bow River Basin Council regarding its work and approach
- The City of Calgary's Water Security Framework
- The Miistakis Institute, which undertakes applied research and is affiliated with Mount Royal University in Calgary

A wide-ranging board discussion was held to consider how AWC can contribute to current and evolving provincial water management priorities. Reducing red tape has been a key focus of the current government, and suggestions continue to be welcomed. AEP values its partners, including the AWC, but AWC needs to respond in a timely manner if opportunities arise to contribute to policy development. AEP also offered to address the board at the next meeting about the department reorganization, governance structure, and adjustments that have been made.

The next board meeting will be June 17, 2020 in Edmonton.

Summary of Discussion

Jay White convened the board meeting at 9:08 a.m.

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 was one administrative action item from the last meeting regarding revisions to the Protecting Sources of Drinking Water in Alberta Project Team's communications plan, and it was completed.

1.3 Summary Report from November 8, 2019 Meeting

The summary report was approved by consensus.

Decision 53.1: The summary report for the November 8, 2019 meeting was adopted by consensus and will be posted to the website.

1.4 Ratify Selection of President

The executive committee has proposed Bev Yee be ratified as president. She was not present but has agreed offline.

Decision 53.2: The board ratified Bev Yee as president.

Andre announced that Anuja Ramgoolam has accepted the position of operations manager and is no longer "acting" in that capacity.

2 Building Resiliency to Multi-Year Drought Project Team

Margo Jarvis Redelback, co-chair of the multi-year drought project team, presented an update on the team's work. The pilot workshop was held with the Battle River Watershed Alliance in Camrose in December 2019. Participants provided feedback during the workshop and via a post-workshop survey, and the team is now incorporating this input into its final deliverables. The board was notified that broad sector engagement will commence in March where members will have an opportunity to review and provide feedback on the draft guide. The team's products will come to the board in June 2020.

3 Improving Resilience to Drought in Alberta Through a Simulation Working Group

Pamela Duncan, co-chair of the drought simulation working group, presented terms of reference for a project team as developed by the working group. The presentation described the project background, goal, objectives and tasks, and a budget estimate for the work. Information would be collected through 2020 and 2021, and the team would run the simulation near the end of 2021. The project is expected to be completed by June 2022. The team will need to decide on the audience, location, and level of complexity of the simulation. The budget is based on a more complex, larger-scale project. The working group requested

board approval of the terms of reference, the creation of a project team, and the dissolution of the drought simulation working group.

Andre Asselin noted that core funding for stakeholder support and project management support will be covered by the AWC. AWC has also allocated \$50,000 towards the project-specific work, however AWC members are expected to contribute funds to cover the remaining budget if the ToR is approved. If the additional funding is only partially acquired, the project team will have to scope appropriately within that financial constraint.

Discussion

- There are different challenges in different parts of the province. What is the geographic extent of the simulation?
 - The team will need to scope this, but there could be one simulation for the north and one for the south.
- Would you use the same consultant for the literature review and the simulation?
 - If we can find someone to do it all, we would likely go that way and do it in phases.
- Membership should include all seven major water-using sectors. The simulation might be in an area where they aren't an active participant, but they should be able to provide feedback.
 - We intend to have several groups of stakeholders – those that provide feedback and those that actually participate. But yes, we will include those sectors.
- Will the simulation balance environmental, social and economic impacts (objective 3)?
 - Those elements will be considered – it's not just water balance.
- Overallocation is a reality now, and we're not in drought. I don't see the environmental community represented among proposed participants. Will the river be addressed?
 - We haven't gone into that level of detail yet. In "game play" types of simulations, there are different representatives of different stakeholder groups, and the environment could be one of those. A subject matter expert would provide advice and talk about impacts of decisions. Environmental needs are a concern that will be included.
- This project could be good fit for one of the Alberta Innovates funding programs. An application should be submitted for funding.
- There is synergy between forest fire management planning and drought management planning for a large part of Alberta, as fires are a consequence of moisture deficit. It would be good if Alberta Agriculture and Forestry could be involved, ideally by contributing funds.
 - A formal request for funds will come out from the executive director and this is expected to be an evolving discussion. Different agencies have different processes and timelines. It is a challenge to request funding as the project team is not established yet. If the project team cannot raise all the funds required, they can scale back the complexity and expanse of the simulation(s).

Decision 53.3: The board agreed to:

- 1. Approve the Improving Resiliency to Drought in Alberta Through a Simulation draft terms of reference.***
- 2. Approve creating the Improving Resiliency to Drought in Alberta Through a Simulation Project Team.***

3. Disband the Improving Resiliency to Drought in Alberta Through a Simulation Working Group.

4 Information Presentation from the Bow River Basin Council (BRBC)

Mark Bennett from the BRBC gave a presentation on the importance of WPACs and obtaining their advice on projects. BRBC has operated since 1992 and undertakes a wide range of core activities including educational forums and special projects.

Discussion

- We need to face up to challenges in a timely way. Are you satisfied that the process we have now is preparing us for better water management so that we aren't in tough situations making hurried, difficult decisions?
 - On balance, yes. The AWC, for example, is working on complex issues and demonstrating a proactive approach.
- Do WPACs have authority for watershed management?
 - The answer is both yes and no. No, because we're not structured appropriately to take on any kind of responsibility like that now. It's not a responsibility we actively crave. We participated in the Bow River Project a few years ago, which used a hydrologic model to look at opportunities to manage the watershed differently without assigning that responsibility to an authority. But it was understood that some kind of authority would be needed.
- It's important for agencies to follow up on advice from WPACs. If there's something that would make a significant difference to WPACs, or you could change something that would have a greater impact, what would that be?
 - A key thing that could be done easily with no obvious cost is to have senior political figures in government recognize us publicly for our work. We've been supported by the GoA since 2000, and we've had ministers and others come up to us at conferences to tell us what a good job we're doing. But we need more people to hear that message.
- Two-way communication is important. It would help us be more timely and relevant if we got more feedback back to the WPAC. We are told things we're proposing aren't a priority, but we're not told what the priorities are.
 - Over the past 20 years this situation has improved, and I'm just making a plea for it to continue to improve. Data is one of our drivers, and it hasn't always been easy to get data, especially from the government. We are curious as to why it's so hard to get publicly funded data for a publicly funded purpose.
- It would be good to have BRBC involved in the drought simulation project.

5 Water for Life Implementation Review (WFLIR) Committee Update

Nancy Stalker and Jason Unger, co-chairs of the WFLIR committee, made a presentation on the committee and its progress to date. The presentation included information on the project purpose, its tasks, progress, and the project timeline. The project deadline is June 2020, but the team may request an extension at that time.

Discussion

- Most of the metrics are based on a trajectory which is moving up or down, and the challenge is getting decision makers to move on the metrics. But the bigger challenge is understanding where on the trajectory we make a management decision. Where do we

interject to effect that change? It's often where there's not sufficient data and science. A bigger package of information is needed to understand and respond to metrics.

- The metrics themselves provide value and a level of accountability around what we know about the world we live in, and they allow for dialogue and policy decisions. But generally, I agree with that comment.
- We've been talking for years about developing performance metrics for WFL and are taking a somewhat different approach than has previously been taken. How are you finding the process related to developing performance indicators?
 - We're only in the early stages. There's a requirement to vet the strategy to see if it makes sense as outcomes and outputs. How you translate that into performance indicators will be a challenge and will determine whether this approach is successful. It's new territory and we may not get it right, but if we identify the things we should be looking at, that's value.
- A problem in the water system is that a sample can be tested in the lab in 2-3 weeks. The Environmental Monitoring and Science Division promised to have those results peer reviewed and published, so there's a significant time lag and we end up dealing with something that happened two years ago. It's a problem if you're dealing with two-year old data to assess performance, and it creates a stumbling block to public understanding.
 - One of the outcomes is access to data. What's the measure of access to data? Maybe "timely" data access?
- The Alberta Energy Regulator performance indicator branch has done some work with operators on allocation vs. use. You have to work with the appropriate people and you eventually get there. Within WFL, how would you define success? Healthy aquatic ecosystems? Water supply for a stable economy? How do we say whether we're achieving those three pillars?
 - The logic model does that. Here are the outcomes (long-term and short-term), and measures and outputs. At a high level, we're looking at what we're trying to achieve, and then we consider what that looks like in the short and long term.
- Are we asking the committee to do something we as a board should do, in terms of strategic planning and our value proposition?
 - We had discussions around the value statements members are looking for from the AWC. It's an ongoing discussion. As we take things on, it's hard to look years down the road and see what will be valuable. The measure of success is that people keep coming back and we keep having discussions and we're identifying projects that are relevant to those around the table. In a previous round of business planning we talked about recommendation tracking, but implementation is completely out of our control. We evolve as a board and individual members have individual needs, and we need to know if what you define as success changes.

6 Source Water Protection Toolkit Statement of Opportunity

Phil Boehme from AEP presented a SoO for a source water protection (SWP) toolkit. This project follows the previous project on protecting sources of drinking water. It would assess existing tools and develop new tools needed to assess risks and develop source water protection plans. There is currently no centralized inventory of tools and many systems lack the capacity to undertake source water protection on their own. The board was asked to establish a working group to develop terms of reference.

Discussion

- My perception of the issue is that it is not a lack of tools, rather it's more a lack of capacity to implement tools. If it's lack of capacity, that needs to be addressed.
 - A lot of smaller communities lack capacity, whether that's technical knowledge or funding and resources, and can't do this on their own. A lot of them would like to do more if the training and connections could be made. The biggest successes in other jurisdictions are through collaborative partnerships, technical support, and resources to get them started.
- The SoO is quite open-ended. Are you looking to aggregate all the tools available, or to develop a specific tool?
 - There was initial discussion about focusing on a modelling or mapping tool, but even though there are several models and mapping tools available, they are not designed to support SWP. We still have to assess them and may piggyback on a current system. One is being expanded now, but we don't know if the timeline works. If we only focus on one tool, we miss opportunities to support SWP for a broader audience. Having a suite of tools, similar to other programs like the Working Well Program, would be best.
- In the surveys and literature reviews of the previous project, did you delve into rationale behind this information, particularly with respect to the barriers reported in the survey? Some key barriers are quite dependent on others, and additional insight would be helpful.
 - No, we did not take a lot of time to dig into those barriers. From conversations with drinking water operators surveyed, we found a lot of barriers and challenges are inter-dependent. We tried to narrow it down, but we need to narrow it down even more and prioritize the areas. We need to see what other jurisdictions have done to get through those barriers. One of the biggest success factors in the US has been to develop relationships with the agricultural community. This is complex and many things need to be looked at.
- Next steps to focus on identifying a narrow range for outcomes is very important. We need to look at the problems we anticipate in the future, and not just look at how to fix problems we've seen in the past. Trying to put a climate adaptation lens on source water protection might focus the discussion on what we need.
- Capacity and funding will be the main challenges for municipalities. Their uptake will be very low in the current environment as they try to focus on core services. What will the implications of this project be for municipalities? Another element to consider is that there has been a lot of collaboration in the regional work municipalities need to do, and it hasn't necessarily been a positive thing.
- Is the data in the literature review available or were you not able to access it? That seems to be the theme around making decisions about water.
 - The main theme we found with the literature review was that data was out there, but it wasn't centralized. Some people have data and aren't sharing it with other groups. One thing they said would be very useful is a drinking water risk mapping tool so you can look at a map and see what your risks are. How do we centralize all the data that's out there?
- In a public notice of an activity that would impact the watershed, the applicant has to provide certain information. What data is provided and where is it going? AEP doesn't collate or collect that information, although the information is available, particularly through the applicants. We have an opportunity to build a data archive. Should AWC look at where and how data is made available?

- Who is the audience for this project?
 - The audience is broader than just municipalities; it also includes drinking water providers, WPACs, Indigenous communities, or anyone involved in SWP.
- All the tools you've talked about are about identifying the risks and not mitigating them. Will the toolkit also be looking at risk mitigation?
 - There is quite a range of different mitigation measures, techniques, and tools. Part of the scope can be to refine what's available and what's relevant to support mitigation. We touched on this, but risk assessment and understanding is the key to the whole process. Right now, drinking water operators are making decisions based on assumptions or are not using a consistent approach in identifying risks. It's key to start there, but there's no sense in identifying or assessing the risks if there's no way to mitigate them.
 - This is a SoO to develop a working group, which will scope out the project. There are a lot of unknowns but that's the point of the working group process.
- The SoO is too open. It won't come to resolution or will take too long to answer if it is not focused. Certain aspects are going to be in the regional planning process. Some sectors thought this output is what they were going to get in the last project. Can we re-focus the SoO to make it less broad? Otherwise, we won't get agreement.
 - It's important to have those conversations with those who could use the tools. Those conversations would be included as part of the terms of reference. This could go in a couple of different directions. We've done some preliminary scoping and didn't want to narrow it down too far.
- Is anyone asking for this toolkit? Do we have an audience that wants it?
- I would rather see work dedicated towards municipalities that are actually doing the planning. Action on the ground is more valuable than preparing a toolkit that may not be used.

Andre briefly summarized some of the conversations over the past year on this topic. Source water protection was noted as a priority for action in several WFL reviews. AWC decided to start moving this work forward, knowing it's a big project. There are many different potential tools in the proposed toolkit; is there some way to move forward on this to identify that maybe it is open ended, maybe it's not. AWC has capacity for more work and no other SoOs have come forward. It aligns with our strategic direction and previous work, although it's not perfect and we don't know what it's going to look like.

- Should we create a working group to scope the issue? Is it a working group to move forward on a toolkit, or is it "what toolkits should be considered"?
- The board could give this direction – rather than developing a toolkit, look at a suite of toolkits. And maybe the focus is not on municipalities, but a different user.
- There's value in SWP work but if we create something, we want it to be used and capacity for municipalities is very challenging right now. Smaller municipalities in particular have many issues and this is not likely high on the list for most.

It was decided to revisit this item later in the meeting following conversations about options over the lunch break. Comments made during the subsequent discussion have been moved to this section of the meeting summary. Potential options were to speak with sectors to see if there is interest in the project, strike a working group to scope the project and sharpen the focus (where are we now, what's needed, etc.), or not form a working group and see if other priorities emerge.

- We need to be certain there is a client who wants this work done.
 - The SoO was intentionally fairly broad because the work could go in various directions. The question about a client can be refined. Potential clients are operators and municipalities dealing with drinking water systems, as well as GoA, who brought the SOO forward. Our Drinking Water Operation Specialists work with these operations and lack some of the tools to help operators deal with the risks. The Alberta Water and Wastewater Operators Association has also expressed a need and support for the SWP toolkit.
- There has to be a use for our products, and it's not clear that AWC can add value on this issue.
- When we talk about mitigation or risk identification that affects multiple stakeholders, the AWC can add value. We either need to refine the SoO or go ahead with a working group and let them refine the scope.
 - The SoO could be refined and narrowed down but others would need to help with this if Phil takes the lead. AWC supported Phil in this approach.
- The client should be the end user of the product. GoA is championing the project, but is not the only end user. This can be clarified during the next steps.

Action: Andre will reach out to the AWC membership to see who is available and willing to work with Phil Boehme to refine the SoO related to the source water protection toolkit. This could be done offline or via a meeting.

The goal will be to have a refined SOO for presentation to the board at the next meeting in mid June.

Keith Murray took the chair

7 Discussion on how AWC Can Continue Contributing to Current and Evolving Provincial Water Management Priorities

The intent of this discussion was to consider how AWC can continue to meet the needs of its members and contribute to emerging priorities. AEP and other government departments have reorganized, and there may be opportunities for AWC to take on shorter-term projects to support government priorities.

Tom Davis provided some context for the discussion, referring to the priorities of the government that was elected last year, specifically a focus on the economy and jobs. There is a growing understanding of the impact of climate change and the importance of adaptation and what good policy can do to enable the economics of the province. There is a renewed focus on land-use planning and recently technology has received more attention. We are also raising awareness of how we manage water resources with Indigenous communities. A lot of things are in flux. AEP has not had a strategic view of how we are using our partners, although DM Bev Yee and the minister have signaled, through multi-year funding commitments to key partners that we value the partnership. Emerging priorities include climate adaptation in terms of water and the environment, drought planning, regional planning, watershed management, and red tape reduction. There may be opportunities through the sectors to consider what we might do as government to facilitate better outcomes through reduced regulation. What creates added time or financial burdens, for example? AEP

wants to know what you're seeing and how we might help while doing work meaningful to the AWC, the members, and the GoA.

Discussion

- Our sector is still committed to bringing a regulatory excellence SOO to the AWC. There have been some informal conversations with people at GoA to make sure we frame it appropriately to get buy-in and don't create false impressions or expectations. We hope it will be ready by early March, and that the board could deal with it by email.
 - The ability to be agile and react quickly are very important at this point. Something on red tape reductions two years from now won't work for either the government or the recipients. We're reporting on that every two weeks. CASA's work on the Coal to Gas (CtG) conversion issue is a good example of the agility of a group to address a pressing need.
 - With the CtG project, a CASA team was able to test a process with the board to respond to a very specific request from a high level of government. A focused approach and request resulted in a project turnaround time of about 3.5 – 4 months. There was consensus and the advice quickly turned into policy.
 - There is a tremendous outreach and ability to engage through AWC and the view is that AEP has not used that opportunity to the government's benefit. It's better to work together.
- This is a dynamic time. It's imperative we act quickly on almost everything we do. The thing that normally holds us back is unclear guidelines and mandate. With clear guidelines and a clear mandate on expectations, we should be able to act more quickly than we do today.
- Can you give us a specific example of a project that might be done quickly by the AWC?
 - Codes of practice. We have some things related to power line work affecting wetlands. There is expected to be a stage in which we get some critical feedback from stakeholders in a streamlined way. If we're going to develop a code of practice, we would get that started here and turned around quickly.
- That example is quite narrow and not everyone at the table has an interest in that particular topic.
 - We would look to the group as well for ideas. What are the things you see as valuable for the AWC to provide? The SWP toolkit isn't necessarily a place we all want to go, but a piece of it might be good. What are you seeing that is a policy or regulatory gap? We're trying to encourage an openness and we want to understand where AWC sees itself. What do you want to do to make it more meaningful?
- We can have a conversation at this table that would impact us across all sectors. The regulatory burden is a very big challenge for municipalities. Harmonization between federal and provincial regulations is important; most provinces have agreements that those are one and the same, but we don't have that here. Regulations are a topic for discussion and this affects all of us. We're all dealing with similar regulations through different lenses; maybe we could look at five or ten that are similar across all sectors.
- The biggest challenge for my sector is getting water approvals, federally and provincially. Regulations are such that 85% of the mills can't meet them. We have to solve these water issues because they are hindering investment, and this table is one place we could help do that.
- I participated in an AER process looking at area-based regulations for water withdrawals. AER allocated significant staff resources for this multi-stakeholder process. I was assured

there was no filter between me and the person who would implement the suggestions I had. There were 1-2 day meetings every three weeks and the group had 22 consensus decisions. That's not been my experience with processes at AEP and AWC. We lose momentum between meetings. A significant feedback process is important and interim access during a process is a key to success.

- Typical meeting schedules for AWC teams are every 4-6 weeks, however that can change. In the CASA CtG process, resources were reallocated to that priority. That might require other teams to pause so we can deliver on something of higher priority.
- The CtG work was a little different, as this was a very specific request and Alberta Energy had contracted a study prior to initiation of the group.
- I'm struggling to get clarity on what we want to discuss. I saw a potential need between the long-term things, like advice on policy that takes years, and internal government challenges to make decisions that might not be fully in line with existing policy or regulations. Individual staff try to make good decisions and sometimes they can't if things are not aligned. If there's a place in between that can facilitate those decisions, there's potential opportunity.
- An outcome of that ends up being a code of practice to provide clarity for a vague regulation.
 - AEP is working closely with sand and gravel association on approvals for gravel pits. We have a predisposition to say no to some things and are using this as a pilot for regulatory overhaul. We might have asked 15 questions whereas approval writers have said, "what do we really need to ask about?" In reality, there is only a handful of things we really need to know, and approvals could be quite quick. It's a change in the culture of the department towards not trying to regulate everything. This government wants to make these changes but not at the expense of the environment.
- Traditional ecological knowledge has raised aboriginal issues related to water. First Nations want to talk to government and AWC can't help there. Could AWC help the GoA with things like consensus building, data sharing, education, or elevation of capacity? Many stakeholders are affected by First Nations' interests.
 - There are some examples of what has been done in terms of water management approaches. We will soon have to start thinking about managing things in the Upper and Lower Peace, and I don't know if that's something we would put out to the AWC, but we will have to figure it out. Federal Bill C92 will give law making rights to Indigenous peoples and water management will be involved. Things continue to evolve in this area.
- I don't see Indigenous representation coming to AWC and having that discussion here, but we might be able to feed into GoA processes.
 - Maybe there's a recommendation from the AWC on how you might set up a group given that mandate. This is a pressing need and others are pitching ideas. How do we do it collectively?
- There is an opportunity to use this table to quickly gather input and perspectives on a particular aspect of water management, without necessarily seeking consensus. This would require a very clear ask and an understanding of how this input will be used.
- Timing is very tricky. Not finding consensus on things takes away from the value of the group and can undermine credibility. It's a risk. How can we set up something that gets over barriers?

- The intent of taking on this new or different type of project isn't to supplant the typical AWC process at all. It's recognizing a need for nimbleness and taking advantage of the network and trusting the process we have.
- If we can't reach consensus, we can bring forward pros and cons.
- The regulatory design process would benefit from the multi-stakeholder AWC forum.

Staff will work with Members to continue the conversation about how AWC can continue adding value to all its members.

8 Information Presentation on the City of Calgary's Water Security Strategy

Pamela Duncan from the City of Calgary gave a presentation on the City's Water Security Framework. The presentation included information on Calgary's Water Utility, the One Calgary One Water Framework, and the City's drought management planning.

Discussion

- Some of the demand for water in Calgary has been met by importing water for sale. Do you have any sense of how much demand that meets? Some people don't trust tap water.
 - We do not track bottled water consumption but do address the tap water trust issue through customer education and communication.
- Is the water distribution system in the city segmented, so you can match demand in different sectors?
 - We have two water treatment plants, so they can make up for disruptions in the water distribution systems. We are looking at investing in redundancy in those systems.
- In the graph on water licence limits, it looks like the assumption is you have an infinite growth scenario. Being in a closed basin, does your water strategy say at some point in time you have to cap growth?
 - No, there is no cap on growth at the moment. Work with the Calgary Metropolitan Region Board (CMRB) is very important as it is looking at sustainable growth and servicing plans. We have some limits in terms of water, so we have some considerations there.
- You mentioned expanding one or both of the plants. If you expand the Elbow River diversion rate you're creating a dry stream in the section of the river between the diversion for drinking water and the return flow at the sewage treatment plant. There could be a cap on instream flow to protect fish habitat. We don't have unlimited diversion capacity at the Elbow or at the Bow. What instream flow needs have to be met?
 - There isn't a clear number in a regulation for the lower reach of the Elbow river but there are watershed flow rates that we track below the dam. Calgary was careful when building the new Glenmore gates. We monitor very carefully to ensure we meet those flow rates downstream to keep ecosystem integrity in the lower reach of the Elbow.
- Who is part of the CMR?
 - Ten municipalities including counties. It's basically the region around Calgary. Unlike the capital region, this is the first time we're doing a mandatory regional plan. Water licences come up in the regional plan. The intent is not to limit growth, but water is a constraint we have to manage. Environmental flow is quite important for every municipality—not just what you take out, it's also what you put back in.

- In very dry areas, like California, where surface water isn't available they use groundwater. Is that kind of water supply possible?
 - Our aquifers are tied to the river. If we're running low on the river, we're running low in the aquifers so this is not a great back-up option. We looked at using aquifers as storage, but there are not a lot of good opportunities. We will continue to look at groundwater as an alternative water supply, however.

9 Information Presentation by the Miistakis Institute

Guy Greenaway gave a presentation on research undertaken by the Miistakis Institute. The Institute is a not-for-profit, charitable, applied research institute affiliated with Mount Royal University in Calgary. The presentation included an overview of the Institute and its structure, the six research themes it is involved in, its partners, and future research trends.

Discussion

- What is your funding model?
 - It's entirely project funded. Two-thirds of the time, we identify a project and then search for funding. Funding can come from federal and provincial governments, industry, and others, but not often from individuals. We have worked to diversify our funding.
- I have been very impressed with the intersection between knowledge generators and potential users. The translation piece you put in the middle is a very good model – taking new knowledge and helping people use it and put it into action.
 - Translating information into a useable format can be challenging. You have to know the recipient's system to do it well.
- What kind of professionals do you have on staff?
 - Mostly people with a biological background such as a conservation focus, environmental design and similar training.

10 Recommendation Tracking

The board deferred this presentation until the next meeting due to time constraints.

11 Information Reports and Questions

GoA update

- It's very helpful to have the updates in advance for review.
- I note cuts for research and science capacity, particularly for agriculture. Can we get a sense of where those have been and if there are any gaps for water management? There are some potential impacts there we should understand.
- A lot of things on SWP and lake management are being shunted into regional planning. That process is not very nimble and responsive and there are a lot of governance issues at play. How do we maintain the level of water management accountability in the province?
 - Tom Davis: From AEPs perspective, maybe some of these are appropriate items for discussion at the next board meeting. We can have someone speak about the reorganization and adjustments. With respect to the science, although the EMSD is gone, we are taking the science resources in that division and putting them together organizationally through a governance structure. The same thing is

happening for fish and wildlife. People will still be in the same location but the governance is different.

- I would like to understand what's happening with Alberta Agriculture and Forestry.
 - Jamie Wuite: We are landing on a plan of farmer-led research. The minister has engaged with industry and academia and partners in the agriculture research area to ensure everyone is on the same page. Now the question becomes, what does that governance structure look like. How can farmers lead research and how can we enable that? Are we funders or influencers of research or are we the doers of research? I don't have an answer for that.
- There's a lot of talk about digital solutions and I think we want to support digital innovations.
 - Tom Davis: Each department has taken a different approach because of what has been in their mandate. AEP is looking to find efficiencies and use the people and money we have to deliver our mandate. We don't know where some of the gaps are going to be and some things we won't see until later. It's an iterative process.

ED report

- No questions or comments.

Executive committee decision regarding cobranding the *Guide to Source Water Protection Planning: Protecting Sources of Drinking Water in Alberta* with the GoA.

- No questions or comments.

12 New or Other Business

There was no new or other business.

The next board meeting will be June 17 in Edmonton.

The board meeting adjourned at 3:27 p.m.

Attachment 1: Meeting #53 Attendees

AWC Directors and Alternates

Maureen Bell, NGO (Environmental)
Roxane Bretzlaff, NGO (WPACs)
Brian Brewin, Government (Rural)
Mark Brostrom, Government (Large Urban)
Bob Cameron, NGO (Environmental)
Deanna Cottrell, Industry (Oil and Gas)
Tom Davis, GoA and Provincial
Authorities (Alberta Environment and
Parks)
James Guthrie, Industry (Mining)
Jim Hackett, Industry (Power Generation)
Rob Hoffman, Industry (Chemical and
Petrochemical)
Keith Murray, Industry (Forestry)
Morris Nesdole, NGO (WPACs)
Tara Payment, Industry (Oil and Gas)

Nissa Petterson, NGO (Environmental)
Brett Purdy, GoA and Provincial Authorities
(Alberta Innovates)
Margo Jarvis Redelback, Industry
(Irrigation)
Nancy Stalker, Government, (Large Urban)
Tanya Thorn, Government (Small Urban)
Jason Unger, NGO (Environmental)
Jay White, NGO (Lake Environment
Conservation)
Jamie Wuite, GoA and Provincial
Authorities (Alberta Agriculture and
Forestry)
Andre Asselin, Executive Director (ex-
officio)

Presenters:

Margo Jarvis Redelback, *Building Resiliency to Multi-Year Drought* (Item 2)
Pamela Duncan, *Improving Resilience to Drought in Alberta through a Simulation* (Item 3)
Mark Bennett, *The Bow River Basin Council* (Item 4)
Nancy Stalker and Jason Unger, *Water for Life Implementation Review Committee* (Item 5)
Phil Boehme, *Source Water Protection Toolkit Statement of Opportunity* (Item 6)
Tom Davis, *Discussion on AWC contribution to current and evolving provincial water
management priorities* (Item 7)
Pamela Duncan, *The City of Calgary's Water Security Strategy* (Item 8)
Guy Greenaway, *The Miistakis Institute* (Item 9)

Guests:

Jenna Curtis, Alberta Environment and Parks
Harpreet Sandhu, City of Calgary

AWC Staff and Contractors:

Katie Duffett, Cara McInnis, Lauren Hall, Anuja Ramgoolam, Petra Rowell

Absent with Regrets:

Bev Yee, GoA and Provincial Authorities (Alberta Environment and Parks)
Darren Calliou, Government (Métis Settlements)
Stephanie Clarke, GoA and Provincial Authorities (Alberta Energy)
Silvia D'Amelio, NGO (Fisheries Habitat Conservation)
Tracy Scott, NGO (Wetlands)

Attachment 2: Meeting #53 Decision Log and Action Items

Decisions

Decision 53.1: The summary report for the November 8, 2019 meeting was adopted by consensus and will be posted to the website.

Decision 53.2: The board ratified Bev Yee as president.

Decision 53.3: The board agreed to:

- 1. Approve the Improving Resiliency to Drought in Alberta Through a Simulation draft terms of reference.*
- 2. Approve creating the Improving Resiliency to Drought in Alberta Through a Simulation Project Team.*
- 3. Disband the Improving Resiliency to Drought in Alberta Through a Simulation Working Group.*

Action Item

Andre will reach out to the AWC membership to see who is available and willing to work with Phil Boehme to refine the SOO related to the source water protection toolkit. This could be done offline or via a meeting.