

ALBERTA WATER COUNCIL

MEETING #65
February 22, 2024
Queen Elizabeth II Building, Edmonton

Executive Summary

The board received an information presentation from Dr. Brandi Newton, a hydroclimatologist with Environment and Protected Areas (EPA), on results from a 2021 study examining potential future changes in temperature and precipitation patterns in Alberta.

An update was provided on the Drought Mutual Support Committee's work. The committee met once in early February. At that meeting, members shared their drought-related activities. Their objectives are: to be a sounding board for the Government of Alberta (GoA) on drought-related issues; to provide a platform for information sharing, communication, and making connections; and to document information regarding the current drought. The committee will meet monthly to share any updates but will also convene as needed when EPA requires input.

There was roundtable discussion where sectors shared updates, experiences, or information regarding the ongoing drought.

The board identified three areas that may be appropriate for future work which will be presented as statements of opportunity at the next board meeting. The potential project areas are aquatic invasive species management, water conservation and a sustainable economy, and instream flows and a review of the health of aquatic ecosystems.

There was a presentation on recent updates to AWC's Multi-year Communications Strategy, including the board's feedback from a survey related to the strategy. Ideas were shared on how to enhance the strategy and the Council's communications generally.

The Source Water Protection Phase I: Risk Assessment Tools and Data Project Team provided an update on their work. The consultant who will develop the web tool was engaged in January and the team had a kickoff meeting with the consultant in early February. The remaining tasks are to develop the web tool and engage potential users of the tool through workshops. The Terms of Reference has the project team completing its work by November 2024. The team may request a timeline extension at the next board meeting depending on how they progress over the next few months.

Three new Board members were appointed: Director Bill Chapman, Councillor of Town of Coaldale, representing the small urban sector on behalf of Alberta Municipalities; and Alternate Cindy Shepel from EPCOR, representing the large urban sector. Kimberley Nelson is replacing Ruth Mitchell as the Director for Alberta Health. The Board recognized outgoing President and Deputy Minister of EPA, Kasha Piquette, who has taken on a new role.

The Board acknowledged that the Improving Drought Resilience in Alberta Through a Simulation Project final deliverables were approved offline prior to the meeting and congratulated the team again. The report and recommendations were released to the public February 28, 2024.

The next board meeting is scheduled for June 13, 2024, in Calgary.

Summary of Discussion

Board meeting convened at 9:45 a.m.

1 Convene business meeting, introductions, and approve agenda

Members were welcomed and the meeting was confirmed to have quorum. Ahmed Idriss chaired the meeting and reviewed the agenda. The agenda was adopted with consensus.

Decision 65.1: The board approved the agenda by consensus.

Updates to the Council membership were noted:

- There are three new board members: Director: Bill Chapman, Councillor of Town of Coaldale, representing the small urban sector on behalf of Alberta Municipalities; Alternate Cindy Shepel from EPCOR, representing the large urban sector; and Kimberley Nelson is replacing Ruth Mitchell as the Director for Alberta Health.

2 Spatial and Temporal Shifts in Historic and Future Temperature and Precipitation Patterns Related to Snow Accumulation and Melt Regimes in Alberta, Canada

Dr. Brandi Newton, a hydroclimatologist with Environment and Protected Areas, presented results from a 2021 study¹ examining potential future changes in temperature and precipitation patterns in Alberta.

Highlights from the presentation were as follows:

- Relative to the past, we are seeing shorter winters, earlier spring onset, higher total precipitation, and a shift from snow to rain.
- Novel winter climates are projected for ecozones in Alberta for 2050s and 2080s with greater changes under Representative Concentration Pathway 8.5 (RCP 8.5):
 - shorter winter duration and earlier spring,
 - higher precipitation with lower snowfall fraction, and
 - increases in the amount of precipitation falling as snow for Mountain, Boreal, and Taiga ecozones.
- Variation in temperature and precipitation patterns across different areas of the province may result in changing climate gradients.
- The mountain ecozone is expected to experience large temperature and precipitation changes.
- The prairie ecozone is vulnerable to extremely short winter duration in future scenarios.

Discussion

- Can you clarify the meaning of the first bullet on slide 21 (historic decreasing trends in winter duration, earlier spring onset, total precipitation, and a shift from snow to rain).

¹ Newton, B. W., Farjad, B., & Orwin, J. F. (2021). Spatial and Temporal Shifts in Historic and Future Temperature and Precipitation Patterns Related to Snow Accumulation and Melt Regimes in Alberta, Canada. *Water*, 13(8), 1013.

- The example provided for that was from the prairie ecozone. The amount of snow is projected to remain the same but total precipitation is expected to increase, so the total change in precipitation is projected to mostly come as rain.

3 Drought Mutual Support Committee and sector updates

Andre provided an update on the Drought Mutual Support Committee's work and there was an opportunity for sectors to share any updates, experiences, or information regarding the drought.

Highlights from the Committee's update was as follows:

- The committee was formed following a presentation on current and predicted drought conditions at the October 2023 board meeting.
- The purpose was for the AWC to support communication, collaboration, and coordination on drought mitigation efforts and messaging.
- The committee has had one meeting so far, in early February. At that meeting, members shared their drought-related activities. They also established their objectives:
 - to be a sounding board for the Government of Alberta (GoA) on drought-related issues;
 - to provide a platform for information sharing, communication, and making connections; and
 - to document information regarding the current drought.
- The committee will meet monthly to share any updates but will also convene as needed when EPA requires input.

There was a roundtable of updates from sectors regarding the current drought:

- Alberta Agriculture: having conversations and supporting awareness with the agriculture and irrigation community. The Alberta Irrigation Districts Association (AIDA) conference was held recently. Water sharing agreements are anticipated to be in place by the end of March. Briefings have been made to the emergency committee of cabinet. Relative to 2002, reservoir levels are higher currently.
 - Can you elaborate on how instream flow needs (IFN) are included in the briefing to Ministers?
 - It is a value of consideration and has always been so. The definition of Instream Objectives and what different impacts are of stage 5 drought is being communicated to Ministers.
 - Protection of the aquatic environment has always been considered and continues to be a priority. There is no intention to deviate away from that protection.
- Alberta Municipalities: updating Mayors and Reeves as to the status of the drought. There are collaborative efforts as well on communication, such as with Irrigation Districts.
- CAPP: a drought task group was stood up for Alberta and BC, which will meet for the first time next week. They will find out how CAPP can help with operators and bolster communications around drought response. There is no update to share yet as they have not met.

- WPACs: participating in whatever opportunities are available to prepare for drought. Also viewing it as an opportunity to address challenges before the next drought or continuation of the current one. On a much longer time scale, looking at tree ring data, the province is in a relatively wet period. It would be worth considering more extreme (or historically normal) scenarios. Natural infrastructure has been a focus (what has been lost, what has been retained, etc.) recently as opposed to building new infrastructure. Since the South Saskatchewan River Basin water management plan was developed, there has not been much progress on getting a scientific basis for water withdrawal limitations (e.g., IO, WCO, IFN).
- Wetlands Conservation: provided a briefing note on natural infrastructure. There is also implementation of wetland policy for drought response as another tool.
- Large Urban (Calgary): working on developing consistent messaging in the southern part of the province and aligning with messaging from GoA.
- Forestry: there is a drought response team. They are discussing what would be considered in drought response, drought mitigation, and what can facilities do. There will be more information in March. Lots of resources are being put toward wildfires this year.
- Electricity: recently met with Stacey Smythe and had a similar conversation as to what was presented to the AWC board in October. She reiterated the need for the sector to be aware of the issue and to be prepared for future conditions.
- Environmental: organizing a panel around unpacking the IFN issue and policy implications of it. Is there alignment between hydrology, science, and policy around instream flows and what are implications of them not being met.
- AWC: the Improving Drought Resilience in Alberta Through a Simulation report is being released later this month. WPACs are hosting workshops using materials from our multi-year drought resiliency project.
- EPA: have developed a 2024 Emergency Plan broken out by basins. Also looking at the water management system and how it is supporting activities. Modelling and monitoring capabilities are being increased. Similar to 2013, want to make sure there is no regulatory burden to getting water to people if possible. Water sharing agreement meetings have started; the next session is March 1 and the last is March 13. Ideally, sharing agreements will be in place for large licences in the Red Deer, Bow, and Oldman basins. Looking into options to move water from large to small licences where needed. Preparations are being made for more significant droughts moving forward.

4 Upcoming priorities and potential work

With the drought simulation project wrapping up, and the Water for Life Action Plan project needing to be reconsidered, there is an opportunity to start discussions to identify potential projects and determine next steps to either develop statements of opportunity for further discussion, or to strike a working group.

Andre kicked off the discussion with some background information:

- In the past, AWC members interested in a topic submitted a statement of opportunity for consideration. This is a new approach, using AWC's core business items as a starting point to identify projects.

- Andre reviewed some of the areas of core business, goals, and strategies which might inform potential projects and reviewed a list of potential opportunities, which were:
 - Contributing to the Ministerial Mandate
 - Aquatic invasive species management
 - Alberta Water Futures next steps
 - Following up on recent project recommendations (*Water for Life* Implementation Review (WFLIR), drought simulation)
 - Updating the *Water for Life* Implementation Review process
 - Watershed governance and capacity

Margo was invited to provide context to the aquatic invasive species (AIS) idea.

- The province and stakeholders came together quickly over 10 years ago to develop a program around AIS prevention, enforcement, and monitoring.
- AIS threats are continuing to increase (more species and new vectors of introduction). At the same time, provincial budget for AIS has decreased, which has led to some challenges such as closing of water inspection stations. This could increase the risk of further spread.
- Other jurisdictions across North America have developed sustainable funding models for AIS prevention and Alberta could strive for a similar model. Prevention will be much cheaper than treatment.
- A potential project team could conduct an updated AIS threat assessment: where threats are coming from, the costs of prevention and treatment options, a jurisdictional scan for what financial models exist, and other considerations.

There was brief discussion on the AIS idea:

- Does the federal government have a role in AIS, for regulation and species trade?
 - For pest management, it can take significant time for regulatory changes to happen at the federal level. For example, potash took more than 5 years to be registered as a pesticide for use. Being a unified voice for federal regulators for long term thought on options for AIS prevention could be helpful.
- Fouling and plugging of water intakes is an issue of concern for some industry sectors.
- Invasive species could also become more of an issue with climate change.
 - We are already seeing an increase in avian botulism, for example.

The discussion continued with other potential projects:

- One idea is to review measurement and performance around *Water for Life* outcomes. The idea is with the water conservation objectives, instream flow needs, instream objectives, and other measures, to ensure that those measures are adequate and scientifically based, and to ensure accountability and transparency around reporting on them.
- The board could investigate updating the *Water for Life* Implementation Review process and output; the rate at which we implement those recommendations made to ourselves is not very high.
 - The *Water for Life* Action Plan is under review. GoA would need to provide more direction and is not prepared to do that right now.
- Is there a link between what is happening in policy and drought and is there an area AWC can support?

- There is live discussion about water mandates moving forward within GoA. No specific projects or initiatives have been identified for AWC right now. As we engage and discuss further, an idea might come up.
- With respect to water conservation and the Conservation, Efficiency, and Productivity (CEP) discussions that happened last fall, there might be an opportunity to evaluate lessons learned in conserving water from the ongoing drought.
- Another idea is to look into water for a sustainable economy, specifically, the water implications of an energy transition. For example, to ensure there is enough water with an energy transition and to forecast water needs for different economic growth scenarios with different industry types. The project could include developing CEP plans for industries not already covered.

This item concluded with a path forward for selecting a project:

- GoA would like to have time to discuss AIS further, as they have ongoing work in this area and want to confirm there is value add beyond what they are already doing.
- There was interest in the AIS project, the instream flow/healthy aquatic ecosystem review, and the water conservation and sustainable economy projects. Staff will reach out to the directors who raised these items and work to develop statements of opportunity for board consideration at the next meeting in June.

Action 65.1: AWC staff to work with appropriate sectors to prepare statements of opportunity for the next board meeting.

5 Multi-year communication strategy metrics, approach to sector updates, and next steps

This item involved a discussion about recent updates to AWC's internal and external communications, including the board's feedback on the multi-year communications strategy survey.

Andre delivered a brief presentation with context to kick off the discussion:

- The multi-year communications strategy and action plan are aimed at enhancing awareness and understanding of AWC's work with key audiences. The AWC Executive Committee leads the process to review and develop or update the strategy. Staff deliver the strategy with support from the board, project teams, and partners. The strategy and action plan were approved by the board in October 2023.
- Survey feedback was as follows:
 - There is support for the overall vision, mission, goals, objectives, and actions.
 - Material should be targeted to specific groups, recognizing that the audience is broad with different preferred methods of receiving information.
 - Partner organizations or stakeholder groups should be leveraged where possible to help deliver communications (e.g., WPACs, other umbrella organizations).
 - Approved project deliverables should be communicated to all water stakeholders.
 - Public messaging should be considered (e.g., key messages or recommendations) where appropriate.
 - Water forums, webinars, workshops should be hosted on priority topics.

- Metrics should be developed to evaluate progress, such as awareness surveys of various AWC initiatives, download counts of reports, and attendance/participation numbers at various events.
- Newsletters are the most used tools by AWC members, followed by social media accounts, the website, news releases, and GoA updates.
- Recent additional communications practices include a new SharePoint page for board members and staff for collaboration, sector profiles and updates ahead of board meetings, and draft metrics.

Board members were asked how they share information about the Council and if there were other approaches that should be undertaken.

- There are many avenues by which we provide updates, but a few examples are forums, such as Team Alberta Crops, various annual general meetings, and marketing boards/commissions.
- When projects are completed, final documents are circulated via email. An opportunity exists to have something more engaging than a final report. Maybe staff could develop a newsletter type email with highlights from a final report.
- Having more timely board meeting minutes would help communicate, as by the time the minutes are out, the conversations about the outcomes of the meeting have already happened. This would also mitigate there being any discrepancies in understanding as to what the meeting outcomes were.

6 Source Water Protection Phase I: Risk Assessment Tools and Data Project Team

Kris Samraj, a co-chair of the project team, gave an update on the team's progress to date and the remaining tasks.

Highlights from the presentation were as follows:

- The consultant to develop the web tool was engaged in January. The team had a kickoff meeting with the consultant in early February.
- The remaining tasks are to develop the web tool and engage potential users of the tool through workshops. Both tasks begun recently and are underway.
- Terms of reference has the project team completing its work by November 2024. The team may request a timeline extension at the next board meeting depending on how they progress over the next few months.

Discussion

- It is good to have this project kicked off, as the tool could have many uses beyond source water protection planning.
- Alberta Innovates and GoA were thanked for providing significant funding to allow the project to move ahead.

7 Administration

7.1 Approve summary report from October 25, 2023 board meeting

There were no edits to the October 2023 meeting summary. There were no further questions or comments, and the minutes were approved by consensus.

Decision 65.2: The board approved the October 2023 meeting summary by consensus, and it will be posted to the website.

7.2 Review actions from last meeting

There were three actions from the previous meeting. All actions were noted as complete. There were no questions or comments on the actions.

7.3 Approve a process to revise AWC's Process Guidelines

The board was asked to approve a process to revise the Council's Process Guidelines. The process is updated every three years. There were no questions or comments on this item and the Process Guidelines were approved by consensus.

Decision 65.3: The board approved the process to revise the Council's Process Guidelines.

8 Information reports and opportunity for questions

8.1 Executive Director's report

The report was included in the board package; there were no questions.

8.2 Government of Alberta update

The update was included in the board package; there were no questions.

8.3 AWC sector updates

Sector updates are posted to SharePoint; there were no questions.

8.4 Water for Life Action Plan Project Team update

An information report on the status of the project team was included in the board package.

The team will meet soon to discuss if and how the project should continue. The current project deadline is June 2024. An update will be provided at the next board meeting.

8.5 Improving Drought Resilience in Alberta Through a Simulation Project Approval and Communications follow-up

The board conditionally approved the project team's recommendations, final report, and communications plan in October 2023. Final approval occurred in December 2023. The project team is now disbanded.

The board thanked the project team for their work and congratulated them on their completion.

The report is scheduled to be released in late February. Members were encouraged to share the report widely with their networks.

8.6 CASA project updates for the AWC Board

A written update was provided on CASA projects for the AWC board; there were no questions or comments.

New or other business

Board members were reminded to send any updates to their sector profiles to Anuja and to fill out the meeting survey, which helps staff improve various aspects of board meetings.

It was noted that the Alberta North American Waterfowl Management Plan (NAWMP) Partnership released a Landowners Guide to the Wetland Policy.

- Where does the money from the wetlands mitigation fund go?
 - It goes to the province who administers the funds. Ducks Unlimited is one entity that receives funding. We restore wetlands almost exclusively on farmland and restore land and pay landowners for use of area that would have otherwise been used for farming.

Aquality Environmental Consulting, with support from the Alberta Conservation Association, is hosting a free Wetlands 101 course. Sign up here: www.albertawetlands.ca

The Oldman Watershed Council is hosting a Building Resiliency to Multi-year Drought workshop on February 29.

Participants were thanked for joining the meeting.

The next board meeting is in Calgary at the Calgary Water Centre on June 13, 2024.

The board meeting adjourned at 2:54 pm.

Attachment 1: Meeting #65 Attendees

In Attendance (*Denotes attendance via Teams conference)

AWC Directors and Alternates

Ahmed Idriss, Industry (Power Generation)
Alan Corbett, NGO (WPACs)
Bill Chapman, Government (Small Urban)
Cindy Shepel, Government (Large Urban)
Dan Moore, Industry (Forestry)
Jamie Curran, GoA and Provincial Authorities
(Alberta Environment and Parks) – joined
at 11:00 am
Jamie Wuite, GoA and Provincial Authorities
(Alberta Agriculture and Irrigation)
Janice Linehan, Industry (Mining)*
Jason Unger, NGO (Environmental)
Jay White, NGO (Lake Environment
Conservation)*
Jeff Shipton, Industry (Forestry)
Jim Hackett, Industry (Power Generation)
John Conrad, GoA and Provincial Authorities
(Alberta Agriculture and Irrigation)

Kimberley Nelson, GoA and Provincial
Authorities (Alberta Health)*
Lesley Peterson, NGO (Fisheries Habitat
Conservation)*
Margo Jarvis Redelback, Industry (Irrigation)
Maureen Bell, NGO (Environmental)*
Nancy Mackay, Government (Large Urban)*
Reg Warkentin, Industry (Cropping)*
Rob Hoffman, Industry (Chemical and
Petrochemical)
Rob Van Diemen, Industry (Livestock)
Steve Meadows, NGO (WPACs)
Tara Payment, Industry (Oil & Gas)*
Tracy Scott, NGO (Wetlands Conservation)
Vicki Lightbown, GoA and Provincial
Authorities (Science and Research)
Andre Asselin, Executive Director (ex-
officio)

Guests:

Chris Gallagher, Stantec
Darren Bourget, Alberta Environment and Protected Areas (Item 3)
Hyerin Hong, University of Alberta Student (AFPA)
Mitchell Gentner, University of Alberta Student (AFPA)
Nathalie Olson, Alberta Environment and Protected Areas (Item 3)*
Nicole Pysh, Environment and Climate Change Canada
Paula Siwik, Environment and Climate Change Canada

Presenters:

Brandi Newton, Alberta Environment and Protected Areas (Item 2)*
Kris Samraj, Alberta Municipalities (Item 6)

Observers:

Cam Lane, Alberta Environment and Protected Areas
Curt Horning, Alberta Environment and Protected Areas
Kallie Wischoff, Rural Municipalities of Alberta*
Martina Krieger, Alberta Environment and Protected Areas*
Wendy Birch, Alberta Environment and Protected Areas

AWC Staff and Contractors:

Alec Carrigy, Anuja Hoddinott, Katie Duffett, Mariem Oloroso

Absent with Regrets:

Amber Link, Government (Rural)

Brett Purdy, GoA and Provincial Authorities (Science and Research)

Brian Deheer, NGO (Environmental)

Darren Calliou, Métis Settlements General Council

Deanna Cottrell, Industry (Oil & Gas)

Nevin Rosaasen, Industry (Cropping)

Steph Neufeld, NGO (Lake Environment Conservation)

Attachment 2: Meeting #65 Decision Log and Action Items

Decisions

Decision 65.1: The board approved the agenda by consensus.

Decision 65.2: The board approved the October 2023 meeting summary by consensus, and it will be posted to the website.

Decision 65.3: The board approved the process to revise the Council's Process Guidelines.

Action Items

Action 65.1: AWC staff to work with appropriate sectors to prepare statements of opportunity for the next board meeting.