

Brief: Response to Proposal to Update BC's Drought Levels
POLIS Water Sustainability Project
March 2021

This Brief provides a response from the University of Victoria's POLIS Water Sustainability Project to the proposal to update BC's Drought Levels. We outline:

1. Specific, immediate priorities for effective deployment of the new Drought Level scheme;
2. The need for a more comprehensive review and update of BC's Drought Response Plan; and,
3. POLIS' emerging research program focused on drought mitigation, adaptation, and response.

Our team appreciates the opportunity to comment. We would be pleased to share our research results and work with government on an ongoing basis as the BC Drought Response Plan evolves.

Regards,



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1. Updating the Drought Levels is a Good First Step Towards Improved Drought Response

The current Drought Level update is part of a progression in recent years towards strengthened drought response in the province. We commend government's progress to-date, including:

- Introduction of powerful new tools for drought mitigation and response in the WSA.
- Development of Regional Drought Management Teams.¹
- Use of regulatory tools (Fish Population Protection Order)² and launch of a Water Sustainability Plan scoping process³ with Cowichan Tribes in the Koksilah.
- Environmental flow needs demonstrably shaping decision making in *Halstead vs. Water Manager* (2018).⁴
- A collaborative, government-to-government approach to drought response in the Nicola, which has strengthened awareness and leadership by irrigators and local governments.
- Development of the BC Drought Information Portal with easy-to-navigate data and visuals.

We are supportive of the alignment of BC's Drought Levels with the North American Drought Monitor and agree these changes provide better detail and the possibility for a more sophisticated approach to drought preparation and response.

¹ https://www.obwb.ca/newsite/wp-content/uploads/2016_Thompson_Okanagan_Region_DRIP_July2016.pdf

² <https://news.gov.bc.ca/releases/2019FLNR0215-001616>

³ <https://www.koksilahwater.ca/wspscoping>

⁴ In this case, the EAB upheld the water manager's decision to refuse a licence application to divert groundwater from an aquifer, on the basis that the creek to which the aquifer is hydraulically connected has insufficient flow to maintain environmental flows for aquatic species. See summary here: [http://www.eab.gov.bc.ca/water/watsm18.htm#2017-WAT-007\(a\)](http://www.eab.gov.bc.ca/water/watsm18.htm#2017-WAT-007(a))

We emphasize the importance of clarifying the indicators and triggers for stepwise progression that will move a region from voluntary action to more focused restrictions and possible regulatory and emergency responses. The ability to rapidly step-up response as drought intensifies is critical to ensure effective and timely action, avoid costs to communities, and reduce impacts to watershed health and function.

2. A More Systematic Review of BC Drought Response and Comprehensive Approach is Needed

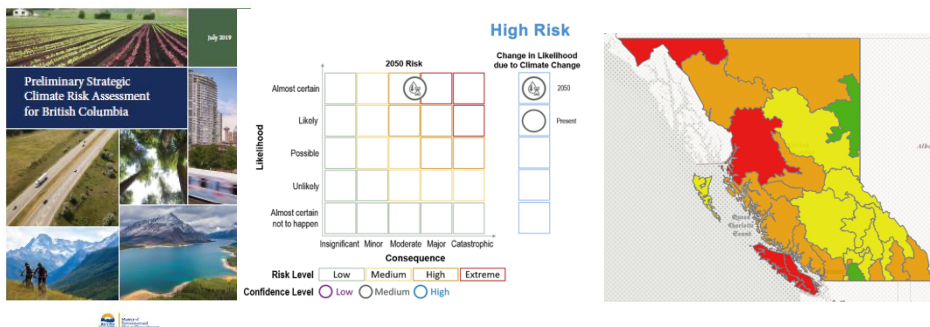
The update to BC’s Drought Levels is a useful first step if paired with more explicit indicators and triggers for progression through the various Levels. However, this change and other amendments to the BC Drought Response Plan since 2008 have been fairly narrow and do not reflect the necessary reforms or leading practices for effective drought management and response.

Government has had ten years to test-drive the Drought Response Plan and provincial water strategy, and is five years into WSA implementation. During this time, the province has experienced unprecedented droughts that have severely impacted communities, economies, fish, and ecosystems. And, the Preliminary Climate Risk Assessment confirmed that drought is part of our future: short- and long-term water shortages are high-ranked risks facing the province.

Insights from Recent Research

A 2019 Special Report on water scarcity in BC found that 2.9 million British Columbians live in areas where water shortages are likely to be a serious problem in the coming years and uncovered major data deficiencies for water availability and scarcity.⁵

A 2018 study led by government, *Mapping Aquifer Stress, Groundwater Recharge, Groundwater Use, and the Contribution of Groundwater to Environmental Flows for Unconfined Aquifers across BC*,⁶ notes that one in every five unconfined aquifers in the province is likely stressed. Regions of priority for groundwater management include the Okanagan, the Lower Mainland and Vancouver Island, and isolated aquifers in other regions.



BC Water Leaders consistently identify⁷ the need to update the BC Drought Response Plan—along with implementation of mitigation and adaptation measures like Water Sustainability Plans and environmental flows regulation—to move from costly crisis response to proactive prevention and forward-looking adaptation. This shift in approach is essential to reduce the severity of social, economic, cultural, and ecological damages from drought and help communities prepare and adapt.⁸

⁵ <https://watershedwatch.ca/wp-content/uploads/2019/09/2019-09-24-Tapped-Out-RGB.pdf>

⁶ https://a100.gov.bc.ca/pub/acat/documents/r54468/WSS-2018-04GWfootprint_1532281350342_2278704448.pdf

⁷ See 2021 submission (<https://poliswaterproject.org/polis-research-publication/statement-of-priorities-for-the-watershed-security-strategy-and-fund/>) and 2018-19 submission (<https://poliswaterproject.org/polis-research-publication/b-c-water-leaders-statement-of-essential-elements-for-freshwater-protection/>)

⁸ <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/mrgncy-mngmnt-strtg/index-en.aspx>

In particular, we emphasize three key reforms to BC's Drought Response Plan and approach:

- 1. Aligning drought response with UNDRIP and DRIPA:** developing decision-making structures and processes with Indigenous Nations for drought response that reflect UNDRIP and DRIPA commitments and G2G relationships. This may involve evolving existing regional drought management structures or creating new collaborative approaches under G2G agreements. It also involves further inclusion of Indigenous perspectives throughout the Drought Plan and in identifying indicators and thresholds to trigger different Drought Levels and responses.
- 2. Developing clear watershed-specific triggers and indicators:** working with communities and local Indigenous nations on watershed basis to define local indicators⁹ that effectively trigger a timely progression between Drought Levels to engage formal restrictions, regulatory actions, and emergency responses.
- 3. Linking the Drought Levels and responses with deployment of WSA regulatory tools:** using Drought Levels as mechanisms to efficiently trigger and engage WSA temporary protection orders. This short-term approach must be paired with further specific tools such as Water Sustainability Plans, Water Objectives, and local plans led by co-governed regional drought teams to create longer-term solutions and responses.

[3. Preview Emerging Research Focus on Drought Mitigation & Response](#)

POLIS and key water community and Indigenous organization partners will be embarking on a deeper research and policy and law reform project to examine best practices for drought response from around the world and provide recommendations and direction on elements of a world-class and fully modernized BC Drought Response Plan. While this research is in early stages, we share the following key themes that will shape our review and recommendations, and welcome your comments and feedback:

- Options for collaboration and shared decision making with Indigenous nations in establishing local drought response teams and setting watershed-specific thresholds and drought response approaches.
- BC Hotspot identification and mapping.
- Examples and best practices in BC and globally for local drought response that can be better enabled more broadly or amplified provincially.
- Mechanisms to strengthen linkages between Drought Levels and deployment of WSA regulatory and other legal tools.
- Key mitigation and adaptation measures needed in tandem with a modernized Drought Response Plan for a comprehensive, holistic approach to drought management and adaptation in BC, including explicit attention to an environmental flows regulation.
- Opportunities and needs for policy integration across BC ministries, Indigenous nations, and federal and local governments.

⁹ Including consideration of watershed-specific supplemental indicators, such as water temperature and impacts to cultural sites and practices.