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Water Sustainability Act Update

Water Leaders Workshop

November 23, 2016

Ministry of Environment
Ministry of Forests, Lands and Natural Resource Operations



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Representatives here today:



ENV

- Kaaren Lewis, ADM, Environmental Sustainability and Strategic Policy Division
- Lynn Kriwoken, Executive Director, Water Protection and Sustainability Branch
- Jen Turner, Water Policy Advisor
- Jenn Todd, Groundwater Hydrologist
- Ted White, Manager, Water Strategies and Conservation
- Ian Graeme, Manager, Watershed Sustainability

FLNRO

- Ward Trotter, Executive Director, Natural Resources
- Jaroslaw Szczot, Senior Aquatic Ecologist

2





Outline

- Policy update
- EFNs
- Monitoring
- Phase 2 regs
- Next steps

3

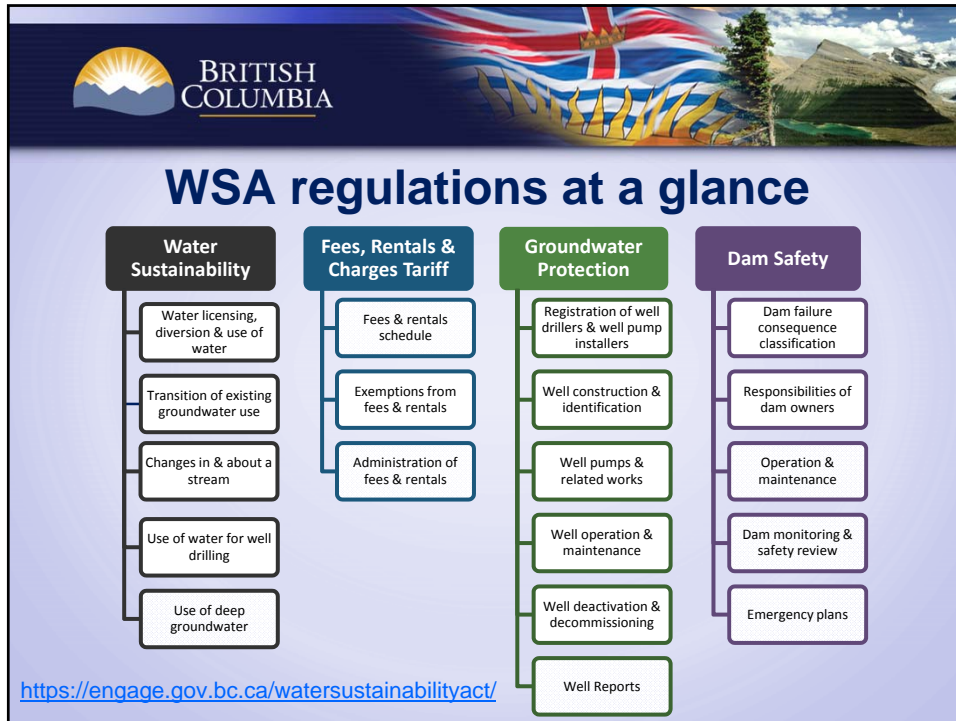


Water Sustainability Act (WSA)

- Updates and replaces the *Water Act*
- Responds to current and future pressures on water, including groundwater
- Includes new measures to:
 - protect stream health
 - regulate groundwater
 - manage water use during times scarcity
 - expand opportunities to participate in decision-making processes



4



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Groundwater Licensing

- Licence required for **non-domestic** groundwater use
 - Irrigation, industrial, commercial, etc.
- Domestic groundwater use exempt from licensing
 - Domestic includes household use, fire prevention, pets & livestock for household use, garden & lawn irrigation
- Apply at FrontCounterBC.gov.bc.ca
- Application fees and annual rentals payable



Actions to support applications

Better client information on application requirements (available now)

- Checklist on info requirements (available at FCBC offices)
- Plain language “what do I need to apply” and “tips for successful application”

Revisions to online licence application system (to come in Dec)

- Better communicate information to clients
- Site navigation & ease of use
- Delete unnecessary content for transitioning users.

Face-to-face assistance (ongoing)

- Increase visibility of toll free telephone contact number
- Workshops in selected regions
- Options for face-to-face assistance at 29 FCBC offices



Proposed policy & regulatory amendments


- Dugouts and the Groundwater Protection Regulation
- Water use for mineral exploration drilling and small-scale placer mining
- Authorization requirements for mine drainage
- Dry hydrants for fighting fires
- Supplying water to livestock



Protecting aquatic ecosystems

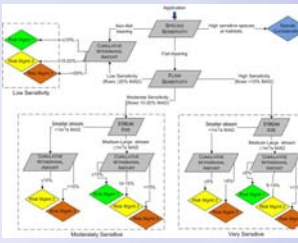
- S. 15 Environmental flow needs
 - Must consider in licensing decisions
 - Discretion to consider when licensing existing groundwater use and domestic use
 - Terms and conditions in authorizations, e.g., timing restrictions, fish flow clause, measuring and reporting
- Temporary protection orders (during shortages)
 - S. 87 Critical Environmental Flows
 - S.88 Fish Population Protection Orders
 - Essential household needs protected
- Water reservations for conservation purpose


9



Status of Provincial EFN Work

- EFN policy provides a risk assessment screen to guide decision-makers
- Continuing to develop guidance and deliver training on hydrology and hydrogeology
- Development of case studies for EFN and operational guidance underway to assist with staff training
- Policy and technical guidance on assessing hydraulic connection








Critical Environmental Flows

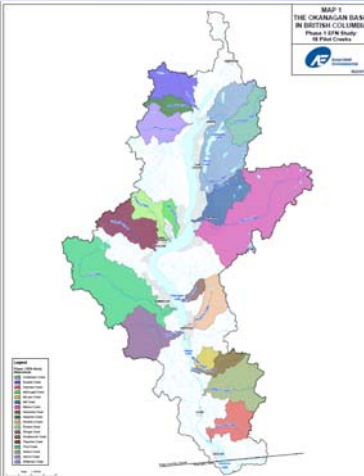
S. 87 Critical environmental flows


- Enabled when a significant water shortage has been declared.
- CEFs would be set for specific streams or areas and would supersede FITFIR.
- Have updated the Drought Response Plan and developed operational guidance on determining CEFs
- Government reviewing 2016 drought response to expand on CEF guidance and information
- Building knowledge base of CEFs for priority streams



Thompson-Okanagan Region

- Working collaboratively with stakeholders to establish regional EFN methodologies and EFN Assessments
 - FLNR (Okanagan) with the Okanagan Basin Water Board and Okanagan Nation Alliance
 - Shuswap Creek Band to develop a technical and cultural aquatic needs assessment on Shuswap Creek (Invermere)



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Thompson-Okanagan Region

- Groundwater and EFNs
 - Areas of groundwater upwelling commonly represent critical thermal refuges during periods of extended high temperatures

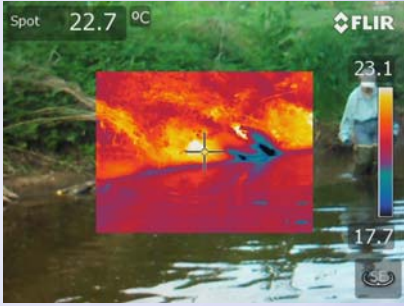



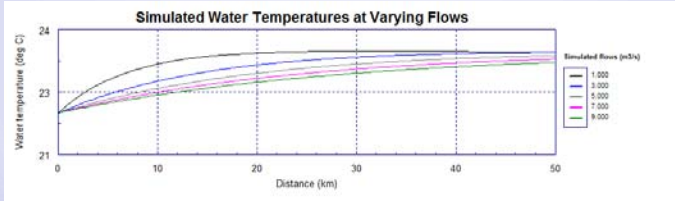
Photo credit: Dr. Jonathon E. Nyquist

- Province is collaborating with Thompson River University to map areas of upwelling in streams using a thermal imaging drone

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Thompson-Okanagan Region

- Stream Temperature Modelling (Proposal Stage)
- Calibrate stream temperature models for streams in the Southern Interior of British Columbia.




- Use models to run scenarios to investigate several important questions surrounding the management of stream temperatures in British Columbian streams.



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West Coast Region


- Developing EFN criteria for Cowichan River in consultation with Cowichan Tribes and Cowichan Watershed Board

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West Coast Region

- Developing a list and monitoring of East Coast Vancouver Island streams which are significantly temperature and flow sensitive
- Compilation of real time and historical hydrometric data sources for the West Coast region
- Measurement and modelling of fish population responses to reduced summer flows in Vancouver Island headwater systems





Monitoring across BC

- Provincial networks
- Regional monitoring to support operational programs
- Local governments and First Nations monitoring programs
- Citizen science in certain areas (e.g., Columbia Basin)
- Opportunity to develop co-monitoring programs – Northeast Water Strategy example



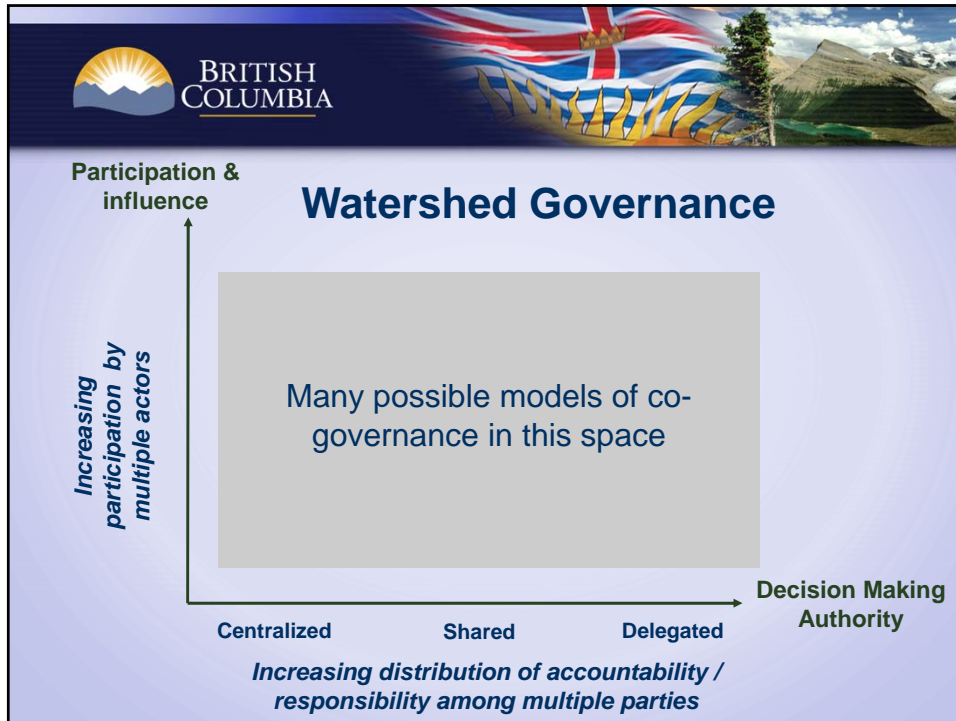
17



Future Policy and Regulation Work

- Policy work
 - Livestock watering
 - Measuring and reporting
 - Water objectives
 - Area based regulations
 - Governance and management framework
 - Pilot planning + coordination
- Communications and engagement
 - Staff engagement needed [ENV, FLRNO, MARR, etc]
 - External engagement to be determined







Next Steps

- Focus on operations to implement WSA & regulations
- Communications and outreach
- Operational policy and guidance
- Policy and regulation development
- Continued engagement with First Nations and stakeholders



Thank you!

Comments, questions, more information:



**Water Sustainability Act
and regulations:**
www.gov.bc.ca/water

Apply for a groundwater licence at:
FrontCounterBC
www.frontcounterbc.gov.bc.ca/

Photo: I. Ricketson