



DEALING WITH DROUGHT: What Water Suppliers Need to Know

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Interagency Drought Working Group**

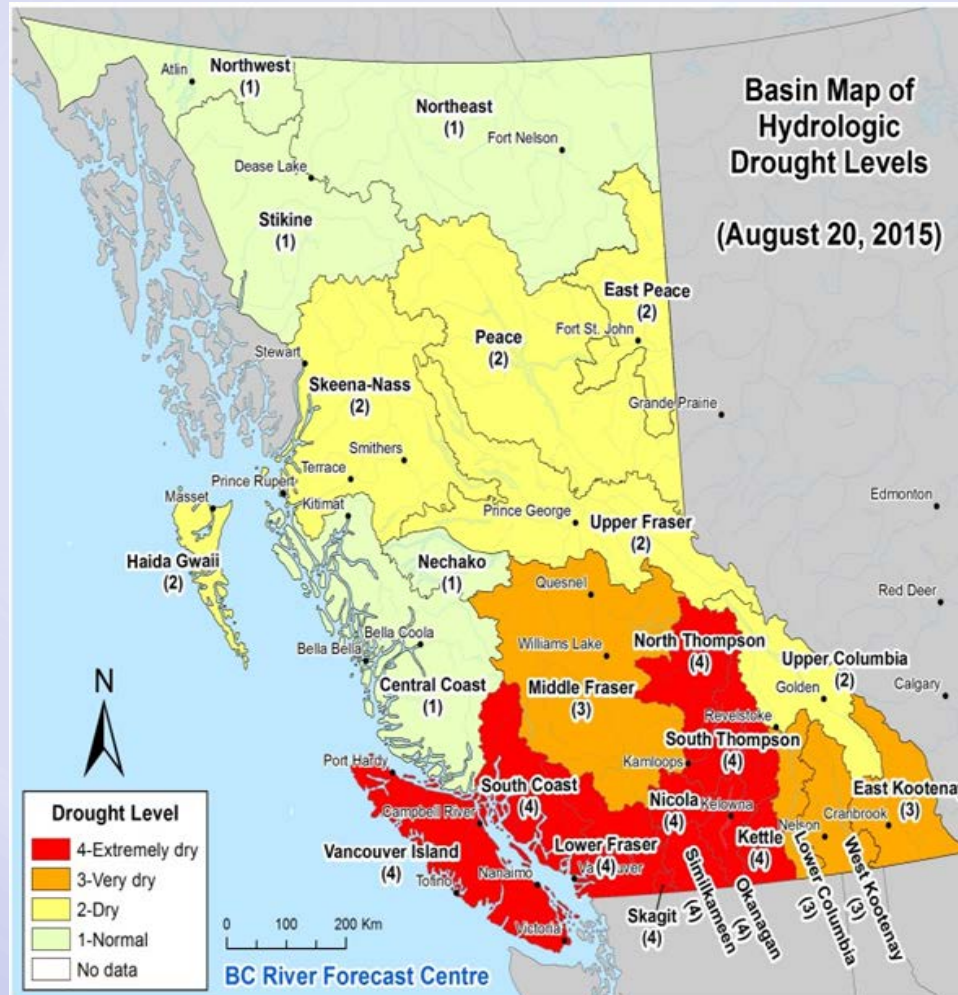
UBCM Drought Webinar
Tuesday, July 12, 2016



OUTLINE

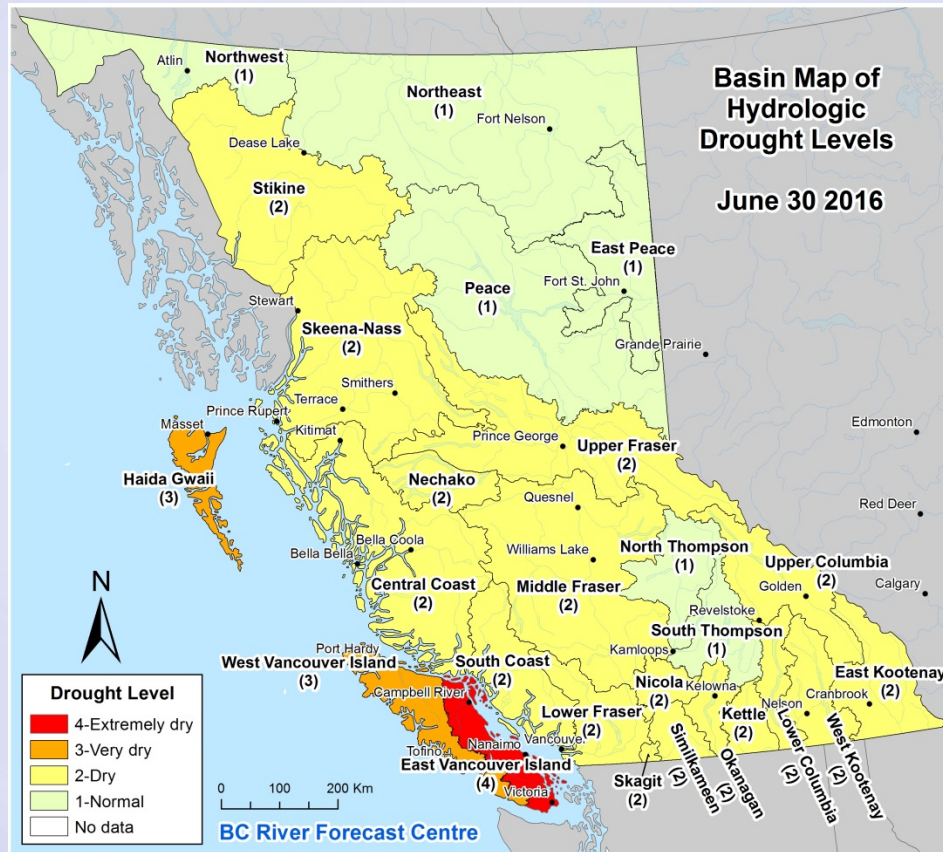
- **Welcoming Comments** – *Jared Wright UBCM*
- **What's happening in drought?** *Current drought situation and forecast*
- **How will water suppliers be affected?** *Impacts of drought*
- **What actions should water suppliers be taking?** *Planning and preparing for drought*
- **What to do if it becomes serious?** *Providing and getting help*
- **Where can water suppliers get more information?**
- **Questions and answers** *Interactive session*

Drought 2015





Drought 2016





2016 Drought Forecast

- Temperatures in April, May and early June have broken records
- Warmer than normal temperatures forecast to August
- Despite normal snowpacks, rapid melting in April & May has depleted them, freshet 3-4 weeks early, streams falling
- Lower than normal spring precipitation to date, although recent rains have helped
- Wildcard: future precipitation
- **High probability of drought in 2016**



What are the Impacts of Drought?

- Dropping stream, lake, reservoir and groundwater levels
- Less water for community needs, agriculture and industry, including fire protection
- Water quality impacts due to less dilution, more treatment may be necessary
- Ecosystem impacts



2016 Provincial Actions

- Activation of strategic and regional working groups
- Tracking, analyzing drought; forecasting scenarios
- Monitoring of field conditions – streams, wells, fish, agriculture
- Liaison with local communities, agencies, industry sectors and First Nations.
- Economic Impact Assessment
- **Vulnerability Study** for community water supplies



What should water suppliers be doing to plan and prepare for drought?

- Get to know your water supplies – assess and plan. Think long term, consider climate change
- Improve water use efficiency – conserve, conserve, conserve
- Communicate, educate and participate



**What Provincial tools are
available to help water
suppliers plan and prepare?**

Ministry of Forests, Lands and Natural Resource Operations



WATER CONSERVATION GUIDE

for British Columbia



December 2013

Dealing with Drought

A Handbook for Water Suppliers in British Columbia

Updated July 2016



Dealing With Drought: A Handbook for Water Suppliers in British Columbia v.1



British Columbia Drought Response Plan

Revised July 2016

Prepared by the Ministry of Environment
on behalf of the Inter-Agency Drought Working Group



Infrastructure and Planning Support

- Gas Tax Fund
 - Community Work Fund
 - Strategic Priorities Fund
- Asset Management Planning Grant Program
- Additional information on these programs can be found at the following urls:
 - <http://www.ubcm.ca/EN/main/funding/renewed-gas-tax-agreement.html>
 - <http://www.ubcm.ca/EN/main/funding/lgps/asset-management-planning.html>



Infrastructure Planning Grant Program

- **Who can apply:** Local Governments
- **What projects are eligible:** long term plans & feasibility studies (ex. demand management strategies/water conservation plans, drought management plans, water master plans, wastewater reclamation/reuse studies).
- **Access:** year round intake for applications, January and June deadlines, up to \$10,000 on a cost shared basis
- **Who to contact:** CSCD staff main point of contact, administer the program, reviews applications
- **Info:** Program guide & application located:
http://www.cscd.gov.bc.ca/lgd/infra/infrastructure_grants/infrastructure_planning_grant.htm



**MOVING FROM PLANNING AND
PREPARATION
TO
RESPONSE**



Role of Province

- Coordinate provincial interagency preparedness and response
- Monitor provincial conditions
- Determine drought levels, issue streamflow advisories
- Implement regulatory restrictions, if required
- Provincial communications
- Support local emergency preparedness and response efforts

Role of Local Government

- Front line for community support
- Monitor local conditions
- Manage community water supplies
- Implement water conservation strategies
- Communicate with residents, local media
- Lead for emergency preparedness and response efforts; liaison with province



A word about provincial drought levels and local drought stages....

Level 1 - Normal

Level 2 – Dry

Level 3 – Very Dry

Level 4 –Extremely Dry



Stage 1 Restrictions

Stage 2 Restrictions

Stage 3 Restrictions

Stage 4 Restrictions

Stage 5 Restrictions



**Resource
Management**

**Emergency
Management**

Water
Sustainability
Act

Drinking
Water
Protection Act

Emergency
Program Act



Water Sustainability Act

- Regulation of water use according to FITFIR- First in Time, First in Right
- Groundwater is now regulated – *new*
- Declaration of water scarcity – *new*
- Critical Environmental Flows – *new*
- Fish Protection Orders
- Essential Household Needs - *new*

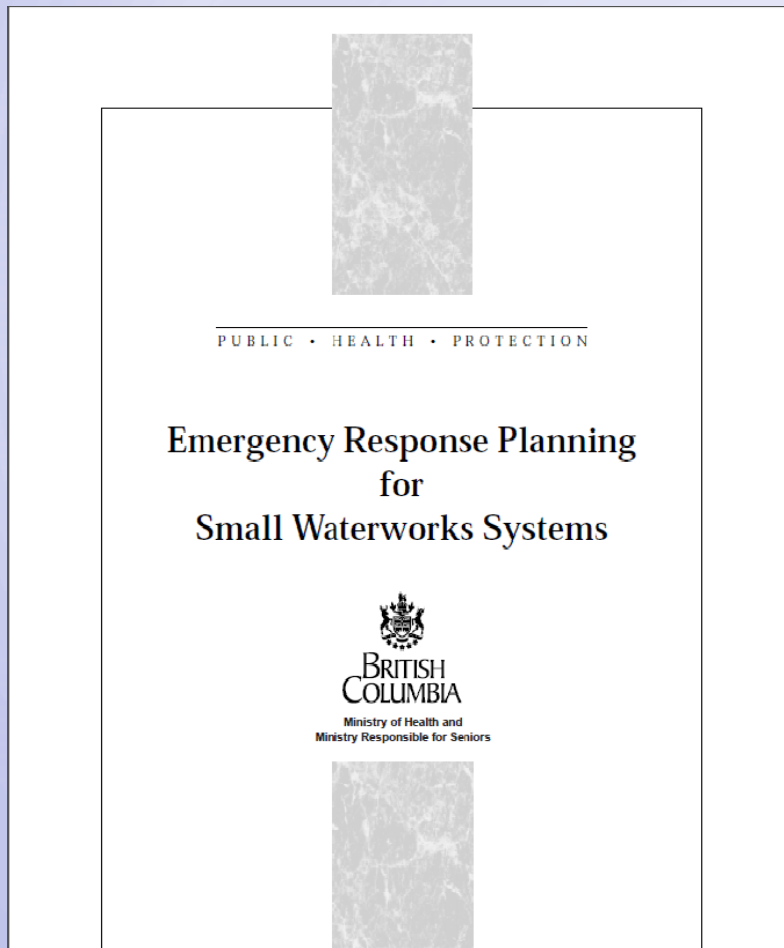


Drinking Water Legislation and Emergency Response

- *Drinking Water Protection Act*: Section 10 requires all prescribed water supply systems to have an **emergency response and contingency plan**
- Drinking Water Protection Regulation: Section 13 provides further details that must be followed



Available resource to help small systems plan:



- BC Emergency Response Planning for Small Water Systems Booklet:
<http://www.health.gov.bc.ca/library/publications/year/2000/PHI061.PDF>
- The Ministry of Health is currently updating the booklet. The update will be released later this year.



Emergency Response - EMBC

- **ACTIONS**

- Emergencies are managed first at the local level.
- Local authorities can find detailed guidance on developing Emergency Drought Consequence Plans in *Dealing with Drought: A Handbook for Water Suppliers in BC*
- However, if the situation escalates, the provincial emergency management structure will provide coordination to local governments to support community specific requirements.

- **CONTACTS**

- Local governments can report emergency situations affecting the health and safety of the public to Emergency Management BC (EMBC) at 1-800 663-3456.
- For inquiries, advice and recommendations regarding water supply issues for fire suppression contact the Office of the Fire Commissioner



Where can water suppliers get more information?

- **Drought website and portal:** <http://gov.bc.ca/water>
- **Circulars** – MCSCD, FNHA
- **Email:** bcdrought@gov.bc.ca;
LivingWaterSmart@gov.bc.ca
- **Direct Contact:** Regional drought teams, regional FLNRO, EMBC, MCSCD, Health Authority



QUESTIONS AND ANSWERS

Please submit your questions via [LiveMeeting](#)



To answer your questions.....

- **Jared Wright** – *UBCM*
- **Valerie Cameron** – *Ministry of Forests Lands and Natural Resource Operations*
- **Armel Castellan** - *Environment Canada*
- **Dave Campbell** – *River Forecast Centre*
- **Karen Rothe** – *Ministry of Community, Sport and Cultural Development*
- **Brian Bedford** – *Ministry of Community, Sport and Cultural Development*
- **Joanne Edwards** – *Office of Provincial Health Officer*
- **Dave Fishwick**– *Ministry of Health*
- **Leslie MacDonald** – *Emergency Management BC*
- **Ralph Mohrmann** – *Emergency Management BC*
- **Heather Granger** – *Ministry of Environment*
- **Julia Berardinucci** – *Ministry of Environment*
- **Andrew Petersen** – *Ministry of Agriculture*



THANK YOU!

BC Drought Web Page: <http://gov.bc.ca/water>

BC Drought Portal: <http://arcg.is/1W9SMZv>

Drought email: bcdrought@gov.bc.ca