

West Coast Region Drought Response Plan August 12, 2015 Update



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Ministry of Forests, Lands and Natural Resource Operations

August 12, 2015

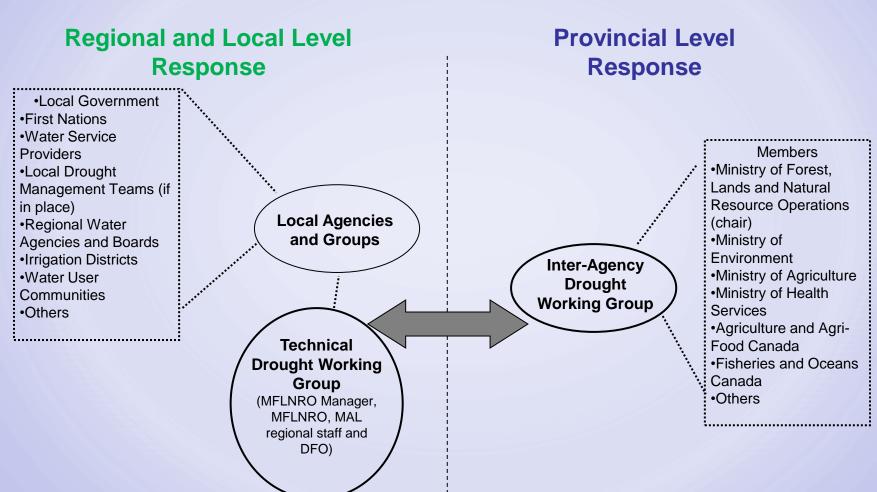


Presentation Overview

- Provincial Drought Response Organization
- Drought Response Level
- Communications
- Current Drought Response Activities
- Next Steps









West Coast Technical Drought Working Group

Name	Agency	Region
Ron Ptolemy	MOE – Ecosystems Protection and Sustainability Branch	Victoria
Brian Epps	MFLNRO	West Coast
Mike McCulloch	MFLNRO - Ecosystems	West Coast
Scott Silvestri	MFLNRO - Ecosystems	West Coast
Wayne Haddow	Ministry of Agriculture	West Coast
Jill Hatfield	Ministry of Agriculture	West Coast
Ralph Mohrmann	Emergency Management BC	Victoria
Gary Anderson	Vancouver Island Health Authority	Courtenay
Clare Fletcher	EMBC VI Regional Manager	Vancouver Island



Purpose of Technical Drought Working

- Ensures effective delivery of the British Columbia Drought Response Plan
- Coordinates operational level cross-agency response to drought or low streamflow conditions
- Determines when to elevate drought levels at the basin scale.
- Works with regional cross-government drought teams who determine when to elevate the current drought level to the next level in specific watersheds and streams
- Works with regional cross-government drought teams to issue advisories/notifications on drought conditions
- Determines when to take regulatory action under the Water Act (Water Manager Responsibility) and the Fish Protection Act

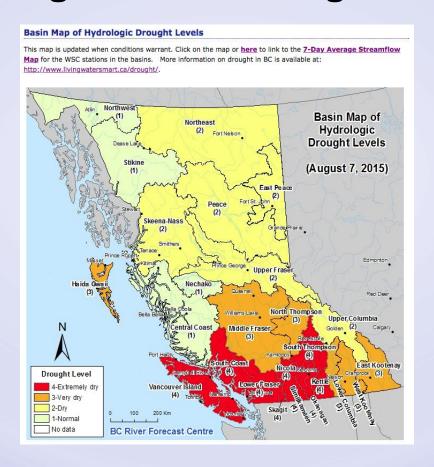


Drought Response Levels

Level	Conditions	Significance	Objective	Target
1 (Green)	Normal Conditions	There is sufficient water to meet human and ecosystem needs	Preparedness	Ongoing reductions in community water use
2 (Yellow)	Dry Conditions	First indications of a potential water supply problem	Voluntary conservation	Minimum 10% reduction
3 (Orange)	Very Dry Conditions	Potentially serious ecosystem or socioeconomic impacts are possible	Voluntary conservation and restrictions	Minimum additional 20% reduction
4 (Red)	Extremely Dry Conditions	Water supply insufficient to meet socio-economic and ecosystem needs	Voluntary conservation, restrictions and regulatory response	Maximum reduction
Loss	of Supply	Potential loss of a community's potable or fire fighting supply	Emergency response	Ensure health and safety

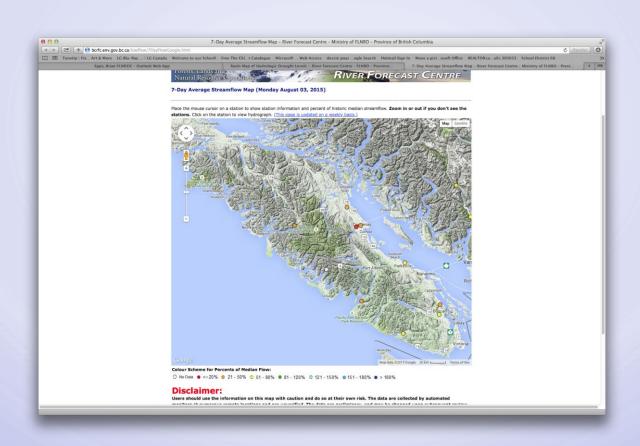


BC Drought Levels – August 7, 2015





7-Day Average Streamflow Map





Examples of Drought Response Actions

- Level 4 Extremely Dry Conditions
 - increase frequency of communication by all levels of government and water suppliers
 - continue to issue information bulletins to all stakeholders
 - implement regulatory controls under the Water Act, Fish Protection Act or other statutes as appropriate if voluntary measures are not enough to protect water users and fish
 - provide assistance to communities seeking alternative or temporary water supplies



Current Actions

Communications/Media releases

- EMBC Conference Calls to Local Authorities
- Level 4 Drought Media Release
- Agricultural Specific Letter and Information Bulletin
- Groundwater Users Specific Media Release
- Island Health Letter/Questionnaire to Water Suppliers
- FLNRO Web Site Drought Information Updates, FAQ,
 Provincial Drought Plan:
 http://www.livingwatersmart.ca/drought/
- http://www.livingwatersmart.ca/drought/response.html

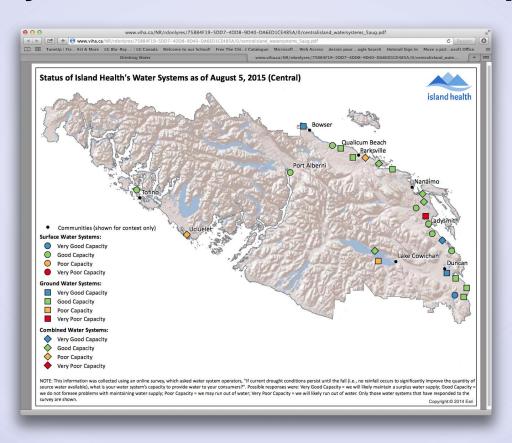


Current Actions - Island Health – Water Supplier Survey

- VIHA Link below to maps illustrating the results of Island Health's initial data collection of Water Suppliers expected capacity.
- The online maps are split into our South, Central and North Island regions.
- Links to these maps are posted on the MHO/Public Health Drinking Water page.http://www.viha.ca/mho/water/



Water System Status/Estimated Capacity





Current Actions - Provincial Observation Well Summary

Regional District	Wells within Regional District	Wells At Historic Mean	Wells Below Historic Mean	Wells at Historic Minimum	Wells Below Historic Minimum	Wells requiring site visit to verify status	Wells not included due to short-term record	% below mean to below minimum	% at or below minumum	% at or below minumum (excluding short-term)
ACRD	1		1					100%	0%	
ComoxVRD	5	2		3				60%	60%	
CRD	19	4	3	8	1	3		63%	47%	
CVRD	12	2	2	3	1		4	50%	33%	50%
RDMW	1	1						0%	0%	
RDN	34	7	7	7	4		10	53%	32%	46%
SRD	1				1			100%	100%	
Grand Total	73	16	13	21	7	3	14	56%	38%	
%		22%	18%	29%	10%	4%	19%			



Hydrometric Low Flow Monitoring

A	В																		
		C	D	E	F	G	Н		J	K	L	M	N	0	P	Q	R	S	Т
	Lo	egend:																	
	Fish Protection Act - Designated Se Critial Stream Watch List - Aquatic																		
	VIHA - Water Suppilers with source		v canacity																
	VIII Water Suppliers With Source	s localities with potentially los	cupacity																
			Sites S	orted Alphabetically	Ranging	in Locatio	n From Victo	ria to Campbel	I River										
				Drainage Area	Man	Decimal	Decimal	Currently	Natural/	Real time		ge Low	Days of	Date of	Record		Flow Inst		
Stream Name	Area	WSC Number	Year	(sq.km.)	Sheet	Latitude	Longitude	Operated	Regulated	information		7-day (m³/s)	Record	Occurrence	(years)	3 inch flume	6 inch flume	Current Meter	
or de Cosmos nie Creek	near Sayward near Bowser	53 33	1985 1985	127.5 12.5		50.271 49.382	125.658 124.591				0.226		2	Aug - Sept		-			
		33	1965			49.362	124.091	Yes -			_		2	Sept	_	_			
nie/Shaw Creek	near Bowser		?	12.5	92 F/7			John Baldwin		No	0.002			July to Sept	2	X	X		
rill Creek	Duncan	08HA015	?	17.1	92 B/13			No		No	0.001	0.001		June to Sept	12	X	X		
ron Creek		A-37	1977	<0.5		50.100	125.267		N		0.004		92	July - Sept					
ron Creek	near Bloedel	50	1985	<0.32		50.112	125.337		N		0.001		2	Sept					
sil Brook ar Creek	Cortes Island Campbell River	08HD017 Trib to Oyster River	2		92 K/4			No		No						??	??	??	
				8.8	92 104	40 131	123 017	NO		NO	0.011		2	Cont	-		"	***	
		10			92 G/4	40.101	120.017	No	l	No			-		1	l x	×		
	near Sayward	52	1985	66.1		50.253	125,731				0.266		2		<u> </u>	<u> </u>			
gs Creek	Duncan	08HA016	?	15.5	92 B/13			Yes		No	0.013	0.015		Aug to Sept	37	X	х		
ck Creek		A-29	1977	54.649		49.817	125.117		N		0.004		92	July - Sept					
ck Creek	Courtenay	MeLP site	?		92 F/14			Yes		No		0.001		Aug		X	Х		
nkinsop Lake		A-8				48.483	123.350		N		0.641		8	July - Sept					
		41				49.589	124.982						15	Sept					
															1				
	Nanaimo		?		92 F/8			No		No		0.002			1	×	X		
	Monolese				00 8/40	48.833	123.717	No	N	Ma		0.005	99			-	-		
		UBHAUZZ		13.0							0.001	0.005		Aug	1			20	
		08HB054		28.6	92 (3/4	40 148	123 042	NO NO	P	NO	0.087		2	Cont	-	- "	17	17	
					92 G/4	49.140	123.943	No		No		0.022	- 4		1	Y Y	¥		
					02 GH	49,448	124.757	NO.	l	NO		0.022	15		<u> </u>	 ^	^		
	Courtenay			25.7	92 F/7			No		No	0.006			Sept	2	X	Х		
emainus River		08HA001		355.0							0.457	0.505			48			X	
erry Creek		A-32	1977	11.396		49.267	124.767		N		0.033		92			_			
erry Creek	near Port Alberni	26	1985	17.1		49.278	124.778		N		0.007		15	Sept					
			1985	39.2		48.891	124.239				0.160		16	Sept					
wie Creek			?													_		77	
ig Creek	Parksville		,	11.7	92 F/8			Iohn Baldwin		No	0.007	0.008		Sept	1	X	X		
igflower Creek	Victoria	08HA034	2	20.9	92 B/6			No.		No	0.003	0.003		July to Oct	7	X	X		
			_											,		-			
p Bay Creek	Courtenay		2		92 F/7			No		No						??	??	??	
namiel Creek																			
ve Creek	Courtenay	08HB075	?	41.1	92 F/11			Yes		No	0.013	0.016		July to Sept	13	Х	Х		
dishman River	Parksville																		
dishman River	Parksville																		
os Creek	Nanoose	08HB030																	
nch Creek		A-25	1977	46.879		49.300	124.417		N		0.007		92	July - Sept					
nch Creek	Parksville	08HB038/ 08HB078/ MELP	?	86.6	92 F/8			No - MELP summer 2001		No	0.006	0.008		July to Sept	6	х	х		
ford Creek	Salt Spring Island	08HA055																	
net Creek	near Cobble Hill		1985	4.91		48.710	123.564		?		0.001		2	Sept					
mett Creek	Duncan		?	4.9	92 B/12			No		No	0.001			Sept	1	Х	Х		
nora Creek		A-18	1977	19.5027		48.733	123.733		N		0.016		102	June - Oct					
				20.8	92 B/12						0.012			Aug to Sept	2				
ryhole Creek			?					No		No						??	??	??	
	Saanich																		
		08HB003										0.208				_		X	
			?	29.0	92 F/14			No		No	0.059			Aug	1		Х		
	Hoggan Lake		4077	20.000		40.767	405 447				0.007		OF.						
	Ladvemith	A-30							R		0.327								
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Next Steps

- Review waters supplier capacity reports (Island Health reports).
- Review aquatic health reports (Fish Health)
- Review supply vs. demand reports for large water users (Industrial, Irrigation, Hydro, to determine if regulatory measures can help to manage available water more effectively.
- Review groundwater levels to determine downwards trends
- Expand streamflow monitoring to support decision making and potential regulatory options



Questions ??

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