

# Burnt Bridge Creek TMDL Update for VLWP

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# The Toolbox

- A TMDL is the tool for addressing listed (confirmed) water quality impairments in a watershed.
- Other tools are used to address other issues, e.g.,
  - Watershed Planning deals with water quantity
  - Toxics Cleanup Program deals with “legacy” pollutants, such as toxic pollutants in sediments at former industrial sites
  - Special studies are used to determine if other water quality parameters are impaired

# BBC Listed Impairments

Waterbody	Parameter	2008
Burnt Bridge Creek	Dissolved Oxygen	8
	Fecal Coliform	9
	Temperature	7
	pH	2
Peterson Ditch	Fecal Coliform	1
	Temperature	1

Note: There are no water quality standards for nutrients, such as phosphorus, in streams. Nutrient problems are addressed through dissolved oxygen, pH and temperature TMDLs.

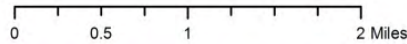
# Ecology Study

- 19 sites monitored May 2008 – September 2009
- Parameters
  - Surface water chemistry and flow
  - Groundwater chemistry and inputs/outputs
  - Air temperature, relative humidity, wind speed
  - Other – riparian vegetation height and density, channel width and depth, dry and wet season storm events



# Burnt Bridge Creek Monitoring Sites

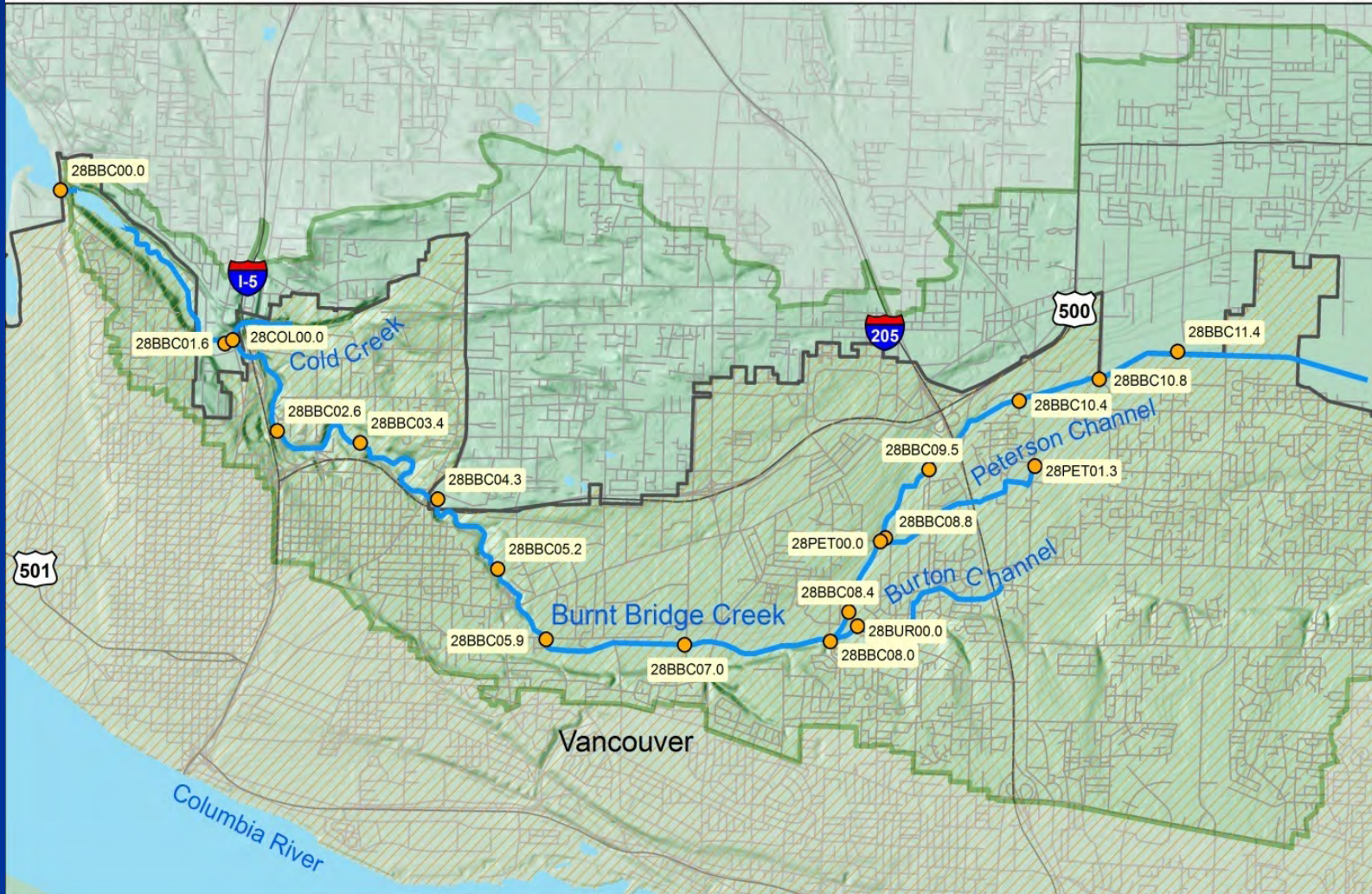
- Monitoring Sites
- Creeks
- Vancouver City limits



Study Area in  
WRIA 28  
Salmon-Washougal



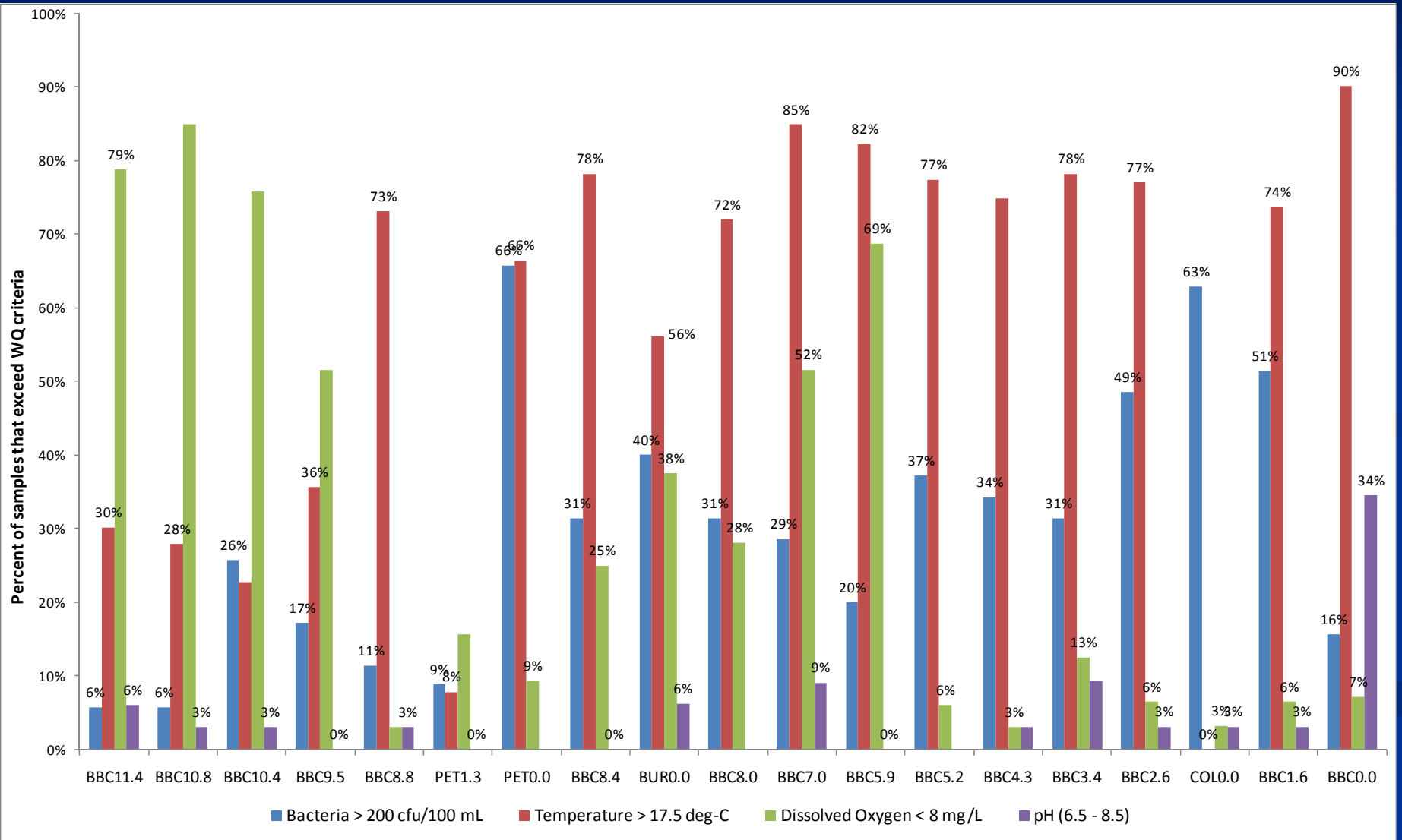
6/19/2008



# Data Compared to WQ Criteria

Site ID	Total number of days above water quality criteria							
	Bacteria > 200 cfu/100mL		Temperature > 17.5°C		Dissolved Oxygen < 8 mg/L		pH 6.5 - 8.5	
	# days	# samples	# days	# samples	# days	# samples	# days	# samples
BBC11.4	2	35	82	272	26	33	2	33
BBC10.8	2	35	76	272	28	33	1	33
BBC10.4	9	35	62	272	25	33	1	33
BBC9.5	6	35	97	272	17	33	0	33
BBC8.8	4	35	198	271	1	33	1	33
PET1.3	3	34	21	268	5	32	0	32
PET0.0	23	35	180	271	3	32	0	32
BBC8.4	11	35	212	271	8	32	0	32
BUR0.0	14	35	128	228	12	32	2	32
BBC8.0	11	35	95	132	9	32	0	32
BBC7.0	10	35	230	271	16	31	3	33
BBC5.9	7	35	222	270	22	32	0	32
BBC5.2	13	35	209	270	2	33	0	33
BBC4.3	12	35	202	270	1	33	1	33
BBC3.4	11	35	212	271	4	32	3	32
BBC2.6	17	35	211	274	2	31	1	32
COL0.0	22	35	0	270	1	31	1	32
BBC1.6	18	35	202	274	2	31	1	32
BBC0.0	5	32	191	212	2	28	10	29

# Percent of Samples Exceeding WQ Criteria



# Process and Timeline

- September 2009 → Fall 2011 – Data analysis and modeling to determine pollution reductions needed
- Fall 2011 → Summer 2013 - Work with stakeholder group to develop a detailed cleanup plan (who, what, when, where)
- 2014+ - Follow up to determine if plan is working and make adjustments as needed



# Additional Information

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Ecology's Burnt Bridge Creek TMDL website:

[http://www.ecy.wa.gov/programs/wq/tmdl/burnt\\_bridge/burnt\\_br-tmdl.html](http://www.ecy.wa.gov/programs/wq/tmdl/burnt_bridge/burnt_br-tmdl.html)