

Human Health Target Related to Drinking Water?

Cowichan Basin Water Management Plan

Vision “...*to ensure reliable supplies for human use...*”

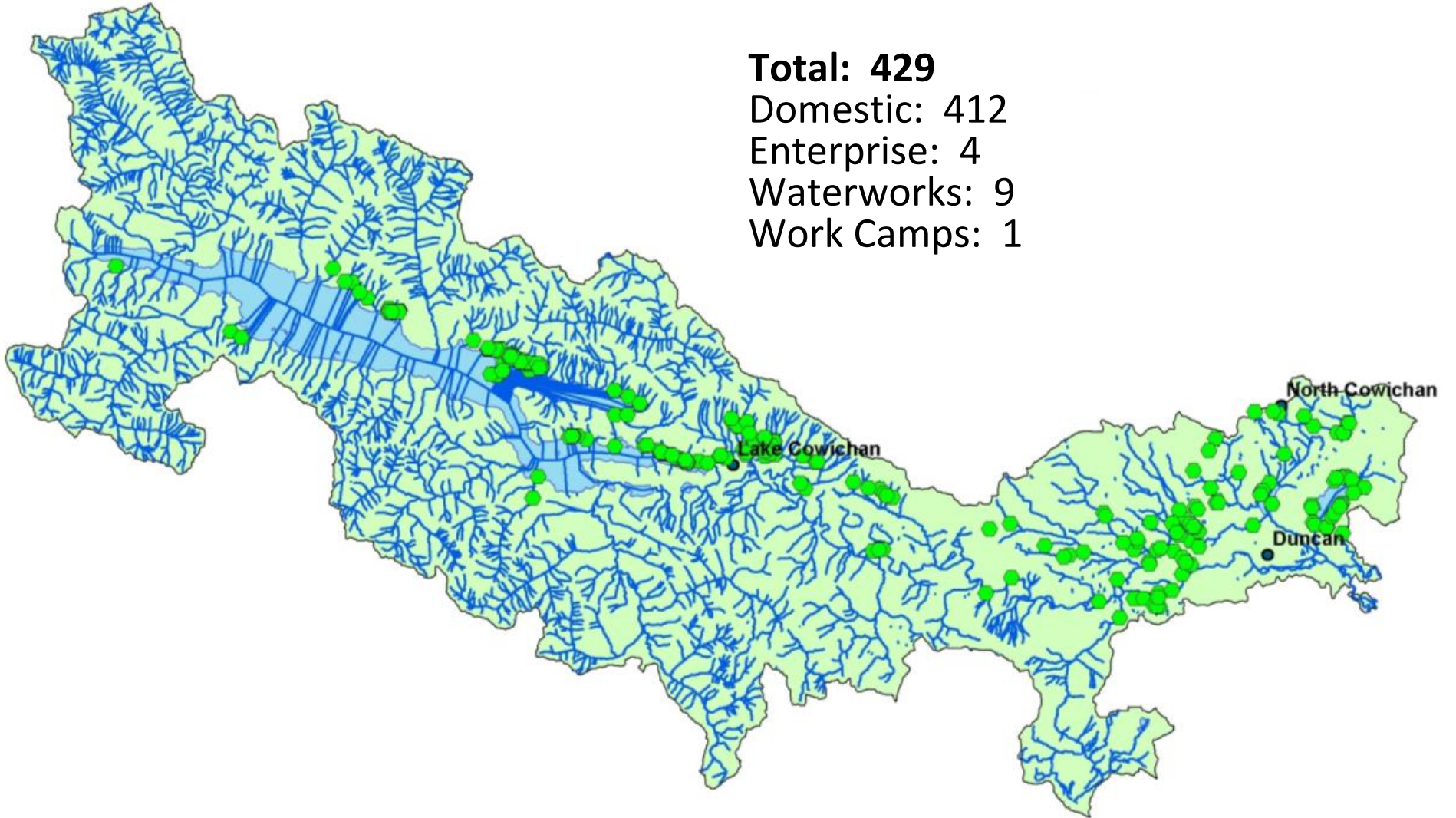
Goal 2: Manage water supply **to meet human needs** and minimize impacts of low water levels.

Objective 2d: Protect surface and ground water resources from contamination **that could reduce supply.**

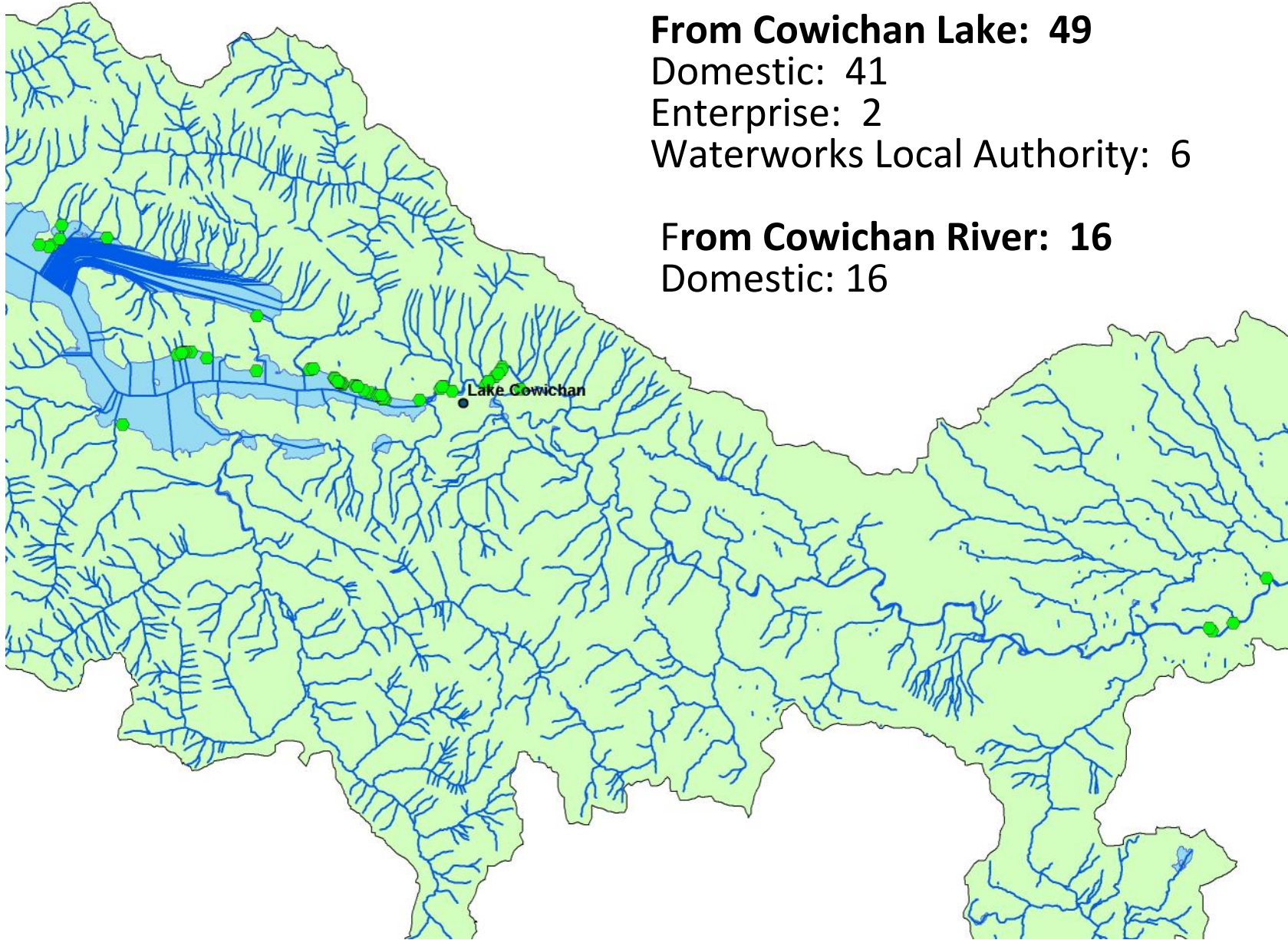
Where is human health?

Licensed Drinking Water Withdrawals

Total: 429
Domestic: 412
Enterprise: 4
Waterworks: 9
Work Camps: 1



Licensed Drinking Water Withdrawals



Where is human health?

Is it a “watershed issue” or a “water system” issue?

Treatment systems (filtration and disinfection) are expensive

To what extent should source protection result in less treatment?

Increased treatment means increased expense

BOIL WATER NOTICE

The water supplied by this water system is non-disinfected, non-treated outside water. The Public Health Inspector considers the water to be non-potable without further treatment. Interior Health has issued an order for the distribution a Boil Water Notice.

Until further notice it is recommended that: this water not be consumed without:

- Boiling the water at a rapid boil for at least 1 minute OR
- Adding 2 drops of fresh household bleach per litre of water (approximately 9 drops per gallon) to a clean covered container and let stand in the fridge for at least 20 minutes before use. OR

An alternate source of potable water could be used.

Where is human health?

Existing Targets

- Total Suspended Solids
- Estuarine Health
- Protecting Riparian Habitats

Turbidity vs Total Suspended Solids

Turbidity

The reduction of clarity in water from clay, silt, organic matter, and plankton and other microscopic organisms (commonly used for human health guidelines).

Suspended Solids

Extremely small suspended particles that do not pass through a very fine filter (commonly used for riparian health guidelines).

Existing Data or Monitoring Programs

VIHA:

Permitted surface-source water systems:

Area	Name	Source	Connections Population	Treatment
Honeymoon Bay	Caycuse Water System	Creek	15 – 300 60	No treatment, in process
Honeymoon Bay	Honeymoon Bay Water System	Well (Surface prior to 2009)	15 – 300 562	Chlorination
Lake Cowichan	Cowichan Lake Educational Centre	Lake	1 100	Chlorination
Lake Cowichan	Lakeside Estates (pending) (Marble Bay)			
Lake Cowichan	Town of Lake Cowichan	Lake	301 – 10,000 3000	Chlorination 4321 by March 2015
Mesachie Lake	Cowichan Lake Research Station	Lake/well	2 – 14 60	Chlorination
Crofton	Catalyst Paper	Cowichan River	2 – 14 (5000) 1000 (at mill)	Chlorination Conventional
Crofton	Crofton Water System Bulk water supplied by Catalyst	Cowichan River Crofton Lake	301 – 10,000 4000	Chlorination Conventional

Active Bacteriological Sampling Sites (Recreational Water Facilities)

- Gordon Bay Provincial Campsite, Honeymoon Bay
- Lakeview Park Beach, Lake Cowichan
- Duck Pond Beach, Lake Cowichan

Existing Data or Monitoring Programs

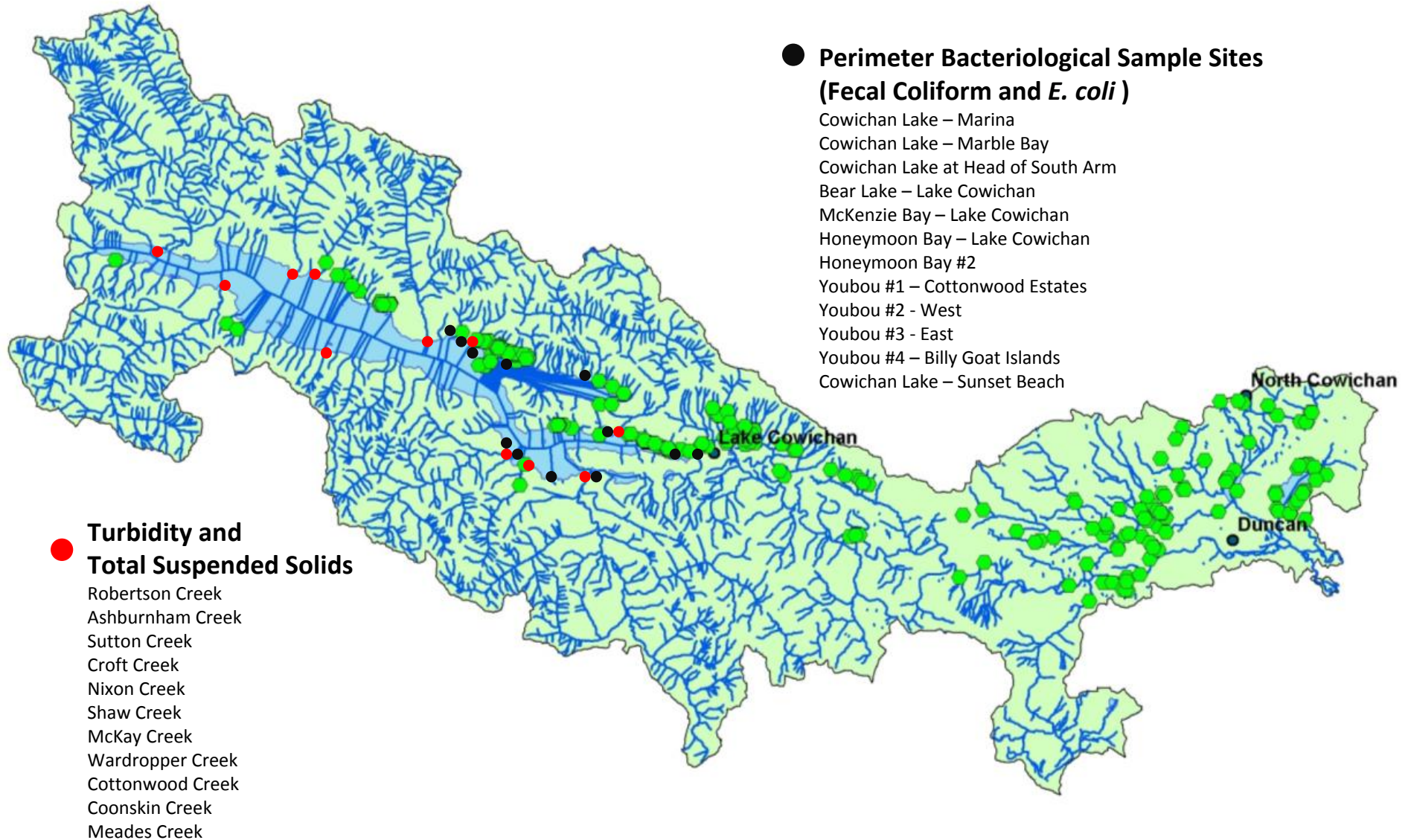
MOE:

- Draft Water Quality Assessment and Objectives for Cowichan Lake Technical Report (April 2010)

http://www.env.gov.bc.ca/wat/wq/wq_objectives.html

MOE Testing Sites – Cowichan Lake

Source: Draft Water Quality Assessment and Objectives for Cowichan Lake Technical Report (April 2010)



Existing Data or Monitoring Programs

Is there anything else?

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Discussion Points

- Private residential and small systems impacted the most. Should they be protected?
- Does the steering committee wish to pursue one?
- What is an acceptable target variable?
- What will it require in terms of data? Monitoring programs? Equipment? Buy-in?