

One Lake, Many Voices

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INTERIOR REGION
First Nations Health Authority

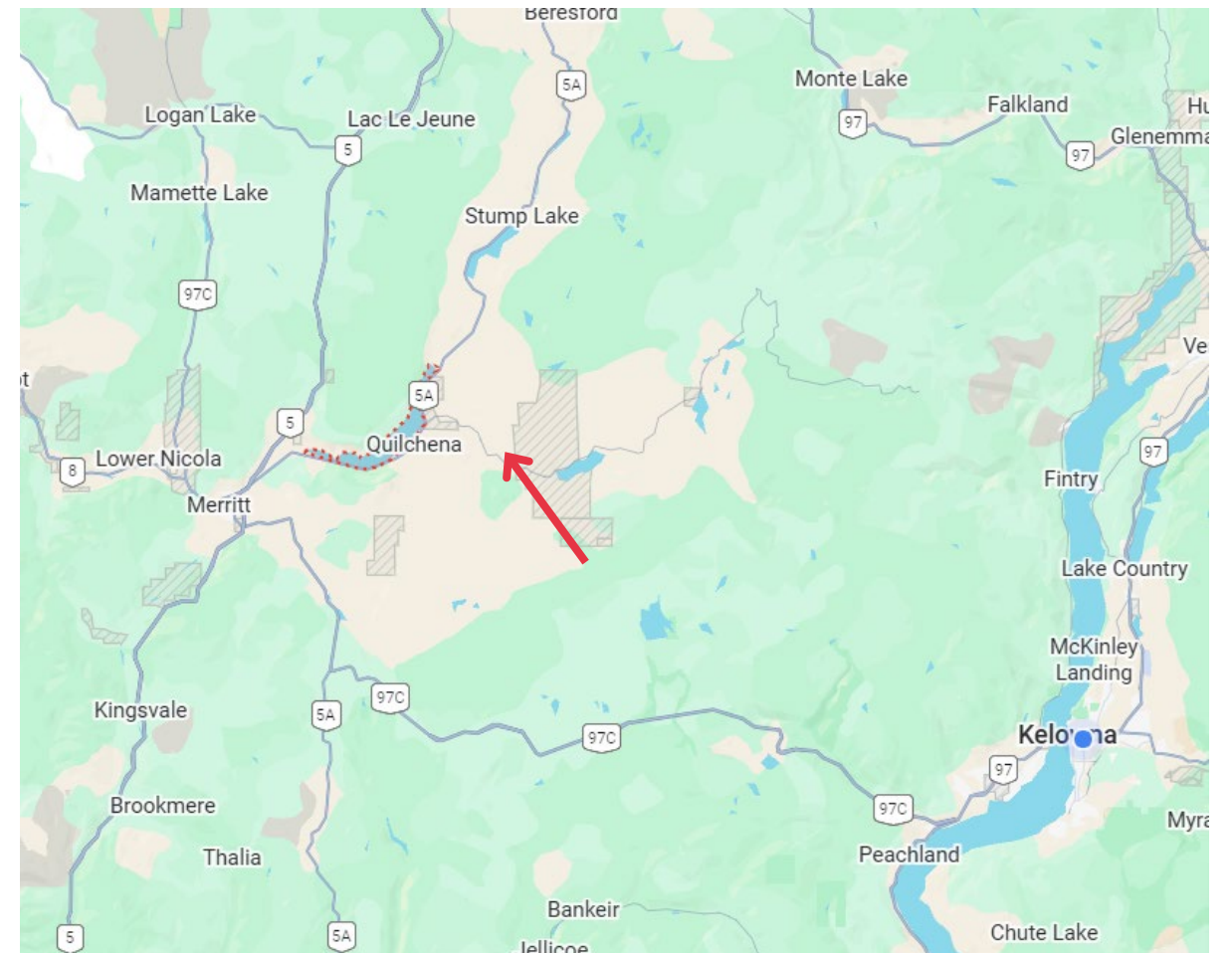


Interior Health

Situating Ourselves

The Interior region is home to the traditional, ancestral and unceded territories of the T̓silhqot'in, Secwépemc, D̓ákelh Dené, St'át'imc, syilx, Nlaka'pamux, and Ktunaxa Nations, comprised of 54 First Nations Communities.

Indigenous peoples within the Interior represent about nine percent (63,855) of the total population. Within the Interior region, the majority of Indigenous peoples live off-reserve.





About Our Work

The work that we did in this space took place in the traditional and unceded territories of the Nlaka'pamux and syilx Nations. We are grateful for the leadership of those Nations in guiding our work.

Purpose

- Share our collaborative response to a harmful algal bloom in Nicola Lake.
- Discuss ways in which partnership can lead to success across and between environmental health systems partners.
- Emphasize the importance of community-driven responses to environmental health issues & climate events.
- Highlight the need for provincial response, coordinated testing and communications and clear roles and responsibilities.

Situation

Recurring cyanobacteria blooms intensified in Nicola Lake during the summer of 2025.

Multiple animal illnesses and deaths, including a tragic case where a puppy died within an hour of exposure.

Public health concerns escalated due to the unpredictability and toxicity of the blooms.

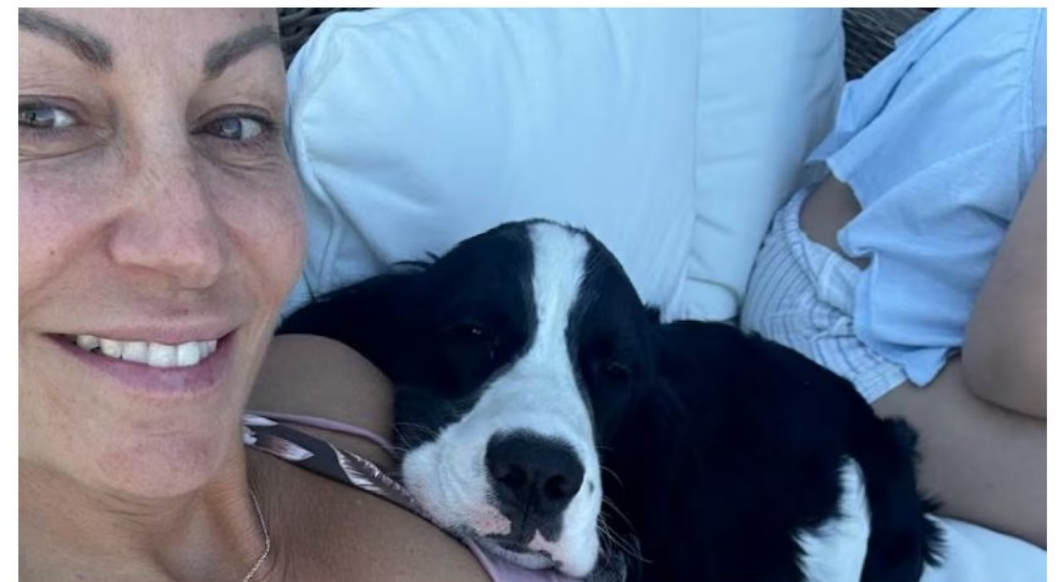
Multiagency / government response & Provincial Regional Emergency Operations Centre (PREOC) activation.

B.C. dog owner warns of algae bloom danger after pet dies following swim in Nicola Lake

Kristin Awde hopes a detection and warning system can be implemented to better protect people and pets

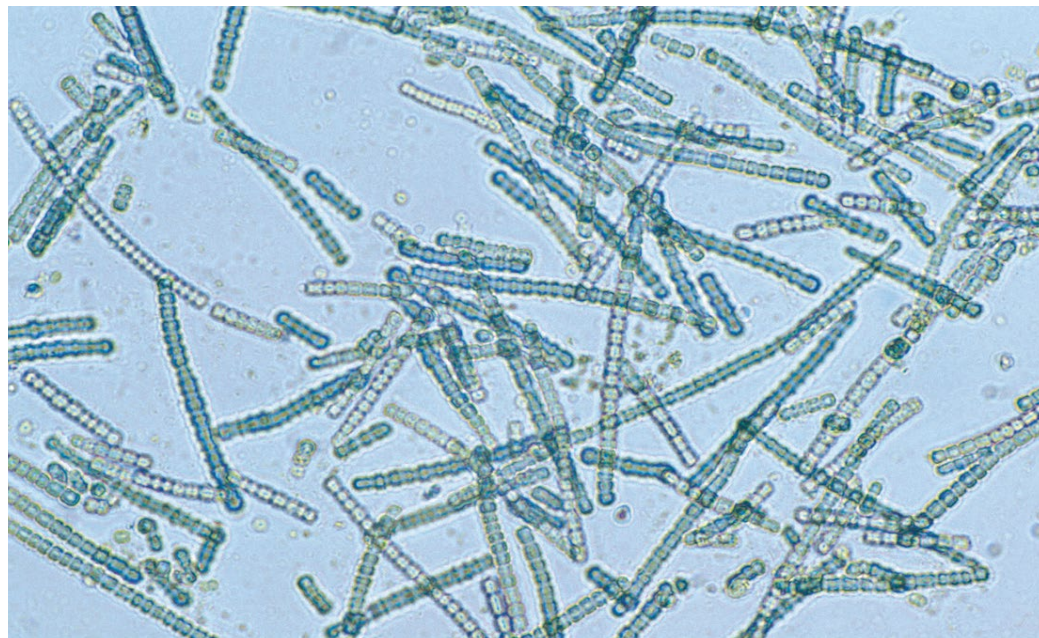


Courtney Dickson · CBC News · Posted: Jul 08, 2025 12:18 PM PDT | Last Updated: July 8



Kirstin Awde is pictured with her dog, Romie, who died last week. Now, Awde is warning others of the dangers of blue-green algae, and working with her community to find a better way to alert others. (Kristin Awde)

Health Risks of Cyanobacteria



Cyanobacteria are gram-negative, photosynthesizing bacteria (not algae) capable of forming thick blooms and producing toxins in warm, nutrient-rich waters. Climate change is impacting the rate, duration, and intensity of freshwater cyanobacteria blooms (or “Harmful Algal Blooms” / HABs).

Human

- Diarrhea
- Vomiting
- Rashes
- Sore Throat
- Fever

Animal

- Sudden respiratory failure
- Deaths of pets
- Illnesses in livestock

Environmental

- Eutrophication of lakes (excessive growth of plants)
- Nitrogen fixation (nutrients make the nitrogen transform into other chemical forms)

Social

- Impacts to traditional food systems
- Lack of trust in water
- Drinking water impacts
- Spiritual water use limitations

Health Roles

Interior Health has responsibility for providing environmental public health services on provincial lands within Interior Region boundaries.

- Issue health alerts and guidance on exposure risks
- Support signage and public education
- Coordinate local government agencies

FNHA supports First Nations Communities with environmental health programming on both “reserve” and traditional territories.

- Collaborate on development of culturally safe communications
- Coordinate signage design, printing, and deployment
- Perform testing activities



Interior Health



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Indigenous Leadership

The “Nicola 5” First Nations (Coldwater, Lower Nicola, Nooaitch, Shackan, Upper Nicola) have been stewards of the Nicola Watershed since time immemorial. The watershed is a source of food, ceremony, and recreation. They work in governance partnership to steward the land.

- Proactive monitoring and ongoing data collection on water quality
- Emphasized cultural responsibility: *“The water is sick, and needs time to heal”*
- Led community engagement and awareness efforts



**Nicola
Watershed**
GOVERNANCE PARTNERSHIP

Joint Signage Initiative

Health partners developed public health messaging, with translation into nsyilxcen language by Upper Nicola and the Syilx Nation.

- Same signage installed in provincial parks, public lands, and Upper Nicola lands
- Includes warnings in both English and nsyilxcen
- Reinforces the leadership of Indigenous peoples in land stewardship and supports revitalization of Indigenous languages
- Upper Nicola early public advisories and extended warnings to Douglas Lake



yʕat swit ʕəl sʕastwilx skʕlxʕam
Public Health Advisory

txətmistwi: iʔ qʕay-qʕwin nmətrikʕ kʕʕul, (kinknt)
Caution: Blue-Green Algae Bloom. Water is unsafe.

iʔ qʕay-qʕwin nmətrikʕ ʕapnaʔ kʕʕul alaʔ iʔ l tʕkʕt
Cyanobacteria are present in this waterbody.

lut aʔ ks kʕʕulmn axaʔ | Avoid the following:

- **lut aʔ kʕiwst iʔ tl siwkʕ alaʔ** (Drinking or swallowing water)
- **lut aʔ kʕʕalx kəm aʔ kʕkʕacknitkʕ** (Swimming or water-based recreation)
- **lut aʔ kʕxiʔxiʔstim ankəkwap kəm iʔ ansnkʕaʔsqaʕaʔ naʕ stmʕalt** (Allowing pets or livestock near the water)

ʕəʔ tknxʕncis cəm axaʔ kʕʕnuntxʕ | Exposure may cause:

- **asiʕiʔ tawʕ spaqʕʕt, kəm swap taliʔ** (Skin irritation, rashes, and itching)
- **asqicqʕ kʕəmkʕmap, kʕ tksils, kʕ witwitkx, ul kʕ nqilnk** (Stomach cramps, nausea, vomiting, and diarrhea)
- **taliʔ sqilt iʔ kəl stməscut** (Serious illness in pets and livestock)

səlap ʕəʔ taqəqnutxʕ | If contact occurs:

- **ciwnt taliʔ t ʕast t siwkʕ** (Rinse thoroughly with clean water)
- **kʕ xʕuy kəl səxʕmrim kʕ ʕəʔ qilt** (Seek medical attention if symptoms persist)
- **xʕuyst kəl səxʕmirms istiməscut ʕ qaliltəlx** (Contact veterinarian immediately if animals become ill)

ʕəʔ anʕamint nixʕ aʔ ksmipnunm iʔ stim, siwnt | For more information, contact:
IREPHS@fnha.ca or 250-851-4831

 To hear this information in nsyilxcen, please scan the QR code

Community Impacts



Emotional toll from pet deaths, fear, and frustration about the lack of ability to act.

Formation of “Friends of Nicola Lake” Society to advocate for long-term solutions.

Creation of Indigenous-led, provincially-funded land stewardship group for the watershed.

Increased public awareness and calls for provincial accountability.

Declining trust in fish from Nicola Lake as a food source.

Provincial Partnerships

Shared Objectives:

- Development of a provincial surveillance and monitoring dashboard to centralize cyanobacteria data across BC.
- Identify gaps in current response, planning, and communications, and develop provincial guidance as needed.
- Strengthen coordination on messaging, signage templates, and communication pathways to support local bloom response efforts.



Cyanobacteria and Health Coordination Committee (CHeCC-BC)

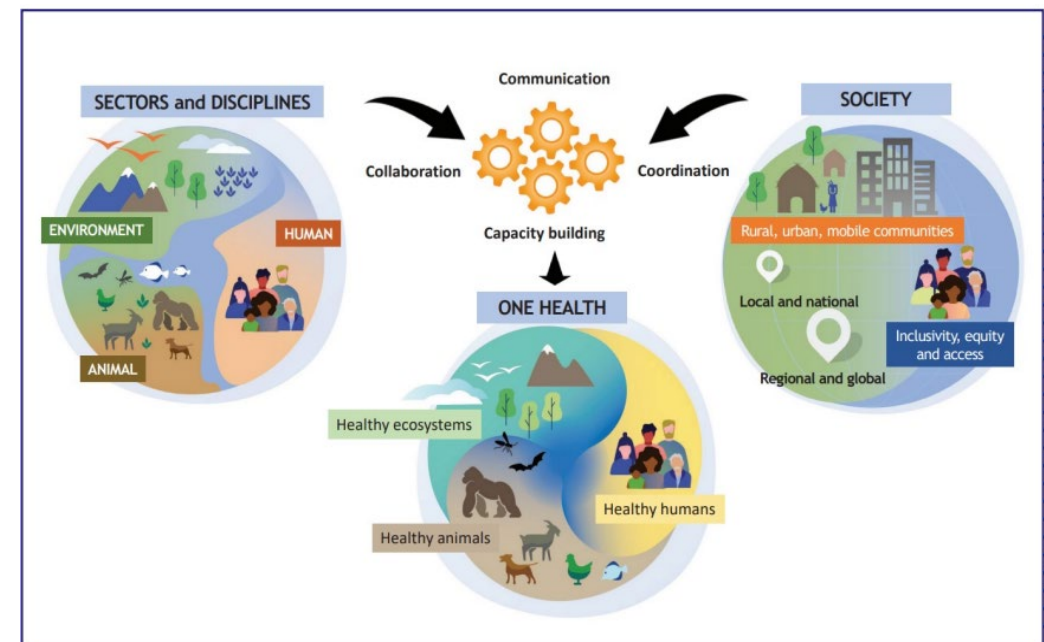
Development of the CHeCC-BC to support provincial consistency and evidence-based response.

CHeCC-BC will support a regional One Health approach to cyanobacteria blooms, and includes:

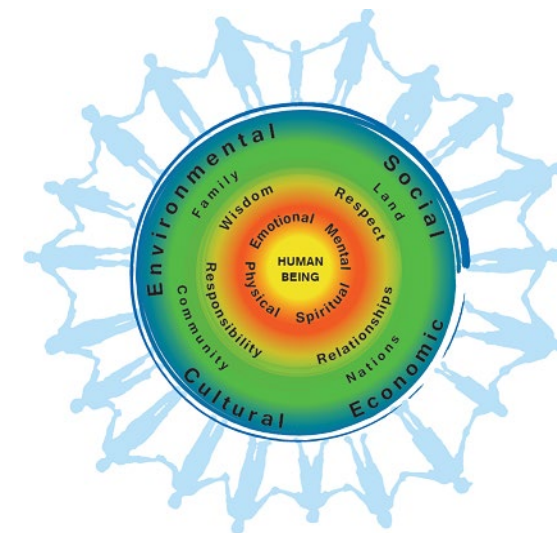
- BC Centers for Disease Control (BCCDC)
 - Ministry of Health (HLTH)
 - Office of the Provincial Health Officer (OPHO)
 - Regional health authorities (HA)
 - First Nations Health Authority (FNHA)
 - First Nations Water Caucus
 - Ministry of Water, Lands, and Resource Stewardship (WLRS)
 - Ministry of Environment and Parks (ENV)
 - National Collaborating Centre for Environmental Health (NCCEH)
-

One Health / Planetary Health

One Health is the recognition of the inherent interconnected health of the land, water, plants, and animals (including humans), which is consistent with Indigenous knowledge systems and is reflected in the Coast Salish teaching, **Nuts a maht** or “We are One”.



This is further exemplified in the First Nations Perspective on Health & Wellness, that highlights how the health of humans and Communities is intrinsically linked to the health of the land.



Looking Ahead


Continued partnerships between health systems partners and communities (First Nations and provincial).

- Water quality monitoring
- BC Algae reporting system
- Public education and signage
- Policy advocacy for watershed protection
- Provincial protocols & consistent responses
- Consistent communication & messaging

Collaborative approach to supporting Indigenous land stewardship through the lens of environmental public health.



Thank You

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Algae Watch

★ Publication date: May 10, 2021


Algae Watch is an educational program for Citizen science data gathering. Our goal is to help people recognize and identify algae blooms in B.C. lakes.

Learn about algae




- [What are algae?](#)
- [What are cyanobacteria \(blue-green algae\)?](#)
- [What causes an algae bloom?](#)

Recognize algae blooms



- [How to recognize common algal blooms](#)
- [Algae identification tools and resources](#)
- [Algal blooms photo gallery](#)
- [Other aquatic phenomena](#)

Submit your observation



- [Submit your algae bloom observation](#)
- [How to take good photos of an algae bloom](#)
- [Observation map](#)