

Is Citizen Science Informing Water Policy in Canada?

Tyler Carlson

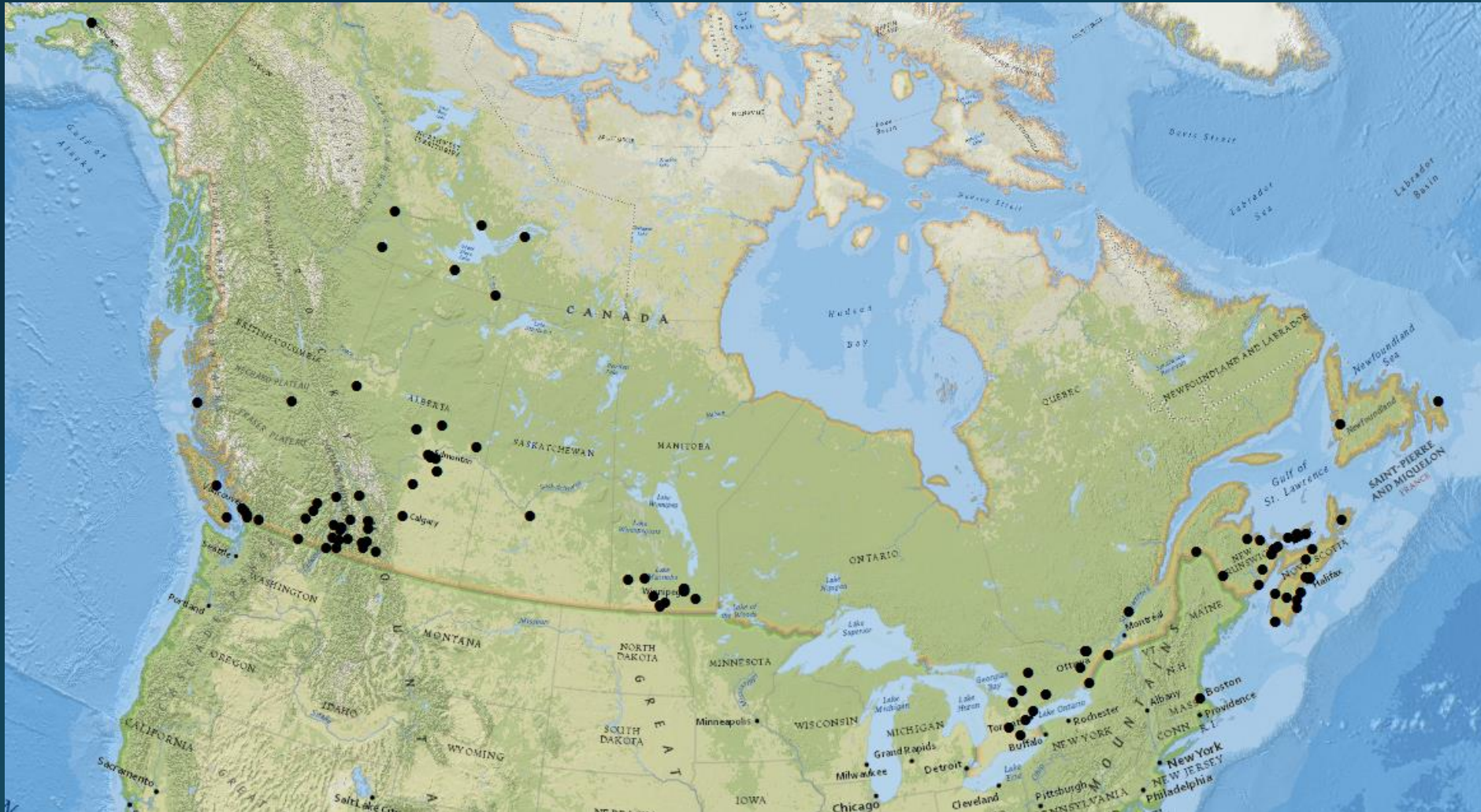
Simon Fraser University

School of Resource and Environmental Management

Background

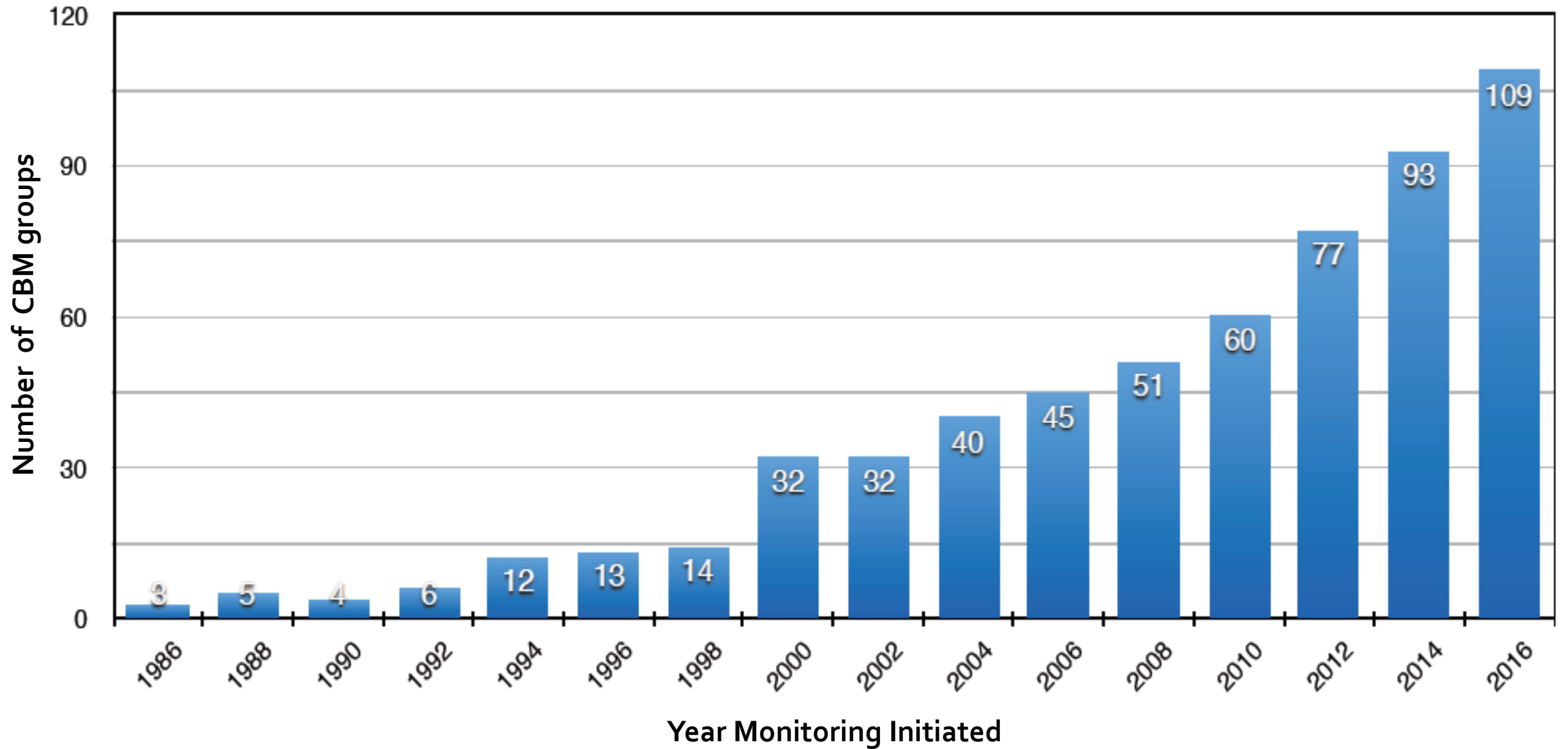
- Survey was created collaboratively by:
 - Living Lakes Canada (Kat Hartwig)
 - Simon Fraser University (Tyler Carlson), and
 - Acadia University (Dr. Alice Cohen)
- Questions that prompted the creation of the survey:
 - What CBM initiatives exist across the country?
 - What is being monitored and analyzed?
 - How are existing programs supported and coordinated?
 - Is citizen data being used by government agencies to inform water policies?

Survey Responses

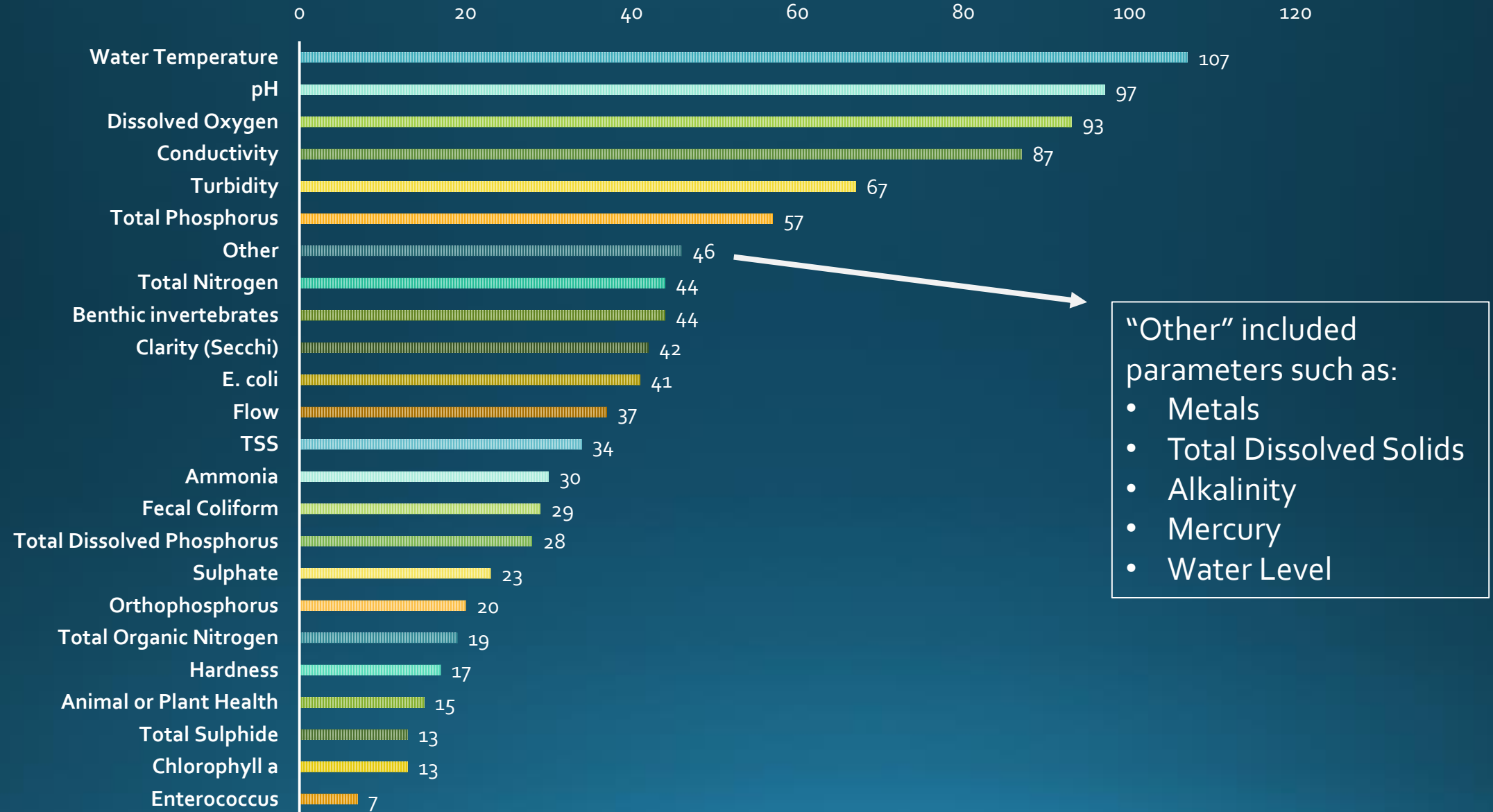


- Survey was distributed in English and French
- 123 responses from all provinces and territories
- Response rate = 45% (123/270)
- Many respondents were from BC (28%) and Nova Scotia (17%)

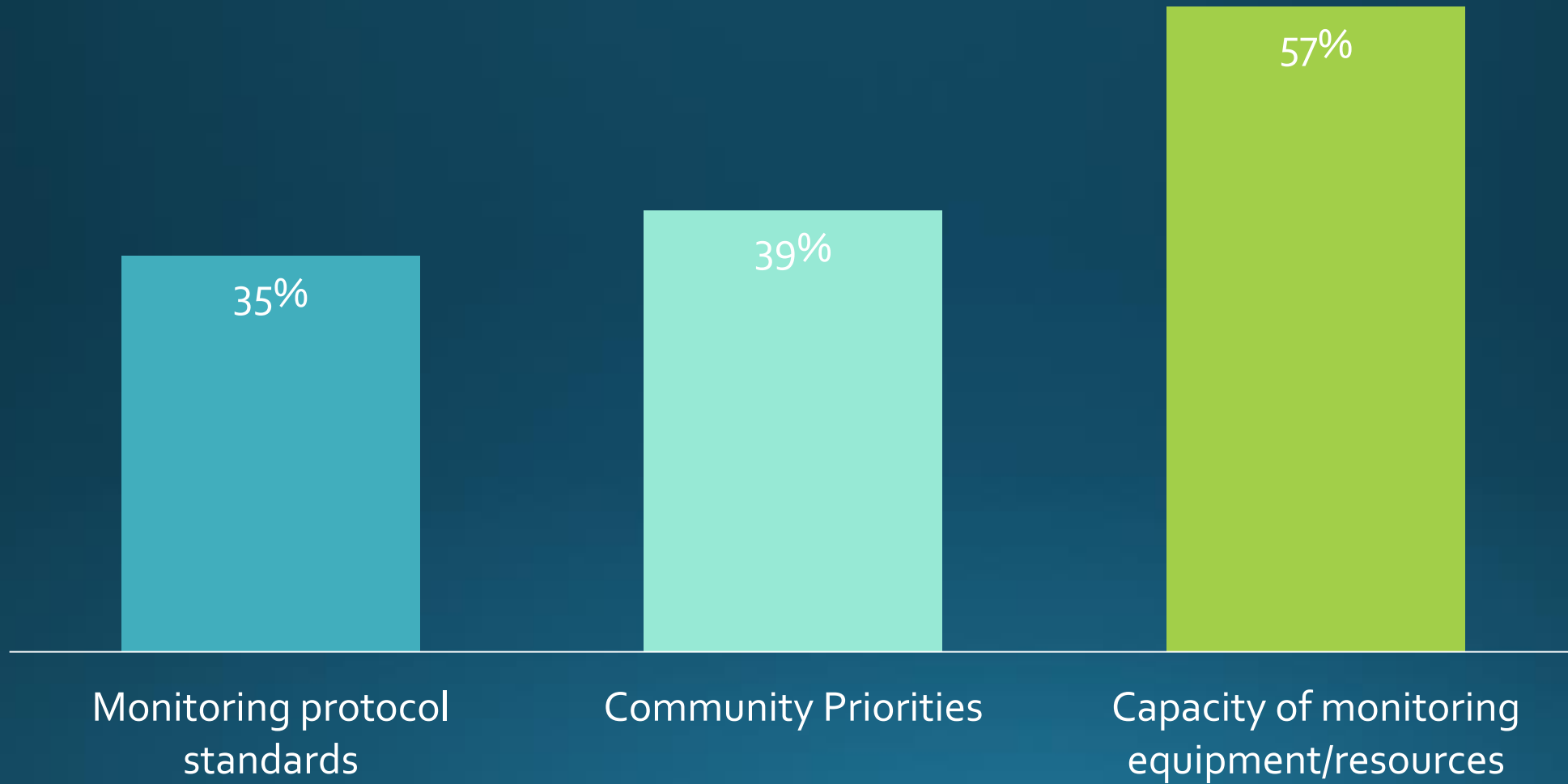
CBM Projects Per Year



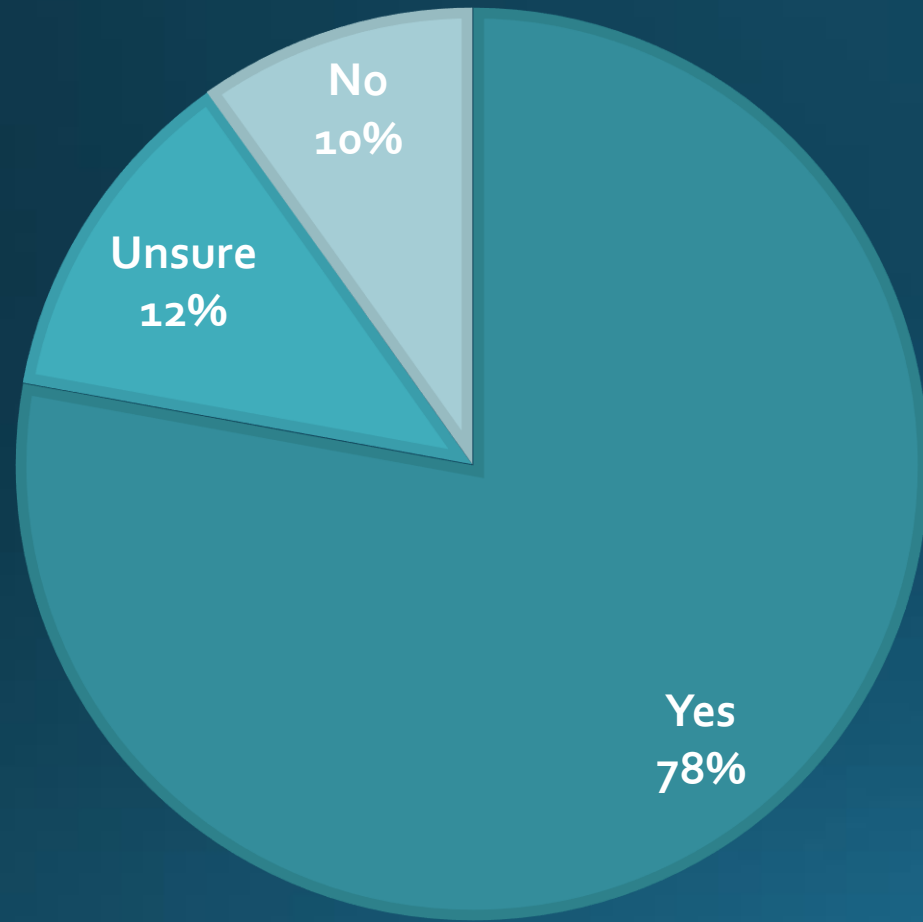
Parameters Monitored By CBM Groups (N=123)



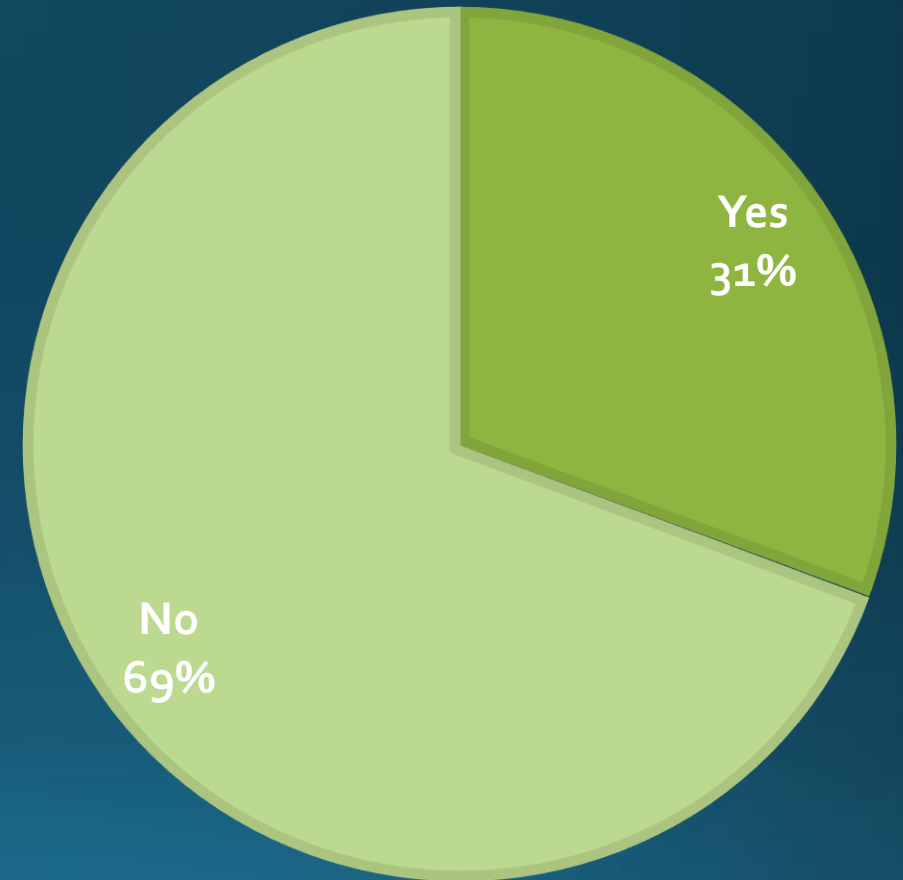
How were your parameters chosen?



Does your organization follow a water monitoring protocol?



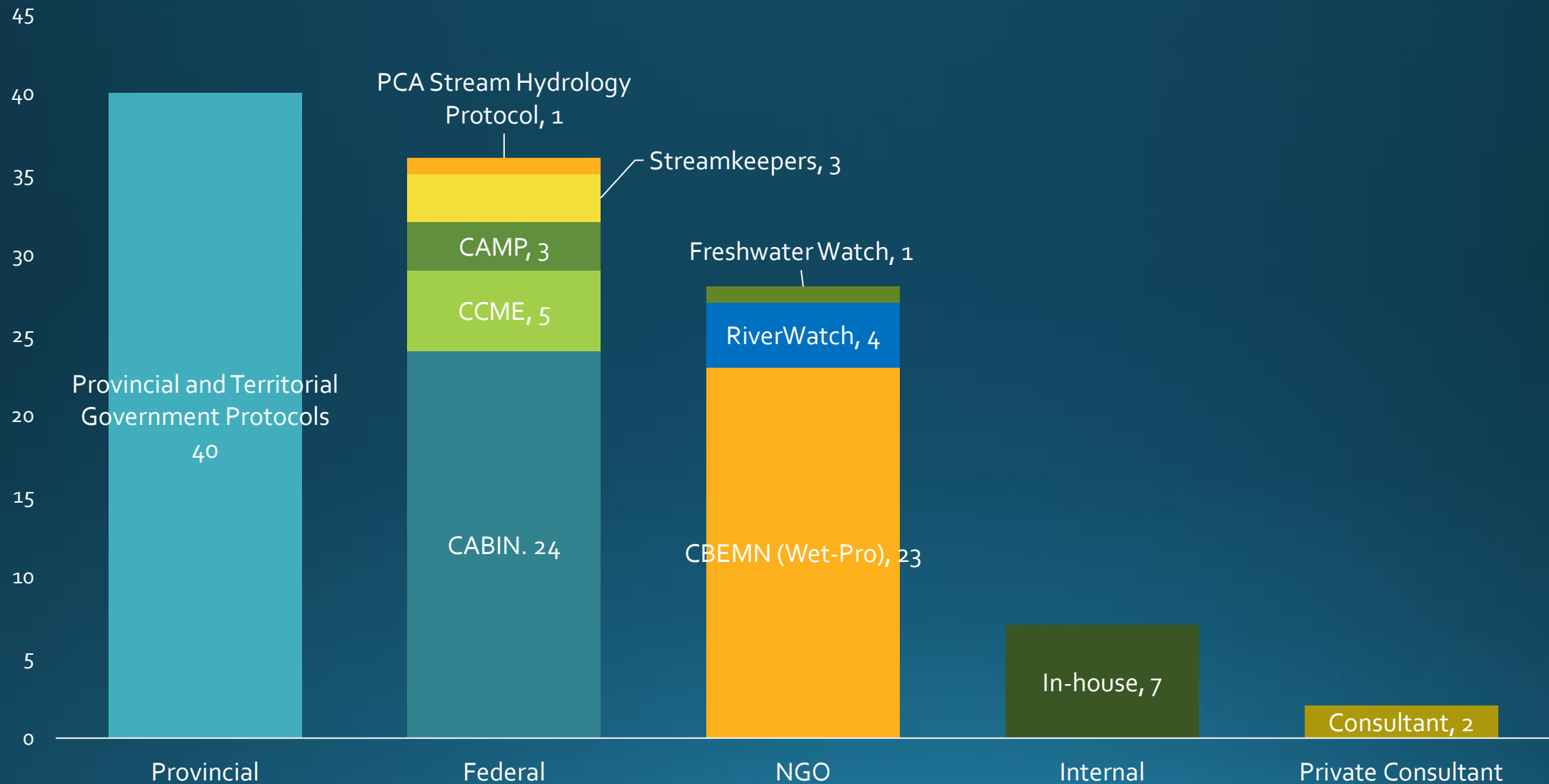
Is Traditional Ecological Knowledge a part of your monitoring program?



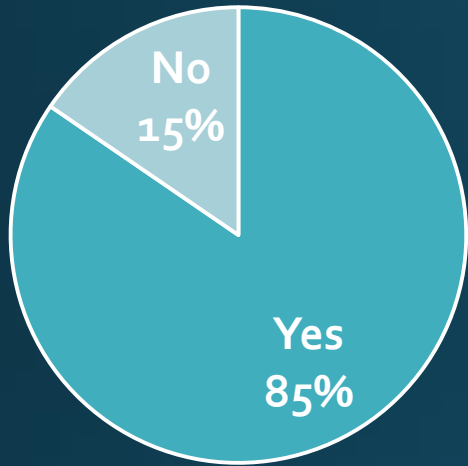
Water Monitoring Protocols

- Protocols used by CBM groups (n=123) vary widely across Canada
- Nearly 1/3 CBM groups are following protocols of provincial governments
 - Most notably in Northwest Territories, New Brunswick, Nova Scotia, Ontario
- 1/6 CBM groups report that they are following multiple monitoring protocols
 - Ex: CABIN and CBEMN (Wet-Pro)

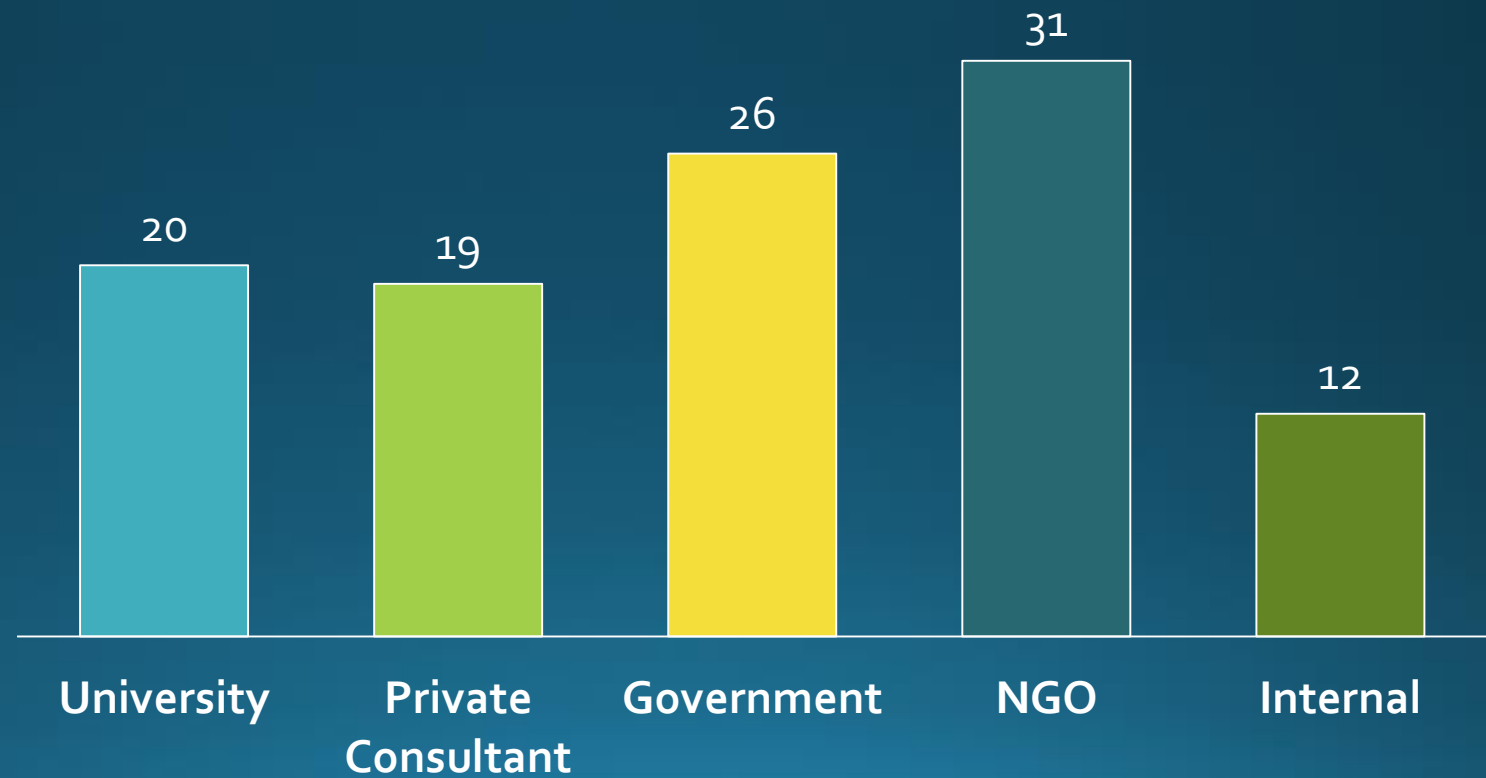
Water Monitoring Protocols Used By CBM Groups



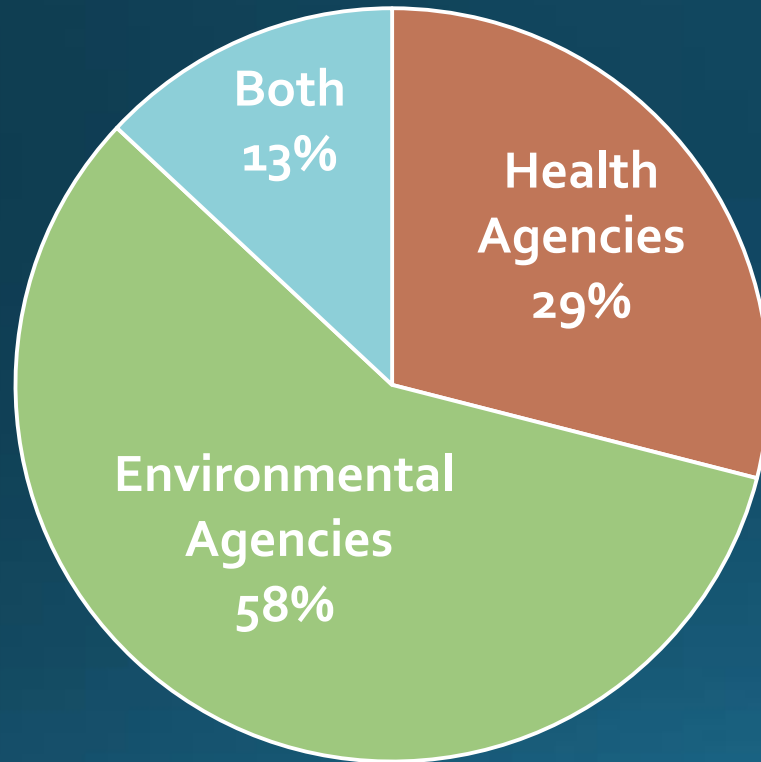
Does your data get analysed?



If yes, who analyses the data?

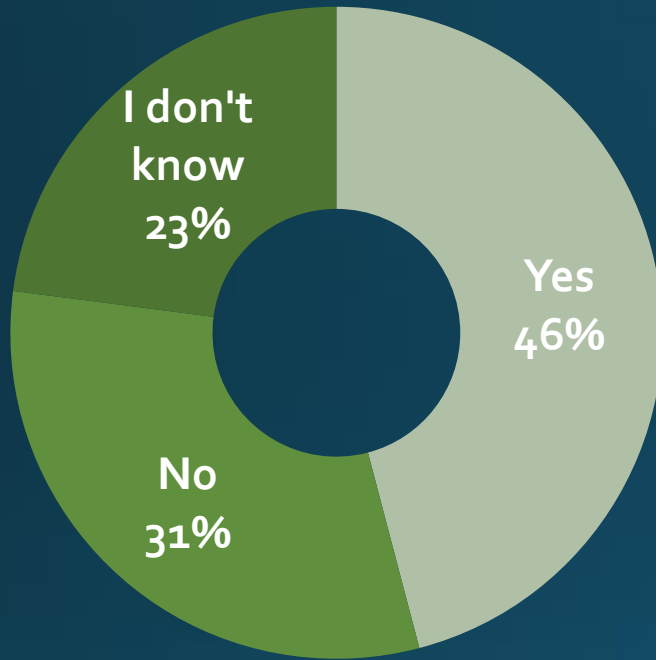


Who do you contact if your data indicates a public health concern and requires an emergency response?

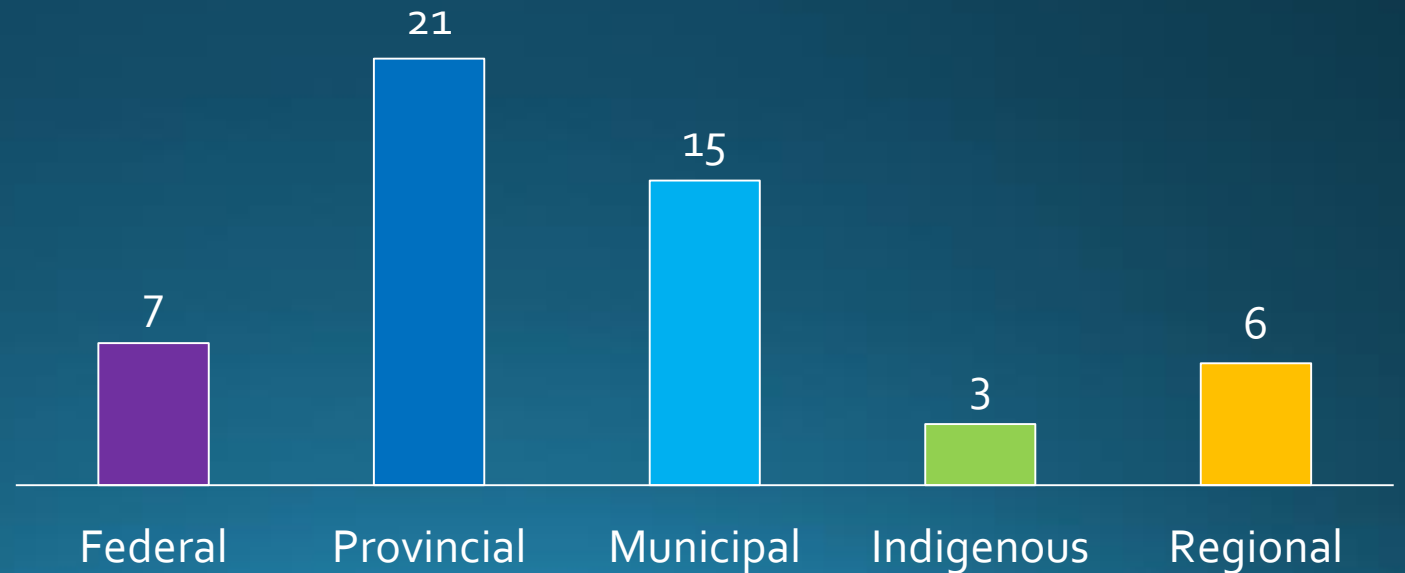


- Health and environmental agencies referred to by CBM groups varied widely
- Local, regional, and provincial authorities were listed by respondents

Does your data inform government policy?

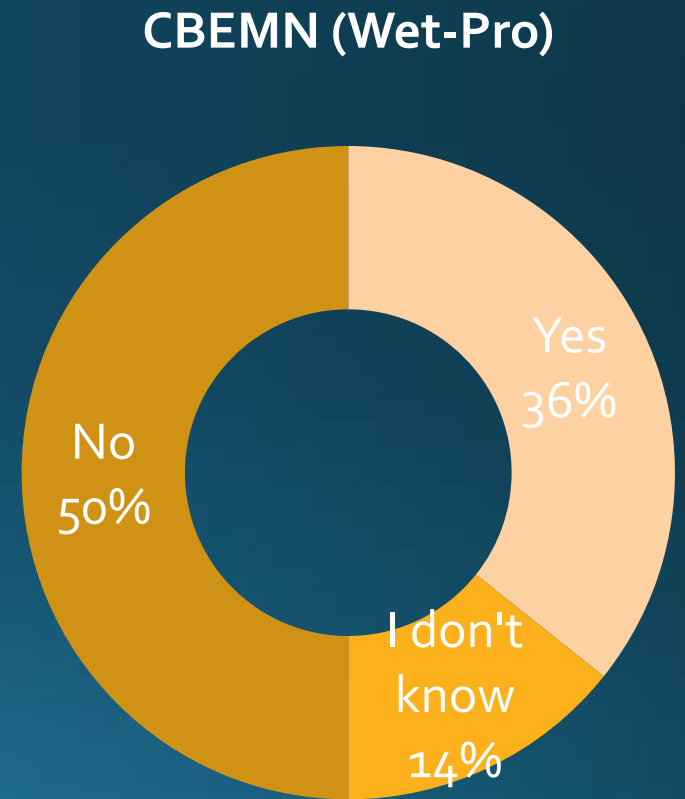
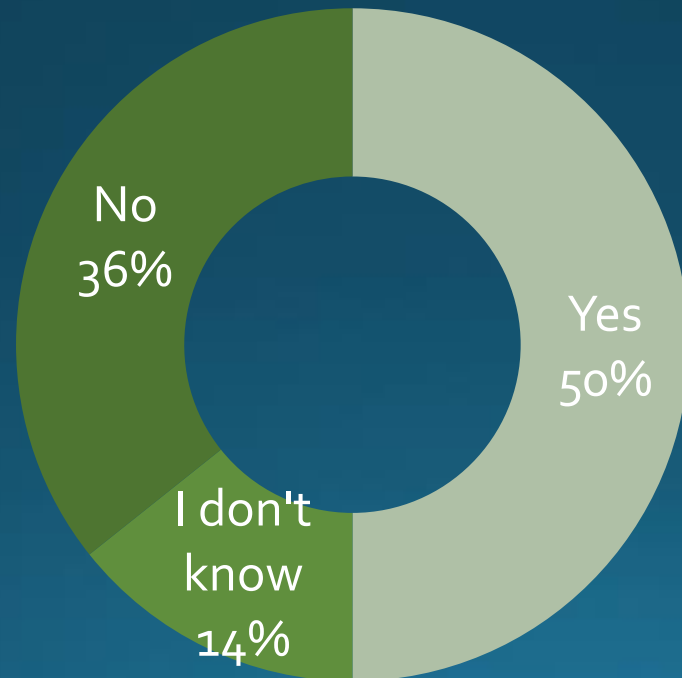
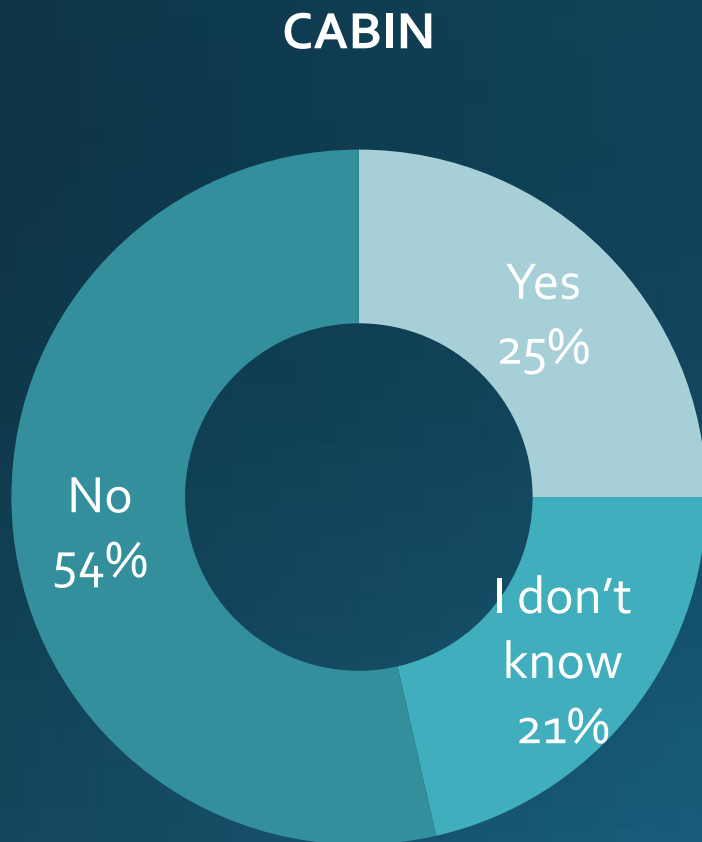


If yes, which level of government uses the data?



Does your data inform government policy?

Provincial and Territorial Government Protocols



(A comparison of responses from CBM groups following the top three most common monitoring protocols)

CBM collaborations and funding

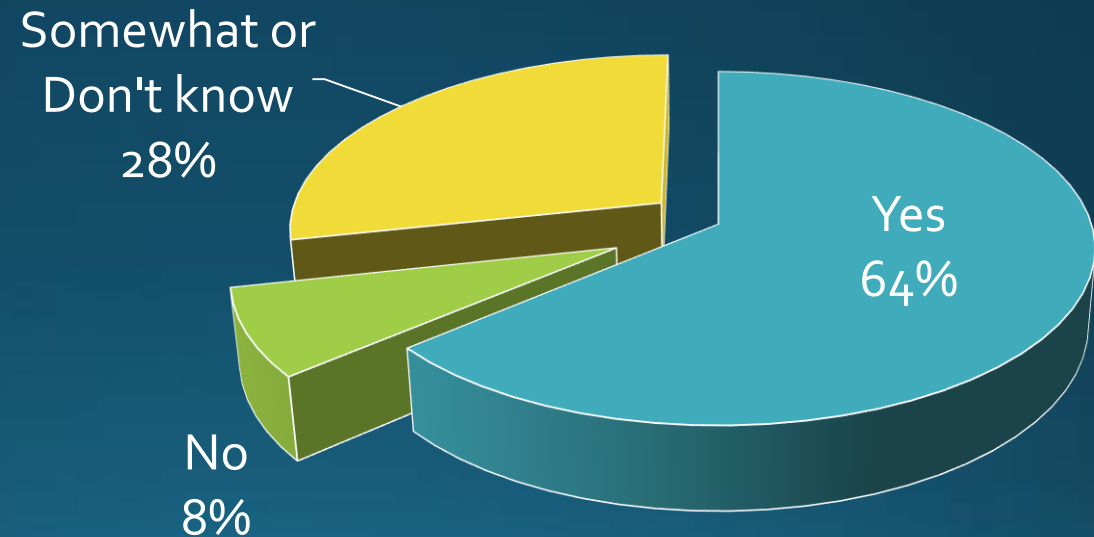
- Does your program collaborate with any levels of government?
 - **Yes (62%)** No (33%)
- Does your program collaborate with other CBM groups or networks?
 - **Yes (69%)** No (27%)
- **35%** of CBM groups surveyed operate with multi-year funding, whereas **33%** operate with only annual funding.
 - The remaining 32% did not respond to this section of the survey

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Reasons for starting a CBM program

- "Water level monitoring"
- "Flooding"
- "Eutrophication"
- "Lack of baseline data"
- "Cumulative effects"
- "Education"
- "Community engagement"
- "Public health"

Are these reasons (for starting a CBM program) being addressed?



Comments and Questions welcomed!



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