

# Comparative review of freshwater monitoring approaches towards consideration of cumulative effects

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## re-view

An evaluation of [monitoring] with the possibility or intention of instituting change.

Top 5 case studies reviewed (based on 22 criteria)*	Grade
Slave Watershed Environmental Effects Program (SWEET) – NWT	93%
Environmental Effects Monitoring program (EEM) – Canada (industry)	72%
Ecosystem Health Monitoring Program (EHMP) – Australia	71%
Muskoka Watershed Council (MWC) monitoring program – Ontario	64%
Provincial Water Quality Monitoring Network (PWQMN) – Ontario	55%

\* This research focuses on the Grand River Watershed, which placed 6<sup>th</sup> with a 52% grade

### What was done well?

All top five monitoring programs demonstrated the following:

- Reliable and/or stakeholder-driven indicators
- Long-term continuous data are available alongside short-term snapshots
- Indicators measured are reported upon (except PWQMN)
- Contact information is provided

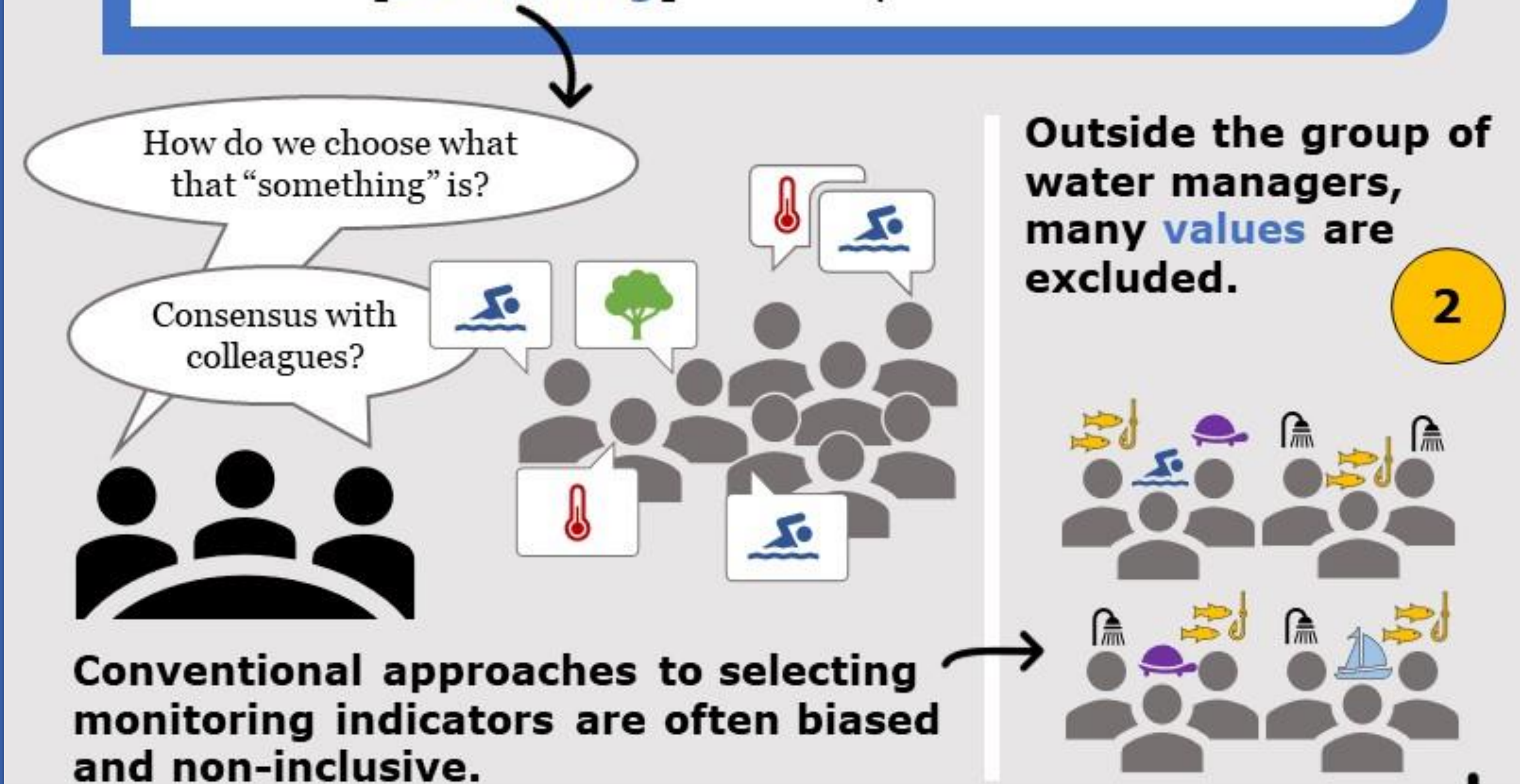
### Things to address...

Areas addressed by few programs (descending, from weakest aspect):

1. Indigenous Knowledge is considered alongside Western approaches
2. Community-based monitoring contributes to datasets and reporting
3. Funding is provided to the community for monitoring purposes
4. Multiple reporting formats are available (e.g., PDF reports, maps, other)
5. Management and monitoring roles are clear (e.g., who does what?)
6. Cumulative effects are not just discussed, but are measured/quantified
7. Database or metadatabase is available (freely or upon request)
8. Interim progress is reported for long-term plans or goals
9. Whole-watershed (e.g., ecosystem) approach is considered (e.g., all of water quality, quantity and biomonitoring)
10. Monitoring is linked to management, decision-making or projects

## mon-i-tor

1 To observe and check the progress or quality of [something] over a period of time.



We are trying something new: **Criteria-based Ranking** for selecting that "something" (a valued component) and its indicators.

