Assessing Freshwater Health

Elizabeth Hendriks, VP Freshwater
WWF-Canada
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The Living Planet Report

The freshwater LPI shows a decline of 81 per cent between 1970 and 2012
Canada mapped by rivers, lakes and streams

Most important resource
Watershed Reports

The Freshwater Threats Assessment (FTA) works with the Freshwater Health Assessment (FHA) to provide a full picture of the health and threats of our freshwater nationally.

FHA provides the current state and FTA illustrates the influence of human impact on aquatic habitat.

We can then determine “how” to fix it through the appropriate course of action – policy, legislation, restoration, etc.
Indicators of freshwater health

Water quality  Hydrology  Fish  Benthic invertebrates

Data sources: All levels of gov., ENGOs, CAs, CBM, etc.
Key stressors to freshwater ecosystems

- Pollution
- Habitat loss
- Over allocation/water use
- Habitat fragmentation
- Alteration to flows
- Invasive species
- Climate change
Overall Stress

WWF

53 of 167 sub-watersheds exhibit high or very high levels of stress.
Pollution

POLLUTION IS A SERIOUS CONCERN IN 60 OF 167 SUB-WATERSHEDS
Habitat Loss

93 sub-watersheds have experienced significant habitat loss.

Land use changes

Forest Loss
Climate change

21 of 167 sub-watersheds are experiencing high impacts from climate change.
Overall health

110 of 167 sub-watersheds are data deficient.
Water quality

Water quality is poor or fair in the 42 of 67 sub-watersheds with data.
Benthic Macroinvertebrates

20 of 55 sub-watersheds with data did not receive a good benthics score.
We’re all in agreement:
With new data from community-based monitoring and Environment Canada and Climate Change, WWF-Canada has been able to assess the overall health of the Pacific Coast watershed for the first time, and it is in good health.
Beyond thrilled with what we've been able to accomplish this week: 6 Guardians trained in CABIN protocol to monitor the Liard Basin
Atlantic DataStream

An open access hub for sharing water data.

Our mission is to promote knowledge sharing and advance collaborative water stewardship.
Take home for citizen science to decision-making

• Do facts matter? (for citizens)

• Transparency of Decisions (for Government)

• Shared Resource and Shared Responsibility

• Fail fast and fail better
Thank you

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Elizabeth Hendriks, VP Freshwater, WWF-Canada
ehendriks@wwfcanada.org
http://watershedreports.wwf.ca/#intro