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consulting engineers



CWRA ACRH

Canadian
Water
Resources
Association

Association
Canadienne
des Ressources
Hydrauliques

Urban Creek Restoration in Canada

If you don't monitor you may
not learn from your mistakes!

Capilano River Bioengineering, Vancouver Canada

Dave Murray, P.Eng.
Past President-CWRA

World Water Week 2018

Why do Urban Restoration?

Restore the water cycle back to a natural balance while effectively managing water and promoting green infrastructure

- ❖ **Protect the hydrological and ecological values of the urban landscape**
- ❖ **Provide resilient and adaptive measures to deal with flooding**

Bowker Creek Restoration, Victoria Canada



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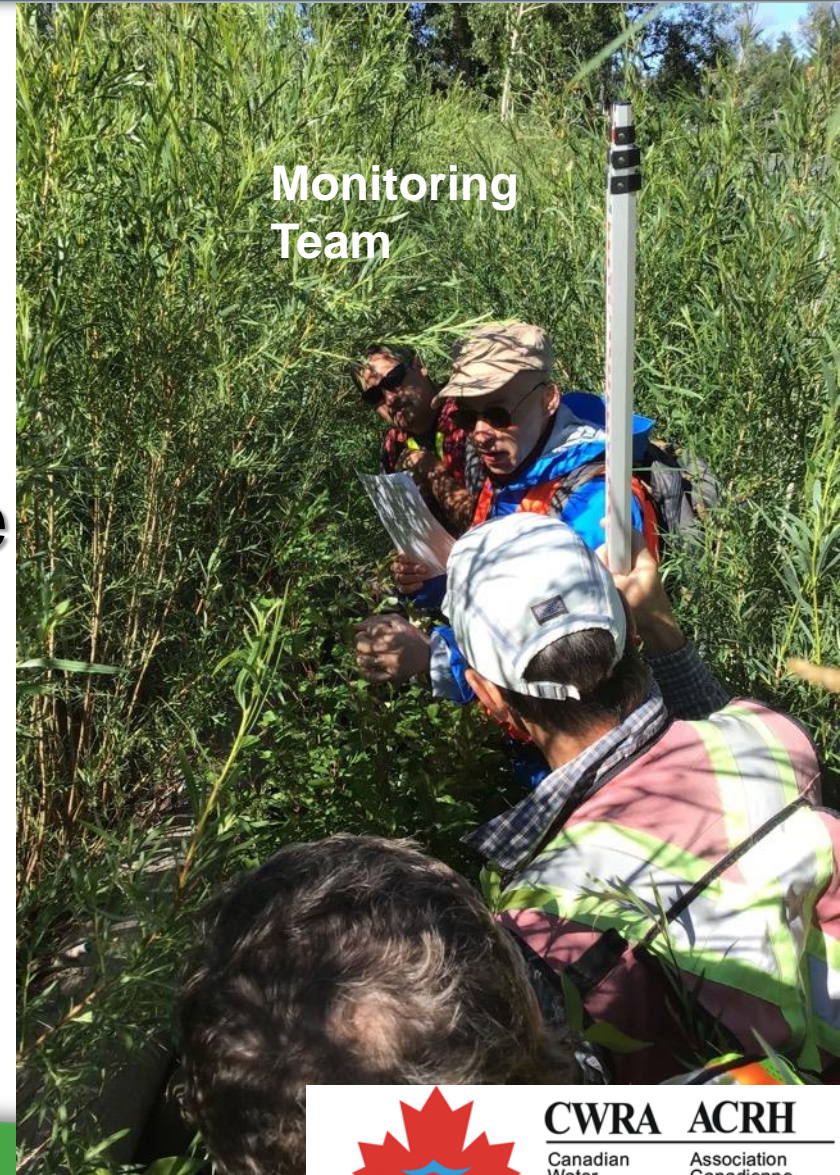


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Benefits to the Environment

- ↓ Reduce Energy Use
- ↓ Reduce CO₂
- ↑ Improve Air Quality
- ↑ Increase Property Value
- ↑ Flood Reduction
- ↑ Improve Recreation
- ↑ Improve Water Quality



Factors: Urban Stream Restoration⁴

Economics

Ecology

Hydraulics

Community

Social

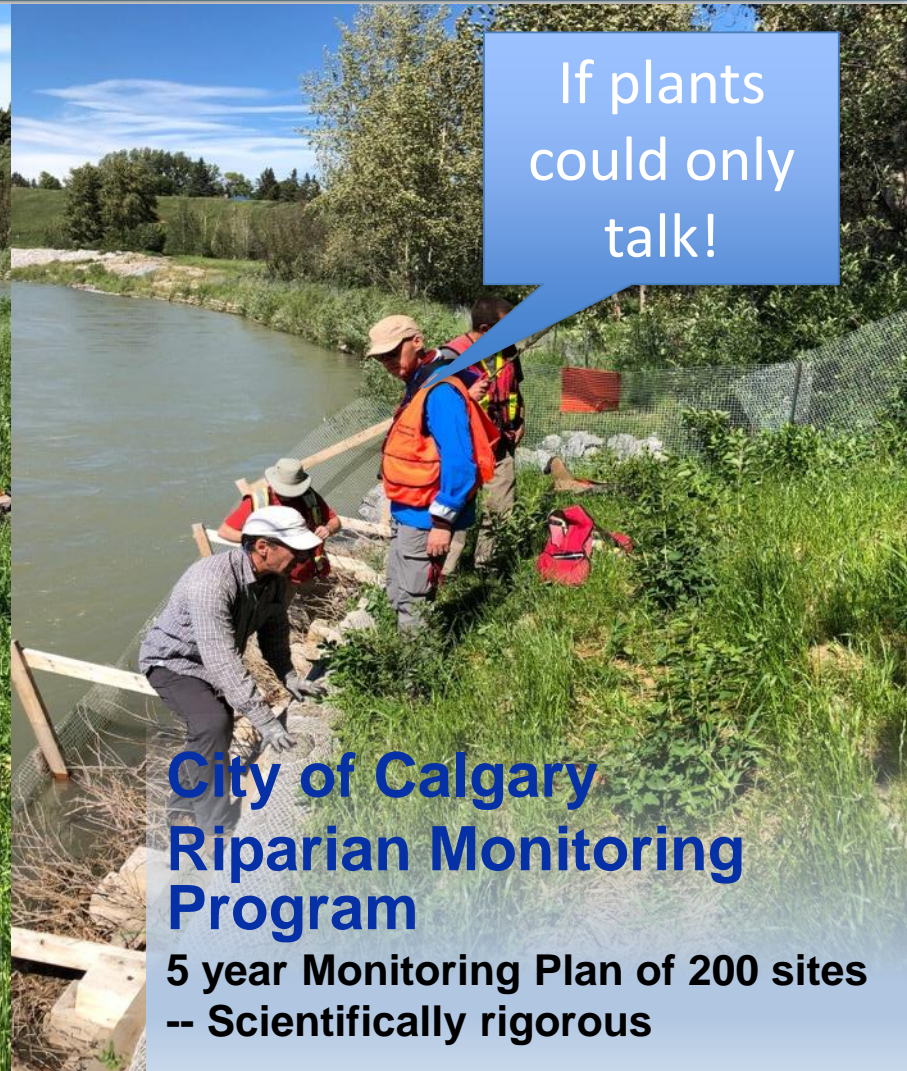
Climate Adaptation
Carbon Reduction

Bowker Creek Restoration, Victoria Canada

The Importance of Monitoring



Why did we die?



If plants could only talk!

City of Calgary Riparian Monitoring Program

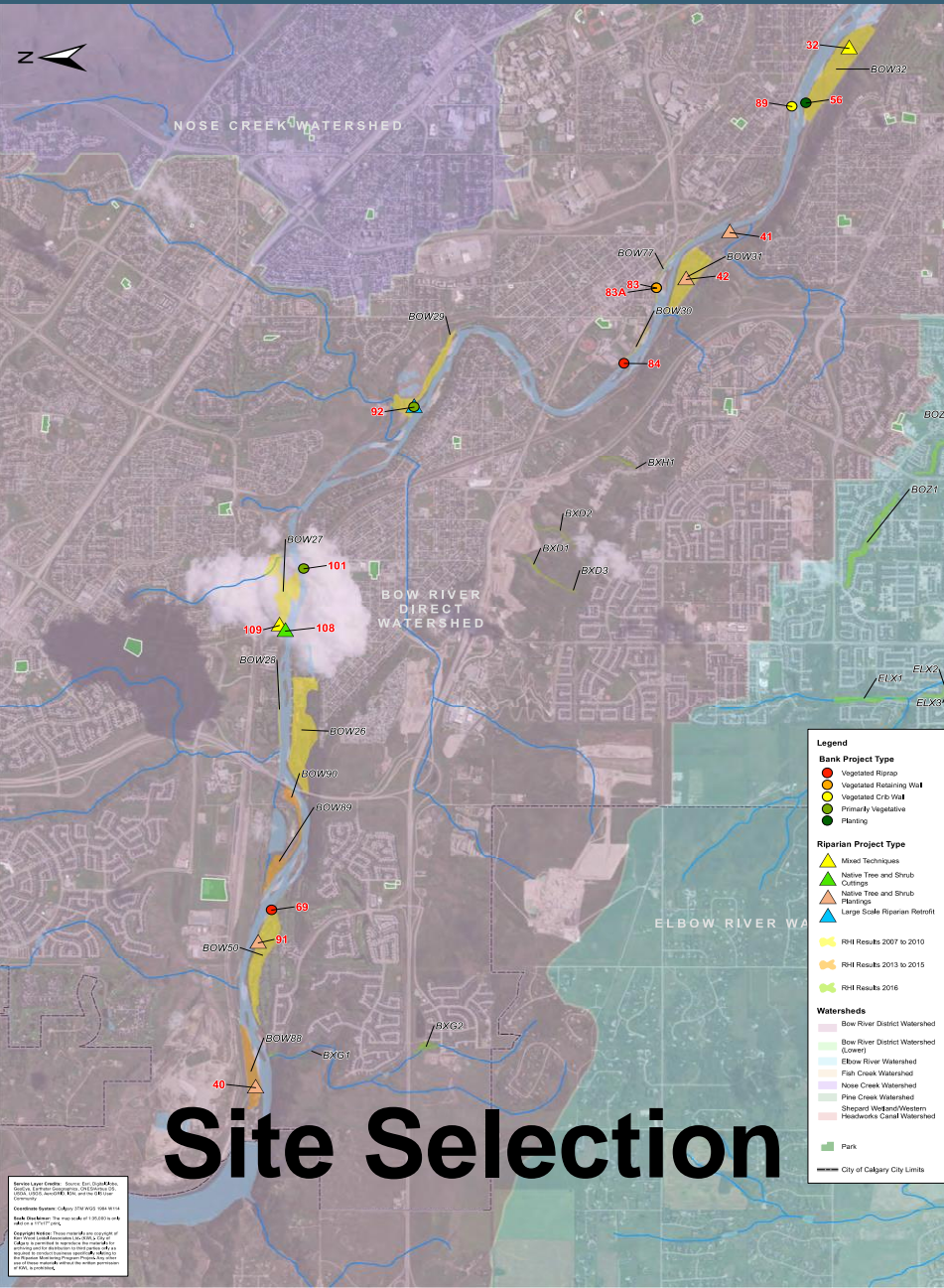
5 year Monitoring Plan of 200 sites
-- Scientifically rigorous



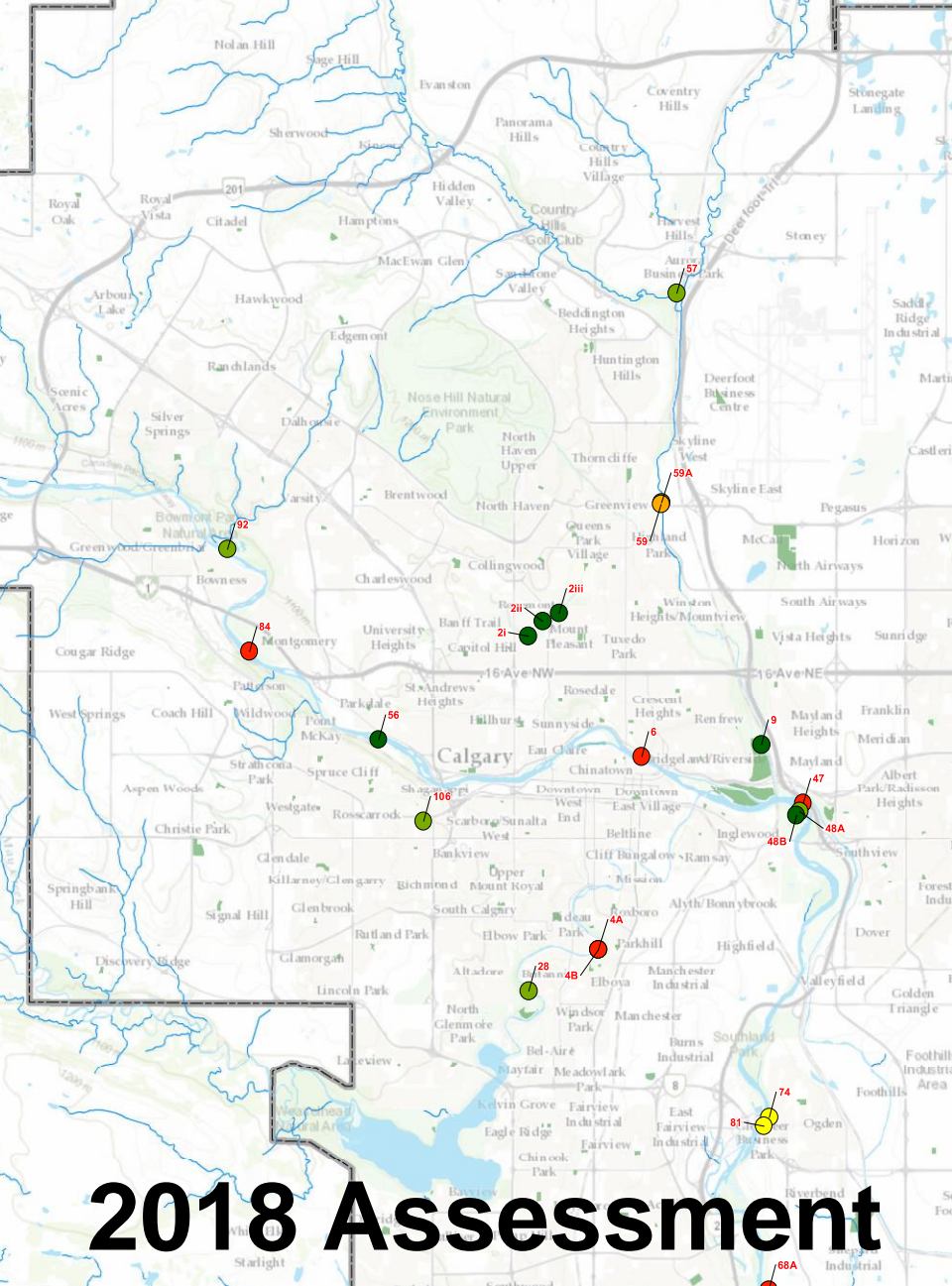
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Site Selection



2018 Assessment

Monitoring Matters!



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Thain Creek Daylighting, North Vancouver Canada



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