LESSONS & TALES FROM ALMOST 40 YEARS IN CONSULTING ENGINEERING

Consulting Engineers of Alberta
Women in Consulting Engineering Conference

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November 2025









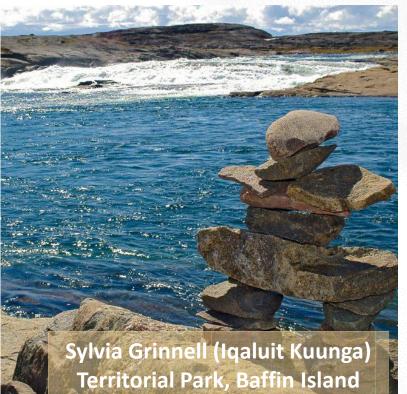
So, who is this person and why is she talking to us....?

- B.Sc. Civil (1986)
- M.Eng. Water Resources (1989)
- Worked in consulting engineering since 1987
- River engineering specialist
- Former manager of national water group of ~115 staff





Dawson City, Yukon Territory Diversion Channel Design Manual for Placer Miners





What's changed..... • Technology

- Awareness/regard for safety
- Acceptance on site (somewhat)
- Work-life balance (maybe)



Mackenzie River Corridor Flow Monitoring Norman Wells to Inuvik, NWT

And what hasn't.....

- Still under-represented
- Unconscious bias and gender-based characterizations
- Still a challenging (and rewarding) career path

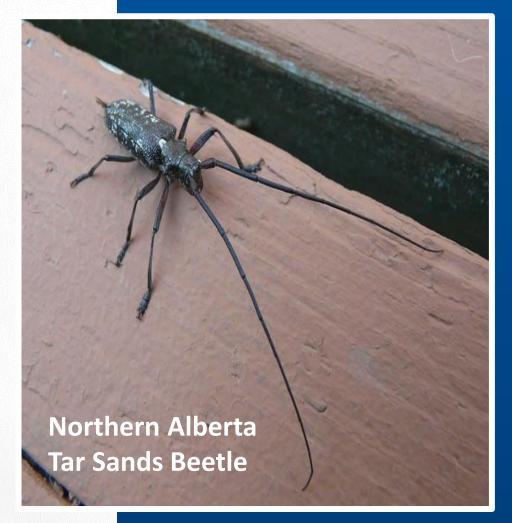
Recommended reading: <u>Women in the Workplace: A</u>
<u>Shift in Industry Work Culture</u> (APEGA.ca)



Take the opportunities.....

...even if they come with less-than-desirable aspects.

- Some things are ever-present.....adapt
- Embrace the "ick"
- Even the locals don't like them
- There is always a trade-off between exotic and distasteful









Understand the fundamentals.....

- About your field
- About the business of consulting
- About communication
- About leadership







Bring value.....

- We solve problems
- We often bring a different perspective
- Break through "perceptual narrowing" (a.k.a. thinking outside the box)







Pipeline Right-of-Way, Jujuy Province, Argentina (Elev. Approaching 4,500 m) Gas Atacama Pipeline





Dodoma, Tanzania - Dodoma Water Supply Study Klohn Crippen Berger

Everyone has a boss.....

- Understand your client's drivers
- Be attentive to the subtleties
- Be collegial, not adversarial



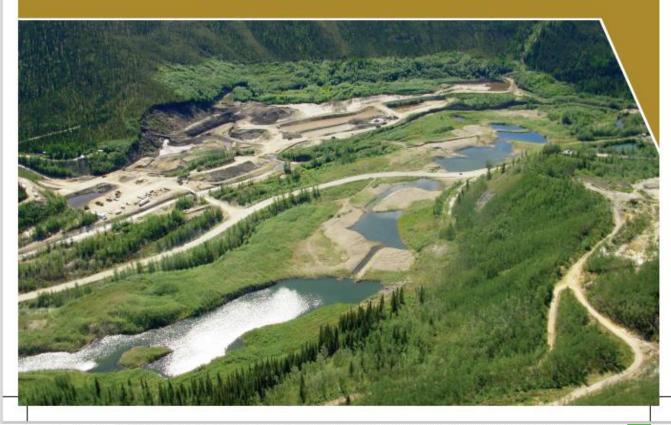
Image above from: Kwikima, M.M., Bennett, G., Ahmada, F.K. *et al.* Reducing non-revenue water in periurban Tanzania through an integrated data-driven approach: a pilot study in Dodoma. *Int J Energ Water Res* **9**, 1201–1219 (2025). https://doi.org/10.1007/s42108-024-00323-x

It's probably not personal....

- May 1989 Dawson City, YT Gold Show
- Prepared and presented the Guidelines for Designing Diversion Channels for Placer Mines
- It didn't go well.



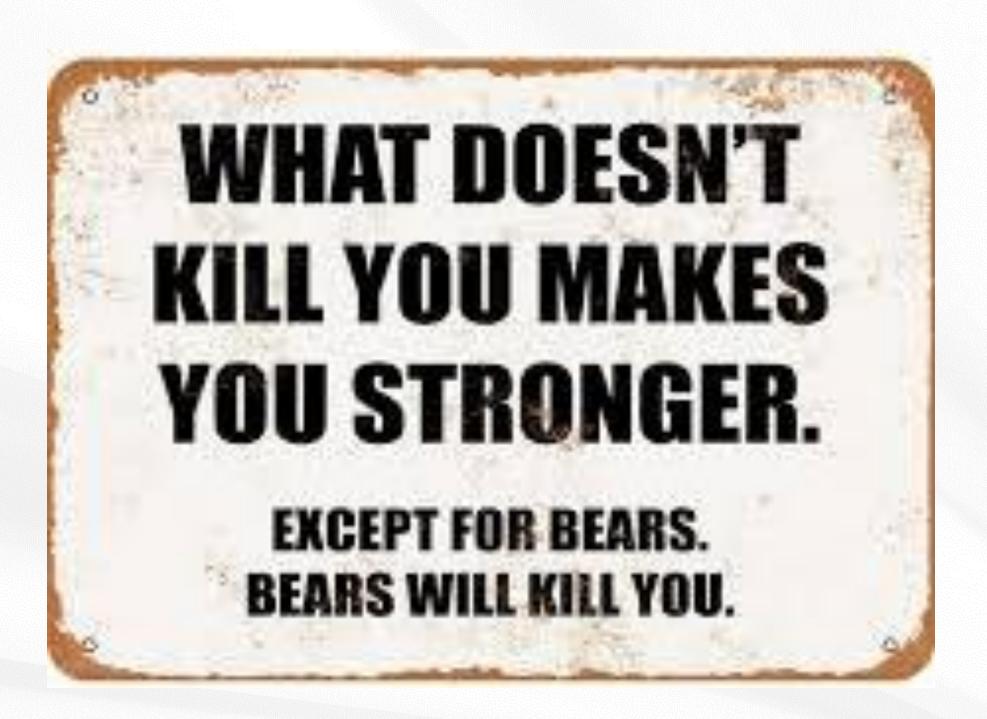
Fish Habitat Design,
Operation and Reclamation
Workbook and Worksheets for
Placer Mining in the Yukon Territory



Indian River, Yukon Territory
Diversion Channel Design Guidelines



Final Thoughts



- Get a mentor BE a mentor
- Remain authentic
- Speak up
- Be a leader, not a manager
- Be accountable
- Embrace the challenge



Thank You!



Near Purmamarca, Jujuy Province, Argentina Gas Atacama Pipeline



