

Dr. Nelson Jatel, P.Ag.

Water Governance · Social Network Analysis · CleanTech
Innovation · Educator

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PROFESSIONAL SUMMARY

Senior executive, scholar, and entrepreneur with 20+ years of integrated expertise in freshwater governance, social network analysis, and applied water science. Proven record of securing \$4.5M+ in external funding, leading multi-jurisdictional partnerships, and translating complex research into actionable policy. Founder of two active enterprises, university faculty at UBC Okanagan, and innovator behind a patent-pending CleanTech solution for invasive mussel prevention. Recognised for bridging Indigenous co-governance, environmental science, and organisational transformation at regional and national scales.

CORE COMPETENCIES

- Strategic & Change Management
- Freshwater Governance & Policy
- Indigenous Partnership & Co-Governance
- Executive Leadership & Board Governance
- Climate Resilience & EFN Science
- Social Network Analysis (SNA)
- Hydrometric Program Development
- Grant Writing & Policy Design
- CleanTech Innovation & IP Commercialisation

PROFESSIONAL EXPERIENCE

Water Stewardship Director · Okanagan Basin Water Board (OBWB), Kelowna, BC

2007 – Present

- Lead the Okanagan Water Stewardship Council (OWSC), maintaining 105%+ membership retention with renewed national and international partnerships.
- Spearheaded the Okanagan hydrometric monitoring program with the Okanagan Nation Alliance (ONA) and Environment & Climate Change Canada, emphasising

Indigenous co-leadership and real-time decision tools.

- Secured \$4.5M+ in external project revenues for watershed sustainability, drought and flood planning, environmental flow needs (EFN) science, and cyanobacteria monitoring.
- Developed drought-trigger modernisation frameworks for municipal and provincial partners, recommending hybrid multi-indicator approaches over single-variable methods.
- Co-organised the 2026 Environmental Flows Conference (with CWRA and ONA, October 2026) and led REFBC grant applications.
- Authored OBWB advocacy positions and Board memoranda on hydrometric network funding, water policy, and provincial legislative engagement.

Chief Executive Officer · Limnology Research Corp., Naramata, BC

2001 – Present

- Founded and operate a 20+ year consulting practice specialising in social network analysis (SNA) for government, Indigenous, NGO, and private-sector clients.
- Delivered longitudinal SNA evaluations for national watershed organisations, including a multi-year network analysis for the Centre for Ocean Literacy Collaboration (COLC).
- Built custom Python data pipelines and R/UCINET models for collaboration optimisation, network change detection, and governance analysis.

Co-Founder & CEO · BarrierFlow Technologies Inc., Kelowna, BC

2023 – Present

- Co-founded a CleanTech startup developing a patent-pending (PCT/CA2025/050399) prefabricated pipe-in-pipe water intake system that passively prevents dreissenid mussel colonisation without chemicals.
- Led IP strategy, technical brief development, and pilot proposals for municipal water utilities.
- Advancing commercial partnerships with BC municipalities and proof-of-concept pilot deployments.

Adjunct Professor & Program Advisor · University of British Columbia Okanagan, Kelowna, BC

2023 – Present

- Teach upper-division courses: EESC 301 Limnology and EESC 402 Water Management in the Freshwater Science program.
- Designed curriculum integrating field hydrometrics, R and Python analytics, and interdisciplinary watershed case studies.
- Program Advisor for the UBCO Freshwater Science program; Associate member, Institute for Community Engaged Research (ICER).

Founder & Guide · Desert Salmon Charters, Kelowna, BC

2022 – Present

- Operate a licensed freshwater fishing charter on Okanagan Lake, pairing 25+ years of angling expertise with aquatic-science knowledge for recreational and corporate clients.

College Professor · Okanagan College, Kelowna, BC

2016

- Delivered instruction in Applied Water Law, drawing on BC water regulatory systems and the Water Sustainability Act.

EDUCATION

Doctor of Social Science (DSocSci) · Royal Roads University, 2023

Social network analytics in watershed governance: a 50-year longitudinal analysis of network change in the Okanagan Basin Water Board. Entrance Scholarship; Mitacs Research Award.

Master of Arts, Economics and Governance · University of British Columbia, 2014

Graduate research: network structures in water policy.

Bachelor of Science, Limnology · University of British Columbia, 1998

Undergraduate thesis: climate change impacts on water quality. President, UBC Limnology Club.

TECHNICAL SKILLS

Programming & analytics: Python (pandas, networkx, matplotlib), R, UCINET, SQL

Data & visualisation: social network analysis, longitudinal network modelling, changepoint analysis, geospatial analysis

Tools & platforms: Shiny, Git, Jupyter, Google Cloud

Languages: English (native), French (professional)

SELECTED PROJECTS & IMPACT

- Hydrometric network modernisation: designed and implemented a real-time streamflow monitoring network for the Okanagan Basin with ONA and Environment Canada.
- COLC social network analysis (2024–2025): built a longitudinal SNA of COLC's partner network (2018–2025) using a validated Python pipeline; delivered six publication-ready graphics and an executive presentation.
- Cyanobacteria monitoring & modelling: initiated an Okanagan-wide predictive tool integrating remote sensing and AI/ML methods.
- BarrierFlow Technologies: secured international IP (PCT/CA2025/050399) and advanced municipal pilot partnerships toward commercialisation.