

ennregs summary of experience ...

- > 150+ years' experience in government and public sectors;
- > Experience includes:
 - Aquatic risk assessment and monitoring guidance and advice;
 - Environmental policy and regulatory development;
 - ► Environmental impact assessment;
 - ► Marketing strategies for environmental initiatives;
 - Environmental scanning, auditing, and risk management;
 - ► Environmental auditing;
 - Compliance auditing and support;
 - Environmental educational products and training;
 - ► Infographics design and development;
 - Process mapping;
 - ► Significant and extensive experience undertaking scientific research;
 - ► Integrating evidence-based knowledge into resource management planning;
 - ► Extensive field experience in environmental monitoring;
 - ► Impacts from all sources (terrestrial, freshwater, marine, municipal, etc.);
 - Industrial resource sectors;
 - ► Strategic digital communication solutions and strategies.

we offer inspired ...

- > Advice on regulatory requirements and compliance for existing and emerging industries;
- > Environmental impact statements;
- > Risk management solutions;
- > Results oriented solutions;
- > Efficient approaches and methodologies for issues resolution;
- > Complex analysis:
- > Cost-effective solutions;
- > Natural Resource Policy development;
- > Stakeholder engagement results;
- > Science based solutions;
- > Digital visual communication solutions and strategies for environmental issues.

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our experience in



Policy, Regulatory and Legislative Development

- > Co-led the development of the Framework for Aquaculture Risk Management, including how Fisheries and Oceans apply the Precautionary Approach to decision-making;
- Liaised with Department of Justice lawyers in developing drafting instructions and TBS analysts for the first aquaculture regulations under the Fisheries Act, Aquaculture Activities Regulations and Pacific Aquaculture Regulations;
 - Communication plans and Q & A's;
 - ► Strategic Environmental Assessments (SEA);
 - ► Regulatory drafting instructions with Department of Justice lawyers;
 - ► Triages for Treasury Board analysts;
 - ► Regulatory Impact Analysis Statements (RIAS);
 - ► Monitoring Standard and Technical Guidance;
- SWOT analysis between the Canadian Environmental Protection Act (disposal at Sea provisions) and the s. 36 pollution prevention provisions of the Fisheries Act;
- Led environmental scans, options analyses and elements of TB submissions to support implementation of aquaculture regulations and other programming (e.g. industry access to medicines and pest control products);
- > Co-led federal-provincial technical teams to better harmonize respective regulatory regimes.
- Led and participated in stakeholder and FN engagement sessions across Canada on aquaculture regulations, use of pesticide and drug products to treat farmed fish parasites and pathogens, policy documents supporting sustainable aquaculture;
- > Development of the first national environmental effects monitoring program to support the Pulp and Paper Effluent Regulations under the Fisheries Act;
- > Co-led the development of regulatory changes to the Pulp and Paper Effluent Regulations with DOJ lawyers;
- > Led the development of benthic monitoring standards and associated sampling protocols, including the world's first hard ocean bottom standards using remote operating video cameras, which were incorporated in the BC Finfish Aquaculture Waste Control Regulation;
- > Co-led the development of and participated in a multiple agency harmonized approach to assessing marine and freshwater aquaculture applications in British Columbia;
- > Co-led the development and subsequent amendments of marine finfish aquaculture licence conditions for the BC aquaculture industry;
- Participated the review of multiple environmental regulations including the Land-Based Finfish Waste Control Regulation, the Finfish Aquaculture Waste Control Regulation, the BC Integrated Pest Management Regulation and the Pacific Aquaculture Regulations;
- > Initiated and led the phase-in of mobile incineration systems and corresponding phase-out of refuse sites associated with work camps along the BC coast;
- Participated in the development of a mandatory certification program for operators of water distribution and wastewater treatment systems in British Columbia through the BC Environmental Operators Certification Program.

our experience in



Toxics Risk Assessment and Science Review Processes

- > Led national aquaculture management in several science peer review processes including:
 - Evaluation of closed containment technologies for marine finfish farming;
 - ► Potential genetic effects from escaped farmed salmon on wild salmon;
 - Potential toxic effects on wild marine species from pesticide and drug release at salmon farms;
 - Environmental monitoring of organic matter deposits on hard bottom ocean sites;
 - ► Environmental reviews of salmon farm development in Newfoundland;
- > Conducted toxics assessment under the Canadian Environmental Protection Act for cadmium, inorganic fluorides, trichloroethylene;
- Conducted site inspections and assessment at Distant Early Warning (DEW line) sites in the eastern Arctic and PCB contamination at an abandoned DND and Transport Canada facility on Southampton Island;
- > Led the ocean disposal program in Arctic waters related to offshore oil development;
- > Led the development of a risk assessment document for the BC crayfish aquaculture industry.



Field Monitoring, Research and Effluent Toxicity Evaluation of Natural Resource Industries

- Conducted lab toxicity bioassays, environmental monitoring and toxicological lab experiments related to metal mining, pulp and paper and petroleum effluents within the Western and Northern (Yellowknife) Region of ECCC and the Newfoundland and Labrador Region of DFO;
- As part of multi-stakeholder initiative, participated in the development of watershed protection plan development, it's implementation and follow-up recommendations associated with the Cowichan River watershed and Cowichan Bay in British Columbia;
- > Co-led a multi-year assessment of the impact of coal mining activity on a lake system on Vancouver Island;
- > Conducted assessments on proposed effluent ground disposal systems in various BC locals to ensure renovation of effluent;
- > Consulted with various First Nations on aquaculture and other industrial discharge proposals to ensure rights and title were protected.
- > Completed environmental impacts on placer mines in northern British Columbia
- > Conducted regulatory inspections and related effluent/receiving environment sampling associated with municipal sewage treatment plants, industrial and municipal landfill sites, mines, pulpmills, aquaculture facilities and forestry related operations;
- > Managed the BC Ministry of Environment marine finfish aquaculture benthic monitoring program, supervised and participated in annual benthic field monitoring and organized a series of benthic sampling training sessions for industry and consultants.

our experience in



Strategic Digital Visual Communications, Branding, Marketing, Infographics and GIS Services

- Initiated an opportunity for improvement with Canadian Hydrographic Services, Fisheries and Oceans Canada to adopt and subsequently provide Sailing Directions as online downloadable digital pdf products to mariners;
- GIS services for Environment Canada, HiCanada, Fisheries and Oceans Canada, FCFA and the City of Ottawa – involved research and sourcing of GIS files KMZ, SHP, Layered EPS (Cartographic, ArcGIS) for purpose designing and producing maps to convey geographic information and data for multi-disciplinary end users;
- > Developed, designed and produced a School of Architecture certification process map for the Canadian Architectural Certification Board;
- > Designed, developed and created an infographic and PREZI explaining the concept of economic development;
- > Designed, developed and produced and animated PREZI presentation on the history and evolution of the Forest Industry in Canada for Natural Resources Canada;
- > Art directed and designed ARC du Canada's corporate branding that was applied to mobile app, web site, advertisements and print media;
- > Developed and designed RCMP Operation Readiness and Response Units Branding including indoor office signage, including outdoor command unit staging and signage;
- > Developed and implemented the City of Ottawa, iwalkibike active transportation reasons campaign, including mobile web site, mobile app, transit ads, pop-up display, Cineplex preshow and print advertisements.
- > Art directed and developed backofthehouse.ca marketing and advertising strategy (including social media, graphic design, print media) a recruitment website for restaurant kitchen staff;
- > Art Directed FINTRAC 4 Annual Reports including graphic design, layout, concordance, cd-rom and print media;
- > Led the design and development of the National Parole Board Corporate Identity;
- > Art directed and produced the Canadian Society of Custom Brokers membership drive, annual reports, advertisements, display and online training website;
- > Co-led an assessment of City of Ottawa Visitor Portal Review in the development of an online web digital implementation strategy;
- > Developed and implemented a Media awareness campaign (including Radio PSA's, print media, marketing strategy) for the Ontario Early Years Centre in Ottawa;
- Led a review and the development of a digital strategy for Transport Canada's Road Safety Web Portal;
- Developed a Communication and Change Management Strategy for Environment Canada's – Information Management Branch;
- Developed a vision statement and draft digital Communications Strategy, National Research Councils' Office of Energy Efficiency;.