

PERSONAL PROFILE

- **INTEGRITY** With over 28 years of varied project engineering and management experience in the energy and industrial process sectors, Scot Merriam is a consensus builder who has consistently coordinated multi-discipline technical teams to achieve win-win results for all stakeholders.
- **INGENUITY** Resourceful, and a pathfinder by nature, Scot excels at navigating through the challenges of project constraints whether they be time related, resource related, budget related or permitting related. He is accountable and thorough, possesses a balanced combination of technical and interpersonal skills and is capable of working independently or in a team setting.
- **DEDICATION** A respected communicator, Scot is organized and sets high standards, always zeroing in on solutions and improving efficiency and quality. Going forward in his career, he is focused on applying his skills to engineering and managing sustainable resource and clean energy projects that contribute to community wellness.
- **LEADERSHIP**

CAREER EXPERIENCE

July 2007 to Present – Project Manager and Principal of SRM Projects Ltd., a firm providing project engineering and development services to the sustainable resource and clean energy sectors.

PROJECT HIGHLIGHTS

2015 to 2016 – Community Energy and Emissions Planning – Project Engineer/Manager leading the Snuneymuxw and We Wai Kai First Nations community energy demand and GHG emissions assessments as well as screening studies for hydro, wind, solar, geothermal and marine renewable energy potential.

2014 to 2015 – Hydropower Projects – Project Engineer/Manager for two First Nations projects: the grid connected 4 MW Winchie Creek facility and a proposed off-grid 300 KW Wuikinuxv remote community facility near River's Inlet, BC. Budgets \$12MM and \$4MM respectively.

2012 to 2016 – Tidal Energy Investigative Licensing & Phase 1 Assessment Activities – Completed preliminary site selection, mapping and permitting documents for proposed tidal energy projects at Discovery Passage and Seymour Narrows. Now managing first phase of investigative assessment activities (ongoing).

2012 to 2014 – Tidal Energy Investigative License Applications – Project Engineer completing permitting documents for proposed tidal energy projects at 5 southwestern B.C. and 3 Haida Gwaii sites.

2011 to 2012 – Dodd Narrows Tidal Energy – Project Engineer completing industry & equipment vendor review/assessment, equipment RFP & proposal evaluation & permitting documents for a new B.C. project

2011 to 2015 – Fourth Lake Dam Safety Review – Managed a multi-discipline technical team to complete the DSR and performed annual inspections for Harmac Pulp Operation's Fourth Lake Dam. Budget \$250K

2010 to 2011 – Celgar O₂ Delignification Upgrade – Project Engineer/Manager for two stage upgrade Green Transformation Program project - Budget \$9.5MM.

2009 – BC Hydro GMS G8 Isolated Phase Bus Upgrade – Contractor QA engineer for installation of a new 13.8kV IPB on Generator 8 at BC Hydro's GM Shrum generating station at Williston Lake.

2007 to 2009 – Sedan Creek Hydro – Project Engineer/Manager for an 8MW run of river hydro project. Performed penstock modeling and coordinated preliminary studies/engineering and permitting. Budget \$25MM.

2009 – Tyson Creek Hydro Facility – Prepared mechanical scope of work and invitation to tender for installation of a Pelton turbine package for the 9.3 MW run of river power plant.

August 1987 to June 2007 – Project Engineer, Pope and Talbot Ltd., Harmac Pulp Operations Nanaimo, B.C., a three line, 1,200 MTPD Kraft Pulp Mill

PRIMARY RESPONSIBILITIES - HARMAC

Coordinated and engineered over 155 capital and maintenance projects with budgets to \$5.5MM, working with engineering staff or consultants. Duties involved assisting in project scope development, preparation of budget and Application for Expenditure, technical and equipment specifications, requests for proposals, comparison of proposals, purchase requisitions, detail/design engineering, scope of work or Call for Tenders, contract preparation and construction management or field engineering. Responsibilities included inspecting and maintaining the mill's water reservoir dam and water supply penstocks as well as providing vacation coverage for the Engineering Superintendent. Project elements included tanks, pumps, mixers, piping, pressure vessels, filters and heat exchangers. Developed a broad knowledge of engineering materials and corrosion.

SELECTED PROJECT HIGHLIGHTS – HARMAC

2005 to 2007 – *Penstock Renewal Phase I & II* – Coordinated an investigation into the condition of 8 km long wood-stave water penstocks, reviewed renewal strategies/materials and managed the first phase of renewal, which included 1,700 feet of 48" diameter fusion welded polyethylene pipe. Then, coordinated an investigation into alternatives for the next phase of wood-stave water penstock replacement and planned for associated summer 2007 in stream construction.

2004 to 2005 – *Tank Replacements* – Engineered and installed two new FRP process tanks and one new SS process tank to replace old concrete, tile lined vessels. The designs optimized maintenance and operational features within the constraints of existing structures and equipment.

2003 to 2005 – *Concrete Building Repairs* – Spearheaded a program of rehabilitating deteriorated concrete structures, working with consultants and contractors to optimize methods and materials. Became familiar with the mechanisms of reinforced concrete corrosion and the design details and material specifications to prevent problems in new installations.

2002 – *Mill Realignment* – Coordinated a study to optimize production through partial rerouting of two out of three production lines and modifying a bleaching stage to OO configuration.

2000 to 2001 – *Continuous Pulp Digester Upgrades* – Coordinated the mechanical/piping portion of a field instrument and distributed control system upgrade on a Kamyr continuous digester (over fifty tie-ins). One year later, modified the digester steaming vessels and installed new bottom steaming pressure piping to improve operability and increase production.

1999 to 2000 – *Heat Recovery Systems* – Installed spiral heat exchanger systems and controls in the Digester, Reausticizing and Bleaching areas to recover waste heat and reduce energy costs.

1998 to 1999 – *Bleach Plant Debottlenecking* – Upgraded existing equipment and installed new equipment in a pulp bleaching production line to increase production to match the rest of the mill and gain incremental production. Titanium, FRP, duplex stainless steel and austenitic stainless steel equipment was optimally specified to prevent corrosion.

1996 to 1997 – *Bleach Plant Scrubbing Systems* – Installed FRP packed tower vent scrubbers on two pulp bleaching plants and a Chlorine Dioxide production plant to significantly reduce air emissions.

1994 to 1997 – *Elemental Chlorine Free Conversion* – Completed seven bleach plant subprojects to eliminate the need for the use of elemental Chlorine in pulp bleaching, including D_o stage pH control, medium consistency D_o bleaching and oxygen delignification.

1990 to 1993 – *Natural Gas Conversion* – Installed natural gas service piping, converted lime kiln burners from bunker C oil to natural gas and upgraded lime kiln internals to offset production loss.

EDUCATION AND CONTINUING PROFESSIONAL DEVELOPMENT

- **DEGREE** B.A.Sc. Mechanical Engineering, University of British Columbia, 1987
- **PROJECT MANAGEMENT** Managing Project Costs, Project Management, Giving & Receiving Criticism, Effective Supervision, Law of Contracting and Tendering, Project Financial Analysis, Organizational Quality Management
- **DESIGN/MAINTENANCE** Hydrotechnical Design of Coastal & Marine Structures, HEC-RAS River Hydraulics Modeling, Wind Power Design, Turbines & Power Generation, Turbomachines in Hydroelectric Plants, Rip-Rap Design, Compressed Air Systems Mgmt., Dam Inspection & Maintenance, Earthquake Engineering, ASME IX Welding Code, MC Pumping & Mixing, VFD's & Energy Efficient Pumping, Pulp Bleaching, Structural Steel Design, Control Valve Sizing, Lime Kiln Burners & Alignment, Pumps & Mechanical Seals
- **MATERIALS** Selection of Stainless Steels, Inspection & Specification of FRP
- **SAFETY** BC Hydro WPP Cat B, Process Hazards Analysis, Confined Space Entry, Ergonomics, Fall Protection, WHMIS
- **TOOLS & MISCELLANEOUS** Word, Excel, MS Project, PowerPoint, MS Publisher, Technical Writing, KT Problem Solving, Pursuit of Excellence, DOE webinar series on MHKD's (marine hydrokinetic energy devices)
- **AUTHORED PAPERS** Concrete Repair – Engineering Standard Practice (Harmac – 2007), PAPTAC Best Paper Award: "Keeping it Clean: Bleach Plant Air Emission Control at Harmac Pacific" (1998)

PROFESSIONAL AND COMMUNITY INVOLVEMENT

Member, *Association of Professional Engineers and Geoscientists of B.C.*

Member and Past Director, *Marine Renewables Canada*

Volunteer and Member, *Energy Solutions for Vancouver Island*

Volunteer and Member, *Vancouver Island Sustainable Technology Association*

Member, *BC Sustainable Energy Association*

Member, *Engineers Without Borders*

Past Member/Executive, *Nanaimo Search and Rescue Society*. Developed the "Passive Confinement Attendant" to improve search success when searchers are limited. Initiated a strategic planning process to manage growth and provide direction.

Past Member/Executive (secretary, treasurer, vice chair, chair) and Paper Presenter, Pacific Coast Branch, *Pulp and Paper Technical Association of Canada*