

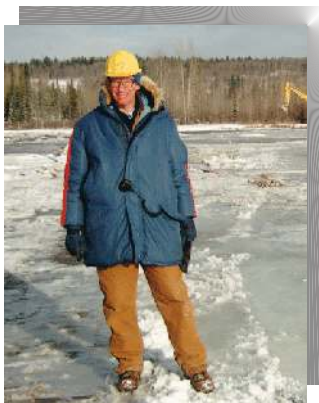
2002

WIM M. VELDMAN

M.Sc., FEIC., P.Eng.

Overview

Wim Veldman has 38 years of experience in the planning, design, and construction of major water resources, flood control, pipeline, hydroelectric, mining and shoreline projects in Canada, the USA, and overseas. His experience is highlighted by 7 years in the design of flood control and major hydroelectric stations in Manitoba, 3 years as the full-time senior hydrologic consultant on the design and construction of the \$8 billion trans-Alaska oil pipeline, 8 years developing a branch office and a water resources group in international companies, and 20 years as President and Chief Engineer of an international water resources company.



Pipeline Project, Red Deer River - 1994

Wim Veldman's scope of work ranges from planning, to serving as an expert witness, to organizing public input and meetings, to detailed design, to project management and construction supervision and finally to inspections and monitoring. Long term relationships with a number of major companies in Canada and the US, such as the trans-Alaska oil pipeline for 30 years, attest to the trust and value clients place on his input.

Internationally Wim has worked on projects in Indonesia, Sri Lanka, Tanzania, Ethiopia, China, Chile and Yemen. At the present he is extensively involved in major projects in Ecuador, Peru and Argentina.

Some Feedback from Clients

"You did an outstanding job in providing the hydrologic studies for Atigun. I definitely like your style in making presentations to the regulatory agencies. You have created a tremendous amount of credibility for us with them."

Alyeska Pipeline Service Company
Anchorage, Alaska
\$100 million, 8 mile long realignment, 1991

"Without your skills in engineering the diversions and containment dykes, dealing with the regulatory agencies on such matters and directing the actual work processes on these activities, we would have floundered"

Shell Canada Limited
Red Deer River pipeline break, 1994



Camisea pipeline, Peru, 4746 m (15,570') - 2001

"You have been selected as a well qualified expert with the necessary independence and integrity to carry out an assignment on behalf of both parties."

City of Calgary/Canada Lafarge
Bridge Impacts/Floodplain Studies, 1996

"Your professional calm and ability to deal with our difficult negotiations was critical over the past year."

Negotiations for Damage Claims
re: Hydroelectric Facility, 2003





48 inch Trans-Alaska oil pipeline



Northwest Light Rail Transit Bridge, Bow River, Calgary



Irrigation project, Awash River Basin, Ethiopia

PIPELINES

Since 1973 - 1977 when he was the senior hydrologic consultant to Alyeska Pipeline Service Company for the design and construction of the \$8 billion, 800 mile oil pipeline in Alaska, Wim has been involved in numerous major pipeline projects. He continues as a senior consultant to Alyeska and this long term hands-on experience has been the foundation for his pipeline experience. Wim's experience ranges from routing a pipeline in Tanzania to the design / permitting of numerous crossings in Western Canada to field supervision and permitting for a major repair of a sour gas pipeline break in the Red Deer River. He is presently involved in the design and field engineering of river crossings in Canada, the U.S., Argentina, Peru and Ecuador.

- AEC Oil and Gas (EnCana)
- Alyeska Pipeline, Alaska
- ARCO Alaska
- BC Gas
- BP Exploration Alaska
- Canadian Western Natural Gas
- Chancellor Energy
- Colt Engineering
- ConocoPhillips
- Esso Resources (Imperial Oil)
- Exxon
- Fluor Daniel
- Foothills (Yukon)
- GasAtacama, Argentina-Chile
- GasPacífico, Chile
- Gulf Canada
- IPL - Norman Wells
- Michael Baker Jr., Alaska
- Northrock
- Northwest Pipeline
- PacRim
- Penn West
- Phillips, Alaska
- Shell Canada
- Summit Resources
- Tanzania Petroleum
- TECHINT, Argentina, Ecuador and Peru
- Trans Canada Pipeline (Nova)
- VECO, Alaska, Canada
- Yukon Pacific

INFRASTRUCTURE

Wim's experience on infrastructure projects (bridges, culverts, roads, surface water intakes and floodplain developments) ranges from planning to detailed design to field inspections. He has considerable experience in developing instream construction guidelines and in permitting. With respect to river intakes, Wim has extensive experience in the construction of practical and economic repairs to existing structures.

- Alaska Dept. of Highways
- Alberta Transportation and Utilities
- City of Calgary
- City of Edmonton
- City of Fort McMurray
- City of Medicine Hat
- CN Rail
- CP Rail
- Elkview Coal
- Glencoe Golf Course
- Lafarge Canada
- Radium Hot Springs
- Shell/BHP
- University of Calgary

WATER RESOURCES

Wim's water resources experience ranges from reviewing the design of irrigation projects in Ethiopia and Indonesia, to helping develop a watershed rehabilitation program in Sri Lanka to being the project manager for watershed planning studies and the design/ construction of small dams in Alberta. For the Tarim basin in western China, he advised CIDA on a multi-year program for water resources management. At the present he is developing alternative flood protection measures for homes along a lake in Alberta. Early in his career he was involved in the design of major hydroelectric facilities in northern Manitoba. He has also been responsible for the design and construction of a 100 boat marina in British Columbia.

- Alberta Environment
- Alberta Fish and Wildlife
- Canadian International Development Agency
- City of Wetaskiwin
- County of Bighorn
- County of Stettler
- Foothills Model Forest
- Northwest Territorial Government
- Peigan Indian Reserve
- Shell Canada
- Simpson Ranching
- Windermere Lake Marina

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MINING

Wim has been extensively involved in the planning, EIA, design and construction components of water management schemes at major oilsands and open pit projects in western and northern Canada. This experience ranges from acting as the senior hydrologic advisor to Esso's OSLO oilsands project for 3 years to preparing an EIA for Cardinal River Coals' proposed Cheviot mine to detailed designs and field inspections for a major channel diversion and spillways for the Curragh mine at Faro, Y.T. Following the massive June 1995 flood, he designed extensive instream repairs for the Elkview Coal mine in B.C.

- | | |
|----------------------------------|-----------------------------|
| • Alberta Environment Protection | • Gregg River |
| • Alsands | • Lafarge Canada |
| • Burnco | • Luscar Ltd. - Coal Valley |
| • Cardinal River Coal | • OSLO |
| • Curragh Resources | • Sandalta |
| • Dept. of Fisheries and Oceans | • Smoky River Coals Ltd. |
| • Elco Mining | • Solv - Ex |
| • Elkview Coal | • Suncor |
| • Esso Byron Creek | • Syncrude |



Cheviot Mine/Cardinal River Coal, Alberta

ENVIRONMENTAL

Wim has extensive experience as a member of multi - discipline teams for environmental audits (pipelines and oil and gas fields) and in providing hydrologic input to the design of fisheries enhancement and compensation measures. This combined with his experience in the preparation of hydrologic components of EIAs and presenting results at public meetings and hearings, provides Wim with a broad technical and environmental background essential for projects subject to regulatory and environmental approval.

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|--|--|
| • Alberta Fish and Wildlife (fish enhancement) | • OSLO (oilsands) |
| • BC Gas (pipeline) | • PetroCanada (oilsands) |
| • Bovar | • Sandalta (oilsands) |
| • Cardinal River Coals (Cheviot Mine) | • Shell Canada |
| • Golder (various) | • Solv - Ex |
| • Imperial Oil Ltd. (oil development) | • Trans Alaska Pipeline System (ROW renewal) |
| • Laidlaw Environmental (waste storage) | • Trans Canada Pipeline (Nova) |
| • Luscar Ltd. (Coal Valley Mine) | |



British Columbia fisheries enhancement project

HEARINGS / FAILURE REVIEWS

The ability to deal with the general public, regulatory agencies and in court settings has been a strength of Wim for his entire career. He has organized and chaired public meetings and served as an expert witness in hearings on billion dollar projects in both Canada and the U.S. He prides himself in being able to present complex issues in an easy - to - understand manner.

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|---|--------------------------------------|
| • Athabasca Chipewyan First Nation ⁴ | • Imperial Oil Ltd. ¹ |
| • Alyeska Pipeline ¹ | • Laidlaw Environmental ² |
| • BP Exploration Alaska ² | • Mannix Family ¹ |
| • Cardinal River Coals ¹ | • PetroCanada ¹ |
| • City of Red Deer ¹ | • OSLO ² |
| • County of Snohomish (Washington) ¹ | • Shell Canada ¹ |
| • County of Stettler ² | • Simpson Ranching ² |
| • CP Rail (New Brunswick) ³ | • State of Alaska ³ |

1 Regulatory/Judicial Hearing 3 Expert Review of Failures Leading to Mediation
 2 Major Public Meetings 4 Negotiations re: Impacts/Damages



Mendenhall River revetment, Alaska





Taklimakan Desert, China - 1996

EDUCATION

- B. Sc., Civil Engineering, 1966, University of Manitoba
- M. Sc., Water Resources, 1969, University of Manitoba

MEMBERSHIPS

- Professional Engineer, Alberta, British Columbia, and Northwest Territories
- American Society of Civil Engineers
- Consulting Engineers of Alberta
- Project Management Institute

ASSOCIATION RESPONSIBILITIES

- Calgary Chairman, Canadian Society for Civil Engineering (1977 - 1979)
- Calgary Chairman, Engineering Institute of Canada (1980 -1981)
- Chairman, 8th Annual Western Regional Conference, EIC (1982)
- Board of Directors, Consulting Engineers of Alberta (1985 - 1987)
- University of Calgary - Civil Engineering Advisory Council (2002 - Present)
- APEGGA - Councillor (2004 - Present)

AWARD

- In 1984 Wim Veldman was awarded a Fellow in the Engineering Institute of Canada (F.E.I.C.) for "*recognition of his excellence in engineering and services rendered to his profession and to society*".



GasPacífico Pipeline, Chile - 1998

PROFESSIONAL HISTORY

• Hydroconsult	President/ Chief Engineer	1992 to present 1979 to 1987*
• HardyBBT Ltd.	Corporate Manager Water Resources	1987 to 1992
• Northwest Hydraulic Consultants	Principal/ Branch Manager	1973 to 1979
• Manitoba Hydro	Senior Hydraulic Design Engineer	1971 to 1973
• Crippen Acres	Senior Hydraulic Design Engineer	1969 to 1971
• Province of Manitoba	Junior Planning Engineer	1966 to 1969

* Hydrocon Engineering

PUBLICATIONS

W. M. Veldman and J. Ferrell, "*Lessons Learned for River Crossing Designs From Four Major Floods Experienced Along the Trans Alaska Pipeline*". ASCE, Cold Regions Engineering, Anchorage, Alaska, May 2002.

W. M. Veldman and P. McDevitt, "*A 13 km River Training Structure for the Trans Alaska Oil Pipeline*". Offshore Mechanics and Arctic Engineering Conference, American Society of Mechanical Engineers Conference, Calgary, Alberta, 1992.

W. M. Veldman and P. Young, "*Bow River Backchannel Rehabilitation*". Proceedings of Alberta Conservation and Reclamation Conference, Kananaskis Village, 1988.

W. M. Veldman, "*Arctic Pipeline River Crossings. Design Trends and Lessons Learned*". Prepared for the American Society of Civil Engineers, Specialty Conference on Pipelines in Adverse Environments, San Diego, California, November, 1983.

W. M. Veldman, and E. K. Yaremko, "*Design and Construction of River Training Structures in Cold Environments*". Proceedings of Conference on Applied Techniques for Cold Environments, American Society of Civil Engineers, Anchorage, Alaska, 1978.



Cheviot Mine, Canada - 1996

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Aug/04

