

From: [David Harpley](#)
To: [Jacqueline Ho](#); [Tsetso, Jonathan \(PC\)](#)
Cc: [Stoddart, Allison \(PC\)](#); [Steedman, Audrey \(PC\)](#); [Kimberley Murray](#); [Alan B. Taylor](#)
Subject: RE: Parks Canada Review and Approval of Technical Panel
Date: Friday, July 12, 2019 12:16:24 PM

Yes, we agree. I assume we can pick either Watt or Pacquette, and the Board will approve on that basis next week.

Thanks.

David Harpley
VP, Environment and Permitting Affairs
NorZinc (Canadian Zinc)
Home Office 604 594 3855, Corporate Office 604 688 2001 X35, Cell 778 227 8489

From: Jacqueline Ho [jho@mvlwb.com]
Sent: July-12-19 11:10 AM
To: Tsetso, Jonathan (PC)
Cc: Stoddart, Allison (PC); Steedman, Audrey (PC); Kimberley Murray; David Harpley
Subject: RE: Parks Canada Review and Approval of Technical Panel

Thank you Jonathan.

David, can you please confirm through e-mail that you agree with the addition of the fourth panel as per Park's recommendation? Thank you.

Jacqueline



Jacqueline Ann Ho, MSc
Regulatory Specialist
Mackenzie Valley Land and Water Board
(867) 766 7455
jho@mvlwb.com | www.mvlwb.com

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From: Tsetso, Jonathan (PC) <jonathan.tsetso@canada.ca>
Sent: Friday, July 12, 2019 11:55 AM
To: Jacqueline Ho <jho@mvlwb.com>
Cc: Stoddart, Allison (PC) <allison.stoddart@canada.ca>; Steedman, Audrey (PC) <audrey.steedman@canada.ca>; Kimberley Murray <kmurray@mvlwb.com>; David Harpley <David.Harpley@norzinc.com>

Subject: Parks Canada Review and Approval of Technical Panel

Hi Jacqueline,

Canadian Zinc is required to establish an Independent Technical Review Panel, including specific requirements for panel composition and mandate, as per Report of Environmental Assessment Measure 5-1. CZN proposed three appointees (Tim Smith, Robert Johnson, Jim Oswell) in their June 24 response to IR #4. In addition, Parks Canada suggests a fourth appointee, David Watt or Jason Paquette. It was noted that CZN's current proposed panel membership is 2/3 composed of geotechnical experts, and Mr. Johnson is a more geotechnically-leaning civil engineer. Geotechnical oversight is appropriate, however added operational input on resource roads would be appropriate. Therefore Parks Canada is recommending a fourth panel member to fill this role. David Watt was among the original list of candidates proposed by CZN. An alternate is Jason Paquette of McElhanney Consulting Services. Both proposed appointees would be well versed in the referenced BC forest road design standards and would have a relevant experience with road hazards, driver needs and behavior, roadway operations and maintenance etc.

CZN is supportive of the addition of a fourth panel member for operational input as per Parks Canada's recommendation. Parks Canada approves the three appointees and the additional panel member pursuant to measure 5-1. If you have any further comments or questions please let me know.

Regards,

Jonathan Tsetso

Superintendent, Nahanni National Park Reserve
Parks Canada / Government of Canada
P.O. Box 348, Fort Simpson NT X0E 0N0
Jonathan.Tsetso@canada.ca / Te: (867) 695-7753 / Cel: (867) 445-2950 / TTY: (867) 695-2446

Directeur, Réserve de parc national Nahanni
Parcs Canada / Gouvernement du Canada
C.P. Box 348, Fort Simpson NT X0E 0N0
Jonathan.Tsetso@canada.ca / Te: (867) 695-7753 / Cel: (867) 445-2950 / ATS: (867) 695-2446

Parcs Canada - 450 000 km² de souvenirs / Parks Canada - 450 000 km² of memories



JASON PAQUETTE
ASCT.
CALGARY ENERGY
RESOURCE SECTOR LEAD

EXPERTISE

Project Management & Coordinator
Energy Resource Access Specialist
Transportation Infrastructure
Functional & Detail Design
AutoCAD & Softree RoadEng

EMPLOYMENT HISTORY

McElhanney – Calgary Energy
Resource Sector Lead, since 2016

McElhanney – Nanaimo Branch
Project Manager, 6 years.

GHD Inc. Newcastle, Australia,
Transport Infrastructure Group, Major
Projects Technologist, 4 years.

McElhanney – Smithers & Prince
George, 10 yrs.

DR Estey Engineering Ltd., Drafting
Technician, 5 years.

EDUCATION

Design Technology Diploma, College
of New Caledonia, 1990.

PROFESSIONAL AFFILIATIONS

Applied Science Technologists &
Technicians of British Columbia
(ASTTBC). Membership No. 10821

AWARDS

Highway 16, Thompson Creek
Multiplate Deputy Minister's
Consulting Engineers Award Design
and Contract Preparation - Finalist
2005

Published Road Runner Winter
2004/05

TransCanada Pipelines Custom GIS
Streamlines Real-time Data for GCL
Access Project Award for
Engineering Excellence - Award of
Merit 2015

Murder Creek Instream Works to
Improve Fish Spawning & Rearing
Habitat, Featured in BC Watershed
Restoration Technical Bulletin

EXPERIENCE

Jason has over 29 years of experience implementing access management controls to major infrastructure projects. He is well versed in road access for a wide range of civil engineering projects including public highways, local connector roads, solar & wind farm access, mine development, pipeline grading, pipeline access, power transmission line access, forest sector infrastructure, construction camps, and multi use trails. His expertise includes managing large projects that require liaison with provincial authorities, parks, municipalities, First Nations, railway crossings, and other third-party crossings.

RELEVANT PROJECTS

Coastal GasLink (CGL) Limited Pipeline Project, Access Road and Bridges
Comprehensive assessment of routes and detailed designs for construction access to approximately 650km of pipeline from Dawson Creek to Kitimat crossing two mountain ranges. Approximately 2,000km of road upgrades and 220 bridge crossings were assessed and detailed engineering documents prepared. The project included 100km of new road and 60 bridge designs. Specific engineering services included construction drawings, cost estimates, schedules, traffic impact studies, and permit coordination.

Coastal GasLink (CGL), Construction Camp Civil Engineering for Civeo
Services included general civil engineering for six construction camps along the CGL pipeline project. Worked with Civeo's engineering staff providing field assessments, site grading, optimizing of camp layouts, construction costs estimates, identify environmental risks, and providing geotechnical recommendations needed for further detailed investigations.

Boundary Lake Pipeline Camp, Design & Construction Support
Provided civil engineering support to Civeo Canada Inc for a 600-man temporary construction camp north of Ft St John as part of the TransCanada Northwest Mainline Loop Boundary Lake pipeline. Worked directly with Civeo's engineering staff providing a field assessment, re-grading of the site, optimizing the camp layout, a construction cost estimate, civil contractor tendering scope of work, geotechnical support and materials testing, simple grade staking, and construction engineering support.

six construction camps along the CGL pipeline project. Worked with Civeo's engineering staff providing field assessments, site grading, optimizing of camp layouts, construction costs estimates, identify environmental risks, and providing geotechnical recommendations needed for further detailed investigations.

Prince Rupert Gas Transmission Pipeline Project, Access Road and Bridges
Construction access planning and detailed engineering for approximately 900 kms of pipeline between Ft St John and Prince Rupert traversing mountainous terrain and the Pacific Ocean shoreline. Engineering services included 2,500kms of road and bridge assessments, detailed designs, permit coordination, and pipeline earthworks grading.



Brooks Solar Array Development

Working for Borea Construction our team provided Survey, Site Grading, Detailed Civil Engineering, and ongoing construction support for GTE solar who secured 90 acres of industrial zoned land near Brooks, AB. located immediately east of the Trans-Canada Hwy to develop a 17 MW photovoltaic solar power plant. The project includes 800 meters of service roads, 300 m long wellsite access road, site grading (35,000 m³), sediment and erosion controls, hydraulic flood modelling, and geotechnical engineering.

Pipeline Highway Traffic Impact Studies & Permits, Northern BC

Completed traffic studies in support of 150+ highway access permit applications for submission to MoTI for 4 separate LNG pipeline projects CGL, PRGT, NMML, & Towerbirch. These include private access to the pipeline corridor, pipeline crossings of public roads, and public intersection on access routes.

Encana Sunrise Wellsite Access Road

Engineered 1 km long wellsite access road for Encana's Sunrise Well development on dedicated road right-of-way in Township 80 approximately 30 kms north of Dawson Creek including a new access intersection onto Hwy 97 the Alaska Highway. The project included a traffic impact study, intersection design to MoTI standards, detailed road design, and two live stalk underpasses.

Parks Canada Barrier Warrants, Signage, Pavement Marking Safety Reviews

Network level review in the Western and Northern National Parks, spanning over 1,300 km of roadways. The assessments were used to identify non-conforming assets that need to be corrected to improve public safety. The project utilized a GIS web based system allowing for efficiencies in assessment management. The work was combined with pavement condition assessments that included visual pavement condition assessments.

Jasper National Park Bike Path Initial Route Assessment

Route assessment and concept planning of 105 kms of bike & pedestrian trails between Jasper and the Columbia Icefield Discovery Centre located along Highway 93 Icefield Parkway within the Jasper National Park. The scope of engineering serviced included an initial field assessment, general routing options, high level planning of construction considerations, and considerations to minimize environmental impacts while maintaining an acceptable user experience. Access Planning drawings of project included information for planning such as typical sections, crossing structure types, optional route locations, key areas of concerns, and pinch points that would require special consideration.

Huu-Ay-Aht First Nation Anacla to Bamfield Pedestrian & Bike Trail

Engineering of 4.3 km long multi-use trail adjacent to the MOTI owned Bamfield Road connecting Anacla to the town of Bamfield. Provided survey, route selection, liaison between Huu-Ay-Aht and approving agency, detailed engineering, and planning. The trail is located partly within the MOTI right-of-way, on First Nations land, and a community woodlot. It includes elevated boardwalks through low lying riparian zones, a fish-bearing bridge crossing, and an at-grade crossing of the main road into Bamfield owned by MOTI. The trail will ultimately connect the town of Bamfield to the iconic West Coast Trail to Victoria.

Cape Scott Wind Farm Transportation Management Plan

Produced a transportation management plan and evaluation of oversized vehicles to transport wind turbine components and to determine if loads could safely reach the destination from Duke Point, Nanaimo to Cape Scott, BC. Plans included AutoTurn tracking analysis for inclusion in the overall transportation management plan.

Capital Regional District Rail Trail

Engineering of new 4m pedestrian trail within the E & N Railway corridor for the CRD between Maplebank and Hallowell roads in Victoria BC on Vancouver Island. Liaison required with Esquimalt Nation, Town of View Royal, INAC, and MOTI to finalize routing and construction details adjacent to Admirals Road, Esquimalt IR, and existing railway. Engineering included 4m high retaining wall.

Old Island Highway Road Upgrade

1.5km of road improvements from Helmcken Road to Shoreline Drive for the Town of View Royal, BC. Design / drafting of storm sewer, signage, line marking, and underground utilities civil coordination design (BC Hydro, TELUS, and Shaw).

**Andrew Zinc, Overland Resources, Yukon**

82km of mine access road. Detailed design for costing included construction across permafrost and mountainous terrain and 13 bridge crossings (including 67m & 83m spans).

Husky Energy, Detailed Route Study

Provided a detailed route study and evaluation of oversized wind turbine modules to determine if they could be safely transported from Vancouver to Edmonton. Plans included AutoTurn tracking analysis for inclusion in the overall transportation management plan.

Road and Drainage Design for Seabridge Mine Project

Provided road design for approximately 70km of mine access and service roads with water diversion channels using RoadEng. Similar to pipeline access in BC some of the project challenges include extreme mountainous terrain with significant geotechnical, environmental, and geometric constraints.

Oil & Gas Roads for Saguaro Resources Ltd. and Canadian National

RoadEng design of 6km long 8m wide gravel surface road connecting Tommy Lakes Road to Laprise Creek Road for Saguaro Resources Ltd. Hanlan and Marsh road provided 3.5km of 6m wide gravel surface wellsite access for Canadian National. 10km of Upper 103 Road near Wonowon was designed for upgrading to a 7m wide travelling surface for ConocoPhillips. Engineering included overland construction techniques and identifying stockpile locations to achieve topsoil salvage requirements.

Graymont Pavilion Mine Haul Road, Kamloops

Access engineering for a 10m wide 3.2km ore haul road up the active pit face to be constructed as part of mining operations. Extremely challenging terrain required 5 switch-backs and runaway lanes. Concept to construct road on active pit face and mine remaining ore deposit from top down removing road prism with mining operations. Solutions included 8 configurations for optimizing.

Road Design for Chieftain Metals Inc. Mine Project

65kms of mine haul road engineering in difficult terrain included 3D modelling in RoadEng, mass haul diagrams, constructability inclusion of geotechnical and terrain stability, bridge crossings, and drainage design. Services included tender documents and value engineering analysis that resulted in approximately 30% construction saving.

Galore Mine Road Access Study, NovaGold Resources Inc.

Feasibility study, route selection, and preliminary road designs. 150km of resource haul road in northwestern Canada and required coordination with the owner stakeholders and approving agencies such as the BC FLNRO and the BC MoTI.

Ootsa Connector Road Relocation

4km mainline resource road relocation, including two intersections, drainage structures, and heavy load cattle guard. Services provided include project survey, concept designs, construction design, and documentation to MoTI standards, supervision, and contract volumes.

Interior to Lower Mainland Powerline transmission

Provided access planning support, route selection, and detailed designs for construction accesses. Worked with contractors to provide low cost solutions for access in mountainous terrain with 20% grades and multiple switch-backs, full bench rock cuts, close proximity to parks, and access points to public road and highways.

Admirals Road Upgrade, Hallowell to Maplebank for MoTI in Esquimalt

700m road improvements, including three intersection upgrades, additional lanes, and raised median. Provided project management and detailed design for cost estimate and land acquisition planning to the MoTI standards and approvals.

See'Nu'Pin & Kosapsun Road Extensions

Road option planning and detailed engineering of new access to the Esquimalt Indian Reserve to Admirals Road, 250m of new road across the E & N Railway allowing for the closure of Thomas Road. Services include approvals with MoTI, INAC, and the Island Corridor Foundation.

**Chemainus Industrial Park Access**

The design included an MoTI access permit for a right in / right out intersection.

Eco-Depot, Cowichan Valley Regional District

Civil design including site layout, grading, access road, and intersection with Cameron Taggart Road. Includes lock-block retaining walls and scales. The major design emphasis is for the “greenest” facility of its kind.

Norquay Road and Drainage Upgrade

170m of urban road and cul-de-sac upgrade in the Town of View Royal. The project has several terrain and property constraints that required innovative engineering solutions and negotiated relaxation of the municipality standard engineering practices. Consultation support for the municipality was provided to work around private property and driveway constraints and upgrades. The work included considerable effort to minimize impact on private landowner upgrades at the fronts of their properties.

Townline Boat Harbour Kendal Road Extension

Access to boat launch cul-de-sac and hammer head for private development to MoTI standards / approval. Includes lock-block retaining wall and roadside barriers.

Keefe’s Landing Road Upgrade

21km of road upgrading using CAICE design software. Improvements included pavement overlays, road widening, base strengthening, realignments, and drainage.

Murder Creek Stream Restoration Project, Smithers, BC

Murder Creek Instream Works to Improve Fish Spawning & Rearing Habitat. Detailed engineering and construction management of tree revetments and log clusters installed into stream banks for improved habitat and to reduce lateral channel migration. The project was featured in BC Watershed Restoration Technical Bulletin at:

http://www.forrex.org/sites/default/files/publications/articles/streamline_vol6_no3_art2.pdf

Thompson Creek Culvert, Smithers, BC

Design and drafting of 7m span, open bottomed, corrugated steel arch culvert, on cast-in-place spread footings, including fish passage details. The project was published, page 20 of the winter 2004-2005 of the MOTI Roadrunner newsletter available at: http://www.th.gov.bc.ca/publications/roadrunners/2004/2004-2005_12_Winter.pdf

Boggabri Coal Mine Infrastructure Expansion, NSW, Australia

Feasibility design to increase the existing mine capacity to 6.5 Mtpa. Includes coal handling facility, administration, workshop, fueling, 19km local road relocation, and 17km rail link.

The Perth Bunbury Australian Freeway, Southern Gateway Alliance Australia

Design and construct of 70km new dual carriageway. Supervision of drawing production of intersections and integrated civil works with the Intelligent Transport System infrastructure.