

Proposed G3 Terminal Vancouver Project Update



Presented to North Shore Waterfront Liaison Committee
January 14, 2016



FORWARD, WE GROW

G3 & G3 Terminal Vancouver

- G3 formed to invest in Canada's grain sector by establishing a highly efficient coast-to-coast grain enterprise
- G3 headquartered in Winnipeg, Manitoba
- G3 Terminal Vancouver
 - Joint Venture - G3 Global Holdings and Western Stevedoring Limited
 - G3 Global Holdings - joint venture - Bunge Canada ("Bunge") and SALIC Canada Ltd., wholly owned subsidiary of Saudi Agricultural and Livestock Investment Company ("SALIC")
- Proposing an export grain terminal at Lynnterm West Gate

Proposed Location – G3 Terminal Vancouver



Proposed Project Site – G3 Terminal Vancouver



Proposed Project Site (3D) – G3 Terminal Vancouver



Project elements:

- a rail car receiving facility and loop track
- grain conveyor systems
- a grain storage facility of up to 48 primary concrete storage silos
- a grain cleaning facility
- dust aspiration systems
- administration and maintenance buildings
- access roads including three (3) underpasses
- a berth structure and ship loader
- electrical substation, protection equipment, meters, poles and lines for BC Hydro interconnection

Project Application & Review Process

- **Two engagement phases, as per PMV process:**
 - **1: Preliminary Review Phase**
 - Opportunity to provide input on the scope of studies to be undertaken
 - **2: Application Review Phase**
 - Opportunity to provide comment on application to PMV

Project Application & Review Process

- **Phase 1 - Preliminary Review Period**

4 week on-line review and comment on proposed studies from September 9 to October 7, 2015

Community & stakeholders invited to comment on studies by letter, newspaper ad, mail drop (4 block radius to site)

In-person meetings with key stakeholders

Engagement with First Nations

Project Application & Review Process

- **Phase 1 - Preliminary Review Period**

Feedback received expressed interest in 4 key areas:

Marine - traffic

Land - road traffic

Community - viewscales, light, dust & air emissions, noise, fire safety, emergency preparedness

Environment - biophysical habitat assessment and nesting birds

Project Application & Review Process

- **Phase 1 - Preliminary Review Period**

Feedback on studies gathered and published in two documents – Engagement Summary Report & Consideration Report posted to PMV website

Feedback incorporated into studies and application

Application submitted to and accepted by PMV

Project Application & Review Process

- **Phase 2 – Application Review Phase**

20 day public comment/consultation period on application from January 4, 2016 to February 1, 2016, including Open House in North Vancouver on January 9, 2016

Community & stakeholders invited to review application and attend open house by letter, newspaper ad, mail drop (4 block radius to site)

Continued in-person meetings with key stakeholders

Engagement with First Nations

Marine – Traffic

Findings	Mitigations
168 ship movements to site, primarily Handysize, Handymax, and Panamax class ships	Pacific Pilotage Authority discussions have led to need for Berthing Simulation modelling, expected to be complete by March 2016

Land – Road Traffic

Findings	Mitigations
<p>Construction: road rerouting required.</p> <p>Operations: expected to generate less than 20% of current traffic volume to site.</p>	<p>Construction: Detours, signage, temporary site access road.</p> <p>Operations: Strategies to facilitate employee non-auto travel to be explored, such as secure bicycle parking, ride shares, and employee shower/locker room.</p>

Community– Viewscapes

Findings	Mitigations
<p>Terminal comparable to similar developments in industrial area. Contour elevations and vegetation limit direct views from residential areas.</p>	<p>Alternative siting study completed, and silos moved from east-west to north-south orientation, reducing visual impacts from Moodyville North.</p>

Community– Light

Findings	Mitigations
<p>Illumination in compliance with safety codes for minimal light levels.</p>	<p>Lighting plan to be developed considering building code and exposure. High mast lights to be removed, permanent LED lights to focus towards site with light shields and control systems.</p>

Study Findings & Mitigations

Community– Noise

Findings	Mitigations
<p>Construction noise expected to be below local limits.</p> <p>In absence of mitigations, operational noise to increase “percent highly annoyed” by 4.7% primarily due to aspirator exhausts and belt tower motors.</p> <p>Rail shunting minimized by continuous unloading.</p>	<p>Rail lubricators/friction devices to reduce noise. Aspirator exhausts to use silencers and belt motors to use barriers, enclosures or quieter motors. Noise impact reduction expected from 4.7% to 2.6%.</p>

Community– Dust & Air Emissions

Findings	Mitigations
<p>Annual emissions of many pollutants to be reduced. CO₂e to increase by 8.8%, but CO₂e per MT shipped to decrease by 90%.</p> <p>Dust to increase due to grain handling.</p>	<p>Continuous rail loop to decrease rail exhaust emissions.</p> <p>Point of generation capture, closed systems, grain screens, filters, and telescoping ship loaders to be used to control dust.</p>

Study Findings & Mitigations

Community– Fire Safety & Emergency Preparedness

Findings	Mitigations
<p>Elements to minimize potential fire risk incorporated into facility design (e.g. enclosed equipment). Facility to use state of the art automation and computer controls to mitigate fire risk.</p>	<p>Central control room, hazard monitoring system, explosion isolation, dust collectors and point of use filters to reduce risks. Emergency response plan created with local authorities with annual testing.</p>

Study Findings & Mitigations

Environment – Biophysical Habitat Assessment - Aquatic

Findings	Mitigations
<p>Marine habitat surveyed at site includes rocks, shell hash, silt, organic matter and man-made materials. Some habitat loss from pile removal. Removal of creosote-treated piles to decrease contaminants.</p>	<p>New rock to provide new habitat, enhance ambient light and support kelp and algae production, supporting fish foraging. Habitat enhancement will offset impacts.</p>

Study Findings & Mitigations

Environment – Biophysical Habitat Assessment - Terrestrial

Findings	Mitigations
<p>Site has small area of ornamental, non-native vegetation. Canopy is European birch previously topped, two elms and various shrubs also present. Onsite vegetation will be removed during construction.</p>	<p>Mitigation to protect vegetation within Lynn Creek and Lynn Creek estuary area include isolation fencing and signage, erosion and sediment control to prevent runoff, buffer zones, no fueling within 30m.</p>

Study Findings & Mitigations

Environment – Nesting Birds

Findings	Mitigations
<p>Wildlife and nesting birds not detected in assessment area. Crows and gulls observed. Wildlife and bird use of site considered unlikely due to little shelter or food value.</p>	<p>Vegetation clearing to be conducted outside of nesting window. If nest clearing is required, surveys to be conducted prior to clearing by a qualified environmental professional.</p>

Anticipated Construction Impacts

Construction Management Plan to address:

Traffic

Light Pollution

Air quality

Noise & vibration

Erosion & sediment control

Contaminated soil/groundwater management

Vegetation/wildlife management

Marine works

Archeological resources

Emergency spill response

Waste management

Permitting & Authorizations Underway

Navigation Protection Program (NPP) - waterways

Rail Safety Group (transport Canada) – rail

NAV Canada – airspace

Pacific Pilotage Authority (PPA) – vessels

Fisheries and Oceans (DFO) – self assessed

City of North Van (CNV) – various permits (bldg./fire/utilities)

District of North Van (DNV) – various permits (utilities)

Metro Vancouver – various permits (air/storm/sanitary/water)

Transport Canada – design and TDG (roadways/traffic impact)

BC Hydro – power supply (temp and permanent)

BC MoE - hazardous materials (soil/water)

BC Ministry of Forest, Lands and Natural Resource Operations (MFLNRO) – archeological finds

Questions

Brett Malkoske

Vice President, Business Development

p 204 272 6611 c 289 795 6476

Brett Malkoske@g3.ca

www.g3terminalvancouver.ca