

facility expanded capacity. A number of health and environmental concerns have been raised by the community and consultation with New Westminster residents on these concerns has been limited to date.

At this point, the available information raises a number of questions about potential impacts of the proposed facility on New Westminster residents, which should be fully investigated and resolved before approval is given by the Port for constructing and operating the facility.

BACKGROUND

Fraser Surrey Docks is a multi-purpose Port Metro Vancouver marine terminal that is located on the Fraser River in North Surrey. It handles containers, general cargo, logs, lumber, steel and wood pulp and is operated by Fraser Surrey Docks LP. Currently, the terminal does not operate at capacity and a proposal has been submitted to Port Metro Vancouver to construct and operate a coal transfer facility in which coal would be unloaded directly from bottom dump railcars to receiving pits and transferred directly onto barges via a conveyor system.

Concerns have been raised about the local environmental and health impacts of the coal facility's operation as well as the global impacts of expanding coal use by organizations as diverse as local governments, medical health officers and environmental advocacy groups. These concerns include local engine emissions from trains and tug boats, global Greenhouse Gas emissions from burning the shipped coal, dust from train movements and coal transfer operations, chemicals used in train cars and barges for dust suppression, soil and water contamination and risks related to explosions, fires, collisions and spills.

EXISTING POLICY/PRACTICE

Port Metro Vancouver operates under a federal charter that provides it with a broad mandate to promote international trade and a range of powers to implement this mandate. As a federal agency, the ability of local and provincial governments to directly influence port land use decisions is limited. The Port does have an internal review process for land use proposals which involves the notification of affected local jurisdictions, sharing of plans and public consultation. The Port also has policies promoting sustainability in its facilities and internal operations but does not assume responsibility for the sustainability of goods movement to or from these facilities or for the production or use of these goods.

In this case, the facility is also located outside of New Westminster's jurisdiction in the City of Surrey, adjacent to the District of Delta. It is approximately 1500m southeast of

the Queensborough community, separated by the northern tip of Annacis Island, and approximately 2000m south of the Quayside and Downtown communities. The docks are located in lands zoned for heavy industrial use and there are regional policies supported by the City for retaining industrial lands.

The City and region have policies calling for the intensification of livable regional centres, including Downtown New Westminster, and the safe, efficient and low-impact transportation of goods. The City supports the movement of goods by rail and water where feasible to reduce the impacts of trucks on populated areas. The City also supports reductions in the generation of Greenhouse Gases (GHGs), but corporate and community energy and emission plans are focused on controlling local emissions, not those generated in surrounding communities or abroad.

ANALYSIS

The basic operating concept of the facility is that trains loaded with coal will be brought to the docks, unloaded into a pit through doors under the train cars and then loaded onto barges by conveyor belt for transport to a deep sea shipping facility at Texada Island for customers in Asia, primarily in China. Initially, four million tonnes of coal would be shipped and the capacity for the facility as proposed is eight million tonnes.

One additional train per day of up to 135 cars is expected using BNSF's track south of the Fraser River every day by 2014 and eventually up to three trains per day, i.e., three trips to and three trips from the facility daily. Although it is possible, it is not currently expected that coal trains will be routed through New Westminster, with the proponent stating that trains will be routed primarily through the BNSF tracks through White Rock, South Surrey and Delta. If there was a blockage of that route, e.g., for track maintenance or accident, trains could be routed temporarily through New Westminster. Proposed barge routes to transfer the coal from Fraser Surrey Docks to Texada Island will be along the South Arm of the Fraser River.

Potential Environmental, Health and Safety Impacts

Initial concerns raised by the Quayside Community Board and New Westminster residents have related primarily to potential visual impacts and air quality impacts on their health as well as the potential for haze and dust on their properties. A broad coalition of regional health care providers have also approached the port authority with a large number of health concerns related to both the operation of the facility and the transport of coal to and from the facility, including water quality and respiratory issues. Environmentalists have been active in the media and in representations to the proponent

about local impacts, including air, soil and water quality, as well as the global impacts of increased coal use. Surrey and Delta municipal staff have also been meeting with the facility proponents and are studying background materials to determine an appropriate response. City staff is in communication with these municipalities to promote the development of a coordinated response to common issues.

The Fraser Surrey Docks, in its project approval submission to Port Metro Vancouver, commissioned an air quality report. Pollutant dispersion maps show levels dropping quickly to near ambient levels at Annacis Island. These maps are based on averages and, while the prevailing winds in the area are generally easterly and westerly, occasional southerly winds could increase these levels near New Westminster at times. The report conclusions, based on an air dispersion model, are that “Particulate matter emissions from fugitive dust sources are localized around the facility and predicted air quality impacts are low” and that “Predicted air quality impacts at the residential neighbourhoods in the vicinity of Fraser Surrey Docks are very low.” Specifically, the report concludes that identified emissions will be below federal, provincial and Metro Vancouver Ambient Air Quality Objectives (AAQO) for new facilities, which are the most stringent.

The report suggests that the major source of additional emissions related to the facility will be diesel emissions from the tugboats hauling the barges and rail movements within the facility, but does not analyze emissions from additional train traffic outside of the facility as this is outside of the Port’s jurisdiction.

It would appear that the ability to meet these air quality objectives will be the effective application of controls identified by Fraser Surrey Docks, including:

- Enclosure of facilities such as the coal pit and conveyor system;
- Use of dust control devices such as chemically-enhanced water sprays; and
- Outside storage of coal only under “emergency” circumstances, where space has been reserved for up to two trainloads of coal to be stored outside temporarily. The Port states that no more than 120,000 tonnes would require emergency external storage annually, i.e., this could occur up to 15 times per year for up to four days at a time.

In addition to the “DusTreat” water additive proposed for spraying within the plant for dust suppression that includes the hazardous ingredients “Adipic acid, diethylenetriamine and epichlorohydrin polymer,” the “Soil Sement” chemical compound, described as an “Aqueous acrylic vinyl acetate polymer emulsion” will have been sprayed on the open coal cars at their origin and would be sprayed on the barges to suppress dust and protect the coal from the elements. According to the fact sheet for the compound, coals from the

Powder River Basin in Montana and Wyoming, where the coal shipments will originate, are dustier and more subject to oxidation than most utility coals, requiring protection.

A broader Environmental Management Plan addresses air quality but also soil and water quality, noise pollution, light intrusion and a vegetation and wildlife protection plan. Air, water and soil sampling is planned at regular intervals. Impacts of particular concern to New Westminster would be noise and lighting levels. The provided plan indicates that noise levels will involve machinery typical to heavy industrial sites, but the unloading of coal will take place between buildings that will shield the noise. No new lighting on masts will be provided for the facility and any additional lighting will be used on an as-needed basis and directed towards the ground in working areas.

In addition to health and environmental issues, there are also a number of emergency management considerations that the City's Emergency Management office is aware of. While most of these situations would be managed through City of Surrey public safety officials, local situations could arise, such as if trains were ever to be rerouted through New Westminster and experienced difficulties. This could result in problems such as restricted access to the Braid Industrial Area and additional safety risks associated with an increased volume of trains. It should be noted that the City is meeting with Port Metro Vancouver and other public safety agencies in the newly formed regional Marine Emergency Response Coordination Committee (MERCC).

Community Consultation

Although Fraser Surrey Docks has undertaken a consultation program and created a project web page with project documentation, most of these consultations have focused on federal, provincial and Surrey departments, project economic stakeholders and residents of North Surrey and Delta. The City was notified of the project by letter from the Port and the proponent indicates that information sheets were delivered to four postal delivery areas in the City along the western waterfront of the Downtown and the eastern end of the Quayside neighbourhood. Most New Westminster residents, however, are likely to have received their information on the project primarily from media reports.

Staff has met with Port staff to discuss and clarify a number of the identified issues. Staff has also been in communication with City of Surrey and Delta staff on the project and is sharing information. Surrey staff is undertaking a thorough review of the proposal and has indicated that they will share the results of their review with New Westminster. Port staff has indicated that they will work with the City to provide any additional requested information and to distribute available information to any community stakeholders that request it.

SUSTAINABILITY IMPLICATIONS

Socially, the presence of large coal piles and industrial buildings can create significant visual intrusion and industrial operations of this kind generally lead to the nuisances of noise, dust, vibrations and light intrusion for nearby properties. In particular, coal dust contains particulate matter of 2.5 and 10 microns (PM2.5 and PM10) which can be a factor in lung disease if inhaled over a period of time at higher concentrations. Although the proponent has stated that coal will generally not be stockpiled on site and air quality impacts are low, Fraser Health and other regional health authorities have raised concerns of potential health issues and will be reviewing the proposal carefully.

Economically, it is expected that the facility, during operation, will generate 50 full time jobs at Fraser Surrey Docks, with an additional 25 jobs being created at the Texada Island deep-sea facility. Some of these employees may ultimately reside in New Westminster or utilize local businesses, particularly in Queensborough.

Environmentally, coal is a leading source of Greenhouse Gases (GHGs), emitting roughly 6 tonnes of Carbon Dioxide equivalent (CO₂e) for every tonne burned. Although a large-scale expansion of coal shipments will likely accelerate the impacts of global climate change, the Port has a policy of not restricting the shipment of goods as long as they are legal commodities and are shipped, stored, and loaded in an environmentally friendly manner. Other environmental concerns related to the proposal include the potential for the water and soil contamination and accidental spillage of coal into the Fraser River. Although an Environmental Management Plan calls for procedures to reduce these risks and to monitor air, water and soil quality regularly, this is a large industrial site and the proposed project is not likely to benefit the local environment or wildlife habitat. The City has limited jurisdiction with respect to mitigating potential environmental impacts.

OPTIONS

Council may:

1. Direct staff to convey City and community concerns regarding the proposed Coal Transfer Facility to Fraser Surrey Docks and Port Metro Vancouver staff and work with the Port to identify recommendations to address these concerns; or
2. Provide other direction or input.

Staff recommends option 1.

FINANCIAL IMPACT

There is no direct financial impact related to the proposed coal transfer facility other than staff time dedicated to researching issues and meeting with stakeholders to resolve these.

INTERDEPARTMENTAL LIAISON

The Development Services and Engineering Services departments are working closely together to identify and mitigate potential impacts from the proposed coal transfer facility and has convened a City team to review different aspects of the proposal, including Emergency Management.

CONCLUSION

Port Metro Vancouver is reviewing a project permit application from Fraser Surrey Docks for a Direct Transfer Coal Facility that will load coal, primarily from the central U.S., directly from trains onto barges for transfer to ocean-going ships at Texada Island for overseas markets. Initially, up to four million metric tonnes of coal is to be shipped annually, or roughly three to four million cubic meters, with an ultimate capacity of eight million tonnes per year.

While the Port informs that the environmental and health impacts from the construction and operation of the facility are manageable, this will depend on the degree to which identified controls will be applied. City staff will be working with the Port and the facility proponent as well as other jurisdictions, including provincial, regional and local governments, to research and resolve issues that may impact the City.

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