HALIFAX
REGIONAL MUNICIPALITY

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# Item No. 10.1.3

**Halifax Regional Council**
**May 27, 2008**

**TO:** Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:**

Geri Kaiser, Acting Chief Administrative Officer

Wayne Anstey, Deputy Chief Administrative Officer - Operations

**DATE:** May 12, 2008

**SUBJECT:** **Atlantic Gateway DistriPark Plan**

## ORIGIN

At the June 12, 2007 meeting of Halifax Regional Council RFP No. 07-008, Halifax Inland Terminal Plan was awarded to MariNova Consulting Limited.

## RECOMMENDATION

It is recommended that Halifax Regional Council:

(1) endorse, in principle, the *Atlantic Gateway DistriPark Plan* and submit it to the Province of Nova Scotia and Transport Canada for their consideration in upcoming studies related to the development of an Atlantic Gateway; and

(2) authorize HRM staff to participate in, but not fund, upcoming studies proposed by the Province of Nova Scotia and Transport Canada, to ensure that the needs of the Municipality, the potential impacts on the community, and the requirement for public consultation are all addressed in these studies.

## BACKGROUND

At the January 25, 2006 meeting of Halifax Regional Council, a motion was passed to apply for funding under Transport Canada's Transportation Planning and Modal Integration Initiatives Program to conduct the Halifax Inland Terminal Plan. Funding was subsequently awarded to HRM and on January 23, 2007, Regional Council authorized the Mayor and Clerk to enter into a cost-sharing agreement with Transport Canada to undertake the study along with three other funding partners. The study was awarded to MariNova and completed in March, 2008.

The project steering team consisted of representatives from HRM and the Greater Halifax Partnership, and its funding partners the Province of Nova Scotia, the Port of Halifax, and CN. During the study, the steering committee agreed to retitle the project "Atlantic Gateway DistriPark Plan" to reflect a change in direction that better fit the findings of the analysis.

## DISCUSSION

The final report was reviewed by the project steering committee and approved in March, 2008. An Executive Summary is attached to this report.

During the course of the study, it was determined that the original concept of an inland terminal, where most aspects of landside terminal operations would occur, would be difficult to implement for three reasons.

1. A business case could not be developed whereby the increased efficiency in avoiding areas of traffic congestion for trucks would fully offset the cost of additional handling of containers.

2. The value of developing an inland terminal was premised on the future need to expand the Port of Halifax, which is now less of a concern following a subsequent determination by the Port of Halifax that the port could be expanded by much more than had previously been stated.

3. It was recognized that the development of the site at Rocky Lake would raise concerns with the current landowner related to impacts on existing quarry operations and would meet with opposition from nearby communities concerned with additional noise, dust, lighting and truck traffic.

The DistriPark concept focuses its attention on container traffic from the transload sector[1]. It results in an integrated facility being created in Burnside, connected to the port by existing rail lines. Currently, containers from the port are trucked across the city to Burnside for delivery at transload or intermodal operators. The DistriPark offers an attractive alternative delivery method which shuttles containers to the DistriPark in a less expensive and more environmentally sensitive manner. For a business located in a "campus" surrounding the DistriPark, the containers can be delivered by

[1] "Transload" facilities specialize in the transfer of cargo from foreign to domestic containers for the purpose delivery to local markets.

a "yard shunt" from the train directly to their facility without ever having to be loaded onto a truck.

The study projects that operation of the DistriPark will result in an initial 40% decrease in truck traffic entering and leaving the port, increasing to 50% diversion by year twenty. In year one, this would be a reduction of 130,000 truck movements.

The development of the concept of a DistriPark has been led by HRM for the purpose of emphasizing the need to address the issue providing an effective means of managing container truck traffic on our roadway network. There is no intention that HRM would build, operate, or fund in any way a facility of this nature. From this point on, the municipality's involvement would be limited to preserving the opportunity for such a facility to be established in its planning for expansion of the Burnside Business Park.

Outside of this study, other opportunities for improving the management of trucks and container traffic have been suggested and explored. The creation of a truckway within the existing CN rail corridor was examined in the *Trucking Options Study* lead by HRM, but dismissed at that time as being economically ineffective given the operational constraints set by CN. Further examination by the Province of Nova Scotia has suggested that those operational constraints may be overcome and that the concept of a truckway may still prove to be viable. Earlier this year, the Halifax-Dartmouth Bridge Commission released the findings of a needs assessment that suggested a third crossing of the harbour would be required within the next 15-25 years to meet growing traffic demands. It further indicated that this crossing would optimally be located to connect the south end container port area to the end of Highway 111 in the Woodside area. Although the study did not consider the potential benefits of redirecting truck traffic from downtown streets in its analysis, this is clearly a beneficial "by-product" of a new crossing.

The following chart lists four possible solutions to management of container truck traffic and broadly compares a variety of aspects for each option:

| | DistriPark | Inland Terminal | Truckway Corridor | Third Harbour Crossing |
|---|---|---|---|---|
| Removal of truck traffic from streets | [ | [ [ | [ [ | [ [ |
| Improvement of container movement efficiency | [ | | [ [ | [ [ [ |
| Social/environmental impact avoidance | [ [ | [ | | |

| | | | | |
|---|---|---|---|---|
| Cost | Low | Moderate | High ( but with secondary benefits) | Very High (although is itself a secondary benefit) |

Several studies related to development of the Atlantic Gateway by Transport Canada and the Province of Nova Scotia are either underway or will be initiated soon. Most notable is the *Multimodal Freight and Passenger, Traffic Flows and Infrastructure Study* which will be awarded this month and completed in 2008. This study will evaluate the benefits of a variety of potential infrastructure investments, including the DistriPark concept. The participation of HRM staff on these projects would help to ensure that the needs of the Municipality, the potential impacts on the community, and the requirement for public consultation are all addressed.

HRM should be proud of the important background work that it has led, including the *Atlantic Gateway DistriPark Study* and Council's approval of a policy paper oputlining HRM's role in the Gateway initiative, in preparation for some key upcoming decisions related to development of the Gateway.

## BUDGET IMPLICATIONS

There are no budget implications to approving this study in principle. The commitment of staff time to participate on project steering committees associated with the Atlantic Gateway is expected to be minimal and can be covered under existing approved operating budgets.

## FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

## ALTERNATIVES

Halifax Regional Council may choose not to endorse, in principle, the *Atlantic Gateway DistriPark Plan*. As HRM is one of several co-owners of the document, withholding endorsement would not prevent the report from being released publicly.

Halifax Regional Council may choose to withhold HRM staff from participation on upcoming studies related to the Atlantic Gateway. This is not recommended, as HRM is in a better position to ensure that issues are dealt with and the right decisions are made by sitting at the table.

## ATTACHMENTS

Executive Summary: Atlantic Canada Gateway DistriPark Plan

A copy of this report can be obtained online at http://www.halifax.ca/council/agendasc/cagenda.html then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

| | |
|---|---|
| Report Prepared by: | David McCusker, P.Eng., Manager, Strategic Transportation Planning, 490-6696 |
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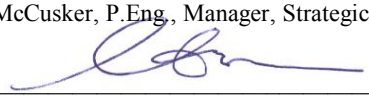
| Financial Approval by: |  <br>Catherine Sanderson, Senior Manager, Financial Services, 490-1562 |
| Report Approved by: |  <br>Cathie O'Toole, Director, Infrastructure and Asset Management, 490-4825 |


# Atlantic Gateway Distripark Plan
## Executive Summary

**Prepared For**
**Halifax Regional Municipality**
**and**
**Partners**

**Prepared By**
**MariNova Consulting Ltd.**
**UMA Engineering**
**CPCS Transcom**
**Dillon Consulting**
**Colliers International**

**March 2008**

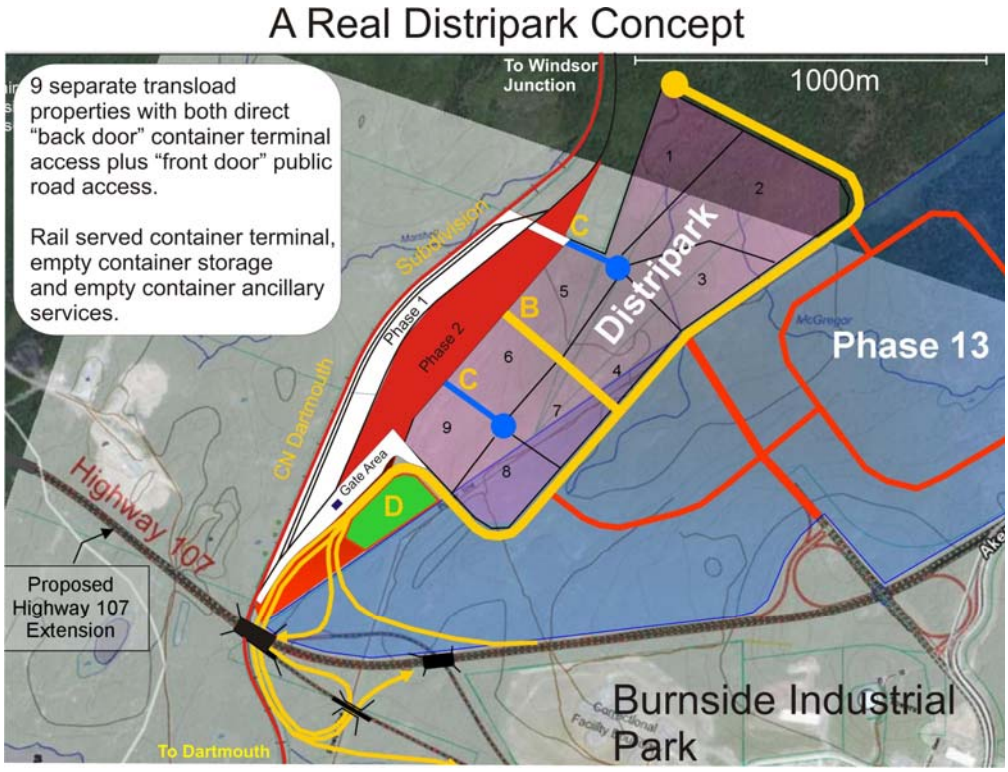
# Executive Summary

The original objective of this study was to follow up on the previous study (Halifax Inland Terminal and Trucking Options Study) that suggested that, under certain circumstances (mainly the need for port capacity), an inland terminal and container shuttle to a site at Rocky Lake was a compelling project from a number of perspectives.

A number of events that negatively impact on the economic viability of the original project have occurred since that report was prepared in 2005. The estimated capacity of the port was revised from 800,000 to 900,000 TEUs per year to 1.4M to 2M TEUs per year; this coupled with the lack of growth in the last two years pushes the point at which an inland terminal concept could be viable too far out into the future to be relevant. The more positive change from a port perspective is that transload activity has started and is growing in Halifax.

A new concept was therefore required to reduce/remove truck traffic from city streets. As its title implies, this study now focuses on the opportunity to leverage this transload activity to reduce truck traffic without increasing the overall cost of transportation. It actually *reduces* the cost of transload container delivery chain through the Port of Halifax.

The new concept is a commercially driven Distripark adjacent to the proposed Phase 13 Transportation Node in Burnside Industrial Park that is a combination transload service, empty yard container terminal and possibly a Long Combination Vehicle (LCV) yard at some point in the future. A daily shuttle would move transload containers between the container terminals and the proposed facility and empties would be received, stored and delivered from the Atlantic Gateway Distripark (AGD). Full import containers destined to locations other than Burnside would continue to be delivered by truck from the terminals as would the full export containers.



Schemes to improve the cost of handling containers to/from their origin/destination are not new in the industry but are growing in popularity as governments attempt to find sustainable solutions to remove trucks from roads and reduce costs of cargo distribution. Variations of this concept have been studied and are being implemented in Auckland, Sydney, Gothenburg, Virginia, Vancouver and other cities. Each was developed to deal with the specific needs of the situation.

Based on a number of assumptions that are detailed in the report, the volumes that would be attracted to the new terminal would result in 23,183 truck moves shifted to rail within the city and a further 43,322 empty container truck moves shifted from the container terminals to the AGD in 2009. This represents approximately 40% of the international container truck traffic that would flow through the city otherwise.

Use of the AGD facility would be primarily justified by transload cargo that could benefit from going directly to rail, and transported more economically between the AGD and the terminals more economically using a rail shuttle. The empties generated by the transload activity would provide the base volume for the AGD's secondary role as an empty yard. This empty yard activity contributes to the removal of truck traffic from city streets and adds volume necessary to lower handling costs at the AGD. The direct transportation costs benefits are summarised in the table below, based on the projected 2009 volume levels:

| Estimated Net Savings (Costs) | | | |
|---|---|---|---|
| | **Total Savings** | Per Unit Savings | Units |
| Transload Handling | $278,433 | $12.01 | Per transload container through the AGD |
| Empty Exchange | $815,028 | $17.59 | Per empty move shifted to the AGD |
| Total | $1,093,461 | | |

While not included in the economic analysis, the transfer of CN's Halifax Intermodal Terminal (HIT) activities would increase the volume of traffic through the AGD and significantly enhance its economics as the savings per HIT container would exceed $20.00 per unit.

Even without the HIT volumes, the operating benefits of the AGD are positive in 2009 (net savings of $1.1M) and improve as volumes grow, mainly because the cost of the rail shuttle is nearly fixed. The projected cost savings in 2028 is between $5.9M and $6.2M.

It should be noted that, just as in the previous report, the economics are calculated on the basis of holistic costs and assume the incremental savings and costs are realized. The actual rates the various stakeholders may charge for additional services or be willing to give back through rate reductions for savings incurred may vary significantly. This difference between costs and rate constitutes one of the main challenges of creating a deal that would permit all stakeholders to benefit.

In addition to the direct transportation operating cost savings and the reduction of the number of trucks from city streets, the AGD will also:

- reduce GHG (Green House Gas) emissions by reducing truck mileage or concerting such mileage to more fuel efficient rail transport;
- reduce the wear and tear on city streets; and

- reduce the wear and tear on bridges.

The following table shows a summary of the quantifiable operational benefits of the AGD.

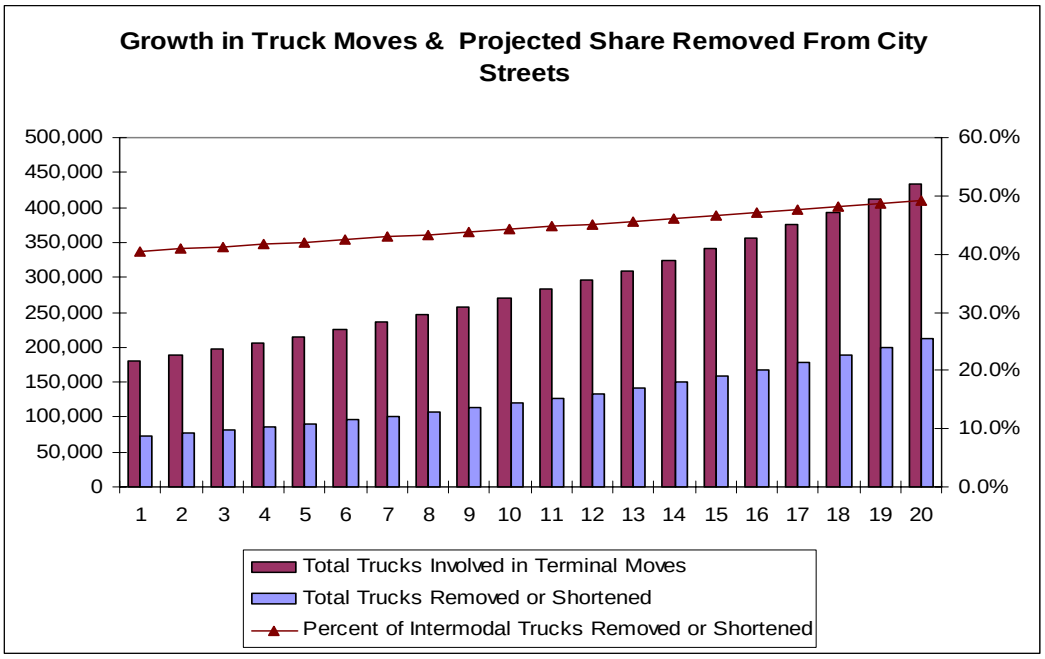
| | Costs/Savings at Year 1 ($000s) | NPV Of Costs/Savings at 20 Years ($000s) Using 5% Discount |
|---|---|---|
| **Ocean Terminal Activity** | | |
| Full Containers (ship-to-truck or truck-to-ship) | $(115) | $(1,921) |
| Empty containers (to/from terminals) | $538 | $8,968 |
| **Distripark Activity** | | |
| Transload containers | $40 | $962 |
| Transload empties | $1,100 | $26,443 |
| **MT Yard Activity** | | |
| MT yards | 0 | 0 |
| **Truck Wait Time** | | |
| Truck waiting time cost | $732 | $13,778 |
| **Total savings** | $2,294 | $48,229 |
| Less Annual Shuttle Cost | $(1,201) | $(14,963) |
| **NET Handlings Savings/(Costs)** | **$1,094** | **$33,266** |

The economics are sensitive to a number of variables as described in the assumptions, not the least of which is:

- the volume of transload cargo through the AGD (particularly since the rail shuttle costs are mostly fixed);
- the ability of the container terminals to go directly to/from rail rather than ground containers (captive railcars have been assumed in the cost of the shuttle);
- the volume of empty exchanges at the AGD; and
- the volume of transload exports (consolidation of high volume export commodities).

The transload traffic is expected to grow at a faster pace than the organic growth of the local market. As such, the percentage of container truck traffic that could be removed from city streets is projected to grow from 40.5 % in 2009 to 49.1% by 2028.

The truck avoidance potential is summarized in the following figure:




The AGD, at an estimated infrastructure capital cost of $14.5M compares favourably to the Rail Cut alternative in terms of truck avoidance potential. However, a direct comparison between the "Rail Cut" options in the earlier study and the Distripark is difficult because the cut could be used by other than container trucks and it would be used one way for all traffic in the South end of Halifax, while the AGD would affect only intermodal traffic from the port as a whole. The AGD at $14.5M promises a 40.5 % reduction of intermodal truck traffic, growing to 48.6% over time, while the use of the Cut would reduce south end truck traffic by an estimated 55% but cost some $40M.

At least at the beginning, the capital cost of the facility cannot be fully paid for by the AGD operator and government and other stakeholder funds will be required. It is recommended that the facility be operated by a private sector operator under a long term concession agreement that would be awarded to the qualified operator willing to pay the most towards the capital cost of the infrastructure. The concessionaire would be required to provide handling equipment and take the commercial risk of the business.

In summary, the AGD:

- has the potential to reduce the impact of growing truck traffic on city streets;
- can be commercially viable from an operating perspective;
- is located in an industrial area that does not appear to have any significant negative environmental or neighbourhood impacts;
- is consistent with the Port's strategy to attract transload facilities to Halifax;
- is compatible with the long term plans of the Burnside Industrial Park;

- is a sustainable solution to the desire of HRM and many other stakeholders to reduce the numbers of trucks on Halifax Peninsula; and
- uses the *rail* cut for a *rail* shuttle.

The next steps, if the project is deemed acceptable to government, are to develop a consensus among the main stakeholders, structure a deal for the financing of the infrastructure between the government and the shuttle operator (railway), and concession the AGD to a qualified operator.