



**STAFF REPORT
ACTION REQUIRED**

**Public Forum on the Proposed Metrolinx Service
Expansion in the Georgetown South Corridor**

Date:	April 16, 2010
To:	Board of Health
From:	Medical Officer of Health
Wards:	All
Reference Number:	

SUMMARY

A public forum *All aboard? Diesel, electric and clean air: which way forward?* was held on Monday, March 22, 2010, from 6:30 to 9:00 pm in Council Chambers, Toronto City Hall. The Public Forum was hosted by City Councillor John Filion, Chair of the Toronto Board of Health, and Councillor Paula Fletcher, Chair of the Parks & Environment Committee. The purpose of the Forum was to increase dialogue between Metrolinx and the community on measures being taken to address health and environmental concerns about proposed expansions and to enable Metrolinx to consider additional input from the public.

Many issues and concerns were raised by participants in the Public Forum, the most common of which were: a) diesel exhaust will add to the health burden on local and vulnerable populations; b) the diesel train expansion does not benefit the local community; c) diesel locomotives are old, polluting technology; and d) electrification has not been sufficiently considered to date.

This report discusses and comments on the key issues and questions that arose during the Public Forum and recommends that it be forwarded to Metrolinx for their consideration and to address the comments and concerns that are identified in this report.

A second public forum will be organized to discuss the draft results of the GO System Electrification Study once they are available. The Medical Officer of Health and Metrolinx have agreed to participate in this second forum.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. the Board of Health forward this report to Metrolinx to address the comments and concerns raised at the Public Forum and identified in this report;
2. the Board of Health forward this report to the Parks & Environment Committee for information; and
3. the Board of Health forward this report to the Toronto District School Board, the Toronto Catholic District School Board, the Ontario Minister of the Environment, the Ontario Minister of Transportation, the Member of Provincial Parliament for York South-Weston, and the Member of Provincial Parliament for Davenport.

Financial Impact

There are no financial impacts from the adoption of this report.

DECISION HISTORY

On November 16, 2009, the Medical Officer of Health (MOH) presented a staff report updating the Board of Health on information about Metrolinx' proposed train service expansion on the Georgetown South Corridor ("Georgetown Expansion") and Union-Pearson Rail Link ("Air-Rail Link") that was made available as part of Ontario's Transit Project Assessment Process.

The Board of Health requested that the Ontario Minister of the Environment ask Metrolinx to defer purchasing diesel locomotives for the proposed expansion until additional data, including the revised mitigation plan and results of the GO System Electrification Study, are made available for public consideration and comment, and for review by the Minister. The Board also urged Metrolinx to strengthen the GO System Electrification Study.

The Board also requested the Chairs of the Board of Health and the Parks and Environment Committee to consider holding a public forum in the Council Chamber as soon as possible, and that they invite the Minister of the Environment or his designate, and the President and CEO of Metrolinx to attend this meeting. This report provides highlights from the public forum *All aboard? Diesel, electric and clean air: which way forward?*, which was held on Monday, March 22, 2010, from 6:30 to 9:00 pm in Council Chambers, Toronto City Hall.

ISSUE BACKGROUND

The transit project proposed by Metrolinx consists of a number of changes to the GO Georgetown South corridor that will permit all-day, two-way express, as well as local train service. The project is the first in a number of regional rail expansions planned by Metrolinx in the coming decades. The two main elements of this first project are:

- A Georgetown Expansion, which will accommodate increased rail traffic from the GO Barrie, Bolton, Georgetown and Milton lines; and
- A separate, private spur line to the airport, which will be used to provide the Air-Rail Link service between Lester B. Pearson International Airport and Union Station.

Expanded service on the Georgetown corridor and the Air-Rail Link is expected to begin in 2015. The Georgetown Expansion, Air-Rail Link, plus existing train traffic have been projected by Metrolinx to result in 301 to 464 diesel trains per day on the corridor in the long term. Currently, approximately 50 trains run on this corridor every day.

The environmental impact of the project was assessed under Ontario's new Transit Project Assessment Process (TPAP) and the Federal Environmental Assessment (EA) process. Metrolinx' studies predicted adverse air quality and human health impacts in the adjacent communities from exposure to the exhaust from diesel locomotives. The use of diesel locomotive technology for Metrolinx' planned expansion of regional passenger rail service on the Georgetown South Corridor has been approved under both the Provincial and Federal assessment processes.

The Medical Officer of Health (MOH) has expressed concerns about the predicted air quality and human health impacts. He has also expressed concern that a diesel-rail expansion on the Georgetown South Corridor could set a precedent for other rail projects, and undermine the impetus for electrification of this and other rail expansions in the region. The affected community has also expressed concerns about the potential health impacts of diesel exhaust from increased train traffic through residential neighbourhoods and near sensitive land areas such as schools.

Members of the community have called for electrification of the line to mitigate diesel emissions, and the MOH has stated that electrification is the option that most clearly addresses the predicted air quality and health impacts for adjacent populations.

COMMENTS

The Public Forum held March 22, 2010 was hosted by Councillor John Filion, Chair of the Toronto Board of Health, and Councillor Paula Fletcher, Chair of the Parks & Environment Committee. The purpose of the Forum was:

- To increase dialogue between Metrolinx and the community on measures being taken to address health and environmental concerns; and,
- To enable Metrolinx to consider additional input from the public.

The main themes that surfaced during the Public Forum are summarized in this report. A summary of the questions and concerns raised at the Public Forum is provided in Attachment 1.

Overview of Event

The format of the Public Forum consisted of brief presentations from an expert panel, followed by a panel discussion, and a question and answer period with members of the audience. The panel was moderated by Eva Ligeti, the Executive Director of the Clean Air Partnership. The expert panellists were:

- Gary McNeil, Executive Vice President of Metrolinx;
- Prof. Christopher Kennedy, transportation infrastructure expert; and,
- Dr. David McKeown, Toronto Medical Officer of Health.

The Honorable John Gerretsen, Ontario's Minister of the Environment, or his representative, was invited, but declined to participate in the event.

The panellists highlighted the importance of high quality, sustainable transit for the City. Mr. McNeil described the planned updates to GO's fleet of locomotives and new, realistic train volume projections for the Georgetown South Corridor. Professor Kennedy outlined the four pillars of sustainable urban transportation, and Toronto's progress in achieving them. Finally, Dr. McKeown discussed the need for transportation projects that do not require a trade off between public health and public transit, and the importance of setting a precedent for health-protective transit projects.

Concerns Raised at the Public Forum

During the discussions that followed the panel presentations, many issues and concerns were raised. The most commonly expressed concerns are described and commented on below.

a) Diesel exhaust will add to the health burden on local and vulnerable populations

Members of the public and elected representatives who spoke at the Public Forum expressed a common viewpoint that the potential air quality and health impacts from increased diesel exhaust emissions in communities adjacent to the Georgetown South Corridor are unacceptable. Several speakers were concerned that their communities already have higher than average burdens of ill-health and environmental pollution, and yet these are some of the communities adjacent to the Georgetown South Corridor that will have to bear the adverse air quality and health impacts of the proposed expansion.

Other speakers called attention to the many residents of adjacent communities who are vulnerable to additional adverse impacts, and who did not have the capacity to attend the Forum.

Metrolinx and the Ontario Ministry of the Environment have previously argued that the increase in diesel exhaust pollution resulting from the project will be more than offset by the number of cars taken off the road. Metrolinx' screening-level assessment of the impact of the project on regional air quality estimated greenhouse gas emissions reductions of 0.23 to 0.5 megatonnes CO₂ equivalents. However, the assessment did not attempt to determine if the project will result in reductions in emissions of criteria air contaminants. Given that the potential for a net improvement in regional air quality was not evaluated, it is not clear that one will take place, or that it is sufficiently large to justify the reductions in local air quality.

b) Diesel train expansion does not benefit the local community

Many speakers felt that new and expanded rail services can and should provide economic benefits to the communities they pass through. However, because the planned service expansion will be polluting, noisy and will stop infrequently, they felt that it will not provide those economic benefits, and may be detrimental to these communities. One of the chief concerns is the limited number of stops that the new and expanded services will make:

- The Air-Rail Link will make only two stops between Union Station and the airport (at the Bloor and Weston GO Stations); and,
- No new stations on the Georgetown South Corridor are included in the proposed project (although project design could allow for a future Eglinton Station and a possible future Woodbine Station).

The communities through which the new and expanded services pass through are predicted to receive increased air pollution, increased health risk, and may also experience loss of property value and reversal of the revitalization of their communities. Members of the public asked how the current proposal could be made into an economic boon for the communities the trains will pass through. They also suggested that the air rail link be combined with the downtown relief line to better serve communities that urgently need improved transit.

c) Diesel is old, polluting technology

Diesel is the dominant locomotive technology in North America, and it represents the *status quo* for many rail operators. However, every type of diesel locomotive emits diesel exhaust, which has known environmental and health impacts. Members of the public and elected representatives pointed out that electric rail service has been adopted in many cities across North America and around the world. Electric rail is a demonstrably viable technology. Electric locomotives do not produce any direct air emissions, and have the potential to provide zero-emissions transportation if electricity is generated from renewable sources such as solar and wind energy. Electric locomotives also offer many

other advantages relative to diesel locomotives, including the potential for greater speed, faster acceleration and deceleration, and improved energy efficiency.

d) Electrification has not been seriously considered to date

The region has made only slow progress in developing a sustainable transportation system. Electrification of commuter rail services was judged a viable option in many other jurisdictions around the world, yet the GSSE and UPRL were planned as diesel expansions from the start. This planning decision is counter to the consensus in the community and local government asking for electrification of the Georgetown South Corridor. One member of the public challenged Metrolinx to build an electrified train system from Pearson Airport to Union Station in time for the PanAm Games as a way of “welcoming the world” to Toronto using clean and modern technology. Such a project would show the true future of transit, rather than a variation on an old technology. Very large costs have been cited as a barrier to electrification, yet members of the public state that the amounts quoted change and are not supported by publicly available data.

Obtaining adequate and stable financing for electrification seems to be a key issue that could potentially be addressed with some creative thinking. Metrolinx has stated that they do not want to spend money on electrification without a solid evidence basis for it, but forum participants point out that they seem to be proceeding with spending on a diesel expansion without a formal evidence basis for that technology.

The GO System Electrification Study was commissioned by Metrolinx to provide this evidence basis for the Georgetown South Corridor and the entire GO rail system. The study is expected to be completed in December 2010. It is intended to provide a comprehensive and detailed analysis of the net costs and benefits for diesel, electric and other locomotive technologies related to: (a) capacity and service impacts; (b) environmental and health impacts; (c) community and land use impacts; (d) economic impacts; and (e) system costs, funding, financing and delivery. The study has significant potential to clarify and inform decision-making on train technology choices.

New Information

During the panel presentations, and as part of the responses to questions, the expert panellists provided some new information to the audience. The new information from the Forum and its implications are discussed below.

a) No final decision point

Mr. McNeil indicated that there will be no final decision point at which a locomotive technology is finally and irrevocably selected. As technologies develop and the current locomotive fleet ages, Metrolinx is constantly upgrading their fleet. This is positive, but does not negate the arguments that (a) expanding service using diesel technology, then upgrading to electric later may be more costly than upgrading from the beginning; and (b) expanding service using diesel technology may set a negative precedent.

b) Emissions less than predicted

Mr. McNeil indicated that emissions will be less than initially predicted. The reasons for this are that train volumes will be less than projected, at least until 2020, and that certain trains will use Tier 4 compliant, lower-emitting locomotives. Mr. McNeil believes that with these changes to the proposed project, the air quality and health impacts will be very minimal and comparable to electric. Updated predictions of the impacts that reflect these changes will be provided by the supplemental human health studies required by the Ontario Minister of the Environment.

c) Reduction in transportation emissions unlikely

Both Mr. McNeil and Professor Kennedy indicated that it is very unlikely that the region will achieve a reduction in overall transportation emissions through this project. Population growth tends to increase transportation demand, and transit expansions can help to manage that demand. By managing increasing transportation demand with transit, the rate of increase in transportation emissions is reduced. Research from the Victoria Transport Policy Institute suggests that expanded transit service tends to reduce traffic congestion on parallel roadways.^{1,2} As the City grows, it is likely that this reduced congestion will contribute to reductions in the rate at which transportation emissions increase.

d) Commuter not local service

Mr. McNeil described GO's focus as providing transit service to long-distance, interregional commuters, rather than to local customers. GO's preference has been that stations be relatively widely spaced to keep speed up and overall trip duration down. This focus, rather than any issues of technology, is GO's reason for limiting the number of stops on the Georgetown South Corridor.

Actions and Commitments

Throughout the discussion, Gary McNeil indicated that answers to many of the questions posed by members of the audience would be determined through the GO System Electrification Study. A number of other questions were not fully addressed during the discussion. It was noted that the Medical Officer of Health would prepare a report of the meeting, including questions that would be presented to Metrolinx for their consideration and response. The Medical Officer of Health would also keep track of the questions that Metrolinx indicated would be addressed through the GO System Electrification Study, and assess their response.

A second public forum was suggested to discuss the draft results of the GO System Electrification Study when they are made available for public review. Metrolinx agreed to participate in a second public forum. The Medical Officer of Health will also participate in a second public forum and provide logistical support as required.

CONCLUSIONS

The Public Forum successfully served as a venue for members of the public and elected representatives to air their concerns about the proposed Georgetown Expansion and Air Rail Link. It is recommended that this report be forwarded to Metrolinx for their consideration and response. A second forum will be organized, once the GO System Electrification Study is complete, to gather further input from the local community.

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SIGNATURE

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Medical Officer of Health

ATTACHMENTS

Attachment 1:

Public Forum: *All aboard? Diesel, electric and clean air: which way forward?*

Summary of Questions and Concerns

Attachment 1
Public Forum:
All aboard? Diesel, electric and clean air: which way forward?
Summary of Questions and Concerns

The Public Forum, *All aboard? Diesel, electric and clean air: which way forward?*, was held on Monday, March 22, 2010, from 6:30 to 9:00 pm in the Council Chambers, Toronto City Hall. The purpose of the Forum was:

- To increase dialogue between Metrolinx and the community on measures being taken to address health and environmental concerns; and,
- To enable Metrolinx to consider additional input from the public.

The Forum was attended by several hundred members of the public and the following elected representatives: Kathleen Wynn, the provincial Minister of Transportation; local MPPs Laura Albanese (York South-Weston) and Tony Ruprecht (Davenport); and, local City Councillors Adam Giambrone (Davenport), Frances Nunziata (York South-Weston), Joe Pantalone (Trinity-Spadina) and Gord Perks (Parkdale-High Park).

Questions and Concerns

The questions and concerns that were expressed at the Public Forum have been grouped by theme.

Diesel exhaust will add to the health burden on local and vulnerable populations:

- Many people expressed concern about the health impacts associated with diesel trains. Some felt that the people most impacted by the diesel rail expansion do not have the capacity to attend the Public Forum. These people are members of vulnerable populations (such as children, the elderly, people of low income and visible minorities) and those who already bear a higher environmental burden. What does Metrolinx have to say to these people who will be impacted by emissions from the proposed diesel expansion?
- How will children be impacted by emissions from the proposed diesel expansion?
- How will the cumulative risks of all nearby transportation corridors be considered?
- How can governments base decisions on Metrolinx' studies when they contain inaccuracies and are not supported by engineering reality?
- How can the impacts of the proposed diesel expansion be predicted when the locomotive model to be used for the Union-Pearson Rail Link (UPRL) is still undecided?
- Will the Electrification Study consider the costs of providing health care to individuals affected by diesel exhaust that will be saved through electrification?

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Diesel train expansion does not benefit the local community:

- Will this project not simply promote more train trips through the local community by expanding capacity for regional travel?
- How can the current proposal be made to benefit the communities the trains will pass through?
- Could the air rail link be combined with the downtown relief line to provide better local service?
- Could the number of stops be increased without sacrificing speed by using electric locomotives?
- Is completion of the railpath threatened by lack of funding and political will?
- Will the impact on real estate values be considered in the electrification study?
- Why is it necessary to build four new tracks if there will not be large increases in the number of GO trains for many years?
- Why will the UPRL be privately operated and cost \$22 per fare?
- Is the proposed expansion being rammed through for the PanAm Games?
- Will the UPRL trains run all day?

Diesel is old, polluting technology:

- Aren't electric locomotives preferable to diesel in terms of energy consumption and price fluctuations for fossil fuels?
- Doesn't accounting for the benefits of electrification show that an electric expansion is not much more expensive than diesel?
- What are the costs to the public purse of expanding the diesel system now followed by later electrification, compared to electrifying now?
- Ontario should invest in hydroelectric generation and then in electrically powered transit.

Electrification has not been seriously considered to date:

- Given that electric trains are used all over the world, why was electrification of this project not considered from the beginning?
- Why was diesel initially selected for this project?
- Why are so many expensive studies needed?
- How much is the community consensus for electrification worth to various levels of government?
- Would Metrolinx use the UPRL as a demonstration electric rail project to show the real future of rail transit?
- How much electricity is needed to run the trains, if electrified, and is that electricity available?
- Has Metrolinx discussed the proposed expansion with Canadian Pacific Railway?
- What will the train volumes be in 2015?
- Would the UPRL use EMUs like the Bombardier model used in Ottawa?

Actions and Commitments

At the end of the evening, a commitment was made for the City to track various issues and questions that should be resolved by Metrolinx through the GO System Electrification Study. Metrolinx agreed to formally respond to the questions.

Based on discussions at the March 22, 2010 Public Forum, the issues to be evaluated in the GO System Electrification Study are:

- Costs of diesel versus electric expansion on the Georgetown South Corridor;
- Costs of diesel expansion followed by later electrification on the Georgetown South Corridor;
- Energy efficiency of each technology option;
- Vulnerability of each technology option to peak oil and price increases;
- Availability of electricity generation and distribution capacity for electrification;
- Health care costs of air quality impacts associated with each technology option, with consideration of vulnerable subpopulations;
- Health and environmental risks associated with emissions control for diesel locomotives;
- Economic benefits to the local community of each technology option;
- Impacts on real estate values of each technology option; and,
- Potential for increasing the number of stops on the Georgetown South Corridor with each technology option.

A commitment was also made to hold another public forum to discuss the draft results of the GO System Electrification Study when they are made available for public review. Metrolinx agreed to this commitment.

REFERENCES

¹ Litman, Todd. 2009. Evaluating Rail Transit Criticism. September 27, 2009. Victoria Transport Policy Institute. Available at: <http://www.vtpi.org/railcrit.pdf>.

² Litman, Todd. 2010. Smart Congestion Reductions II: Reevaluating the Role of Public Transit for Improving Urban Transportation. February 2, 2010. Victoria Transport Policy Institute. Available at: http://www.vtpi.org/cong_reliefII.pdf.