

Railway / Municipality Proximity Issues

Glossary

2. Environment

2.1 Drainage

Deep drainage ditches on either side of train tracks help keep water well away from the roadbed and serve to minimize damage to and shifting of, the tracks. Drainage patterns are critical to track stability and its substructure; however, they may be altered by land development or redevelopment. If the drainage system is compromised in any way, there is potential for flooding. Proper land use planning is therefore important. Housing or commercial developments may also benefit from rail drainage infrastructure if they are graded to take advantage of them.

2.2 Emissions

Emissions and green house gases (GHG) is a growing public concern. While transportation as a whole contributes approximately 25 per cent of all GHGs produced in Canada, rail's contribution is three per cent of Canada's GHGs derived from transportation activity and less than one percent of Canada's total GHG emissions. Rail's GHG contribution is less than any other transport mode, even though it carries more than 65% of all goods transported by tonnage. In recent years, due to technological improvements and investment on the part of the industry, locomotives have become much more fuel-efficient and locomotive attendant emissions have fallen. The railways have instituted emission reduction initiatives and invested in fleet renewal programs (with new locomotives meeting EPA limits for emissions). Technology improvements (resulting in lower fuel consumption) have been made in a number of areas including rail lubrication, electronic fuel injection, automatic stop/start systems, and dynamic brake equipment for better train handling.

2.3 Pollution

In any transport mode environment, aside from emissions, other types of pollution may be unavoidable. Although rare, there may be leakage or spillage of products (such as fuel and oil) used in normal rail mainline and yard operations. There can also be leakage and spillage of such pollutants and other products being transported - as a result of a train accident such as a derailment. The various pesticides and herbicides that are used for vegetation control along the track may leach out into ground or water. In all cases, railways seek to mitigate any impact on communities. They are well equipped to deal with such situations by using specialized pollution control equipment and procedures such as dyking and transloading of cargo.

2.4 Rail Car Storage

In any transport mode, equipment must often be stored for various periods at different locations, and yet be accessible on short notice. Rail transport is no exception to this rule. Not all railcars are needed at all times. Their use might be seasonal in nature; they may be temporarily out of service; or waiting for maintenance, reassignment or transport to another location. In a populated area, the storage of railcars may seem unsightly and bothersome for those who live in a nearby neighbourhood.

2.5 Land Redevelopment

Railways are continually evaluating land inventories and looking to dispose of lands that are not required for running the railway. They may wish to sell the land to public or private interests for redevelopment. This would be an example of Brownfield development (the regeneration of what was once industrial land to residential or commercial usage). Brownfield development is often characterized by the environmental issues that must be dealt with because of prior industrial use while Greenfield sites typically have no environmental remedial issues to address. Recently government initiatives have been encouraging growth that more effectively utilizes existing services and infrastructure without requiring expansion of such services (known as “intensification”, “infill” or “smart growth” in some jurisdictions). All land redevelopment that is near to railway operations potentially affects those operations. The FCM-RAC Proximity Initiative has developed and published Guidelines for New Development in Proximity to Railway Operations (December 2012) that addresses the issues of land redevelopment, both Brownfield and Greenfield.

2.6 Notifications to Property Owners

Individuals/companies that buy property near rail operation sites can be affected by those operations. Potential purchasers of redeveloped land must be notified formally that there are rail operations in the vicinity. Notifications to property owners by railways are comprised of rail warning clauses in property purchase agreements and environmental easements for operational emissions.
