

6.4 Noise

6.4.1 Current Baseline Conditions

There are no roadways, residences or industrial areas that occur within the study area so the area is quiet and in a natural state. A single train crosses through the area twice weekly, but as there are no crossings, the whistle is not blown, so the trains pass fairly silent. Noise levels are at the normal background rate of deep forest conditions.

6.4.2 Effects Assessment

Noise levels are expected to increase for a short period of time during road construction activities, and then become more continuous as the land develops in the future. This will be in particular for the residents that are located to the north of the existing section of roadway that is to be improved.

Extensive blasting will be required during the construction works to excavate bedrock. This is a natural occurrence in the Kanata area where many homes are excavated into the rock subgrade. The noise of the explosions may be followed by the vibrations of the percussive blast and in some cases by fine dust mobilization. It may be expected however that the forest cover will dampen most of the noise of the blasting operations, thereby providing a natural buffer zone to the existing residents.

Noise levels may affect some wildlife species which are sensitive and normally reside in isolated forested areas away from the urban environment. Many wildlife species become adapted to the noise generated by the human environment, and where they do not, they will move to alternative locations, in this case, deeper within the South March Highlands forest preserve.

Construction Measures

Excessive noise will be mitigated by meeting regulated noise levels, such that all excavators, rock trucks, dump trucks packers and other heavy equipment will be fitted with noise reducing baffles as required by existing municipal bylaws. The City of Ottawa's Environmental Noise Control Guidelines (ENCG, 2006) will be applied to this project. Of note will be the blasting activities, although these can usually be timed to occur at the same time each day, typically in late afternoon when most residents will be at work. Blasting is a common occurrence in the area as all the developed areas are built on bedrock and excavations for basements and site servicing is often done by blasting.

Operational Measures

Noise levels along the existing portion of the roadway are expected to increase as a result of increased land development in the area and increased traffic volume along the roadway. For the new sections of the road, it is expected that appropriate noise fencing would be put in place for new residential areas that are to be abutted against the roadway. The July 2000 EA noise assessment determined that existing measures associated with subdivision development is satisfactory for mitigating noise levels predicted for year 2021 and posted speeds up to 80 km/hr. Additional noise assessments and the requirement for appropriate noise barriers will be the responsibility of each land development as their applications for Site Plan approval are processed.

6.4.3 Assessment of Significance

Table 6-6 provides a summary of the noise effects assessment.

Table 6-6 – Summary of Effects on Noise Levels

Project Interaction	Potential Effect	Mitigative Factor and Measure	Significance Criteria*	Assessment of Significance
Construction				
Site Preparation and General Construction Activities, bedrock blasting and Vehicle Use/Transport of Materials	<ul style="list-style-type: none"> Noise disturbance to adjacent developed areas; Noise disturbance to sensitive wildlife; Vibration and noise associated with blasting. 	<ul style="list-style-type: none"> Adherence to the required noise levels, start-up timing as per City bylaws; Blasting plan established to time the blasts to coincide with residential activities, no night time blasts nor on weekends; Noise control plan implementation and monitoring in response to complaints; Install wildlife culverts, guide walls and guide fencing so animals may safely move to new habitats away from the urban environment. 	<ul style="list-style-type: none"> Nature of Effect: <i>negative, direct</i>; Magnitude – <i>Moderate</i>; Geographic Extent - <i>Low</i>; Duration - <i>One season</i>; Frequency - <i>Once</i>; Permanence – <i>No</i>; Ecological Context – <i>Local, Common in Area</i>. 	Not significant with mitigation.
Operations				
Routine operations and maintenance (Vehicle Use)	<ul style="list-style-type: none"> Noise disturbance to adjacent developed areas; Noise disturbance to sensitive wildlife. 	<ul style="list-style-type: none"> Noise within future developed areas will be similar to current levels in other urban areas; Wildlife becomes adapted to increased noise levels. Species unable to adapt will move deeper into the South March Highland forest lands further north; Edge management plantings will reduce road noise once trees mature and the canopy closes. 	<ul style="list-style-type: none"> Nature of Effect: <i>negative, direct</i>; Magnitude – <i>Low</i>; Geographic Extent - <i>Low</i>; Duration - <i>On-going</i>; Frequency - <i>Continuous</i>; Permanence – <i>No</i>; Ecological Context – <i>Local</i>. 	Not significant with mitigation.

* Magnitude High-potential effect above Bylaw requirement; moderate – effect near requirement; Low – effect expected to be below requirement.

6.5 Designated Natural Features

The identification and delineation of Designated Natural Features (DNF's) was undertaken through the use of background information provided by the following sources:

- MNR's Kemptville District mapping resource;
- MNR's Natural Heritage Information Centre;
- City of Ottawa's Official Plan (2003);
- Official Plan Amendment 16 (2004);
- City of Ottawa's Greenspace Master Plan (2006); and,
- City of Ottawa's Urban Natural Areas Environmental Evaluation Study, Addendum – 2005 Fieldwork Results (2006).