

**Maple Lake Site Compared to Waterloo Biofilter Treatment Option
Municipal Class EA - Part C Municipal Wastewater Projects
Typical Effects on the Environment caused by construction activities**

Source: 1993 Class EA for Municipal Water and Wastewater Projects

	Waterloo Biofilter	Maple Lake Site
AESTHETICS		
removal of vegetation or landscape features	*	negative impact - removal of vegetation
change of compatibility with landscape	*	negative impact - will work with existing landscape
residents, non-residents, recreationalists and tourists exposed to new view	*	negative - moderate - residents are far enough away that exposure would be minimal however, there is a hiking trail within the vicinity that maybe exposed to the view. Can try and hide system from view, also potential to dress system up
CLIMATIC EFFECTS		
vegetation removal or snow accumulation, wind screening and shade on adjacent buildings and activities	*	negative - minimal - will have to remove some vegetation which may cause snow accumulation however adjacent building and activities are far enough away there would be no impact on surrounding properties
change in air quality	*	negative - moderate - possible odours
ECONOMIC AND SOCIAL EFFECTS		
change to tax base	*	negative - potential increase in taxes. Moderate capital costs approx. \$ 350 K
change in employment opportunities	*	positive - possibility of an employment opportunity
change in tax rate or cost of service	*	negative - potential to increase taxes or to charge for service
GROUNDWATER		
change in quality		none - effluent is of good quality
interference with flows or levels		none - will not interfere with groundwater flows or levels
PUBLIC HEALTH		
effects on quality of life e.g. decreased sewage back-up	*	positive - peace of mind
NOISE & VIBRATION		
changes in existing noise and vibration levels	*	negative - minimal during construction
RECREATION		
effects on quality of user experience due to environmental changes	*	negative - minimal - users of the hiking trail located near the landfill may be able to see the treatment system, however system will try to blend into landscape
RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL		
temporary disruption during construction	*	negative - minimal - possible industrial impact during construction i.e. impede traffic
nuisance odours	*	negative - potential for odours
SOIL AND GEOLOGY		
erosion or compaction during construction	*	negative - soil will be compacted during construction activities
contamination of soils	*	negative - possibility of soil contamination i.e. spills
mixing of topsoil with subsoil	*	negative - possibility of mixing of soils
SURFACE DRAINAGE		
increased surface runoff		none - surface water runoff will not increase
decreased surface water drainage		none - no effect on surface water drainage
TERRESTRIAL VEGETATION AND WILDLIFE		
mortality/stress of vegetation due to sediment deposition, construction equipment movement or changes in soil moisture conditions resulting in reduction and/or deterioration of wildlife habitat	*	negative - high - vegetation will be impacted due to construction. minimal impact due to increased soil moisture
changes in vegetative composition as a result of environmental changes	*	negative - moderate - vegetation will be removed resulting in the reduction of wildlife habitat. Only need to remove vegetation for pre-treatment and treatment not disposal field
removal or disturbance of significant trees and/or ground flora	*	none - no changes in vegetative composition negative - moderate - trees and/or ground flora will have to be removed - 1.5 ha for treatment and 0.5 ha for disposal
new or increased exposure of trees leading to increased loss of habitat for wildlife	*	negative - moderate - new areas of trees will be exposed leading to loss of habitat
effect on wildlife habitat	*	negative - high - some habitat will be lost
effect of contaminants on vegetation and wildlife		none - only contamination on site would result from spills which should be cleaned, and may act as fertilizer

