

**Pine Springs Site Compared to Constructed Wetlands Treatment System
Municipal Class EA - Part C Municipal Wastewater Projects**

Typical Effects on the Environment caused
by construction activities
* likely positive or negative effect

	Constructed Wetland	Pine Springs 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 - minimal - far enough way for existing residents that exposure would be minimal
CLIMATIC EFFECTS		
vegetation removal or snow accumulation, wind screening and shade on adjacent buildings and activities		none - vegetation will be removed but replaced with new vegetation
change in air quality	*	negative - moderate - possible odours
ECONOMIC AND SOCIAL EFFECTS		
change to tax base	*	negative - potential increase in taxes. Moderate to High capital costs approx. \$500 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
HERITAGE RESOURCES		
disruption and/or destruction of sites, cultural heritage landscapes and structures having archaeological, historical, architectural or cultural/heritage significance	*	negative - potential to disrupt a natural heritage wetland area
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
RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL		
temporary disruption during construction	*	negative - minimal - possible industrial impact during construction
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
scarring of unique landforms	*	negative - possibility to disturb significant wetland
SURFACE DRAINAGE		
increased surface runoff		none
decreased surface water drainage	*	negative - surface water may settle in the wetland instead of infiltrating into the ground
TERRESTRIAL VEGETATION AND WILDLIFE		
mortality/stress of vegetation due to sediment deposition, construction equipment movement or changes in soil moisture	*	negative - high - vegetation will be impacted due to construction. Minimal impact due to n increased soil moisture
conditions resulting in reduction and/or deterioration of wildlife habitat	*	negative - moderate - vegetation will be removed resulting in the reduction of wildlife habitat however new vegetation will be planted which will promote new wildlife habitat
changes in vegetative composition as a result of environmental changes	*	minimal impact due to increased soil moisture
removal or disturbance of significant trees and/or ground flora	*	negative - vegetation composition will be changed to wetland vegetation
	*	negative - high - a significant amount of trees and/or ground flora will have to be removed - total area required is 8 ha
new or increased exposure of trees leading to increased loss of habitat for wildlife	*	negative - high - 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 form spills which should be leaned and may act as fertilizer
UTILITIES		
effects on other utilities e.g. relocations	*	negative - would have to bring in hydro to site - cost approx. \$100 K or can use an alternative power source for the cost of approx. \$50 K

Projects