

Municipal Class EA - Part C Municipal Wastewater Projects

Source: 1993 Class EA for Municipal Water and Wastewater Projects

Typical Effects on the Environment caused by construction activities * likely positive or negative effect	Treatment Facility	Constructed Wetlands	Advanced Treatment	Ponds and Lagoons
AESTHETICS				
removal of vegetation or landscape features	high - during construction only	moderate - during construction only	moderate - during construction only	moderate to high - during construction only
change of compatibility with landscape residents, non-residents, recreationalists and tourists exposed to new view	not compatible difficult to hide plant	will work with existing landscape easier to hide, will blend in to natural environment	will work with existing landscape easier to hide, will try to blend in to landscape	will work with existing landscape easier to hide
AGRICULTURE	None - No productive farm land			
CLIMATIC EFFECTS				
vegetation removal or snow accumulation, windscreening and shade on adjacent buildings and activities	removal of vegetation	removal of vegetation	removal of vegetation	removal of vegetation
change in air quality	potential odours	possible odours	possible odours	odours
ECONOMIC AND SOCIAL EFFECTS				
change to tax base	1.5 million capital cost - increased tax base	500 K capital cost - increased tax base	350 K capital cost - increased tax base	200 K capital cost - increased tax base
change in employment opportunities	employment opportunities	none	none	none
change in quality of life	none	none	none	none
change in tax rate or cost of service	possibility of both or either	possibility of both or either	possibility of both or either	possibility of both or either
FISH, AQUATIC WILDLIFE AND VEGETATION	no surface water courses in vicinity			
GROUNDWATER				
change in quality	none - high effluent quality	none - high effluent quality	none - high effluent quality	potential deterioration of groundwater quality - fair effluent quality
change in quantity	none	none	none	none
interference with flows or levels	possibility	none	none	none

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HERITAGE RESOURCES				
disruption and/or destruction of sites, cultural heritage landscapes and structures having archaeological, historical, architectural or cultural/heritage significance	requires heritage resources assessment prior to excavation of any site	requires heritage resources assessment prior to excavation of any site	requires heritage resources assessment prior to excavation of any site	requires heritage resources assessment prior to excavation of any site
PUBLIC HEALTH				
effects on water quality	none - no residential wells within vicinity	none - no residential wells within vicinity	none - no residential wells within vicinity	none - no residential wells within vicinity
effects of air pollution	none	none	none	none
effects on existing subsurface disposal systems	none	none	none	none
effects on quality of life e.g. decreased sewage back-up	positive - peace of mind	positive - peace of mind	positive - peace of mind	positive - peace of mind
NOISE AND VIBRATION				
changes in existing noise and vibration levels	minimal during construction only	minimal during construction only	minimal during construction only	minimal during construction only
RECREATION				
effects of accessibility changes	none	none	none	none
disruption during construction	none	none	none	none
effects on layout or operations	none	none	none	none
effects on quality of user experience due to environmental changes	removal of vegetation	removal of vegetation, however will replace with new vegetation	removal of vegetation, will work with existing landscape to blend in	removal of vegetation, will change landscape to lagoons
RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL				
temporary disruption during construction	possibility of impeding traffic during construction	possibility of impeding traffic during construction	possibility of impeding traffic during construction	possibility of impeding traffic during construction
safety and movement patterns of pedestrian traffic	none	none	none	none
financial and social effects of relocation or removal of homes, businesses and institutions	none	none	none	none
change in use or layout due to property loss	none	none	none	none
change in property value	none	none	none	none
improved sewage collection and water treatment	none	none	none	none
nuisance odours	potential odours	possible odours	possible odours	odours

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SOIL AND GEOLOGY				
erosion or compaction during construction	yes	yes	yes	yes
deposition of sediment on adjacent properties	no	no	no	no
contamination of soils	possibility - ie. spills	possibility - ie. spills	possibility - ie. spills	possibility - ie. spills
mixing of topsoil with subsoil	yes	yes	yes	yes
scarring of unique landforms	possibility, during construction	possibility, during construction	possibility, during construction	possibility, during construction
SURFACE DRAINAGE				
diversion and/or channelization of watercourses	no surface water course in vicinity	no surface water course in vicinity	no surface water course in vicinity	no surface water course in vicinity
effects of floodplain	none	none	none	none
contamination of surface watercourse	no surface water course in vicinity	no surface water course in vicinity	no surface water course in vicinity	no surface water course in vicinity
sedimentation and turbidity of adjacent water bodies due to construction activities	no surface water course in vicinity	no surface water course in vicinity	no surface water course in vicinity	no surface water course in vicinity
"ponding" effects on adjacent properties due to natural drainage disruption	none	none	none	none
increased surface runoff	yes	no	no	no
decreased surface water quality	no	no	no	no
decreased surface water drainage	no	yes, surface water, precipitation may settle into wetland cells instead of infiltrating into the ground	no	yes, surface water may settle into lagoons 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	yes - development of undisturbed lands	yes - development of undisturbed lands	yes - development of undisturbed lands	yes - development of undisturbed lands
conditions resulting in reduction and/or deterioration of wildlife habitat	yes - removal of vegetation for the construction of the plant	yes - removal of vegetation, however new vegetation will be planted	yes - removal of vegetation, however will work with existing landscape to decrease amount tree removal	yes - removal of vegetation in the construction of the lagoons
changes in vegetative composition as a result of environmental changes	no - no vegetation around plant area	yes, wetland composition	yes, more ground flora	yes more ground flora
removal or disturbance of significant trees and/or ground flora	removal of a significant amount of trees and ground flora	removal of trees and ground flora, total area for treatment system would be 8 ha	removal of trees and ground flora - approx. 1.5 ha for treatment and 0.5 ha for disposal bed	removal of trees and ground flora 2.72 ha for lagoons and 2.81 ha for disposal trenches
new or increased exposure of trees leading to increased loss of habitat for wildlife	removal of trees	removal of trees, however replace with new vegetation	removal of some trees - will try and work with existing features for disposal bed	removal of trees
effect on wildlife habitat	loss of habitat	new habitat	loss of habitat	loss of habitat
effect of contaminants on vegetation and wildlife	none	none	none	none
UTILITIES				
effects on other utilities e.g. relocations	yes, need 3 phase hydro	yes - need single phase hydro	yes - need single phase hydro	no