

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	Pine Springs Site	Maple Lake Site
AESTHETICS						
removal of vegetation or landscape features	*	*	*	*	negative impact - removal of vegetation	negative impact - removal of vegetation
change of compatibility with landscape	*	*	*	*	negative impact - not compatible with existing landscape	negative impact - not compatible with existing landscape
residents, non-residents, recreationalists and tourists exposed to new view	*	*	*	*	minimal - far enough way for existing residents that exposure would be minimal	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
AGRICULTURE						
removal of productive farm land	*	*	*	*	No impact - No farm land in area	No impact - No farm land in area
disruption of tile and surface drainage systems	*	*	*	*	No impact - No farm land in area	No impact - No farm land in area
change in water quality					No impact - No farm land in area	No impact - No farm land in area
change in water quantity					No impact - No farm land in area	No impact - No farm land in area
change in crop yield					No impact - No farm land in area	No impact - No farm land in area
reduced viability due to land loss	*	*	*	*	No impact - No farm land in area	No impact - No farm land in area
effects of chemical, bacteria, noise, dust on crops, livestock and people	*			*	No impact - No farm land in area	No impact - No farm land in area
effects on crops, trees and vegetation					No impact - No farm land in area	No impact - No farm land in area
effect of property loss (physical)	*	*	*	*	No impact - No farm land in area	No impact - No farm land in area
effect on agricultural area i.e. loss of business	*	*	*	*	No impact - No farm land in area	No impact - No farm land in area

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	Pine Springs Site	Maple Lake Site
CLIMATIC EFFECTS						
vegetation removal or snow accumulation, windscreening and shade on adjacent buildings and activities	*		*	*	minimal - adjacent building and activities are far enough away there should be no impact	minimal - adjacent building and activities are far enough away there should be no impact
change in air quality	*	*	*	*	moderate - possible odours	moderate - possible odours
ECONOMIC AND SOCIAL EFFECTS						
change to tax base	*	*	*	*	negative - potential increase in taxes	negative - potential increase in taxes
change in employment opportunities	*	*	*	*	positive - possibility of an employment opportunity	positive - possibility of an employment opportunity
change in quality of life	*	*	*	*	no impact	no impact
change in tax rate or cost of service	*	*	*	*	negative - potential to increase taxes or to charge for service	negative - potential to increase taxes or to charge for service
FISH, AQUATIC WILDLIFE AND VEGETATION						
change or removal of existing habitat including food and shelter	*	*	*	*	no impact - no watercourses within the vicinity	no impact - no watercourses within the vicinity
change in water quality	*	*	*	*	no impact - no watercourses within the vicinity	no impact - no watercourses within the vicinity
change in water temperature				*	no impact - no watercourses within the vicinity	no impact - no watercourses within the vicinity
effects of timing of construction activities on spawning and breeding periods	*	*	*		no impact - no watercourses within the vicinity	no impact - no watercourses within the vicinity
lowering of water table	*				no impact - no watercourses within the vicinity	no impact - no watercourses within the vicinity
production of new habitat	*	*		*	no impact - no watercourses within the vicinity	no impact - no watercourses within the vicinity
collection of fish and organisms on intake screens					no impact - no watercourses within the vicinity	no impact - no watercourses within the vicinity
GROUNDWATER						
change in quality	*	*	*	*	moderate - potential to change water quality	moderate - potential to change water quality
change in quantity					no impact	no impact
interference with flows or levels	*				minimal - potential to increase flows and levels	minimal - potential to increase flows and levels

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	Pine Springs Site	Maple Lake Site
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	no impact - no heritage resources within the vicinity
PUBLIC HEALTH						
effects on water quality effects of air pollution	*	*	*	*	no impact - there are no residential wells within the vicinity no impact	no impact - there are no residential wells within the vicinity no impact
effects on existing subsurface disposal systems		*	*	*	not applicable - no existing subsurface disposal system	not applicable - no existing subsurface disposal system
effects on quality of life e.g. decreased sewage back-up	*	*	*	*	positive - knowlege that residents septage is being handled properly	positive - knowlege that residents septage is being handled properly
NOISE AND VIBRATION						
changes in existing noise and vibration levels	*				no impact- site is far enough away from residents	no impact- site is far enough away from residents
RECREATION						
effects of accessibility changes	*				no impact - site is already designated landfill	no impact - site is already designated landfill
disruption during construction	*	*	*	*	no impact - site is already designated landfill	no impact - site is already designated landfill
effects on layout or operations	*	*	*	*	no impact - site is already designated landfill	no impact - site is already designated landfill
effects on quality of user experience due to environmental changes	*	*	*	*	no impact - site is already designated landfill	potential impact - users of the hiking trail located near the landfill may be able to see the treatment system

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	Pine Springs Site	Maple Lake Site
RESIDENTIAL, COMMERCIAL, INDUSTRIAL, INSTITUTIONAL						
temporary disruption during construction	*	*	*	*	minimal - possible industrial impact during construction	minimal - possible industrial impact during construction
safety and movement patterns of pedestrian traffic	*				no impact - area already designated	no impact - area already designated
financial and social effects of relocation or removal of homes, businesses and institutions	*				no impact - area already designated	no impact - area already designated
change in use or layout due to property loss	*	*	*	*	no impact - area already designated	no impact - area already designated
change in property value	*	*	*	*	no impact - area already designated	no impact - area already designated
improved sewage collection and water treatment	*				no impact	no impact
reduction in water quantity and quality due to drawdown in private wells					not applicable	not applicable
effects on insurance rate via fire protection					not applicable	not applicable
nuisance odours	*	*	*	*	negative - potential for odours	negative - potential for odours
SOIL AND GEOLOGY						
erosion or compaction during construction	*	*	*	*	negative - soil will be compacted during construction activities	negative - soil will be compacted during construction activities
deposition of sediment on adjacent properties	*	*	*	*	no impact - adjacent properties are far enough away there will be no impact	no impact - adjacent properties are far enough away there will be no impact
contamination of soils	*	*	*	*	negative - possibility of soil contamination i.e. spills	negative - possibility of soil contamination i.e. spills
mixing of topsoil with subsoil	*	*	*	*	negative - possibility of mixing of soils	negative - possibility of mixing of soils
scarring of unique landforms	*	*	*	*	negative - possibility to disturb significant wetland	no impact - no unique landforms on site

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	Pine Springs Site	Maple Lake Site
SURFACE DRAINAGE						
diversion and/or channelization of watercourses	*	*	*	*	no impact - no watercourses on site	no impact - no watercourses on site
effects of floodplain	*	*	*	*	no impact - site isn't located on a floodplain	no impact - site isn't located on a floodplain
contamination of surface watercourse	*	*	*	*	no impact - no watercourses on site	no impact - no watercourses on site
sedimentation and turbidity of adjacent water bodies due to construction activities	*	*	*	*	no impact - no watercourses on site	no impact - no watercourses on site
"ponding" effects on adjacent properties due to natural drainage disruption	*	*	*	*	no impact - adjacent properties are not located close enough to site to experience ponding effects	no impact - adjacent properties are not located close enough to site to experience ponding effects
increased surface runoff	*	*	*	*	negative - potential for increased surface water runoff	negative - potential for increased surface water runoff
decreased surface water quality					not applicable	not applicable
decreased surface water drainage		*	*	*	negative - potential for a decrease in surface water drainage	negative - potential for a decrease in surface water drainage
TERRESTRIAL VEGETATION AND WILDLIFE						
mortality/stress of vegetation due to sediment deposition, construction equipment movement or changes in soil moisture	*	*	*	*	high - vegetation will be impacted due to construction. minimal impact due to increased soil moisture	high - vegetation will be impacted due to construction. minimal impact due to increased soil moisture
conditions resulting in reduction and/or deterioration of wildlife habitat	*	*	*	*	high - vegetation will be removed resulting in the the reduction of wildlife habitat	high - vegetation will be removed resulting in the the reduction of wildlife habitat
changes in vegetative composition as a result of environmental changes	*	*	*	*	minimal - no significant changes in vegetation composition	minimal - no significant changes in vegetation composition
removal or disturbance of significant trees and/or ground flora	*	*	*	*	high - a significant amount of trees and/or ground flora will have to be removed	high - a significant amount of trees and/or ground flora will have to be removed
new or increased exposure of trees leading to increased loss of habitat for wildlife	*	*	*	*	high - new areas of trees will be exposed leading to loss of habitat	high - new areas of trees will be exposed leading to loss of habitat
effect on wildlife habitat	*	*	*	*	high - some habitat will be lost	high - some habitat will be lost
effect of contaminants on vegetation and wildlife				*	minimal - contaminants may act as a fertilizer for vegetation	minimal - contaminants may act as a fertilizer for vegetation
UTILITIES						
effects on other utilities e.g. relocations	*	*	*	*	negative - would have to bring in hydro to site	no impact if system only requires single phase hydro