Appendix N: Final Preferred Solutions Conceptual Designs – Bear Creek Watershed
SWMF RETROFIT FOR WATER QUALITY TREATMENT:
LEVEL 1 "ENHANCED" TREATMENT (80% TSS REMOVAL)
PHOSPHORUS REDUCTION = 39.9 kg/yr
ADDITIONAL ACTIVE STORAGE = 1,870 m³

SWMF CELL 1 DETAILS:
PERMANENT POOL VOLUME = 4,900 m³

SWMF CELL 2 DETAILS:
BOTTOM ELEVATION = 283.25 m
PERMANENT POOL ELEVATION = 285.25 m
PERMANENT POOL VOLUME = 1,975 m³

EXISTING SWMF OUTLET CONTROLS:
1) 1 - 375 mm ø ORIFICE (INV. = 285.25 m)
2) 1 - 5 m WIDE OVERFLOW WEIR (INV. = 290.20 m)
3) SECONDARY OUTLET (INV. = 289.50)

EXISTING SWMF OUTLET CONTROLS TO REMAIN

GRADE POND BANKS @ 3:1 SLOPE
FROM ELE. = 287.00 m TO ELE. = 285.00 m

4.5:1 SIDE SLOPE

PROPERTY ACQUISITION:
NONE

DRAINAGE MASTER PLAN
FINAL PREFERRED ALTERNATIVE SOLUTION
PROJECT No. 150
SWMF RETROFIT No. 61 (BR08B)
BEAR CREEK WATERSHED
SCALE = 1:500
DATE: MARCH 2019

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LEGEND
● PR STORM MAINTENANCE HOLE
■ PR. STORM SEWER
■ EX. SANITARY SEWER
■ EX. SANITARY MAINTENANCE HOLE
■ PR. LID
■ EX. WATERMAIN
■ EX. STORM MAINTENANCE HOLE
■ EX. STORM SEWER
■ EX. WATERCOURSE
■ EX. PROPERTY LINE
■ PROPERTY ACQUISITION

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■ PROPERTY ACQUISITION
ARDAGH ROAD:
ROAD CLASSIFICATION = ARTERIAL
DESIGN FLOOD FREQUENCY CRITERIA = 1:100 YEAR

EXISTING: 750 mm ø CSP CULVERT
CONVEYANCE CAPACITY = 1.9 m³/s (EXISTING FLOWS)
DESIGN FLOOD FREQUENCY = REGIONAL (TIMMINS) STORM
DEPTH OF OVERTOPPING = 0.00 m (REGULATORY EVENT)

PROPOSED: 900 mm ø CONC. CULVERT
CONVEYANCE CAPACITY = 2.3 m³/s (FUTURE FLOWS)
DESIGN FLOOD FREQUENCY = 1:100 YEAR
DEPTH OF OVERTOPPING = 0.00 m (REGULATORY EVENT)

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UTILIZE BIO-ENGINEERED SCOUR TREATMENT TO STABILIZE EXISTING BED SCOUR (SEE DETAILS)

Property Acquisition:

None

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