



PROCESS DESCRIPTIONS AND BIOLOGICAL REDUCTIONS

***INFLUENT CHARACTERISTICS**
 AVERAGE FLOW = 1.5 MGD
 PEAK FLOW = 4.5 MGD
 BOD = 136 mg/L (1,701 lbs/day)
 TSS = 122 mg/L (1,526 lbs/day)
 TN = 33 mg/L (412 lbs/day)
 TP = 4.6 mg/L (58 lbs/day)

***ITEM A - HEADWORKS UPGRADE**
 STAGED SYSTEM AS FOLLOWS
 MECHANICAL COURSE SCREENING W/PRESS AND WASH SYSTEM
 PUMP STATION (REMOVE SCREW PUMPS)
 MECHANICAL FINE SCREENING (2MM) W/PRESS AND WASH SYSTEM
 MECHANICAL GRIT REMOVAL W/PRESS AND WASH SYSTEM
 ACCEPTABLE MANUFACTURERS INCLUDE
 DUPERON FLEXRAKE
 LAKESIDE RAPTOR
 HYDRO-DYNE

ANTICIPATED EFFLUENT CONCENTRATIONS
 BOD = 115 mg/L
 TSS = 110 mg/L
 TN = 33 mg/L
 TP = 4.6 mg/L

***ITEM B - HIGH FLOW EQUALIZATION TANK**
 356,000 GALLONS (84' DIA X 14.5' HIGH)
 UTILIZED DURING PEAK FLOW EVENTS
 ACCEPTABLE CONSTRUCTION MATERIALS INCLUDE
 GLASS LINED STEEL
 CONCRETE
 STAINLESS STEEL

ANTICIPATED EFFLUENT CONCENTRATIONS
 NO REDUCTIONS WILL BE REALIZED

***ITEM C - IFAS/MBBR**
 5-STAGE SYSTEM
 BIOLOGICAL NITROGEN AND PHOSPHORUS REMOVAL
 ACCEPTABLE MANUFACTURERS INCLUDE
 KRUGER
 SIEMENS
 ID-INFLICO
 ENTECH

ANTICIPATED EFFLUENT CONCENTRATIONS
 BOD = 5 mg/L
 TSS = 20 mg/L
 TN = 4 mg/L
 TP = 0.8 mg/L

***ITEM D - CLARIFIERS**
 55' DIAMETER CIRCULAR CLARIFIERS (2)
 SECONDARY CLARIFICATION FOR ADDITIONAL CLARIFICATION
 INCLUDING SLUDGE TRANSFER BUILDING
 ACCEPTABLE MANUFACTURERS INCLUDE
 EMCO
 KRUGER
 SIEMENS
 ENVIREX

ANTICIPATED EFFLUENT CONCENTRATIONS
 BOD = 5 mg/L
 TSS = < 10 mg/L
 TN = 4 mg/L
 TP = < 0.3 mg/L

***ITEM E - FILTERS**
 DISC FILTERS FOR ADDITIONAL NUTRIENT REDUCTION
 ACCEPTABLE MANUFACTURERS INCLUDE
 ASHBROOK
 KRUGER
 SANITARE

ANTICIPATED EFFLUENT CONCENTRATIONS
 BOD = < 5 mg/L
 TSS = < 2 mg/L
 TN = 3.0-3.3 mg/L
 TP = 0.1 mg/L

***ITEM F - FUTURE EBNR TREATMENT POSSIBILITIES**
 INCLUDE MEMBRANE FILTRATION/REVERSE OSMOSIS SYSTEM

***ITEM G - ULTRA-VIOLET DISINFECTION**
 ACCEPTABLE MANUFACTURERS INCLUDE
 ENKOLA
 TROJAN
 WEDECO

ANTICIPATED EFFLUENT CONCENTRATIONS
 LESS THAN 5 COL/100 ML
 NO ADDITIONAL BIOLOGICAL REDUCTIONS

***ITEM H - ELECTRICAL POWER**
 ELECTRICAL POWER TO BE DESIGNED INCLUDING
 MAIN POWER BUILDING
 MULTIPLE SUBSTATIONS
 A/B DEDICATED SERVICES

SOLIDS HANDLING

***ITEM I - DIGESTERS**
 720,000 GALLONS OF STORAGE CAPACITY
 (8) 120,000 GALLON DIGESTERS
 STAGED AEROBIC DIGESTION
 240,000 GALLONS OF FUTURE CAPACITY IS IDENTIFIED

***ITEM J - BIOSOLIDS PROCESSING**
 WASTE DE-WATERING
 ROTARY DRUM THICKENER
 DE-WATER WASTE TO 2-3% SOLIDS
 ACCEPTABLE MANUFACTURERS INCLUDE
 PARKSON
 ALPHA-LAVAL
 KRUGER

BIOSOLIDS THICKENING
 VOLUTE SCREW PRESS OR CENTRIFUGE
 THICKEN WASTE TO 15-17% SOLIDS
 MATERIAL STORED FOR LAND APPLICATION OR LANDFILL
 COULD BECOME PHASE 2 @ AUTHORITY DISCRETION
 ACCEPTABLE MANUFACTURERS INCLUDE
 PARKSON
 ALPHA-LAVAL
 SOMAT
 PWTECH

M. LANBERT
 4-025
 PG. 341)
 S 29°33'18" E
 39.45'
 PT. IN CREEK
 R.R. SNIKE
 30" A.C. PIPE
 459.78
 MH Δ1
 CTIC & TELEPHONE LINES
 3/4" REBAR IN CONCRETE
 FD. 1 1/2" REBAR
 FD. R.R. MON.
 PT. ON OLD R.R. TRACK
 PT. ON OLD R.R. TRACK
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