

ALTERNATIVE A4

| | | | |
|---------------|----------------------------|---------------------|----------------------|
| 2031 option 2 | Sludge produced by SEWPCC | 178,479 m3/y | 7,355 DryT/y |
| | Sludge produced by WEWPCC | 83,290 m3/y | 3,332 DryT/y |
| | Sludge produced by NEWPCC | 232,648 m3/y | 9,306 DryT/y |
| | TOTAL for treatment | 494,417 m3/y | 19,992 DryT/y |
| | TOTAL for disposal | 79,968 m3/y | 19,992 DryT/y |

@ 4.12 % concentration

| | |
|----------------------------|-----|
| Sludge production increase | |
| 169,417 m3/y | 52% |

Increase in CAPEX and OPEX

| | | |
|--|---------------------|---|
| OPEX for sludge treatment in NEWPCC | 2.60 M CAD/y | (50% proportional to the volume increase and 50% proportional to dry solids increase) |
| Hauling SEWPCC sludges to NEWPCC | | |
| Hauling WEWPCC sludges to NEWPCC | 0.12 M CAD/y | |
| Disposal transportation NE to landfill | 0.22 M CAD/y | |
| Landfill tipping fees | 0.25 M CAD/y | |
| TOTAL OPEX (all sludges) | 3.19 M CAD/y | Among which 1.03 M CAD/y for SEWPCC |
| CAPEX for SEWPCC and NEWPCC upgrade | 24.38 M CAD | |
| NPV 30 years | 34.88 M CAD | |

Data from Stantec's PDR (2008)

| | | |
|--------------------------------|------------|--|
| Raw price for SEWPCC | 27.70 MCAD | For 27.57 DryT/d in 2031 |
| Quantity ratio | 0.73 | Based on Dry solids quantities |
| Reduction ratio #1 | 0.96 | for consistency with respect to the estimation allowance used |
| Reduction ratio #2 | 0.95 | for economy of scale : sludge and water treatment line works on the same site at the same time |
| Inflation | 1.04 | |
| Raw price for NEWPCC's upgrade | 5.12 MCAD | (70% of 10 MCAD - p 16.23 PDR march 2008), updated with quantity ratio |

| | | | |
|---------------|----------------------------|---------------------|----------------------|
| 2031 option 4 | Sludge produced by SEWPCC | 278,973 m3/y | 8,908 DryT/y |
| | Sludge produced by WEWPCC | 83,290 m3/y | 3,332 DryT/y |
| | Sludge produced by NEWPCC | 232,648 m3/y | 9,306 DryT/y |
| | TOTAL for treatment | 594,910 m3/y | 21,545 DryT/y |
| | TOTAL for disposal | 86,181 m3/y | 21,545 DryT/y |

@ 3.19 % concentration

| | |
|----------------------------|-----|
| Sludge production increase | |
| 269,910 m3/y | 83% |

Increase in CAPEX and OPEX

| | | |
|--|---------------------|---|
| OPEX for sludge treatment in NEWPCC | 2.96 M CAD/y | (50% proportional to the volume increase and 50% proportional to dry solids increase) |
| Hauling SEWPCC sludges to NEWPCC | | |
| Hauling WEWPCC sludges to NEWPCC | 0.36 M CAD/y | |
| Disposal transportation NE to landfill | 0.20 M CAD/y | |
| Landfill tipping fees | 0.25 M CAD/y | |
| TOTAL OPEX (all sludges) | 3.77 M CAD/y | Among which 1.51 M CAD/y for SEWPCC |
| CAPEX for SEWPCC and NEWPCC upgrade | 31.84 M CAD | |
| NPV 30 years | 48.78 M CAD | |

50% of CAPEX is assessed to be volume proportional and 50% to be dry solid quantity proportional