

Constructed Wetlands

| Site | Primary Treatment Required | Land Available | Land Requm't | Required Disposal Area | Total Land Requm't | Hydro Requm't | Sludge Requm't | Operational Requm'ts | Maintenance | Annual Operation and Maintenance Costs | Optional | Security Required | Budget Cost |
|--------------|--|----------------|--|--|--------------------|---|---|--|---|--|--|--------------------|---|
| Maple Lake | Yes - a lagoon storage of about 5,000 m ³ | | 0.0732 ha for wetland cells | shallow buried trenches total bed area of 0.4 ha | ~ 0.5 ha | Not required, but would provide a more compact easier to maintain system | Sludge will accumulate in bottom of lagoon - will need to be removed on a scheduled basis -estimated costs will depend on amount generated and location of disposal (land applied in landfill or Municipal Sludge treatment facility) | Daily inspections Full time staff may be need depending on transfer station option | once up and running no real maintain requirements, except check the level of the lagoon for sludge disposal | | A remote monitoring system could be installed for remote monitoring of the sewage treatmetn plant operations. This system integrates data acquisition and historical logging, alarm generation, and control cpabilities. The system typically monitors pump on-times, pump cycles, flow rates, temperatures, pump tank levels, and alarms. | Yes - fencing etc. | 350,000.00 * has provided additional costs for engineering of \$87,500 |
| Pine Springs | Yes - a lagoon storage of about 5,000 m ³ | Approx. 2.2ha | 0.0732 ha for wetland cells plus and additional 83 m for trenches for a system with no hydro and a 5.4 m grade | shallow buried trenches total bed area of 0.4 ha | ~ 0.5 ha | Not required, but would provide a more compact easier to maintain system - can supply alternative power options | Sludge will accumulate in bottom of lagoon - will need to be removed on a scheduled basis -estimated costs will depend on amount generated and location of disposal (land applied in landfill or Municipal Sludge treatment facility) | Daily inspections Full time staff may be need depending on transfer station option | once up and running no real maintain requirements, except check the level of the lagoon for sludge disposal | No foreseen costs | A remote monitoring system could be installed for remote monitoring of the sewage treatmetn plant operations. This system integrates data acquisition and historical logging, alarm generation, and control cpabilities. The system typically monitors pump on-times, pump cycles, flow rates, temperatures, pump tank levels, and alarms. | Yes - fencing etc. | 350,000.00 * has provided additional costs for engineering of \$87,500 |

**Water
Quality**

very good

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