

PASQUA FIRST NATION WASTEWATER TREATMENT FACILITY

Akabom Ekpenyon, Nathan Avery, Tomika Pinay -- Environmental Systems Engineering

1. Abstract

- Pasqua First Nation lacking a wastewater treatment facility
- Three different treatment methods evaluated
- Promotes good health and reduces groundwater contamination

2. Objective

Present a cost effective constructible wastewater treatment facility design to the Pasqua First Nation (2500 residents) leadership that uses existing infrastructure (lagoon), meets provincial effluent quality standards and improves community sustainability

3. Methods

- Science direct used for preliminary research & literature review
- Wastewater characteristic report obtained from similar size community in Newfoundland
- Technologies researched for the treatment facilities
- Cheapest design chosen following cost analysis

4. Results

- **Decentralized clustered septic system selected for treatment**
- Treated water to be stored in the lagoon for 210 days before being released intermittently into the nearby stream
- Approximately 36000 gallons of sewage to be treated per day

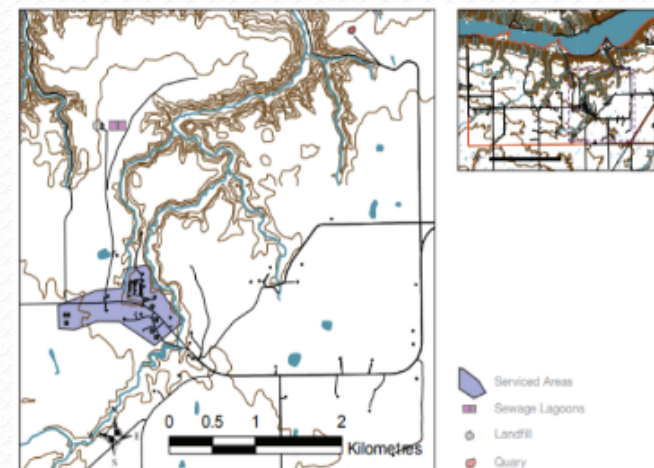


Figure 2: Community plan of Pasqua First Nation showing existing infrastructure

5. Conclusion

- **Total cost of approximately \$2,500,000 CAD**
- Canadian Infrastructure Bank potential source of funding
- Project to accelerate community's infrastructure development goals

6. Acknowledgment

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Figure 1: Process flow diagram for chosen design

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