Delaware’s venture into modern landfills.

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Introduction

- Landfills provide the foundation for the State’s solid waste management program
- In 1980 the first geomembrane (30 mil pvc) lined landfill cell (9 acres) was constructed
- In 1982, a second cell (18 acres) was added.
- Leachate treatment became an issue.
- Dr. Fred Pohland’s research at Georgia Tech appeared to provide a solution for our problem.
- Attempts were made to introduce leachate into both cells.
Absence of prescriptive regulations allowed us to experiment with various methods.

Vertical recharge wells (perforated concrete manhole sections) appeared to work.

More wells were added and leachate export for external treatment was reduced.

Gas production also increased. Based on the experience gained, we started improving our design.
LEGEND
- Property Boundary
- Shallow Pleistocene
- Pleistocene
- Frederica Aquifer
- Cheswold Aquifer
- Gas Migration Monitoring Well
- Water Supply Well
- Irrigation Well
- Surfacewater Sampling Point
- Single Leachate Sampling Point
- Dual Primary Leachate/Secondary
- Detection Liquid Monitoring Point

Fig. 4: Sandtown Landfill - Locations of Groundwater, Leachate, and Surfacewater Monitoring Points