

US EPA ARCHIVE DOCUMENT



# **Delaware's venture into modern landfills.**

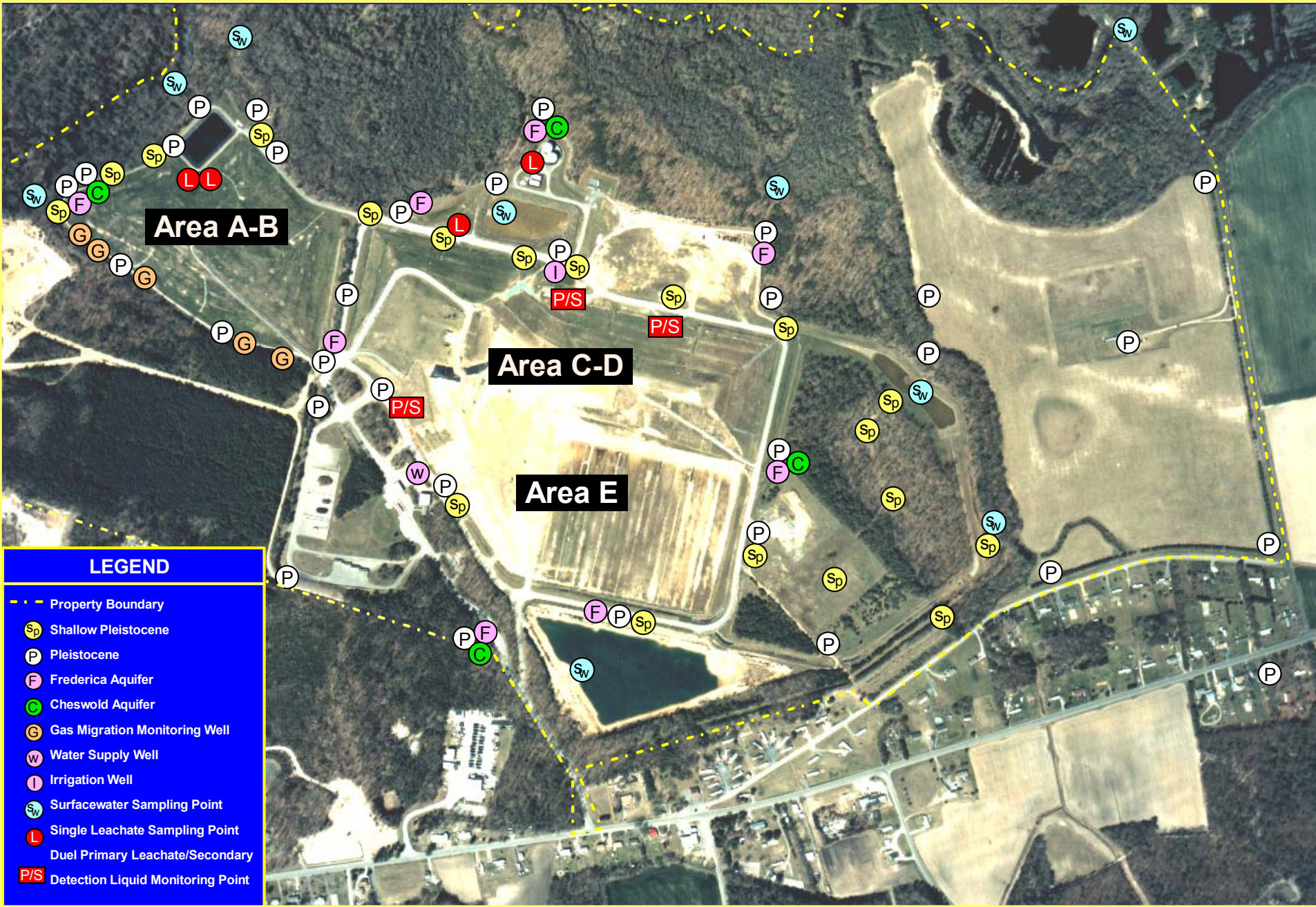
**N. C. Vasuki, P.E., DEE  
CEO, Delaware Solid Waste Authority  
[www.dswa.com](http://www.dswa.com)**

# 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.

## **Leachate recirculation**

- **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.**



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