



# **Osceola County Commission Update**

**July 15, 2019**



Landfill Design

Coal Ash TCLP Testing

Groundwater and Surface Water Monitoring Network

Landfill Inspections

Leachate Evaporator

- FDEP 62-701 Permitted Landfill – Subtitle D
- Typical Design
  - 2 layers of Geomembrane with clay bottom
  - 2 feet sand to protect geomembrane
  - Leachate Collection system
  - Gas Collection System
  - Groundwater Monitoring Network
- Waste Types Accepted
  - Class I includes typical residential and commercial business waste.



24 TCLP Tests performed by AES on samples at their facility

March 1 to May 2, 2019

No Metals tested above Regulatory Level

Considered Non-Hazardous

Recommendation - TCLP test of hauled Coal Ash with permission by JED



- Monitoring Network



- Site Lithology



- Groundwater Flow



- Potable Wells



- Recommendations



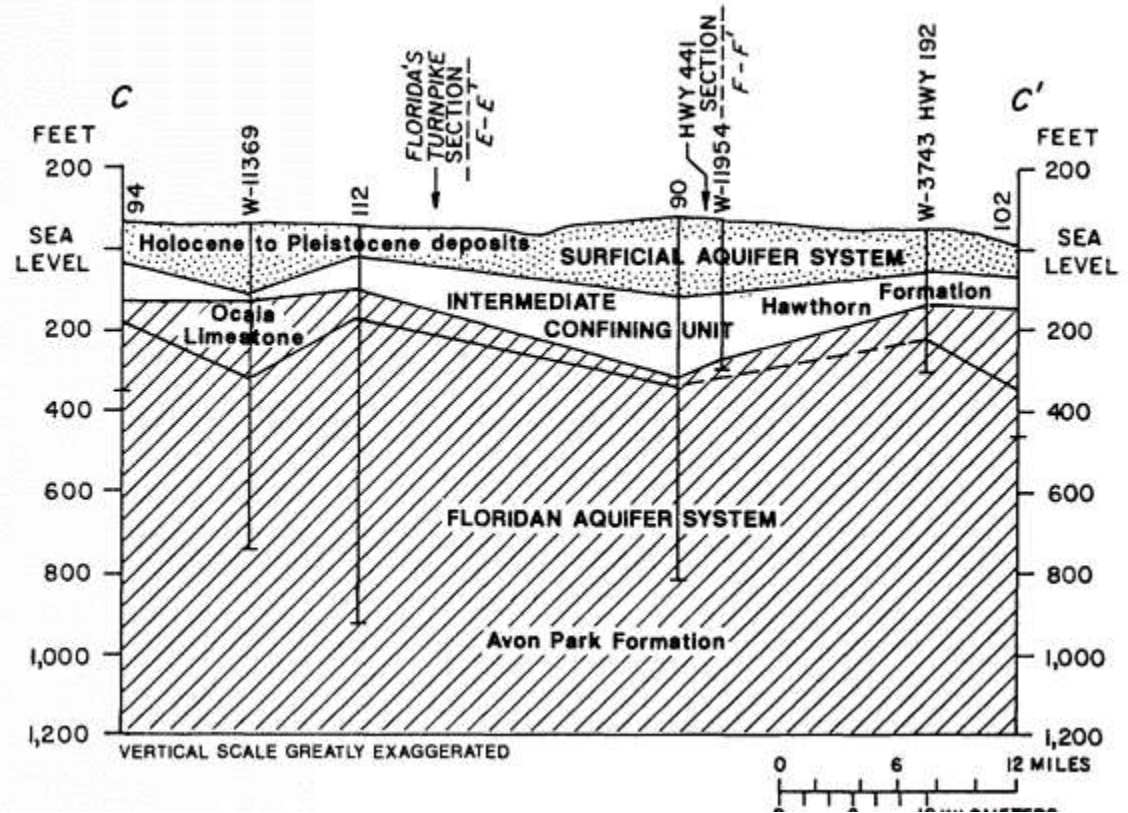
# Monitoring Network



Figure From Geosytec Permit Documents

# Site Lithology and Monitoring Well Information

Depth (ft BLS)	Lithology	JED A-series Wells	JED B-Series Wells	JED C-Series Wells
5	Fine Sand to Silt	[Well Log Pattern]	[Well Log Pattern]	[Well Log Pattern]
10				
15				
20				
25				
30				
35				
40				
45				
50				
55	Sandy Clay	[Well Log Pattern]	[Well Log Pattern]	[Well Log Pattern]
60				
65	Shell Hash	[Well Log Pattern]	[Well Log Pattern]	[Well Log Pattern]
70				
75				
80				
85	Clayey Sand to Silty Sand	[Well Log Pattern]	[Well Log Pattern]	[Well Log Pattern]
90				
95				
100				
105				
110				
115				
120				
125				
130				
135	Hawthorn Group Clay	[Well Log Pattern]	[Well Log Pattern]	[Well Log Pattern]
140				
145				
150				
155				
160				
165				
170				
175				

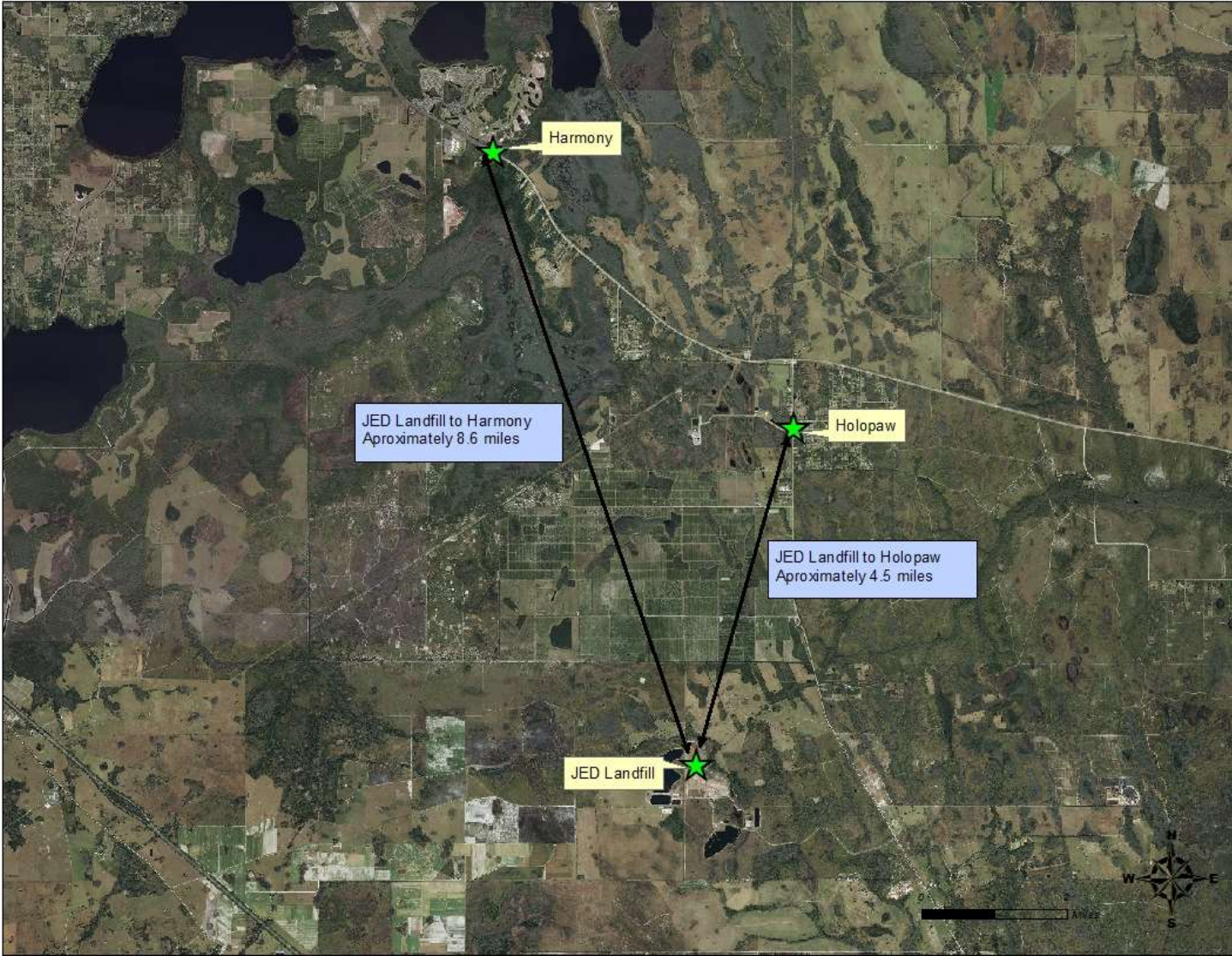




# Water Well Inventory and Groundwater Flow







- Collect Split Samples during the Semi-Annual Testing if approved by JED Landfill
- County Meet with FDEP



FDEP Inspections Performed March and May 2019



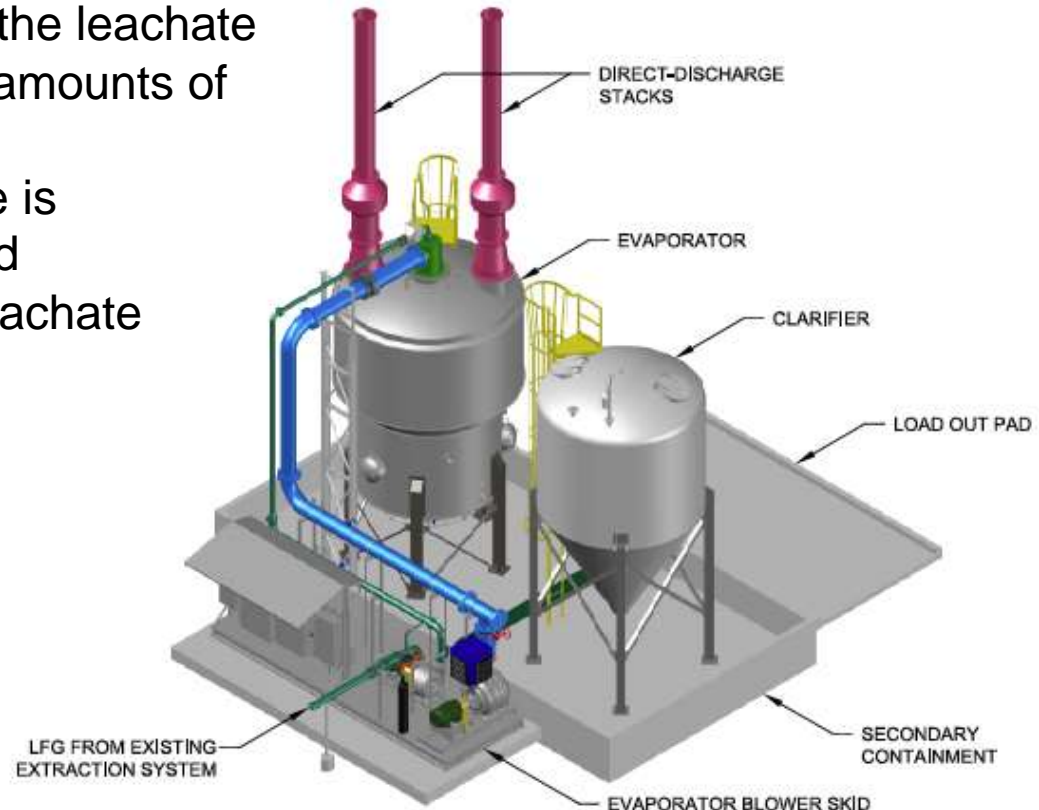
Inspection Check List Created



Coordinate Inspection Date with J.E.D.

# Leachate Evaporator

- Leachate evaporation is a common method used to manage leachate at large Class I landfills
- Excess heat from combustion of landfill gas and onsite generators evaporates the leachate
- Leachate is 99% water with small amounts of other chemicals
- Approximately 90% of the leachate is evaporated and 10% remains liquid
- Remaining liquid returned to the leachate storage





## What is Hazardous Air Pollutants (HAP)?

- HAPs include metals and volatile organic compounds (VOCs)
- HAPs are regulated by USEPA and FDEP
- HAPs will be either:
  - released along with the water vapor
  - destroyed by the heat of evaporation
  - remain in the 10% unevaporated leachate
- HAP emissions is directly related to the composition of the leachate
- HAP emissions from leachate evaporation of typical Class I landfill leachate is expected to be small

Recommendation

Review Request for Additional Information response when submitted by J.E.D



*JonesEdmunds* 