



# Florence C&D Air Quality Monitoring Plan Discussion

April 8, 2025

BOCC Evening Meeting

Chris Gilbert, Environmental Protection Dept

# Purpose of Presentation

## **Part of BOCC Motion from January 28, 2025, Evening Meeting**

‘Work with the Health Department to begin implementing a regular air monitoring program and that staff bring back to this Board a plan within the next 60 days which would include but not be limited to the purchase of continuous air monitoring equipment to identify hydrogen sulfate gas concentrations and other known contaminants.’

# Background

## Site History

- 1960s – 1984 – unpermitted local landfill which became the Feagle Fill Dirt operation.
- 1984 – 1991 - Renfroe Landfill
- 1994 – present - Florence C & D Landfill
- Residents concerned of potential air emissions from the landfill site.



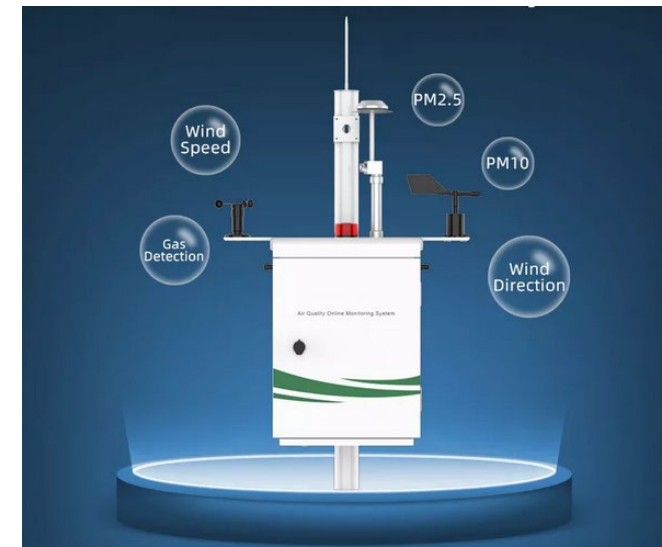
# Options

## Continuous Air Monitoring Systems and Parameters

Unit collects Air Samples and weather data every 30 minutes

Options:

- 1) Measure particulate matter (PM2.5, PM10), hydrogen sulfide (H2S), weather data; or
- 2) Measure particulate matter, H2S, weather, nitrogen dioxide (NO2), ozone (O3), carbon monoxide (CO), and sulfur dioxide (SO2);
- 3) Length of monitoring –
  - a) 6 months with assessment of results; or
  - b) For the active life of the facility



# Potential Challenges

- Florida Department of Environmental Protection (FDEP) regulates and enforces the facility permit.
- No violations of current FDEP permit
- Permit Conditions.

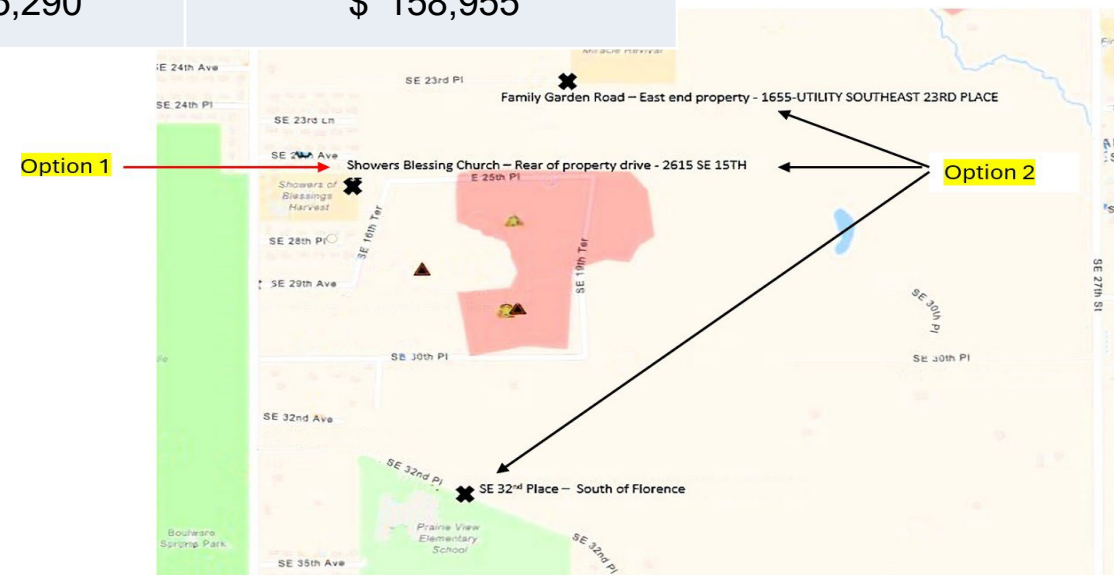
## **Air Monitoring Unit and ongoing data collection issues:**

- Location(s) and access
- Power supply and internet reliability
- Protection from vandalism
- Funding source, upfront and ongoing costs
- Length of time monitoring

# Costs

## Estimated costs for equipment and monitoring options

Scenario	Equipment Installation & Start-Up	O&M and Consulting	Total Cost
<b>Scenario A - 1 Unit, PM &amp; H2S Only</b>	\$ 26,318	\$ 15,290	<b>\$ 41,608</b>
Scenario B - 1 Unit, Full Range	\$ 42,282	\$ 15,290	\$ 57,572
<b>Scenario C - 3 Units, PM &amp; H2S Only</b>	\$ 61,979	\$ 15,290	<b>\$ 77,269</b>
Scenario D - 3 Units, Full Range	\$ 109,870	\$ 15,290	\$ 125,160
Scenario E - 4 Units, PM & H2S Only	\$ 79,809	\$ 15,290	\$ 95,099
Scenario F - 4 Unit, Full Range	\$ 143,665	\$ 15,290	\$ 158,955



# Staff Recommendation

- *Have staff contract an Environmental Consultant to install one monitoring equipment site and provide monitoring data for six months, with the option to continue to monitor based on the review of the presence or absence of parameter exceedances.*