Environmental Compliance Update
Francis Farm Landfill
Haywood County, North Carolina
June 2017

October 2015 Aerial
Landfill History

- Francis Farm Landfill (FFLF) Accepted Waste from 1973 to 1993 and was Closed in 1995
- County Required to Maintain Closed Landfill (Post Closure Care)
What’s Post Closure Care?

- Landfill Gas (Methane) Monitoring
- Groundwater & Surface Water Monitoring
- Facility Maintenance
  - Stormwater Management
  - Soil Cap (cover over waste)
  - Roads and Access
  - Sediment and Erosion Control
What were/are the Environmental Compliance Problems?

- Landfill Gas Concentrations Exceed Limits under NCDEQ Rules
- Groundwater Contaminants Exceed Limits under NCDEQ Rules
Landfill Gas Compliance

- Expand Facility Boundary by Purchase of Properties Surrounding Landfill
- New Landfill Gas Monitoring Plan Approved
- New Landfill Gas Monitoring Wells Installed
- Landfill Gas Recovery System Operational
- Facility is in Compliance for Landfill Gas
New Facility Map
Groundwater Compliance

- Assess Extent of Groundwater Impacts
- Identify Remedies in a Report
- Public Meeting to Discuss the Report
- Select Remedies & Prepare a Plan
- Implement the Plan
- Facility Returns to Compliance for Groundwater
Where Are We in the Process?

- Groundwater Assessment Complete
- Remedy Report Submitted & Conditionally Approved by NCDEQ
- Public Meeting (Pending)
- Select Remedies & Prepare a Plan (Pending)
- Implement the Plan (Pending)
- Return to Compliance (Pending)
Groundwater Plume Map
Groundwater Plume Map
What “Remedies” are Proposed?

- Control of Contaminant Sources
  - Landfill Gas Mitigation (System)
  - Leachate Mitigation (Restrictive Cover)
- Natural Attenuation of Groundwater
- Active Groundwater Remediation as a Contingency Only
What are Our Next Steps?

- Conduct Public Meeting
  - Modify Remedy Report (if needed)
  - Formally Select Remedies
- Prepare a Corrective Action Plan (CAP)
- Continue Landfill Gas and Groundwater & Surface Water Monitoring
What’s Included in the CAP?

- Design of Restrictive Cover
- Geotechnical Engineering
- Detailed Design Plan
- Technical Specifications
- Facility Monitoring Plan
- Schedule of Implementation
- Contingency Plan
- Compliance Plan
What’s after CAP Approval?

- Implementation of Remedies
- Bid Package for Cover Installation
- Select Contractor
- Install Cover
- Modify & Operate Gas System
- Monitor Landfill Gas, Leachate, Groundwater & Surface Water
- Evaluate Effectiveness
What Contracts Need Approval?

- Services by McGill, BLE & Shealy
- Public Meeting Assistance
- Finalize Remedy Report and Formally Select Remedies
- Prepare CAP for NCDEQ Approval
- Prepare Bid Packages after CAP
- Conduct Semi-Annual Sampling
- Continue Compliance Reporting
Schedule?

- Public Meeting Date
- Finalize Remedy Report
- and Formally Select Remedies
- Prepare CAP for NCDEQ Approval
- Prepare Bid Packages after CAP
- Conduct Semi-Annual Sampling
- Continue Compliance Reporting
Cost and How is it Funded?

- $5,000,000 projected cost
- Availability Fee was raised in 2015 in anticipation of beginning the project sometime in 2018 or 2019
- Funds will come from the Solid Waste Fund Balance
# CAP Implementation Schedule

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<th>2019</th>
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<td>Prepare Corrective Action Plan (CAP)</td>
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Conceptual Plan