Organic Waste Management Project

Thomas Smith
Prince William County, Solid Waste Division
ASTSWMO Annual Meeting
October 25, 2018
**Background**

- Suburban county of ≈ 460,000 residents (≈ 154,000 households, and 9,200 business), located ≈ 30 miles from Washington, DC

**Balls Ford Road Composting Facility**

- Began composting leaves and grass on the 30-acre site in 1992
- Existing permitted capacity of 50k tons per year; presently handling ≈ 25k tons per year
- Simple windrow composting – large piles turned every few weeks with an excavator
Balls Ford Road Facility Services

- Facility Services Include:
  - Citizens Convenience Center

- Residential yard waste and brush tipping
- Commercial yard waste and brush tipping
PWC’s Driving Forces

- Stagnated recycling rates
  - County recycling rate has hovered around 35% since 2006
- Waste composition study – 30% disposed in landfill is organics
- Desire to implement mandatory county-wide yard waste recycling program and extend life of landfill
- Large regional demand for food waste processing infrastructure
Project Development

- **Spring 2009** – Began internal discussions about enhanced organic waste processing opportunities and technologies
- **Winter 2011** – Began pilot program to accept Category 1 pre-consumer plant-based food scraps at Balls Ford Road
- **Summer 2012** – Began accepting pre-consumer plant-based food scraps under amended Permit-by-Rule (PBR)
- **November 2013** – Issued RFP for organic waste management project
- **February 2015** – Executed 20-year Agreement with Freestate Farms LLC (Freestate) to redevelop existing site for expanded throughput capacity and range of organics processed
- **May 2018** – Approved Amended Agreement to incorporate comments and needs of finance partner, including property lease and easements.
Benefits to Prince William County

- Improved management of organic wastes generated in the County and surrounding areas
- Enhance operations and optimize existing facility
- Increase County recycling rate
- Extend life of County landfill
- RFP process to bring in private party to design, build, finance, own, and operate the facility
  - Included technical and financial requirements to minimize risk to the County and ensure commercial viability
Permitting Challenges

• Major private investment on County property
  – Leases and easements address all responsibilities and liabilities (lots of lawyers)
  – Flexibility in permitting to allow issuance of permit on land not owned by permittee

• Clear designation of responsibilities with flexibility
  • Solid Waste Permit: Freestate, who will own and operate facility
  • Air Permit: Freestate, who will own and operate equipment
  • Water Permit (VPDES): County, since runoff occurs from the land, both in areas operated by Freestate and the County
  • Financial Assurance will be provided by County via Financial Test (along with the County landfill). County will hold bond with Freestate for closure of facility

• How to designate facility (Anaerobic Digestion). Solid waste permit as a waste to energy facility, but this is not preferred.

• County understands its overall responsibility as the property owner and manager (who will citizens call with a problem?)

• Need for consistent enforcement by regulators for “non-permitted” and/or “poorly run” facilities