



Rushern L. Baker, III  
County Executive



# Incorporating Food Scraps into Prince George's County's Yard Waste Compost Facility

*6601 S.E. Crain Highway  
Upper Marlboro, Maryland 20772*



**MARYLAND ENVIRONMENTAL SERVICE**

# Site Overview

- ▶ For more than 23 years Prince George's County has owned and managed the Western Branch Composting Facility
- ▶ The facility is operated by the Maryland Environmental Service (MES), through an intergovernmental agreement with Prince George's County
- ▶ MES turns yard waste, including grass clippings, leaves, brush, small branches and Christmas trees into a trademarked product called Leafgro®.

- ▶ Private and County contractors deliver yard waste to the facility
- ▶ Approximately 165,000 households receive yard waste curbside collection by County contracted haulers
- ▶ Nearly 60,000 tons of yard waste is processed annually
- ▶ 2,000 tons of food scraps have now been received and processed as of May 2013



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# Our Current Composting Process– Open Windrows (yard waste only)

- ▶ Incoming yard waste is processed through a horizontal grinder and placed into windrows
- ▶ Windrows are turned using a Scarab windrow turner and watered as needed
- ▶ Compost is spread out on the pad for drying until ready to be screened
- ▶ Final screened compost is marketed as Leafgro®
- ▶ The process takes roughly 6 to 9 months depending on weather conditions





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# Food Scrap Composting Demonstration Project





- This system of composting has obvious benefits
  - It allows the County to accept food scraps for composting
  - Prevents outside weather conditions to be factored out
  - Uses less space than open windrowing
  - Takes less time to produce finished compost product
  - The covers eliminate the odors generally associated with food waste
  - It creates landfill longevity by diverting materials to composting rather than landfill disposal
  - Cost effective for customers – tip fee is much less than landfill tip fee

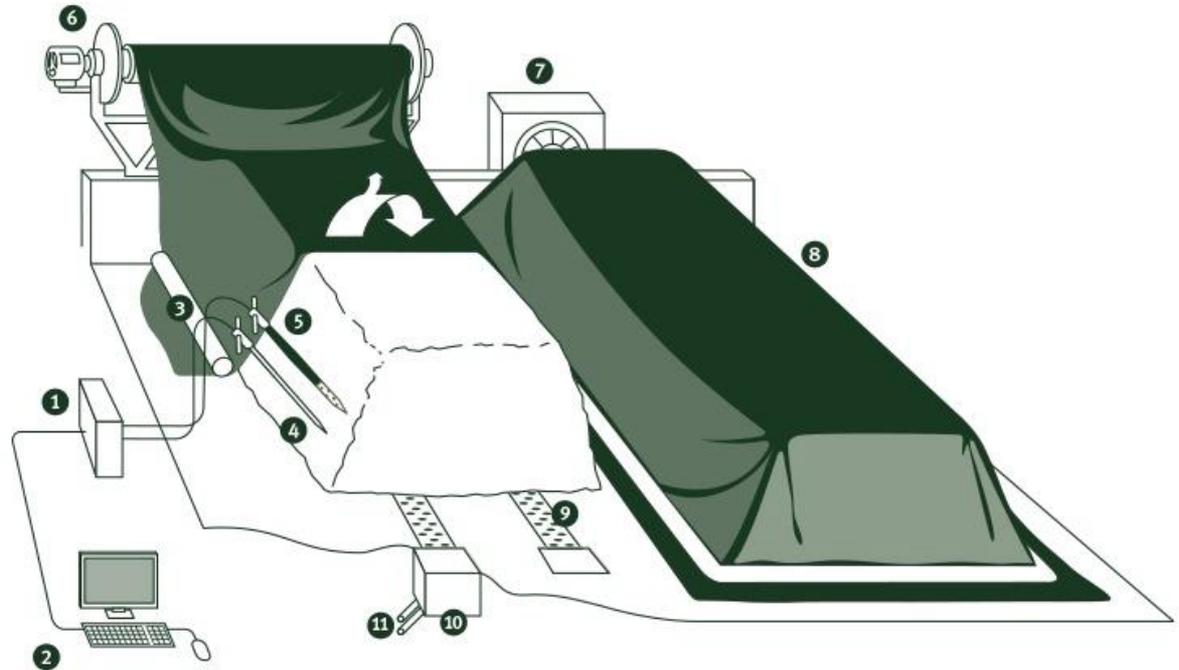


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# Gore® Cover System



- 1 Control system
- 2 PC
- 3 Rim weight
- 4 Temperature sensor
- 5 Oxygen sensor
- 6 Cover handling device
- 7 Aeration fan
- 8 GORE® Cover
- 9 Aeration and leachate system
- 10 Water trap
- 11 Leachate pipe



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# Proposed Batch Schedule

	Start Date	End Date	Heap 1	Heap 2	Heap 3	Food Waste	Green Waste
Batch 1	May 15	July 10	Green Waste	Green Waste	Green Waste	0 tons	750 tons
Batch 2	Jul 15	Sept 11	Green Waste	Food Waste 10%	Food Waste 10%	50 tons	700 tons
Batch 3	Sept 17	Nov 13	Green Waste	Food Waste 25%	Food Waste 25%	125 tons	625 tons
Batch 4	Nov 19	Jan 15	Green Waste	Food Waste 50%	Food Waste 50%	250 tons	500 tons
Batch 5	Jan 20	Mar 13	25%/25%/50%	25/25/5 0	25/25/5 0	-	-
Batch 6	Mar 17	Apr 21	Leafgro GOLD Blend	Leafgro GOLD Blend	Leafgro GOLD Blend	-	-



# Food Scrap Demonstration Pilot Project Customers

- ▶ University of Maryland
- ▶ University Park
- ▶ Apple Valley
- ▶ Progressive Waste Solutions
- ▶ Compost Crew
- ▶ City of Takoma Park



## Partnerships:

Maryland Environmental Service (MES)

Sustainable Solutions

GORE™

University of Maryland

University Park

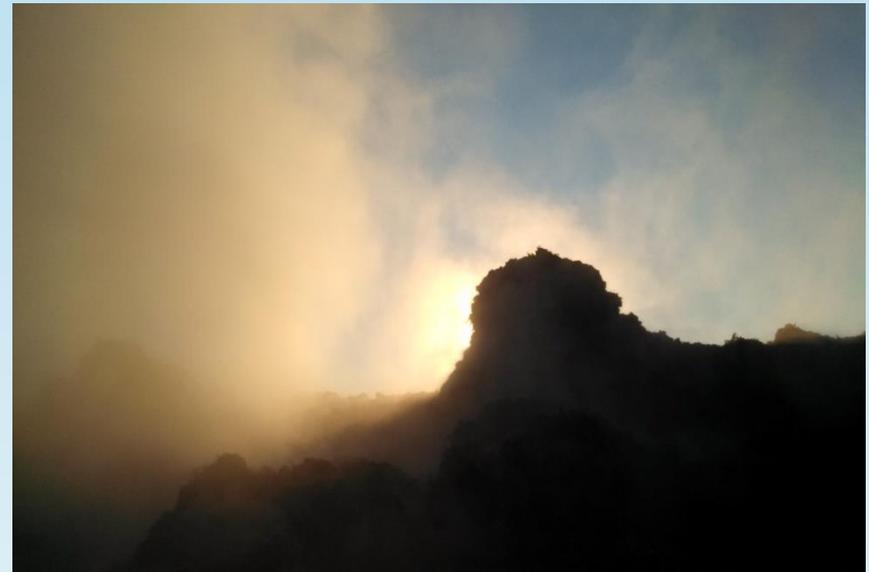
EPA – *potentially*

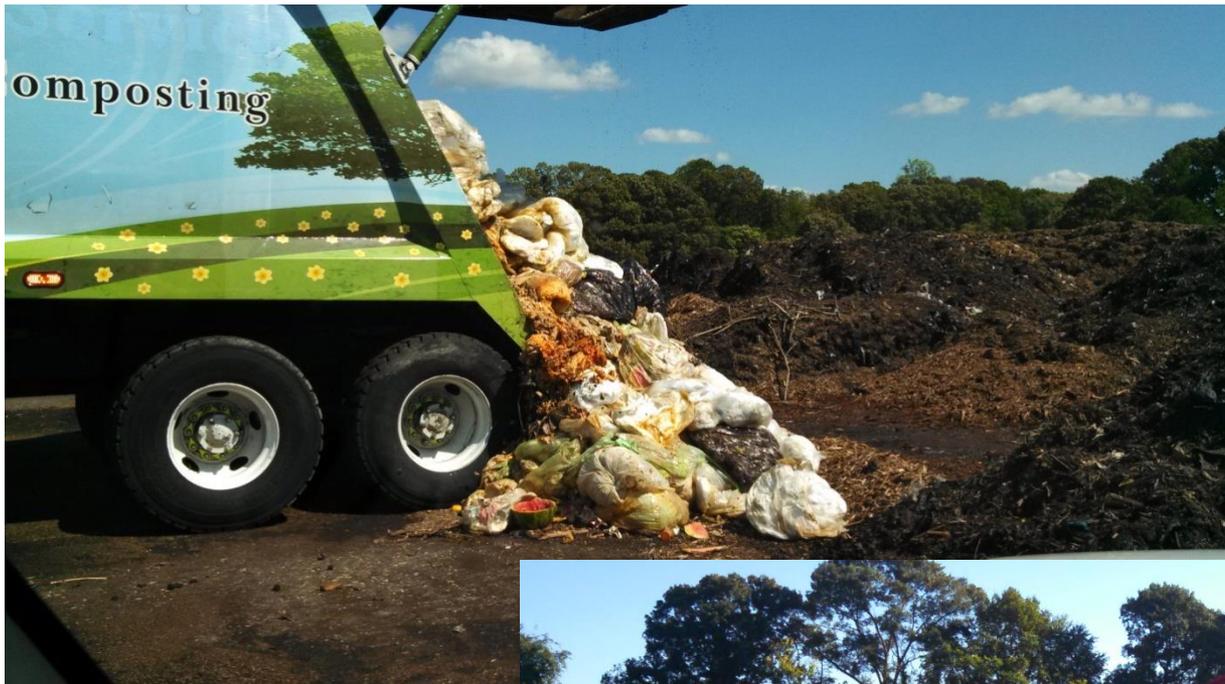
## Permitting:

Maryland Department of the Environment (MDE)

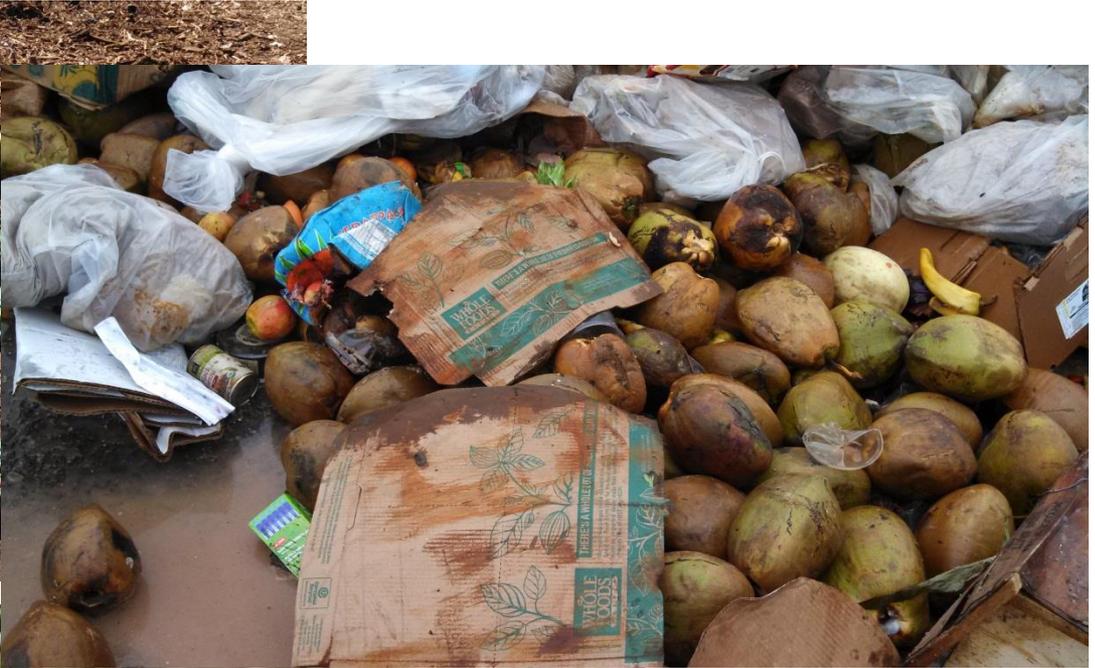
# Getting the Good stuff!!!

- ▶ Quality Compost starts with quality ingredients.
- ▶ Less contaminants per load was encouraged and is now enforced.
- ▶ Plastic??? Yes, only to compostable bagging products.





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- ▶ Contaminates are removed by hand and any remaining minor contaminants are ground via the horizontal grinder and removed during the screening process.



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# Build it and it will Compost!



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# Placing the Gore® Cover over a heap



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# GORE® Cover and Perimeter Weighting System



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# Covered Heaps



**The heaps are monitored for temperature and moisture daily using a computerized system.**



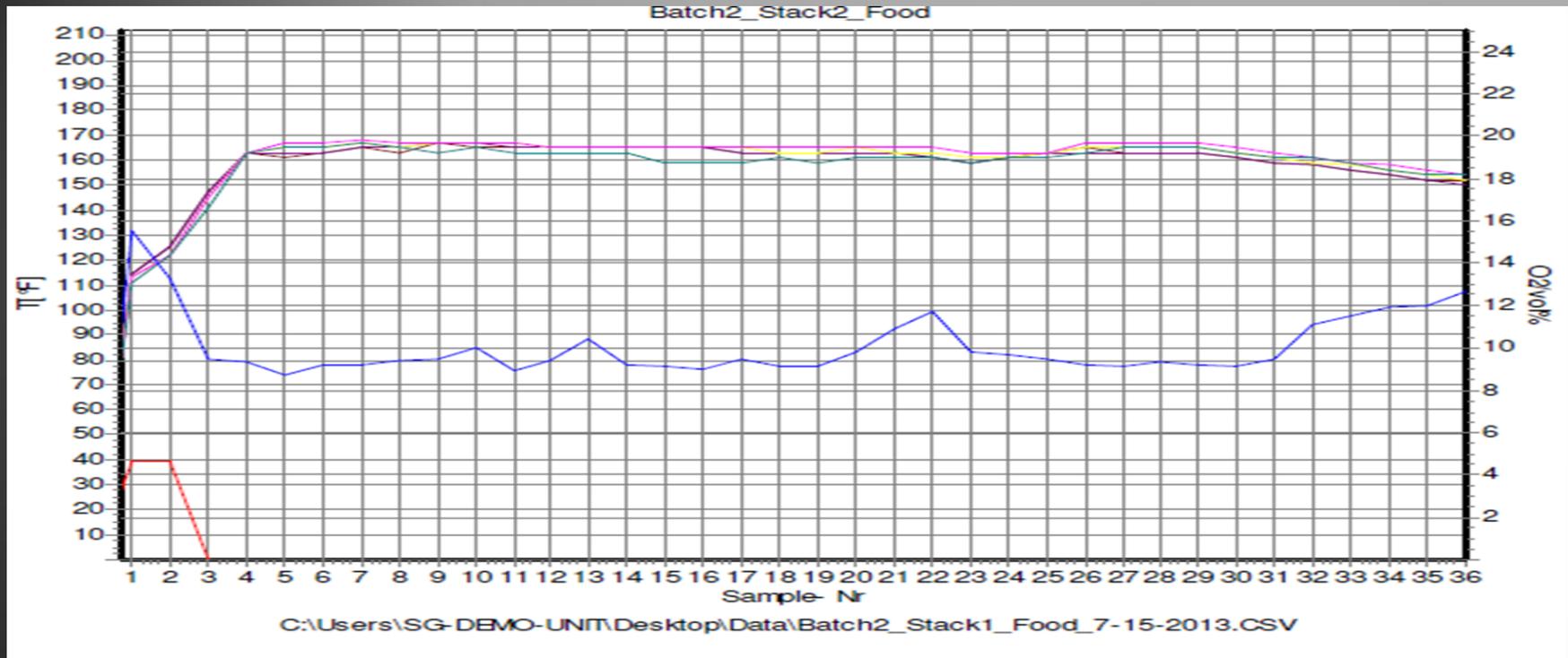
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# Blower/Aeration and Control Box

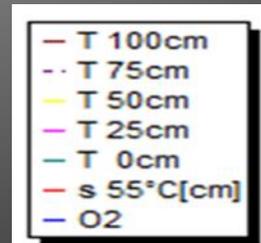


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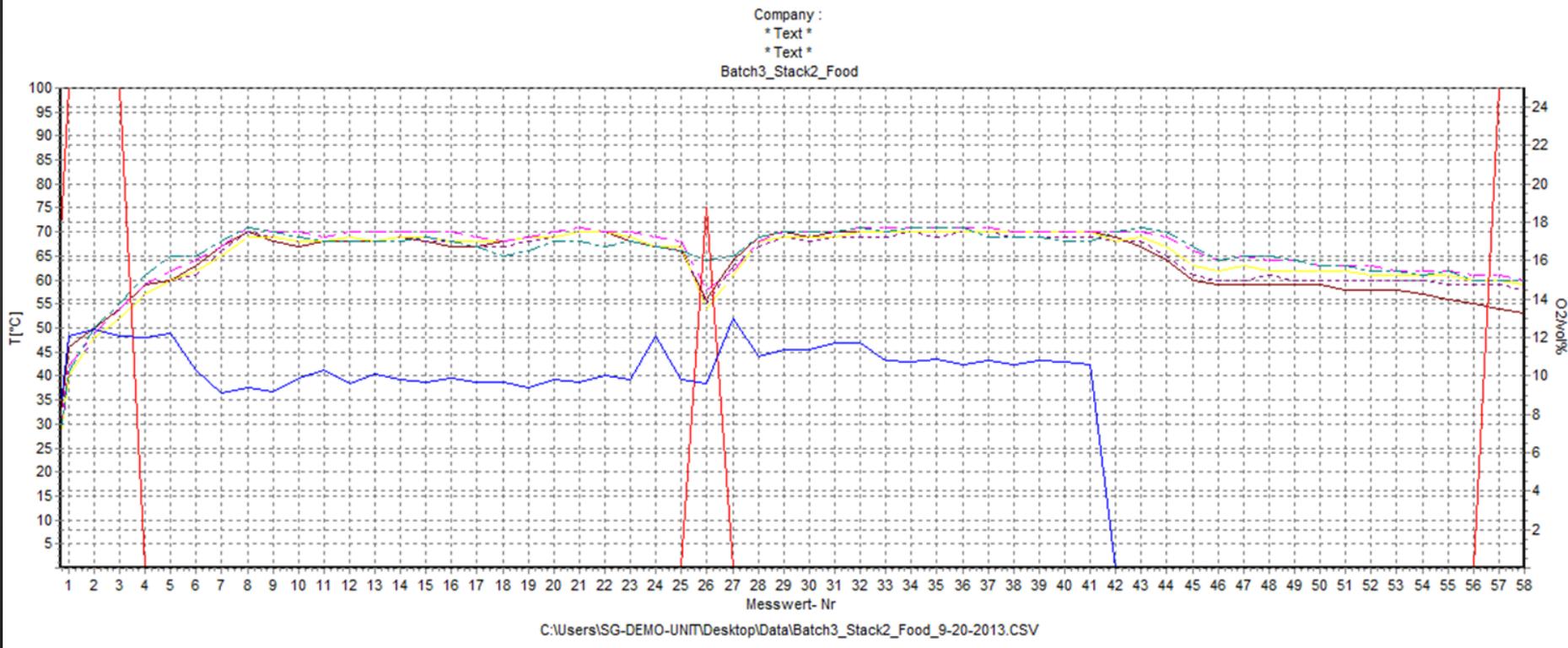
# Example of Phase #1 (4 weeks)



34 day > 131° F → PFRP & VAR are met!



# Example of Complete Process



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# Uncontrollable Factors

- ▶ Weather...



No problem!



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# Uncontrollable Factors

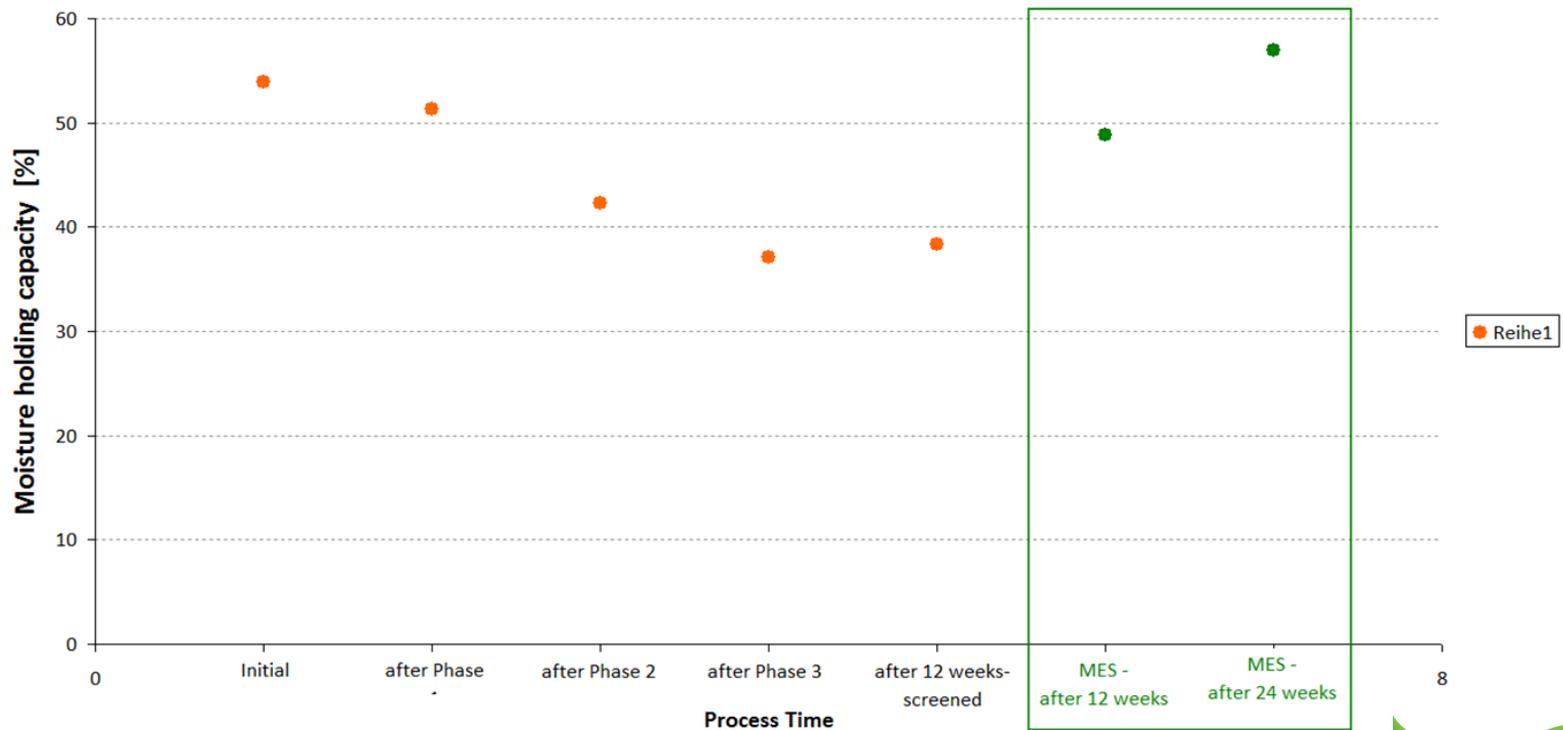
- ▶ Weather...



No problem!

# Controlling Moisture Over Time

100% GW - Moisture Reduction in the GORE Cover Process compared to open windrow



# And then there are “those days”...



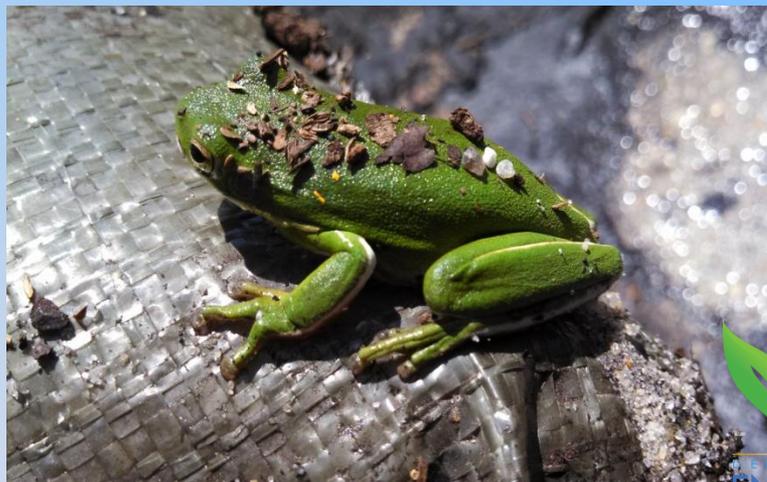
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# Accidents...or lessons?



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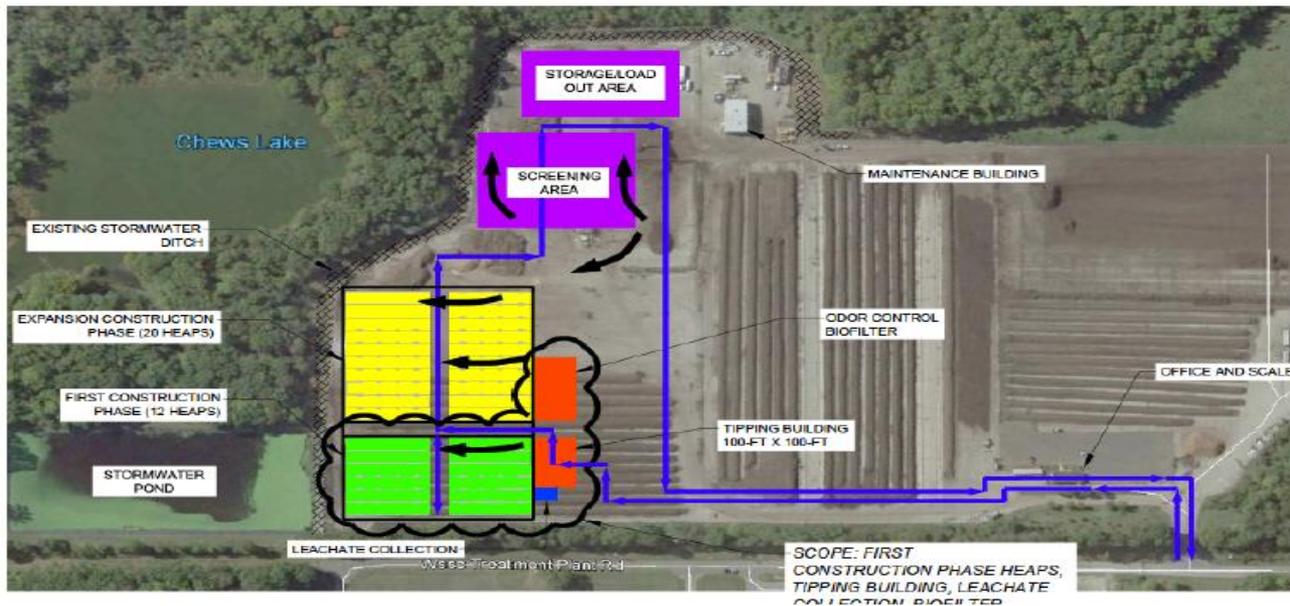
# Green is the New Brown is the New Green!



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# What's Next? Potential Future

## Prince George's County **Organic** Composting Facility





## Contact Information:

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