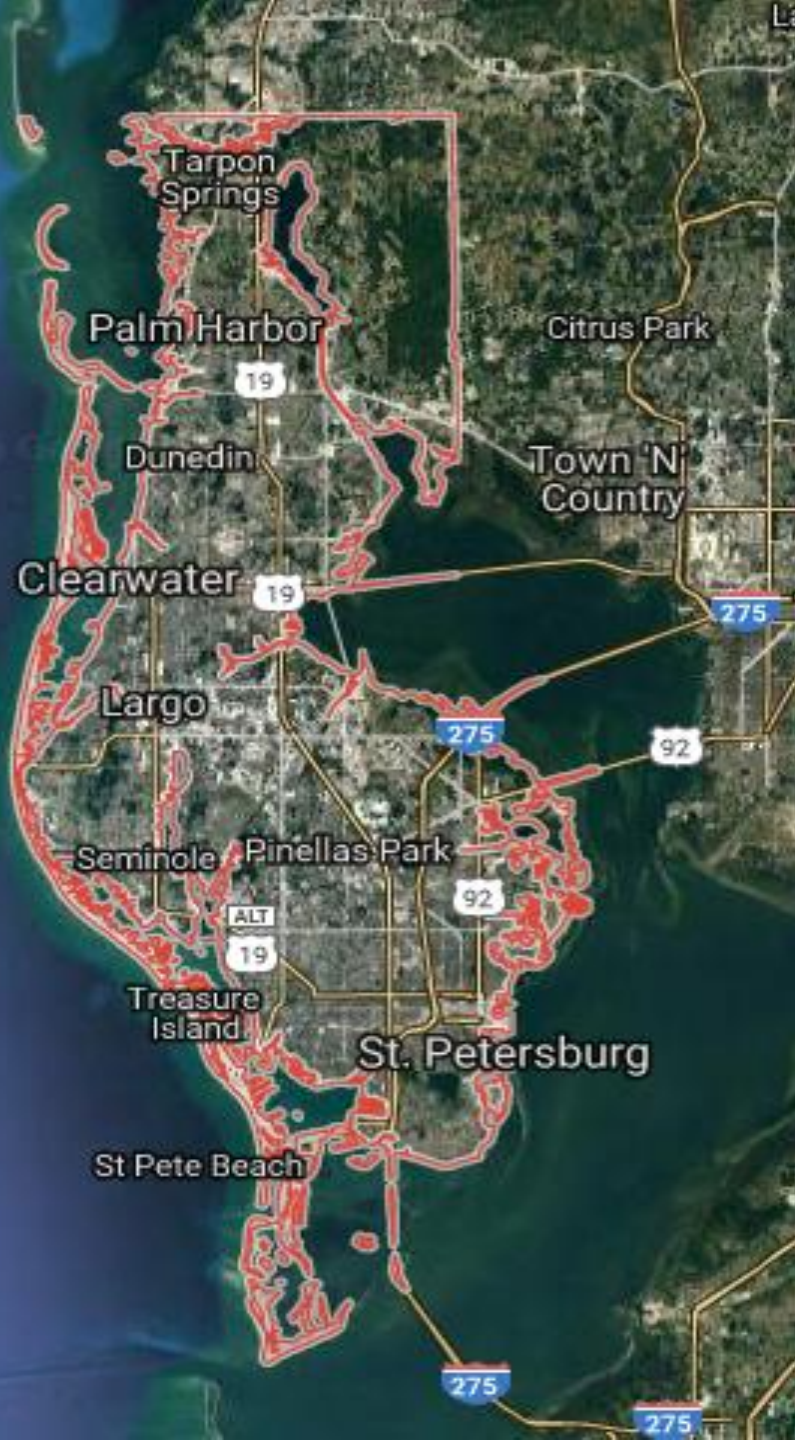




Pinellas County Organics Recycling Pilot Program

Stephanie Watson, Pinellas County Department of Solid Waste
Barbara Hetrick, Pinellas County Department of Solid Waste
Ryan Graunke, Kessler Consulting, Inc.



Pinellas County

- ▶ 1,000,000 Residents
- ▶ 24 Municipalities





Credit: Shutterstock

Partners

- ▶ Consultant (Kessler Consulting, Inc.)
- ▶ Harvest Quest (organic catalyst)
- ▶ Bay Mulch
- ▶ Big Storm Brewing
- ▶ Vermeer

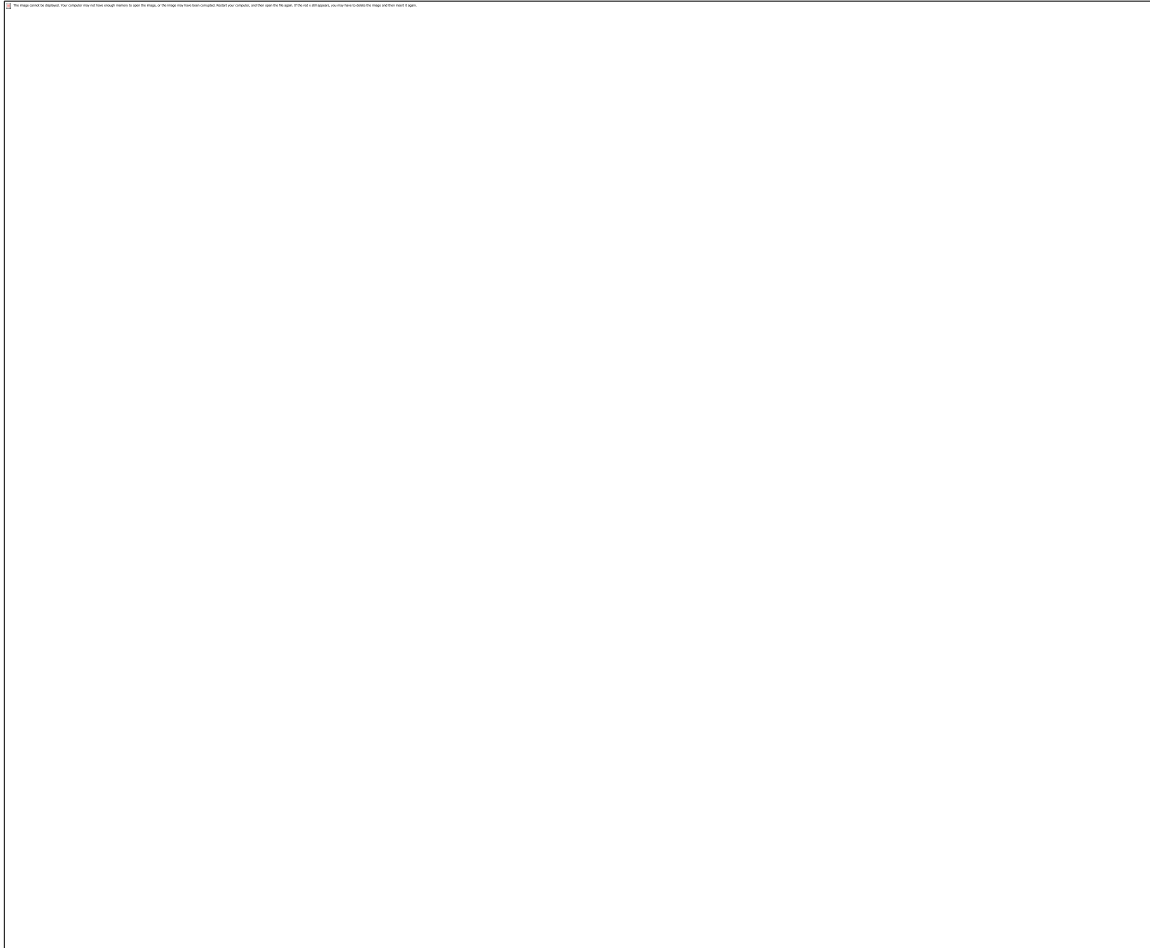
Modified Static Aerobic Pile (MSAP)



Bay Mulch



Big Storm Brewery



Mixing



Windrow Construction



Temperature Monitoring



Turning



Screening



Regulatory Testing



Pathogens

	Pinellas Compost	Regulatory Limit
Salmonella*	<0.01	3
Fecal Coliform**	<0.2	1000

*(MPN/4g) **MPN/g

Heavy Metals

	Pinellas Compost	Regulatory Limit
Arsenic	3.25	n/a
Cadmium	2.31	<15
Chromium	12.8	n/a
Copper	140	<450
Lead	73.3	<500
Mercury	<0.06	n/a
Molybdenum	<1.2	n/a
Nickel	21.9	<50
Selenium	n.d.	n/a
Zinc	336	<900

All units in mg/kg dry weight

Compost Quality

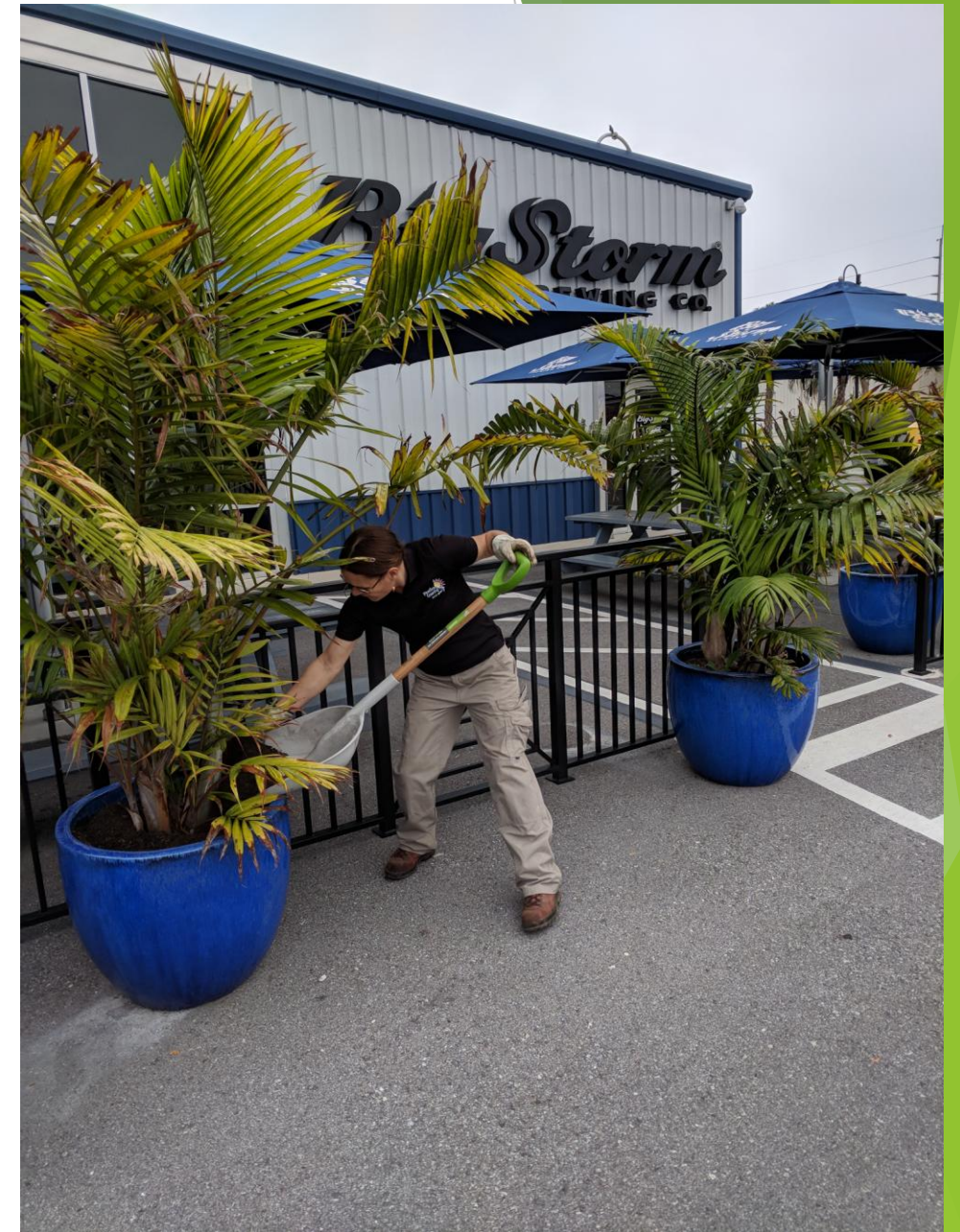
Nutrients

	As received	Dry weight
Total Nitrogen	0.50%	0.74%
Total Phosphate	0.30%	0.45%
Total Potassium	0.25%	0.37%

Agronomic Parameters

	Units	Compost	Preferred	Acceptable
Stability	mg CO ₂ -C per g OM per day	0.98	<2	<4
Maturity	% seed emergence & vigor	88% emergence 100% vigor	90-100%	80-100%
Moisture Content	% wet weight basis	33.1%	40-50%	35-65%
Organic Matter	% dry weight basis	36.5%	35-60%	25-65%
pH	pH units	7.8	6.0-7.5	5.5-8.5
Soluble Salts	dS/m	2.36	<5.0	<15.0
Physical Contaminants	% dry weight basis	None	<0.5%	<1.0%

Compost Application



Compost Uses in Pinellas



Market Potential In Pinellas

Markets	Uses	End Users/Target Audience	Estimated Potential (cy/year)
Agriculture	Soil amendment, topdressing, soil blending (raised beds), mulch	Small farms, community garden managers	300-600
Sports Fields	Soil amendment (field construction), topdressing	County & municipal parks, private field managers	6,500-13,000 (topdressing only)
Golf Courses	Soil amendment (course construction), topdressing (greens & tees)	Golf course ground managers	~2,400 (topdressing only)
Bulk suppliers	Bulk sales	Store owners/managers	~1,600
Landscaping	Soil amendment, topdressing, soil blending (back fill), mulch	Landscape companies, county & municipal parks	~2,600
Nurseries	Soil blending, bulk sales	Nursery owners	Not quantified
Environmental	Mulch, compost blanket or filter socks (erosion control), soil amendment (bioswales and stormwater remediation)	County & municipal environmental departments, environmental contractors	2,000-2,800 (County only)
Home Use	Same as landscaping	Residents	~15,000

Degradables Experiment



What did we learn?



What's next?



<https://thumbs.dreamstime.com/master-plan-management-mission-performance-concept-67566267.jpg>



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Barbara Hetrick, bhetrick@co.pinellas.fl.us

Ryan Graunke, rgraunke@kesconsult.com