

South Wake Landfill

Citizens Committee Meeting

March 29, 2023



@wakegov



wakegov.com

Overview



Communications

Landfill Projects Update

Data and Metrics



Communications

New Solid Waste Communications Consultant

- Six diverse candidates interviewed by panel, including Solid Waste & Communications team members:
 - John Roberson, Roy Baldwin, Bianca Howard, Sara Davarbakhsh from Solid Waste
 - Stacy Beard from Communications
- Written assignment

New Solid Waste Communications Consultant

- Michelle Fiscus – Starts April 10
- Accomplished senior communications leader
- Executive Director of Communication, Strategic Planning and Engagement, Nash County Schools
- Decade+ of Professional Marketing & Promotions Experience





Outreach & Awesome Partnerships

Recycling Partnership with Wake County Libraries



Stop by and ask any and all questions you have about recycling in Wake County with the Wake County Recycling Department.

Middle Creek Community Library

919-890-7400

Monday, Jan. 9, 3-5 p.m.

North Regional Library

919-870-4000

Tuesday, Feb. 7, 10:30 a.m.-12:30 p.m.

Southeast Regional Library

919-662-2250

Tuesday, Jan. 10, 10:30 a.m.-12:30 p.m.

East Regional Library

919-217-5300

Thursday, Feb. 9, 11 a.m.-1 p.m.

Northeast Regional Library

919-570-7166

Thursday, Jan. 19, 3-5 p.m.

Oberlin Regional Library

919-856-6710

Thursday, Jan. 26, 2:30-4:30 p.m.



Convenience Center Pilot Project



Midtown Farmers Market Composting Partnership

- Midtown Farmers Market at North Hills
- Food scraps collection carts available Saturdays 8 to noon
- Partner Toward Zero Waste and Kane Realty
- Contract with Compost Now to collect
- April 15 - November 4



División de Gestión de Residuos Sólidos del condado de Wake
Guía de reciclaje y residuos residenciales

Solicítelo en wake.gov/recycling.

wake.gov/recycling
919-856-7400

**Vea materiales
aceptados al reverso**



Actualizado en febrero de 2023

🕒 Diariamente de 7 a.m. a 7 p.m.

Abierto al condado de Wake solo residentes

Sitio 1	10505 Old Stage Rd.	Raleigh, 27603
Sitio 2	6120 Old Smithfield Rd.	Apex, 27539
Sitio 3	266 Aviation Pkwy.	Morrisville, 27560
Sitio 4	3600 Yates Mill Pond Rd.	Raleigh, 27606
Sitio 5	8401 Battle Bridge Rd.	Raleigh, 27610
Sitio 6	3913 Lillie Liles Rd.	Wake Forest, 27587
Sitio 7	9024 Deponie Dr.	Raleigh, 27614
Sitio 8	2001 Durham Rd./Autopista. 98	Wake Forest, 27587
Sitio 9	3337 New Hill-Hollerman Rd.	New Hill, 27562
Sitio 10	5216 Knightdale-Eagle Rock Rd.	Knightdale, 27545
Sitio 11	5051 Wendell Blvd./Neosocio 64	Wendell, 27591

Abierto a residentes y empresas del condado de Wake

Instalaciones de reciclaje de materiales múltiples

Sitio 7 - North Wake	9029 Deponie Dr, Raleigh, 27614	🕒 lun - sáb 8 a.m. - 4 p.m.
Sitio 2 - South Wake	6130 Old Smithfield Rd., Apex, 27539	🕒 lun - sáb 8 a.m. - 4 p.m.
Sitio 11 - East Wake	5051 Wendell Blvd./Negocio 64, Wendell, 27591	🕒 sáb y dom 8 a.m. - 4 p.m.

Abierto al condado de Wake solo residentes

Instalaciones de residuos domésticos peligrosos

Sitio 7 - North Wake	9037 Deponie Dr, Raleigh, 27614	🕒 lun - sáb 8 a.m. - 4 p.m.
Sitio 2 - South Wake	6150 Old Smithfield Rd, Apex, 27539	🕒 lun - sáb 8 a.m. - 4 p.m.
Sitio 11 - East Wake	5051 Wendell Blvd, Negocio 64, Wendell, 27591	🕒 sáb y dom 8 a.m. - 4 p.m.

MATERIALES ACEPTADOS

 = reciclado = desechado = reutilizado

Tenga en cuenta que los materiales aceptados pueden cambiar. Consulte wake.gov/recycling para obtener la lista más reciente de artículos aceptados.

Electrodomésticos (aire acondicionado, unidades de calefacción, nevera, lavadora, secadora)			
Automotor (anticongelante, aceite de motor, filtros de aceite)			
Baterías (recargables: electrónica, herramientas, teléfonos. no recargables: alcalinas, litio, 9 voltios, pila de botón, reloj ácido de plomo: vehículos, embarcaciones, motocicletas). Terminales de cinta de baterías de litio y de iones de litio.			
Cartón (limpio, aplanado, sin el material de embalaje)			
Químicos (ácidos, bases, fertilizantes, herbicidas, pesticidas, venenos)			
Ropa, zapatos y libros			
Aceite de cocina			
Residuos de construcción (madera, paneles de yeso, alfombras, azulejos). SOLO DESECHOS DEL PROPIETARIO. Sin cemento ni adoquines. Solo sitios 1, 2, 4, 7, 10 y 11			
Discos y cassettes (cd, bluray, dvd, vhs)			
Electrónica (cualquier dispositivo electrónico con cable, teléfonos celulares). Sitios 1, 4 y East Wake solo los fines de semana			
Acabados (lacas, pinturas al aceite, pintura en spray, disolventes, tintes, diluyentes)			
Extintores (químico seco)			
Inflamables (gas, fuel oil, queroseno, tanques de propano)			
Bombillas fluorescentes (Lámparas fluorescentes compactas (CFL) traer bombillas en una caja)			
Restos de comida (carnes cocidas, lácteos, frutas, verduras, huevos, productos homeados, café molido, cajas de pizza, servilletas de papel, toallas de papel). Retire los restos de alimentos del envase. Ubicaciones en wake.gov/foodscrops .			
Basura (desechos domésticos, muebles, colchones, artículos voluminosos de menos de 8 pies de largo/ancho)			
Térmómetros de mercurio			
Reciclaje mixto (latas de metal para alimentos y bebidas, cartones para alimentos y bebidas, botellas y frascos de vidrio, papel mixto, botellas, bandejas, jarras y frascos de plástico). NO REICLAR EN BOLSAS. Prohibido el papel triturado. Prohibidas las bolsas de plástico. Prohibida la espuma de poliestireno.			
Conchas de ostras			
Pintura de látex (Límite de 10 latas, pintura consolidada). Prohibido latas de pintura oxidadas o secas.			
Tanques de propano			
Plástico rígido (baldes, cajas, recipientes de almacenamiento, muebles de plástico). Quitar partes de metal y no plásticas. Más información: wake.gov/SHORTURL Solo sitios de North y South Wake			
Chatarra (bicicletas, accesorios, marcos, escaleras, metales mixtos, tuberías, llantas, fregaderos, parrillas, cortadoras de césped). El combustible y aceite deben ser drenados del equipo eléctrico.			
Neumáticos (llantas extraídas, 5 o más neumáticos requieren el Formulario de certificación de neumáticos de desecho de Carolina del Norte, disponible en wake.gov/tires)			

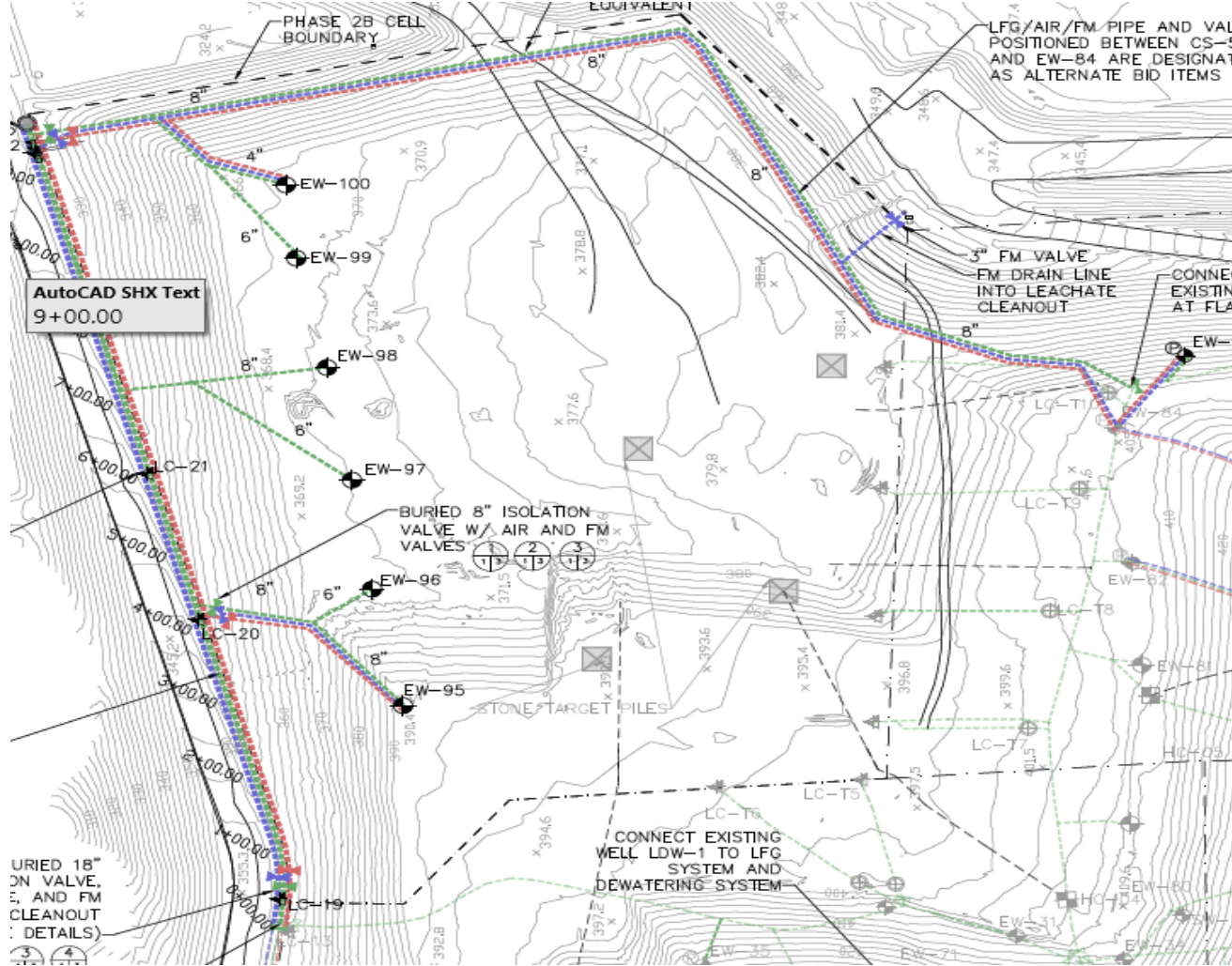
Los usuarios de camiones con caja, remolques cerrados y remolques de dos ejes deben tener un Pase de Basura para acceder a los Centros de conveniencia. Solicítelo en wake.gov/recycling.

Handy Facility Guide NOW in Spanish

A faint, light blue map of Wake County is centered in the background of the slide. The map shows the county's irregular shape with various internal boundaries.

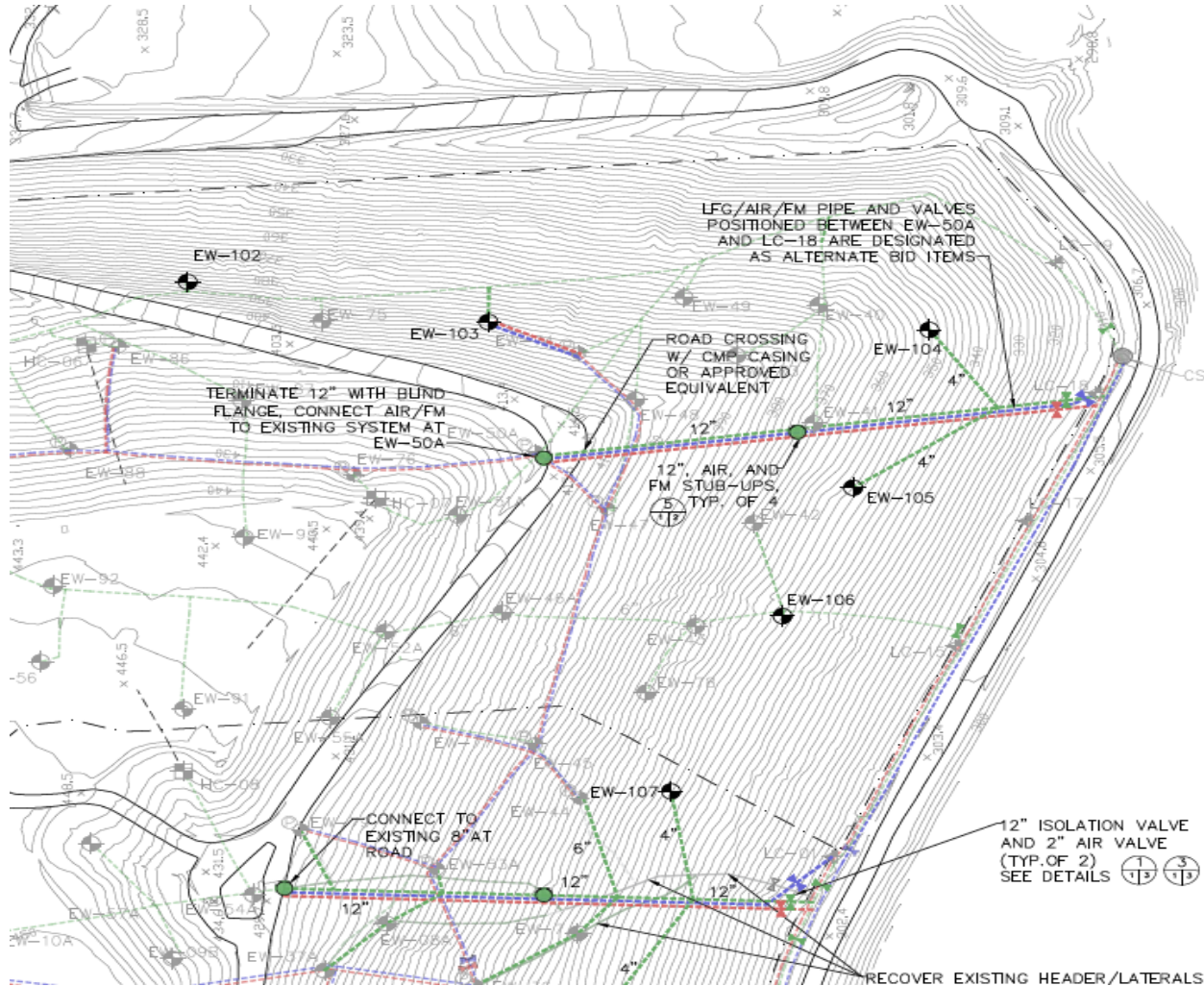
Landfill Projects Update

LFG Collection System Expansion



- \$657K in improvements
- Work started 3/20
- Adds first 10 collection components in Phase 2B (active cell)
 - 3 years ahead of regulatory mandate
 - Enhances odor control
 - Added collection piping for redundancy and resiliency

LFG Collection System Expansion



- **Addition LFG components in preparation for interim cover**
 - 8 shallow vertical wells to capture LFG near the toe of Phase 2A slopes
 - Larger header pipe under interim cover area increases flow capacity
 - 3 forcemain discharge locations for increased dewatering capacity (expected to improve LFG collection)

Landfill Cover Areas

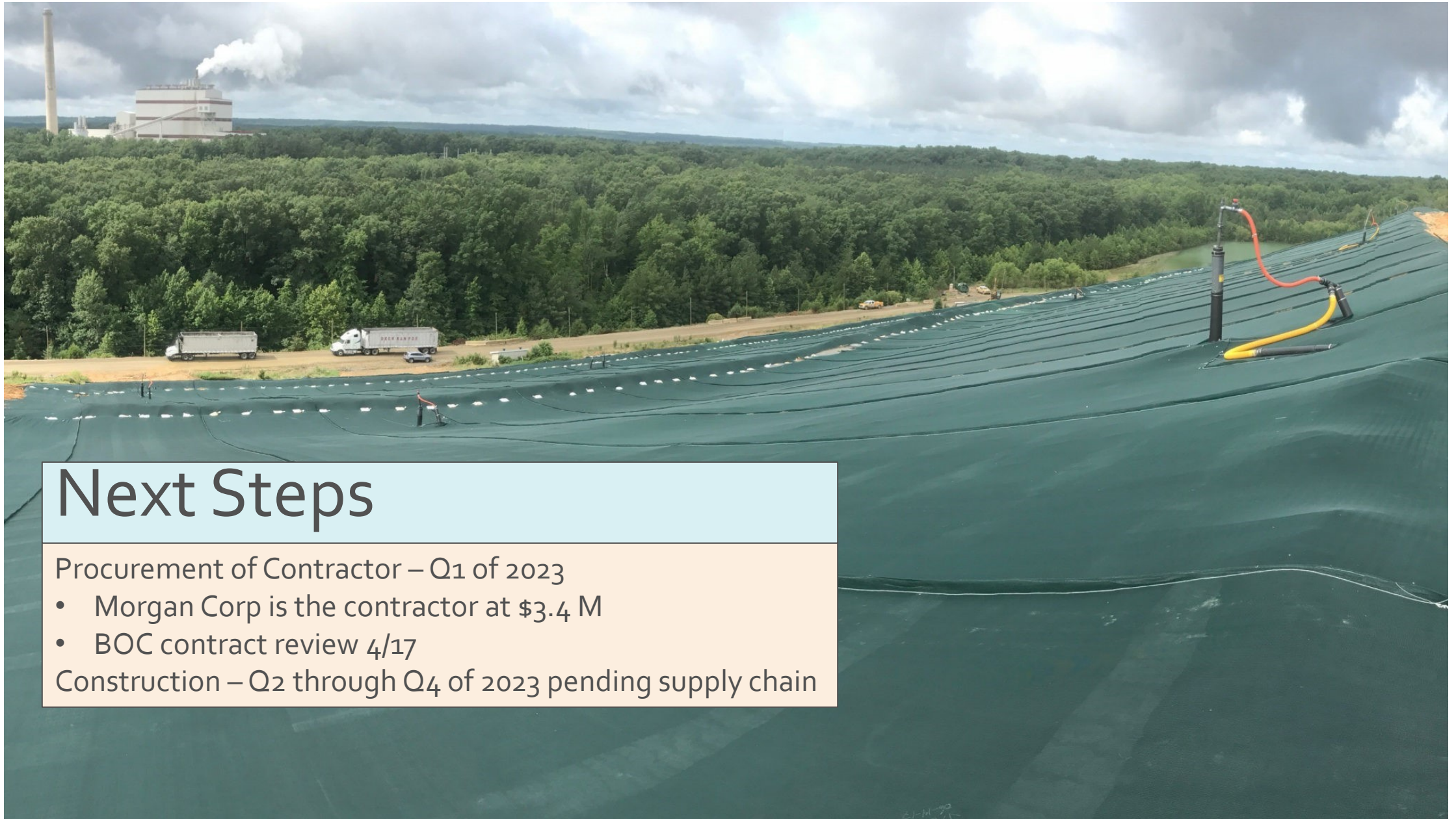
EXISTING FINAL
CLOSURE CAP AREA

WASTE FILL OVER
NEXT 2-3 YEARS

FUTURE LANDFILL
EXPANSION AREA

PROPOSED INTERIM
COVER AREA

- **Purple Area – No Cover**
 - Limited cover life span
 - Remove after ~1 year in service
- **Green Area – Cover**
 - Current Interim Cover project limits
 - South slope is at final grades
- **Red Area – Current Covered Area**



Next Steps

Procurement of Contractor – Q1 of 2023

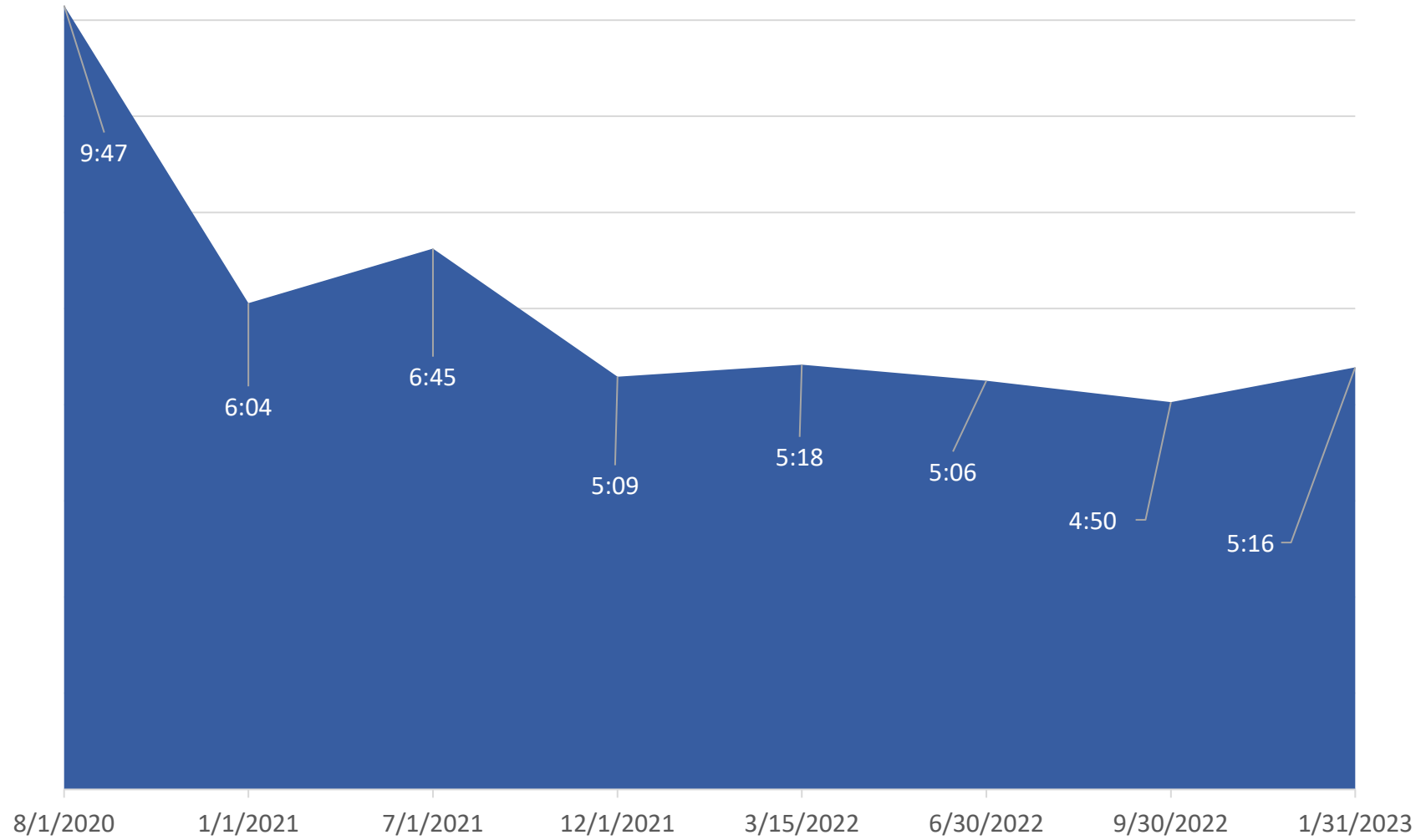
- Morgan Corp is the contractor at \$3.4 M
- BOC contract review 4/17

Construction – Q2 through Q4 of 2023 pending supply chain

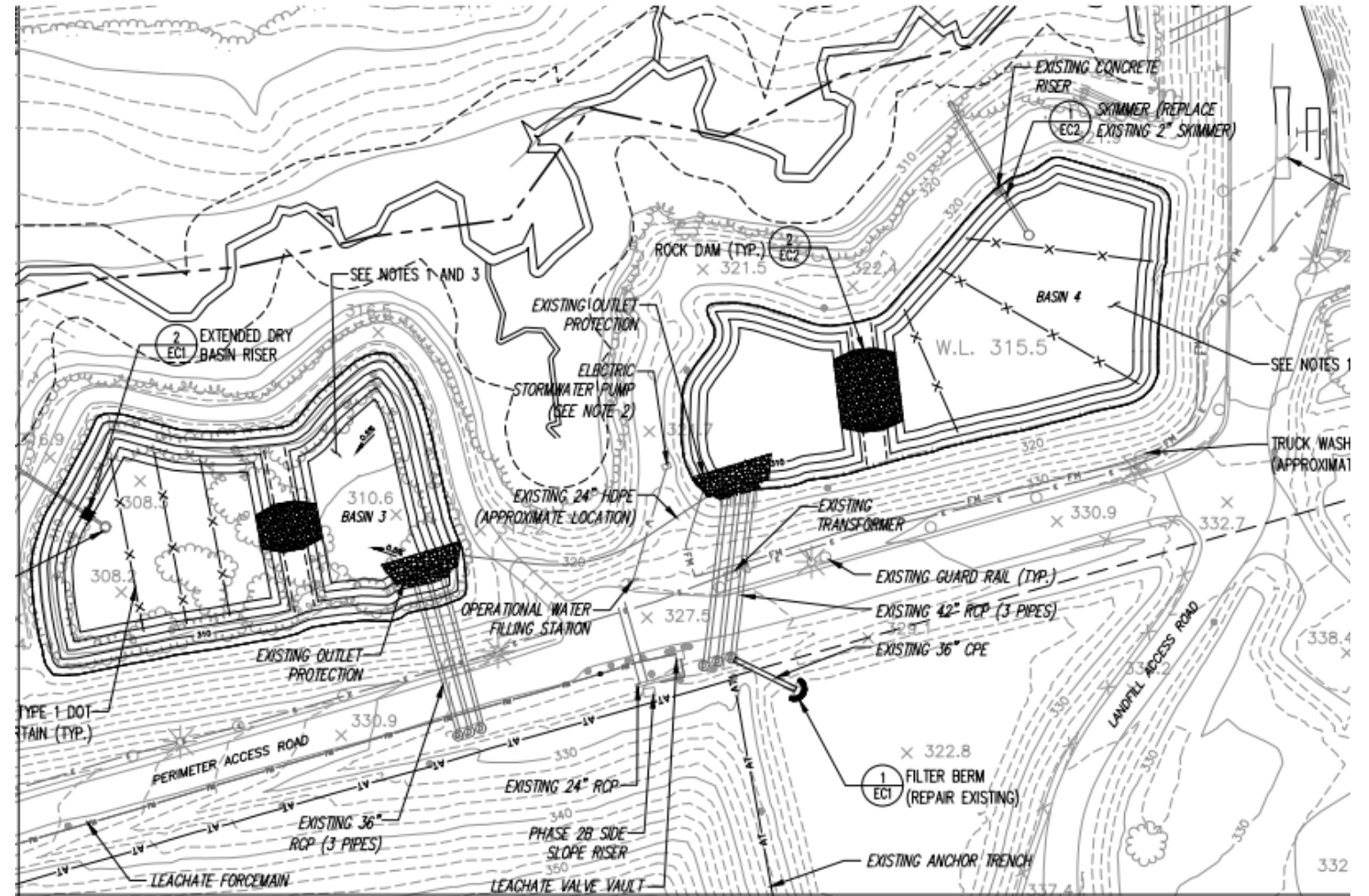
Operational Update – GFL

- Consistent Closure Times - **January** average 5:16pm.
- Sedimentation basin improvements.
- Waste Fill Plan – Current elevations of waste placement 399 ft. – 419 ft.
- Reverse Osmosis Project.
- Wheel Wash Project.
- Recent Closure Photos – Full cover on New Years Eve, Christmas & Thanksgiving

AVERAGE CLOSE TIMES

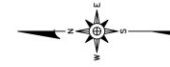
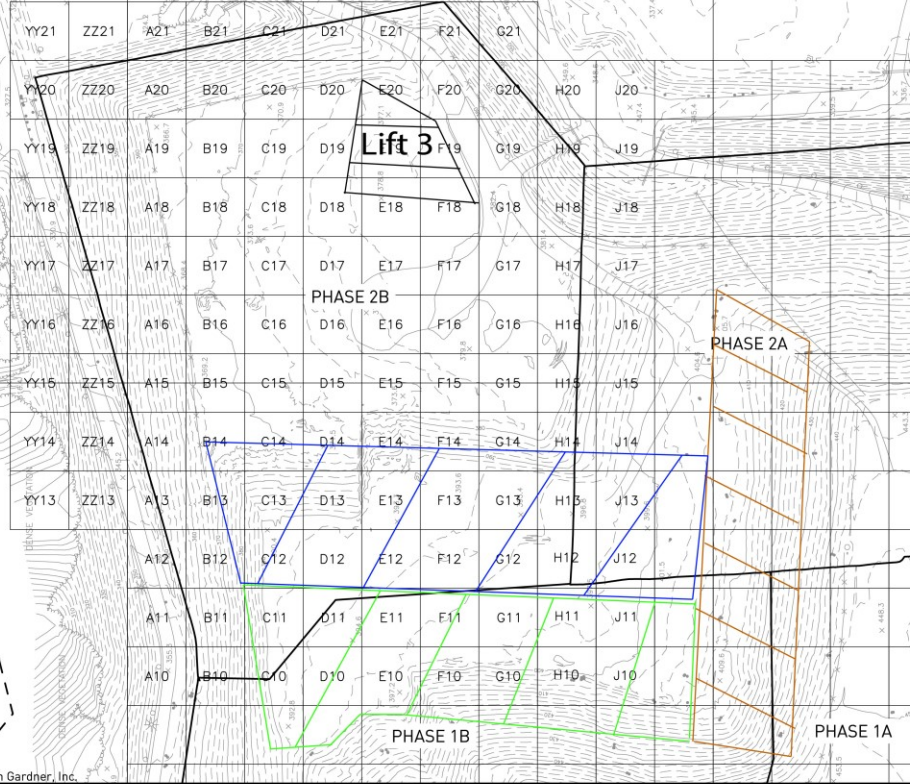


Sedimentation Basin Improvements



G:\CAD\Wake County\South Wake Landfill\Southwake 14-1\Sheet\WAKE-BD433.dwg - 8/17/2022 1:56 PM

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Fill Plan 2B Lift 4
Phase 1 Black Sept 30-Oct 17
Phase 2 Mustard Oct 17-Nov 17
Phase 3 Green Nov 17-Dec 17
Phase 4 Blue Dec 17-Jan 17

*Phase 2 will be constructed from East to West.
All remaining will start South and fill North.
Final area near access rd will be filled from

LEGEND
- - - - - 150' EXISTING 10' CONTOUR
- - - - - 2' EXISTING 2' CONTOUR
- - - - - APPROXIMATE PROPERTY LINE

REFERENCES
1. EXISTING TOPOGRAPHY FROM AERIAL PHOTOGRAPHY DATED JULY 17, 2022 BY COOPER AERIAL SURVEYS, CO., PHOENIX, AZ.
2. PROPERTY LINE SURVEY DATED JULY 2002 BY MCKIM & CREED, CARY, NORTH CAROLINA.



PREPARED FOR:
**SOUTH WAKE MSW LANDFILL
WASTE PLACEMENT GRID
PHASE 2B**

DESIGNED BY:
C.T.J.

APPROVED BY:
J.C.L.

SCALE:
AS SHOWN

FIGURE NO:
2

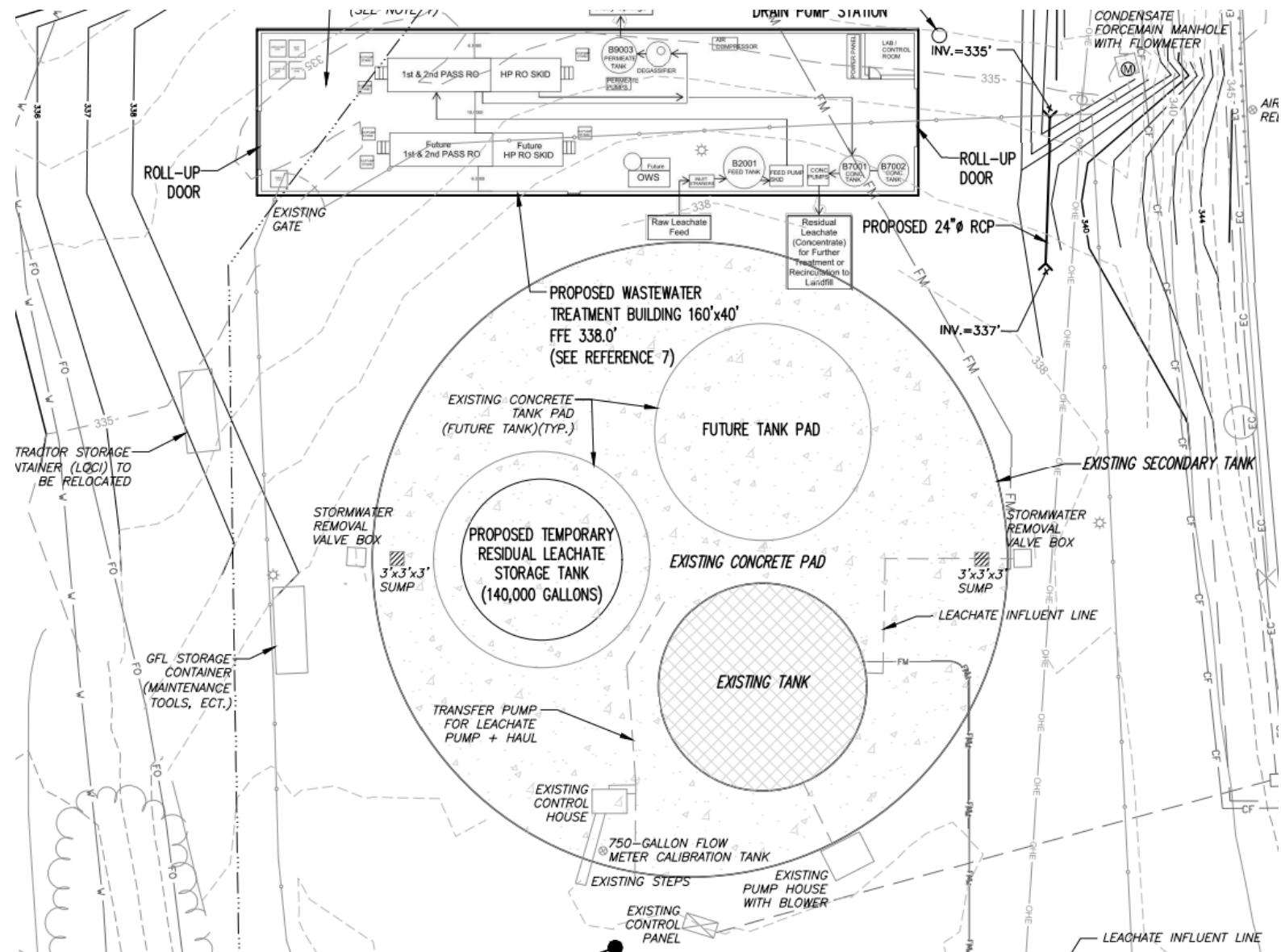
DATE:
Aug 2022

PROJECT NO:
SWAKE 15-3

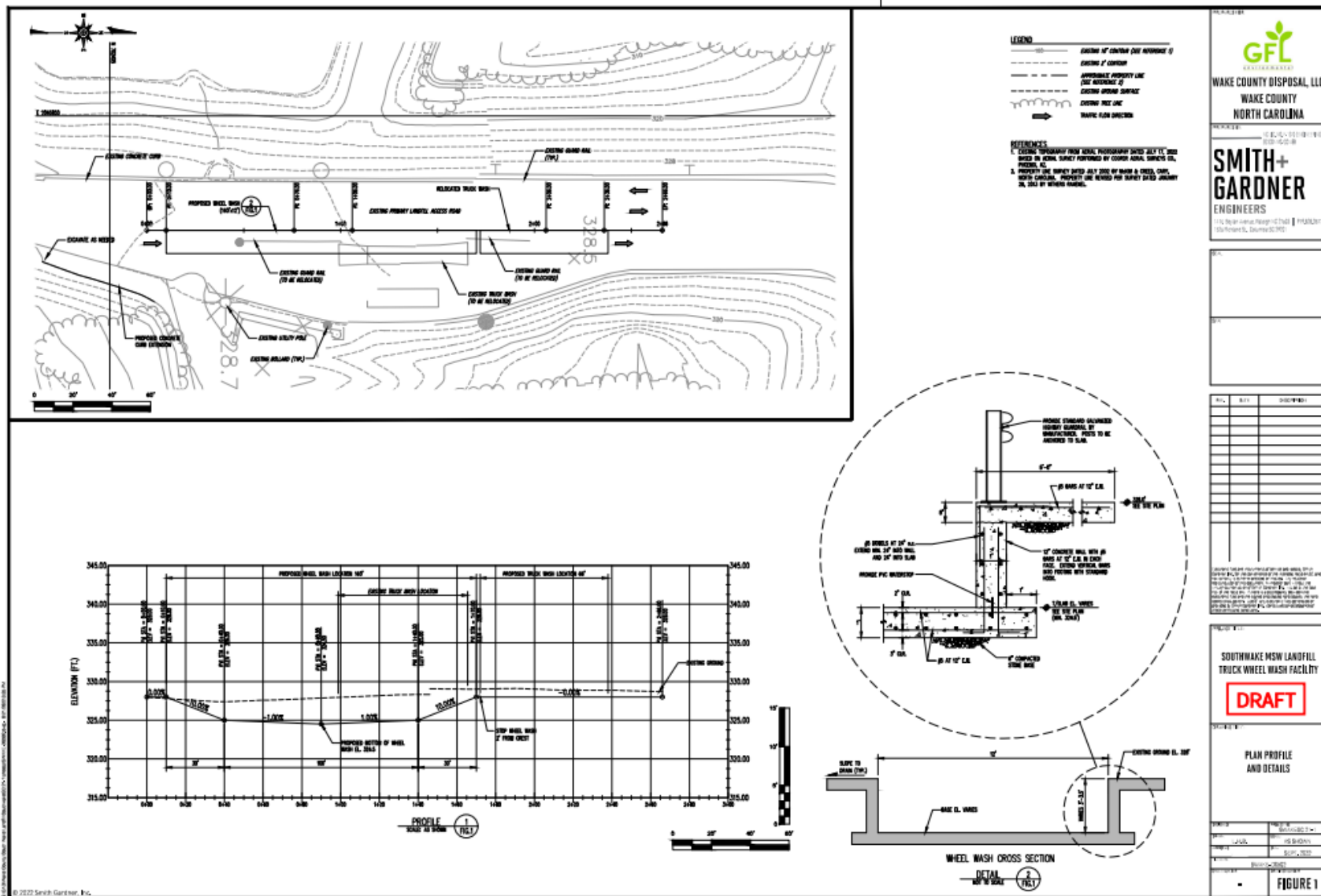
FILE NAME:
WAKE-BD433


PREPARED BY:
N.C. L.E. F-707 ENGINEERING
S.C. 0240.0048

SMITH+GARDNER
14 N. Boyer Avenue, Raleigh, NC 27606 | 919.688.8577
1325 S. McDowell St., Durham, NC 27701









GFL
GEOTECHNICAL

WAKE COUNTY DISPOSAL, LLC
WAKE COUNTY
NORTH CAROLINA

PROJECT NO. 17-0001-010
DATE 10-15-2017

SMITH+GARDNER
ENGINEERS

1110 North Main Street, Suite 100 | Durham, NC 27601
(919) 286-1000 | www.smithgardner.com

NO.	REV.	DESCRIPTION
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SOUTH WAKE MSW LANDFILL
TRUCK WHEEL WASH FACILITY

DRAFT

PLAN PROFILE AND DETAILS

DATE	10-15-2017
BY	JSB/DMC
CHECKED	JSB/DMC
APPROVED	JSB/DMC
SCALE	AS SHOWN

FIGURE 1

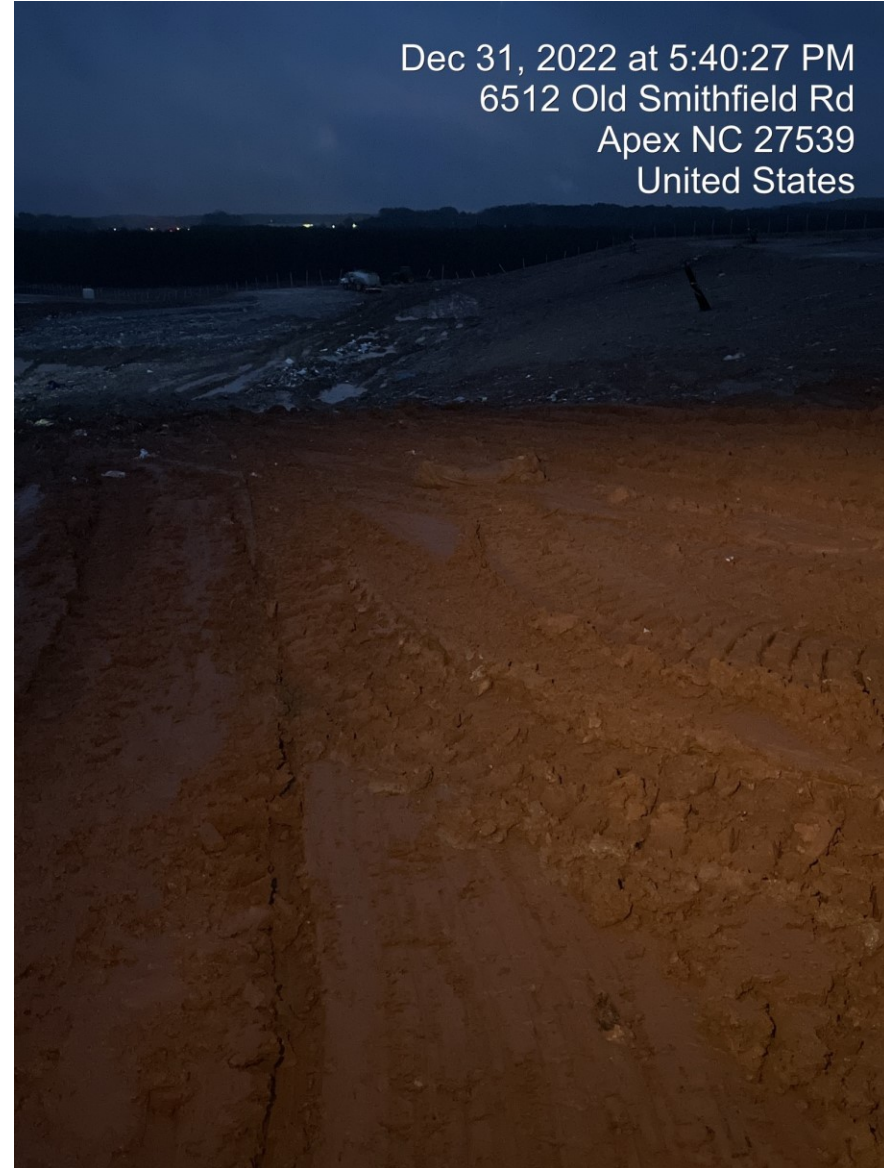




Oct 19, 2022 at 5:01:52 PM
6512 Old Smithfield Rd
Apex NC 27539
United States



Nov 23, 2022 at 5:29:23 PM
6512 Old Smithfield Rd
Apex NC 27539
United States

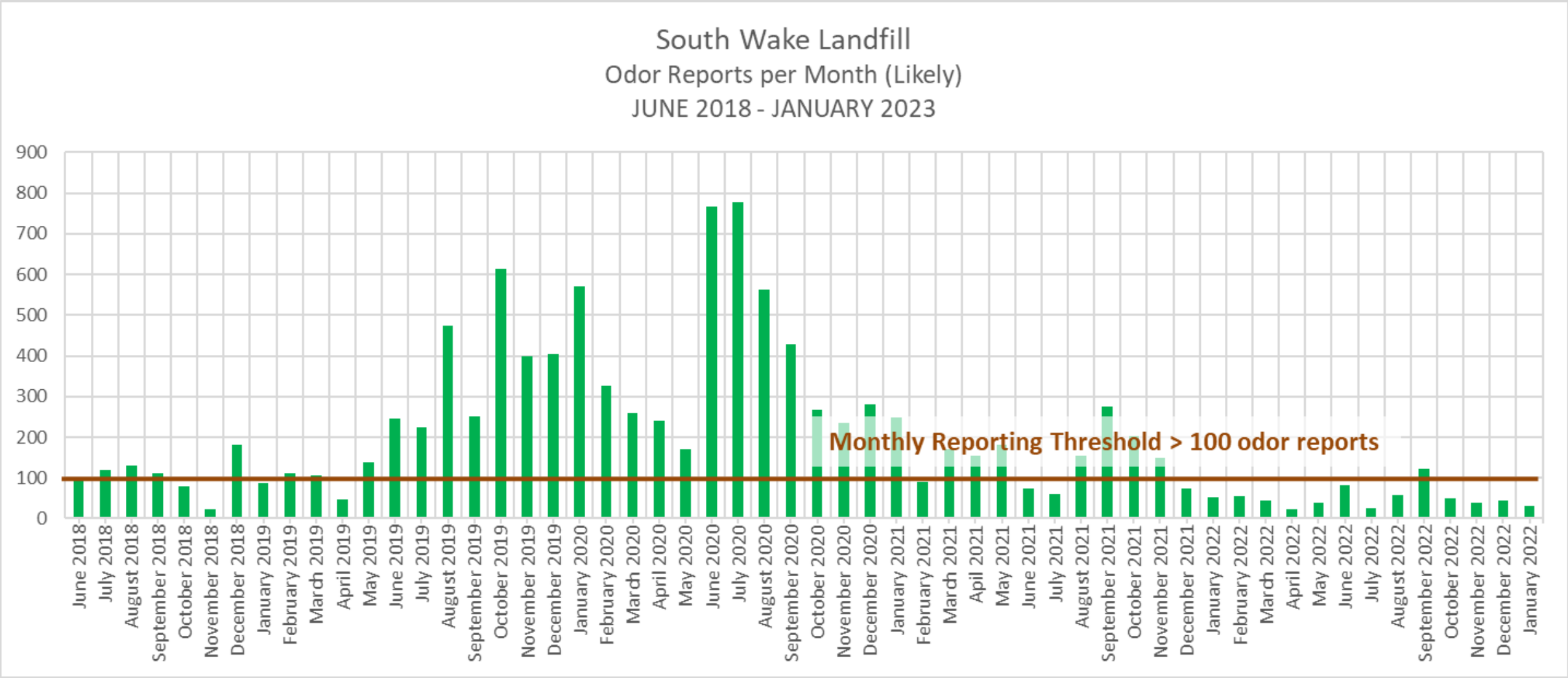


Dec 31, 2022 at 5:40:27 PM
6512 Old Smithfield Rd
Apex NC 27539
United States



Data and Metrics

Odor Reporting Trends



Comparing Odor Reports for the Same Month in Different Years

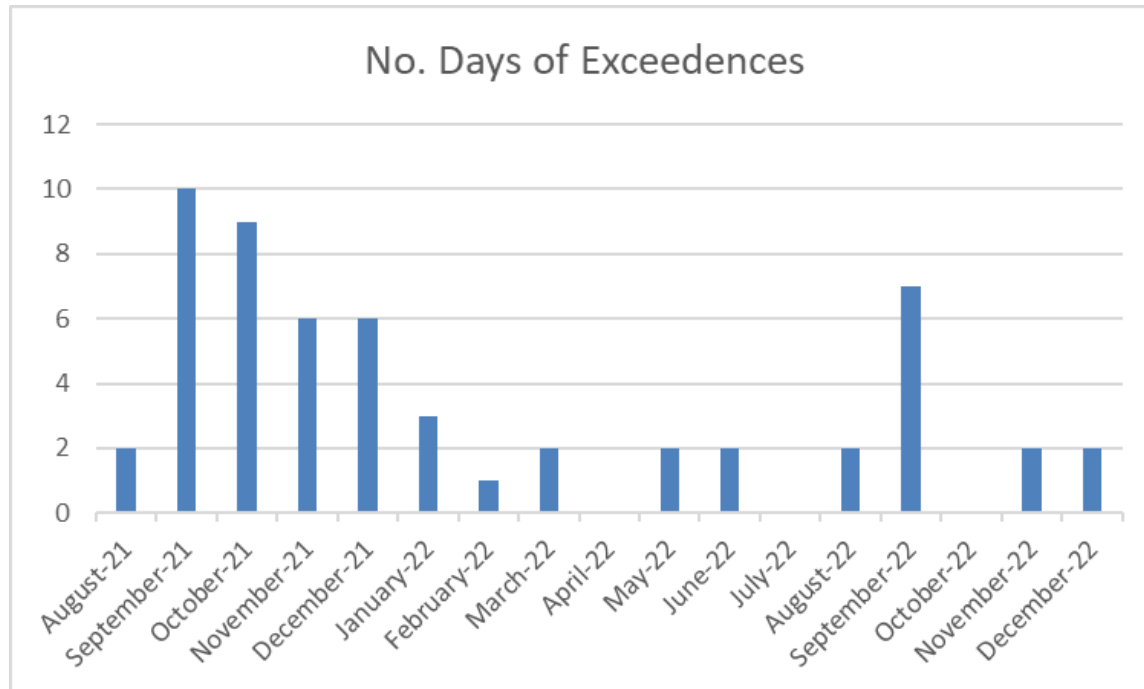
Month to Month Odor Reports (Likely)					
	2018	2019	% change from 2018 to 2019	2020	% change from 2019 to 2020
January	18	88	389%	570	548%
February	15	112	647%	325	190%
March	29	106	266%	259	144%
April	14	48	243%	240	400%
May	14	137	879%	170	24%
June	96	245	155%	766	213%
July	120	224	87%	779	248%
August	130	474	265%	562	19%
September	110	251	128%	427	70%
October	79	613	676%	267	-56%
November	22	400	1718%	235	-41%
December	180	405	125%	280	-31%
Totals	827	3103	275%	4880	57%

Comparing Odor Reports for the Same Month in Different Years

Month to Month Odor Reports (Likely)											
	2018	2019	% change from 2018 to 2019	2020	% change from 2019 to 2020	2021	% change from 2020 to 2021	2022	% change from 2021 to 2022	2023	% change from 2022 to 2023
January	18	88	389%	570	548%	249	-56%	51	-80%	31	-39%
February	15	112	647%	325	190%	89	-73%	55	-38%		
March	29	106	266%	259	144%	171	-34%	43	-75%		
April	14	48	243%	240	400%	153	-36%	22	-86%		
May	14	137	879%	170	24%	180	6%	40	-78%		
June	96	245	155%	766	213%	74	-90%	82	11%		
July	120	224	87%	779	248%	61	-92%	24	-61%		
August	130	474	265%	562	19%	153	-73%	57	-63%		
September	110	251	128%	427	70%	275	-36%	123	-55%		
October	79	613	676%	267	-56%	203	-24%	50	-75%		
November	22	400	1718%	235	-41%	150	-36%	39	-74%		
December	180	405	125%	280	-31%	74	-74%	43	-42%		
Totals	827	3103	275%	4880	57%	1832	-62%	629	-66%	31	

Town Metrics – Daily Odor Reports

- Reporting started in August 2021
- Significant decreases in “bad odor days” during 2022



≥ 5 odor reports w/in 1 hour
≥ 24 odor reports/ day

Town Metrics – Monthly Odor Reports

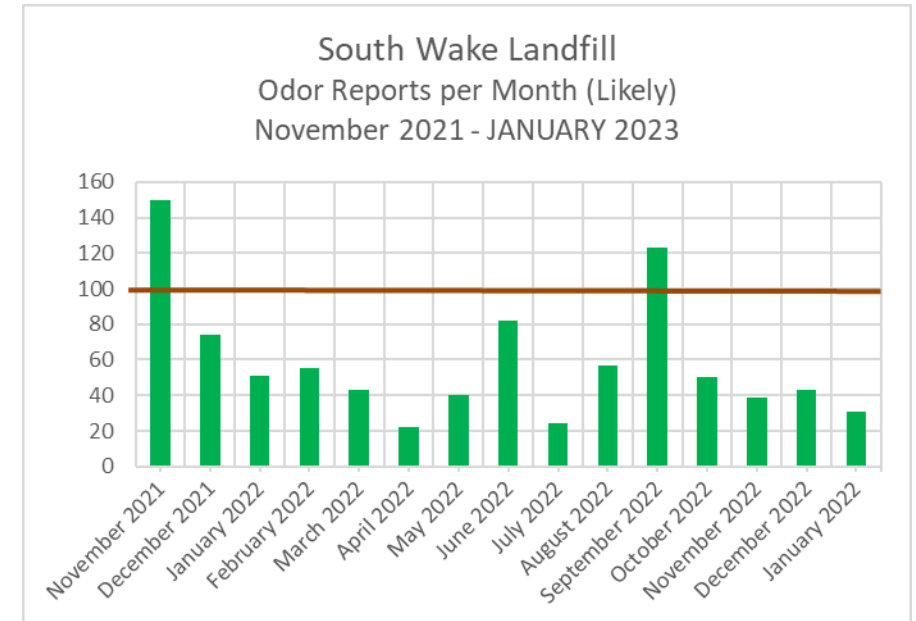
Thresholds

100 odor reports likely attributable to the landfill
OR 200 total odor reports in a month

Report generated by consultants

County and GFL use info to
consider how we can prevent
future issues

Hit the more than 100 in Sept. –
first since November of 2021



Town Metrics – Distance of Odor Reports from the Landfill

Monthly report includes:

Distance Metric Summary												
		March '22	April '22	May '22	June '22	July '22	Aug '22	Sept '22	Oct '22	Nov '22	Dec '22	Jan '23
Disance	Weighted Metric %	Weighted %	Weighted %	Weighted %	Weighted %	Weighted %	Weighted %	Weighted %	Weighted %	Weighted %	Weighted %	Weighted %
> 0.5 miles	> 70%	78%	83%	94%	81%	87%	91%	88%	92%	93%	93%	47%
0.5 – 1 mile	<20%	21%	16%	5%	16%	12%	8%	11%	7%	6%	7%	49%
1 – 2 miles	<8%	1%	1%	0%	2%	1%	1%	1%	1%	1%	0%	4%
2 – 3 miles	<1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
3+ miles	<1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

- We view January's numbers as an anomaly that we will monitor over the next couple of months – likely related to unusual weather.



Questions?

Thank You!