Targeting the Unknown

20/20 STORMWATER ROUNDTABLE Sean Ireland, U.S. EPA

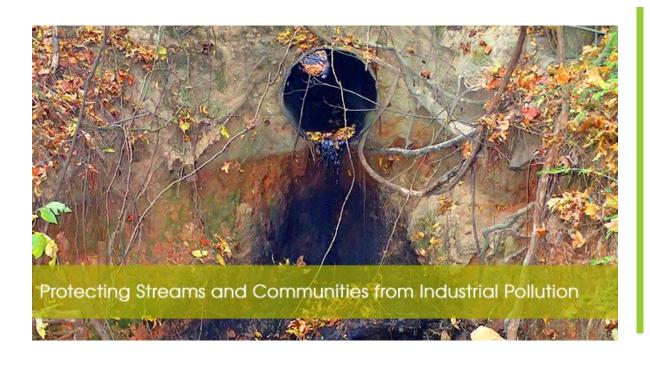


Discovery

Chattahoochee Riverkeeper 2014 newsletter claimed to have identified 400 facilities without a permit in their watershed (e.g., \$10 million fine)

CRK took extensive "manual" efforts, looking at aerial imagery and investigating sites adjacent to permitted facilities

Stormwater Roundtable 2014, attendees suggested comparing permitted universe against Dun & Bradstreet





American Sealcoat Manufacturing

Initial assessment

ECHO data is robust, but not comprehensive

Must acquire state's current universe of permittees

Dun & Bradstreet information is extensive and largely accurate

Geocoding addresses and comparing their lat/long produced moderate success, but states identified several false positives



Green Parts Auto Salvage

Atlanta

Enhanced targeting traits

Hoovers 220,000 facilities

Address

Parent company

SIC codes

Location type

Manufacturing Y/N

Facility size

Number of employees

Annual revenue

EPA ECHO 20,000 facilities

Address<u>es</u>

Watershed

Impairments

Impaired segments

Sector pollutants

Impairment contributor

DW source protection area

Distance to waterbody

Hallman Foundry North Carolina







Address Comparison Tool (ACT)

Contracted a programing effort for comparing address information Business name, street number, street name, city, zip, SIC code

Implemented OSHA's similar approach into MSAccess for "simplicity" Sectors added by way of SIC code

Pollutants likelihood to contribute to waterbody impairment

Score generated for each comparison, deduplication tool as well

Assess against ALL addresses in ECHO (RCRA, CAA, CWA, TRI, etc.)

Other individual ACT applications (FRS, P/T, HVPS,)

Hoovers ID	Hoovers_Name	Matches	Of Potential Matches	FRS ID for the Potential Match from EPA Systems			CITY	STATE	SIC	ORIG EMPLOY		Line_Of_ Business	
799963582	Lancer Textile	0	0		Lancer Textile	1 Mill Rd	Spartanburg	SC	50930104	2	Spartanbu	Scrap and	3016
3354230	Sonoco Products Comp	ŗ 9	2	SCR002572;110000587491	Sonoco Products Company	1 N 2nd St	Hartsville	SC	26310000	2000	Darlingtor	Paperboai	18349 I
79220949	Indian River Soap	0	0	1	Indian River Soap	1 N Forest Beach Dr	Hilton Head Is	SC	28410000	5	Beaufort (Soap and	9015
80293958	Kentwool Developme	2	1	110045989935;	Kentwool Development	1 N Main St Ste 903	Greenville	SC	22810305	80	Greenville	Yarn spinr	13226
131457640	Marthas Draperies	0	0		Marthas Draperies	1 N Miller St	Inman	SC	23919903	3	Spartanbu	Curtains a	3204
193349862	Panolam Industries, In	1 2	1	110041019509;	Panolam Industries, Inc.	1 Nevamar Pl	Hampton	SC	30830000	300	Hampton	Laminated	85046
3345949	Carolina Pride Foods, I	7	2	SCR005783;110000354599	Carolina Pride Foods, Inc.	1 Packer Ave	Greenwood	SC	20139910	277	Greenwoo	Sausages	250000 I
1667161	Michelin North Americ	0	0	1	Michelin North America, Inc	1 Parkway S	Greenville	SC	30110000	1200	Greenville	Tires and i	275000 I
42226348	CSC	0	0		CSC	1 Poston Rd Ste 235	Charleston	SC	28440000	2	Charlesto	Toilet prep	parations !
-								-					

Туре	_	acturing	Revenue _US_Doll ars_milli on		Sector	HU_12_N AME	NEAR_DI ST	gmentCo unt_303d andTMDL	pCauseS egmentC ount_303 dTMDI-	SourcePr otection	Sector_I mpairme nt_Match	AIR	CEDRI	EIS	FRS	GHG	ICP	RCR	RMP	STATE	TRI	TSCA	Any_Mat ch
		<u> </u>						-	Ľ		7	*	7	Y	¥	Ť	¥	¥	Ľ	¥	Ľ	¥	
SINGLE_L	OCATION	No	0.313479	Recyclable	N1	Headwate	529	6	7	0													No
HEADQUA	Sonoco Pr	Yes	4964.369	Converted	B1	Everlastin	386	4	4	0		35	35	5	35	5	30	5		24	21	35	Yes
BRANCH	Indian Riv	Yes		Soap & Ot	C3	Broad Cre	213	3	3	0													No
SINGLE_L	OCATION	Yes	5.8	Textile Ma	V1	Brushy Cre	442	6	7	0.045817					21			21					Yes
SINGLE_L	OCATION	Yes	0.076	Linens Ma	V1	Upper Law	728	8	8	0.546171													No
BRANCH	PANOLAN	Yes		Plastic & F	Y2	Mill Creek	149	4	4	0		26	5	5	5		5	26	5		5	5	Yes
HEADQUA	Carolina P	Yes	184.5	Meat Prod	U3	Wilson Cr	119	6	7	17.12567		32		26	26		5	32	32	32	32		Yes
HEADQUA	Michelin I	Yes	8924.199	Tire Manu	Y1	Brushy Cre	663	12	12	0.002196													No
SINGLE_L	OCATION	Yes	0.074425	Personal (C3	Lower Ash	498	4	5	0													No

Approximate outcomes

Year	State	Number of Inspections	Facilities not permitted
FY15	GA	12	7
FY16	NC	5	5
FY17	KY	3	2
FY17	MS	12	10
FY17	AL	11	9
FY19	SC	17	14
FY19	FL	7	7
FY19	KY	8	8
FY20	TN	8	8
		83	70

Familiar companies

Mt. Olive

Mount Olive Pickle

Wastewater permit, but no stormwater permit



Cargill

Industrial permit violations, but also unpermitted construction

Coca-Cola and Pepsi bottling sites unpermitted

Pirouline cookies, unpermitted



Combined stormwater/wastewater sump overflow to stream

Blue Bell ice cream, unpermitted







DeBeukelaer Corporation





Emory University Enlisted

Sample size selected for **each subsector** to ensure 90% level of confidence with a 10% margin of error (8-state population = 213,483) (n = 2,454)

Applied ACT to TN, AL, NC, and SC (4-state population = 82,290) (n = 2,324)

Created a subsector-specific index with sample pictures for consistent scoring

Aerial review of 2,324 sites not found in ECHO or in state databases suggest **HALF need a permit or NEC** and have failed to obtain one

- > 82,290 Dun & Bradstreet universe
- > 75,007 After deduplication
- > 46,846 After subtracting all NPDES permits and State stormwater sites



Nonfiler/unpermitted status

99% Level of confidence, < 3% margin of error

Scoring	Percent	Aerial	Sites	Per State
0, x	47%	1,089	21,956	5,489
1	23%	528	10,645	2,661
2, 3	22%	507	10,222	2,555
4, 5, 9	9%	200	4,032	1,008
		2,324	46,846	11,712

After running ACT on all industrial stormwater SIC codes, approximately HALF failed to obtain a permit or file for No Exposure Certification

Subsectors of Interest

Industry	None		Minor		Significant		Total	Description
A1	20	41%	16	33%	13	27%	49	Sawmills and Planing Mills
B1	9	26%	18	53%	7	21%	34	Paperboard Mills
E2	20	34%	25	43%	13	22%	58	Concrete, Gypsum, and Plaster
F1	21	36%	29	49%	9	15%	59	Steel Works, Furnaces, Finishing
J1	28	62%	9	20%	8	18%	45	Sand and Gravel
M1	30	54%	18	32%	8	14%	56	Automobile Salvage Yards
N1	28	47%	21	36%	10	17%	59	Scrap and Waste Recycling
U2	12	35%	15	44%	7	21%	34	Fats and Oils Products
Totals	1,089	47%	1,035	45%	200	9%	2,324	

Sectors of Interest

Industry	None		Minor		Significant		Total	Description
А	114	56%	70	34%	21	10%	205	Timber Products
В	32	39%	39	47%	12	14%	83	Paper and Allied Products
С	125	48%	116	44%	22	8%	263	Chemicals and Allied Products
F	81	36%	126	55%	21	9%	228	Primary Metals
J	54	56%	27	28%	15	16%	96	Mineral Mining and Dressing
M	30	54%	18	32%	8	14%	56	Auto Salvage
N	28	47%	21	36%	10	17%	59	Scrap Recycling
Totals	1,089	47%	1,035	45%	200	9%	2,324	

Great, but what about...

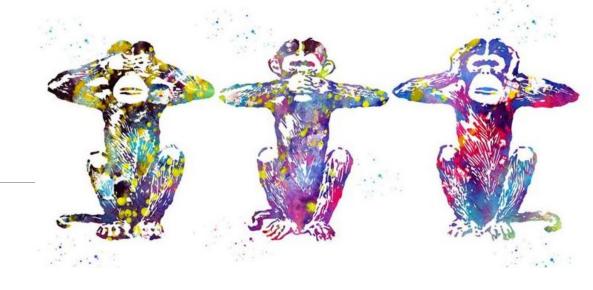
My state Impact on number of employees

My region Surrounding communities, EJ

Industry variations Proximity to waters

Significant noncompliance Large corporations

Facility Locator



Full D&B integration with ECHO

Your own batch upload into an ECHO interface

Road block...

Link to OSHA data

User data interface 000 Enlist other states and regions

Inquire further with other media

"Non"-Files available to you

Address Comparison Tool (ACT) and user guide

SIC Codes by Sector and Subsector

D&B files

Emory results

Unpermitted facility inspection form

Nonfiler Expedited Settlement Agreement (ESA) Policy

Crosswalk table for pollutants

Crosswalk table for SIC codes

Promise you'll keep me informed, e.g., big fish



Stormwater Inspector Training Library

Collected over 300 presentations, Boiled down to 71 modules

Sortable library of presentations (descriptions, slide count)

21 Industrial, 22 Construction, 28 MS4

Example agendas for construction, industrial, MS4, and all

To be presented/modified by anyone moderately savvy in stormwater

Useful to share with new inspectors



Sean Ireland

202-564-2923

ireland.sean@epa.gov