

Targeting the Unknown

20/20 STORMWATER ROUNDTABLE

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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

Addresses

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 programming 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,)

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

Mount Olive Pickle

- Wastewater permit, but no stormwater permit

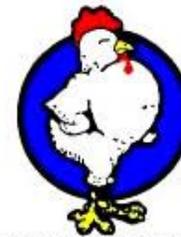


Cargill

- Industrial permit violations, but also unpermitted construction



Coca-Cola and Pepsi bottling sites unpermitted



Pirouline cookies, unpermitted

KOCH FOODS
America's Chicken Specialist

Koch Foods, poultry

- 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



EMORY
UNIVERSITY

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
A	114	56%	70	34%	21	10%	205	Timber Products
B	32	39%	39	47%	12	14%	83	Paper and Allied Products
C	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

My region

Various ecoclimates

Industry variations

Significant noncompliance

Impact on number of employees

Surrounding communities, EJ

Drinking water

Proximity to waters

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

\$329,000

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

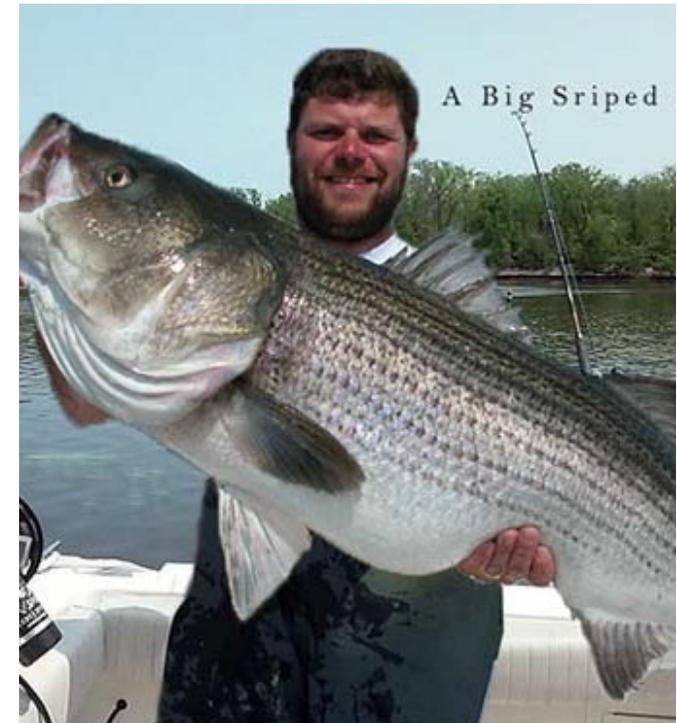
Unpermitted facility inspection form

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



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