



Landfills and Beneficial Fill - E&SC regulatory perspective

DEMLR Local Program Workshop - April 2019

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DWM- Solid Waste



Overview



- Solid Waste Management Activities – Applicable Rules/Permits (15A NCAC 13B)
 - Landfills - Municipal Solid Waste (MSW) and Construction & Demolition (CD)
 - Landfills – Land Clearing & Inert Debris (LCID)
 - Compost Facilities
 - Beneficial Fills
- Other current crossover topics
- DWM Site Locator Tool
- Enforcement process



Landfills (MSW/CD)

- 41 active MSW (Subtitle D) landfills (~90% publicly owned)
- 56 active C&D landfills
- Landfills are multi-decade construction sites followed by maintenance and monitoring for decades beyond closure
- Life of Site permits could lead to larger areas under construction



Landfills (MSW & CD)

- Most SW rules historically contained E&SC rule language and/or are by reference
- Active landfills may have multiple E&SC and construction stormwater permits, and in some cases individual wastewater permits for leachate management
- Between active landfilling, haul roads and borrow areas for soil cover, and other SW activities, facilities often have very large areas disturbed at any given time.
- Poor soil cover and compaction can lead to severe erosion issues, ponding of water, and slope failures
- Groundcover establishment at landfills can be a major problem due to poor soil quality and landfill gas generation





LCID Landfills

- Commonly referred to as stump dumps
- 3 Categories: Permitted (> 2 acres), Notified (< 2 acres), or On-Site Generated (1/2 ac) disposal footprint
- On-site disposal option: 130A-301.1
- ~ 600 notified sites statewide
 - Nearly 100% of sites intent on disturbing over 1 acre
 - Required soil cover monthly or at 1 acre
- Exempt from industrial stormwater permitting requirements
- Some are covered by E&SC and construction stormwater

Compost Facilities

- Different Facility Types:
 - Type 1: yard and garden waste, silvicultural waste, untreated and unpainted wood waste
 - Type 2: pre-consumer meat-free food processing waste, vegetative agricultural waste, source separated paper or other source separated specialty wastes, which are low in pathogens and physical contaminants
 - Type 3: manures and other agricultural waste, meat, post consumer-source separated food wastes and other source separated specialty wastes or any combination thereof that are relatively low in physical contaminants, but may have high levels of pathogens
 - Type 4: mixed municipal solid waste, post collection separated or processed waste, industrial solid waste, non solid waste sludges functioning as a nutrient source or other similar compostable organic wastes or any combination thereof



Compost Facilities

- Yard Waste Notifications (< 2ac/6000 cu yds. per Qtr.) – considered small Type 1 and exempt from stormwater permitting rules
- Large Type 1 – Small Type 3 are covered under Industrial Stormwater permit NCG 240000
- Large Type 3 & 4 facilities have individual wastewater permits
- Backyard composting and on-farm composting as also described in 13B .1402(g);
- Composting operations for residuals management as described in regulations administered by the Aquifer Protection Section of DWQ and found at 15A NCAC 2T .1100.
- Composting operations with discharges to especially protected receiving waters classified as ORW, HQW, trout waters, PNA waters, or zero-flow streams as described at 15A NCAC 2B .0206.
- Stand-alone mulching-only facilities with no accelerated biological decomposition.



Beneficial Fill

- Rule - Inert debris strictly limited to concrete, brick, concrete block, uncontaminated soil, rock, and gravel
- Statutes allows asphalt to also be included
- No painted materials without testing and DEQ approval
- No excavation for purposes of fill
- Improve land use potential or other approved beneficial reuses.
- No placement in water nor shall contravene groundwater standards
- Comply with all local, state and federal laws





- Permit exemption under current law
- No notification activity is occurring unless complaint received
- Likewise no routine inspection



An aerial photograph showing a residential area on the left with houses and swimming pools, and a commercial area on the right with a parking lot and buildings. A circular overlay is positioned on the left side of the image, containing text and a list. The text 'Ash Structural Fills' is written in a blue, italicized font. Below it is a horizontal line. The list contains two items: 'DWM Regulated Structural Fills 15A NCAC 13B .1700' and 'DWR Structural Fills 15A NCAC 2T .1200'. In the background, a yellow pin is placed on a wooded area, and a blue pin is placed on a building labeled 'Race park USA'.

Ash Structural Fills

- DWM Regulated Structural Fills 15A
NCAC 13B .1700
- DWR Structural Fills 15A NCAC 2T
.1200

Race park USA



Other Current Topics

- Brownfields Program projects – large quantities of soil moving off projects especially in downtown areas
- Temporary Storm Debris Sites
 - 500+ pre-approved debris sites – most are local govt controlled
 - SWS makes an initial check when approving if E&SC permits are required; Post storm sites are different animal. If you see issues or need assistance, let us know.
- Agricultural Exemptions
 - Non-existent in SW law for agricultural operations or bona fide farms
 - What is the true intent?
 - Any fill activity should be routed to Section for determining permitting requirements
- Rules Re-Adoption
 - All SW rules under review now – mid 2021
 - Track what is happening here:
 - <https://deq.nc.gov/about/divisions/waste-management/solid-waste-section/rules-review>

Borrow/Waste

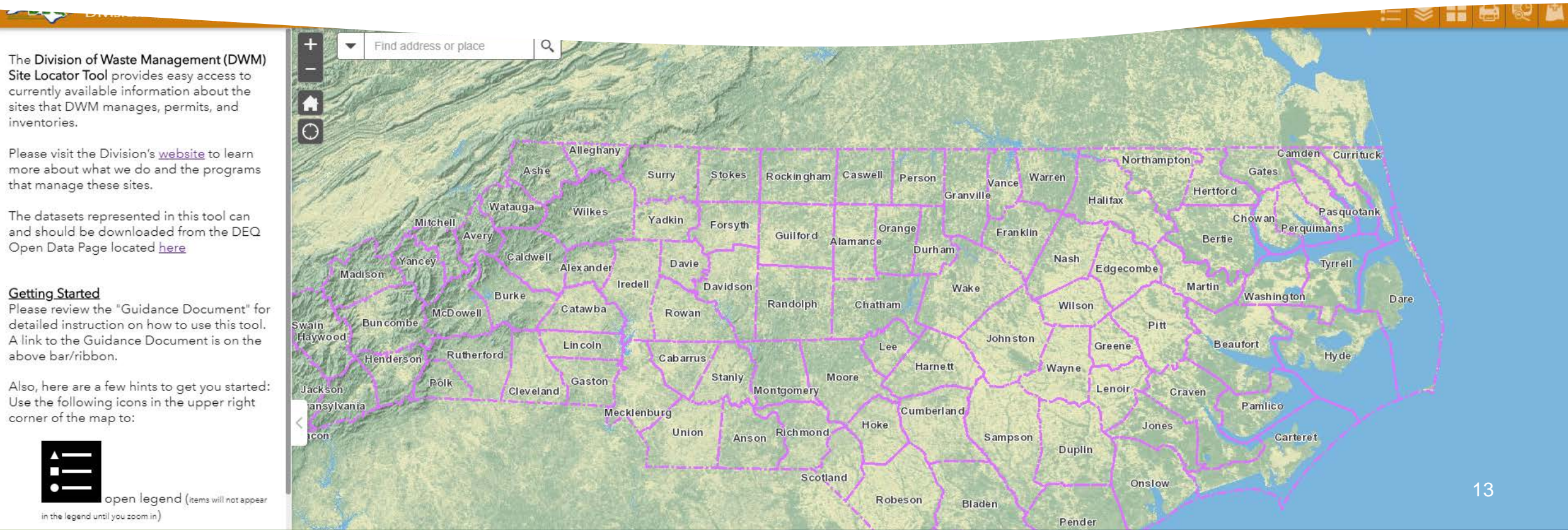


- Borrow/Waste (spoils) areas
 - 15A NCAC 04A .0105(17): "Waste" means surplus materials resulting from on-site construction and disposed of at other locations
 - 15A NCAC 04B .0110 BORROW AND WASTE AREAS - If the same person conducts the land disturbing activity and any related borrow or waste activity, the related borrow or waste activity shall constitute part of the land disturbing activity unless the borrow or waste activity is regulated under the Mining Act of 1971, or is a landfill regulated by the Division of Solid Waste Management.
 - Please be cognizant in reviewing E&SC submittals of the need to refer all applicants utilizing materials other than inerts (uncontaminated soil, gravel or other stone, concrete block, brick or asphalt) as fill.
 - Make sure legal disclaimers in approval letters direct applicants to any/all other possible permits
 - Likewise if your inspection staff see any other material being used as fill, it likely violates your rules and ours - please refer to Section for proper determination



DWM Site Locator Tool

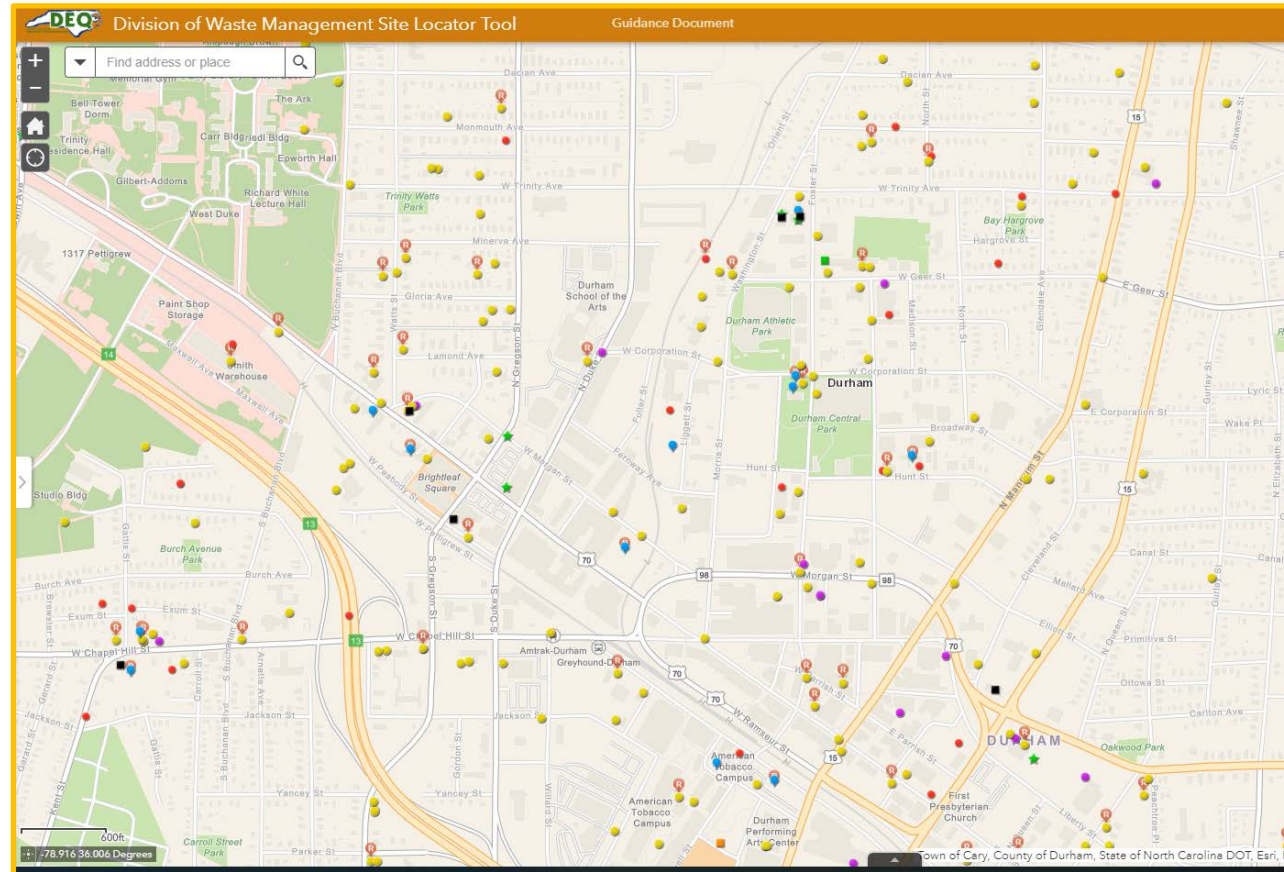
- DWM maintains at least 18 separate inventories of sites that they inspect, permit and/or manage (58,000+ sites).
- DWM has invested heavily in managing these inventories so that they are easily accessible.
- Use of online mapping technology has enhanced the way in which site inventories can be viewed, queried and downloaded.



DWM Site Locator Tool

The DWM Site Locator Tool

- GIS-based Application
- Publically Available
- Query, View, Create Reports and Download Data



Layer List

Layers	
<input checked="" type="checkbox"/> Solid Waste Septage Sites	...
<input checked="" type="checkbox"/> Coal Ash Structural Fills (CCB) (Closed)	...
<input checked="" type="checkbox"/> Other Permitted Solid Waste Facilities (Open)	...
<input checked="" type="checkbox"/> Yard Waste Notification Facilities	...
<input checked="" type="checkbox"/> Permitted Solid Waste Landfills (Open and Closed)	...
<input checked="" type="checkbox"/> Land Clearing and Inert Debris (LCID) Notifications	...
<input checked="" type="checkbox"/> Contaminated Dry-Cleaning Sites	...
<input checked="" type="checkbox"/> Possible Dry-Cleaning Contamination	...
<input checked="" type="checkbox"/> Federal Remediation Branch	...
<input checked="" type="checkbox"/> Inactive Hazardous Sites	...
<input checked="" type="checkbox"/> Pre-Regulatory Landfill Sites	...
<input checked="" type="checkbox"/> Brownfields Program Sites	...
<input checked="" type="checkbox"/> Hazardous Waste Sites	...
<input checked="" type="checkbox"/> UST Incidents	...
<input checked="" type="checkbox"/> AST Incidents	...
<input checked="" type="checkbox"/> UST Active Facilities	...
<input checked="" type="checkbox"/> Petroleum Contaminated Soil Remediation Permits	...
<input checked="" type="checkbox"/> Land Use Restriction and/or Notices	...



(1 of 3) ▶ □ ✕

Inactive Hazardous Sites

Site ID: NONCD0001869
 Name: HOOVER ROAD
 CONTAMINATION
 Address: 211 SOUTH HOOVER ROAD
 City: DURHAM
 County: Durham
 Contact: Eastern Unit Supervisor

Documents [Link](#)

[Zoom to](#) ...

Durham

Remedial Investigation Work Plan
Former PSNC Warehouse and Training Center
211 South Hoover
Durham, North Carolina
NONCD 0001869

February 6, 2012

Prepared by:
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H&H Job No. SCA-003

Prepared for:
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 704-586-0007

3334 Hillsborough Street
 Raleigh, NC 27607
 919-847-4241

Engineers License # C-1269
 Geologists License # C-245

Laserfiche WebLink

Home Browse Search

Customize Search ▼
 Records Management Search ▼

Template ✕

Template
 WM ▼

Subdivision ▼

Doc_Category ▼

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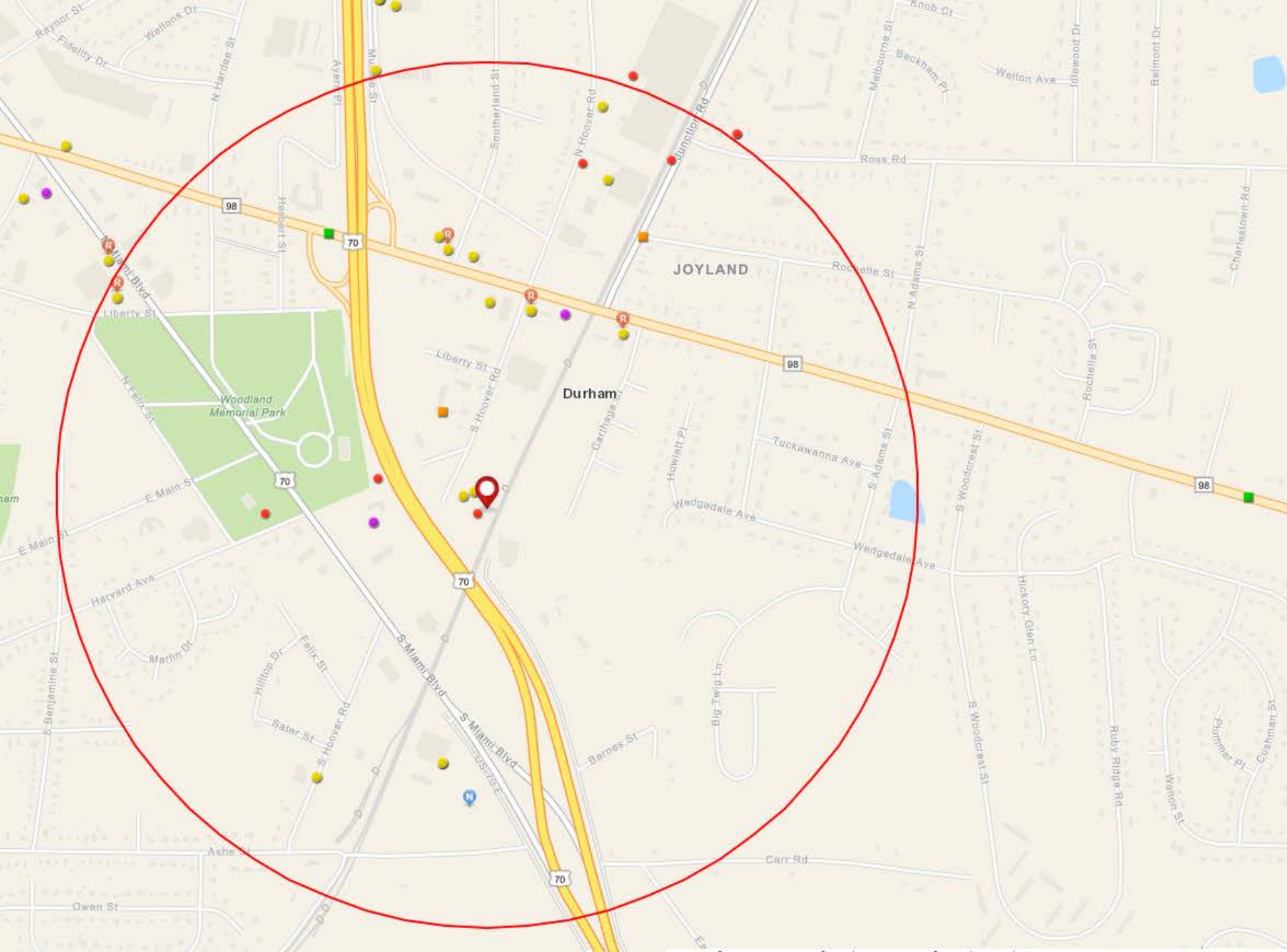
Program_ID

Facility Name/Subject

Document Date
 from 📅
 to 📅

Received Date

Name	Hits	Program_ID	Facility
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Hoover Rd Warehouse.Quarterly.1869.10-13-16.Qly.10-19-16	0	NONCD0001869	HOOVER
Hoover Road PSNC 1869 3-1-16.SAP.3-2-16.addendum.pdf	0	NONCD0001869	HOOVER
Hoover Road PSNC 4-26-16.SAR.RI addendum	0	NONCD0001869	HOOVER
IH1869_20170111_QLY	0	NONCD0001869	HOOVER
IH1869_20170420_QLY	0	NONCD0001869	HOOVER
IH1869_20171117_C.request for and termination of agreement	0	NONCD0001869	HOOVER
IH1869_20180906_C_NoticeRe DEQ not reviewing REC submitted documents	0	NONCD0001869	HOOVER
SF_F_NONCD0001869_01-13-2012_IHS_C	0	NONCD0001869	HOOVER
SF_F_NONCD0001869_01-15-2013_IHS_C	0	NONCD0001869	HOOVER
SF_F_NONCD0001869_01-15-2014_IHS_C	0	NONCD0001869	HOOVER
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SF_F_NONCD0001869_02-06-2012_IHS_SAP (3)	0	NONCD0001869	HOOVER



Screening

Report 🔍

⬅ Back Area : 19,605,308.88 ft²

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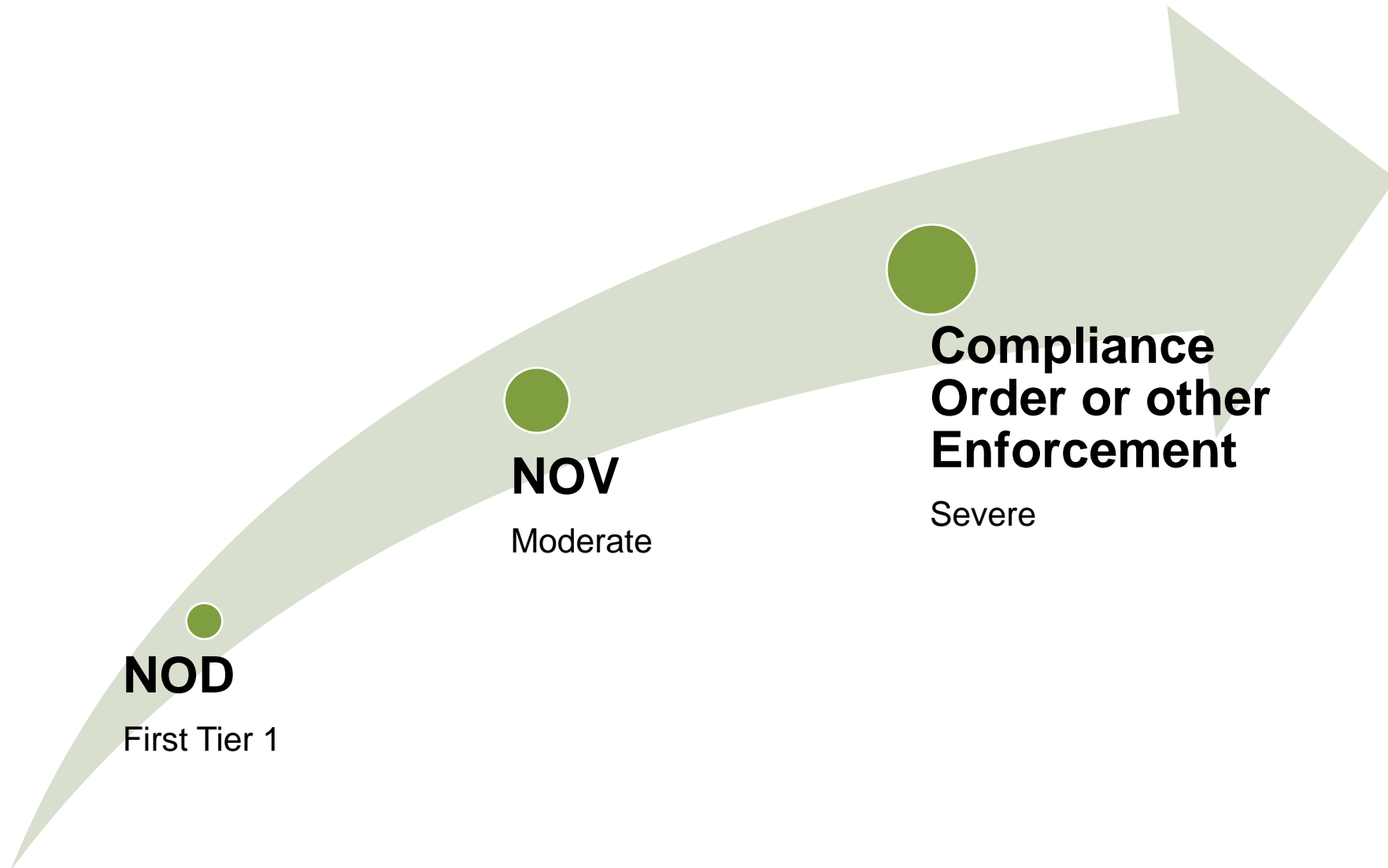
- Brownfields Program Sites (0) ⚙️
- Federal Remediation Branch (0) ⚙️
- Inactive Hazardous Sites (3) ⚙️
- Pre-Regulatory Landfill Sites (0) ⚙️
- Contaminated Dry-Cleaning Sites (0) ⚙️
- Possible Dry-Cleaning Contamination (1) ⚙️
- Hazardous Waste Sites (0) ⚙️
- UST Active Facilities (2) ⚙️
- AST Incidents (5) ⚙️
- UST Incidents (15) ⚙️
- Petroleum Contaminated Soil Remediation ... (0) ⚙️
- Solid Waste Septage Sites (0) ⚙️
- Coal Ash Structural Fills (CCB) (Closed) (0) ⚙️
- Other Permitted Solid Waste Facilities (Open) (0) ⚙️
- Yard Waste Notification Facilities (0) ⚙️
- Permitted Solid Waste Landfills (Open and ... (0) ⚙️
- Land Clearing and Inert Debris (LCID) Notifi... (0) ⚙️
- Land Use Restriction and/or Notices (5) ⚙️

DEQ Enforcement Process – Tiered Enforcement

- Regulatory Reform Act of 2011 that became law on July 25, 2011
- The Act directed the “Secretary of Environment and Natural Resources to develop a uniform policy for notification of deficiencies and violations for all of the regulatory programs within the Department of Environment and Natural Resources (DENR).”
- The Act further specifies that the different types of notification be based on the potential or actual level of harm to public health, the environment, and the natural resources of the state.



DEQ Enforcement Process – Tiered Enforcement



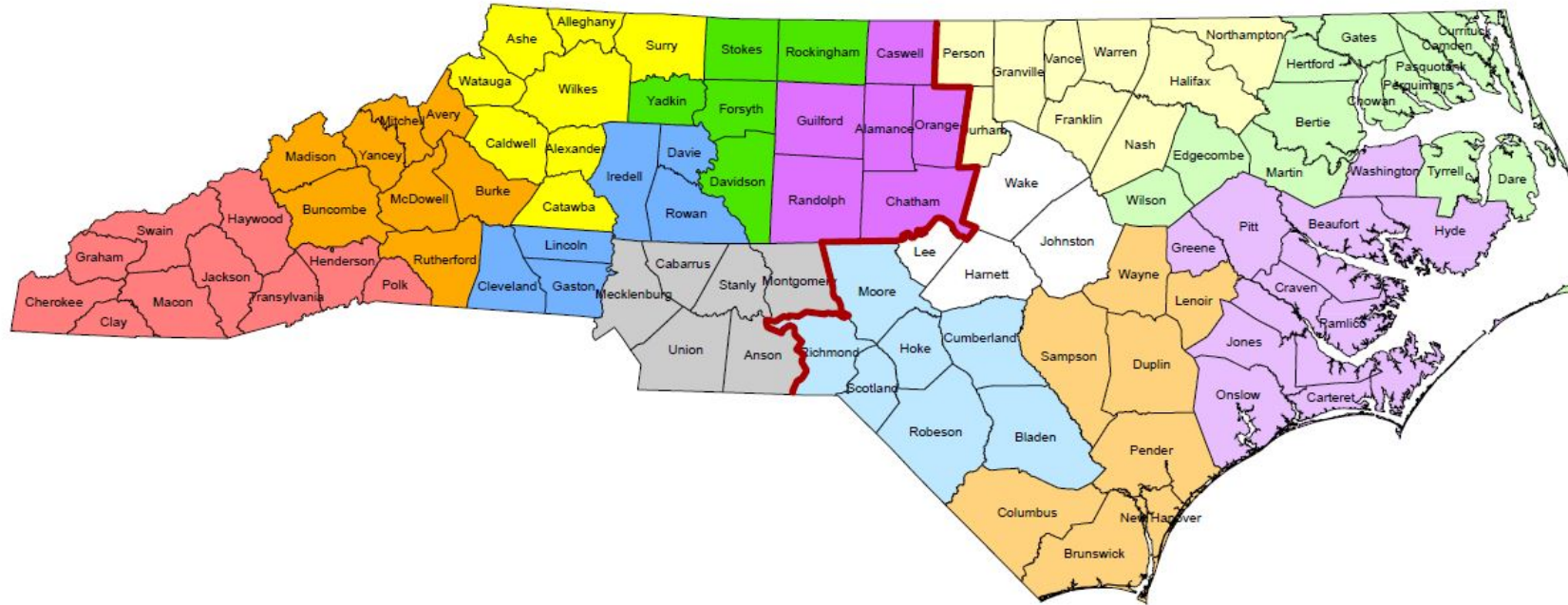
WHY TAKE ENFORCEMENT ACTIONS AND DEVELOP/STRENGTHEN LOCAL ORDINANCES?

Local Government Enforcement

- Lack of local enforcement will allow problems to continue – what isn't done is as visible as what is and will send a clear message.
- Local government managers sometimes must be shown the need to strengthen ordinances. Even if the fines are lower, take action to show the need.
- Having strong ordinances allows for tailoring to community needs/desires. DEQ enforcement may take longer to achieve “immediate” results for citizens
- Much like DEQ, sometimes it takes cooperation locally (inter-department, interlocal, etc.)
- Businesses may not to come into a community where _____ problem(s) exist and there are no clear ordinances to address the issue.

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Solid Waste Section - Field Operations Branch

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Questions?



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Department of Environmental Quality

