Stormwater Department Role in Emergency Situations

2464



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Charlotte-Mecklenburg Storm Water Services







Charlotte's population: 850,000 Mecklenburg County's population: >1 million 3,800 miles of pipe & 2,400 miles of open drainage channels



Charlotte-Mecklenburg Storm Water Services





Water Quality Team 17 city staff and 30 county staff



Background

- 1974 Mecklenburg County signed an Memorandum of Understanding (MOU) with NCDEQ
 - At the time, Mecklenburg County was 1 of 2 (Wake County) in state.
- Emergency Response started in a Mecklenburg County department called Environmental Protection which included Air Quality, Groundwater, Solid Waste and Water Quality.
- In 2001, organizational changes occurred and the Mecklenburg County Water Quality team took over.



Do you know of another municipality that has a program like this?



Background



Emergency Response Calls per year



Why Get Involved in ER?

• Pollution Control Ordinance

- NPDES Stormwater Permit
- Spills don't always happen during business hours and minimizing their impact requires 24 response.
- Provide Support for State and Federal Agencies
- Support the Fire Department
 - Help them focus on safety, containment and preparation for the next event.





Water Quality Staff are required to respond to ER calls within 10 minutes.



Our Role

Support the Charlotte Fire Department (CFD).

- CFD always maintains command.
- HAZMAT's priority is public safety and containment of hazards.
 - HAZMAT often asks for advice on how and where to place booms.

- We provide support.

• We support containment and clean up of pollutants that may impact stormwater and/or waters of the state.







The Fire Department appreciates handing over environmental concerns to us.



Our Role

• Contractor Management

- Ensure the cleanup starts quickly and is completed properly.
- Requires frequent communication, direction, and oversight.

Incident Follow up

- Communicate with state and federal agencies. Issue NOVs when appropriate.
- Documentation of the incident and impacts.
- Ensure that restoration is completed as applicable.

Represent environmental concerns when there are several priorities

- Public Safety
- Reopening roads and highways
- Preparation for another event
- Response time





Stormwater oversight is essential when follow up is complicated.



No Responsible Party for Cleanup

• Private property

• Cleanup is the property owner's responsibility.

• Public Right of Way

- Cleanup is responsibility of CDOT unless spill has reached the storm drain or surface waters.
- Responsible party is non-responsive or not responding quick enough
 - Active discharge, imminent threat.
 - Initiate and pay for a response and then find the responsible party.



- Annual budget for unforeseen incidents
 - \$20,000 (City) and \$5,000 (County)
 - Over last 5 years, \$8,400 was highest and \$0 was lowest spent by the City from this budget.



Delineation of responsibility between Storm Water Services and Charlotte Dept. of Transportation



Examples

2018 Diesel Fuel Spill

• 150 gallons of off-road diesel. Unidentified spiller. Clean up: \$35,000

2017 Diesel Fuel Spill

• 5,000 gallons of off-road diesel from a roof generator tank. Clean up: \$38,000+







Communicate closely with the National Spill Response Center if reimbursement is an option



Examples

- **Eggs:** 200 gallons of liquid eggs on the local interstate.
- Watermelons: 50,000 pounds of watermelons mixed with antifreeze and oil on the local interstate.
- **Rotten meat:** Over pressurized anaerobic digester tank discharged rotten meat directly into the creek.
- **Quarry Slurry:** Large discharge directly into the creek.



You never know what you will find when you get an ER call.



Examples

- Saddle tank puncture
 - most typical incident.
- 2014 PCB Spill — in the sanitary





Charlotte Water has spent > \$10 million on remediation from the PCB spill.



So ... how is the program run?



What do we need to start?



• Establish Partnership

- Open forum meeting with the HAZMAT chief every couple years.
- HAZMAT Chief contacts Lead ER Staff a few times a month.
- HAZMAT crew staff work great with stormwater staff.
- Establish list of qualified cleanup contractors
 - Call back within 10 minutes
 - Onsite with equipment within 1 hr. (nonpeak traffic) and 1 ½ hr .(peak traffic).
 - Contractors are removed from the list for lack of response, lack of appropriate equipment, or cherry picking events.







Require contractor response so the best ones don't cherry pick big events



Establish a Notification System

- 311
 - Weekend message is for emergencies to call 911.

• Water Watchers Mobile App

Immediate response for Emergencies only.
Judgement call by Storm Water Services staff.

• 911

• Fire Department contacts the Storm Water ER phone through 911 dispatch.

Triple Back up!

- CFD calls the ER phone.
- If no answer, CFD calls the Lead ER staff person.
- If no answer, CFD calls the Flood Information and Notification System ER phone (connects to floodplain management staff).





Triple redundancy for notification is highly recommended.



Supervisors on call

• Communication for expenditures, back up, and/or to consult about whether immediate response is necessary.

Compensation for ER Assignment

- Staff are on call 24 hours/ a day for 1 week at a time.
- Each staff person is assigned 1-3 weeks/ year.
- Schedules are set up in November for the following calendar year.
- Assignments are based on seniority. Live draft with staff.
- Flexible for staff to switch weeks/ work more weeks or less as desired.
- Provide good compensation:
 - Hourly Staff: 1 hr. for each day on-call + 1:1 hr. comp time for response.
 - Salary Staff: 8 hrs. for each day on-call + 1:1.5 hrs. overtime.



ER staff can also take over a Service Request that is running into non-business hours.



Staff Resources

- ER Cell Phone
- The "ER Bag"
 - Kiddie pool, flashlight, laminated copy of contractor list, ER Guidebook, strobe lights on vehicle, reflective vests and safety boots.

• Emergency Response Phone Numbers

- Water and Sewer Utilities
- CDOT
- NDEQ and NCDOT
- EPA / National Spill Response Center
- Duke Energy
- Piedmont Natural Gas
- Training!





ER guidebook helps staff

identify substances and appropriate cleanup



Resources and Program Details



Staff Training

- One time 40 hr. HAZWOPER course
- Annual 8 hr. refresher training and 1 hour training by lead ER staff person.
- On-the-job training until staff is capable. Depends on the staff person how long that takes.
- Staff needs to be confident. A lot of stress during these accidents.
- Provide forum for staff to share stories and learn from each other.



Training generally takes about 6 months.



Resources and Program Details

Be prepared for after events

- Media Response
- Assessment of impacts
- Coordination with the state and EPA.
- Communication with local wildlife rescue organizations
- Reimbursement process





Have a plan for Media and Public Relations especially when wildlife is involved



Questions?





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