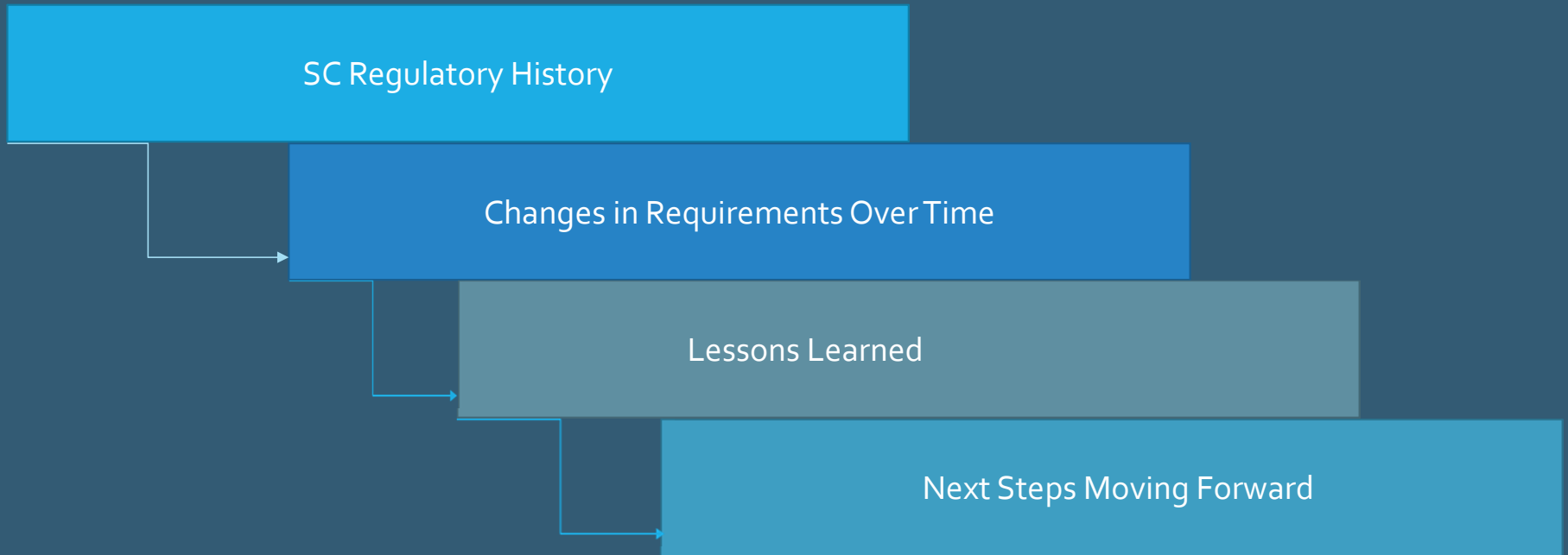


MS4'S RESPONSIBILITIES FOR CONSTRUCTION PERMITS IN SC

SESWA Spotlight Webinar

May 23, 2018

AGENDA



SC CONSTRUCTION REGULATORY HISTORY

- 1991 Stormwater Management and Reduction Act
 - Followed by SC REG 72-300
 - Required stormwater management and sediment control plans
 - Post development peak discharge rates for 2- and 10- yr storms
 - Discharge velocity reduced to non erosive rates
 - Allowed delegated review to local governments



NPDES CONSTRUCTION GENERAL PERMIT

2006 CGP

- Qualified Local Program
- Required a Stormwater Pollution Prevention Plan
- Pre-construction meetings
- Co-permittee
- Monthly reports
- Inspection frequency

2012 CGP

- QLP Not an issue
- Categories of Operators vs Co-permittee
- Individual lot NOI
- SWPPP and C-SWPPP differentiation
- Construction phasing
- Skimmers and baffle requirement
- Non-numeric effluent limits



PHASE I & PHASE II PROGRAMS

- Only slight difference between Phase I and Phase II
- Ordinance required
- SWPPP requirements
- Same inspection schedule
 - Richland County's 2016 permit
- Similar prohibitions
- MS₄ staff training and operator education



*Coastal counties may have additional requirements

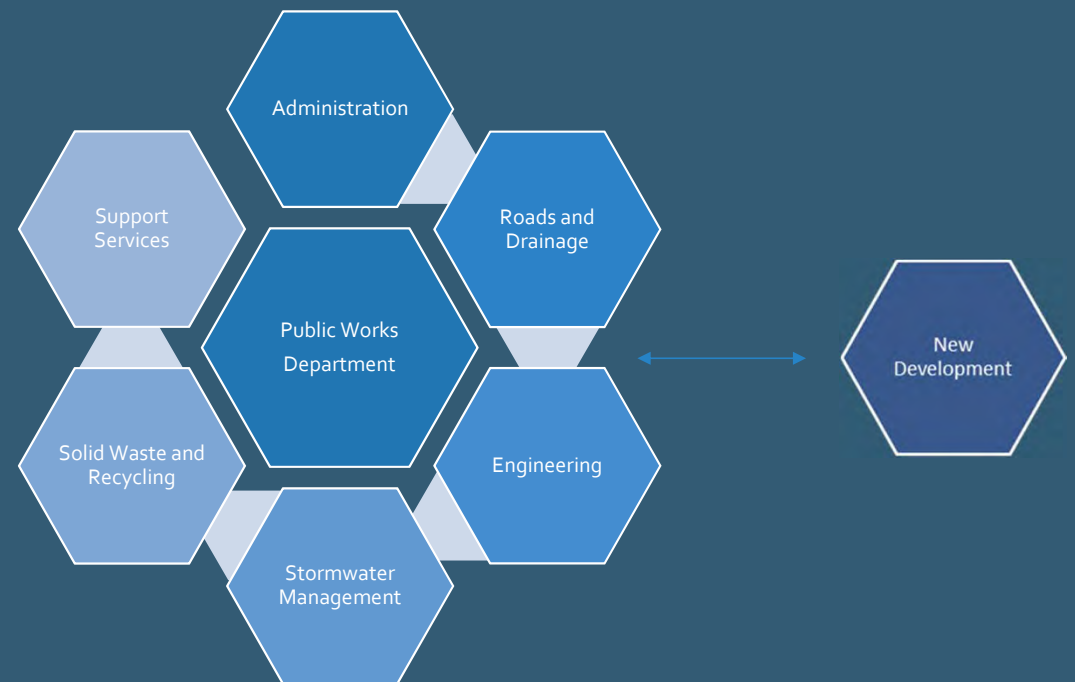
RICHLAND COUNTY, SC

Synithia Williams, Stormwater Manager



STORMWATER MANAGEMENT PROGRAM

- Outdated SEC and design standards
- Stormwater is part of the Public Works Department
- Construction Plan Review & Inspections is part of the New Development Division
- Joint effort to update with design community





DIGITAL SUBMITTALS

eTrackit
Projects tracked from start to finish
GIS mapping of drainage infrastructure

PERMIT REQUIREMENTS

- Site specific plan review and inspection procedures
- Special considerations for highly sensitive waters, impaired waters, TMDLs, etc.
- Inventory all sites and track inspections
- Document transition procedures from construction to post construction
- Document effectiveness of the program



PUBLIC PERCEPTIONS VS REGULATORY REQUIREMENTS



WHAT'S SEEN IN THE FIELD?

- Improper maintenance of ESC BMPs
- Erosion on pond slopes
- Improper skimmer installation and maintenance
- Delays in final stabilization
- Transition to post-construction



LESSONS LEARNED – RICHLAND COUNTY



- Phase I requirements aren't that different from Phase II
- Succession planning
- Continue to update SEC and design standards
- Incorporate monitoring results in plan review/inspection procedures

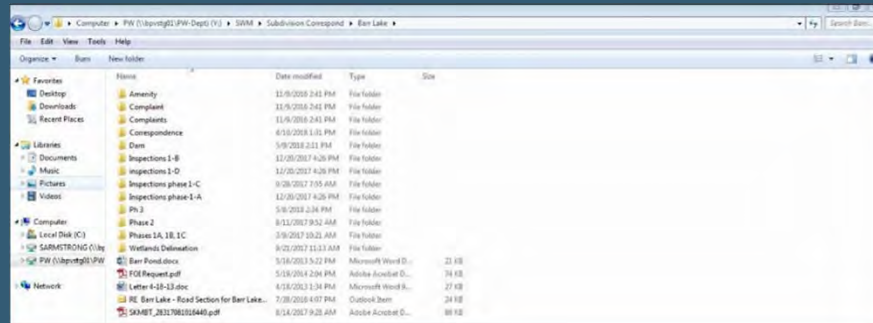
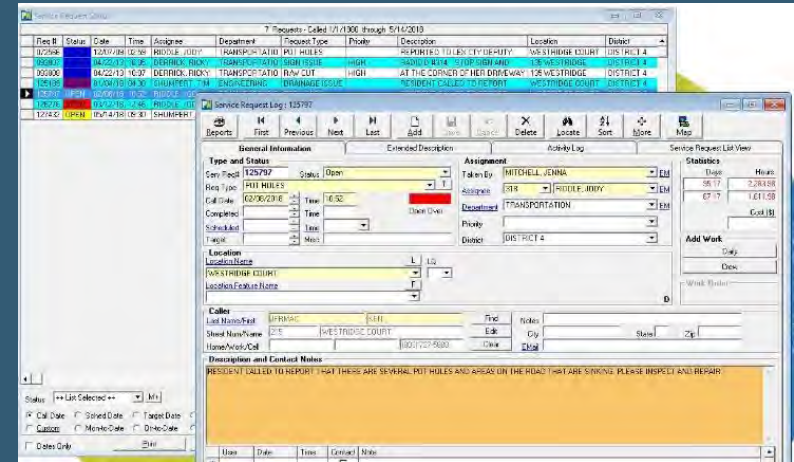
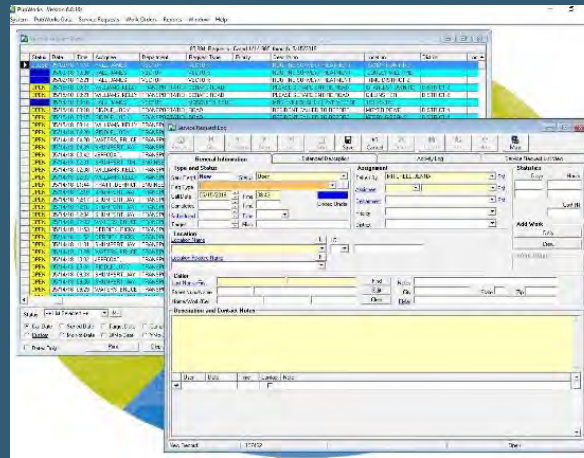
LEXINGTON COUNTY, SC

Sheri Armstrong, Stormwater Manager



PROJECT TRACKING – LEXINGTON COUNTY

- Projects entered into Countywide tracking system, Blue Prince
- Public Works has complaint/work order system, PubWorks
- Stormwater Department uses internal Y:drive
- No file management
- Staff turnover
- DHEC



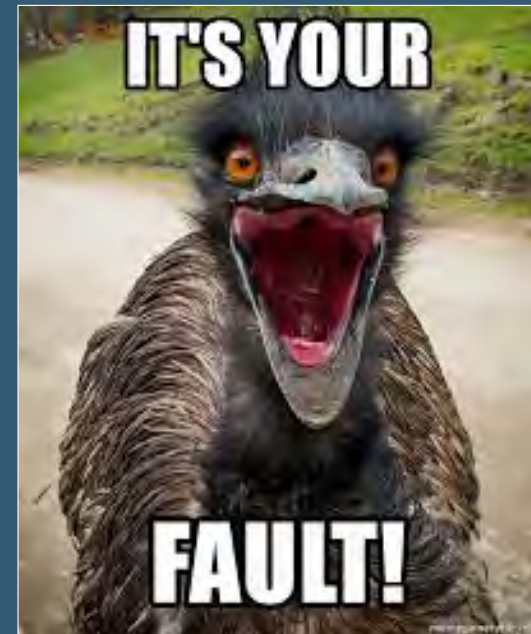
STABILIZATION CONCERNS



- Notice of Termination (NOT)
- State gave MS4s the responsibility to verify this closure process
- MS4 cannot force applicant to submit NOT
- Section 5.1.IV For residential lots only, either (1) final stabilization has been achieved on all portions of a residential lot(s), or (2) temporary stabilization including perimeter controls for a residential lot(s) have been achieved prior to occupation of the home by the homeowner and that the homeowner has been informed, by the Primary/Secondary Permittee, about the need for, and benefits of, final stabilization;
- Lexington County Grassing Agreement

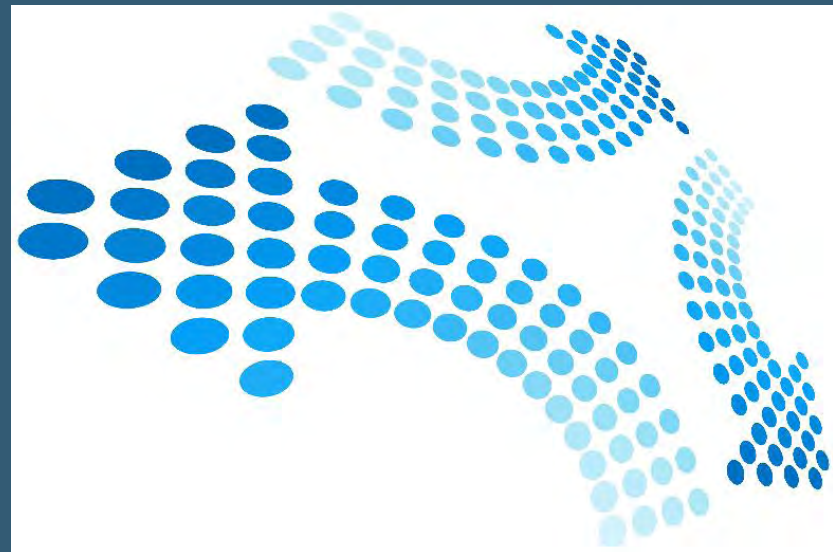
PUBLIC PERCEPTIONS VS REGULATORY REQUIREMENTS

- Local Regulators
 - Stormwater title does not mean we enforce every drop of rain
 - 80% trapping efficiency clay/sandy soils
 - Neighbor vs neighbor conflict
 - Owner vs Builder conflict
- Local Regulations
 - Local regulations can be more stringent than State
 - Permanent Water Quality Buffers



RESTRUCTURING AND TURNOVER

- Restructuring Departments
 - Loss of readily available knowledge
 - Lack/Loss of internal communications
- Employee Turnover
 - Causes components of program to fall behind
 - Learning curve can prove timely
 - Personalizing program



LESSONS LEARNED – LEXINGTON COUNTY

- Skimmers
 - Engineers and Regulators no knowledge of how to review and approve skimmers
 - Only one brand Faircloth
 - Many do not function properly due to poor installation/maintenance
- Baffles
 - No guidance/standards of what is required
 - Increase Tc or velocity dissipater
 - Calculations
- Forebays
 - No standard design requirements



QUESTIONS?

We'll be right back after this quick break.

CITY OF AIKEN

Susan CYates, Stormwater Administrator



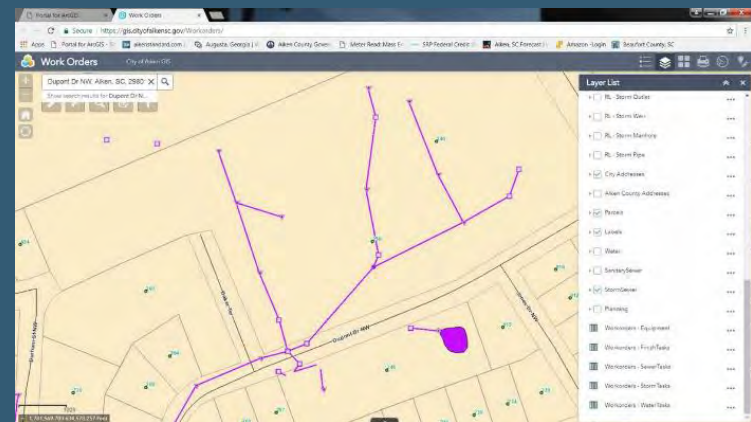
CITY OF AIKEN – FACTS AND FIGURES



- Population of approximately 30,000 people
- Encompasses approximately 20 square miles
- All areas of the city are covered by 1 of 4 TMDLs – all for Fecal Coliform/E Coli
- Stormwater section is located in the Engineering and Utilities Department
 - 1 – Employee for overall MS₄ compliance
 - 1 – Full time employee and 2 – temporary employees for Post Construction Pond Maintenance for ponds owned by the City
 - 3 – Full time employees for maintenance of stormwater infrastructure
 - 2 – Full time employees for GIS (1 vacant) and 1 consultant

PROJECT TRACKING

- Process changes
 - November 2017 –
 - Some excel spreadsheets
 - Very limited documentation
 - Very limited tracking of the program
 - In the heads of employees
 - Present
 - Excel spreadsheets for tracking inspections and complaints
 - Standard inspection reports and letters being utilized and saved on server
 - Post – Construction BMPs – Layer on GIS – needs to be field verified and inspected
 - Going forward
 - Contracted with consultant to incorporate Construction Permits into GIS system with the ability to track needed inspections, documentation, etc.



NPDES CGP VS. CITY ORDINANCE

- City requires permittee inspect site at least once every 7 days and within 24 hours of a ½ inch or more rain event.
- City requires stormwater detention ponds to be designed such that the 25 year storm releases at the 2 year rate instead of 10/10 pre/post required by the NPDES permit.
 - Enlarges BMPs tremendously
- City fines were put into place in the 1990s and have never been changed.
 - Fine up to \$200.00 per day.



Expect to update ordinance once the new CGP is approved

CHALLENGES...AND HOW TO MEET THEM

- Design professionals and installers are mostly from Georgia
 - Do not design by SC standards
 - Utilize BMPs not used in SC – in particular wood post silt fence
- Permittees do not seem used to having someone routinely inspect their site and ask for paperwork.
 - Many have not been doing inspection reports and several have no information on site
 - Many BMPs that should be installed are not – in particular skimmers, basins, and traps
 - Improper installation of silt fence – statewide issues with this
- Citizens do not understand the Stormwater Department's role.
 - Address stormwater pollution, not necessarily water running into their property
- Legacy information



CHALLENGES...AND HOW TO MEET THEM

- Consistency in the field and during plan reviews. (Statewide?!?)
- Updated procedures that didn't work
 - Pre-con meetings
- Training in the field
 - Increase expectations
- Meetings! Meetings! Meetings!
- Education
- Legacy information – Get documentation organized! What happens when no documentation?



MOVING FORWARD

Proposed updates to the Construction General Permit

BEFORE WE GET TO THE FUTURE, LETS TALK ABOUT THE PAST...

NPDES Permit Expiration Guidance

- As of today, May 23, 2018, anything that was permitted prior to May 23, 2004 has expired.
- Anything between Jan 18, 2004 and Dec 31, 2007 expires on its permit anniversary (2004 in 2018, 2005 in 2019, 2006 in 2020, 2007 in 2021)
- Anything that was permitted between Jan 1 2008 and Dec 31 2012 expires Jan 1, 2022
- Anything that was permitted after Jan 1 2013 expires 5 years after permit date.

BEFORE WE GET TO THE FUTURE, LETS TALK ABOUT THE PAST...



Flow Rate Comparison Chart									
Marlee Float™				Published Faircloth Skimmer			IAS Water Quality Skimmer		
Skimmer Size	24 Hour Peak Flow Rate*		Skimmer Size	24 Hour Flow Rate**		Skimmer Size	24 Hour Flow Rate**		
	(cfd)	(cfs)		(cfd)	(cfs)		(cfd)	(cfs)	
Model #1	1"	1,983	0.023	1.5"	1,728	0.02	1.5"	1,804	0.021
	1.5"	3,485	0.040	2"	3,283	0.038	1.75"	2,405	0.028
							2"	3,928	0.045
	2"	7,432	0.086	2.5"	6,234	0.072	2.5"	6,137	0.071
	2.5"	9,272	0.107	3"	9,774	0.113	3"	10,205	0.118
Model #2	3"	16,538	0.191						
	4"	25,394	0.294	4"	20,109	0.233	4"	22,220	0.257
	5" (Model 2)	30,432	0.351	5"	32,832	0.38	5"	34,179	0.402
Model #3	5" (Model 3)	66,076	0.765	6"	51,840	0.6	6"	49,995	0.579
	6"	71,216	0.824						
	8"	76,357	0.883						
				8"	97,978	1.134	8"	102,631	1.188

SCDHEC PERMIT UPDATES

- EPA has put a high priority on quickly updating the Construction General Permit
 - This has reduced the time SCDHEC has to send the draft permit to EPA to 1-2 months.
- What does this mean for us and the process?
 - SCDHEC is considering a shorter permit term (2-3 years instead of regular 5 year term).
 - Less changes than originally considered.
 - Most likely, there will not be stakeholder meetings in regards to the permit, but it will be put on Public Notice.



POTENTIAL SCDHEC PERMIT UPDATES

- Updates to the permit include:
 - More clarification for lots within older subdivisions and how to permit (or not permit) them.
 - Elimination of references “to the extent that the Permittee’s discharges shall not cause or contribute to violations of water quality standards...” such as in 3.2.6.A.I. Erosion Prevention BMPs. (EPA requirement to eliminate)
 - Add requirement to clean up off site sedimentation unless the permittee is unable to obtain permission from the land owner in which the sediment discharged.
 - Require OS-SWPPP to be on site – eliminate allowance for off site storage.
 - Submittal location updates for e-permitting.

QUESTIONS?

Thank you for joining us today!