

**Navigating the Statewide Stormwater Rule**

**Practical Implications of the  
New Rule on Local Government**

**Florida Stormwater Association  
Fall Seminar – September 8, 2023**

**Jodie E. Cahoon, P.E.**  
**Stormwater Management Manager**  
**City of Tallahassee**



**CITY OF  
TALLAHASSEE**

## **Statewide Stormwater Rule (62-330)**

- Provides stormwater treatment performance criteria to increase treatment and removal of nutrients.
- Establishes BMPs to more accurately reflect the latest scientific information on their performance.
- Strengthens requirements for inspections, reporting, operation and maintenance of stormwater management systems.
- Improves permitting requirements for dams.



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# Agenda:

- Traditional & Non-Traditional Components of Stormwater Management Systems (SWMS) & MS4 Systems (assets)
- Operational Transfer of Permitted SWMS
- Operation and Maintenance of MS4 Systems
- Inspections & Reporting for MS4 Systems
- Retrofit Activities
- Regional Stormwater Management Systems
- Inspection Ruminations



# Traditional Components of SWMS & MS4 Assets

- Stormwater Management Facilities (ponds)
- Drainage Structures
- Pipes
- Canals
- Ditches – major, medium, roadside & swales
- Other BMPs, e.g., trash traps, NR Baffle boxes, etc.

MS4s have immense experience with Gray Stormwater Infrastructure, but what about Green Stormwater Infrastructure?



# Non-Traditional SWMs & MS4s Components

## Green Infrastructure

Clean Waterways Act, SB 712 (2020) - amends s. 373.4131 & 403.0891 F.S.:

- shall consider and address low-impact design best management practices and design criteria that increase the removal of nutrients from stormwater discharges...
- requires stormwater management programs to contain model ordinances for nutrient reduction practices and green infrastructure.

### Industry Definitions:

LID refers to “systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat.”

LID will be implemented at the City or County level through changes in Comprehensive Plans, Ordinances, Codes & Zoning.

Green Infrastructure reduces and treats stormwater at its source while delivering other environmental, social, and economic benefits.

GI will be encouraged by FDEP and WMDs, and implemented through design, permitting and construction, many of which will be operated and maintained by MS4s.



# Non-Traditional SWMS & MS4s Components

## Green Infrastructure

A.H. Volume I, Section 9.5.3

*The Agencies encourage the use of Low Impact Design (LID) approaches, such as Green Stormwater Infrastructure (GSI)...*

Typical GSI and LID features are described in the Applicant's Handbook Volume II and Appendix O.

DEP-NFWMD ERP AH Volume II, 5.2.10

*...types of Green Stormwater Infrastructure or Low Impact Development practices include utilizing vegetative swales for conveyance instead of curb and gutter, perimeter swales or berms around the lake, oil and grease skimmers on inlet structures, retention storage in swales with raised inlets, or shallow landscaped retention areas*

New rule will create non-traditional assets (LID-GI) for MS4s

Municipalities and Counties will need to revisit their Comprehensive Plans, Zoning, Development Codes and Public Works Standards.



# Origin of SWMS

- CIP – designed, permitted and constructed by the county or municipality
- Dedication - usually as part of a development plan and/or Platt
- Transfers – annexation, ownership transfer, adoption, acceptance, etc.





# Operational Transfer of Permitted SWMS

## Rule 62-330.310 Operation and Maintenance

(1) The permit authorizing construction or alteration **must be converted to the operation and maintenance phase once the construction or alteration has been completed**. The construction or alteration authorized under an individual permit must be certified to **be in compliance with the permit before conversion of the permit** to the operation and maintenance phase. Procedures for converting the permit to the operation and maintenance phase, and transferring the permit to the perpetual operation and maintenance entity are described in section 12 of Volume I.

(2) the entity must demonstrate that it will have the financial, legal, and administrative capability

AH I, Sections 6, 12.1-12.4 O&M Requirements, 12.8 Subsequent Transfers



# Operational Transfer of Permitted SWMS



Lyle Seigler  
Executive Director

## Northwest Florida Water Management District

152 Water Management Drive, Havana, Florida 32333-4712  
(U.S. Highway 90, 10 miles west of Tallahassee)

Phone: (850) 539-5999 • Fax: (850) 539-2693

August 29, 2023

Jodie Cahoun  
City of Tallahassee  
300 S. Adams St. B35  
Tallahassee, FL 32301

Re: **Conversion from Construction Phase to Operation and Maintenance Phase**  
Project Name: Mercury Drive Pond Drainage Improvements  
Permit Number: GEN-073-299511-1

Dear Jodie Cahoun:  
..

The As-Built Certification and Request for Conversion to Operation Phase, as required in Subsection 62-330.310(1), Florida Administrative Code (F.A.C.), for the above referenced project was approved August 29, 2023.

This project is subject to inspection by District staff upon presentation of proper identification to ensure the continued compliance as indicated in Subsection 62-330.311(1), F.A.C.

All Operation and Maintenance entities must complete inspections of the above referenced system as indicated in the specific conditions of the permit, or within 30 days of discovery of any failure of a stormwater management system or deviation from the permit.

If you have any questions, please contact me at the Havana Office at (850) 539-2699, or email at [Brandon.Winter@nwfwater.com](mailto:Brandon.Winter@nwfwater.com).

Sincerely,

A handwritten signature in blue ink, appearing to read "Brandon Winter".

Brandon Winter, PE  
Professional Engineer II

cc. Jonathan L. Barwick, Tyler R. Marsh

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Panama City

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# Operational Transfer of Permitted SWMS

Rule 62-330.340 Transfer of Permit Upon Change in Ownership or Control

**Unchanged!**

AH I, Sections 6.3 Transfers of Permits and Changes in Ownership,



# **Operating, Maintaining, Inspecting and Reporting**



# City of Tallahassee MS4 Assets:

- **447** Stormwater Management Facilities, comprising over 1,000 acres
- **29,503** drainage structures
- **Over 24** miles of major outfall canals
- **Over 58** miles of minor to medium ditches
- **Over 228** miles of roadside ditches
- **Over 444** miles of drainage pipes

**For Comparison, the City of Tallahassee\*:**

- **Population: 193,551**
- **Size: 66,360 acres**

**\* Source = 2022 FSA Stormwater Utility Report, Stormwater Utilities Survey, Florida**



# Operation & Maintenance of SWMS & MS4 Systems

## Operation & Maintenance – Enhanced Requirements

- 62-330.310 Operation and Maintenance
- AH I, Sections 12.1-12.4 O&M Requirements

Remember:

- General Permits automatically convert
- Individual Permits **MUST** be converted
- ★ Requires **ALL** entities to provide an O&M cost estimate (12.3.5)
- Streamlining for systems owned and operated by an MS4 permittee to be regulated through their MS4 permits (**12.4.1**)
- AH I, 12.4 Operation and Maintenance Access = consistency



# Inspections & Reporting of SWMS & MS4 Systems

## Inspections and Reporting

- 62-330.311(3) Inspections and Reporting – new Form 62-330.311(3), Inspection Checklist
- AH I, Section 12.5 Inspections:
  - ★ 12.5(b) ...An MS4 Entity shall conduct and report inspections of ERP-permitted stormwater management systems owned or operated by the MS4 Entity in accordance with their MS4 permit requirements...
- Reporting:
  - AH I, Section 12.6 Reporting
    - removes inconsistencies with previous AH IIs
    - Section 12.6 (b) – O&M entities, other than an MS4 Entity, ... shall submit an inspection report... Form 62-330.311(1) & Form 62-330.311(3) “Inspection Checklists”



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**Includes the goal of Improved statement of completion and As-built certification process.**





# Draft MS4 Permit Inspection Requirements

The below is a partial listing only

<b>TABLE III.A.1.c: Minimum Stormwater Structural Control and Collection System Inspection Frequency</b>	
<b>MS4 Component; Inspection Frequency</b>	<b>Inspection Activities</b>
<u>Alum Injection Systems:</u> Monthly	<ul style="list-style-type: none"> <li>Conduct inspections and maintenance as outlined in the system's operation and maintenance manual/plan, as applicable.</li> </ul>
<u>Pollution Control Boxes (PCB):</u> Quarterly*	<ul style="list-style-type: none"> <li>Inspect for debris/litter/sediment accumulation at inflow/outflow structures, screens, and within the PCB to prevent loss of storage volume or impacts on flow or operation</li> <li>Inspect for structural deficiencies that would prevent proper flow conditions or operation</li> <li>If applicable, inspect absorbent materials to determine if they need replacement</li> </ul>
<u>Stormwater Pump Stations:</u> Semi-Annually*	<ul style="list-style-type: none"> <li>Inspect pumps in accordance with applicable operation and maintenance manual</li> <li>Inspect for debris/litter/sediment accumulation in the wet well, at inlets, bar screens, and other associated components to prevent loss of storage volume or impacts on flow or operation</li> </ul>
<u>Major Outfalls:</u> Annually*	<ul style="list-style-type: none"> <li>Inspect for debris/litter/sediment accumulation to prevent impacts on flow or operation</li> <li>Inspect for damaged headwalls, signs of undercutting or settling, damaged or clogged riprap, as applicable</li> <li>Inspect for erosion/subsidence on embankment or side slopes</li> </ul>



# Retrofit Activities

62-330.451 General Permit to Counties, Municipalities, and other Agencies to Conduct Stormwater Retrofit Activities

**Rule = Unchanged!**

- “Stormwater Retrofit” defined AH I, Section 2.0 (119)
- AH II NFWFMD, Section 2.6 Retrofits of Existing Stormwater Management Systems



# Regional Stormwater Management Systems

## Rule = Unchanged

### “Regional stormwater management system”

- Defined AH I, Section 2.0 (98)
- New = Section 9, “Stormwater Quality Treatment Evaluations”
- AH I, 9.7.3 “Regional Stormwater Management Systems”
  - Maintained per Section 12 of AH I
  - Report allocations annually
  - Allocations of load reduction must be measured in pounds or kilograms of pollutant removal
  - Shall not allocate more load reduction than its permitted design



# Forms – As-Built Certification and Conversion to Operation Phase, and Transfers

## AH I, Appendix C for list and link below

Note: current forms are shown below for illustrative purposes.

### Post Issuance

Form	Title
<a href="#">62-330.310(1)</a>	As-Built Certification and Request for Conversion to Operation Phase
<a href="#">62-330.310(2)</a>	Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity
<a href="#">62-330.310(3)</a>	Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit
<a href="#">62-330.340(1)</a>	Request to Transfer Permit
<a href="#">62-330.350(1)</a>	Construction Commencement Notice
<a href="#">62-331.100(1)</a>	Transfer of State 404 Program General Permit Verification
<a href="#">62-331.200(1)</a>	Certification of Compliance with a State 404 Program General Permit

<https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/forms-environmental-resource>



# Forms: Operation & Maintenance and RSF Annual Report AH I, Appendix C for list and link below

Note: current forms are shown below for illustrative purposes.

## Operation and Maintenance

Form	Title
<a href="#">62-330.311(1)</a>	Operation and Maintenance Inspection Certification
<a href="#">62-330.417(1)</a>	Agreement to Maintain Public Access
<a href="#">62-330.417(2)</a>	Agreement to Maintain Public Access and Operate Stormwater Systems

## Regional Stormwater

Form	Title
<a href="#">62-330.311(2)</a>	Regional Stormwater Management System Annual Report

<https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/forms-environmental-resource>



# Potential Techniques to Improve Inspection Capabilities:

- Drones
- Acoustic Testing



# Drones



# Drones

- High Resolution Orthographic Image
- 3D Model
- Digital Surface Model
- Digital Terrain Model
- Plant Health Model
- Heat Mapping

## **60GG-2.0075 FAC - Unmanned Aerial Systems (UAS)** Minimum Security Requirement, eff. 4/5/2023:

- Addresses “Foreign Country of Concern”, “Approved Manufacturers”, Tiers, etc.
- Restricts purchase, acquisition and use...
- Tier Three





# Drones

## Example – Cascades Park

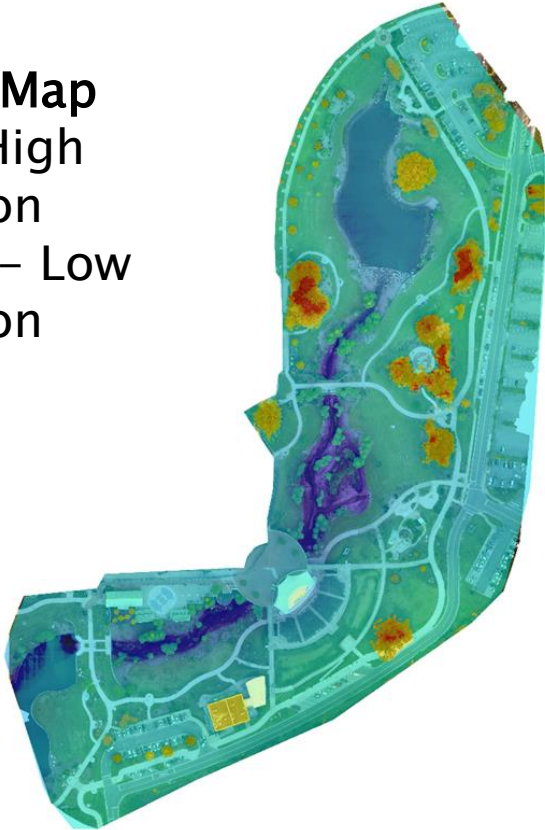


- 22 Acres
- 45 Minutes to Fly
- Reduces On-Site Visits
- 5cm/Pixel

# Drones

## Elevation Map

- Red – High Elevation
- Purple – Low Elevation



## Plant Health Map

- Green – High Quality Plant Health
- Red – Low Quality Plant Health



# Acoustic Testing



- A portable battery-operated inspection tool used in place of CCTV
- Uses acoustic waves to detect potential blockages
- Capable of line assessment in as little as 3 minutes



# Acoustic Testing

## Vac-Truck

Capital Costs      \$450,000 (Vac-Truck)

Production Rate    28,000 feet per Month

## New Technology

\$30,000 (SL-RAT)

10,000 feet per DAY  
(160,000 feet per Month)





# Questions?

