



Stormwater Qualified Inspector Training (SQulnT)

2025 FSA Winter Conference

FOR THE

#GATORGOOD

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Maintenance in everyday life





Stormwater Maintenance is Key

- “Another flaw in the human character is that everybody wants to build and nobody wants to do maintenance.”
 - Kurt Vonnegut
- Filters clog
- Plants die
- Sediment builds up

Regular Inspections are Critical for
Effective Maintenance

Updated Inspection and Reporting Reqs.

(1) The operation and maintenance entity shall provide for the inspection of the permitted project after conversion of the permit to the operation and maintenance phase as provided in section 12.5 **12.4** of Volume I. Inspections are to be conducted and reported as described in section 12.5 of Volume I. ~~Minimum inspection frequencies will be established in Volume II for each District as applicable, but actual inspection~~ Inspection and reporting frequencies for the specific project are subject to review by the Agency as necessary to ensure the project is in compliance with operational and maintenance

Inspections using checklists (or similar format) will be required periodically for projects.

(2) Within 30 days of a stormwater deviation or failure, the operation and maintenance entity shall submit to the Agency using the "Report of Deviations and Failures" (eff. date) (October 1, 2013) (insert link) (<http://www.flrules.org/Gateway/reference.asp?No=Ref-02502>), incorporated by reference herein, describing the remedial actions taken to resolve the failure or deviation.

(3) The inspection report shall include the information required in Form 62-330.311(3), "Inspection Checklists," (eff. date) (insert link), as provided in section 12.5 of Volume I, on that form or in another format which includes the required information.

Table 12-1: Inspection Frequencies for common BMPs

TYPE OF SYSTEM	INSPECTION FREQUENCY
Dry Retention basins	Once every 3 years
Exfiltration trenches	Once every 2 Years
Underground retention	Once every Year
Sand or Media Filters	Once every Year
Underdrain System	Once every 2 Years
Underground vault/chambers	Once every Year
Pump Systems	Twice every Year
Swales (treatment)	Once every 3 years
Wet Detention systems	Once every 3 years
Wet Detention systems with littoral zones	Once every 2 years
Vegetated Natural Buffers	Once every 5 years
Manufactured Devices	As manufacturer recommends in specifications, minimum once every year
Dam Systems	Once every Year
All other	Once every Year

Stormwater Inspections

ERP Applicant Handbook Vol. 1 – 12.5(c)

For stormwater management system inspections conducted on or after June 28, 2025 a **qualified inspector** for conducting, certifying, and submitting inspection reports must, at a minimum, either:

- (i) be a registered professional, (e.g. PE)
- (ii) include documentation that the inspector conducted the inspection under the supervision of a registered professional (e.g. PE), or
- (iii) have completed training, and be able to provide documentation of completion, no more than five years prior to the date of the inspection that covers the following topics:

Requirements for Stormwater Qualified Inspector Training

A.H. Volume I 12.5.(c)

1. The ability to read construction drawings, plans, specifications and modeling of recovery timeframes;
2. Principles of traditional BMPs, as listed in Form 62-330.311(3), [Inspection checklists] for stormwater treatment, including functions that convey and remove pollutants from stormwater;
3. For traditional BMPs, the potential causes of failure or malfunction, replacement needs, and reduction in treatment efficiency;
4. Understanding of the purpose, design, and function of manufactured devices or non-traditional BMPs and the ability to ensure the device meets manufacturers' specifications and maintenance requirements; and
5. Performance of inspections, including field inspection experience and the completion of required reports and documentation, consistent with the requirements of section 12 of this Volume, any relevant requirements of the applicable Volume II, and all other applicable rules and regulations.

Inspection Checklists: 62.330.311(3)

Stormwater Facility Inspection Checklist

Instructions

Prior to the inspection, the Inspector should review the permit for the facility and the design or as-built drawing for the facility.

This inspection checklist is required for the documentation of the annual inspection of all permitted stormwater systems. Complete all parts of the general data section for the project site. Attach any additional required documentation, if necessary. In the "All Technologies" category, mark all items as "satisfactory" or "unsatisfactory." For all other categories, either select "N/A" and minimize the category or mark all inspection items as "satisfactory" or "unsatisfactory." If the system described does not contain a component that is listed for inspection mark that item as "N/A"

For any item marked unsatisfactory, provide a comment below the BMP technology describing maintenance action needed to bring the system back into compliance. Within 30 days of any failure of a stormwater management system or if any components of the constructed system are found to be not in substantial conformance with the permitted system, a report shall be submitted by the permittee or their authorized representative to the Agency using Form 62-330.311(1), "Operation and Maintenance Inspection Certification," {{effective date}}, as per 62-330.331(2) F.A.C., describing the remedial actions taken to resolve the failure or deviation.

Inspection reports will be submitted by the permittee or their authorized representative to the applicable permitting agency. Each inspection report must be signed by a certified inspector or a registered professional to certify its authenticity.

Inspection Checklist

General Data

Inspection Date Project Name
Location Permit Number

Time since last storm event <24 hours 24-48 hours 48-72 hours >72 hours

Permit Holder Permit Effective Date

Inspector Name

Inspector Contact Information

Multiple BMP types in the system No Yes List All: _____

Permit drawings have been reviewed No Yes

Additional Photos Attached N/A

Compliance Activity Record Attached N/A

All (or other unlisted) Technologies

Items for inspection	Satisfactory	Unsatisfactory
General		
BMPs and treatment facilities are in good repair and operational	<input type="checkbox"/>	<input type="checkbox"/>
BMPs and treatment facilities are free from debris buildup that may impair function	<input type="checkbox"/>	<input type="checkbox"/>
Berms, embankments, curbing, or other methods used to impound, divert, and direct discharges are adequate and in good condition	<input type="checkbox"/>	<input type="checkbox"/>
The discharge (if any) is free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam, or any other signs of contamination	<input type="checkbox"/>	<input type="checkbox"/>
Vegetation		
Mowing done when needed	<input type="checkbox"/>	<input type="checkbox"/>
Grass clippings removed	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of erosion	<input type="checkbox"/>	<input type="checkbox"/>
Inlets		
Good condition, no need for repair	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of erosion*	<input type="checkbox"/>	<input type="checkbox"/>
Outlets/overflow spillway		
Good condition, no need for repair	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of erosion*	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Traditional BMPs

Swales N/A

Items for inspection	Satisfactory	Unsatisfactory
Debris Cleanout		
Swales and contributing areas clear of debris*	<input type="checkbox"/>	<input type="checkbox"/>
Vegetation		
No evidence of erosion*	<input type="checkbox"/>	<input type="checkbox"/>
No weeds or invasive plants present	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of nutrient deficiency	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of disease	<input type="checkbox"/>	<input type="checkbox"/>
Grasses/sod are not in need of replanting/resodding	<input type="checkbox"/>	<input type="checkbox"/>
No signs of drought stress	<input type="checkbox"/>	<input type="checkbox"/>
No signs of plant overgrowth	<input type="checkbox"/>	<input type="checkbox"/>
Recovery		
Swale recovers between storms within permitted timeframe	<input type="checkbox"/>	<input type="checkbox"/>
Swale clean of sediments		
Good condition, no need for repair	<input type="checkbox"/>	<input type="checkbox"/>
No areas of sediment buildup*	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of erosion*	<input type="checkbox"/>	<input type="checkbox"/>
Inlet Structure / Pretreatment: *		
Good condition, no need for repair	<input type="checkbox"/>	<input type="checkbox"/>
No trash/debris/sediment in or around inlet structures*	<input type="checkbox"/>	<input type="checkbox"/>
No evidence that runoff is short-circuiting the inlet	<input type="checkbox"/>	<input type="checkbox"/>

Emergency Overflow / Outlet Structure

Good condition, no need for repair	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of accumulation of trash, debris, or sediment in or around outlet structure(s)*	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of erosion, or flooding around structures*	<input type="checkbox"/>	<input type="checkbox"/>
Swale Blocks N/A <input type="checkbox"/>		
If swale blocks or other structures are present, there is no evidence of erosion at downstream toe of structure*	<input type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Wet Pond N/A

Type of wet pond

Items for inspection	Satisfactory	Unsatisfactory
Vegetation		
No signs of damage from animal activity	<input type="checkbox"/>	<input type="checkbox"/>
No signs of stress or disease	<input type="checkbox"/>	<input type="checkbox"/>
No emergent invasive plant life	<input type="checkbox"/>	<input type="checkbox"/>
No areas need replanting	<input type="checkbox"/>	<input type="checkbox"/>
Dead plant material is removed, if necessary	<input type="checkbox"/>	<input type="checkbox"/>
Upland banks are maintained		
Structural		
Embankment condition	<input type="checkbox"/>	<input type="checkbox"/>
Side slopes are stable	<input type="checkbox"/>	<input type="checkbox"/>
Fences/access repairs		
Fence(s) condition	<input type="checkbox"/>	<input type="checkbox"/>
Lock(s) and gate(s) function are adequate	<input type="checkbox"/>	<input type="checkbox"/>
Inlets		
Inlet(s) condition		
Runoff is not short-circuiting the inlet	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of trash/debris/sediment in or around inlet *	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of erosion, gullies, rills, or flooding around inlet *	<input type="checkbox"/>	<input type="checkbox"/>
Outlets/overflow spillway/ drain gate		
Outlet(s) condition	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of trash/debris/sediment in or around outlet *	<input type="checkbox"/>	<input type="checkbox"/>
No evidence of erosion, gullies, rills, or flooding around outlet *	<input type="checkbox"/>	<input type="checkbox"/>
Weir System: drawdown and overflow weir		
Weir system condition		
No evidence of clogging *	<input type="checkbox"/>	<input type="checkbox"/>
Clear of debris*	<input type="checkbox"/>	<input type="checkbox"/>
Comments: _____		

Dry Pond N/A

Type of dry pond

Certification Form

<p>OPERATION AND MAINTENANCE INSPECTION CERTIFICATION</p> <p>Instructions: Submit this form to the Agency within 30 days of completion of the inspection, or after any failure of a stormwater management system or deviation from the permit. This form will be used to document inspections required under Section 12.5 of Applicant's Handbook Volume I.</p> <p>Permit No.: <input type="text"/> Application No.: <input type="text"/> Date Issued: <input type="text"/></p> <p>Identification or Name of Stormwater Management System: <input type="text"/></p> <p>Phase of Stormwater Management System (if applicable): <input type="text"/></p> <p>Inspection Date: <input type="text"/></p> <p>Included Documentation: (check all that are attached)</p> <p class="list-item"><input type="checkbox"/> Form 62-330.311(X) "Inspection Checklist" (Required for permitted inspection frequency)</p> <p class="list-item"><input type="checkbox"/> Updated O&M cost estimate</p> <p class="list-item"><input type="checkbox"/> Updated O&M Plan</p> <p class="list-item"><input type="checkbox"/> Monitoring Reports</p> <p>Inspection results: (check all that apply)</p> <p class="list-item"><input type="checkbox"/> The undersigned hereby certifies that the works or activities are functioning in substantial conformance with the permit. This certification is based upon on-site observation of the system conducted by me or my designee under my direct supervision and my review of as-built plans.</p> <p class="list-item"><input type="checkbox"/> The following maintenance was conducted since the last inspection (attach additional pages if needed): <input type="text"/></p> <p class="list-item"><input type="checkbox"/> The undersigned hereby certifies that I or my designee under my direct supervision has inspected this surface water management system and the system does not appear to be functioning in substantial conformance with the permit. I am aware that maintenance or alteration is required to bring the system into substantial compliance with the terms and conditions of the permit. As appropriate, I have informed the owner of the following: a) The system does not appear to be functioning properly; b) That maintenance or repair is required to bring the system into compliance; and c) If maintenance or repair measures are not adequate to bring the system into compliance, the system may have to be replaced or an alternative design constructed <u>subsequent to</u> approval by the agency below.</p> <p>The following components of the system do not appear to be functioning properly (attach additional pages if needed): <input type="text"/></p> <p>Any components of the constructed system that are not in substantial conformance with the permitted system shall require a written request to modify the permit <u>in accordance with the provisions of Rule 62-330.315, F.A.C.</u> If such modification request is not approved by the agency below, the components of the system that are not in conformance with the permit are subject to enforcement action under Sections 373.113, 373.129, 373.136, and 373.430, F.S.</p> <p>Form 62-330.311(1) – Operation and Maintenance Inspection Certification Incorporated by reference in subsection 62-330.311(2), F.A.C. (June 28, 2024)</p> <p>Page 1 of 2</p>	<p>OPERATION AND MAINTENANCE INSPECTION CERTIFICATION</p> <p>Name of Inspector: <input type="text"/> Florida Registration Number Or Qualified Inspector Number: <input type="text"/></p> <p>Entity providing Inspector Training: <input type="text"/></p> <p>Date of completion of Inspector Training: <input type="text"/></p> <p>Inspector's Company Name: <input type="text"/></p> <p>Mailing Address: <input type="text"/></p> <p>City: <input type="text"/> State: <input type="text"/> Zip Code: <input type="text"/></p> <p>Phone: <input type="text"/> Fax: <input type="text"/> Email: <input type="text"/></p> <p>Signature of Inspector: <input type="text"/> Date: <input type="text"/></p> <p>Report Reviewed by Permittee:</p> <p>Name of Permittee: <input type="text"/></p> <p>Signature of Permittee: <input type="text"/> Date: <input type="text"/></p> <p>Title (if any): <input type="text"/></p> <p>Form 62-330.311(1) – Operation and Maintenance Inspection Certification Incorporated by reference in subsection 62-330.311(2), F.A.C. (June 28, 2024)</p> <p>Page 2 of 2</p>
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SQuInT Program

- Fully on-line (UF Canvas) self-paced program
- 10 modules
 - Recorded Lecture
 - Quizzes
 - 7 Interactions (+3)
 - 5 Field Modules (+1)
- Final Exam (75% Pass)
 - 1 Immediate retake
- Certification (5-yrs)
- Searchable Directory
- CEUs & PDHs

Stormwater Qualified Inspector Training

Permitted (Environmental Resource Permitting; ERP) stormwater systems in Florida are required to be regularly inspected by a qualified inspector. Inspections must be conducted by qualified registered professionals or certified qualified inspectors.

The UF/IFAS **Stormwater Qualified Inspector Training** (SQuInT) was developed to meet this certification requirement.

[REGISTER NOW](#)



Related

- [Directory of Certified Individuals](#)
- [Stormwater Inspection & Maintenance Resources](#)

SQuInT Modules

1. Fundamentals of Stormwater Management
2. Regulatory Framework
3. Stormwater System Components
4. Interpreting Plans and Modeling Results
5. Common Issues in Stormwater Systems
6. Inspection Techniques and Protocols
7. Flow Inspection & Maintenance
8. Plant Inspection & Maintenance
9. Documentation and Reporting
10. Safety



Module 1: Fundamentals of Stormwater Management



- Effects of Urbanization on Hydrology and Water Quality
- Common Pollutants
- Stormwater Management Concepts
 - Source Areas
 - Collection
 - Conveyance
 - Management

Module 2: Regulatory Framework

- Regulatory Structure:
 - EPA, FDEP, WMDs, Local Gov't
 - Delegation of Authority
- Clean Water Act
 - NPDES Program
 - MS4 Program
- ERP Program
- Clean Water Ways Act
- Interactive Knowledge Check



Northwest Florida
Water Management District



Suwannee River
Water Management District



St. Johns River
Water Management District



Southwest Florida
Water Management District



South Florida
Water Management District

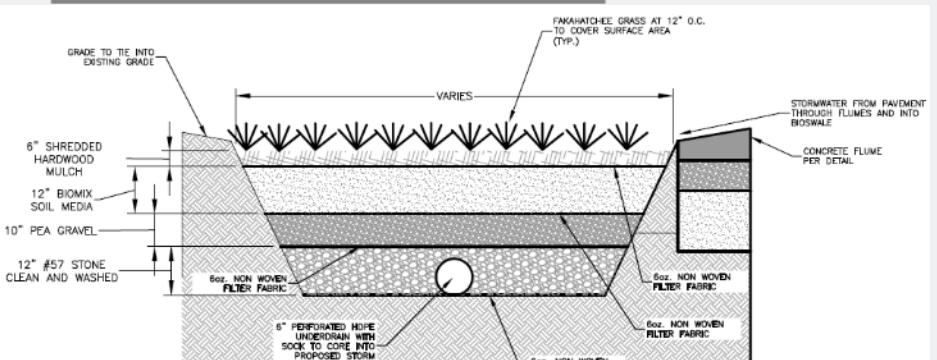
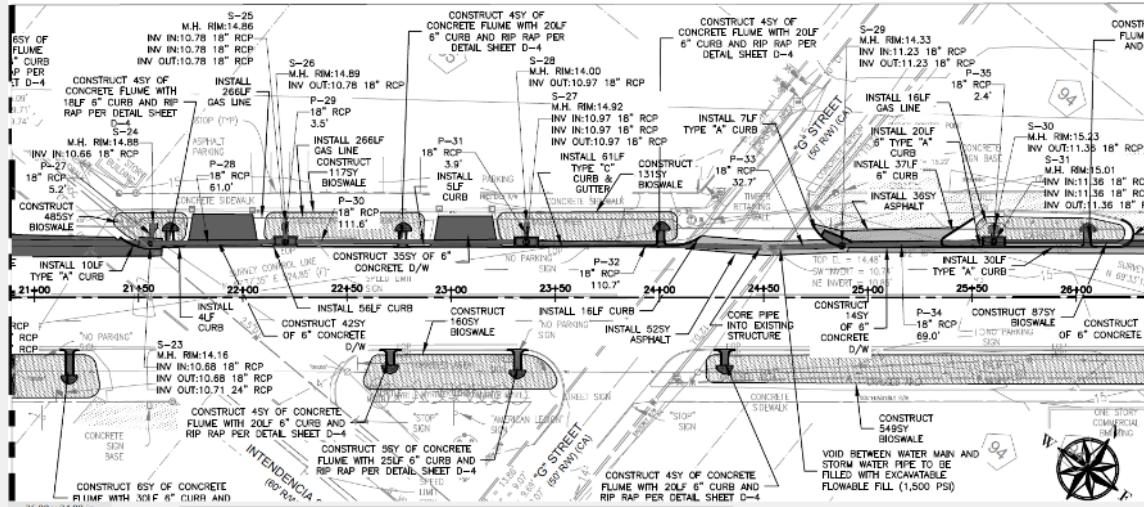
Module 3: Stormwater System Components

- Identify the orientation/siting in landscape
- Identify the elements of BMPs
 - Detention & Retention
 - On-line vs. Off-line
 - Inlets & Outlets
- Identify and describe the functions of
 - Flow Control Practices
 - Filtration Practices
 - GSI Practices
 - Manufactured Devices
 - Non-Traditional BMPs



Module 4: Interpreting Plans and Modeling Results

- Locating site plans
- Navigating site plans and details
- Understanding plan elements
- Identify BMP elements & structures on plans
- Locating modeling results
- Navigating modeling documents
- Interpreting modeling results



BIORETENTION CELL DETAIL

SCALE: N.T.S.

NOTE:

THE BIOMIX MEDIA SHOWN IN THE ABOVE DETAIL FOR THE BIORETENTION CELLS SHALL BE THE BOLD AND GOLD CTS PRODUCT OR APPROVED EQUIVALENT. THE MANUFACTURER'S SPECIFICATION FOR THE BOLD AND GOLD CTS PRODUCT IS INCLUDED IN THE SPECIFICATIONS. THE APPLICATION AND CONSTRUCTION OF THE BIORETENTION SWALES SHALL FOLLOW THESE SPECIFICATIONS/INSTRUCTIONS.

Module 5: Common Issues in Stormwater Systems

- Reading the Site
- Water Levels (past and present)
- Sediment & Erosion (flow and energy)
- Plants (long-term indicators)

• Identify Site Function Characteristics

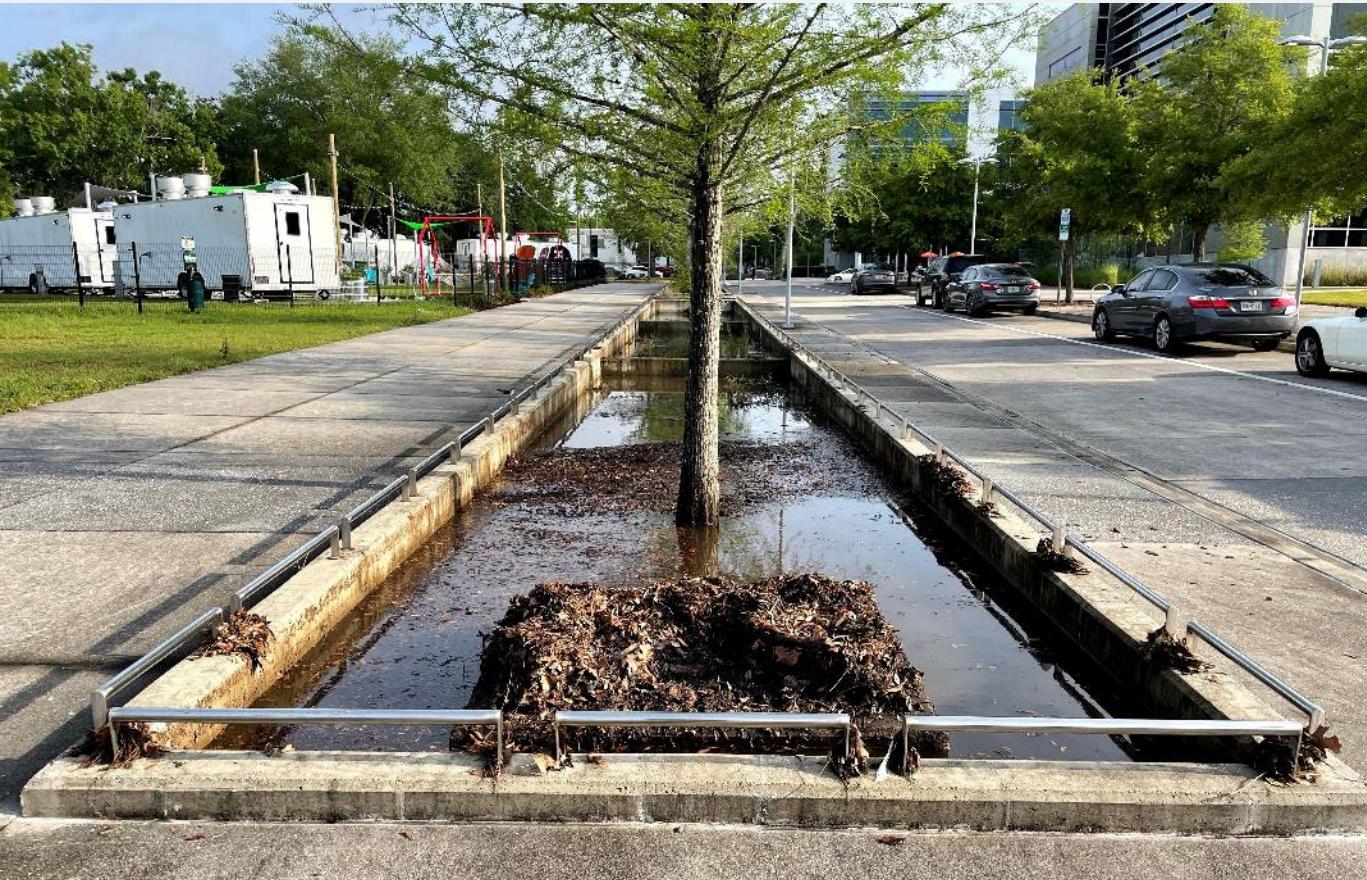


Module 6: Inspection Techniques and Protocols



- Initial Site Visit
- Inspection Materials
- Inspection Checklists
- Inspection Documentation & Submission
- Building Inspection Toolkit

Module 7: Flow Inspection & Maintenance



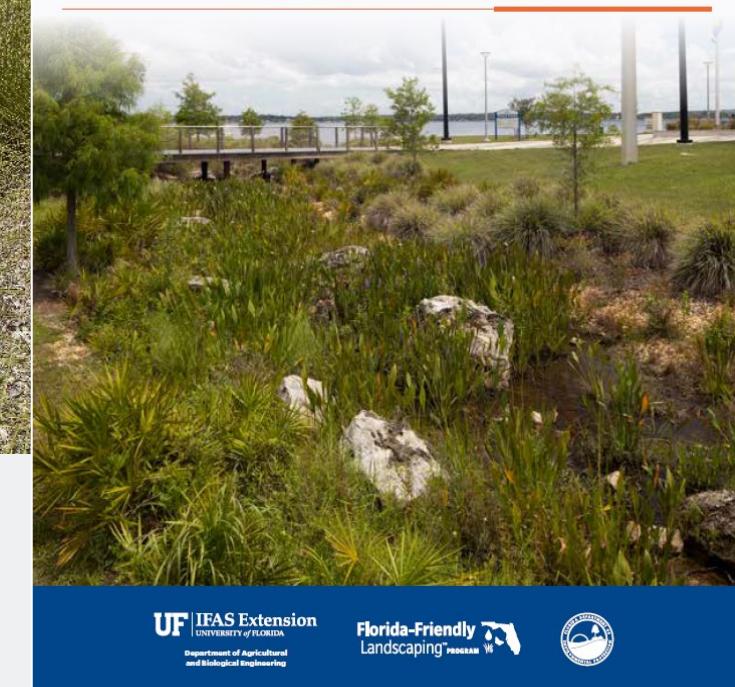
- Identify actions to maintain
 - Flow across watershed
 - Flow through BMP inlets
 - Flow through BMP outlets
 - Storage recovery of BMP
- Addressing erosion
- Addressing sedimentation
- Identify flow issues within various BMPs

Module 8: Plant Inspection & Maintenance

- Identifying plant issues
- General plant maintenance for BMPs
- Resources for BMP plants:
 - Planting information
 - BMP plant lists
- Interpreting plant health and proper plant maintenance



Green Stormwater Infrastructure
**MAINTENANCE
AND PLANTING
MANUAL**



Module 9: Inspection Documentation and Reporting

- Overview of reporting
- Forms and resources
- Regulatory background
- Inspection checklists
- Completing checklists and submitting forms
- Certification and renewal

OPERATION AND MAINTENANCE INSPECTION CERTIFICATION

Instructions: Submit this form to the Agency within 30 days of completion of the inspection, or after any failure of a stormwater management system or deviation from the permit. This form will be used to document inspections required under Section 12.5 of Applicant's Handbook Volume I.

Permit No.: _____ Application No.: _____ Date Issued: _____

Identification or Name of Stormwater Management System: _____

Phase of Stormwater Management System (if applicable): _____

Inspection Date: _____

Included Documentation: (check all that are attached)

Form 62-330.311(X) "Inspection Checklist" (Required for permitted inspection frequency)

Updated O&M cost estimate

Updated O&M Plan

Monitoring Reports

Inspection results: (check all that apply)

The undersigned hereby certifies that the works or activities are functioning in substantial conformance with the permit. This certification is based upon on-site observation of the system conducted by me or my designee under my direct supervision and my review of as-built plans.

The following maintenance was conducted since the last inspection (attach additional pages if needed): _____

The undersigned hereby certifies that I or my designee under my direct supervision has inspected this surface water management system and the system does not appear to be functioning in substantial conformance with the permit. I am aware that maintenance or alteration is required to bring the system into substantial compliance with the terms and conditions of the permit. As appropriate, I have informed the owner of the following:

a) The system does not appear to be functioning properly;

b) That maintenance or repair is required to bring the system into compliance; and

c) If maintenance or repair measures are not adequate to bring the system into compliance, the system may have to be replaced or an alternative design constructed subsequent to approval by the agency below.

The following components of the system do not appear to be functioning properly (attach additional pages if needed): _____

Any components of the constructed system that are not in substantial conformance with the permitted system shall require a written request to modify the permit in accordance with the provisions of Rule 62-330.315, F.A.C. If such modification request is not approved by the agency below, the components of the system that are not in conformance with the permit are subject to enforcement action under sections 373.119, 373.129, 373.136, and 373.430, F.S.

Form 62-330.311(1) – Operation and Maintenance Inspection Certification
Incorporated by reference in subsection 62-330.311(2), F.A.C. (June 28, 2024)

Page 1 of 2

OPERATION AND MAINTENANCE INSPECTION CERTIFICATION

Name of Inspector: _____ Florida Registration Number: _____
Or Qualified Inspector Number: _____

Entity providing Inspector Training: _____

Date of completion of Inspector Training: _____

Inspector's Company Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Fax: _____ Email: _____

Signature of Inspector _____ Date _____

Report Reviewed by Permittee:

Name of Permittee: _____

Signature of Permittee _____ Date _____

Title (if any) _____

Form 62-330.311(1) – Operation and Maintenance Inspection Certification
Incorporated by reference in subsection 62-330.311(2), F.A.C. (June 28, 2024)

Page 2 of 2

Module 10: Safety



- Risks in the field
- Personal protective equipment
- Weather (heat, lightening)
- Poisonous plants
- Insect bites and disease
- Snake bites
- Wildlife
- First aid and emergency situations
- Hypothetical scenarios

Field Modules

- Building an inspection toolkit
- Inspections of:
 - Stormwater Ponds
 - Bioretention & Bioswales
 - Cisterns
 - Manufactured Devices
 - More to come
- Quizzes



Continuing Education Units

- Professional Engineers (10.5 PDHs)
- Landscape Architects (10.5 credits – PENDING)
- Planners (10.5 general credits AICP)
- Community Association Managers (10 credits)
- FNGLA (10.5 credits)
- FFLCP (10.5 credits)
- Landscape Inspectors (4 credits LIAF)



Stormwater Qualified Inspector Training

Self-paced

\$100 Enroll





Account



Dashboard



Courses



Calendar



Inbox



History



Help

[Home](#)[Syllabus](#)[Modules](#)[Quizzes](#)

Stormwater Qualified Inspector Training (SQuInT)

 [Welcome - Start Here](#) [Course Information](#) [Course Agenda](#) [Certificate](#)

Welcome to the Stormwater Qualified Inspector Training Certification (SQuInT). This course is completely self-paced, so you may leave the course if needed and return to where you left off.

The course consists of approximately 12-14 hours of content, including:

- 10 lecture modules with practice quizzes
- 5 field demonstration modules with practice quizzes
- 7 Interactive activities to apply the knowledge gained
- Certification exam

 [View Course Stream](#) [View Course Calendar](#) [View Course Notifications](#)

To Do

Nothing for now

UF/IFAS FLORIDA-FRIENDLY LANDSCAPING™ PROFESSIONAL CERTIFICATIONS



Qualified Stormwater Inspector Search

This Qualified Stormwater Inspectors directory lists individuals who have successfully completed the required training and hold a current Qualified Stormwater Inspector Certification. The certification is valid for five years from the date of completion and must be renewed to maintain active status. The directory is updated regularly.

For inquiries or updates regarding certifications, please contact our administrative team at ffl-ceu@ifas.ufl.edu

After clicking Search below, use the column headings to sort the results or filter by name, location, or certificate number. Drag the line between headings to adjust column widths.

Enter date(s) to limit search results or leave blank for all dates.

From To Name

Found 81 records

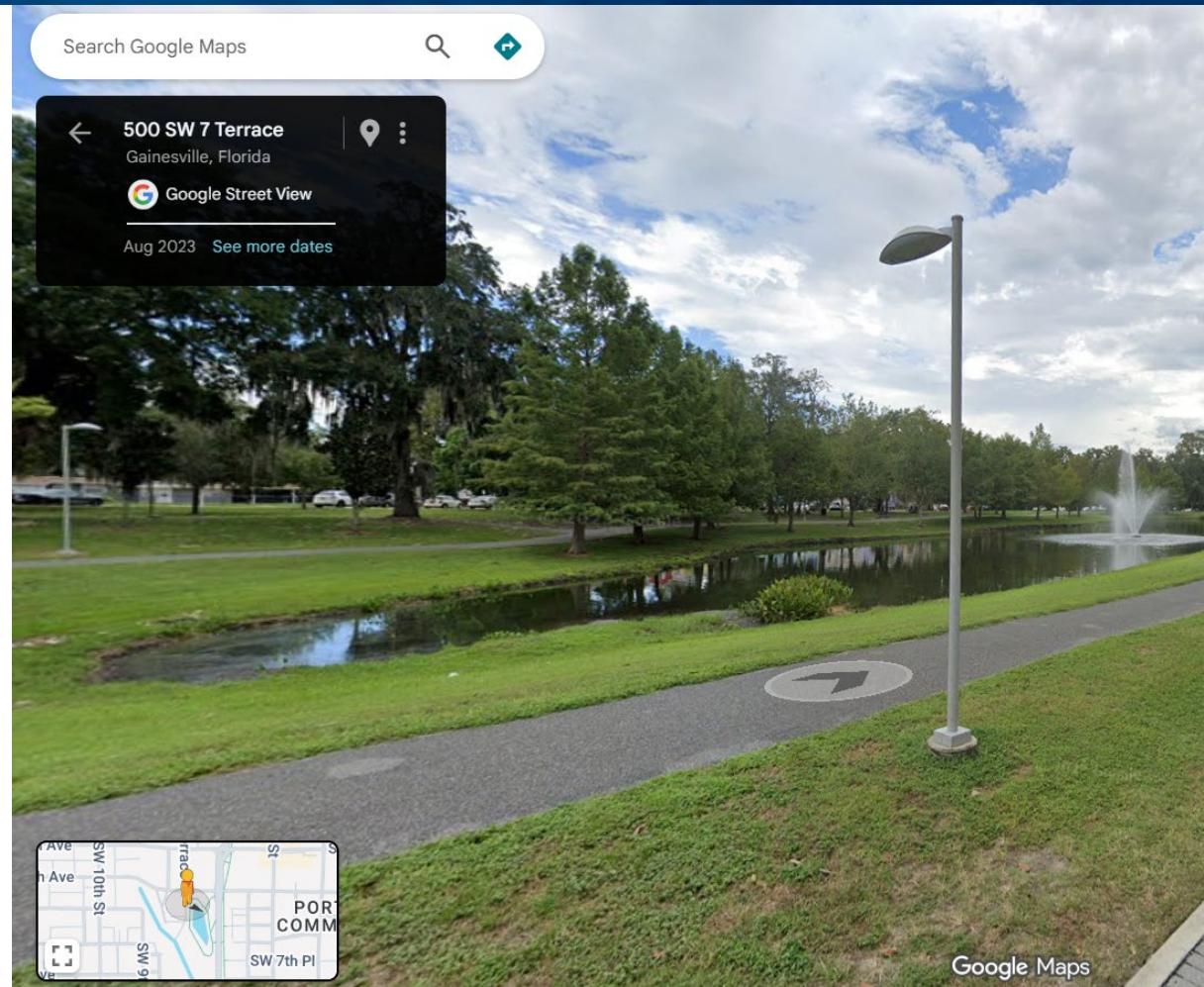
Select table headings to sort or filter.

Name	Date of Completion	Certificate # ↓	City	County	State
Jesse Mason	11/16/2025 04:55 PM	57769			
Deryl Jones	11/17/2025 11:26 AM	57669			

Location Info Coming Soon!

Moving Forward

- Feedback Welcome!
- Regularly updating content and rerecording segments
- Intensive interactions (3)
- Field module videos (1)



Florida-Friendly Landscaping™ Program

Green Stormwater Infrastructure (GSI) Maintenance Resources

Green stormwater infrastructure (GSI) includes a range of structural and non-structural retention and detention measures that infiltrate, evaporate, detain, filter, or store stormwater runoff close to the source. GSI typically provides improved water quality treatment and adds greater aesthetic value to the environment.

The long-term performance of a GSI system relies heavily on proper maintenance to preserve its functionality. This page provides tools and resources to help Florida's communities and local governments maintain effective stormwater management.



Certification Training Now Available!

The UF/IFAS [Stormwater Qualified Inspector Training](#) (SQuInT) online certification training provides essential tools and strategies to inspect and maintain GSI installations. Proper GSI maintenance helps ensure optimal performance of these sustainable water management practices.

Successful completion of the SQuInT course meets the certification requirements to perform stormwater system inspection under the 2024 Florida stormwater regulations that took effect 6/28/2025.

GSI Maintenance Guides

- [GSI Maintenance & Planting Manual](#)
- [GSI Plant Guide](#)
- [Inspection Checklists](#)
 - Bioretention - [pdf](#)
 - Cisterns - [pdf](#)
 - Dry Filtration - [pdf](#)
 - Green Roof - [pdf](#)
 - Pervious Pavement - [pdf](#)
 - Stormwater Ponds - [pdf](#)
 - Swales - [pdf](#)
 - Tree Boxes - [pdf](#)
 - Vegetative Buffer - [pdf](#)
 - Wetlands - [pdf](#)

More GSI Resources

- [Florida DEP Green Stormwater Infrastructure website](#)
- [Green Infrastructure in Florida Video Series](#)
- [GSI Webinar Series](#)
- [The Nature Conservancy & UF/IFAS GSI Photo Library](#)

GSI Maintenance Guides

- [GSI Maintenance & Planting Manual](#)
- [GSI Plant Guide](#)
- [Inspection Checklists](#)
 - Bioretention - [pdf](#)
 - Cisterns - [pdf](#)
 - Dry Filtration - [pdf](#)
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 - Wetlands - [pdf](#)

More GSI Resources

- [Florida DEP Green Stormwater Infrastructure website](#)
- [Green Infrastructure in Florida Video Series](#)
- [GSI Webinar Series](#)
- [The Nature Conservancy & UF/IFAS GSI Photo Library](#)

Inspector: Inspector Certification Number: Permit Number: Permit Effective Date:
 Project Name: Permit Holder: Permit drawings have been reviewed: Y/N Multiple BMP types in system: Y/N
 Addition photos attached: Y/N Compliance Activity record attached: Y/N Approximate time since last rain: < 24 h 24-48 h >48 h
 Inspection Date: Time: Date of Last Inspection: Approximate size of last rain: < 0.5 in. 0.5-1.0 in. > 1 in.

Bioretention

All questions are either 'S' or 'U' for satisfactory/unsatisfactory, respectively, unless otherwise specified.

Note: 'U' typically indicates that maintenance is needed.

General:

	S	U
1. Is the site accessible? (If not, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the BMP ONLINE or OFFLINE? (Circle answer)	On	Off
3. Are grass clippings present in the drainage area or within the system [inlet structure, pretreatment (filter strip and grass channel), main treatment, or outlet/overflow structure]? (Note: grass clippings should be removed if online.) (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>

Drainage Area:

	S	U
4. Condition of exposed or actively eroding areas	<input type="checkbox"/>	<input type="checkbox"/>
5. Level of sedimentation	<input type="checkbox"/>	<input type="checkbox"/>
6. Level of debris obstructing flow paths (overland or within pipes)	<input type="checkbox"/>	<input type="checkbox"/>

Inlet Structure/Pretreatment:

	S	U
7. Condition of inlet structures	<input type="checkbox"/>	<input type="checkbox"/>
8. Evidence of runoff short circuiting the inlet(s) (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>
9. Presence of trash, debris, or sediment in or around inlet(s) (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>
10. Evidence of erosion, gullies, rills, or flooding around the inlet that may impair function. (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>
11. Plant maintenance condition around the inlet(s)	<input type="checkbox"/>	<input type="checkbox"/>



Qualitative Inspection:

28. Estimate the sediment accumulation area in the bioretention surface area.

Good Marginal Poor

<25% 25-50% >50%

29. Rate the presence of debris (e.g., leaves, trash, grass clippings) in the bioretention surface area.

Good Marginal Poor

<25% 25-50% >50%

30. Estimate the presence of undesirable vegetation.

Good Marginal Poor

<25% 25-50% >50%

31. Rate the plant health per landscaping plan and site objectives (dying/stressed).

Good Marginal Poor

>50% 25-50% <25%

Main Treatment Area:

	S	U
12. Evidence of prolonged ponding (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>
13. Mulch depth (should be at least 2 inches)	<input type="checkbox"/>	<input type="checkbox"/>
14. Presence of wildlife-related damage (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>
15. The condition of areas with signs of erosion	<input type="checkbox"/>	<input type="checkbox"/>
16. Presence of sediment buildup (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>
17. Water presence in the bioretention area (outside expected levels. (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>

Vegetation/Turfgrass:

	S	U
18. Presence of weeds or invasive species	<input type="checkbox"/>	<input type="checkbox"/>
19. Presence of dead plant material	<input type="checkbox"/>	<input type="checkbox"/>
20. Condition of plants (stress, disease, or pests)	<input type="checkbox"/>	<input type="checkbox"/>
21. Need for replanting in any areas	<input type="checkbox"/>	<input type="checkbox"/>
22. Condition of plant growth (e.g., overgrown vegetation)	<input type="checkbox"/>	<input type="checkbox"/>

Underdrain (if installed):

	S	U
23. Condition of cleanouts (e.g., missing or damaged)	<input type="checkbox"/>	<input type="checkbox"/>
24. Evidence of underdrain clogging or blockage. (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>

Emergency Overflow / Outlet Structure (if appropriate):

	S	U
25. Condition of outlet structures	<input type="checkbox"/>	<input type="checkbox"/>
26. Presence of trash, debris, or sediment around outlet structure(s) (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>
27. Evidence of erosion, or flooding around structures that may impair function? (If yes, check 'U')	<input type="checkbox"/>	<input type="checkbox"/>



32. Rate the condition of plant density per landscaping plan and site objectives.

Good Marginal Poor

>50% 25-50% <25%

Scan QR code for examples of potential issues:



GSI Inspection Checklist Examples

BIORETENTION

Click below to jump to a specific photo on this page. The checklist question numbers related to the photos are shown in parentheses.

[1. Inlet debris \(6, 9\)](#)

[2. Inlet vegetation \(11\)](#)

[3. Veg. Maintenance \(18-22\)](#)

[4. Erosion & mulch \(4, 13, 15\)](#)

[5. Well maintained](#)

[6. Trash & debris \(29\)](#)

[7. Mulch \(13\)](#)

[8. Trash & debris \(26, 29\)](#)

[9. Replanting \(21, 31\)](#)

[10. Replanting \(21, 31\)](#)

[11. Outlet debris \(26\)](#)

[12. Extended ponding \(12, 27\)](#)

[13. Outlet ponding \(26, 27\)](#)

[1. Inlet debris \(6, 9\)](#)



[2. Inlet vegetation \(11\)](#)



[3. Veg. Maintenance \(18-22\)](#)



BMP Plant List

- 118 Plants currently
- Compatible BMP/GSI
- Grouped by Plant Type
 - Annuals
 - Aquatics
 - Groundcover
 - Ornamental Grass
 - Perennial
 - Sedges & Rushes
 - Shrubs
 - Trees: Large, Medium, & Small
 - Vines
- Living document
 - Plant lists, expert input, and experience
 - Fine tune information
 - Fill open data
 - Plant specific maintenance

Groundcover

June 28, 2023



Scientific Name	<i>Sesuvium portulacastrum</i>		
Common Name	Sea Purslane		
Native	Native		
Planting Zone	Bank Slope		
Plant spacing	3-5 ft. apart		
Hardiness Zone	9-11		
Growth Form	Groundcover		
GSI Type	Bioretention, Stormwater Pond, Tree Box, Infiltration Basin, Swale, Green Roof, Wetlands		
Light Requirement	Full Sun/Part Shade	Native Habitat	
Evergreen/Deciduous	Evergreen	Growth Rate	Medium
Height	0.5-1	Spread	3' - 6'
Flood Tolerance	Occasional	Drought Tolerance	High
Soil pH	Slightly Acid to Alkaline (6.0-8.0)	Salt Tolerance	High
Soil Moisture		Soil Texture	Clay/Loam/Sand
Color	Pink, Purple (Flower)	Longevity	Perennial
Bank Stabilization/Erosion Control	Excellent groundcover and candidate for erosion control.		
Wildlife Benefit	Provides habitat for invertebrates used as food for waterbirds.		
Notes	Nutrient Uptake; roots known to help filter and clear water of toxins and other unwanted materials.		
Planting Guidelines			
Maintenance	Virtually no irrigation or fertilizer is needed once the plant is established in the landscape. In many ways it defines a low maintenance plant.		

Acknowledgements

- Funded by FDEP Non-Point Source Program
- UF-IFAS
 - Florida Friendly Landscaping
 - Communications: Video Production
 - Extension Online
 - Graduate Students
- Florida Stormwater Association
 - Reviewers



Questions?



SQuInT Information



AGRICULTURAL & BIOLOGICAL
ENGINEERING



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