RHODE ISLAND DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
Office of Water Resources

DEM USE ONLY

Date Received _____

RIPDES SMALL MS4 ANNUAL REPORT

GENERAL INFORMATION PAGE

RIPDES PERMIT #RIR0400 -29

REPORTING PERIOD: ☒ **YEAR 19**

Jan 2022-Dec 2022

OPERATOR OF MS4

Name: Town of West Greenwich			
Mailing Address: 280 Victory Highway			
City: West Greenwich	State: RI	Zip: 02817	Phone: (401) 392-3800
Contact Person: David Provonsil	Title: Town Planner		
	Email: dprovonsil@wgtownri.org		

Legal status (circle one):
PRI - Private **PUB - Public** BPP - Public/Private STA - State FED – Federal
Other (please specify):

OWNER OF MS4 (if different from OPERATOR)

Name:			
Mailing Address:			
City:	State:	Zip:	Phone: ( )
Contact Person:	Title:		
	Email:		

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name Kevin A. Breene

Print Title Town Administrator

Signature Kevin A. Breene

Date 3/15/23

MINIMUM CONTROL MEASURE #1:
PUBLIC EDUCATION AND OUTREACH (Part IV.B.1 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as activities, topics addressed, audiences and pollutants targeted. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for choosing the education activity to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: David Provonsil, Town Planner

Phone: (401) 392-3800 **Email:** dprovonsil@wgtownri.org

IV.B.1.b.1	Use the space below to provide a General Summary of activities implemented to educate your community on how to reduce stormwater pollution. For TMDL affected areas, with stormwater associated pollutants of concern, indicate rationale for choosing the education activity. List materials used for public education and topics addressed. Summarize implementation status and discuss if the activity is appropriate and effective.

- The Town maintained website has a Stormwater management page.
- Required solar development to monitor the site in Watershed Watch.
- Maintained posting and pamphlets at town hall.

IV.B.1.b.2	Use the space below to provide a general summary of how the public education program was used to educate the community on how to become involved in the municipal or statewide stormwater program. Describe partnerships with governmental and non-governmental agencies used to involve your community.

- The Lake Mishnock Preservation Association raised $4,000. Treated Lake for milfoil overgrowth using Procellaror Aquatic Herbicide.
  Provided D.E.M. contact for septic system care and maintenance.

Check all topics that were included in the Public Education and Outreach program during this reporting period. For each of the topics selected, provide:
Target Audience(s): Public Employees, Residents, General Public, Businesses, Industries, Restaurants, Contractors, Developers, Agriculture, Other (describe);
Target Pollutant(s): (e.g. pet waste, fertilizers, Total Suspended Solids, etc.);
Strategies/Media: Direct Mailings, List Servs, Kiosks or Other Displays, Newspaper Ads or Articles, Public Events or Presentations, School Programs, Printed Materials, Direct Trainings, Videos, Webpage, Other (describe)

Topic	Target Audience(s)	Target Pollutant(s)	Strategies/Media
☒ Construction Sites	Contractors		Regulations; approvals
☐ Pesticide and Fertilizer Application			
☒ General Stormwater Management Info	General	Sediment	Town Code; website
☐ Pet Waste Management			
☐ Household Hazardous Waste Disposal			
☒ Recycling	Residents	Hazmat	Town Hall postings
☐ Illicit Discharge Detection and Elimination			
☐ Riparian Corridor Protection/Restoration			
☐ Infrastructure Maintenance			
☐ Trash Management			
☐ Smart Growth			
☐ Vehicle Washing			
☐ Storm Drain Marking			
☐ Water Conservation			
☒ Green Infrastructure/Better Site Design/LID	General	General	NMSA Webcast March 22
☐ Wetland Protection			
☐ Other:			
☐ None			

Additional Measurable Goals and Activities

Please list all stormwater training attended by your staff during the 2022 calendar year and list the name(s) and municipal position of all staff who attended the training.

Trainings: NMSA webcast on "Stormwater and Green Infra-Structure and the Clean Watershed Needs Survey"

Attending name of staff and title: David Provonsil, Town Planner

Attending name of staff and title: _____

MINIMUM CONTROL MEASURE #2:
PUBLIC INVOLVEMENT/PARTICIPATION (Part IV.B.2 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as types of activities and audiences/groups engaged. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: David Provonsil, Town Planner

Phone: (401) 392-3800 **Email:** dprovonsil@wgtownri.org

IV.B.2.b.2.ii	Use the space below to describe audiences targeted for the public involvement minimum measure, include a description of the groups engaged, and activities implemented and if a particular pollutant(s) was targeted. If addressing TMDL requirements indicate how the audience(s) and/or activity address the pollutant(s) of concern. Name of person(s) and/or parties responsible for implementation of activities identified. Assess the effectiveness of BMP and measurable goal.

- Funds approved for milfoil - Lake Mishnock Preservation Association.

Opportunities provided for public participation in implementation, development, evaluation, and improvement of the Stormwater Management Program Plan (SWMPP) during this reporting period. Check all that apply:

- ☒ Cleanup Events
- ☐ Comments on SWMPP Received
- ☐ Community Hotlines
- ☒ Community Meetings
- ☒ Other (describe) Lake Mishnock water treatments- DEM approved
- ☐ Storm Drain Markings
- ☐ Stakeholder Meetings
- ☐ Volunteer Monitoring
- ☐ Plantings

Additional Measurable Goals and Activities

- Completed LID Site Planning Self-Assessment

SECTION II. Public Notice Information (Parts IV.G.2.h and IV.G.2.i) *Note: attach copy of public notice

Was the availability of this Annual Report and the Stormwater Management Program Plan (SWMPP) announced via public notice? ☒ YES ☐ NO	If YES, Date of Public Notice: March 7, 2023

How was public notified:

- ☐ List-Serve (Enter # of names in List: _____)
- ☐ TV/Radio Notices
- ☒ Website
- ☒ Newspaper Advertising
- ☒ Town Hall posting
- ☐ Other:

Enter Web Page URL: www.wgtownri.org/planning/pages/storm-water-management-and-water-quality

Was public meeting held? ☒ YES ☐ NO

Date: March 15, 2023 Where: West Greenwich Town Hall

Summary of public comments received:

None received.

Planned responses or changes to the program: N.A.

MINIMUM CONTROL MEASURE #3:
ILLICIT DISCHARGE DETECTION AND ELIMINATION (Part IV.B.3 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS

Include information relevant to the implementation of each measurable goal, such as activities implemented (when reporting tracked and eliminated illicit discharges, please explain the rationale for targeting the illicit discharge) to comply with on-going requirements, and illicit discharge public education activities, audiences and pollutants targeted. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: Claude Wright, Public Works Director

Phone: (401) 385-3854 **Email:** chwright@wgtownri.org

Has *this person* received training on Illicit Discharge Detection and Elimination (IDDE)? Yes

If yes, when and where? Works with Town Planner, P.E.

If no, who *is* trained on IDDE? _____

IV.B.3.b.1:	If the outfall map was not completed, use the space below to indicate reasons why, proposed schedule for completion of requirement and person(s)/ Department responsible for completion. (The Department recommends electronic submission of updated EXCEL Tables if this information has been amended.) **Number of Outfalls Mapped within regulated area:** 5 + 1 to State Road **Percent Complete:** 100 **If 100% Complete, Provide Date of Completion:** 2016
IV.B.3.b.2	Indicate if your municipality chose to implement the tagging of outfalls activity under the IDDE minimum measure, activities and actions undertaken under the 2022 calendar year.
Previously completed	
IV.B.3.b.3	Use the space below to provide a summary of the implementation of recording of system additional elements (catch basins, manholes, and/or pipes). Indicate if the activity was implemented as a result of the tracing of illicit discharges, new MS4 construction projects, and inspection of catch basins required under the IDDE and Pollution Prevention and Good Housekeeping Minimum Measures, and/or as a result of TMDL related requirements and/or investigations. Assess effectiveness of the program minimizing water quality impacts.
No new development in the "urban Area"	
IV.B.3.b.4	Indicate if the IDDE ordinance was **not** developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement. **Date of Adoption:** _____ If the Ordinance was amended in 2022, please indicate why changes were necessary.

IV.B.3.b.5.ii, iii, iv, & v	Use the space below to provide a summary of the implementation of procedures for receipt and consideration of complaints, tracing the source of an illicit discharge, removing the source of the illicit discharge and program evaluation and assessment as a result of removing sources of illicit discharges. Identify person(s) / Department and/or parties responsible for the implementation of this requirement.
No Complaints (DPW or Planning Department)	
IV.B.3.b.5.vi	Use the space below to provide summary of implementation of catch basin and manhole inspections for illicit connections and non-stormwater discharges. If the required measurable goal of inspecting all catch basins and manholes for this purpose was not accomplished, please indicate reasons why, the proposed schedule of completion and identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement. The operator must keep records of all inspections and corrective actions required and completed. **Number of Catch Basins and Manholes Inspected for illicit connections/IDDE:** 0 (of 24) **Percent Complete:** 50 % **Date of Completion:** Sept. 2022
IV.B.3.b.5.vii	If dry weather surveys including field screening for non-stormwater flows and field tests of selected parameters and bacteria were not completed, indicate reasons why, proposed schedule for the completion of this measurable goal and person(s) / Department and/or parties for the completion of this requirement. Evaluate effectiveness of the implementation of this requirement. **The results of the dry weather survey investigations should be submitted to RIDEM electronically, if not already submitted or if revised since 2009, in the RIDEM-provided EXCEL Tables and should include visual observations for all outfalls during both the high and low water table timeframes, as well as sampling results for those outfalls with flow. The EXCEL Tables must include a report of all outfalls and indicate the presence or absence of dry weather discharges.** **Number of Outfalls Surveyed Jan-Apr:** _____ **Number of Outfalls Surveyed Jul-Oct:** _____ **Percent Complete:** _____ % **Date of Completion:** _____
IV.B.3.b.7	Use the space below to provide a description of efforts and actions taken as a result of for coordinating with other physically interconnected MS4s, including State and federal owned or operated MS4s, when illicit discharges were detected or reported. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.
N/A	
IV.B.3.b.8	Use the space below to provide a description of efforts and actions taken for the referral to RIDEM of non-stormwater discharges not authorized in accordance to Part I.B.3 of this permit or another appropriate RIPDES permit, which the operator has deemed appropriate to continue discharging to the MS4, for consideration of an appropriate permit. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.

IV.B.3.b.9	Use the space below to provide a description of efforts and actions taken to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste, as well as allowable non-stormwater discharges identified as significant contributors of pollutants. Include a description on how this activity was coordinated with the public education minimum measure and the pollution prevention/good housekeeping minimum measure programs. Identify person(s) / Department and/or parties responsible for the implementation of this requirement. Evaluate effectiveness of the implementation of this requirement.

- Maintain Stormwater management webpage.
- Posting for education and awareness at Town Hall

Additional Measurable Goals and Activities

SECTION II.A Other Reporting Requirements - Illicit Discharge Investigation and System Mapping (Part IV.G.2.m)

# of Illicit Discharges Identified in 2022:	# of Illicit Discharges Tracked in 2022:
# of Illicit Discharges Eliminated in 2022:	# of Complaints Received:
# of Complaints Investigated:	# of Violations Issued:
# of Violations Resolved:	# of Unresolved Violations Referred to RIDEM:
Total # of Illicit Discharges Identified to Date (since 2003):	Total # of Illicit Discharges remaining unresolved at the end of 2022:

Summary of Enforcement Actions:

Total # of Outfalls identified and mapped to date: 6

Total # of Interconnections with other MS4s identified and mapped to date: 1

Extent to which the MS4 system has been mapped (% complete): 100

Identify how the following components of the MS4 system have been mapped:	Not mapped	GIS	Auto CAD	Paper	Other (please specify)
Catch basins	☐	☒	☐	☐	☐
Manholes	☐	☒	☐	☐	☐
Pipes, ditches, and other conduits	☐	☐	☐	☐	☐
Flow direction and connectivity	☐	☐	☐	☐	☐
Interconnections with other regulated MS4s	☐	☒	☐	☐	☐
MS4-owned stormwater controls (BMPs, not including catch basins or manholes)	☐	☐	☐	☐	☐
Delineation of outfall catchment/drainage areas	☐	☐	☐	☐	☐

MINIMUM CONTROL MEASURE #4:
CONSTRUCTION SITE STORMWATER RUNOFF CONTROL
(Part IV.B.4 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as activities implemented to support the review, issuance and tracking of permits, inspections and receipt of complaints. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: David Provonsil, Town Planner

Phone: (401) 392-3800 **Email:** dprovonsil@wgtownri.org

IV.B.4.b.1	Indicate if the Sediment and Erosion Control and Control of Other Wastes at Construction Sites ordinance was **not** developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement. **Date of Adoption:** 10/16/2002 If the Ordinance was amended in 2022, please indicate why changes were necessary and provide references to the amended portions of the local codes/ordinances.
IV.B.4.b.6	Use the space below to describe actions taken as a result of receipt and consideration of information submitted by the public.
IV.B.4.b.8	Use the space below to describe activities and actions taken as a result of referring to the State non-compliant construction site operators. The operator may rely on the Department for assistance in enforcing the provisions of the RIPDES General Permit for Stormwater Discharges Associated with Construction Activity to the MS4 if the operator of the construction site fails to comply with the local and State requirements of the permit and the non-compliance results or has the potential to result in significant adverse environmental impacts.
Additional Measurable Goals and Activities	

SECTION II.B Interconnections (Parts IV.G.2.k and IV.G.2.l)

Interconnection:	Date Found:	Location:	Name of MS4:	Originating Source:	Planned and Coordinated Efforts and Activities with Connectee:

SECTION II. A - Plan and SWPPP/SESC Plan Reviews during Year 19 (2022), Part IV.B.4.b.2: Issuance of permits and/or implementation of policies and procedures for all construction projects resulting in land disturbance of greater than 1 acre. **Part IV.B.4.b.4:** Review 100% of plans and SWPPPs/SESC Plans for construction projects resulting in land disturbance of 1-5 acres, not reviewed by other State programs, must be conducted by adequately trained personnel and incorporate consideration of potential water quality impacts.

# of Construction Applications Received: 3

# of Construction Reviews Completed: 2

# of Permits/Authorizations Issued: 3

Summary of Reviews and Findings, include an evaluation of the effectiveness of the program.

Identify person(s) /Department and/or parties responsible for the implementation of this requirement:

David Provonsil, Planning

Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained":

P.E. #5160; NMSA course; LID Self Assess

SECTION II.B - Erosion and Sediment Control Inspections during Year 19 (2022), Parts IV.G.2.n and IV.B.4.b.7: Inspection of 100% of all construction projects within the regulated area that discharge or have the potential to discharge to the MS4. (The program must include two inspections of all construction sites, first inspection to be conducted during construction for compliance of the Erosion and Sediment controls at the site, the second to be conducted after the final stabilization of the site.) Inspections must be conducted by adequately trained personnel.

# of Active Construction Projects: 3	
# of Site Inspections: 10	# of Complaints Received:
# of Violations Issued: 2	# of Unresolved Violations Referred to RIDEM: 0

Summary of Enforcement Actions, include an evaluation of the effectiveness of the program.

Stop Work orders; quick response and extra crew; matters resolved, re-inspection

Identify person(s) /Department and/or parties responsible for the implementation of this requirement:

Building Official/Town Planner/Public Works Director

Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained":

Certified Building Official and P.E.

MINIMUM CONTROL MEASURE #5:
POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REVELOPMENT
(Part IV.B.5 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as activities implemented to support the review, issuance and tracking of permits, inspections and receipt of complaints, etc. Please indicate if any projects have incorporated the use of Low Impact Development techniques. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: David Provonsil, Town Planner

Phone: (401) 392-3800 **Email:** dprovonsil@wgtownri.org

IV.B.5.b.5	Use the space below to describe activities and actions taken to coordinate with existing State programs requiring post-construction stormwater management.

- Inspections required
- Bonds posted

IV.B.5.b.6	Use the space below to describe actions taken for the referral to RIDEM of new discharges of stormwater associated with industrial activity as defined in §1.4(A)(111) in the *Regulations for the Rhode Island Pollutant Discharge Elimination System* (RIPDES Regulations) (the operator must implement procedures to identify new activities that require permitting, notify RIDEM, and refer facilities with new stormwater discharges associated with industrial activity to ensure that facilities will obtain the proper permits).

IV.B.5.b.9	Indicate if the Post-Construction Runoff from New Development and Redevelopment Ordinance was **not** developed, adopted, and submitted to RIDEM, explain reasons why, submit proposed schedule for completion and identify person(s) / Department and/or parties responsible for the completion of this requirement. **Date of Adoption:** _____ If the Ordinance was amended in 2022, please indicate why changes were necessary. Please also indicate if amendments have been made based on the 2010 *RI Stormwater Design and Installation Standards Manual*, and provide references to the amended portions of the local codes/ordinances.

- Regulations refer to "the most current edition of"

IV.B.5.b.12	Use the space below to describe activities and actions taken to identify existing stormwater structural BMPs discharging to the MS4 with a goal of ensuring long term O&M of the BMPs.

Additional Measurable Goals and Activities

SECTION II.A. - Plan and SWPPP/SWMP Reviews during Year 19 (2022), Part IV.B.5.b.4: Review 100% of post-construction BMPs for the control of stormwater runoff from new development and redevelopment projects that result in discharges to the MS4 which incorporates consideration of potential water quality impacts (the program requires reviewing 100% of plans for development projects greater than 1 acre, not reviewed by other State programs). Plan reviews must be conducted by adequately trained personnel.

# of Post-Construction Applications Received: 0 # of Post-Construction Reviews Completed: 4 # of Permits/Authorizations Issued: 3 commercial projects (not in MS4)
Summary of Reviews and Findings, include an evaluation of the effectiveness of the program. See IV.B.4.b.4 Identify person(s) /Department and/or parties responsible for the implementation of this requirement: Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained":

SECTION II.B. - Post Construction Inspections during Year 19 (2022), Parts IV.G.2.o and IV.B.5.b.10 - Proper Installation of Structural BMPs: Inspection of BMPs, to ensure these are constructed in accordance with the approved plans (the program must include inspection of 100% of all development greater than one acre within the regulated areas that result in discharges to the MS4 regardless of whom performs the review). Inspections must be conducted by adequately trained personnel.

# of Active Construction Projects: 3	# of Construction Projects Completed: 3
# of Site Inspections for proper Installation of BMPs: 5	# of Complaints Received: 2
# of Violations Issued: 2	# of Unresolved Violations Referred to RIDEM: 0
Summary of Enforcement Actions: Identify person(s) /Department and/or parties responsible for the implementation of this requirement: Planning Identify the type and date of training this person(s)/parties has/have received to be considered "adequately trained":	

SECTION II.C. - Post Construction Inspections during Year 19 (2022), Parts IV.G.2.p and IV.B.5.b.11 - Proper Operation and Maintenance of Structural BMPs: Describe activities and actions taken to track required Operations and Maintenance (O&M) actions for site inspections and enforcement of the O&M of structural BMPs. Tracking of required O&M actions for site inspections and enforcement of the O&M of structural BMPs.

# of Site Inspections for proper O&M of BMPs: 3	# of Complaints Received: 0
# of Violations Issued: 0	# of Unresolved Violations Referred to RIDEM: 0

Summary of Activities and Enforcement Actions. Evaluate the effectiveness of the Program in minimizing water quality impacts.

Identify person(s) /Department and/or parties responsible for the implementation of this requirement:

David Provonsil, Town Planner/Engineer

Strategies for requiring the use of non-structural Low Impact Development (LID) site design practices and techniques into stormwater management designs for new and redevelopment projects, check all that apply in your municipality/MS4:

☐ None
☒ Ordinances or by-laws requiring LID standards (e.g. reduced road widths, % conservation land, etc.)
☐ Ordinances or by-laws requiring LID design at conceptual review (i.e., Pre-application and/or Master Plan) stages for municipal review prior to plans being engineered.
☐ Ordinances or by-laws requiring LID standards only in impaired waterbody drainage areas
☒ Local development regulations requiring use of LID to the maximum extent practicable
☒ LID Guidance available in written form
☐ LID Guidance available at pre-application meetings
☐ Other strategies to ensure incorporation of LID to the maximum extent practicable, describe:

Person(s)/Department responsible for reviewing submissions for LID: Town Planner

Person(s)/Department/Board responsible for approving submissions for LID at Preliminary and/or Final Review, if applicable:
Planning Board

Are you aware of the Municipal LID Self-Assessment that was introduced by the DEM and RI NEMO in 2019 and finalized and distributed in March 2020?

☒ Yes ☐ No

A final version of the Municipal LID Self-Assessment is available on the DEM's website:
http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/stwater/t4guide/lid-checklist-primer.pdf

Additional guidance is also available:

http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/stwater/t4guide/lid-assessment-fs.pdf

http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/stwater/pdfs/lidfactsheet.pdf

http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/stwater/t4guide/lidplan.pdf

Did your community complete the Municipal LID Self-Assessment? ☒ Yes ☐ No

If yes and it was completed in 2022, please provide a copy as an attachment to this Annual Report, if you have not already submitted it.

If no, does your community plan to complete it?

☐ Yes ☐ No

If No, why not?

MINIMUM CONTROL MEASURE #6:
POLLUTION PREVENTION AND GOOD HOUSEKEEPING IN MUNICIPAL OPERATIONS
(Part IV.B.6 General Permit)

SECTION I. OVERALL EVALUATION:

GENERAL SUMMARY, STATUS, APPROPRIATENESS AND EFFECTIVENESS OF MEASURABLE GOALS:

Include information relevant to the implementation of each measurable goal, such as activities and practices used to address on-going requirements, and personnel responsible. Discuss activities to be carried out during the next reporting cycle. If addressing TMDL requirements, please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: Claude Wright, Public Works Director

Phone: (401) 385-3854 **Email:** chwright@wgtownri.org

IV.B.6.b.1.i	Use the space below to describe activities and actions taken to identify structural BMPs (these include but are not limited to: retention/detention basins, vegetated treatment, infiltration and pre-treatment controls, etc.) owned or operated by the small MS4 operator (the program must include identification and listing of the specific location and a description of all structural BMPs in the SWMPP and update the information in the Annual Report). Evaluate appropriateness and effectiveness of this requirement. **Do you have an inventory of MS4-owned/operated BMPs?** ☐ YES ☒ NO **Total # of MS4-owned/operated BMPs** (does not include CBs or MHs):_____

Older area with little water quality or flood mitigation; Mishnock Technology Way, built in 1980's by the State of RI; 18" storm drain connects to a State Road Section

IV.B.6.b.1.ii	Use the space below to describe activities and actions taken for inspections, cleaning and repair of detention/retention basins, storm sewers and catch basins with appropriate scheduling given intensity and type of use in the catchment area. Evaluate appropriateness and effectiveness of this requirement. **# of MS4-owned/operated BMPs inspected in 2022:**_____ **# of MS4-owned/operated BMPs maintained/cleaned in 2022:**_____ **# of MS4-owned/operated BMPs repaired in 2022:** None Does your municipality/MS4 have a system for tracking: a. Inspection schedules of MS4-owned BMPs? ☐ YES ☒ NO b. Maintenance/cleaning schedules of MS4-owned BMPs? ☐ YES ☒ NO c. Repairs, corrective actions needed? ☐ YES ☒ NO d. Complaints? ☐ YES ☒ NO Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track stormwater BMPs, inspections, and maintenance? ☐ YES ☒ NO

Two (2) inspections/cleanings in Mishnock.

Strategies being implemented to ensure long-term Operation and Maintenance (O&M) of privately-owned structural stormwater BMPs, check all that apply in your municipality/MS4:

- ☐ None
- ☐ Ordinances or by-laws identify BMP inspection responsible party
- ☐ Ordinances or by-laws identify BMP maintenance responsible party
- ☐ Ordinances or by-laws identify BMP inspections and maintenance requirements
- ☒ Ordinances or by-laws provide for easements or covenants for inspections and maintenance
- ☒ Ordinances or by-laws require for every constructed BMP an inspections and maintenance agreement
- ☐ Ordinances or by-laws contain requirements for documenting and detailing inspections
- ☐ Ordinances or by-laws contain requirements for documenting and detailing maintenance
- ☒ Ordinances or by-laws contain authority to enforce for lack of maintenance or BMP failure
- ☐ The MS4 is responsible for inspections of all privately-owned BMPs
- ☐ The MS4 is responsible for maintenance of all privately-owned BMPs
- ☐ Establishment of escrow account for use in case of failure of BMP
- ☐ Other strategies to ensure long-term O&M of privately-owned BMPs, describe:

Does your municipality/MS4 require the use BMPs Operations and Maintenance Agreements? ☒ YES ☐ NO

If YES, please indicate if the Operations and Maintenance Agreements include the following:

a.	Party responsible for the long-term O&M of permanent stormwater management BMPs	☒ YES ☐ NO
b.	A description of the permanent stormwater BMPs that will be operated and maintained	☐ YES ☐ NO
c.	The location of the permanent stormwater BMPs that will be operated and maintained	☒ YES ☐ NO
d.	A timeframe for routine and emergency inspections and maintenance of all permanent stormwater management BMPs	☐ YES ☐ NO
e.	A requirement that all inspections and maintenance activities are documented	☒ YES ☐ NO
f.	Annual submission of inspection/maintenance certification/documentation to the MS4	☐ YES ☐ NO
g.	Stormwater management easement for access for inspections and maintenance or the preservation of stormwater runoff conveyance, infiltration, and detention areas and other stormwater controls and BMPs by persons other than the property owner	☒ YES ☐ NO
h.	Steps available for addressing a failure to maintain the stormwater controls and BMPs	☐ YES ☐ NO

Please elaborate, if appropriate:

Does your municipality/MS4 keep an inventory of privately-owned BMPs? ☐ YES ☒ NO

For privately-owned structural BMPs, does your municipality/MS4 have a system for tracking:

a.	Agreements and arrangements to ensure O&M of BMPs?	☒ YES ☐ NO
b.	Inspections?	☐ YES ☐ NO
c.	Maintenance and schedules?	☐ YES ☐ NO
d.	Complaints?	☒ YES ☐ NO
e.	Non-Compliance?	☐ YES ☐ NO
f.	Enforcement actions?	☒ YES ☐ NO

Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track post-construction BMPs, inspections, and maintenance? ☐ YES ☒ NO

If yes, please elaborate on which tools are used:

NOTE: BMP maintenance tasks can be a great way to involve and educate the community to their purpose and function. BMPs have the potential to create a highly interactive environment for community members and volunteers to get involved.

IV.B.6.b.1.iii	Use the space below to describe activities and actions taken to support the requirement of yearly inspection and cleaning of all catch basins (a lesser frequency of inspection based on at least two consecutive years of operational data indicating the system does not require annual cleaning might be acceptable). Evaluate appropriateness and effectiveness of this requirement. **Total # of CBs within regulated area (including SRPW and TMDL areas):** 28 - Mishnock; 7-Technology Way **# of CBs inspected in 2022:** 28 **% of Total inspected:** 100 **# of CBs cleaned in 2022:** 28 / 7 **% of Total cleaned:** 100 If determined, approximate quantity of sand/debris collected by cleaning of catch basins: 9.5 cubic yards Location used for the disposal of debris: DPW yard Do you use an electronic tool (e.g. GIS, database, spreadsheet) to track the inspections and cleaning of catch basins? ☐ YES ☒ NO
IV.B.6.b.1.iv	Use the space below to describe activities and actions taken to minimize erosion of road shoulders and roadside ditches by requiring stabilization of those areas. Evaluate appropriateness and effectiveness of this requirement.
IV.B.6.b.1.v	Use the space below to describe activities and actions taken to identify and report known discharges causing scouring at outfall pipes or outfalls with excessive sedimentation, for the Department to determine on a case-by-case basis if the scouring or sedimentation is a significant and continuous source of sediments. Evaluate appropriateness and effectiveness of this requirement.
No problem outfalls.	
IV.B.6.b.1.vi	Use the space below to indicate if all streets and roads within the urbanized area were swept annually and if not indicate reason(s). The operator is required to sweep all streets and roads within the regulated area annually unless a lesser frequency can be justified based on at least two consecutive years of data indicating the street or road does not require annual sweeping. Evaluate appropriateness and effectiveness of this requirement. **Total roadway miles within regulated area (including SRPW and TMDL areas):** 4.6 - including private road; 0.4 - Technology Way **Roadway miles that were swept in 2022:** 5 **% of Total swept:** 100 Type of sweeper used: ☒ Rotary brush street sweeper ☐ Vacuum street sweeper If determined, approximate quantity of sand/debris collected by sweeping of streets and roads: 67 C.Y. approx. Location used for the disposal of debris: DPW yard

IV.B.6.b.1.vii	Use the space below to describe activities and actions taken for controls to reduce floatables and other pollutants from the MS4. Evaluate appropriateness and effectiveness of this requirement.
Lake Mishnock is self patrolled by the Preservation Association; - pretty clean.	
IV.B.6.b.1.viii	Use the space below to describe the method for disposal of waste removed from MS4s and waste from other municipal operations, including accumulated sediments, floatables and other debris and methods for record-keeping and tracking of this information. Do you have a system for tracking actions to remove and dispose of waste? ☒ YES ☐ NO
Town collects only street sweepings - approximately 67 C.Y. at DPW yard	
IV.B.6.b.2	Use the space below to describe any operations under the MS4's legal control, including activities and facilities, that have the potential to introduce pollutants into stormwater runoff, such as pesticide/herbicide/fertilizer application, chemical and waste handling and storage, vehicle fueling, vehicle washing, vehicle maintenance, sand/salt storage, snow disposal, facilities such as public works facilities with maintenance and storage yards, waste transfer stations, municipal wastewater and water treatment facilities, and municipal parking owned and operated by the MS4. Does your MS4 have any salt piles, or piles containing salt, used for deicing? ☐ YES ☒ NO If yes: Are these piles covered to prevent exposure to rain, snow, snowmelt and/or runoff? ☐ YES ☐ NO If yes, check the type of cover used: ☐ Weatherproof permanent structure/shelter ☐ A temporary, secured, durable, waterproof covering (e.g., tarpaulin, polyethylene, polyurethane) Are these piles located on impermeable surfaces? ☐ YES ☐ NO
IV.B.6.b.5	For all facilities with discharges of stormwater associated with industrial activity, use the space below to describe and indicate activities and corrective actions for the evaluation of compliance. This evaluation must include visual quarterly monitoring; routine visual inspections of designated equipment, processes, and material handling areas for evidence of, or the potential for, pollutants entering the drainage system or point source discharges to waters of the State; and inspection of the entire facility at least once a year for evidence of pollution, evaluation of BMPs that have been implemented, and inspection of equipment. A Compliance Evaluation report summarizing the scope of the inspection, personnel making the inspection, major observations related to the implementation of the Stormwater Management Plan (formerly known as a Stormwater Pollution Prevention Plan), and any actions taken to amend the Plan must be kept for record-keeping purposes.
No BMP's in MS4; pipes, basins; outfalls inspected twice per year.	

IV.B.6.b.6	Use the space below to describe all employee training programs used to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance for the past calendar year, including staff municipal participation in trainings offered by other parties (e.g. SNEP, EPA) and all in-house training conducted by municipality. Evaluate appropriateness and effectiveness of this requirement. How many stormwater management trainings have been provided to *municipal employees* during this reporting period? _0_____ What was the date of the training? ___/___/____ Training Topic(s): _____ How many *municipal employees* attended this training? _____ What was the date of the training? ___/___/____ Training Topic(s): _____ How many *municipal employees* attended this training? _____ [Add additional trainings as necessary.] What percent of *municipal employees* in relevant positions and departments received stormwater management training? _____% Have *municipal employees* that are responsible for inspecting or cleaning catch basins also been trained to detect and report illicit connections or non-stormwater discharges? ☐ YES ☐ NO
IV.B.6.b.7	Use the space below to describe actions taken to ensure that new flow management projects undertaken by the operator are assessed for potential water quality impacts and existing projects are assessed for incorporation of additional water quality protection devices or practices. Evaluate appropriateness and effectiveness of this requirement.
Additional Measurable Goals and Activities	

SECTION II.A - Structural BMPs (Part IV.B.6.b.1.i) These include but are not limited to: retention/detention basins, vegetated treatment, infiltration and pre-treatment controls, etc.

BMP ID:	Location:	Name of BMP Owner/Operator:	Description of BMP:	Frequency of Inspection:

SECTION II.B - Discharges Causing Scouring or Excessive Sedimentation (Part IV.B.6.b.1.v)

Outfall ID:	Location:	Description of Problem:	Description of Remediation Taken, include dates:	Receiving Water Body Name/Description:

SECTION II.C - Note any planned municipal construction projects/opportunities to incorporate water quality BMPs, low impact development, or activities to promote infiltration and recharge (Part IV.G.2.j).

SECTION II.D - Please include a summary of results of any other information that has been collected and analyzed. This includes any type of data (Part IV.G.2.e).

TOTAL MAXIMUM DAILY LOAD (TMDL) or other Water Quality Determination REQUIREMENTS

SECTION I. If you have been notified that discharges from your MS4 require non-structural or structural stormwater controls based on an approved TMDL or other water quality determination, please provide an assessment of the progress towards meeting the requirements for the control of stormwater identified in the approved TMDL (Part IV.G.2.d). Please indicate rationale for the activities chosen to address the pollutant of concern.

(Note: Identify parties responsible for achieving the measurable goals and reference any reliance on another entity for achieving measurable goals. Mark with an asterisk (*) if this person/entity is different from last year.)

Responsible Party Contact Name & Title: _____

Phone: _____ **Email:** _____

LIST OF IMPAIRED WATERS:			
Impaired Water Body: WBID:	Pollutants Causing Impairments:	Has TMDL been completed? Has MS4 been notified of TMDL requirements? Has MS4 developed a Scope of Work or TMDL Implementation Plan?	☒ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO
Impaired Water Body: WBID:	Pollutants Causing Impairments:	Has TMDL been completed? Has MS4 been notified of TMDL requirements? Has MS4 developed a Scope of Work or TMDL Implementation Plan?	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO
[add as necessary]			

What kind of public education and outreach strategy does the MS4 implement to target each pollutant of concern? (e.g., signage on installed stormwater controls, resources on website, pamphlets about litter, pet waste, grass clippings, fertilizer use, etc.)

Pollutant of Concern:	Strategy:	Target Audience:

Has the MS4 installed stormwater BMPs or required the installation of stormwater BMPs on private property to address impairments? ☐ YES ☐ NO

If yes, indicate the name of the impaired water body associated with the stormwater control, type of stormwater control, date installed, ownership, and who is responsible for maintenance:

Impaired water body	Type of Stormwater Control:	Date Installed:	☐ Municipally Owned ☐ Privately Owned	Who maintains it?
[add as necessary]				

TOTAL MAXIMUM DAILY LOAD (TMDL) OR OTHER WATER QUALITY DETERMINATION REQUIREMENTS cont'd

Additional enhanced minimum measures used to address water quality issues (e.g., increased street sweeping or catch basin cleaning in areas with high pollutant loading, installation of floatable traps/screens, etc.):

SPECIAL RESOURCE PROTECTION WATERS (SRPWs)

SECTION I. In accordance with Title 250 RICR-150-10-1 ("RIPDES Regulations") §1.32(A)(5)(a)(7), on or after March 10, 2008, any discharge from a small municipal separate storm sewer system to any Special Resource Protection Waters (SRPWs) or impaired water bodies within its jurisdiction must obtain permits if a waiver has not been granted in accordance with RIPDES Regulations §1.32(G)(5)(c). A list of SRPWs can be found in Title 250-RICR-150-05-1 ("Water Quality Regulations") §1.28 at this link:
https://rules.sos.ri.gov/regulations/part/250-150-05-1
The State of Rhode Island 2018-2020 303(d) Impaired Waters Report can be found here:
http://www.dem.ri.gov/programs/benviron/water/quality/pdf/iwr1820.pdf

If you have discharges from your MS4 (regardless of its location) to any of the listed SRPWs or impaired waters (including impaired waters when a TMDL has not been approved), please provide an assessment of the progress towards expanding the MS4 Phase II Stormwater Program to include the discharges to the aforementioned waters and adapting the Six Minimum Control Measures to include the control of stormwater in these areas. Please indicate a rationale for the activities chosen to protect these waters. Please note that all of the measurable goals and BMPs required by the 2003 MS4 General Permit may not be applicable to these discharges.

TOWN OF WEST GREENWICH PUBLIC NOTICE
FOR DRAFT 2022 STORMWATER PROGRAM ANNUAL REPORT
PUBLIC COMMENT PERIOD: MARCH 7, 2023 TO MARCH 14, 2023
PUBLIC HEARING: MARCH 15, 2023 AT 9:00 A.M. & 3:00 P.M. AT TOWN HALL

The draft 2022 Phase II Stormwater Annual Report has been prepared in accordance with the Rhode Island Pollutant Discharge Elimination System (RIPDES) Program General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) and from Industrial Activity at Eligible Facilities Operated by Regulated Small MS4s.

DATE OF THIS NOTICE: March 7, 2023
Name and Mailing Address of Small MS4 Operator:

RIPDES PERMIT NUMBER: RIR0400-29
Town of West Greenwich – TOWN HALL
280 Victory Highway
West Greenwich, RI 02817

Copies of the DRAFT Phase II Storm Water Annual Report may be obtained at no cost by visiting the Town's Stormwater webpage at https://wgtownri.org/planning/pages/storm-water-management-and-water-quality or by calling David Provonsil, Town Planner at (401) 392-3800 x. 121, or by visiting the Town Hall.

Public Hearings are scheduled for Wednesday, March 15, 2023 at 9:00 a.m. and 3:00 p.m. in the Town Council Chambers, Town of West Greenwich Town Hall, 280 Victory Highway, West Greenwich, RI 02817, to consider the Town of West Greenwich 2022 Phase II Storm Water Annual Report.

The Town of West Greenwich will provide interpreter services for the hearing impaired provided a request is received by the Town Clerk's office at (401) 392-3800 x. 100 three (3) business days prior to said hearing date.

Interested parties may submit written comments on the DRAFT Annual Report, amendments to the SWMPP, and the administrative record to the Town Planner by the close of the public comment period which ends at 4:00 p.m., Wednesday, March 15, 2023. If, during the public comment period, significant comments are received concerning the DRAFT Annual Report or amendments to the SWMPP, the Town of West Greenwich will post a written response to comments on the Stormwater webpage. The response will include the final 2022 Annual Report and identify what changes to the SWMPP have been made, if any.

David Provonsil, Town Planner, Town of West Greenwich

03-07-23

THE KENT COUNTY DAILY TIMES
Serving West Warwick & Coventry since 1892

UP TO DATE, THE LATEST
the new www.ricentral.com

TEL: 401-392-3800
FAX: 401-392-3805

Town of West Greenwich

INCORPORATED 1741

MAILING ADDRESS
280 VICTORY HIGHWAY
WEST GREENWICH
RHODE ISLAND 02817-2113

March 10, 2023

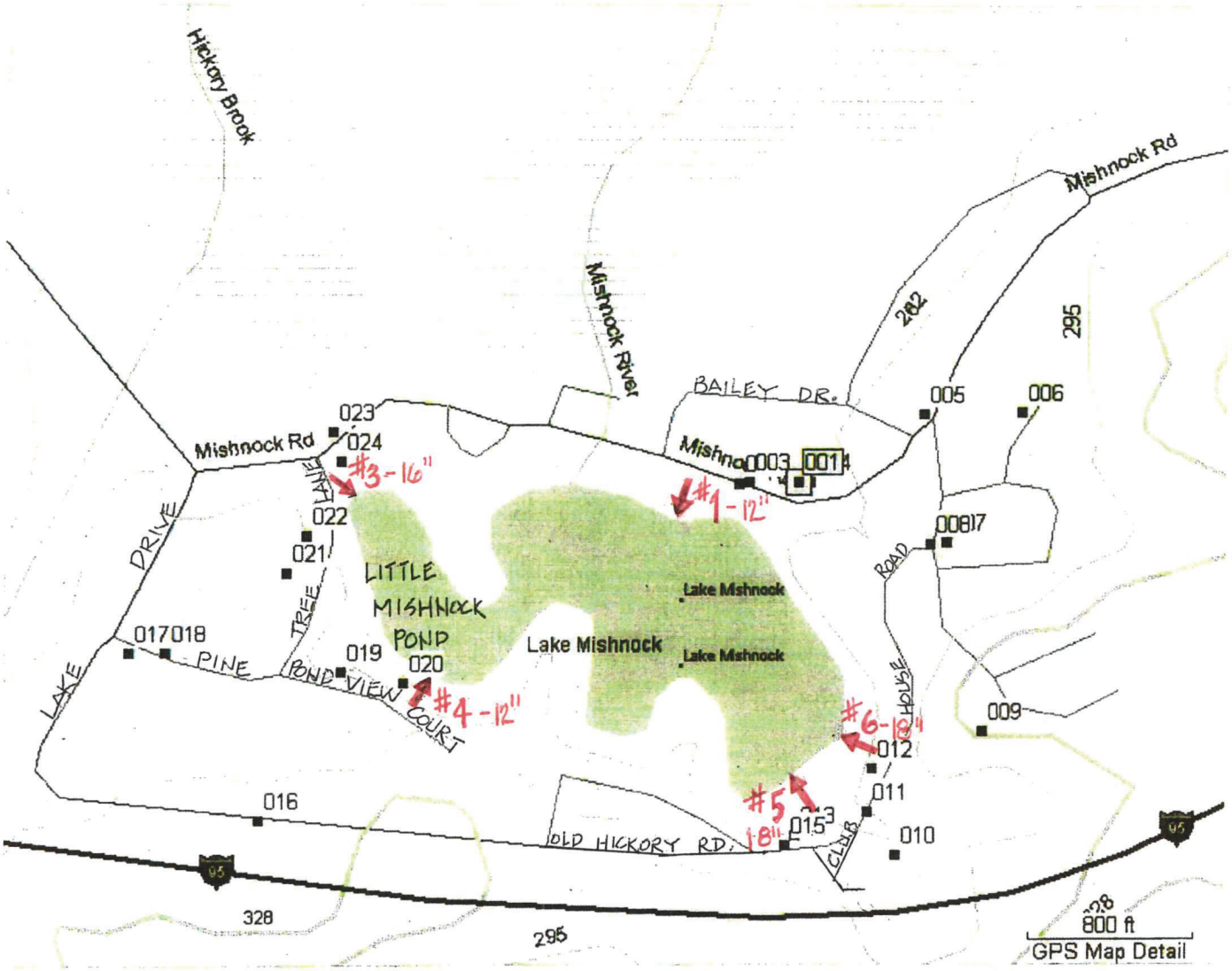
STORM WATER AND BASIN CLEANING – MS4 URBAN AREAS
MISHNOCK AREA, TECHNOLOGY WAY; 2022

Through the months of April and July, the 28 catch basins and structures in Mishnock were cleaned and inspected; a second check of the area was done in October / November.

The 7 catch basins in Technology Way were cleaned during the summer months. The several drain manholes were checked, but did not need cleaning.

The roads in Mishnock were swept two times. Technology Way was swept in the spring.

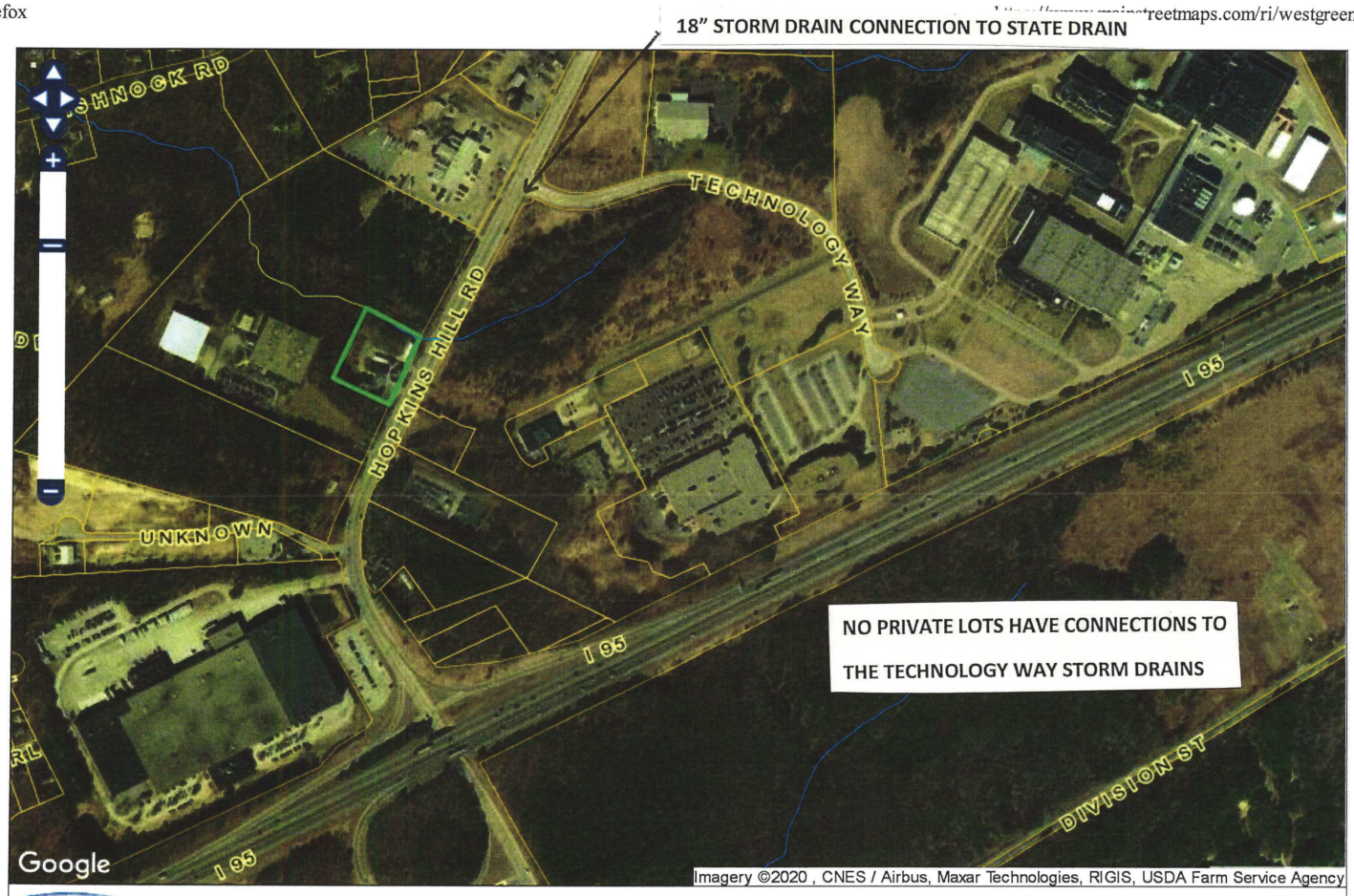
Claude H. Wright
Highway Supervisor



Town of West Greenwich
GPS Located
Catch Basins and [Outfalls = ↑] (#2 NOT USED)
in
Lake Mishnock Urban Area

MS4 ~ 2022
ANNUAL REPORT
MISHNOCK URBAN AREA

© Garmin Corporation 1995-2002



Town of West Greenwich, Rhode Island

Selected Parcel: 73 HOPKINS HILL RD ID: 003/0021/00

Printed on 12/23/2020

100 m
500 ft

N

MainStreetMaps
MainStreetGIS, LLC
www.mainstreetgis.com

This map is for informational purposes only. It is not for appraisal of, description of, or conveyance of land. The Town of West Greenwich, Rhode Island and MainStreetGIS, LLC assume no legal responsibility for the information contained herein.

MS4 - 2022 ANNUAL REPORT
TECHNOLOGY WAY

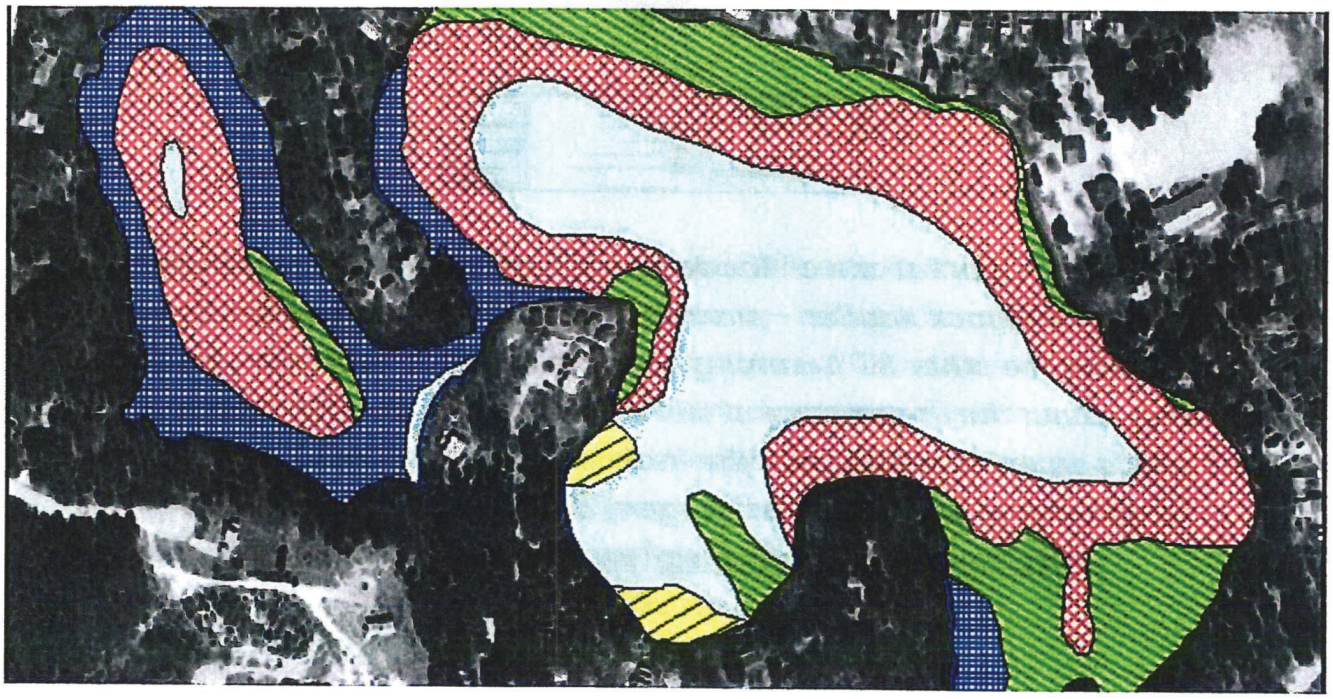
Name of Town: WEST GREENWICH

General Information				Location in Decimal Degrees					
Inspector(s)	Outfall ID	Date	Time	Longitude	Latitude	Method of Collection	Accuracy in Meters	Horizontal Datum	Factor Name
C.W.	1-MISHNOCK	6/6/2018	10:50 AM	-71.6551	+41.5888	GPS_CODE_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	HPIM0014
C.W.	3-PINE TREE	6/6/2018	10:00 AM	-71.6552	+41.5961	GPS_CODE_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	HPIM0008
C.W.	4-POND VIEW	6/6/2018	10:15 AM	-71.6255	+41.5947	GPS_CODE_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	HPIM0009
C.W.	5-OLD HICKORY	6/6/2018	10:30 AM	-71.6504	+41.5875	GPS_CODE_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	HPIM0010
C.W.	6-CLUB HOUSE	6/6/2018	10:40 AM	-71.6509	+41.5861	GPS_CODE_STANDARD_POSITION_(SA_OFF)	<15m	NAD83	HPIM0012

	Receiving Water Body Information		Outfall Information							
Outfall ID	Type	Name	Material	If Other	Shape	If Other	Diameter	If Other	Type	If Other
1-MISHNOCK	LAKE/POND	LAKE MISHNOCK	CONCRETE		CIRCULAR		12"		SINGLE	
3-PINE TREE	LAKE/POND	LITTLE MISHNOCK	CONCRETE		CIRCULAR		16"		SINGLE	
4-POND VIEW	LAKE/POND	LITTLE MISHNOCK	CONCRETE		CIRCULAR		12"		SINGLE	
5-OLD HICKORY	LAKE/POND	LAKE MISHNOCK	CONCRETE		TRAPOZOID		18"		SINGLE	
6-CLUB HOUSE	LAKE/POND	LAKE MISHNOCK	CONCRETE		TRAPOZOID		18"		SINGLE	

SCIENTIFIC INFORMATION

Color map of weed distribution



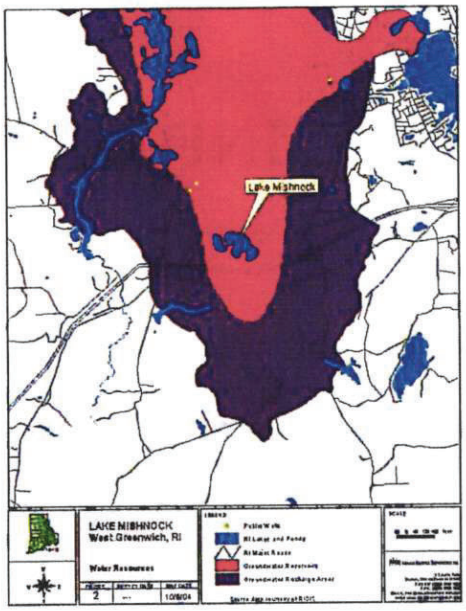
LMPA has had an ongoing weed-management program for many years. The above map is representative of what the lake can look like. Note the red represents dense milfoil. There are some misconceptions about so called beautiful yards. The can be quite harmful to the overall health of a lake.

Think Twice about Lawn and Garden Chemicals

Limit the use of pesticides or fertilizers, and always follow the label directions. Many fertilizers and pesticides contain harmful chemicals which can travel through the

soil and contaminate groundwater or run off in stormwater to rivers, streams, and lakes. EPA evaluates pesticides to ensure that when they are used according to label directions they will not harm people, non-target species or the environment. Read more here: ***http://water.epa.gov/type/lakes/lakestipsfull.cfm*** *or* ***here***

Mishnock Lake and the Mishnock Aquifer



Mishnock Lake is part of one of Rhode Island's most productive groundwater resources - the Mishnock Aquifer - providing about 20 % of the Kent County water supply, with the other 80 % coming from the Scituate Reservoir. For more information about the importance of Mishnock Lake as a water source or to see this year's bacteria results, and the individual charts (Secchi, chlorophyll, temperature and dissolved oxygen) and other parameters go to http://www.uri.edu/ce/wq/ww and click on monitoring data and results.

Copyright © 2022 Lake Mishnock Preservation Association - All Rights Reserved.

Powered by GoDaddy

West Greenwich LID Municipal Self-Assessment Summary

❖ LID Self-Assessment Overview

Using the RIDEM's Low Impact Development (LID) Municipal Self-Assessment tool, I conducted an in-depth review of the Town of West Greenwich's ordinances and regulations to evaluate West Greenwich's current planning and design practices. The self-assessment consists of 66 questions that are categorized under 3 overarching LID "goals," and further divided into 10 sub-goals or "objectives."

Overall, West Greenwich's ordinances and regulations are in okay shape with room for improvement, regarding LID. There are areas in which LID protections are strong, and areas which could use improvement. West Greenwich's regulations regarding protecting undisturbed open space and natural drainage are in relatively good shape. The areas in which regulations have the most room for improvement are in limiting impervious cover and managing the impacts of stormwater runoff at the source.

❖ Assessment Methods

I answered each of the LID Assessment questions by reviewing West Greenwich's Land Development and Subdivision Regulations and Zoning Ordinances. To summarize my findings, I categorized the response to each question based on how well the applicable ordinances conformed with LID standards. The responses were categorized according to the following table:

Question Responses Key	
Complete	Completely met question standards
Partial	Partially met question standards
Not Met	Did not meet question standards
N/A	Not applicable to West Greenwich

The LID Self-Assessment tool was created as a reflective tool for all Rhode Island municipalities, so some questions are "Not Applicable" as they pertain to more urban, densely developed towns and cities. This assessment was also created prior to the new RIDEM Freshwater Wetland Regulations going into effect this summer. As such, several questions regarding municipal wetland protections are no longer relevant.

To summarize my findings, I tallied and analyzed the question responses overall and by LID Goal using the pie charts below (see pages 3-5). The first chart summarizes all 66 questions and shows what percentage of the responses were Complete, Partial, Not Met, and N/A. The next two charts display the responses for "Goal #1: Avoid the Impacts of Development" and "Goal #2: Minimize Impervious Surfaces". "Goal #3: Manage Impacts at the Source" is broken down into two separate pie charts by objective. The first Goal #3 chart represents Objectives VII-IX and the second chart represents "Objective X: Project Review, Installation, and Maintenance." I separated Objective X into it's own chart as the questions did not closely match Goal #3, and the responses to the Objective X questions were very different from that of Objectives VII-IX. The summary table below presents the information in the pie charts.

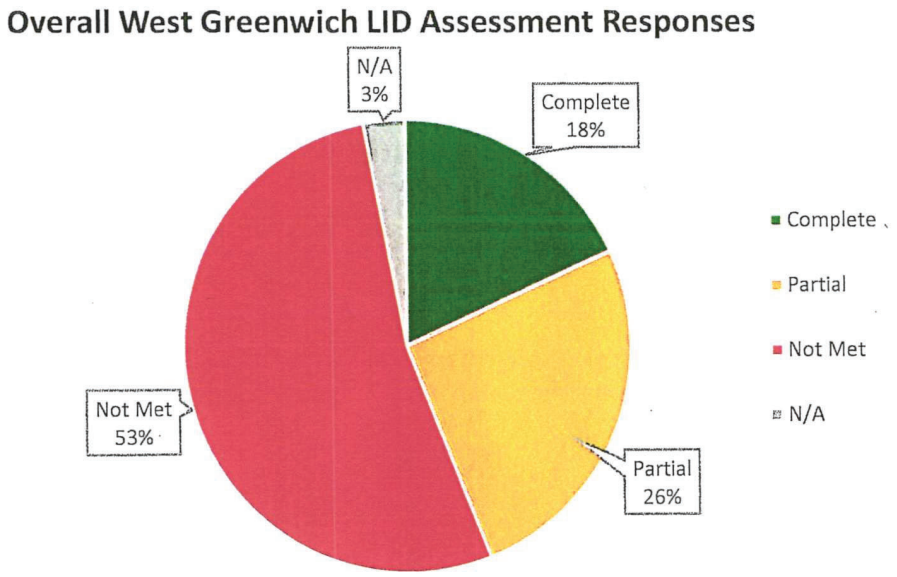
Goal #	Goal Description	Total questions	Complete	Partial	Not Met	N/A
1	Avoid the Impacts of Development	15	5	4	5	1
2	Minimize Impervious Surfaces	28	3	4	20	1
3, VII-IX	Manage Impacts at the Source	10	2	1	7	0
3, X	Project Review, Installation, and Maintenance	13	2	8	3	0
	Total	***66***	***12***	***17***	***35***	***2***

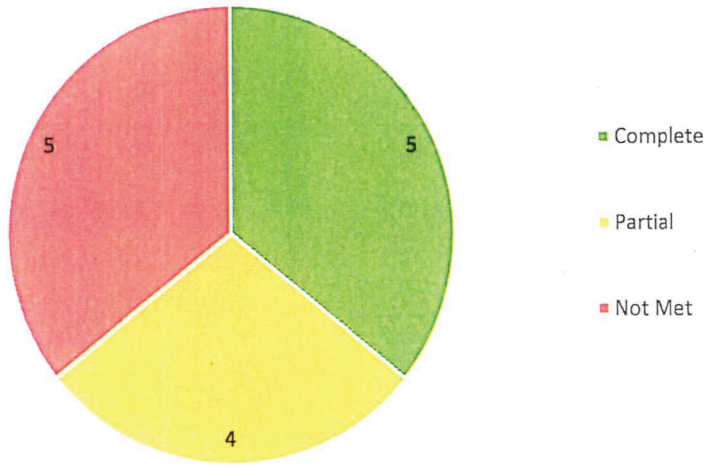
❖ Major Findings

Based on the LID survey results, we have identified two priority goals in strengthening West Greenwich's development ordinances: 1) reduce impervious cover and 2) encourage LID stormwater management techniques.

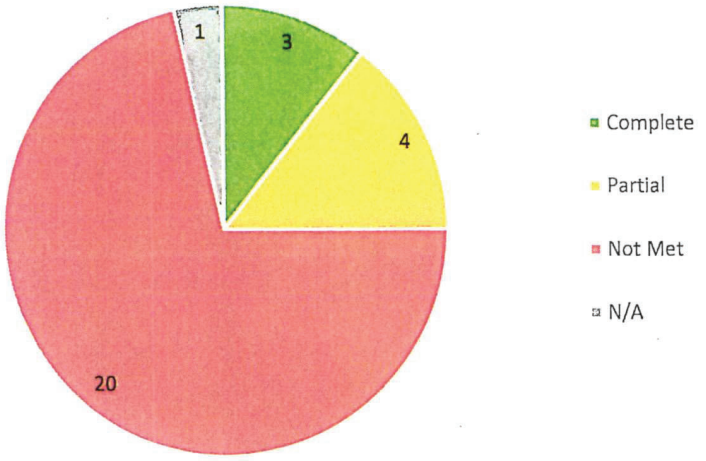
Numeric impervious cover standards often exceeded LID recommendations, and some numeric standards and impervious cover reduction strategies were not addressed. For example, ROW width, cul-de-sac radii, maximum lot percent impervious cover, and parking lot landscaping requirements did not meet LID standards. Pervious paving techniques, driveway dimensions, and shared parking were not addressed. Regulations regarding stormwater management standards did state the overarching LID goal that developments not adversely impact runoff and sometimes addressed LID stormwater management practices, but the LID practices were not default nor prioritized over conventional structural stormwater management techniques

The Town also had regulations that exemplified LID best practices. For example, wetlands are required to be preserved as open space, the Planning Board can alter lot dimensions to protect environmentally sensitive areas, and landscaping plans are required to preserve as much existing vegetation as possible and replant cleared areas. Thank you for working to incorporate LID principles in your community!

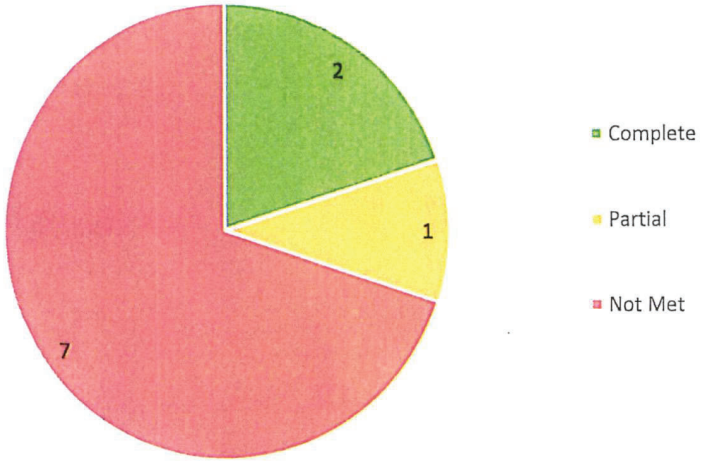

Overall West Greenwich LID Assessment Responses
N/A
3%
Complete
18%
Not Met
53%
Partial
26%
Complete
Partial
Not Met
N/A

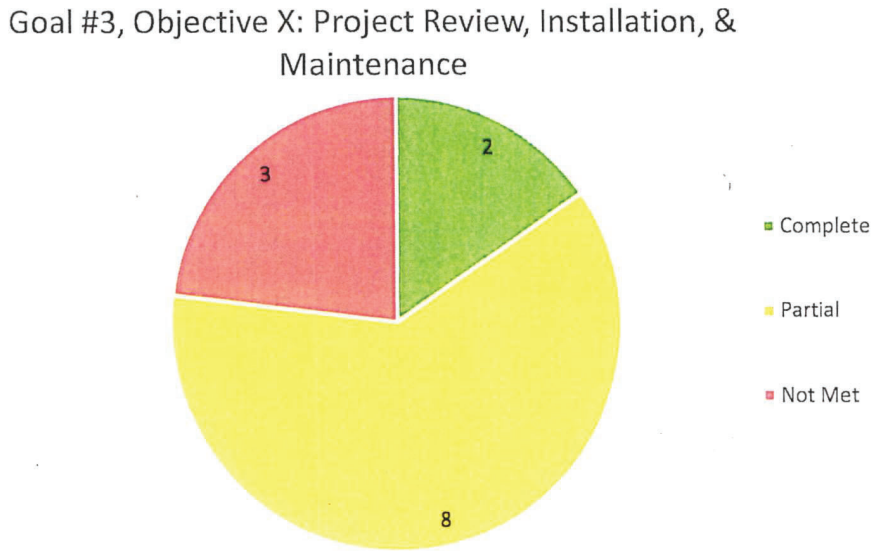

Goal #1: Avoid the Impacts of Development
5
5
4
Complete
Partial
Not Met

Goal #2: Minimize Impervious Surfaces



Goal #3, Objectives VII-IX: Manage Impacts at the Source




Goal #3, Objective X: Project Review, Installation, & Maintenance
2
3
8
Complete
Partial
Not Met