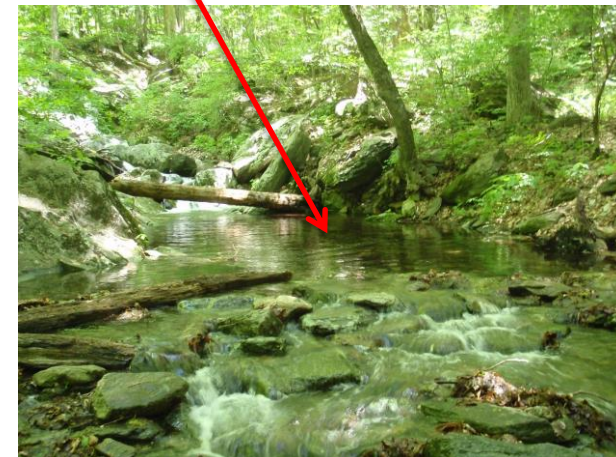
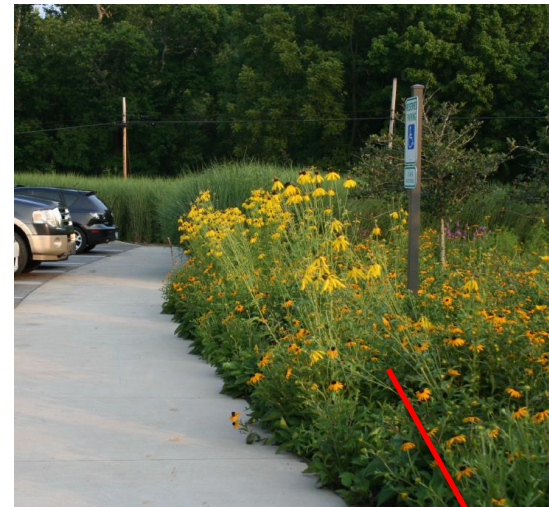


Louisville MSD's Post-Construction Program



Post-Construction Runoff Controls

- Permit requires treatment of the 80th percentile rain event (0.6") runoff volume from impervious surface
- Applicable to developments ≥ 1 acre of disturbance
- Remove 80% TSS
- MSD Green Infrastructure Design Manual (Ch. 18)
- Qualified Post-Construction Inspector Program (QPCIP)



Why Green Infrastructure?

- Required by the MS4 permit
- Green infrastructure captures and infiltrates stormwater naturally, mimicking the pre-development landscape
- MSD provides financial incentives to private property owners & municipal partners for green infrastructure construction
- MSD made a commitment to the EPA to spend approximately \$47 million on green infrastructure projects by 2020



Post-Construction Program

- Inspect 20% of post-construction Green Management Practices (GMPs) per year; 100% over permit term
 - Currently ~1000 GMPs
 - More development=more green infrastructure
- Private development requirement started in 2013
- Must be maintained and monitored in perpetuity



GIS Tracking Approach



Green Infrastructure Compliance Methods

- Inspections:
 - Internal staff
 - Self-Monitoring Reports
- QPCI Program:
 - Developments required to submit annual self-monitoring report
- Challenges:
 - Perpetually expanding inventory of green infrastructure assets
 - Staffing not perpetually expanding
 - Ensuring maintenance on a large number of small, privately owned facilities
 - Limited public knowledge of GI concepts
 - Enforcement

MSD
Metropolitan Sanitary District of Cook County, Illinois

Operation and Maintenance Inspection
18.6 Green Infrastructure Forms
Summary Cover

MSD WM No.: _____ Date / Time: _____
 GMP Installation Date (Month/ Year): _____ Property Address: _____
 Inspector Name: _____

Inspector Telephone: _____ Site Description/Name: _____
 Inspector Email: _____ Site Contact: _____
 Site Contact Telephone: _____
 Site Contact Mailing Address: _____

LTMOA* Reviewed	Yes	No	N/A
Plan Sheets Reviewed	Yes	No	N/A
Landscape Plan Reviewed	Yes	No	N/A
Section 18.7 Fact Sheets Reviewed	Yes	No	N/A

Date and amount of last rain event: _____
 Date of Last Inspection: _____

Check one: Regular Inspection: ☐ Follow up Inspection: ☐

Type of GMP(s) Onsite	Check Practices	# of Practices	Site Picture*	Comments / Description
Bioswale	<input type="checkbox"/>		<input type="checkbox"/>	
Rain Garden	<input type="checkbox"/>		<input type="checkbox"/>	
Constructed Wetland	<input type="checkbox"/>		<input type="checkbox"/>	
Wet Basin	<input type="checkbox"/>		<input type="checkbox"/>	
Dry Basin	<input type="checkbox"/>		<input type="checkbox"/>	
Extensive Green Roof	<input type="checkbox"/>		<input type="checkbox"/>	
Intensive Green Roof	<input type="checkbox"/>		<input type="checkbox"/>	
Blue Roof	<input type="checkbox"/>		<input type="checkbox"/>	
Permeable Pavers	<input type="checkbox"/>		<input type="checkbox"/>	
Permeable Concrete	<input type="checkbox"/>		<input type="checkbox"/>	
Porous Asphalt	<input type="checkbox"/>		<input type="checkbox"/>	
Planters	<input type="checkbox"/>		<input type="checkbox"/>	
Tree Boxes	<input type="checkbox"/>		<input type="checkbox"/>	
Rainwater Harvesting	<input type="checkbox"/>		<input type="checkbox"/>	
Underground Storage	<input type="checkbox"/>		<input type="checkbox"/>	
Vegetated Buffer	<input type="checkbox"/>		<input type="checkbox"/>	
Vegetated Swale	<input type="checkbox"/>		<input type="checkbox"/>	
Catch Basin Insert	<input type="checkbox"/>		<input type="checkbox"/>	
Proprietary Water Quality Unit	<input type="checkbox"/>		<input type="checkbox"/>	
Infiltration Trench	<input type="checkbox"/>		<input type="checkbox"/>	

* For larger sites, multiple photos may be used.
 Corrective Actions Needed: _____

Inspector Certification:
 I certify that this inspection was performed consistent with the Memorandum of Agreement(s) regarding Long Term Operation and Maintenance including attached construction plans/details and the latest MSD's local Wastewater / Stormwater Discharge Regulations controlling the discharge of stormwater from this property. I am aware that there are significant penalties for submitting false or inaccurate information, including the possibility of revocation of Qualified Post Construction Inspector (QPCI) registration, fines, or imprisonment for known violations.

Signature: _____ Date: _____ QPCI Registration No. _____
*LTMOA-Long-term Operational Maintenance Agreements, may include any or all of the following: STIPEND, CREDITS, and/or Stormwater quality Memorandum of Agreements.

Effective: 12/2013 18.6-54

Self-Monitoring Reports

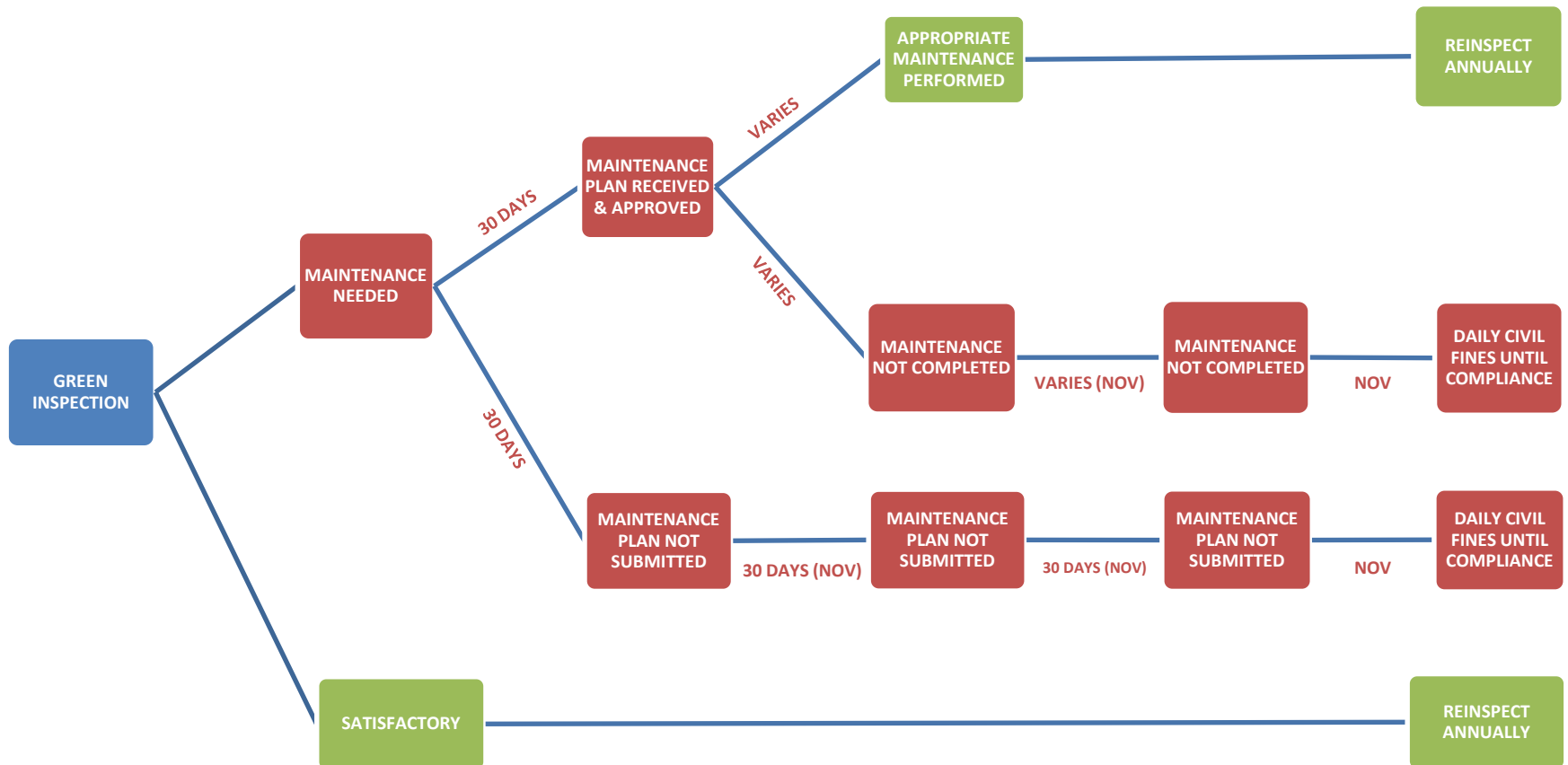
- Property owners are legally required to submit SMRs annually
- Significant time investment required to get relatively few reports
- Working to automate notification/receipt process to save time
 - Electronic report submittals
 - System-generated past due notifications

Section 3: To be completed by the Applicant's Maintenance Contact Person

Note: Under Schedule list monthly, seasonal, and annual maintenance. Under Activity, describe maintenance performed. Attach any documentation such as receipts for maintenance or results of infiltration tests. For guidance of operation and maintenance of Best Management Practices, review the MSD Design Manual (Chapter 18).

Schedule	Activity

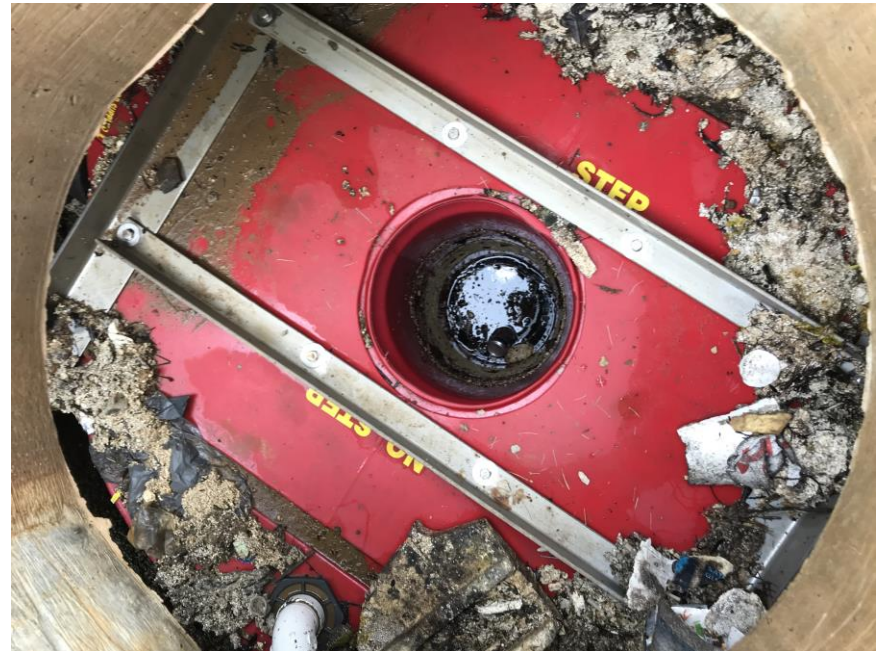
Green Infrastructure Inspection Flowchart



Example Inspections



WATER QUALITY UNIT: MAINTENANCE NEEDED



WATER QUALITY UNIT: SATISFACTORY

For added water quality benefit, ensure your WQU has good Raccoon Habitat.



RAIN GARDEN: MAINTENANCE NEEDED



RAIN GARDEN: SATISFACTORY



PERMEABLE PAVERS: MAINTENANCE NEEDED



PERMEABLE PAVERS: SATISFACTORY

