

2023 Biennial Report

URBAN STORMWATER SECTOR

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ILLINOIS
NUTRIENT LOSS
REDUCTION STRATEGY

Urban Stormwater Sector

Overview



Stormwater runoff:

- Defined as rainfall and snowmelt flowing off impervious surfaces in developed areas.
- Source of numerous pollutants, including P and N.
- The NLRs Science Assessment determined that the stormwater statewide load is small compared to other sectors. However, it can impair local water quality in Illinois lakes and rivers.
- **Implementation data sources include:**
 - Stormwater sector partner spreadsheets
 - Illinois EPA Grants
 - MS4 reports
 - MWRDGC Annual Stormwater Reports



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Tracking Measures



The NLRS Logic Model

Biennial Reports are structured to report data on these tracking measures by each sector.



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Resources

Resources reported by the stormwater sector partners

	2021	2022
Grants or Loans Received	\$279,500	\$655,001
Grants or Loans Given	\$1,140,043	\$1,467,191
Funded Programs	\$641,256	\$39,334
Total	\$2,060,799	\$2,161,526

In addition, the Metropolitan Water Reclamation District of Greater Chicago, MWRDGC, invested \$1.45 million in Green Infrastructure Program projects in 2021, adding over half a million gallons of retention capacity. MWRDGC committed \$44.7 million for the 2021 stormwater program.





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Outreach

Outreach activities reported by the stormwater sector partners

Type of Activity	Number of Events	Attendance
Field Days	18	2,830
Presentations	57	1,231
Conferences	10	1,800
Education and Training Workshops	36	3,106
Totals	121	8,967

Scope of stormwater sector outreach as reported by MS4s

Type of Activity	Number of MS4 reports	Percent of total MS4 reports
Education and Training Workshops	297	95%
Presentations	278	89%
Conferences	86	27%
Field Days	38	12%
Technical Assistance	159	51%



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LAND AND FACILITIES



Land and Facilities Measures

- Illinois EPA 319 and Green Infrastructure Grant programs
- Green Infrastructure Inventory
- Summary of Municipal Separate Storm Sewer Systems (MS4) Annual Inspection Reports
- Metropolitan Water Reclamation District of Great Chicago's (MWRDGC) Green Infrastructure Program
- Partner updates on stormwater programs:
 - Calumet Stormwater Collaborative
 - Chicago Metropolitan Agency for Planning Local Technical Assistance
 - Conservation@Home
 - DuPage County Water Quality Improvement Program
 - Illinois Department of Transportation Stormwater Programs
 - Illinois Groundwork
 - Lawn to Lake Midwest
 - National Green Infrastructure Certification Program
 - Rainscaping Education Program
 - Red Oak Rain Garden
 - Watershed-Based Planning
 - Chicago Metropolitan Agency for Planning
 - DuPage County Stormwater Management
 - Greater Egypt Regional Planning and Development Commission



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Section 319 Urban Practices Number Installed 2021-22

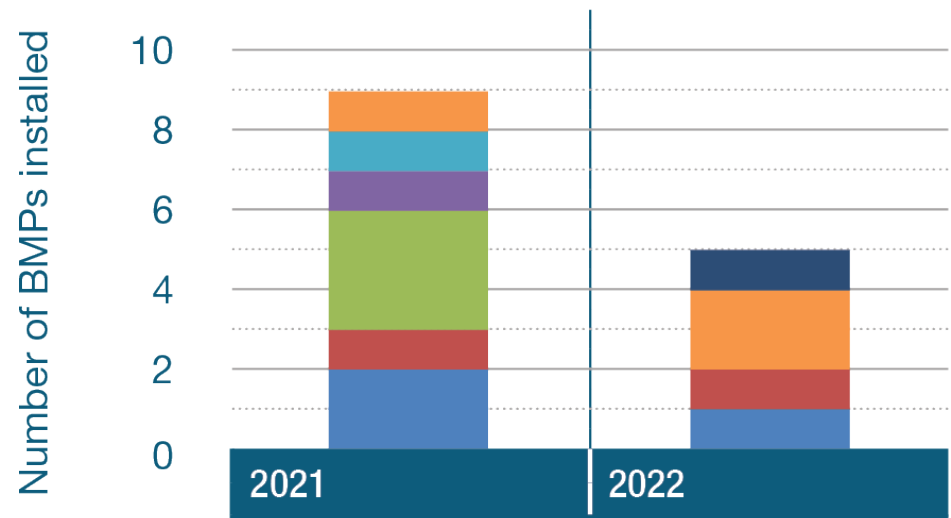


Figure 6.2. Types and numbers of urban practices installed under Section 319 grant program in 2021-22. See Appendix G for companion data.



■ Sediment Basin ■ Structure for Water Control ■ Trees
■ Porous Pavement ■ Rain Garden ■ Urban Filter Strip ■ Woodland Management



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Section 319 Urban Practices Acres Installed 2021-22

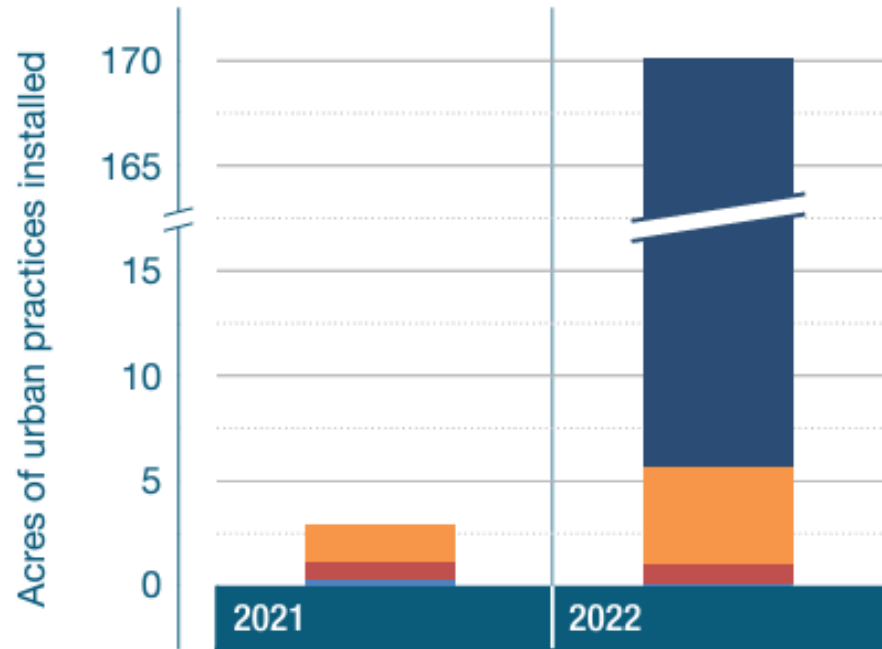


Figure 6.3. Types and acreage of urban practices installed under Section 319 grant program in 2021-22



■ Porous Pavement ■ Rain Garden ■ Urban Filter Strip ■ Woodland Management



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Section 319 Urban Practices Total Estimated N + P Load Reduction 2021-22

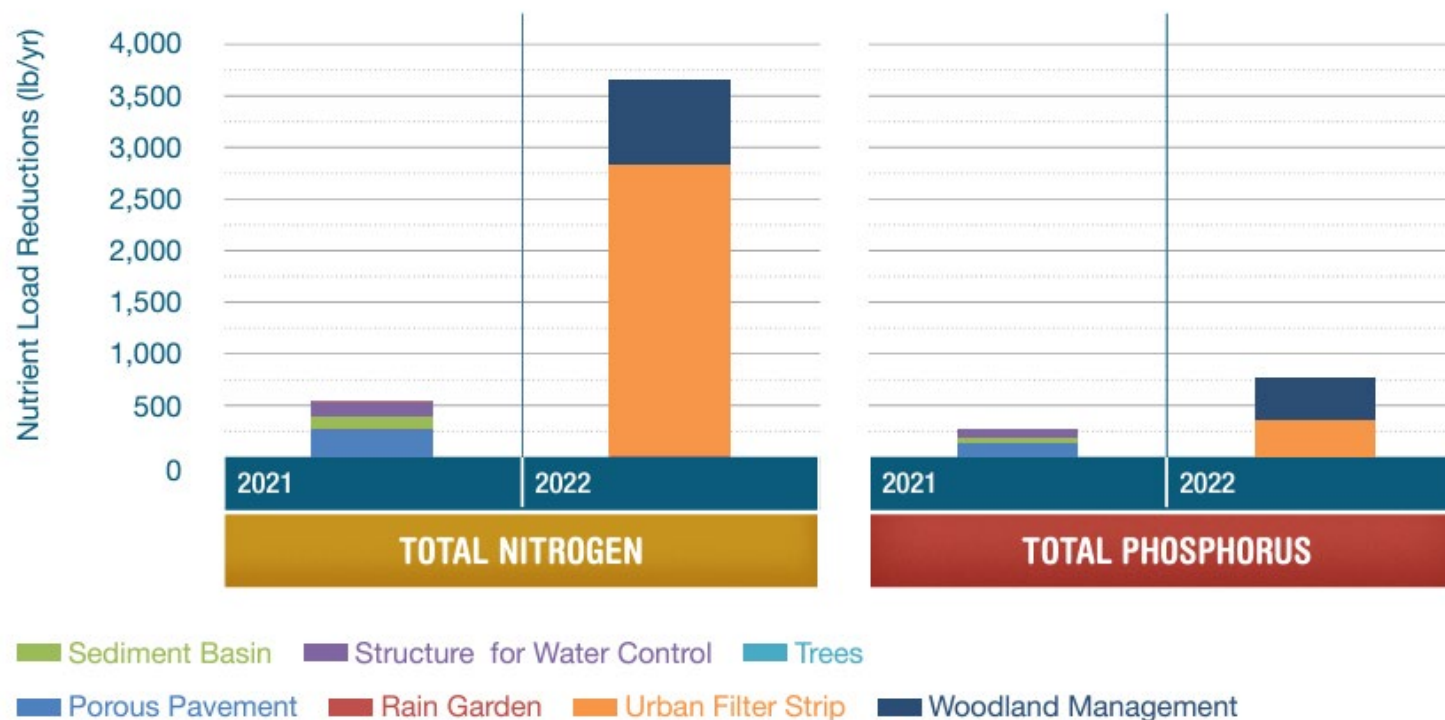


Figure 6.4. Calculated total nitrogen and total phosphorus load reduction (lb/yr) from Section 319 grant program by urban practice type in 2021–22. See Appendix G for companion data.



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Green Infrastructure Grant Opportunities (GIGO)

Of 47 GIGO applications, 11 grants totaling \$5M were awarded. Local match is estimated to be almost \$4M for an estimated total project implementation cost of \$9M.

Five of the 11 grant recipients have partially or fully implemented their GIGO projects. Collectively, these projects have reduced the annual pollutant load by the following amounts:

- 1,005 pounds of nitrogen reduced
- 318 pounds of phosphorus reduced
- 340 tons of sediment reduced
- 1,280,371 gallons of stormwater retained



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Municipal Separate Storm Sewer Systems

As part of the NPDES stormwater program, MS4 communities are required to follow six minimum control measures:

1. Public education and outreach on stormwater impacts
2. Public involvement and participation
3. Illicit discharge detection and elimination
4. Construction site stormwater runoff control
5. Post-construction stormwater management in new developments and redevelopments
6. Pollution prevention/good housekeeping for municipal operations

For 2021 and 2022, 320 and 314 respective reports were analyzed.

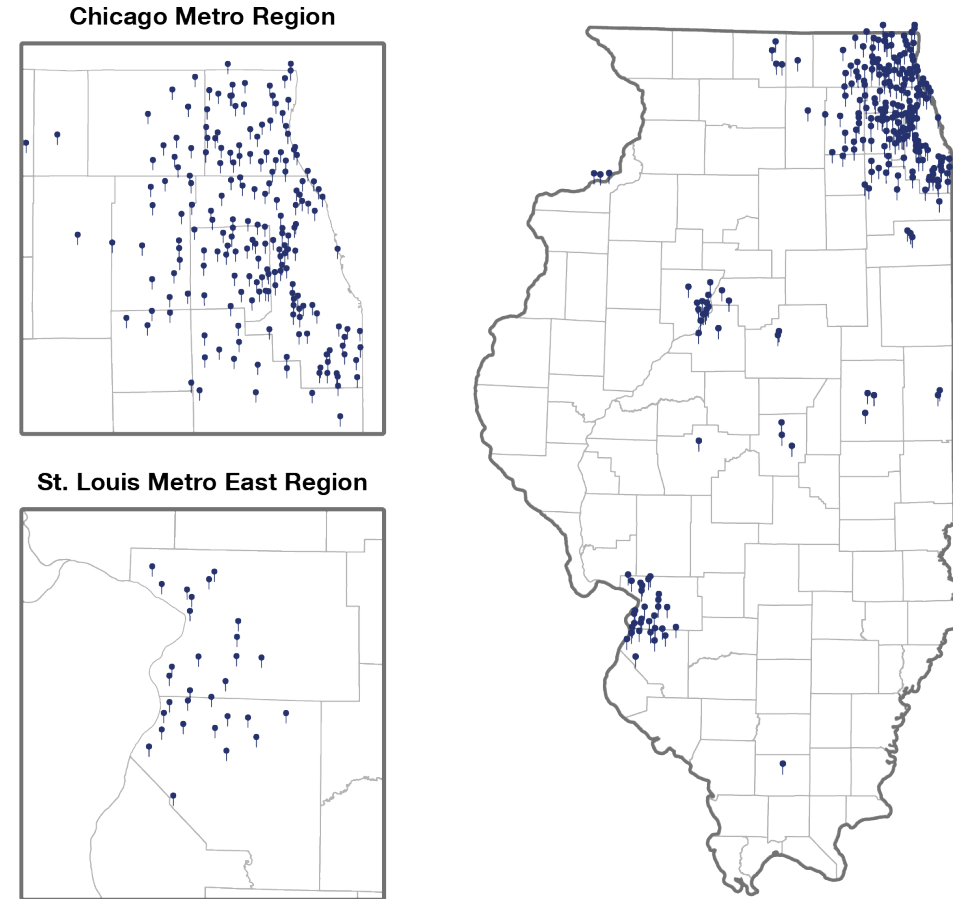


Figure 6.5. Illinois MS4 communities evaluated in 2021 and 2022



Table 6.4. The number of MS4 communities reporting practices in 2021-22

Number of Communities Reporting	2021		2022	
	320		314	
Urban Practice Type	Number of Communities	%	Number of Communities	%
Community outreach	301	94%	295	94%
Erosion control programs	300	94%	292	93%
Electronics recycling programs	203	63%	211	67%
Street sweeping programs	223	70%	222	71%
Hazardous household waste collections	183	57%	179	57%
Litter cleanup events	175	55%	202	64%
De-icer management programs	217	68%	227	72%
Leaf collection programs	215	67%	240	76%
Detention basin management/inspection programs	164	51%	162	52%
Green infrastructure grants	82	26%	96	31%
Detention pond inventories	124	39%	119	38%
Green infrastructure requirements in new development and redevelopment	189	59%	185	59%
Stormwater master plans	75	23%	76	24%
Green infrastructure inventories	53	17%	52	17%
Rain barrel programs	59	18%	89	28%
Homeowner rain garden incentives	10	3%	8	3%
Stormwater utility fees	27	8%	27	9%
Community rain gardens	20	6%	27	9%



70%

of communities with
Municipal Separate Storm
Sewer Systems sweep
streets and collect
leaves annually

59%

of communities
reported local ordinance
requirements for volume
control and water quality
improvements for
new development
and redevelopment



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Metropolitan Water Reclamation District of Greater Chicago

Green Infrastructure Program

- Since 2017, this program has selected 93 projects across many municipalities that will provide a total design retention capacity of approximately 7.9 million gallons for a total investment of over \$9 million.



Space to Grow

- 34 additional schoolyard projects provided 6.54 million gallons of design retention capacity for an investment of \$16 million, incorporating permeable play surfaces, native plantings, rain gardens, and other green infrastructure design elements to reduce pollution and neighborhood flooding.



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New Resources

Illinois Groundwork

This new website provides green infrastructure research, tools, and resources to stormwater professionals, local leaders, and community members.

IllinoisGroundwork.org



Green Infrastructure Inventory

This new ESRI map layer displays the locations and types of nearly 2,000 stormwater best management practices in Illinois.

greatlakestogulf.org/explore/all#/explore/all



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Photo: Holly Hudson, CMAP



Thank you!



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