



Annual Stormwater Program Report

April 1, 2023 – March 31, 2024

NPDES Phase II MS4 General Permit

City of Ames, IA: Permit Number 85-03-0-03

Public Works Department



SMARTWATERSHEDS
FOR CLEAN RIVERS AND STREAMS

TABLE OF CONTENTS

Part 1. General Information	1
A. Executive Summary and Highlights	1
B. Stormwater Program Staff	2
C. Stormwater Program Expenses	3
Part 2. Permit Measures	4
A. Public Education	4
B. Public Involvement and Participation	13
C. Illicit Discharge	18
D. Construction Site Runoff Control	22
E. Post Construction Stormwater Management	25
F. Pollution Prevention and Good Housekeeping	30
Part 3. Special Conditions	35
Part 4. Monitoring	36

Part 1. GENERAL INFORMATION

A. Executive Summary and Highlights

The City of Ames was issued its first NPDES Stormwater MS-4 permit from the Iowa Department of Natural Resources in 2003. The permit serves as the stormwater management plan for the City of Ames. This report summarizes actions and activities performed that demonstrate progress towards permit compliance from April 1, 2023 to March 31, 2024, which is in the fourth permit cycle and summarizes actions and activities performed to fulfill the six minimum storm water control measures: 1) Public education and outreach, 2) Public participation, 3) Illicit Discharge Detection and Elimination, 4) Construction Site Storm Water Runoff Control, 5) Post-construction Storm Water Management and 6) Pollution Prevention and Good Housekeeping.

Here are some highlights of the reporting period, many of which will be further described within this report:

- NEW Ames 24 on 24 Litter Pickup Campaign
- Tracy Peterson provides technical assistance during State Legislature Hearings about Stormwater Legislation

FREE WORKSHOP
LANDSCAPING WITH IOWA NATIVE PLANTS
New Opportunities for Designers & Contractors

Incorporation and Maintenance of Natives in Projects

- Rainscaping urban landscapes, looking at all opportunities
- Types of practices and incorporation of natives
- Case studies of a variety of project scales
- Installation methods, seed vs plants
- Set stage for more corporate transformations
- ISWMM update

Register for this FREE event at <http://tinyurl.com/mr3mwhum>

Lunch will be provided. PDHs are available.

WHEN
Wednesday
February 28, 2024
8:30AM - 2:00PM

WHERE
Homewood Golf Course Clubhouse
401 E 20th St
Ames, IA 50010



- Raised Smart Watersheds rebate reimbursement amounts
- First year of Implementation of The City of Ames Pollinator-Friendly Community Plan
- Partnering with Story County and ISWEP to host ISALT Training for snow removal contractors and municipal and county staff from local jurisdictions
- Partnering with ISWEP to host Native Landscaping Training for landscape contractors and designers and staff from other local municipalities
- Application for reissuance of NPDES Phase II MS4 Permit

B. Stormwater Program Staff

Public Works Staff		
John Joiner	Public Works Director	Directs Public Works programs
Tracy Peterson	Municipal Engineer	Oversees implementation of MS4 program; prepares Public Works CIP budgets; provides vision for and implementation of stormwater programming
Cesar Cintron (4/1/23-9/28/23)	Civil Engineer II	Reviews stormwater management plans
Jake Moore	Stormwater Specialist	Reviews SWPPPs, performs site erosion control inspections and prepares reports, administers city's Construction site Erosion and Sediment Control (COSESCO) permit program, facilitates education, outreach and public participation, responds to illicit discharge reports, inspects capital improvement projects
Liz Calhoun	Stormwater Resource Analyst	Reviews post construction stormwater management plans and as-builts; facilitates education and outreach and public participation activities; inspection and maintenance of post construction BMPs, manages capital improvement projects
Cora Anderson (5/23-12/23)	Stormwater Intern	Maintains and inspects city owned bio-cells and water quality practices, administers stormwater rebate applications, education and outreach events
Taylor Short (6/23-12/23) Tan Nguyen (6/23-8/23)	Groundskeeper	Maintains and enhances city owned bio-cells and native landscape areas, participates in education and outreach events
Justin Clausen	Operations Manager	Manages staff that conduct intake and outfall inspections and maintenance; street sweeping and maintenance; tree inventory; post construction BMP maintenance; facility good housekeeping and pollution prevention, responds to illicit discharge reports
Corey Milles	Fleet Services Director	Oversees Community Center fertilizer and pesticide use
Damion Pregitzer	Traffic Engineer	Oversees Ames Municipal Airport General Permit No. 3 SWPPP implementation
Parks and Recreation Staff		
Joshua Thompson	Parks Superintendent	Oversees park and natural area maintenance, post construction BMP maintenance; park and right-of way fertilizer and pesticide use
Resource Recovery Plant Staff		
Bill Schmitt	Superintendent	Oversees the solid and hazardous waste management program and trash cleanups for the City
Fire Department Staff		
Rich Higgins	Fire Chief	Oversees illicit discharge cleanup and reporting

C. Stormwater Program Expenses

Program	Expense
Education and Outreach	
ISWEP Premiere Membership	\$9,490
Bird Friendly Iowa Application	\$100
10-Yr City of Ames Pollinator-Friendly Community Plan increasing native vegetation	\$36,276
Ames on the Go reporting App	\$17,920
Tree Seedlings and Native Plant Giveaways	\$5,078
Ames Trees Forever	\$2,500
Ames Homebuilder Association Membership	\$500
Staff, Consultant, Training, Etc. for Smart Watershed & Smart Trash Programs	\$87,716
Public Involvement and Participation	
Staff, consultant, equipment and material costs	\$45,247
Watershed Participation incl. Story County 10-Yr Water Quality Monitoring Program	\$61,179
Resource Recovery handling and disposal of wastes from cleanup events	\$20
Illicit Discharge	
Staff, consultant, equipment, and material costs	\$6,033
Resource Recovery Plant operations	\$4,884,174
Construction Site Program	
Staff, consultant, equipment, and material costs	\$63,346
Post Construction Program	
Staff, consultant, equipment and material costs	\$72,396
Smart Watershed Cost Share Programs	\$12,374
Ioway Creek Flood Mitigation	\$246,901
Bloomington Waterway Restoration (design, outreach, and permitting)	\$7,261
Storm Water System Analysis	\$955
Clear Creek Stabilization	\$72,876
Northridge Heights Stormwater Facility Rehab (design)	\$24,944
Low Point Drainage: Airport Road (design)	\$21,165
ROW Restoration including standard lawn and native vegetation	\$200,910
Ioway Creek (Brookside Park) Restoration (design, permitting, land negotiation)	\$19,045
Pollution Prevention and Good Housekeeping	
Staff, consultant, equipment and material costs	\$30,165
Street, median, and sidewalk sweeping (staff time, equipment, and contractor)	\$308,295
Street Sweeper tailings processed	\$10,180
MS4 system inspections and maintenance	\$45,824
Sanitary Sewer repairs and rehabilitation (found with SSSE to remove I&I)	\$3,338,617
Emergency and maintenance infrastructure repairs	\$240,393
Drainage, storm sewer, and other MS4 infrastructure improvements	\$2,698,811
Municipal Staff Training	\$4,934
Special Conditions	
Iowa DNR MS4 Permit Renewal	\$1,250
Geographic Information System (GIS) (storm water portion only)	\$46,297
Total	\$12,623,171

PART 2. PERMIT MEASURES

As a Premiere Member of the Iowa Stormwater Education Partnership, the City has access to resources and training applicable to all the permit measures.

A. Public Education and Outreach

The City's Education Program takes many forms and as non-structural Best Management Practices (BMP's), serves to educate the public on ways that the city is taking measures to reduce pollutants and protect and restore waterways and watersheds, and to encourage similar public participation.

A variety of methods used for education including public events, online website information, city publications, social media pages, brochures and newspaper articles.

1. CitySide City Monthly Newsletter

Cityside is the monthly City newsletter distributed with utility bills to approximately **30,000 Ames utility customers**. In addition to contact information for stormwater issues, stream concerns and spill alerts, this publication keeps residents and businesses current with stormwater related issues. Refer to the following table for this year's articles.

Month	Article Topic
April	o Spring Yard Waste Day Set for April 29
May	o Water Rates To Increase In July(Rain Barrel Promotion)
June	o Keeping Ames Green Includes Encouraging Tree Planting o Rummage RAMPage 2023 is Coming! o Water Rates To Increase in July (Rain barrel promotion)
July	o Ames Names "Tree City USA" o Rebates Offered For Native Landscaping
September	o City of Ames Eco-Fair
October	o City Hall Hosts Annual EcoFair on Saturday Sept 30ord Year o No Charge Yard Waste Days Scheduled for Fall
November	o Fall No Charge Yard Waste Days Planned o Rummage Rampage Has a Record-Breaking Year

2. Ames Tribune Newspaper



The Ames Tribune newspaper produced several articles that included information about the City Stormwater Program. On May 14 an article interviewing City Forester included information about the Native Tree Rebate.

On October 3 our SmartWatersheds booth at the EcoFair was photographed showing our public outreach (see picture).

3. City of Ames Television and Collaboration with ISWEP

City of Ames Television continues to be a valuable source for outreach to the community. The city's Media Production Services produces professional and interesting videos that educate the public.

Video Summary 2023-24	Views
EcoFair 2023	21
Iowa Creek Clean Up 2023 (Prairie Rivers of Iowa Video)	153
Illicit Discharge	23
Ames Repair Café (w/i The Ames Minute)	23
Smart Business Challenge (w/i The Ames Minute)	19

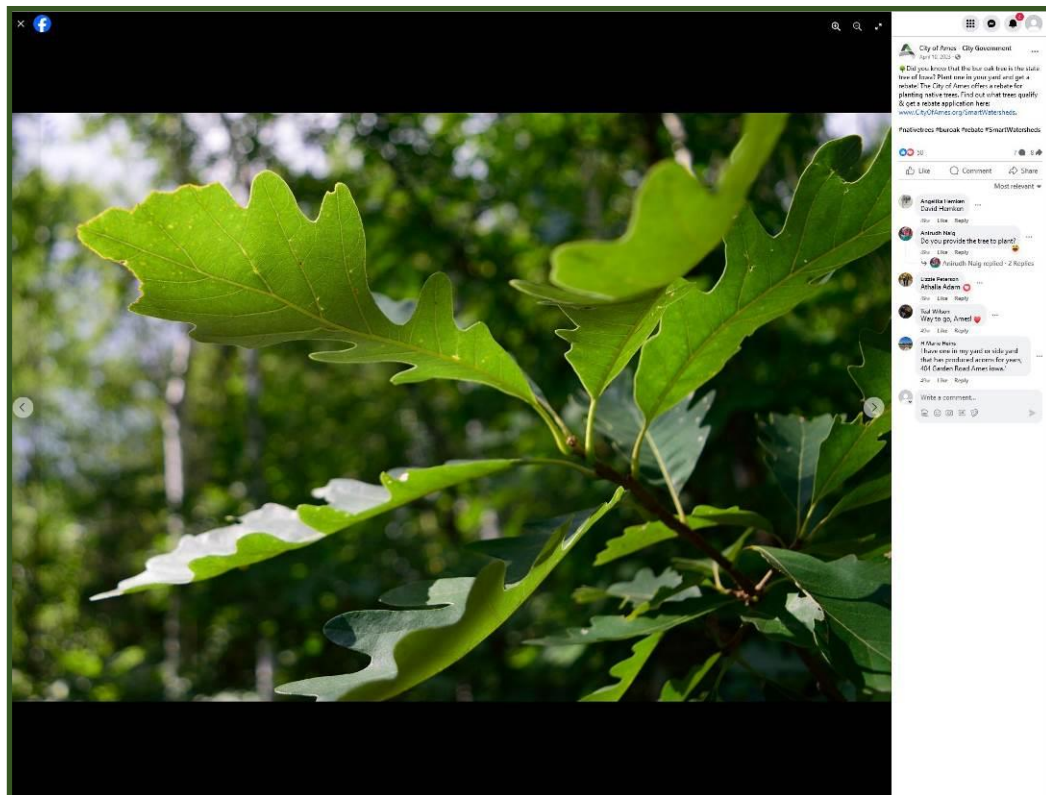


Tracy Peterson also collaborated with ISWEP to produce a video about how to convert conventional turf to and urban prairie stripe with native landscaping. The video can be viewed on ISWEP's website [here](#) and has had 49 views over the last year.

4. Social Media: Facebook

The City uses Facebook to promote many City activities including stormwater education and outreach events. The following are some pictures from some and a summary table of posts over the last year on the City Government and Public Works pages:

DATE & SUBJECT	# LIKES, SHARES AND COMMENTS
April 1 – Ada Hayden Trout Stocking	108
April 4 – Rain Barrel Rebate	27
April 9 - Water Pollution Control Open House	138
April 10 - Moore Memorial Prairie Burn	72
April 10 – Native Tree Rebate	65
April 12 – Sustainable Ames	15
April 20 - Stash the Trash	66
April 24 - No Charge Waste Day	60
April 25 – Replanting Ames	16
April 27 - Ada Hayden Prairie Burn	58
April 28 - Arbor Day Takeover	855
May 24 – Pollinator-Friendly Plan	34
May 24 – Climate Action Plan	9



DATE & SUBJECT	# LIKES, SHARES AND COMMENTS
May 23 – Tree Planting with Firefighters	131
May 22 – Trash Free Land and Water	47
May 20 – Native Landscaping Rebate	45
May 19 – Chevron Tree Planting	38
May 20 – Ames Found. Tree Planting	54
May 17 – Ioway Creek Cleanup	9
May 16 – Rain Barrel Rebate	4
May 6 – Scouts Tree Planting	68
June 22 –Community Academy Planting	101
June 8 – Community Academy Planting	17
June 7 – Grass Clippings	22
June 6 th – Ash Tree Treatment	72
July 9 th – Grass Clippings	21
July 14 th – Rain Barrel Rebate	39
July 26 th - “Summer Shift”	25
July 28 th – Energy Conservation	48
July 30 th – Eco Fair	32
Aug 8 th - Smart Watershed Initiatives	60
August 13 th and Sep 30– EcoFair	292
Aug 10 th and Sep 26 th – Yard Waste	67
August 15 th – Recycle Glass	39
August 28 th – Pick up after your Dog	11
September 2 nd - Monarch Magic	30
September 6 th – Tree Planting	96
September 13 th – Rebate Changes	44
September 15 th – Forestry Plantings	66
October 14 th – Tree Planting	109
October 18 th – EV Chargers	9
October 20 th - Fish Stocking Ada Hayden	36
Oct 27 th and Nov 24 th -Yard Waste Day	94
October 29 th - Sustainability Awards	70
November 14 th - Hazardous Waste	61
November 16 th – Mulch	47
November 16 th - Prescribed Burns	45
Dec 20 th - Invasive Species Removal	9
Jan 24 th and Feb 9 th -Smart Business	48
February 27 th -Sustainapoolza	6
March 15 th - SmartWatersheds Rebates	38



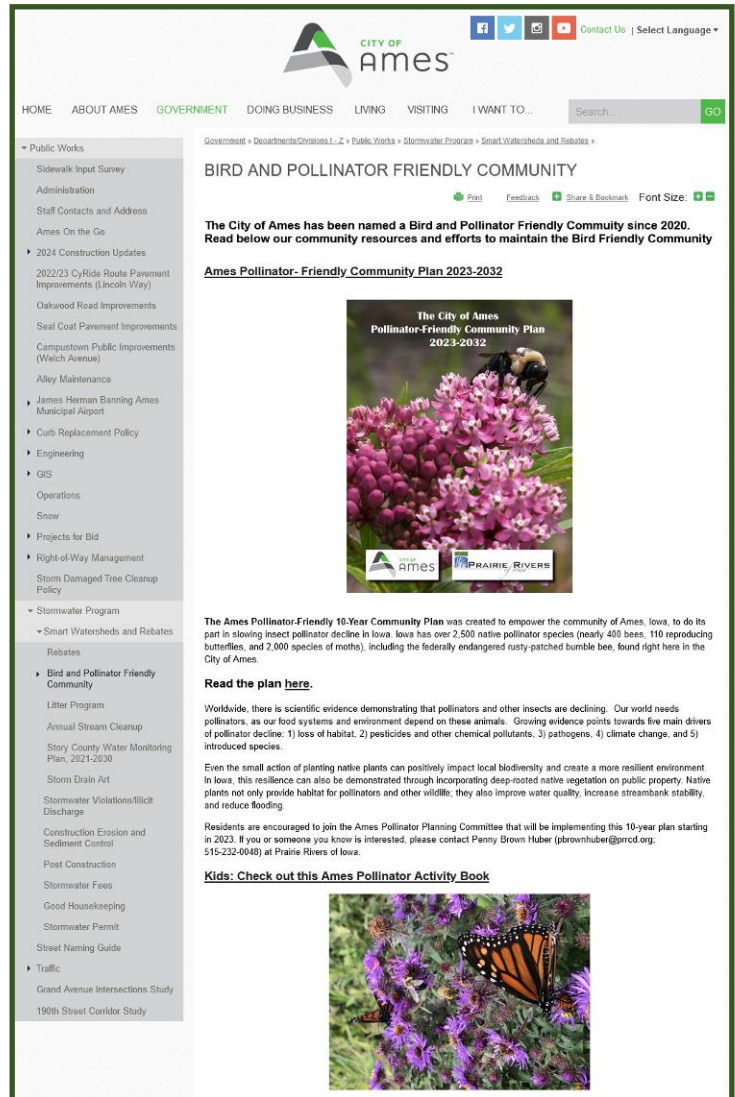
5. City of Ames Stormwater Website

The city's Public Works Department continues to update and expand the stormwater portion of the City's website: <https://www.cityofames.org/government/departments-divisions-i-z/public-works/stormwater-program/stormwater-permit>. The website has pages that address each of the permit requirements, an illicit discharge and spill reporting page (with video) and Smart Watershed Program portion of the City's website continues to provide highlights of the watershed projects that the City has completed in past years. The Smart Watersheds page contains forms and information for the Cost Share Programs as well as public education information on what residents can do to prevent



stormwater pollution. Watershed maps are also available along with links to local watershed groups and public education information. Brochures and information prepared by Iowa Storm Water Education Partnership (ISWEP) is also available on this website. The website is updated regularly through the year to stay current with changes in city programs. Changes to the stormwater webpages during the current report period are:

- NEW Pollinator-Friendly Community Plan 2023-2032 added to Bird Friendly webpage
- NEW 2022-23 City of Ames MS-4 Permit Annual Report
- NEW Pollinator Activity Book produced by City Intern
- Update Ames 24 on 24 Litter Pickup Campaign webpage
- Update rebate forms with new rebate amounts
- Update Native Landscaping rebate form with modified eligibility
- Reformat and update SmartWatersheds page



The following is a summary of views on the City's stormwater related webpages.

Webpage	Views: 2022-2023	Views: 2023-2024
Stormwater Program	2465	2054
Bird Friendly Community and Pollinator Plan (starting in 2023)	10	411
Storm Drain Art	140	55
Stormwater Violations/Illicit Discharge	112	131
Construction Erosion and Sediment Control	80	79
Post Construction	135	149
Smart Watersheds and Rebates	152	264
Good Housekeeping	21	21
Stormwater Fees	196	182
Stormwater Permit	41	75
Story County Water Monitoring Plan, 2021-2030	22	32
Ioway Creek Flood Mitigation Project	270	240
Ioway Creek Restoration at Brookside	501	79

STORMWATER PROGRAM

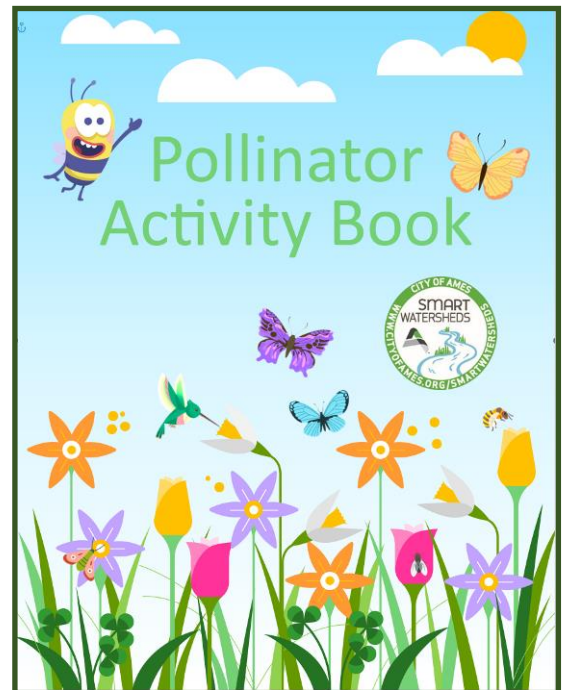
DRONE VIDEO OF THE SOUTH SKUNK RIVER STABILIZATION PROJECT

Tracy Peterson, Municipal Engineer tracy.peterson@cityofames.org 515-239-5163
 Jake Moore, Stormwater Specialist jacob.moore@cityofames.org 515-239-5287
 Liz Calhoun, Stormwater Resource Analyst liz.calhoun@cityofames.org 515-239-5575
[Stormwater Staff/Organizational Chart](#)

Report violations: Stormwater Violations/Illicit Discharge

Download the Ames-on-the-Go app and report an issue or contact:
 City of Ames Public Works Department, 515-239-5160 (8:00 AM-5:00 PM)
 City of Ames Water and Pollution Control, 515-239-5150 (after hours)
 Watch this video about [Stormwater Pollution Prevention](#)

[Construction Site Erosion and Sediment Control](#)
[Post Construction Stormwater Management](#)
[Smart Watersheds and Rebates](#)
[Good Housekeeping](#)
[Stormwater Permit](#)



5. Education and Outreach Events

Stormwater staff participated in a variety of events throughout the year. The following table and photos highlight this year's events.



Event Name	Date	# of Staff in Attendance	Approximate # Attendees
Ames High Advanced Science Class Ames Tour	April 12, 2023	1	7
Iowa State University Earth Day Celebration	April 19, 2023	2	150
Water Pollution Control Plant Open House	April 22, 2023	2	600
Ames Repair Cafe	April 22, 2023	2	145
Old Town Garden Tour	June 18, 2023	1	25
WelcomeFest at ISU	August 23, 2023	1	1000
ISU Women's Nature Club Presentation	August 27, 2024	1	25
Monarch Magic	September 9, 2023	5	250
11 th City of Ames EcoFair	September 30, 2023	6	700
Iowa State University Sustainability Month Celebration	October 23, 2023	2	150
Sawyer Elementary Science Night	11/9/23	4	200
Ames Smart Business Challenge	January 18, 2024	2	40
Meeker Elementary STEM Night	February 22, 2024	3	250
Fellows Elementary Science Night	February 23, 2024	3	703
Iowa State University Sustainapoolza	February 27, 2024	3	350
Community Radio Appearances	4/1/23-3/31/24	Approx. 25 appearances	N/A



6. Cellular Telephone Application

“Ames on the Go” allows residents and visitors of our community to report complaints, violations and concerns, including storm water related concerns. The app is available through iTunes and Google Play stores as well as the city website.

Ames On the Go App	2020-2021	2021-2022	2022-2023	2023-2024
Total reports	1,494	1,510	2143	2919
Storm water intake reports	30	38	43	38
Street sweeping/debris in street reports	28	52	31	125

7. Resource Recovery Plant Outreach

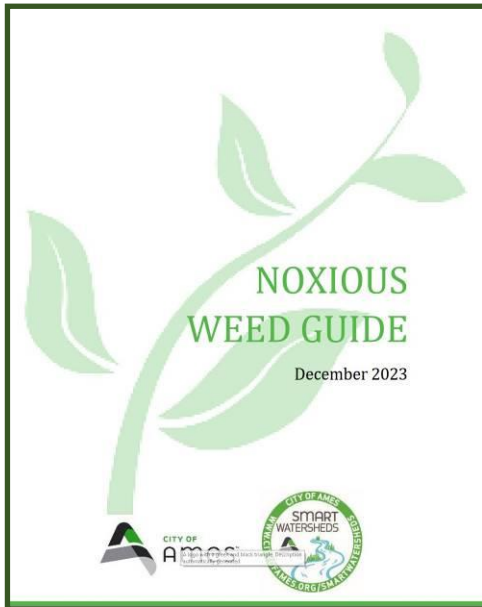
Proper trash management and disposal can significantly reduce improper disposal of trash in the environment and waterways. The Ames Resource Recovery Plant and Smart Trash Program is progressive at informing and encouraging citizens and businesses to reduce, reuse and recycle unwanted materials. The website <http://www.cityofames.org/smarttrash> provides information on waste handling and disposal.

Program information is run on the local cable Channel 12 and Channel 12 You-Tube regularly as well as advertising through Mediacom. Ads are run at least one ad per year for Household

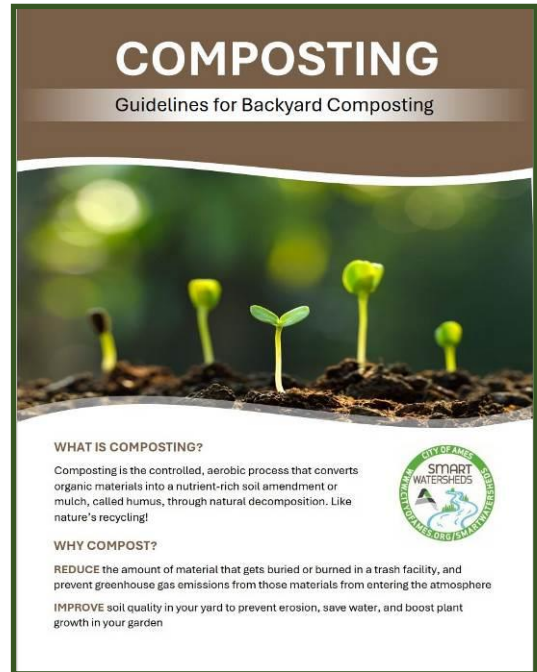
Hazardous Materials collection and 2-3 times per year for yard waste collection. The following table shows the tours at the plant over the last two years.

	2022-2023	2023-2024
Resource Recovery Tours	678 people, 27 tours	684 people/ 28 tours

8. New City Publications



A new city Ordinance regulating nuisances went into effect on January 1, 2024. This ordinance includes outdoor properties conditions. To assist the city's Inspections Department, Stormwater staff produced two guides that will assist in



enforcement of the ordinance, reduce noxious weeds and encourage adoption of proper composting.

9. ISALT Training and Distribution of Deicer Information

As winter approached, staff delivered a Salt & Deicer Management for Businesses Guide to over 70 local businesses. The guide educates them on how to properly apply deicers and provides online links to further educational opportunities.



On November 7, 2023 a training event was held to teach the proper application of deicer. The City partnered with Story County and Iowa Stormwater Education Partnership to put on this training in which thirty-two contractors and staff from area local jurisdictions (County and small cities) attended.



B. PUBLIC INVOLVEMENT AND PARTICIPATION



The Public Involvement and Participation Program in Ames engages individuals and groups interested in protecting our waterways and lakes. Civic engagement is extremely important to the City of Ames organization as we serve the customers of Ames. Information about capital infrastructure projects such as roadway, water system improvements, sanitary sewer rehabilitation, drainage, stream stabilization, storm water facility rehabilitation, and flood mitigation projects are on the City's website under Construction Updates. Virtual or Open House project informational meetings are held during the design phase to gather public input prior to finalizing the construction documents.

City staff are available to guide those who want to participate in this program. Public notice for planned public involvement is typically given through print media or social media and meets all state and local public notice requirements.

1. Trash Cleanup Efforts Continue with Multiple Events

In addition to the annual community cleanup event called Stash the Trash, other trash cleanup events were held. The following table above summarizes the organized events.

Event/Group	Date	# Participants
SAE Fraternity- Little Bluestem Biocells Cleanup 	April 23, 2023	15
Stash the Trash City Wide Trash Cleanup	April 28-30, 2023	Informal/unknown

Event/Group	Date	# Participants
Ioway Creek Cleanup 	April 29, 2023	38
Stuart Smith Park/Ioway Creek Tributary Cleanup 	August 14, 2023	15

2. Watershed Projects and Assessment Program

The City has developed a watershed assessment program and action plan that is used as an on-going tool for the South Skunk River and its sub-watersheds (Ioway Creek, Onion Creek, Clear Creek, Worrell Creek, South Skunk River, West Indian Creek and Ada Hayden Lake). The program utilizes GIS mapping tools to evaluate areas and determine strategies for improvement. The City has had a comprehensive land use plan in place since 1997. A major revision called the Ames Plan 2040 was adopted on December 14, 2021. It includes a land use/watershed action plan and contains the permit required measures as well as specific watershed goals and action items.

3. Watershed Management Authorities

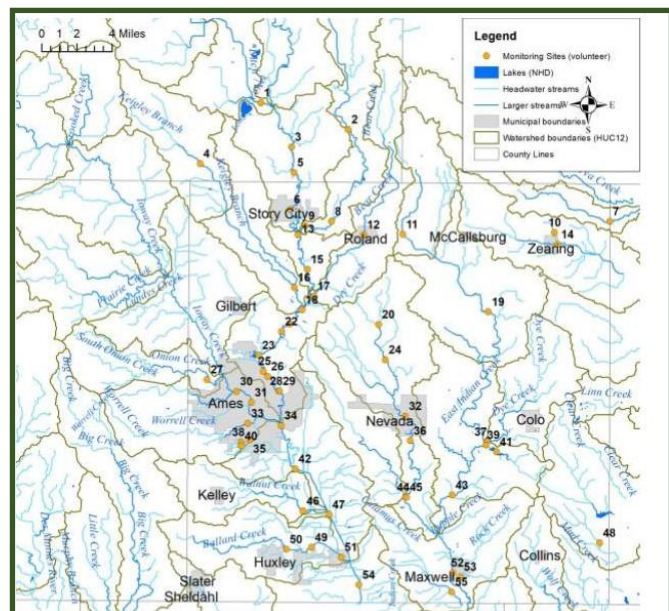
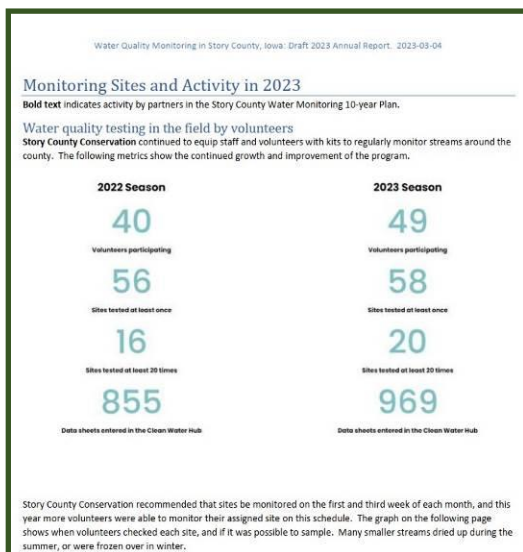
The City of Ames is one of the founding members of two watershed authorities: Ioway Creek Watershed Management Authority and Headwaters of the S. Skunk River Watershed. These WMAs were formed through 28E agreements. The Ioway Creek Watershed Management Authority has a watershed management plan that includes the City of Ames. Tracy Peterson, Municipal Engineer, is appointed to the boards. The Ioway Creek Watershed WMA Board met quarterly during the current reporting period.

4. Service on Stormwater Board of Directors

Tracy Peterson continues to serve as Chair of the Board of Directors of Iowa Stormwater Education Partnership and as Vice-Chair on the Iowa Rivers Revival Board. Her involvement strengthens these organizations and the stormwater community.

5. Story County Water Monitoring and Interpretation Plan 2021-2030

2023 was the third year of full implementation of the ten year Story County Water Monitoring and Interpretation Plan. The team of ten organizations, led by Prairie Rivers of Iowa, has sub-committees with specific strategies and tasks. Sampling and testing are being completed by staff and volunteers. The 2023 WQ report is not available yet at publication time of this report but should be available within the next month at <https://www.prrcd.org/story-county-water-monitoring/>.



6. Resource Recovery Plant Food Waste Diversion Program

Citizens can continue to take household food waste to the Resource Recovery Plant, thereby diverting this organic waste from the solid waste stream and turning it into compost. This program was developed because of the wet nature of food as solid waste and its ineffectiveness as a fuel within the total waste stream. Waste is either burned in the City Power Plant or sent to a landfill, if the plant is under maintenance.

The following table shows the amount of food waste collected and diverted from the waste stream over the last two years.

	2022-2023	2023-2024
Food Waste Diverted	86,900 pounds	73,200 pounds

7. Smart Watersheds Cost Share Rebate Program

The table below summarizes the Smart Watersheds rebates for the current year compared to previous the last three reporting years.

Rebate Program	2020-2021	2021-2022	2022-2023	2023-2024
# Applications				
Rain Barrel	27	18	47	22
Composter	22	15	11	6
Soil Quality Restoration	12	6	11	4
Native Landscaping	6	6	7	6
Rain Garden	1	0	0	0
Native Tree Rebate	35 applications, 58 trees	59 applications, 84 trees	47 applications, 67 trees	33 applications, 59 trees
Total Applications	103	104	123	61

Rebate amounts were increased in the summer of 2023 to further incentivize citizens to participate in the program.

	Previous Rebate Amount	New Rebate Amount as of 8/1/2023
Rain Barrel	\$ 50	\$ 100
Composter	\$ 100	\$ 100
Soil Quality Restoration	\$ 350	\$ 400
Native Landscaping	\$ 350	\$ 400
Rain Garden	\$ 400	\$ 500
Native Tree Rebate	\$ 75/tree	\$ 100/tree



8. The Community Academy Grows and Plants Natives for City Projects

In 2023 the City began a three year project partnering with The Community Academy of Ames to enhance native landscapes in the city's public landscapes. This year as part of the summer programming approximately students planted over 3000 native plants in three properties around the City and were taught weeding and planting skills.



C. ILLICIT DISCHARGE DETECTION AND ELIMINATION

1. Illicit Discharge Prohibition Ordinance

The Illicit Discharge Ordinance was presented to the Ames City Council and became part of the Municipal Code (Ord. 3819) on February 22, 2005.

This reporting year staff from the Public Works Engineering and Operation Divisions met to review illicit discharge reporting and coordination procedures.

2. Storm Water Pollution Notifications

The City continues to have multiple ways to report and inquire storm water issues:

- Telephone during office hours (515-239-5160) and after hours (515-239-5150) 24-hour number for reporting spills.
- City's newsletter, CitySide, which is sent to 30,000 households through utility bills
- City website. <https://www.cityofames.org/government/departments-divisions-i-z/public-works/stormwater-program/stormwater-violations-illicit-discharge>
- Cellular telephone app, Ames on the Go.



3. Illicit Discharge Detection and Elimination Program

The City of Ames Public Works Department – Operations Division is responsible for implementing this program. Program schedule, checklist, and mapping have been developed with the procedures that are documented in a manual. Records are kept for all program activities. Violations were reported during this period and are summarized below. IDNR is notified when necessary and discharges were eliminated.

Annual dry weather flow inspections of outfalls which discharge to non-intermittent waterways or water bodies have been conducted. The program also includes dry weather flow inspections of approximately 20% of all outfalls that discharge to Waters of the State that are intermittent waterways or water bodies with all these outfalls being inspected during the duration of the permit.

- Spill kits at the Operations Facility and Fleet Facility were inspected and restocked when necessary.
- Spill response plans are posted on bulletin boards each year at major City facilities such as Operations and Fleet, Parks and Recreation and the airport.
- During street projects a Vac-Tron is used to vacuum concrete cutting slurry before it reaches intakes and is then land applied in City yard to dry out. An absorbent gel was provided to staff to experiment with as well.

The following table lists the incidents reported by the Ames Fire, Police, and Public Works Departments in the current reporting period, demonstrating the city's commitment to respond and cleanup potential threats of illicit discharges to the storm sewer system and streams.

Date	Staff/Unit Responder	DNR Notified?	Location/Description
6/6/2023	PW Engineering	Yes	? – Oil Spill
PW Engineering received a call about a bucket of motor oil accidentally being knocked over into the street. The motor oil did not get into the storm drain and was cleaned up using quick dry. The bucket was a 1 gallon bucket, which was only filled about halfway.			
6/6/2023	PW Engineering	No	Grand Ave and 6 th Street – Oil Spill
PW Engineering found an oil container in the intersection of Grand and 6 th Street that had fallen out of the bed of a truck. No oil was spilled into the street and the container was taken to Resource Recovery.			
6/27/23	PW Engineering	Yes	West Welch Parking Lot - Grease Spill
Public Works was called to a cooking oil spill that occurred due to an overflowing cooking oil dumpster that has not been emptied in almost a year. The cooking oil did flow into the storm drain, but no evidence was found in College Creek where the drain is expelled. It was cleaned with quick dry and the dumpster company was contacted to pick up the dumpster.			
			
10/2/23	PW Engineering	No	Thackeray Ave - Motor Oil Spill
Public Works was called for a motor oil spill on a sidewalk on Thackeray Ave. Quick dry was used to clean it up and was disposed of at Resource Recovery. No oil went into the storm drain and only consisted of a small pool.			
			
10/18/23	PW Engineering	No	Chamberlain Rd Alley - Grease Dumpster Spill

A grease dumpster was tipped over and flowed down the alley, down the street, and into a storm drain. The police were notified since it was an intentional event. Quick dry was used to clean up to spill and was disposed of at Resource Recovery.



11/14/2023	PW Engineering	No	Jefferson St, Garner Ave and Hoover Ave-Hydraulic Fluid Spill
------------	----------------	----	---

PWE was called for a hydraulic fluid spill causes by a garbage truck on Jefferson Street, Garner Ave, and Hoover Ave. Quick dry was applied to the fluid, cleaned up, and disposed of at Resource Recovery. It did not enter any storm drains and was contained to the center of the road.

11/16/2023	PW Engineering	Yes	407 Hickory Dr-Sanitary Sewer Pipe Leak
------------	----------------	-----	---

PWE was notified about a sewer pipe leak from 407 Hickory Dr leading into Munn Woods Park. Maintenance was contacted to fix and clean up the leak. DNR was also contacted.



2-15-2024	Public Works – Jake Moore	Yes	Stormwater discharge located at Mike Louis Salvage yard 1901 E. Lincoln Way. East side of Carnegie Ave ROW Ditch.
-----------	---------------------------	-----	---


Jake Moore, Public Works was contacted by City of Ames Utility Maintenance Streets department regarding storm water discharge from Mike Louis Salvage. ROW ditch had been graded by Mike Louis to improve drainage. In doing so water discharged from the salvage yard to ROW ditch via a dug trench. The ROW ditch contained murky water with a possibly of contaminated runoff water coming from the salvage yard. The runoff did not have an odor but did feel slightly slippery. IDNR Environmental Specialist Malia Schepers did a site visit at the request of Jake Moore and spoke to the owner regarding the GP#1 storm water plan for the salvage yard. Mike Louis is in the process of working with City of Ames by obtaining the proper ROW permits and stabilizing the ROW. Mike Lewis is in the process of working with IDNR on compliance with GP#1 for the salvage yard storm water requirements. Note: City installed erosion control ditch check wattles in the interim to reduce erosion until the ditch is stabilized. The disturbed areas in the ROW was less than one acre but part of a GP#1 site permit.



4. Resource Recovery Plant

Keeping hazardous waste and trash from being illegally dumped in waterways is an ongoing challenge. The City of Ames Resource Recovery Plant provides multiple options so that illegal dumping is minimized. The Plant continues to accept household hazardous materials every Wednesday and during special collection events.

The following table illustrates the amount of material collected over the last two years.

	2022-2023	2023-2024
8 th Annual Rummage Rampage 	143,838 pounds \$49,000 raised for 41 non-profits	154,843 pounds
Stash the Trash	Amount not recorded	760 pounds
Stream Cleanup	Amount not recorded	0.75 tons
Household Hazardous Waste	479 people, 24,846 pounds	527 people, 33,019 pounds

D. CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

1. Construction Site Runoff Control Ordinance

The Construction Site Erosion and Sediment Control Ordinance was presented to the Ames City Council and passed on (Ord. 3875) February 14, 2006.

2. Construction Site Review and Inspection Program

One full-time staff person, Jake Moore, Stormwater Specialist is designated for Storm Water Pollution Prevention Plan (SWPPP) review, inspection and enforcement activities for this program which includes residential, commercial and industrial developments as well as the city's construction projects.

A City Construction Site Erosion and Sediment Control (COSESCO) permit is issued with evidence of an NOI General Permit Number 2 and after the SWPPP has been reviewed and approved. Inspections are conducted quarterly or as needed for compliance. A database is used to track the status of each project. Staff regularly correspond with local builders and developers.

The City of Ames has several capital improvement projects active every year. Regular inspections are completed with fully documented reports being written after each inspection. The large projects completed this year have are: E. 13th Street Sanitary Sewer, North Dakota Avenue Street Improvements, South 16th Street Improvements, South Duff Water Improvements, Ridgewood and Oakwood Street Improvements, East Lincoln Way Sanitary Sewer Project, Stange Road Street, Oakwood Road, Iowa Creek Trail, Iowa Creek Flood Mitigation, Ames Plaza, Ames Water Well Line Project.



The following table summarizes the City's construction site runoff control program activities with a comparison to last two year's activities.

SWPPP Reviews/Approvals	2021-2022	2022-2023	2023-2024
Single Family Homes	60	54	38
Townhomes	0	0	18
Commercial Reviews	12	6	11
Preliminary Plats	6	2	2
Plat additions with Public Improvements	2	3	3
City Project SWPPP Reviews	2	5	8
NOIs Filed for GP#2			
Total Projects	9	25	19
City Projects	1	5	7
Iowa State University Projects	1	6	0
Story County Projects	0	0	0
School District Projects	0	0	0
Private Projects (Gas Stations, Subdivision, Apartments, Hotels, Building Additions, Commercial Businesses)	7	14	10
Single Family Lots- Individual Permit (less than one acre but part of an older subdivision/development)	-	-	2
Weekly (City Project) & Quarterly Inspections (Private Sites)			
Total Conducted	544	571	719
City Projects	299	325	502
Private Projects (Commercial)	121	126	111
Single Family Inspections (Home Lots)	124	120	106
Enforcement Actions			
Number of Compliance Issues (Private Projects)	70	95	64



Construction Site Runoff Control Program Tracking

Types of Issues and Enforcement Actions (Notice sent by email to site contact to have BMP's installed)	
1. Apply Temporary stabilization when site is inactive	
2. Sediment controls required to be installed or require maintenance	
4. Install, maintain stabilized drive	
5. Concrete Washout, Install, clean up and repair	
6. Restore vegetation on neighboring lots, add sediment controls to neighboring lots	
7. Seed, mulch stockpile	
8. Secure porta potty with stakes	
9. Pick up trash	
10. Store chemicals in covered areas or secure containment	
11. Install rock check in channel	
12. Protect intakes	
13. Standpipe at basin outlet required, install control to withdraw water from the surface per GP#2	
14. Move dirt piles away from street	
15. Install sediment controls around stockpile	
16. Expired Permit- renew	
17. Clean out storm sewer/manhole	
18. Not enough controls, add additional. Try to catch this during the SWPPP design	
19. Water site to prevent dust from blowing	
Topsoil Requirements	
Number of Sites Where Decompaction Occurred and Topsoil Placed (final occupancy including single family and commercial lots)	Approximately 60
Describe Methods Used and Amount of Topsoil - Scrape/stockpile/backfill with onsite topsoil (amended soil only used on one City Project - Had settlement problems) Some sites hauled in soil on commercial lots.	
8" of topsoil is typically placed on all sites. Decompaction methods used include: Chisel Plow, Box Blade Teeth, Tiller, Farm Disc, Land Leveler/Planer teeth	

3. Topsoil Requirements in GP#2:

The City of Ames code references SUDAS in Chapter 5A of our Construction Site Erosion and Sediment Control Ordinance. Therefore, any site which has a COSESCO permit, which includes all NPDES GP#2 sites, are required to meet SUDAS standard specifications of Section 2010. SUDAS calls out 8" of topsoil in Section 2010-3.02.

E. POST-CONSTRUCTION STORM WATER MANAGEMENT

1. Post-Construction Runoff Control Policy Ordinance

A comprehensive post construction ordinance (Chapter 5B) was approved by City Council on April 22, 2014 with revisions to the ordinance in 2019. A link to the ordinance is <https://www.cityofames.org/home/showdocument?id=17750>.

2. Site Plan or Grading Permit Review Procedures

Site plan review procedures are conducted and implemented by the City through the Development Review Committee process. This committee consists of representatives from Public Works, Planning and City Administration Departments. Stormwater management calculations are required and are reviewed for approval by the Engineering Division of the Public Works Department.

Post construction controls are required to meet the Iowa Storm Water Management Manual Unified Sizing Criteria based on hydrologic soil group B soils in meadow condition. An as-built plan is prepared and submitted to the City to ensure that the sites are built as designed.

The Post Construction Ordinance, City Code Section 5B, applies to new development sites that plan to disturb one acre or more or create more than 10,000 square feet of impervious area. On April 1, 2019 a second category was added for redeveloped sites. The minimum threshold for redeveloped sites is one acre of proposed disturbed impervious area. This has resulted in fewer stormwater management plans to review and implement.

Type of Development	2021-2022		2022-2023		2023-2024	
	# Plans Reviewed	# Projects Approved	# Plans Reviewed	# Projects Approved	# Plans Reviewed	# Projects Approved
New Development	7	1	6	6	11	11
Redevelopment	4	4	0	0	3	2
Total	11	5	6	6	14	13

In addition, approximately 10 site plans and subdivisions were reviewed and determined that they were part of a regional watershed that considered the proposed conditions or the proposed development was below ordinance thresholds for stormwater management.

Best Management Practices and Water Quality Volume Benefit of Approved Plans

Type of Practice	Number of Practices
Wet Retention Basins	11
Infiltration Trench	1
Grass Swale	1
Total	13
Water Quality Benefits	
New Water Quality Volume Managed	969,296 cubic feet

3. City Funded Watershed and Construction Projects

Civic engagement is extremely important to the City of Ames organization as we serve the customers of Ames. Information about capital infrastructure projects such as roadway, water system improvements, sanitary sewer rehabilitation, drainage, stream stabilization, storm water facility rehabilitation, and flood mitigation projects are on the City's website under Construction Updates. Virtual or Open House project informational meetings are held during the design phase to gather public input prior to finalizing the construction documents. During the past year, project information meetings were held in person. Construction updates are also often made through the Ames Media You-tube Channel.

Several large capital improvement projects continued in establishment phase for the native plantings:

- South 5th Street Wetlands (3rd growing season)
- loway Creek Flood Mitigation Project (2nd growing season)
- Baker Subdivision Retention and Fishing Pond (3rd growing season)
- Little Bluestem Bio-Cells Rehabilitation (3rd growing season)
- North River Valley Park Low Head Dam (3rd growing season)
- Homewood Slope along South Skunk River (3rd growing season)
- S. Grand Avenue Extension Water quality swales and wetland (2nd growing season)

The following projects began construction during the current reporting period:

- Low Point Drainage Improvements- addressing localized flooding (on-going)
- Clear Creek stabilization (near Utah Drive)
- Hyde Avenue/Bloomington Townhomes Waterway Restoration



Upcoming watershed projects and studies that are in various stages of analysis/design:

- loway Creek Restoration -Brookside Park (6th Street to 13th Street)
- 24th Street Improvements Bio-Cells and Swales (west of UPRR tracks) College Creek stabilization (near South Dakota Ave)
- Clear Creek Stream Assessment
- Bluffs at Dankbar-loway Creek wetlands
- City wide loway Creek Master Plan
- City-wide Storm Sewer System Analysis including modeling and BMP planning
- S. Skunk River Restoration (E. Lincoln Way to SE 16th Street)
- SE 16th Street Bridge Flood Investigation

4. Inspection Program of Runoff Control Devices

A program that meets the required schedule has been developed along with a checklist and GIS mapping. In areas where these facilities are on private property, the landowner signs an agreement with the City that details the requirements and responsibilities in maintaining these facilities. Letters were sent in the fall to property owners to remind them to conduct inspections and maintenance of their permanent stormwater practices. In **2023, 54** owners returned an inspection and maintenance report.

The Public Works Operations Division conducts the site inspections and maintains all city owned green infrastructure practices and storm sewers. An Urban Conservation Intern, who is assisted by the Stormwater Intern is responsible for monthly inspection, maintenance and enhancement of the city's bio-cells and smaller native landscaping areas. Enhancement of each of the bio-cells is on-going and is resulting in increased function of these practices.

The following table summarizes inspection and maintenance activities for the City's post construction and storm sewer infrastructure for the previous and current reporting years.

Post Construction Municipal Inspections and Maintenance

Outfalls	Previous Year	Current Year
Dry weather inspections of outfalls	314	356
Issues: Soil erosion, trees around outlets, pipe dislocation		
Outfall repairs	42	12
Intakes		
Inspections	1285	1979
Region inspected	Sections E,F G & H	North 7 and South 6
Maintenance performed: Inspect, clean, repair as needed		
Detention and Retention Basins		
Inspections	81	73

5. Green Infrastructure

More regular inspections of the City's Green Infrastructure began this year. Stormwater Intern performed monthly inspections and Stormwater Groundskeepers followed up with maintenance as needed. The NEWLY adopted Green Infrastructure Maintenance and Management Plan was implemented for the first year, primarily by a Stormwater Intern and two Groundskeepers.

Green Infrastructure Inspection and Maintenance Areas	# BMP	# Inspections
24 th Street Bioswales	11	5
Ash Avenue	1	6
Baker Pond	2	4
Calhoun Park Rain Garden	1	5
Community Center Bio-Cells	5	6
Edison/Whitney Bio-cells	2	5
Ridgewood Bio-cells	3	4
Welch Avenue Tree Trenches/Bio-cells	11	6

STORMWATER MANAGEMENT FACILITY INSPECTION REPORT		
Site Name: Welch Biocells		
Site Location/Address: Welch Ave		
Date: 6/8/23	Weather Condition: Cloudy	
Last Rainfall Event in Days: 0	Inspector's Name: Cora Anderson	
Type of BMP (Best Management Practice): <input type="checkbox"/> Wet Detention/Retention Basin <input type="checkbox"/> Stormwater Wetlands <input type="checkbox"/> Grass Swale <input type="checkbox"/> Dry Detention Basin <input type="checkbox"/> Bioretention Cell <input type="checkbox"/> Bioswale <input type="checkbox"/> Underground Detention System <input type="checkbox"/> Infiltration Trench or Basin <input checked="" type="checkbox"/> Other: Tree Trenches		
STRUCTURAL CHECK		ACTION NEEDED
Is there an issue with the pretreatment? (Check observation ports in subsurface chamber systems, etc.)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is there a significant amount of sediment & debris accumulation present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Do embankments, spillways, side slopes, inlets & outlets show signs of excessive erosion, settling, cracking, building, misalignment or other deterioration?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is the inlet(s) or outlet(s) plugged, damaged or not functioning properly?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Do impoundment areas show erosion, low spots or lack of stabilization?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Are trees or saplings present if not meant to be part of the BMP?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Are animal burrows present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Are contributing non-stabilized areas showing evidence of sediment within the BMP?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Do grassed areas require mowing and/or are there excessive clippings?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Does native/desired vegetation require management?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Trees need to be trimmed
Are there unwanted vegetation/weeds/algae in the BMP?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Weeds
WORKING CONDITIONS		ACTION NEEDED
Does the depth of sediment or other factors suggest a loss of storage volume?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is there standing water in inappropriate areas after a dry period?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Does the infiltration practice pond water for >12 hours indicating hydraulic failure?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Is there an accumulation of debris and/or trash anywhere?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Remove trash
ADDITIONAL INSPECTION ITEMS		ACTION NEEDED
Evidence of encroachment or improper use of BMP areas?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Signs of vandalism?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Fence, gate, lock or other safety devices need repair?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Tighten gates/railings
Evidence of illicit discharge such as oil, grease, auto fluids, paint entering system?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	



GREEN INFRASTRUCTURE MAINTENANCE & MANAGEMENT PLAN



6. Tree Planting Program

City has a comprehensive tree program administrated by the City Forester. After approximately 300 trees were lost on city property during the 2020 Derecho, hazardous trees continue to be identified and trimmed or removed for public safety. In addition removal of ash trees continues on city properties, resulting in a need for tree replacement.

The following summarizes approximately how many trees were planted in the city during the current reporting period. This is in addition to trees planted independently by citizens and businesses.

Location	Last Year	Current Year
City Properties/Right-of-Ways and Projects	228 trees planted	355 trees planted
New Private Developments	90 trees planted	50 trees planted
Existing Residences	300 native seedlings planted -city giveaway	300 native seedlings planted -city giveaway
Smart Watershed Rebate Program	67 trees	59 trees



F. POLLUTION PREVENTION/GOOD HOUSEKEEPING

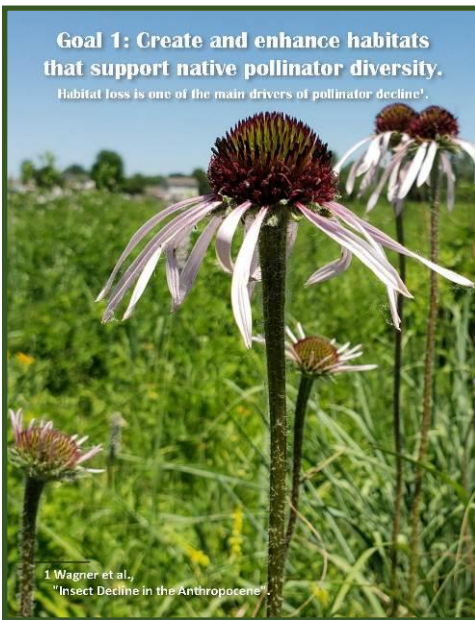
1. Operation and Maintenance Program for MS4

The Public Works Operations Division has been inspecting the MS4 components in accordance with the implementation schedule. A street sweeping program is in place that meets the requirements noted in the permit. A program, and corresponding mapping, has been developed to assure inspection and maintenance of all storm sewer facilities on a ten-year schedule. The following table is specific activities completed this permit year compared to the previous reporting year.

Good Housekeeping and Pollution Prevention Activity	Previous Year	Current Year	Amount of Sediment and Debris Collected	
			Previous Year	Current Year
Street sweeping	5984 miles	7402 miles	2094 tons	2591 tons
Intake maintenance	1285 intakes	1979 intakes	48 tons	73 tons
Bio-cell Pretreatment maintenance	10	14	112 lbs	Not measured

2. City of Ames Pollinator-Friendly Community Plan

This year the City of Ames Pollinator-Friendly Community Plan was adopted and the first year of implementation began. Staff from Public Works, Water and Pollution Control and Parks & Recreation Departments joined subcommittees and participated in the first outreach event, Monarch Magic on September 9, 2024 to tag Monarch butterflies and to promote our Stormwater Program.



Representatives from Prairie Rivers of Iowa RC&D, Iowa State University, Friends of Brookside Park, Friends of Ada Hayden Heritage Park, Century 21, WHKS & Co., Bolton & Menk, Inc., HDR, Inc., Iowa Young Birders and Iowa DNR, Iowa Storm Water Education Partnership, and individuals from the community are participating in plan implementation

The goals of the plan are to:

- Create and enhance pollinator habitat on private and public properties in each watershed of the City of Ames.
- Continuously monitor pollinator abundance and diversity within the City of Ames and urban fringe area over the next 10 years.
- Ensure a healthy environment for pollinators
- Deliver marketing to amplify community awareness of the Ames Pollinator-Friendly Community Plan

“OUR VISION IS TO BE A LEADING POLLINATOR COMMUNITY IN THE UNITED STATES AND ENRICH THE QUALITY OF LIFE FOR THE PEOPLE OF AMES BY ENHANCING POLLINATOR HABITAT.”

3. Pesticide and Fertilizer Management Program

Public Works and Parks & Recreation Departments and their subcontractors have developed individual application records, site logs, summary logs for tracking pesticide and fertilizer use. These have been distributed to all City Departments that engage in this activity along with a discussion of the permit requirements.

Here are some highlights of the program:

- Departments are taking steps to minimize chemical use and are exploring Integrated Pest Management BMPs.
- Phosphorus-free fertilizers are used at most public facilities.
- Tracking sheets list chemical use, application rates, applicator and type of IDALS certification and certification number.
- Best management practices include the use of Phosphorus-free fertilizers and acceptable cultural practices for the use of fertilizers.

The following parks and city facilities are the locations where fertilizer, herbicides and pesticides were applied during the current reporting year:

City Parks: Hira, Northridge Heights, Carr, Teagarden, Country Gables, Lloyd Kuertz, O’Neil, Franklin, Oakland, Hutchinson, Moore, Green Briar, Stuart Smith, Duff, Parkview, Roosevelt, Gateway, Gartner, Bandshell, Old Town, Ada Hayden, Brookside, 1. Calhoun, Christopherson, Daly, Dog Park, Emma McCarthy, Furman Pool, Homewood Golf, Inis, Moore, Patio Homes, River Valley.

Other Facilities: Operations on Edison, Municipal Cemetery, Airport, Community Center, Fire Houses, Electric Services

Mosquito control applications are used throughout the city during mosquito breeding periods. Amounts required vary from year to year because spraying is only done when needed based on the weather conditions each year.

Mosquito Spraying					
	2019	2020	2021	2022	2023
Gallons Sprayed	73.64	17.2	3.72	270.25	452.38

The tables below summarize the amount of products used.

R-O-W, Fire Stations, Parks & Cemetery					
Herbicides and Pesticides, unit	2022 Amount	2023 Amount	Herbicides and Pesticides, unit	2022 Amount	2023 Amount
Aneuw,lbs	6	13	RM-18, gal		52.5
Defender, oz	0	16	Speedzone,gal	27.2	77.1
Esplanade,oz	210	415	Spark, gal	0	5
Glyphosate,gal	10.03	175	T Zone, oz	0	315
Ignition,gal	0	3.5	Tetrino, gal	1	0
LV400, gal	0	36.2	Threesome,gal	81.0	1.44
Merit, oz	0	200	Vessel, gal	0	1
Prodiamine,lb	61.8	0	Vivax, gal	0	3
Quinclorac , lb	0.5	0			
Fertilizer,Mesa, 25-0-5,lbs	3200		16-0-3 Fertilizer, bags		26 bags

Homewood Golf Course Products Used					
Product Name, unit	2022-2023 Amount	2023-2024 Amount	Product Name, unit	2022-2023 Amount	2023-2024 Amount
Acelepryn,oz	24	258	Pervade,oz	172	112
Aneuw, lbs	12.2	22	PK Fight,gal	10	0
AT45, gal	9.4	8.9	Primo,oz	12	8
Bifenthrin, oz	0	104	Prodiamine ,lbs	25	30
Chloratholonil, gal	5	14	Propistar,oz	312	112
CLT72, gal	0	5	Secure Action,oz	21	74
Dac Action,oz	1800	2624	Speedzone, gal	7	7.5
Dimension,oz	0	36	Spotrete, oz	201.5	638
Floratine Fertilizer,application	9	9	Stressgard, gal	0	2.5
Green Activator, gal	8.5	3	Teb,gal	3.9	4.2
Iron, gal	10	0	Thiram, gal	2.7	2.0
Ignition, gal	0	8.5	Triplo, gal	0	5
Mencozeb, lbs	18	18	Vivax, gal	2.8	15.3
Merit, oz	0	32	Zoxy,oz	96	106

4. Stormwater Pollution Prevention training for Staff:

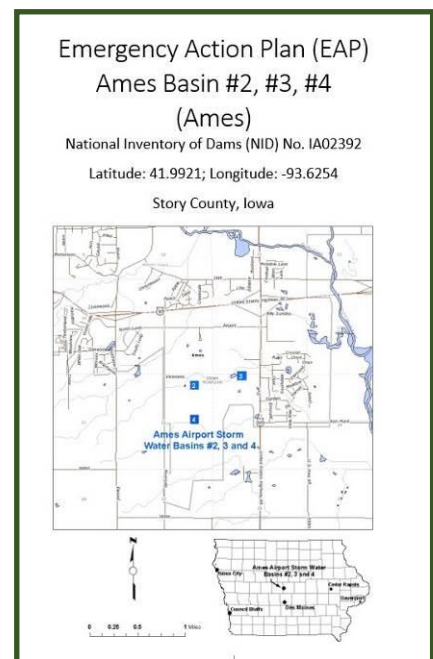
The annual Pollution Prevention training for Public Works Department (Operations, Utility Maintenance) and the Parks Department, was conducted on February 1, 2024 and February 23, 2024 using the video called "Rain Check", a resource provided by ISWEP. **Twenty-eight staff** participated in the training.



5. City Facility Inspections

On-going inspection of city facilities is performed by each Department: During the current reporting period inspections at the following locations were conducted:

- Power Plant Ash Pond (monthly inspections)
- Municipal Airport (yearly) Additionally, in February, 2024, an Emergency Action Plan was prepared in cooperation with the Iowa DNR for the detention basins at the airport.
- Public Works Operations (yearly)



6. Continuing Education Program for Staff:

City Stormwater and Public Works staff continue to attend seminars and conferences (this year held virtually by webinars) to continue their education and current with the latest stormwater practices and techniques. Stormwater staff participated in following continuing education:

Stormwater Staff Continuing Education

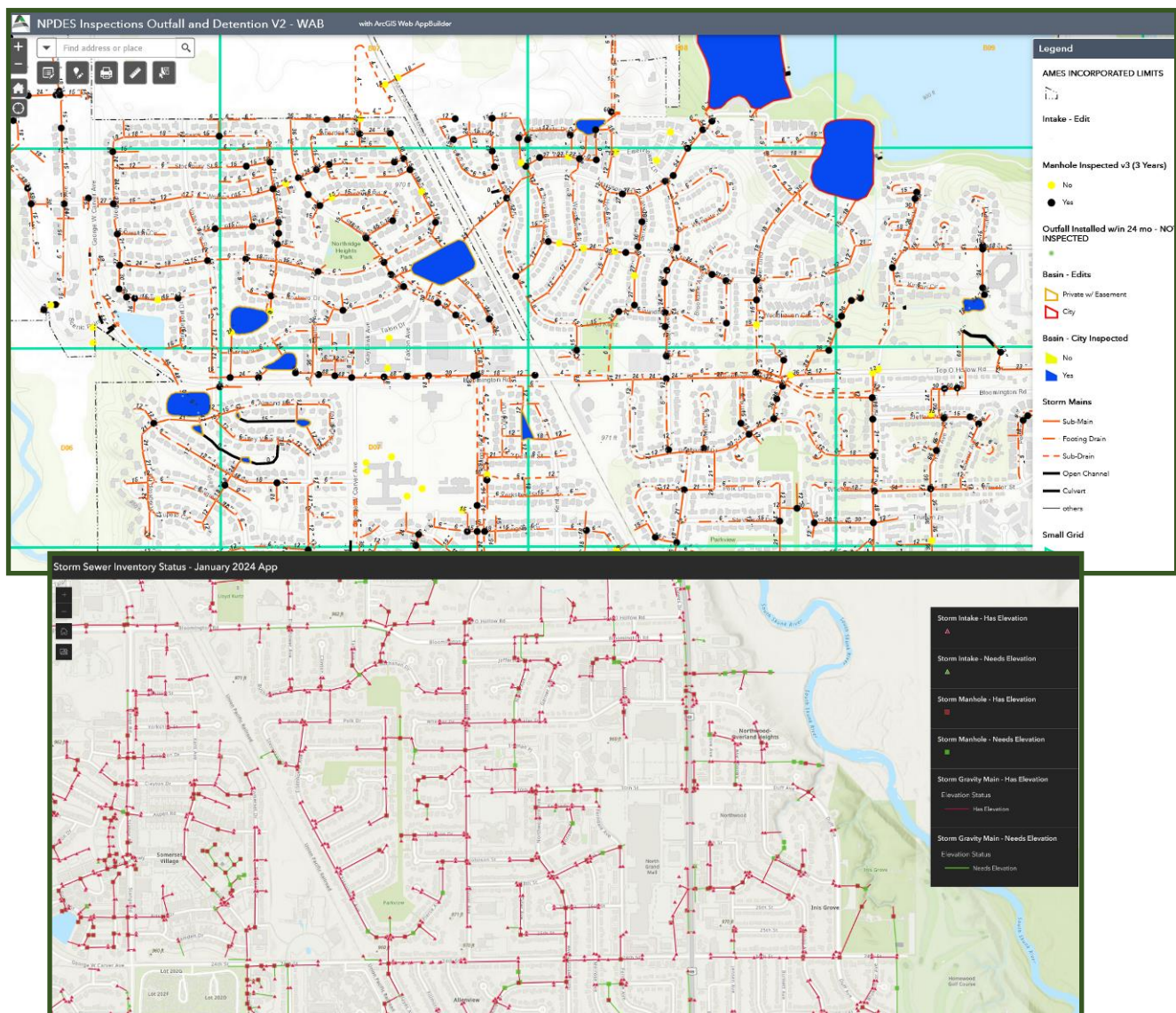
Event	Number Attending
Host IRR River Restoration Toolbox, Level 1, May 15-18, 2023	1
APWA PWX Conference August 25-31, 2023	2
NA Prairie Conference, June 26-29, 2023	2
ISWEP Stormwater Webinar Series	2-4
ISWEP Bio-Cell Maintenance Training, June 15, 2023	4
IRR River Restoration Toolbox, Level 1, June 11-15, 2023	1
ISWEP - IStorm Conference, Nov. 1-2, 2023	3
APWA PWX Iowa Conference Sep 27-29, 2023	2
3 ISWEP Quarterly meetings	2
Iowa Water Conference Sep 19 & 20, 2023	3
IRR River Restoration Toolbox, Level 2, Nov. 11-14, 2023	1
Host ISWEP/Story County/ Ames ISALT Training Nov 7, 2023	2
Native Landscaping Training for Contractors and Designers, Feb. 29, 2024	3

PART 3: SPECIAL CONDITIONS

A construction site inspection program has been developed and implemented for construction projects, owned or operated by the City, that include areas of soil disturbance for which NPDES permits are required. The inspection program ensures that contractors are correctly implementing BMPs that have been approved in the pollution prevention plan and any additional necessary measures. The program requires inspections by the City at least every 7 days and ensures compliance by contractors with the storm water General Permit Number 2. Construction site inspection checklists and logs are also completed.

A complete map of the MS4, including outfalls, has been integrated with the City-wide GIS mapping. The Public Works Engineering Division continues to maintain the system map.

This year PW and GIS staff have worked on refining the Outfall and Basin Inspection map for easier use during inspections and developed a Storm Sewer Inventory map showing which parts of the system have survey data and which do not.



PART 4: MONITORING DATA

A. Water and Pollution Control Stream E. Coli Monitoring

The City of Ames continued water quality monitoring for fecal coliform bacteria during the current monitoring period. It is conducted by the laboratory staff of the city's Water and Pollution Control Department and included tributaries of S. Skunk River. The following table illustrates the on-going results. If obvious signs of pollution are discovered, or if significant degradation is observed, city staff will conduct more detailed water quality investigations.

The drought conditions resulted in either high concentrations of E. Coli immediately after storm events or very low or negligible measurements during a dry period.

E. Coli monitoring conducted by City of Ames Water Pollution Control (measured in CFU- Colony Forming Units)

SAMPLE DATE	SKUNK RIVER	IOWAY CREEK	CLEAR CREEK	COLLEGE CREEK	WORLE CREEK
2019					
4/9/2019	122	158	85	2909	448
5/16/2019	63	231	189	265	384
6/11/2019	173	374	414	583	594
7/16/2019	839	5172	24196	>24,196	2098
8/6/2019	122	2909	6867	8664	3448
9/24/2019	1764	1446	320	904	1024
10/11/2019	558	758	268	1024	378
2020					
4/7/2020	82	150	62	1,640	---
5/19/2020	1,100	750	218	370	700
6/16/2020	718	1,040	960	2,518	1,466
7/14/2020	126	374	746	654	---
8/18/2020	146	268	---	432	---
9/15/2020	189	364	384	5,475	---
10/21/2020	40	394	---	---	1,596
11/18/2020	85	173	---	3,076	---
12/16/2020	---	82	---	---	---
2021-2022					
4/21/2021	31	33	--	908	51
5/21/2021	121	455	110	1,396	187
6/16/2021	805	904	--	--	--
7/21/2021	98	441	--	--	--
8/18/2021	20	--	--	--	--
9/15/2021	41	--	--	--	--
10/20/2021	146	--	--	--	--

**E. Coli monitoring conducted by City of Ames Water Pollution Control
(measured in CFU- Colony Forming Units)**

SAMPLE DATE	SKUNK RIVER	IOWAY CREEK	CLEAR CREEK	COLLEGE CREEK	WORLE CREEK
11/17/2021	620	52	84	--	--
12/17/2021	10	185	96	3130	--
3/18/2022	41	52	--	410	20
2022-2023					
4/26/2022	10	41	63	1,860	52
5/18/2022	109	345	2,143	9,280	7,270
6/15/2022	8,704	10,334	15,402	9,222	22,398
7/27/2022	258	422	561	--	--
8/24/2022	120	246	--	--	--
9/20/2022	246	1,722	--	--	--
10/18/2022	--	288	--	--	--
11/16/2022	2,187	9,804	--	3,609	--
1/19/2023	--	--	249	1,782	--
2023-2024					
2/15/2023	1816	1,424	626	602	5,818
3/22/2023	<10	96	41	301	135
4/19/2023	30	336	20	355	96
5/17/2023	313	771	414	504	345
6/21/2023	573	1,850	1,333	2,603	1,396
7/26/2023	135	--	1,785	--	--
8/16/2023	327	816	820	15,531	--
9/20/2023	1,515	7,270	15,531	14,136	--
10/18/2023	238	1,314	--	--	--
11/15/2023	84	--	--	--	--

The Story County 10 year monitoring now has four years of data, enough to separate several conditions on the South Skunk River: too high for paddling, suitable for paddling and too low for paddling. An excerpt from the draft 2023 report states:

“As the report from 2021 illustrates how water quality is strongly influenced by precipitation and streamflow and recommended focusing on the conditions relevant to for pollutants of interest... during a drought, nitrate and sediment concentrations are low almost everywhere, and influences of land use and land management on water quality are less apparent”.

The following charts shows the sampling days relative to the stream flow in the South Skunk River. Testing snapshots have also been difficult under these low flow conditions as many of the smaller tributaries have been drying up in the summer months.

The categories and color coding in this section are based on the question “is there enough water in the South Skunk River to float a canoe?” Three sets of samples were collected when South Skunk above Ames was too high for paddling: on June 15, 2022 following a storm event, and on February 15, 2023 following both rain and snowmelt. Intense scattered storms on May 18, 2022 affected only streams in the southern part of the County.

Streamflow during monthly water testing, 2020-2023

South Skunk River above Ames (USGS05470000)

