Public Trees & Greenspace within the City of Madison

City of Madison Streets & Urban Forestry Division, Engineering Division, and Parks Division. Urban Forestry moved from Parks Division to Streets Division in Jan 2020.

Why?

Operational Efficiency

Skilled machine operators handle stump grubbing, brush hauling, brush chipping and more so arborists can do more tree work.

Semi-skilled Public Works Laborers assist with tree planting, watering

8700 hours, or \$250k, of assistance from Streets to Urban Forestry annually.

Storm Response

New model for response made possible by interagency cooperation with Urban Forestry section within Streets Division.

2024 Storm

Over 1,000 unique calls - largest event in decades

At least 270 emergency-level calls (roads mostly or completely blocked, tree on house, etc)

Stormwater Utility Land

Public lands greenspace to manage stormwater services (drainage and water quality).

Stormwater Utility Land: Land Acquisition

Dedicated through Subdivision Stormwater Requirements for:

- Water Quality
 - Infiltration
 - Sediment and pollution capture
- Flood control
- Stormwater conveyance in environmental corridors
- Or Acquired through Purchase
 - Lower Badger Mill Creek
 - Marty Farm

Stormwater Utility Public Outlot can include ponds, greenways, and infiltration basins. Public Outlot Dedicated with 1st Addition to 1000 Oaks Development



Stormwater Utility Land: Ponds & Greenways

Ponds

- Infiltration Basins
- Bioretention Basins
- Dry Detention Ponds
- Wet Detention Ponds
- Rain Gardens

Greenways

- Stormwater Conveyance
- Intermittent Streams



Stormwater Utility Land: Part of Larger Open Space System

- Primary Goal is Stormwater Management
 - This land is also a component of larger citywide initiatives and priorities.
- Pollinator Habitat & Biodiversity
 - All new ponds seeded and restored to native prairie/wetland species.
- Urban Canopy
- Public Greenspace and Recreation
 - Lands are open to the public.
 - Public path and access for maintenance and emergency repairs



Photo of Robin Greenway

Stormwater Utility Land: Part of Larger Open Space System

Lower Badger Mill Creek Ponds

- Gravel paths for access and walking
- Master planning with Parks for joint recreational amenities
- Ecological restoration and habitat on stormwater portion
- Native plant restoration begins this year
 - Wetland and aquatic emergent plants
 - New trees (oaks, birch, hickory)
 - Native flowering shrubs
 - Native plant seed
 - Two years of maintenance by an ecological restoration firm





Stormwater Utility Land: Vegetation Management Plan

Specific issues related to stormwater (erosion, flooding, infiltration, waterways)

Process started Fall 2023:

- 3 Public Listening Sessions
- Board of Public Works updates
- Online survey
- Volunteer experts
- Technical question summary posted on website
- Focus group workshop: 5/29/2024
- More details available on the Engineering Division's <u>Vegetation</u> <u>Management projects webpage</u>.

Urban Forestry

100,000 Street Trees

- Tree Planting
- Maintenance
- Removal
- Tree protection
- Emergency response

Urban Tree Benefits

- Environmental
- Economic
- Social



Image source: https://www.researchgate.net/figure/Street-treebenefits_fig5_320475204



Tree Planting

- Plant 2,000-3,000 trees annually
- Select from 72 unique species
- Prefer large-canopy species when possible

Tree Maintenance

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2 E Math St Miffilin S

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7 101 Tebeter

Wilson St

201 Pashington

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122 Main St

210

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601 Main S

13

S.Blair

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201 State St

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1001 Isconsin Ave

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Schedule Pruning

- Young trees 3-5 year cycle
- Mature trees 10 year cycle

Tree Inventory

Tree Protection

Plan Review

305

rances

Protect and Plant

Monhar

440 fines

Storm Response



Pest Management

Emerald Ash Borer (EAB) treatments

Spongy Moth response

Ongoing Collaborative Spongy Moth Response: Forestry, Parks & Engineering

Summer 2023

- Free burlap to residents to wrap around private trees
- Reporting for specific west side areas

Winter 2023/24

- Horticulture oil
- Mailings

Spring 2024

- Selected large oak injection (Parks and Engineering locations)
- Application from ground vehicles of BtK in Kenosha Greenway and southern portion of Glen Oak Hills park
- Monitoring

Summer 2024

- Burlap program June 2024
- Tree diapers to be deployed to help with watering
- Mulching
- Reduced mowing around oak trees
 throughout summer







Parks and Open Space Inventory

Parks and Open Space Plan 2025-2029 Update

City of Madison Dane County, Wisconsin



Data Sources: Dane County GIS (2023) City of Madison GIS (2023) Esri, NASA, NGA, USGS, FEMA



Existing City Parks

Parks and Open Space Plan 2025-2029 Update

> **City of Madison** Dane County, Wisconsin



Types of Green Spaces in Parks





Kettle Pond Conservation Park

Work Plan Highlights







Advance Sustainable and Resilient Land Management Advance the Golf Program Transformation





Build Division-Wide Volunteer Management Program Expand Efforts to Support Nature Everywhere









Sustainable and Resilient Land Management

Expand natural areas land management practices throughout the entire parks system

Maximize impact by building intra- and inter-agency collaboration

Convert to EV equipment

Advance Golf Program Transformation

72-hole operation to 63 holes in 2025

550 acres, year-round recreation

Function within ecosystem; The Glen had a 1700% increase in natural areas on the golf course with redevelopment.

Focus on incorporating natural areas and reducing long-term inputs



Build Division-Wide Volunteer Management Program

Increase volunteer hours, tracking, and recognition

Implement City-wide volunteer management software

Expand Support of Nature Everywhere Initiative

Lead the Connecting Children to Nature Initiative with Public Health

Partnership with Children and Nature Network and National League of Cities

International Nature Everywhere Conference in Madison (May 2024)

Key Collaborators: Public Health, Mayor's Office, Common Council, Monona Terrace, many community orgs Charlie Romines – Streets Division Superintendent Eric Knepp – Parks Division Superintendent Ian Brown – City Forester Sarah Lerner, PLA, LEED AP, ENV SP – Landscape Architect

> MADISON PARKS