

# Bee City USA - Madison

Report on 2023

## Pollinator Habitat Creation & Enhancement

*Please describe pollinator habitat creation or enhancement projects in your community in 2023, and whether your committee hosted them or not.*

There is so much that the City of Madison is doing to create and enhance existing habitat! Parks underwent a restructuring process for staff to create a team focused on conservation work in general parks. This is in addition to a dedicated crew focused on ecological restoration work in our Conservation Parks. Engineering continues to do ecological restoration work on much of their 1,500 acres. As the two largest land-owning agencies, Parks and Engineering are highly engaged in hands-on conservation work, and staff perform prescribed burns to improve the health of native plantings, pursue wide-scale invasive species control using a wide variety of mechanical, manual and biological controls (including goat grazing!), and replant and reseed native plantings across the City. New in 2023, Parks updated their Land Management Plan, with a focus on ecological restoration. Olbrich Botanical Gardens continues to offer great programming focused on native plant gardening and pollinator health, as well as cultural connections with local Ho-Chunk tribes that incorporate indigenous land management practices. In 2023 the Engineering Department again propagated and planted swamp milkweed (*Asclepias incarnata*), butterfly milkweed (*Asclepias tuberosa*) and whorled milkweed (*Asclepias verticillata*). In addition to these larval host plants, other beneficial nectar species, particularly late-season forbs, were propagated and planted including meadow blazing star (*Liatris ligulistylus*), showy goldenrod (*Solidago speciosa*), dotted mint (*Monarda punctata*), and pale purple coneflower (*Echinacea pallida*). Engineering also pursues seed collecting each fall both with in-house staff and our contracted Operation Fresh Start (OFS) youth crew. All seed collected on Engineering land is sown back onto stormwater land, with particular emphasis on new plantings, disturbed areas (i.e. from flooding, construction, invasive species control efforts etc.), or is used to propagate seedlings for the next year. Post-processing, "clean" seed weights for 2023 milkweed collection: Whorled milkweed—5 ounces Butterfly milkweed—2.4 pounds Common milkweed—10.6 pounds The seed cleaning and weighing process yielded 321 lbs of clean native seed and collected 124 different species at an estimated value of \$50,000. The Parks and Engineering divisions have robust invasive species removal programs. The Stormwater Utility (SWU) owns 1,500+ acres of stormwater land. The Parks Division owns 6,000+ acres of land, including dozens of Conservation Parks that feature larger tracts of land in natural communities such as marshes, prairies, savannas and woodlands. City staff use a variety of approaches to control invasive species on this land in order to preserve and enhance the native plantings. Here are a few of the strategies used for invasive species control:

- Thousands of hours of monitoring, surveying and walking stormwater land to locate and identify invasive species
- Creation of targeted invasive species removal plans with special emphasis on sites of highest biodiversity
- Targeted removal of invasive plants via digging, pulling, cutting and bagging seedheads, spot mows or herbicide applications by Engineering's Stormwater Vegetation Coordinator, Conservation Technician, two seasonal Conservation Ecology

Trainees, and Engineering's contracted youth crew, Operation Fresh Start (OFS) –Timed mows or spot mows by Operations crews to cut down invasive species during optimal periods –Partnership with WI DNR, Upper Sugar River Watershed Association to rear and release purple loosestrife beetles on Engineering land affected by purple loosestrife infestations –Brush cutting efforts by OFS targeting invasive buckthorn, honeysuckle, tree of heaven, mulberry and other non-native or aggressive woody species –Monitoring for porcelain berry, tree of heaven, wild chervil, water celery, purple loosestrife, Japanese knotweed and other invasive species of special concern –New in 2023: Parks hired new staff and reassigned Parks Laborer positions to create a crew focused on conservation work in general parks. Previously a crew with specialized native plant expertise was part of Engineering and Conservation Parks staff, but General Parks didn't have a crew specifically dedicated to installing and maintaining native plantings (including invasive species control) in general parks.

*How many habitat projects did you help to create or enhance in 2023?*

98

*How many people (staff, volunteers, students, partners, etc.) helped with those projects?*

185

*How many projects benefit monarchs, milkweed, or nectar plantings?*

98

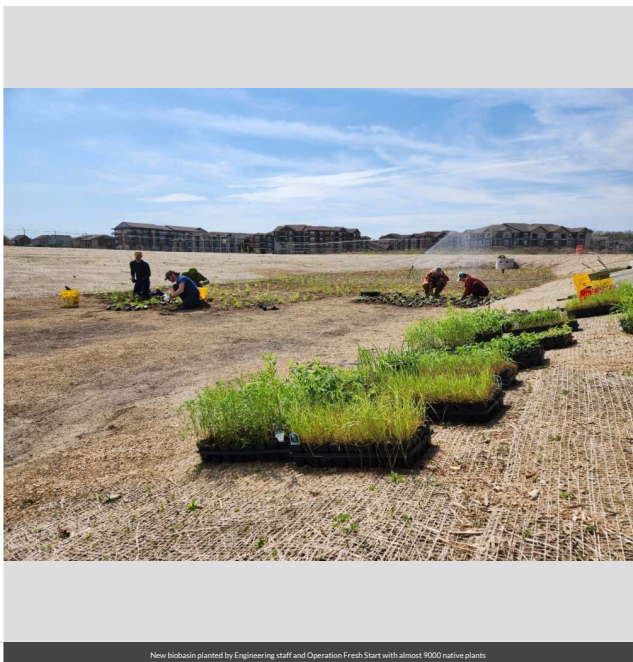
*How many total square feet of habitat were created or enhanced?*

435600

*Please check all that describe the habitats your affiliate helped to create or enhance in 2023 with pollinator benefit in mind.*

- Flower garden
- Natural area with tree snags and stumps, and bare areas for ground nesting species
- Meadow
- Pollinator-friendly lawn (with flowering clover, dandelions...)
- Native milkweed planting for monarchs and bees (where appropriate)
- Invasive/exotic plant species removal for habitat improvement
- Native pollinator-friendly tree planting
- Native pollinator-friendly shrub border/hedgerow planting
- Rain garden/bioswale

- Roadside/rights of way planting
- Other



New biobasin planted by Engineering staff and Operation Fresh Start with almost 9000 native plants



Prescribed burn conducted at Engineering managed rain garden comprised of native plant species



Seasonal employees collect native sedge seed at pollinator planting

## Education & Outreach

*Please describe pollinator conservation events or outreach activities in your community in 2023, indicating whether your committee hosted them or not.*

Olbrich Gardens hosted a variety of pollinator-related educational events and outreach activities in 2023. They continued the Garden Scouts volunteer team which emphasizes Olbrich's commitment to sustainable gardening. 25+ volunteers add photographic insect observations to our iNaturalist project to help staff scout for beneficial insects, pollinators and pests at Olbrich Botanical Gardens to help all involved gain a greater appreciation for and understanding of the little creatures that run the world. Hosted a moth observation night where volunteers and staff gathered to identify as many night pollinators as possible. Approximately 12 Garden Scouts Volunteers participated in monarch tagging at the gardens. The Monarch Watch Tagging Program is a large-scale community science project that was initiated in 1992 to help understand the dynamics of the monarch's spectacular fall migration through mark and recapture. Olbrich also hosted an inaugural 3.5 mile Butterfly Bike Parade with pit stops to toss out milkweed seedballs to add milkweed plants to the bike path greenways. Olbrich shared milkweed seedballs with the inaugural Free Bikes 4 Kidz Slow Roll. Everyone who biked to Olbrich's Blooming Butterflies exhibit received a free packet of milkweed seeds. Olbrich continued to host their seasonal Pollinator Plant Sales at which they offer a "Keystone Species" Plug Tray. The

plug tray mix features an all-native plant mix thoughtfully selected for exceptionally high value for Midwestern insects. An homage to the work of Dr. Doug Tallamy and the Homegrown National Park® movement, this full sun plant mix blooms continuously through the growing season. Olbrich's Blooming Butterflies event continues to draw in thousands of visitors each summer and to provide additional opportunities for educating visitors. Children attending our Blooming Butterflies exhibit receive an I-Spy Pollinators booklet that includes action steps people can take to support pollinators, including; 1) Creating habitat by planting native flowering plants, leaving plant material standing through winter to provide nesting habitat for insects, and say "no" to insecticides, and 2) Support conservation by volunteering with local prairie restoration botanical garden or arboretum, participate in citizen science projects, and donate to pollinator friendly organizations. Butterfly Action Day on Friday, July 28 brought together 13 community groups that share an interest in butterfly conservation. Each group had a booth with butterfly related resources for adults and activities for children. Participating groups in 2023 included: Aldo Leopold Nature Center, Friends of Pheasant Branch Conservatory, Friends of Wisdom Prairie, Groundswell Conservancy, Lussier Family Heritage Center, Madison Audubon, Madison Public Library, Madison's Children Museum, Schumacher Farm Park, The Nature Conservancy, Quercus Land Stewardship Services, Xerces Society, and Olbrich's Garden Scouts. The Engineering Division hosted an inaugural volunteer seed-starting event in December. 20 participants helped staff plant native seeds in milk jug planters. Volunteers will return in spring 2024 to help transplant seedlings. City of Madison Engineering staff partner with Dane County Land and Water Resources staff and local environmental engineers to host an annual gardening workshop. The 2023 workshop was a first for us—we set up one-on-one coaching sessions with native plant experts to help interested residents plan or perfect their personalized rain garden. Participants receive guidance as well as materials on native plant selection, installation, maintenance and discounts for the Dane Co native plant sale. <https://countyofdane.com/Event/Detail/1440> City of Madison Engineering staff partner with Dane County Land and Water Resources staff, Wisconsin DNR Bumble bee Brigade, the Dane County chapter of the Wild Ones, The Friends of Capital Springs Recreation Area, and the Lussier Family Heritage Center to put on a Pollinator Week event targeted at people interested in pollinators and/or native plants but at an entry level. The event offered indoor presentations including "Wisconsin Bumble Bees 101," an overview of the Bumblebee Brigade program including how to use the WIBEE app, a "build and take a garden" event, a garden design station, a garden install/weed ID and site prep demonstration station, a rainfall simulator demonstration, insect ambassadors boxes and many more resources. This event took place June 21 and 22.

*How many pollinator-related events or outreach activities did you host or help with in 2023 (in total)?*

9

*How many people attended those events (in total)?*

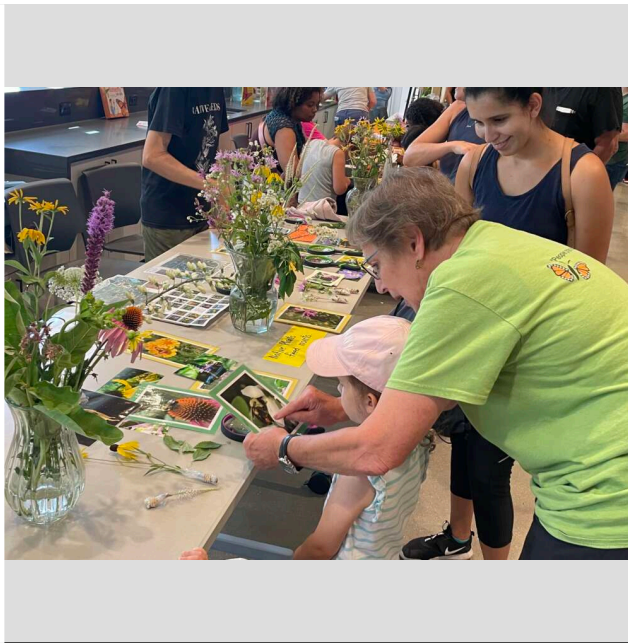
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*How many Bee City USA logo street signs have you installed to date (in total)?*

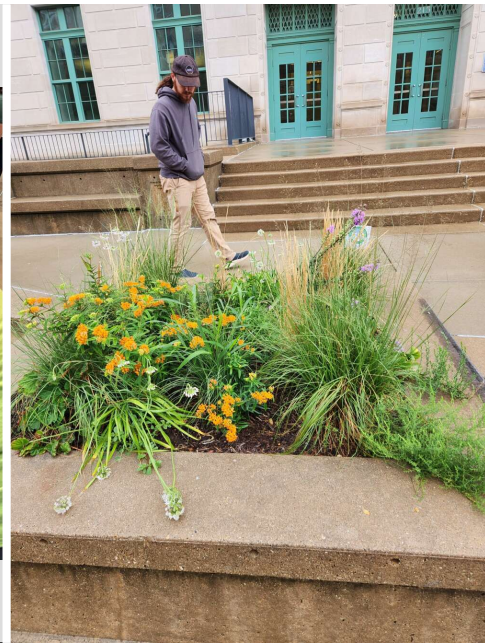
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Participant in Olbrich Garden Bike for Butterflies Event



Participants learn about native plants at Blooming Butterflies event



Bee City USA sign displayed outside Madison Municipal Building in planters featuring native plants



Bee City USA sign posted adjacent to widely used bike path and pollinator planting

## Policies & Practices

*Please describe actions taken to make pest management more pollinator-friendly.*

City staff continued to tackle invasive species control with an IPM approach. Wherever possible, alternative methods to herbicide application were used. Where herbicide was used, staff made all efforts to use the lowest rate possible at the prime stage in plant development in order to control the infestation in one application. Staff also strive to keep herbicide equipment maintained to reduce drip/spills which greatly reduces quantity of herbicide used and off-target spray. When herbicide application is necessary, sprayed areas often receive native seed afterwards to promote native replacement to compete with undesired vegetation in that space. Engineering staff attended the Xerces' Society Best Practices for Pollinators Summit and have strived to incorporate principles and practices learned in pest management.

*In your city or campus, are any policy initiatives underway to further protect pollinators, people or waterways from pesticides?*

The City has a pesticide use policy that dictates that staff use an IPM approach and also outlines specific pesticide use guidelines, for example, pesticides may not be used to control common lawn weeds such as dandelions in median plantings.

*Did your committee participate in any continuing education on ecologically-based Integrated Pest Management planning?*

Engineering staff attended the Xerces' Society Best Practices for Pollinators Summit and have strived to incorporate principles and practices learned in pest management.

*Please check actions you have taken to make pest management practices more pollinator-friendly.*

- Implemented or maintained a written IPM plan
- Avoided use of pesticides in public sites containing designated pollinator habitat or other sensitive features (except when targeted use is deemed the best option for invasive or noxious weed, insect or disease management)
- Implemented non-chemical pest prevention and management methods on city or campus grounds
- Eliminated pesticide uses that are solely to maintain aesthetics on city or campus grounds

*Are efforts underway in your community to further reduce pesticide use in residential or business areas? This may include neighborhood-led efforts, outreach to landscapers, etc. If so, please describe.*

In 2023, the City did not work directly with residential or business areas regarding pesticide use.

*Any lessons learned you would like to share?*

Always bring your parsnip predator



Learn More

Integrated Pest Management Plan: [PesticidePolicyOnCityProperty.pdf](#)

Recommended Native Plant List:

<https://www.cityofmadison.com/engineering/stormwater/programs-initiatives/rain-gardens/rain-garden-plant-list>

Recommended Native Plant Supplier List: [WDNR Native Plant Nursery List.pdf](#)