

Bee City USA - Madison

Report on 2024

Pollinator Habitat Creation & Enhancement

Please describe pollinator habitat creation or enhancement projects in your community in 2024, 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! 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. 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 2024 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 their 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 2024 milkweed collection: Whorled milkweed—3.6 ounces, Butterfly milkweed—8.2 ounces, Swamp milkweed—4.6 ounces, Common milkweed—5 pounds. The seed cleaning and weighing process yielded 150 lbs of clean native seed and collected 127 different species at an estimated value of \$43,345. 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, three 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. In 2024 Parks reported the following habitat creation data: Native trees planted: 364 Native shrubs planted: 30 New pollinator gardens planted: 10 Sqft of new plantings: ~ 11,300 Native perennial plugs planted: 17,736 Acres of new prairie/savanna seeded: ~4 In 2024 Engineering reported the following habitat creation data: Native trees/shrubs planted: 186 Native perennial plugs planted: 12,512 Native seed sown across 38 sites totaling 11.69 acres City of Madison agencies also have a great store of resources that were created in-house that we use and refer residents to, for example, Engineering has created pollinator friendly rain garden planting plans, Parks has created guides to invasive species control for volunteers, and the Pollinator Protection Task Force recommendations provide pollinator friendly actions for property owners.

How many habitat projects did you help to create or enhance in 2024?

38

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

82

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

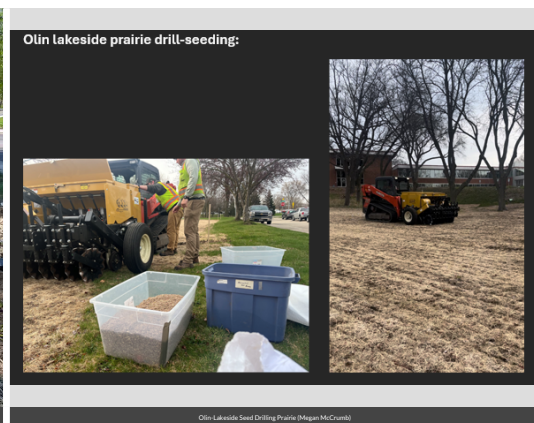
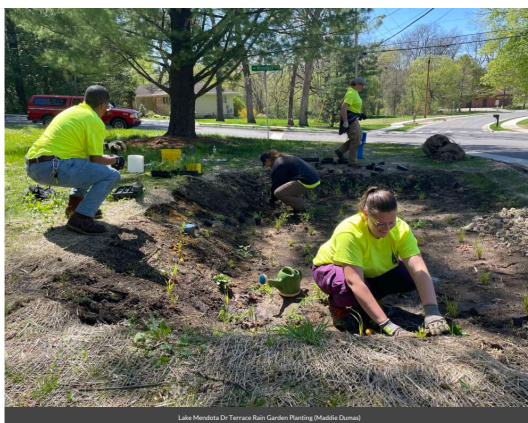
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How many total square feet of habitat were created or enhanced?

10

Please check all that describe the habitats your affiliate helped to create or enhance in 2024 with pollinator benefit in mind.

- Flower garden
- Natural area with tree snags and stumps, and bare areas for ground nesting species
- Meadow
- 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



Education & Outreach

Please describe pollinator conservation events or outreach activities in your community in 2024, indicating whether your committee hosted them or not.

Olbrich Gardens hosted a variety of pollinator-related educational events and outreach activities in 2024. They continued the Garden Scouts volunteer team which emphasizes Olbrich’s commitment to sustainable gardening. Garden Scouts add photographic insect observations to Olbrich’s iNaturalist project to help staff scout for beneficial insects, pollinators and pests in the gardens and to help all involved gain a greater appreciation for and understanding of the little creatures that run the world. Garden Scouts also participated in monarch tagging again in 2024 through the Monarch Watch Tagging Program. Twenty-five Garden Scouts volunteers tagged 33 monarchs at Olbrich Gardens in 2024. Olbrich offers regular educational classes on gardening and the natural world and in 2024 they hosted staff from Wisconsin DNR to discuss their citizen scientist bumble bee monitoring effort, “Bumble Bee Brigade.” Thirty participants attended the course that day. Olbrich also hosted the second 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. 2024 had 23,437 visitors. Children attending the 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 August 2 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 Wisdom Prairie, Good Oaks Ecological Services, Lussier Family Heritage Center, Madison Public Library, Southern Wisconsin Bird Alliance, Wisconsin Monarch Collaborative and Xerces' Society. On Halloween, Olbrich Gardens invited members to dress and go trick-or-treating at the garden. Participants received packets of seed in addition to sweet treats! The Engineering Division followed up on their inaugural volunteer seed-starting event begun in December 2023, with a transplanting day of native seedlings in May 2024. Volunteers then helped install hundreds of native plants in a restored wooded greenway in October. City of Madison Engineering staff partner with Dane County Land and Water Resources staff and local environmental engineers to host an annual gardening workshop. In 2024 the workshop was again as series of one-on-one coaching sessions with native plant experts and stormwater engineers on hand to help interested residents plan or perfect their personalized rain garden. Participants received 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 again partnered 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 Stormwater Week event targeted at people interested in pollinators and/or native plants but at an entry level. The event offered indoor presentations including "Wisconsin Bumblee 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 in September.

How many pollinator-related events or outreach activities did you host or help with in 2024 (in total)?

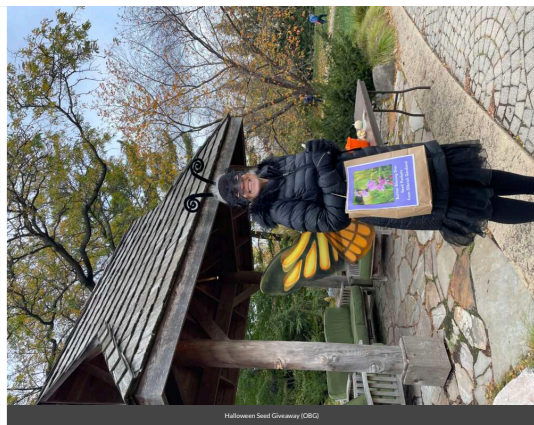
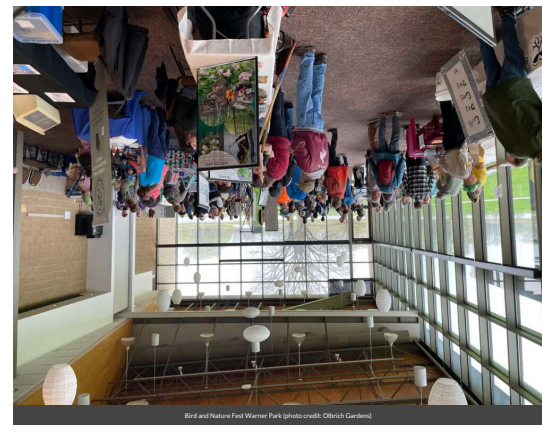
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How many people attended those events (in total)?

30000

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

3



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.

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.

None currently underway.

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

The stormwater utility (SWU) department housed within the Engineering Division has required the planting of native, herbaceous plants on newly created stormwater land since the mid-90s. Since 2018, SWU has refined requirements for managing these native plantings. 2024 marked the start of the implementation of an updated Developer's Agreement requiring a restructured process to hold developers more accountable for the proper installation and maintenance of native plantings on stormwater land. Developers are now required to hire ecological restoration firms to install and maintain the plantings for the first two years and to have executed contracts on file with these ecological restoration firms before beginning regrading of a future stormwater site. As a result, we expect that as stormwater land is turned over to the City for ownership and maintenance, native plants will be well-established. Native plants on stormwater land have huge positive implications for water quality including the ability to bio-infiltrate pollutants such as pesticides, treat and infiltrate stormwater on site and hold soil and organic matter in place and prevent sedimentation and the addition of nutrients to downstream habitats. The SWU also uses native herbaceous plants, shrubs and trees on all reconstructed stormwater land; administers a "terrace rain garden program" to offer homeowners the opportunity to opt into a terrace rain garden to treat street runoff during street reconstructions; and hosts a "1,000 Rain Garden Challenge" with a goal of getting 1,000 rain gardens on private land. Currently we are at 773 rain gardens.

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

In 2024, City of Madison land management staff attended the Xerces' Society Best Practices for Pollinators Summit, Upper Midwest Invasive Species Conference and the North American Invasive Species Management Association annual conference. Some staff also attended advanced prescribed burn trainings to further their certifications in this field, allowing us to expand the number and complexity of prescribed burns we are able to perform on fire-adapted ecosystems present on City land. Staff have strived to incorporate principles and practices learned from these professional conferences and trainings in pest management.

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

- Only use pesticides as a last resort within the 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
- Sourced plants for city or campus grounds using “Buying Bee-Safe Plants” methods recommended by Xerces Society. (See <https://xerces.org/publications/fact-sheets/buying-bee-safe-plants>)
- Sourced plants for city or campus grounds that were not treated with neonicotinoids
- Encouraged developers and private landscapers to source plants using “Buying Bee-Safe Plants” methods recommended by Xerces Society. (See <https://xerces.org/publications/fact-sheets/buying-bee-safe-plants>)
- Encouraged developers and private landscapers to source plants that were not treated with neonicotinoids



Weeding Regent St Median (Maddie Dumas)

Any lessons learned you would like to share?

A lot of conservation staff time is spent communicating with residents. This could be in response to resident concerns about ecological restoration work and it often involves a lot of misconceptions about how the work is benefitting urban ecological health. Improving our educational outreach efforts and volunteer offerings might expand the reach of ecological restoration work as well as calming resident fears.

Committee Photo

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](#)