



Department Source: Cultural Affairs
To: City Council
From: City Manager & Staff
Council Meeting Date: October 21, 2024
Re: Pollinators Beautification Report

Executive Summary

At the August 5, 2024 meeting, a report was requested by Council member Lisa Meyer regarding the status of the pollinators in Ward 2 and possible beautification initiatives in these areas. The following report has been put together collaboratively by the Office of Sustainability, the Office of Cultural Affairs and Public Works.

Discussion

Overview of Pollinators Program

In 2015, three principal sites within City limits were being managed to convert to native plant landscapes: 1) South Providence Pedway, 2) East Broadway at Trimble, and 3) the Parkside Maintenance Area. The South Providence site is on both sides of Corporate Lake Drive and adjacent to the South Providence Pedway. Based on experience at these areas and in an effort to continue to assess better overall vegetation maintenance procedures, in 2016 and 2017, the areas were expanded to include three new areas to the north up to Southampton Drive and one small area in the northwest quadrant of Providence Road and Nifong Boulevard (approximately 1.4 acres). The East Broadway site is in the southeast quadrant of the intersection of Trimble Road and East Broadway (approximately 1.0 Acre).

In 2017, information was presented to Council as part of a Pavement Preservation work session indicating that worker hour impacts due to vegetation maintenance can detract from focus on pavement preservation. At the time, adding additional personnel would have been problematic due to budget constraints. In an effort to mitigate some of the worker hour impacts, either movement away from medians planted with turf grass and trees would be necessary (hardscaping without trees) or another approach would be required, potentially to more native or somehow less worker hour maintenance intensive processes. General consensus at the time was a desire to try and retain a street tree oriented approach with vegetation in medians and right of way being more desirable than pursuing more hardscaped features.

In 2017-2018, the Public Works Department Streets Division developed an inventory and map of the areas the Division mows. After an analysis, the cost for the Streets Division to mow public right-of-way was estimated to range from \$280,000 (\$3,373/acre) to \$343,000 (\$4,132/acre). This estimate was developed using equipment engine type, equipment lifespan, maintenance costs, fuel type, number of personnel and work hours. Risk management of workers and co-benefit analysis from a stormwater or other perspective were not included. Current installation and vegetation management cost for the native vegetation areas is \$2,586/acre.



In an effort to better approach overall vegetation maintenance costs and worker hour impacts, in the winter season of 2019-2020, North Providence, South Providence, Rangeline, Discovery Blvd., Scott Blvd. and the Parkside Mulch Site were seeded by City employees. Rangeline did not receive native seed prior to the 2020 growing season and was converted to a pollinator approach after the 2021 winter season.

In 2020, the City of Columbia entered into an agreement for services to manage the installation and maintenance of approximately 30 acres of roadside and median area native landscape. Cost for that service is approximately \$75,000 per year in order to establish the native vegetation (anticipated to be approximately 5-7 years based on past history). This was identified as roughly the cost for mowing the areas with added benefit of freeing up existing staff resources. The agreement with the vendor has been modified in response to staff and community input. For example, regular trash pick up was added as a standard stewardship task; improved median area management with native species that remain under two feet tall and manage vegetation in the medians to the new mix; additional trimming of vegetation in medians to prevent their growth from exceeding the median curb into the street. While sight distance concerns have been limited and generally controllable, some areas generally near median noses, have been identified for future hardscaping in order to minimize potential for sight distance concerns. Overall, while some aspects of the program do provide challenges, the cost and worker hour savings indicate long term promise in the face of other options such as eliminating street trees and green space completely.

Current Status of North Providence and Rangeline Ward 2 Pollinators Areas



Map 1: North Providence Rd. and Rangeline Rd. Pollinator Areas

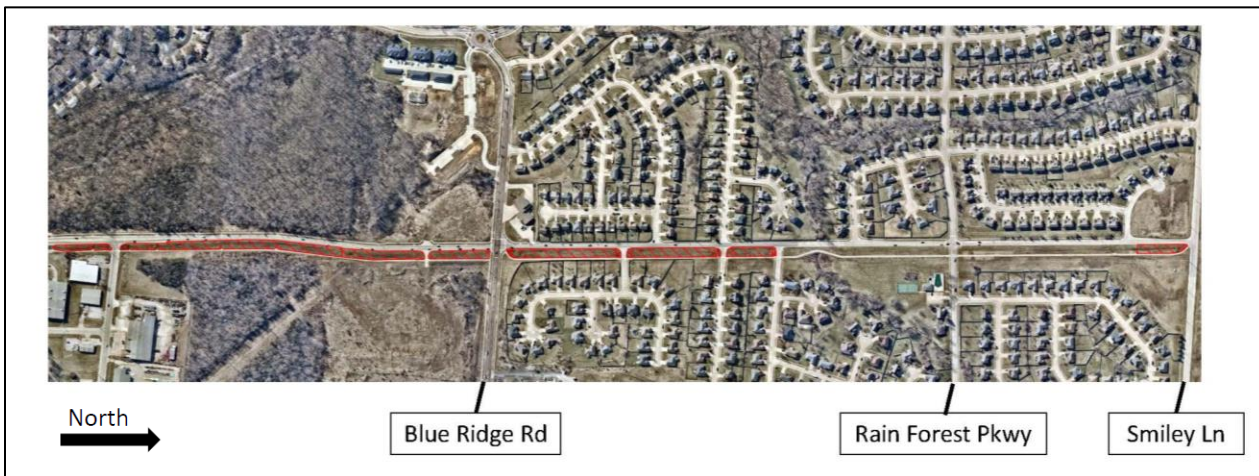
North Providence

Subunit 4C, North Providence, is composed of a series of roadside sites. This area has experienced challenges throughout its early establishment period. Generally the site is drier and has heavily compacted soils. In addition to environmental challenges, several sections of this subunit have also been short-mowed like turf by neighboring HOAs, significantly delaying or removing the possibility for native establishment in these areas.



Despite several seasons of annual overseeding and stewardship, by the end of 2022, North Providence lagged behind other units in terms of development. After several seasons of battling plantain, a perennial weed species that thrives in compacted soil conditions, it became clear that this species must be brought under control to give seeded species a chance at survival. In early 2023 (the dormant season), the subunit was overseeded with native grasses only (no forbs) to allow for broadcast treatment of the unit with broadleaf specific herbicide during the growing season. The herbicides used targeted broadleaves only, so the native grass species were able to establish. These treatments were successful at killing off plantain throughout the unit, however, this course of treatment also removed any existing native forbs present on the site, which in a way “re-set” the site to an earlier stage of development.

In early 2024 (the dormant season), the subunit was overseeded with a full seed mix containing grasses and forbs to begin re-establishment of both native grasses and forb species. The growing season of 2024 represented the first year of establishment after “reset”, so it is not surprising that the site currently appears to be dominated by grasses, and lacks the showy native flower species that can be identified on other, more established pollinator sites throughout the city. With overseeding and continued stewardship, density will increase and the flowers will return. General guidance for establishment of native prairie species via seed dictates that it takes a minimum of three years; this timeline can be extended on challenging sites.



Map 2: North Providence Rd.

Rangeline

Subunit 4D, Rangeline, consists of a series of medians. Unlike most units in the roadside pollinator program, which were hand-broadcast seeded by City employees in the winter season of 2019-2020, Rangeline did not receive native seed prior to the 2020 growing season. This subunit was not seeded for the first time until the winter preceding the 2021 growing season; and as such, is a year “younger” in its establishment than other areas in the program.

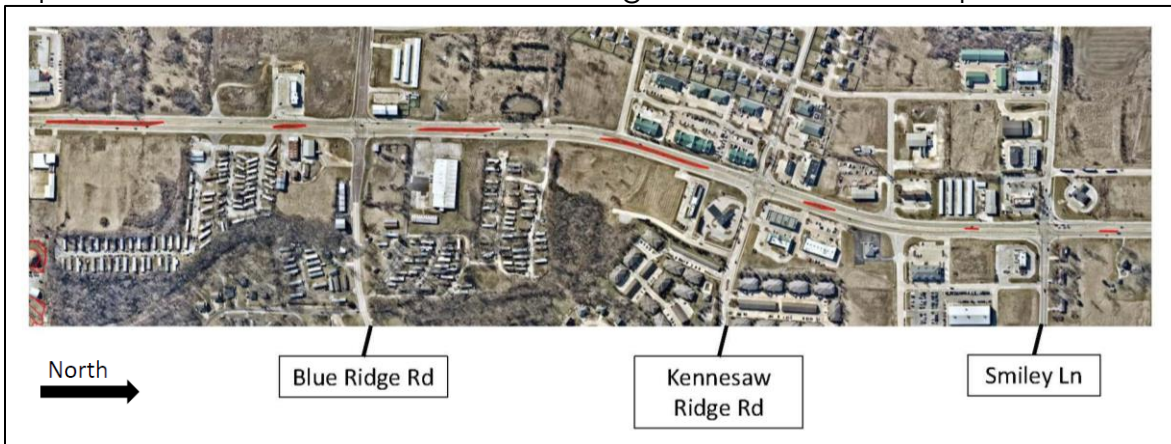


City of Columbia

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The original seed mix selected in 2021 for median sites was similar in diversity to the roadside mix, however, mature height of the selected species was shorter so as not to impact visibility. After the median sites began to mature and various species became visually dominant, it became clear that the diversity did not lend to a very uniform or tidy appearance, and the city requested that the median seed mix be reduced to a smaller number of species to create a more uniform look. Prior to the 2023 growing season, the median seed mix was reduced to only 6 species (1 grass species + 5 forb species), which were selected based on short mature heights and existing success on the pollinator sites to date. Although not all species from the original mix were apparent in the site prior to changes in the seed mix, some natives that are no longer in the seed mix persist (i.e. Illinois Bundleflower). This shrubby species, although native and selected for other seed mixes, is no longer desired in the median sites, and will take some time and continued attention to remove.

The Rangeline unit is in its fourth year, however, has only experienced two growing seasons since the mix was heavily revised. Native establishment is in process, however, the site is not as showy as others around the city. With additional overseeding, stewardship, and time, it is expected that the aesthetics of the Rangeline medians will improve.



Map 3: Rangeline Rd. (South Section)



Map 4: Rangeline Rd. (North Section)



Proposed Beautification Ideas

With the background of the pollinator program, staff has assessed additional ways to help with beautification of these areas.

Signage

Currently, there are three types of signs used in the pollinator areas, “Pollinator Habitat In Progress,” “No Mow Zone,” and smaller faded signs that include more information about pollinators. Staff assessed the current signage and has a number of recommendations.

- Pollinator Habitat In Progress: This is the most important sign as it communicates the initiative to the public and can be read easily from the road. This sign could be updated to include images of pollinators in more colorful designs, while still maintaining the crucial information of “pollinator habitat in progress.”



Photos: Currently installed “Pollinator Habitat In Progress” sign (left). Example of possible updates to sign (right).

- No Mow Zone: Staff determined that the need for the No Mow Zone signs have diminished and recommends they can be removed.

In areas where “no mow zone” information would be needed, such as near neighboring properties, an alternative and more colorful sign may be installed and facing those areas, rather than facing the road.



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Photos: Currently installed "No Mow Zone" sign (left). Example of possible updated No Mow Zone sign, to use as needed, which would add visual appeal (right).

- Other signage: There are a number of signs that have educational information about pollinator habitats that have faded. Staff recommends a new version of these signs and installing them along the pathway so they can be read by people using the sidewalk.



Photos: Currently installed informational sign that has faded (left). Example of updated sign from Missouri Prairie Foundation (right).

Currently, Public Works approaches the number and frequency of installed signage based on what best communicates this program. For example, there may be more No Mow Signs installed in places where neighboring residents have ended up mowing sporadically. The amount of signs depend on the pollinator location.



Public Art

Public art could also be added to the area as a beautification effort. Staff has researched various public art initiatives from other communities that could be pursued.

- Peace Poles: These decorative art poles offer a low-cost and easy-to-produce way to add public art to the pollinator or other park areas. The City of Lenexa, Kansas recently completed a similar community art project and offered insights into costs.



Photos: Example of art pole from Milton Public Library in Wisconsin (left). Peace Poles Community Art Project in Lenexa, KS (right).

For the Lenexa project, they used 4"x4" wide posts cut to 6' tall that were purchased locally. Other supplies include metal stakes to anchor the posts, and aluminum caps to create a more finished look. Sustainability staff favors using stakes to install as this would not greatly disrupt the pollinator ecosystem and maintenance. Total cost for each pole is approximately \$50, not including the cost of paint.

For a pilot program, City staff proposes commissioning one local artist to create a series of poles. City staff could assist in the installation of the poles. Total estimated cost for a pilot program of installing 4-6 poles would be approximately \$2,000 (includes materials and artist's commission).

A future program could be developed to work with Columbia Public Schools and the Partners in Education Program. Similar to the school traffic box art program administered by the Office of Cultural Affairs with CPS Fine Arts, a program to feature student artwork and classroom collaboration could be developed for the peace poles. OCA would work with teachers to determine the best structure for this program in terms of design submission and selection. In addition, poles could be delivered to classrooms to be created and then installed by City staff once completed.

Finally, the peace poles are designed to be temporary. Thus, this would create an opportunity for artwork to be created on an ongoing basis, as a pole may be displayed for 18-24 months before being rotated out.



- Butterfly Sculptures: Another opportunity to consider would be more permanent sculptures, such as the Butterfly Sculpture Project administered by the City of Okeechobee, Florida. These prefabricated metal sculptures were designed and painted by local artists and also included community collaboration creating the works (including high school students and residents of an assisted living facility).



Photos: Three examples of completed butterfly sculptures from the City of Okeechobee, FL.

The costs associated with this project would be more significant as each prefabricated butterfly would cost approximately \$5,000, based on an estimate from a local metal fabricator. The sculptures would be fabricated using a mild steel and include a metal post for installation. In addition, staff proposes an artist commission of \$1,000 per butterfly and reimbursing up to \$500 for supplies. Installation of the sculptures could be handled by City staff in conjunction with the metal fabricator, and sculptures would require a more substantial foundation with appropriate footings. Total estimated cost per butterfly sculpture is \$7,500-8,000.

Possible Funding

Signage: Public Works has a budget for signage as part of the Street and Traffic Operation budget. Sign installation is about \$150/sign inclusive of installation and material, with an average lifespan of 5 years (making it approximately \$30/year average for each sign).

Public Art: The Office of Cultural Affairs did not budget in FY25 for any new projects. For the Peace Poles initiative, staff could look to see what we have capacity for a pilot project and potentially reallocate funds this fiscal year. The more significant butterfly sculpture initiative would require more planning and possible inclusion for future year's budgets. In addition, the butterfly sculpture project has the opportunity for sponsorship support, which could be explored as a source of revenue.



Short-Term Impact: Funds available for sign projection. Funds have not been budgeted for public art components in FY25.

Long-Term Impact: If a public art program is developed, possible inclusion in future budgets.

Strategic & Comprehensive Plan Impact

[Strategic Plan Impacts:](#)

Primary Impact: Organizational Excellence, Secondary Impact: Reliable Infrastructure,

Tertiary Impact: Resilient Economy

[Comprehensive Plan Impacts:](#)

Primary Impact: Environmental Management, Secondary Impact: Livable & Sustainable Communities, Tertiary Impact: Inter-Governmental Cooperation

Legislative History

Date	Action
8/4/24	Report requested by Council member Meyer.

Suggested Council Action

This report is informational only.