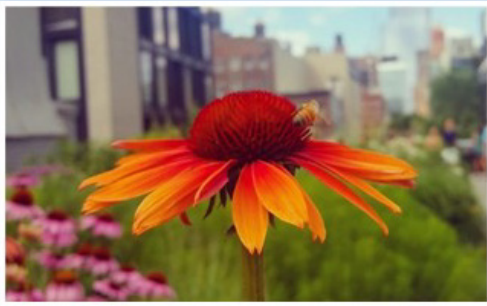


URBAN POLLINATOR CONSERVATION AND MULTIFUNCTIONAL SITE DESIGN



PROJECT HIGHLIGHTS

- Conducting research applicable to urban landscapes
- Regional projects with shared objectives, increasing relevance of study findings
- Best practices for establishing and maintaining urban pollinator habitat
 - Design of multifunctional spaces
 - Added value to communities
 - Improve strategies for weed control
 - Document pollinator benefits
- Track costs and IVM outcomes
- Asset-specific research opportunities

Background, Objectives, and New Learnings

Collectively, power companies own and operate generation, transmission, and distribution assets on millions of acres of land across the US and much of this habitat occurs within urban landscapes. Many power companies are interested in biodiversity benefits, agricultural opportunities, and improved community relations for their properties. Urban landholdings can help companies achieve these goals by providing multifunctional land uses that include pollinator habitat, community greenspace, urban food production, and educational opportunities. Transitioning urban landholdings from grasses that require consistent maintenance to multifunctional uses that provide opportunities for community partners to use the space but share in management would benefit the utility and community.

To date, little research is available to guide regionally specific multifunctional site design for urban utility lands. Urban rights-of-way, for example, can be designed to support pollinator habitat and urban food production while improving site aesthetics for the community. Use of native vegetation and integrated vegetation management strategies can meet the cost and maintenance needs of the utility, while providing multiple conservation and community benefits. The goal of this supplemental is to evaluate the potential for urban utility sites to support multifunctional site design that integrates pollinator habitat, biodiversity conservation, and benefits to the community.

Benefits

This supplemental project addresses vegetation management questions around the conservation value and cost of establishing multifunctional landscapes on urban utility lands.

Multifunctional landscapes may incorporate pollinator habitat, urban agriculture, aesthetic improvements, or educational and recreational opportunities like walking paths integrated on urban utility lands. This research will collectively benefit the utility industry by assessing the feasibility and O&M costs of multifunctional urban designs for utility lands.

This research will also document the conservation value and community benefits of urban utility lands designed to support multiple functions. Data collected and compiled across the studies proposed here will inform future design and management strategies for urban assets including, pollinator seed mixes, vegetation management, cropping systems, conservation value, and community benefits.

Project Approach and Summary

This supplemental project offers participation at three levels: site prioritization, non-host, or research host site.

Site Prioritization

For utilities interested in hosting research but require help identifying potential sites, remotely sensed data will be used to prioritize sites. Satellite imagery will be used to identify areas with elevated temperatures and low cover of greenspace that overlap with utility infrastructure. EPRI will also integrate utility-specific remote data as available into analyses. The goal of site prioritization is to identify urban areas that would benefit from improved habitat and could host research.

Research Host

For utilities hosting research, EPRI will collect data for a common set of variables. The study design will use consistent metrics across sites, making it possible to identify effective management practices that are broadly applicable. This research will facilitate better understanding of O&M costs associated with multifunctional urban sites, pollinator benefits, and ecosystem services. Utilities hosting research will each help answer the following questions:

- Is multifunctional site design feasible on urban utility lands?
- Will pollinator habitat established on urban utility lands reduce maintenance costs?
- Does the community respond positively to multifunctional designs being implemented?
- What educational opportunities can be incorporated?

At a minimum, each utility hosting research will: 1) test the establishment of one regionally appropriate native pollinator mix to one control area (turf or unimproved habitat), 2) track installation and maintenance costs for the project, 3) monitor vegetation and pollinator responses over time, 4) select one additional site design to evaluate (e.g., agriculture, recreation, education, aesthetics), 5) perform a survey to evaluate public perception of site.

Site-Specific Research

We recognize utilities hosting research may also have site-specific questions that complement the shared research. Below are *examples* of additional research that can be incorporated depending on utility goals and priorities.

- What type and scale of agriculture can urban ROWs support?

- Does pollinator habitat increase pollination services to adjacent urban agriculture?
- What metrics best measure community value?
- What is the best design for integrating pollinator habitat with other site uses?

Deliverables

All participants will receive the following:

- Examples of multifunctional site designs for rights-of-way and substations
- Technical reports on the shared research
- Multiple webinars per year

Additionally, host utilities receive site-specific results conducted at their facilities and directly applicable to their service region, the opportunity to tailor treatments, and technical assistance with community outreach around research results. Asset and site-specific results will not be shared without host utility approval.

Price of Project:

- Host, Site Prioritization: \$80,000/year
- Host, Research: \$130,000/year for 3 years
- Non-hosts: \$15,000/year for 3 years

Project Schedule

The project work will begin once a minimum of 2 host sites and 3 non-host participants join the supplemental. Participation by more than 5 non-host sites will enable additional monitoring at host sites. Participants will collectively decide on the additional data to be collected.

Who Should Join

This project is open to all EPRI members, electric utilities, and other companies with urban assets.

Contact Information

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

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