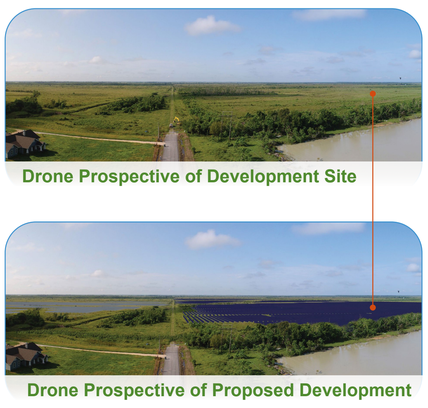
WHAT'S ALL THE BUZZ ABOUT?

CREATING POLLINATOR HABITAT TO REDUCE O&M COSTS

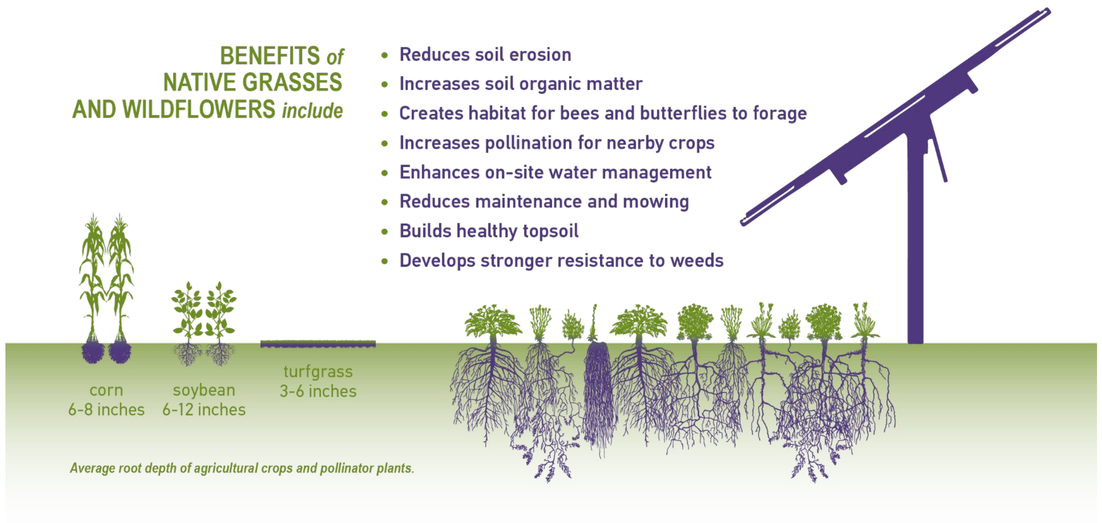
NATHAN WOJCIK AND TONY SOMERS, SWCA ENVIRONMENTAL CONSULTANTS

Purposeful management of soil and vegetation results in long-term cost efficiencies for developers. The rapid growth of utility-scale solar has led to growing regulation at the local level, particularly in areas where restored habitats on solar installations have the potential to provide nature-based solutions and ecosystem services:

- **AIR QUALITY,**
- **BENFICIAL HABITAT,**
- **POLLINATOR RESOURCES,**
- **SITE STABILIZATION,**
- **SOIL HEALTH,**
- **VISUAL IMPACTS, and**
- **WATER QUALITY.**



Nature-based solutions rooted in science provide dividends and returns seen with solution-forward business strategies, **ultimately reducing costs during project operations and maintenance**. Further, developers can get ahead of future legislation trends pushing for increased vegetation reestablishment and pollinator protections: pollinator scorecards existing or proposed in their jurisdictions, laws for overgrown invasive plants and fire risks, and potential monetary incentives for supporting pollinators and ecosystem services.



The average root depth of pollinator plants is 4-6 feet, whereas agricultural crops and turf have a root depth around 3-12 inches (modified from Weaver 2019[1]).

80-90% **The O&M of pollinator vegetation is 80–90% less expensive than turf over ten years for utility-scale solar developments.**

Wildflowers seen during permitting for a solar project in California.

Wildflowers bloom at a solar farm in Minnesota.

Through the application of a customized management toolbox, the solar industry can implement positive impacts to local ecosystem services.

- **Solar projects with pollinator-friendly vegetation help restore natural ecosystem services to the site and surrounding ecology.** Systems with increased plant diversity:
  - release more oxygen;
  - support foraging pollinators;
  - promote cross-pollination for the surrounding ecosystem; and
  - improve water quality when vegetation at the project site is managed without the use of herbicides, pesticides, and other chemicals that may further pollute the water.
- **Reintroducing native vegetation to degraded/impacted soils bring the soil-forming, nutrient-cycling processes back to life.** Deep roots of native vegetation:
  - break up soils that have been potentially compacted;
  - recharge groundwater; and
  - improve soil health and carbon capture. Without much runoff or a need to mow in fire-prone areas, plants can decompose on the site, further adding to the beneficial development of topsoil over time.
- **Pollinator attraction contributes to heterogeneous landscapes and increased biodiversity.** Planting native vegetation and managing soil enhances ecosystem services that contribute to:
  - increased pollination and pest control services, leading to better crop yields and lower management costs for surrounding agricultural landscapes; and
  - facilitated reintroduction into agricultural practices with enhanced soil health once decommissioned.
- **Communicating the benefits of pollinator-friendly solar will often correlate with better public perception, smooth permitting, and create environmental, social, and governance (ESG) opportunities for the developers.**

[1] Weaver, J.F. 2019. Solar-powered pollinators for less than a penny a watt. PV Magazine. Available online at: https://pv-magazine-usa.com/2019/04/05/solar-powered-pollinators-for-less-than-a-penny-a-watt/

CONTACT INFORMATION

NATHAN WOJCIK
Principal Restoration Ecologist
(720) 249-3452
nwojcik@swca.com

TONY SOMERS
Landscape Architect / Planner
(413) 658-2067
tony.somers@swca.com

Dr. Wojcik is a principal restoration ecologist in SWCA's Denver office with 21 years of ecological and environmental research experience throughout the western United States. He has a passion for the restoration of complex and diverse ecosystems in a variety of landscapes and working with developers and contractors to cultivate strategies that promote beneficial habitat.

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