



Supporting the Health of Pollinators: *Ecological Reuse and the Landia Chemical Company Superfund Site*

Site Background and Cleanup

The 13-acre Landia Chemical Company Superfund site in Lakeland, Florida, has been used for pesticide and fertilizer blending operations since the 1930s. Facility operations and chemical storage resulted in the contamination of soil, groundwater and sediment. EPA placed the area on the Superfund program's National Priorities List in 2000. Early cleanup actions by the site's potentially responsible party (PRP) group removed the most heavily contaminated material. The PRP group removed additional soil and sediment in 2011.

Green Infrastructure and Ecological Restoration

Transforming formerly contaminated areas into ecological assets and developing sustainable cleanup approaches is a priority for EPA and the site's PRP group.

At this site, close coordination with EPA led to remarkable results, optimizing the soil remedy, addressing the spread of contaminated groundwater and minimizing the cleanup's environmental footprint. Green infrastructure strategies enhanced the cleanup and allowed for extensive habitat restoration.

To do this, the PRP group filled excavated areas with crushed limestone to reduce soil and groundwater acidity. A clay cover placed over these areas supports the soil remedy, minimizes contaminant movement, and provides space for native plants and trees to thrive. As the trees mature, they will remove contaminants and reduce stormwater infiltration.



The site includes two parcels of land – the former Landia Chemical Company property and the former Florida Favorite Fertilizer Company property.



The site's remedy provides space and opportunity for habitat restoration.

What Are Pollinators? Why Are They Important?

A pollinator is an insect or animal that moves pollen within or to another flower, fertilizing the plant. There are about 200,000 species of pollinators, including bees, butterflies, wasps, beetles, birds and bats. Many types of plants, including vegetable and fruit crops, require pollination to bear fruit. Recent declines in pollinator populations – and bees in particular – have raised concerns about the future of food supplies worldwide.

This approach has also provided other benefits, restoring critical habitat for pollinators and other wildlife. For the surrounding community, a former eyesore is now an appealing green space.

Establishing Native Plants and Trees

The site is now home to over 1,000 plants, including 30 varieties of grasses, sagebrush, maple trees, slash pines and poplar trees. Native seed mixes will provide a groundcover of wildflowers, grasses and shrubs, many of which can grow in shallow water and swamp-like conditions. The project also plays an important broader role, increasing connectivity of the area's ecological corridors, which provide vital habitat for migrating birds and pollinators.



Over 75 species of birds have been identified at the site.



Projected view of the central Florida ecosystem at the site. (Source: URS)

Providing Pollinator Habitat

Returning a site to ecological use restores valuable habitat for pollinators. In addition to pollen and nectar, native vegetation on site provides pollinators with the space they need to thrive. For example, sparkleberry plants attract many pollinators, including bees. Additional native seed mixes planted on site will attract bees, wasps, butterflies and birds. The mixes also include swamp milkweed, a host plant that provides food for monarch butterflies.

The ecological restoration of the Landia Chemical Company site illustrates how green infrastructure planning and innovative cleanups can provide multiple benefits, protecting public health, sustaining critical habitat for pollinators and other wildlife, and providing valued green space for the community.

What Is EPA Doing to Protect Pollinators?

EPA supports the health of pollinators in many ways. Efforts include:

- Co-chairing the interagency Pollinator Health Task Force and development of a *Strategy to Promote the Health of Honey Bees and Other Pollinators* (<https://www.whitehouse.gov/sites/default/files/microsites/ostp/Pollinator%20Health%20Strategy%202015.pdf>).
- Issuing guidance on how to minimize risks to pollinator health from pesticides and other chemicals.
- Convening summits and conferences to discuss pollinator health.
- Partnering with pollinator-focused groups such as the Wildlife Habitat Council, the Pollinator Partnership and the Monarch Joint Venture. For more information on EPA's Pollinator Partnership, visit: <http://www.epa.gov/superfund/programs/recycle/activities/pollinatorpartnership.html>.
- Promoting the ecological reuse of Superfund sites and other areas, with special assistance and incentives for pollinator-friendly reuses.
- Recognizing the efforts of responsible parties and other stakeholders for supporting pollinator health.

For more information on pollinator protection and health, visit <http://www2.epa.gov/pollinator-protection>. To learn more about green infrastructure, visit <http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm>.

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