

## **Restoration of Monarch Habitat on the Valley Crossing Pipeline**

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The installation of pipelines has the potential to damage native habitats. But, if restored prudently, new rights-of-way can also be an opportunity to improve habitat for some wildlife. We are working with Enbridge, King Ranch, and Kenedy county landowners to study native plant restoration to benefit monarch butterflies along the Valley Crossing Pipeline (VCP).

Beginning in 2017, we began working with seed producers and landowners to design a native plant seed mix that includes nectar plants used by monarchs for planting on the Kenedy County portion of the VCP. The planting area of the right-of-way was approximately 200 ft wide by 56 miles long and was adjacent to U.S. Highway 77 through Kenedy County. The right-of-way was planted between September 2017 and July 2018 with a mix of 19 locally-adapted native grasses and forbs developed by the *South Texas Natives* Project.

In autumn 2018, we began monitoring vegetation on and directly adjacent to the right-of-way. This provided data on the restoration effort and allowed us to determine the success of establishing nectar plants for monarchs. Early results are similar to those seen in other sandy restoration sites in the Sand Sheet, with volunteer forbs dominating the site. Overall, seeded species densities in less than 1 to 2 years since planting were greater than 0.5 seeded species per ft<sup>2</sup>, indicating successful short-term revegetation of the right-of-way. We will continue to collect vegetation data twice annually for the next 2 years to determine long-term results.

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