



COYOTE CREEK SOUTH – WET PRAIRIE RESTORATION



116 acres restored to benefit rare native plants, birds, and amphibians

Coyote Creek South wet prairie restoration site. *Photo by Aaron Zettler-Mann*

LANDSCAPE CHANGES

The Willamette Valley floodplain was historically maintained as a dominantly open prairie-savanna landscape by the Kalapuya peoples. Since Euro-American colonization in the 1850s, the majority of the valley bottoms have been converted to agriculture and residential/urban development. Combined with the exclusion of fire and control of flooding, the resulting habitat loss and fragmentation has imperilled a number of native species that depend on these ecosystems to live.



99% of wet prairies in the Willamette Valley are gone. Only 8 square miles remain.

WHAT'S IN A PRAIRIE

Wetland prairies are formed in poorly drained lowlands where seasonal rainwater collects, saturating the soil and leaving vernal (seasonal) pools that hold standing water into April or May. The pattern of natural flooding also creates complex landscape features, with small mounds (pedestals) and banks (berms) protruding above braided channels. This network of microtopography in wetland prairies support a high diversity of plant species—approximately 350—many of which will not grow in other places.

In one square meter of a wetland you can find up to 30 native plant species.

SENSITIVE SPECIES

Wet prairies host a diversity of species, some of which are at risk due to habitat loss. For example, the Streaked Horned Lark (federally listed threatened bird) depends on large expanses of sparsely vegetated grassland—such as those left by drying vernal pools in wet prairies—for nesting. It is estimated that there are only 1600 larks remaining. Red-Legged Frogs (federally listed species of concern) depend on seasonal pools with emergent plants for egg laying.



Essential habitat for waterfowl.



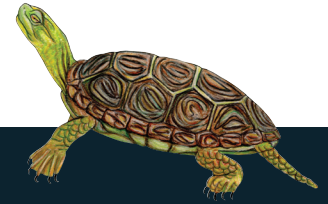
A pop of spring color.



Color-banded fledgling streaked horned lark. Photo by Lara Jones

PROJECT PROFILE: COYOTE CREEK SOUTH

Coyote Creek South, within the homelands of the native Kalapuya peoples, is managed by the Oregon Department of Fish and Wildlife (ODFW). The property was purchased in 2013 through the Bonneville Power Administration's Willamette Wildlife Mitigation Program, and is part of more than 8,500 acres of protected lands around Fern Ridge Lake that comprise the largest remaining acreage of wet prairie in the entire Willamette Valley.



VISIT THE SITE:

ODFW welcomes low-impact recreation. Foot traffic only, leave no trace, keep dogs on leash.

Seasonal closures are posted at the site entrance on Cantrell Road. More information on site access and regulations can be found at:

myodfw.com/fern-ridge-wildlife-area-visitors-guide

REVIVING A FUNCTIONAL LANDSCAPE

Low-lying, seasonally wet agricultural lands—both productive and degraded fields—are crucial sites for wetland prairie restoration. Coyote Creek South offers an example of how such sites can be reclaimed to provide critical habitat for rare species and revive the seasonal patterns of wet and dry that support a functioning ecosystem for all life.

RESTORATION TECHNIQUES

The site was previously under cultivation for grass seed. Drainage ditches were installed and soil was levelled to reduce standing water, benefitting crops, but disrupting the natural movement of water and severely limiting habitat for many species. Starting in 2015 with funding from the Oregon Watershed Enhancement Board (OWEB) and Bonneville Power Administration, the Long Tom Watershed Council and ODFW restored the historic hydrologic function of the ecosystem across 116 acres using the following techniques:

- **SITE PREP:** removing agricultural grasses with herbicide to prepare for seeding native species
- **EARTHWORK:** creating shallow berms and depressions to hold water on site seasonally
- **SEEDING:** native plant mixes designed for eight different microhabitats through broadcast and drill seeding
- **MONITORING:** amphibian, plant, and bird surveys; seasonal pool depth and surface area

BENEFITS OF RESTORATION

HYDROLOGIC FUNCTION: Vernal (seasonal) pools are special features of wet prairies that provide valuable habitat for a diversity of plants and animals.

- Some pools hold water into June or July for amphibians to complete their reproductive cycle.
- Other pools dry in time for streaked horned larks to begin nesting in May.

HABITAT FOR RARE BIRDS: Welcome back streaked horned lark! 2018 saw larks establishing in the area. In 2019, five nests with fledgling birds were identified at Coyote Creek South. These birds create nests in bare ground that is exposed when shallow pools dry.

RARE AMPHIBIANS: Since 2018, native amphibians found on the site included rough skinned newt, long toed salamander, and Pacific chorus frog. Native amphibian presence significantly increased in 2019. The threatened Red-legged frogs have not yet been found on site, but they are nearby and expected to travel.

PLANT DIVERSITY: Over 60 species of plants were seeded to the site. Overall the plant establishment is quite successful. 89 plant species were counted in 2019.



Essential habitat for amphibians.



For 21 years the LTWC has worked on behalf of its *community* to build a culture of neighbors helping neighbors to do the right thing for *land* and *water* in the *home* we share through voluntary habitat restoration.

LONGTOM.ORG/COYOTECREEKSOUTH