



County of Santa Barbara, Floradale Avenue Bridge Replacement

BRENNAN NERHUS

Project Manager
Biologist, Stormwater Inspector

The new 580-ft two-lane concrete bridge located in Lompoc will be 60 feet longer than the existing bridge that crosses the Santa Ynez River. It consists of four-span cast-in-place post-tensioned concrete box girders and two travel lanes as the current bridge.

The existing bridge that crosses the Santa Ynez River was built in 1969 and is being replaced, due to seismic deficiencies. Once the new bridge is completed, the existing bridge will be demolished.

Since May 2021, Endemic staff has been involved in biological monitoring, producing the natural

resource protection plans, stormwater and water quality inspections, and paleontological investigations during construction. We prepared the species protection plan as a sub to the prime contractor and we coordinate with staff from the County of Santa Barbara Transportation Department and Caltrans District 5.

The regulated species within and nearby the site are California Red-Legged Frog, Southwestern Pond Turtle, Coast (Blainville) Horned Lizard, Southern Willow Flycatcher, Two-Striped Garter Snake, Southern California Coast Steelhead, Least Bell's Vireo, Western Yellow-Billed Cuckoo, Yellow-Breasted Chat, Yellow Warbler, Hoary Bat, Silver-Haired

Bat, Yuma Myotis, as well as other nesting birds including raptors. The sensitive species live in habitats consisting of coastal sage scrub, riparian, and wetlands which are all present near the project site.



Staff Spotlight: Lyell S. Buttermore, QSP, CESSWI, and ISA Certified Arborist



Lyell Buttermore has been working with Endemic as a wildlife biologist for the past four years of his eight-year environmental career. Within that span of time, he has worked with a wide variety of sensitive species and habitats, managed large-scale environmental projects. He earned his Master's Degree in Conservation and Restoration Science, and gained his certification as a Qualified SWPPP Practitioner (QSP), Water Pollution Control Manager, and Certified Erosion, Sediment and Stormwater Inspector (CESSWI). Lyell also studied to become an arborist with the

International Society of Arboriculture (ISA) and on April 12, he passed the exam and gained his certificate. We look forward to using his skills for future opportunities with the National Forest Service, Department of Interior, US Army Corps of Engineers, and California Department of Parks and Recreation. He has already quickly put these new skills to work for projects such as the Huttopia Campground in Paradise Springs California, Fairview Park Project with the City of Costa Mesa, and for tree cutting efforts with the City of Irvine.

While earning his MS at the University of California Irvine (UCI), Lyell studied the population status and survivability of the southwestern pond turtle and organized conservation efforts for the species. Lyell and Barry (our principal) have continued to study the southwestern pond turtle populations throughout southern California to better understand the population stability and resilience of this sensitive species. The Endemic Lab team is currently working on a variety of publications to summarize these

findings. In addition to southwestern pond turtle research, Lyell also supports research efforts for the natal dispersal, site fidelity, and population dynamics of a variety of birds of prey under the tutelage of Barry and Pete Bloom (consultant biologist). He also excitedly participates in the MAPS (Monitoring Avian Productivity and Survivorship) Station that Pete Bloom, Dick Zembal (consultant biologist), and Barry have recently developed at the Prado Dam Basin located in Riverside California.

Endemic has been blessed by his enthusiasm to work outdoors and by tackling projects involving a broad range of nesting bird surveys, species-specific surveys, rare plant surveys, habitat restoration projects, trapping and banding, and land management. Lyell continues to contribute his talents by working towards his permits for species such as the California gnatcatcher and least Bell's vireo. His endless love for nature and enduring curiosity continues to fuel him to further develop his expertise and knowledge of the sensitive flo●

Range-wide Persistence of the Endangered Arroyo Toad for 20+ Years Following a Prolonged Drought

Prolonged drought due to climate change has negatively impacted amphibians in southern California. Due to the severity and length of the current drought, agencies and researchers had growing concern for the persistence of the arroyo toad (*Anaxyrus californicus*), an endangered endemic amphibian living in this region. Range-wide surveys for this species

had not been conducted for at least 20 years. In 2017–2020, Barry and a team of biologists conducted collaborative surveys for arroyo toads at historical locations. They surveyed 88 of the 115 total sites having historical records and confirmed that the arroyo toad is currently extant in at least 61 of 88 sites and 20 of 25 historically occupied watersheds. They did not detect toads

at almost a third of the surveyed sites but did detect toads at 18 of 19 specific sites delineated in the 1999 California Recovery Plan to meet one of four downlisting criteria. Arroyo toads are estimated to live 7–8 years, making populations susceptible to prolonged drought. Drought is estimated to increase in frequency and duration with climate change. ●

Read the full article, co-authored by Endemic Environmental's Barry Nerhus, here

A "Love Affair" with Fairview (The Dog)



Endemic has been working with the City of Costa Mesa since April 2009 for the Fairview Park Restoration project. We are performing biological

monitoring, habitat restoration, non-native species management, nesting bird surveys, and land maintenance services at Fairview Park. In the designated wetland areas, the Fairview Park team removes excessive vegetation and algae from the wetland ponds to assist with water flow and minimize the breeding area for mosquitos. We perform daily wetland services to assist with monitoring and habitat restoration of the 35 acres of watershed areas and four acres of vernal pools. In addition to this work, we have done hydroseeding for 80 acres of bluff, canyon, and coastal sage scrub habitats.

This signature project has been managed by our biology team led by Barry Nerhus (Principal Biologist) and Lyell Buttermore (Project Manager).

Jason Blevins has served as our on-site park superintendent who implements and monitors daily task orders.

On a fateful day at the park in 2019, our superintendent, Jason, found a lost puppy as he was working in the upland area. He immediately alerted the City of Costa Mesa's animal control division about the lost puppy, in case any owner was trying to claim him. After 10 days, no owner came forward to claim the lost pup, so Jason adopted him, and has loved and cared for him ever since. He decided to name him *Fairview* in commemoration of that day in the park. *Fairview* is now three years old and healthy, serving as a mascot for Endemic team members, as well as a faithful companion to Jason for his daily walks. ●

President's Corner

BARRY NERHUS

President

Recently I had the opportunity to travel with my two brothers to Norway. Due to our heritage, we had relatives there to welcome us. Since the pandemic, few people have had the chance to travel and many people, like myself, have felt inured to the associated isolation. This trip with my family helped me break that cycle. Upon arriving, I felt uplifted as I stood in awe of Western Norway's steep cliffs, tall waterfalls, and deep fjords.

The tranquil nature of the Norwegian people was calming. Bringing this perspective back home, I remind myself to advocate for a healthy work life balance, and I encourage the staff to hold the same mentality. "Friluftsliv" - the Nordic concept of living outdoors - is a philosophy that I seek to adopt and promote. I hope everyone has a chance to unwind, engage in fulfilling outdoor experiences, and find comfort in nature's beauty this summer. ●

