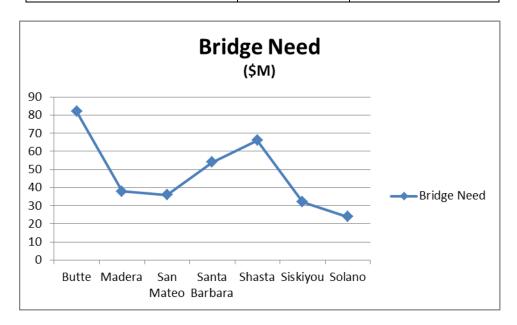
## Graph and Photographs Black Road Bridge Project County of Santa Barbara, Department of Public Works Submittal for Award January 29, 2015

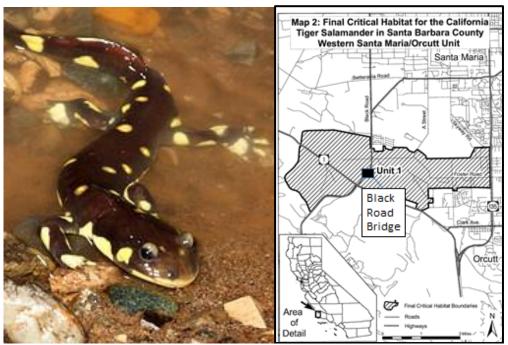
For: California State Association of Counties, League of California Cities, and County Engineers Association of California

Cost Comparison of Santa Barbara County Bridge Replacement Needs To Counties with Similar Lane Miles

County	Bridge Need	Lane Miles
Butte	82	3676
Madera	38	3680
San Mateo	36	3904
Santa Barbara	54	3376
Shasta	66	3479
Siskiyou	32	3050
Solano	24	3582



Santa Barbara has average cost needs for replacing bridges to other counties with similar lane miles.



Critical habitat for the California Tiger Salamander in Santa Barbara County at the location of Black Road Bridge.



A total of 14 frogs were captured and re-located during bridge construction. In the end there were no frog or salamander fatalities during this bridge project.



**Before and After Photo** 

Public Works replaced the previous wood pile supported bridge that measured 78-foot long, 30-foot wide that was built in 1943 due to structural deficiencies.



The new bridge type is a strong sustainable cast-in-place, pre-stressed concrete-box girder bridge that clears the span of the creek. The bridge is supported five piles per each abutment located outside of the creek. R. Burke Corporation from San Luis Obispo California was the prime contractor.



The new bridge is a strong 94-foot, 38-foot wide superstructure, with two 12-foot lanes, two 5-foot shoulders, and two 2-foot wide sustainable guardrail elements on the deck.



Low-lying walls encourage salamanders to move to a central pipeline to convey them beneath the road



. Specialized metal grates cover the opening to the pipe to keep other varmints from eating salamanders in the pipe.