

The University of Kansas

Kansas Biological Survey

20 April 2020

Mr. Bobby Nassir
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SUBJECT: Special Status Shrimp Habitat Surveys at the proposed East Markham Street project site, Perris, Riverside County, California.

Dear Mr. Nassir,

Kansas Biological Survey (KBS) conducted a survey for potential special status shrimp at the proposed East Markham Street project site, Perris, Riverside County, California. Surveys were conducted on 18 April 2020 on foot. This survey consisted of a single, one day visual survey of the site.

Site Description

The proposed East Markham Street project site (APNs 302-110-024, 32 and 031) lies on the north side of East Markham Street, just west of North Perris Road, in the City of Perris, Riverside County, California.

The site is approximately 10 acres in area, is generally level, and appears to have been regularly ploughed at one time, but has been fallow for many years. All observed vegetation was upland ruderal, with a small stand of ornamental trees (mostly *Eucalyptus* sp.). The site appears to have numerous shallow depressions that may hold rainwater during large precipitation events, but not for more than a day or so, as they are all dominated in mustard (*Brassica* sp.) and fiddleneck (*Amsinckia* sp.). The entire site is dominated in mustard and brome (*Bromus* sp.). Several large Harvester Ant (*Pogonomyrmex* sp.) colonies were observed.

Soils substrates are all Domino silt loam, saline-alkaline, with 0 to 2 per cent slope, moderately well drained, with Calcium carbonate ~10 per cent, gypsum ($\text{CaSO}_4 \cdot \text{H}_2\text{O}$) at 0 percent, and salinity from 8.0 to 16.0 mS/cm.

During the site visit Mourning Dove (*Zenaida macroura*), Northern Common Raven (*Corvus corax principalis*), Western Kingbird (*Tyrannus verticalis*), Chipping Sparrow (*Spizella passerina*), Savannah Sparrow (*Passerculus sandwichensis*), Song Sparrow (*Melospiza melodia*), House Finch (*Haemorhous mexicanus*) were the only birds observed at the site.

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Results

No potential special status shrimp habitat was observed on or adjacent to the proposed East Markham Street project site. In fact no evidence of wetland habitats of any kind were observed on site at all. The soils have cation percentages and salinity too high to support the federally endangered fairy shrimp *Streptocephalus woottoni* Eng et al., 1990, and the federally threatened *Branchinecta lynchi* Eng et al., 1990 (Rogers, 2014). In addition, the lack of any basins, any vernal pool habitat, and the well drained, sandy loam soils precludes any listed large branchiopod shrimp being present.

If you have any questions, please contact me.

Yours,



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References

Rogers, D.C. 2014. Anostracan (Crustacea: Branchiopoda) zoogeography II. Relating distribution to geochemical substrate properties in the USA. *Zootaxa* 3856: 1-49.