DWR Botanists find *Euphorbia ocellata* ssp. *rattanii* (Stony Creek spurge, CRPR 1B.2) in Elder Creek, Tehama County

N

I-5

HWY 99W

GERBER

CNDDB OCC #34 2007

not surveyed

2014-2016 Arundo removal

NEW 2015 11 PLANTS

2015-2016 Arundo removal

not surveyed

2015-2016 EMERGENCY CONSTRUCTION

NEW 2015 90 PLANTS

2016 EMERGENCY CONSTRUCTION (location approx.)

not surveyed

SACRAMENTO R

1 mile

Project Summary:

ELDER CREEK CHANNEL REHABILITATION PROJECT

In the late 1950s/early 1960s, levees were constructed by the US Army Corps of Engineers (USACE) on about 4 miles of Elder Creek protecting the town of Gerber and nearby railroad. Like most other federal levees, maintenance reverted to local and state agencies in 1961. For Elder Creek, Tehama County Flood Control and Water Conservation District maintains the levees, while DWR maintains the channel.

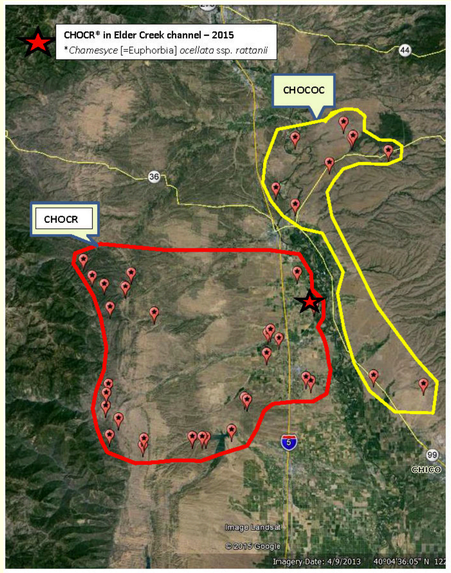
In response to a 2006 USACE letter finding maintenance deficiencies, DWR proposes to remove accumulated sediments and vegetation which have reduced the channel's flood-carrying capacity below required levels.

Construction for the proposed "Elder Creek Channel Rehabilitation Project" will begin in spring of 2016. Phased over 5 years, this project will involve

- excavation of 100,000cubic yards of sediment,
- removing or limbing 4 acres of shrubby or herbaceous riparian vegetation,
- limbing or removal/relocation of 1.8 acres of elderberry shrubs,
- trimming/limbing 1.4 acres of mature riparian vegetation (trees, shrubs, vines),
- trimming/limbing 0.75 acres of elderberry shrubs (12 shrubs or clusters), and
- removing all *Arundo donax*.

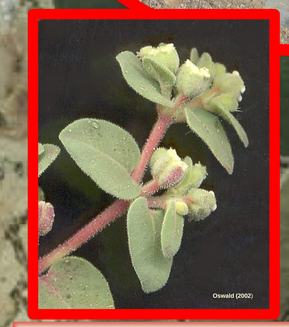
Arundo donax, elderberries, and riparian vegetation grow intermixed along the channel edges. The channel itself is almost completely an open gravel bed with flat to undulating partially armored gravel and sand bars.

Project Location vs Stony Ck Spurge Distribution



Rare Plant Impacts: Avoidance, Minimization and Mitigation

The rare plant *Euphorbia* [=*Chamaesyce*] *ocellata* ssp. *rattanii* (EUOCR) grows on the partially compacted ('armored') gravel bars, mostly not within the areas designated for sediment excavation. Known occupied habitat for EUOCR will be protected with orange ESA fencing to prevent damage by heavy equipment. Each year's work area will be surveyed for EUOCR during the previous year to determine areas to protect. Individual plants with high probability of impact will be removed and relocated to adjacent safe spots so they can reseed into non-impacted habitat. The overall, long-term effect of reworking the channel bed on the gravel substrate for this plant is unknown. Post-construction monitoring will document extent of reseeding and maintenance of the population over time.



RARE
Euphorbia ocellata* ssp. *rattanii

COMMON
Euphorbia ocellata* ssp. *ocellata

Challenge: Protection of this rare plant and VELB/elderberries in Elder Creek channel requires unprecedented coordination among DWR, DFW and Tehama County --- AND between engineers and biologists within DWR