



Technical Memorandum

Date: October 25, 2010

To: Rozanne Cherry, Principal Planner, City of Escondido

From: Patrick J. Mock, PhD, CSE, CWB, Principal Scientist, URS Corporation

Subject: **Benton Burn Site Biology Survey Summary**

The following memorandum summarizes the Biological Resources survey completed in support of the Benton Burn Site Remedial Action Project (Project), which is located within the City of Escondido and County of San Diego, California. The Project is located approximately two miles northwest of downtown Escondido, and west of Interstate 15 (I-15), near the intersection of Still Water Glen and David Glen roads (Figure 1). The Project site lies primarily in a ravine where the surrounding areas have been developed with residences. The Project site occupies approximately one acre and is located on three parcels. Access to the site is limited and requires passing through private residential property.

The Project site was operated as a burn site from 1948 through 1953. Municipal and commercial refuse was accepted at the facility, where it was burned and placed in a canyon. Inspections of the burn dump revealed the presence of chemicals in the soils. An investigation was conducted by CalRecycle in 2007, and supplemental soil sampling and analyses were conducted in 2009 to support the preparation of a Remedial Action Plan (RAP). Findings from these studies concluded that chemicals of potential concern (COPCs) associated with burn ash were present. The City of Escondido (City) is proposing to consolidate waste and surface-cap the former Benton Burn Site.

Project execution includes:

- Vegetation present in the areas where the remedial action will be conducted will be removed prior to excavation and placement of burn ash-containing materials.
- Burn ash-containing waste present near or at the ground surface on the steep side slopes of the ravine will be excavated so that the grade will be similar to existing conditions.
- An approximate two-foot soil cap will be placed in these areas.
- Within the approximate area of the 100-year flood plain, the burn ash-containing waste on the floor of the ravine will be covered with a geotextile.
- Approximately two feet of clean soil will be placed above the waste placed on the floor of the ravine.
- The area within the width of the drainage feature and its floodplain will be backfilled with approximately two feet of rock and gravel, so that future storm flows will not result in the mobilization of contaminated sediment that could be carried downstream of the Project site.

Construction of the proposed Project is expected to take approximately four weeks. Construction activities will be limited between the hours of 8 A.M. and 5 P.M. in order to have the least effect on neighboring residences. A temporary six-foot high chain-link fence will be placed along the western site perimeter during Project implementation, to minimize accessibility to trespassers. Other areas of the site that are not clearly accessible will not require fencing. Appropriate signage will be placed on the fencing to discourage entry and inform the public of the hazard associated with the site and remedial activities.

Upon completion of construction, the Project site would be returned to the existing conditions. The Project would not construct any buildings and does not include lighting components. Existing vegetation would be replaced by native seed plantings over the soil cap.

Project Setting

The somewhat linear site is oriented in a northeast to southwest direction. The site centers around a drainage that supports upland (non-hydrophytic) vegetation. No water was present in the drainage on the survey date (October 14, 2010). The drainage is characterized by sandy to rocky soil that has been eroded to a channel width that varies from 0.5 to two feet. The ordinary high water mark (OHWM) is not easily discerned in many locations where the cut channel is surrounded by a relatively level gradient. The detection of flotsam along drift lines is also confounded by dumping of yard waste in some areas and landscape maintenance clearing activities in other areas. The estimated OHWM along the channel ranges from three to ten feet, with the average being about 5.8 feet. The table below lists the OHWM and cut/eroded channel widths along the drainage according to increments listed on the attached hydraulic map (Figure 2). The average OHWM width is 5.8 feet and the channel length proposed to be affected is 451 feet, based on the centerline of the 100-year floodplain, resulting in 0.06 acre of impacts to jurisdictional waters within the Project limits.

**BENTON BURN SITE
DRAINAGE ORDINARY HIGH WATER MARK DIMENSIONS**

Hydraulic Map HEC-RAS Section Location	OHWM Width (feet)	Eroded/Cut Channel Width (feet)
30	6	0.5
40	6	0.5
50	6	0.5
100	5	0.5
125	3	1
150	3	1
153	4	1
155	6	1
160	6	0.5
165	5	1
170	10	1
175	5	2
180	5	1
185	5	1
190	10	2
195	8	2
200	6	1
205	1.5 (culvert)	0
210	6	1
215	4	0.5

On the Project site, which totals approximately 0.99 acre, the vegetation within the channel consists of 0.56 acre of ornamental plantings and 0.34 acre of fruit orchards. A total of 0.05 acre of coastal sage scrub vegetation is present on the northwestern end of the Project site along the slopes that rise from the channel. A couple of scrub oaks were observed, but no oak trees are present. The extent of

each vegetation community within the site is shown on Figure 3. Developed land comprises 0.04 acre within the site.

Ornamental vegetation on the site is represented by Eucalyptus trees (*Eucalyptus* sp.), pepper trees (*Schinus molle*), cotoneaster shrubs (*Cotoneaster* sp.), and African daisy groundcover (*Gazania* sp.). Overhead sprinkler irrigation is present in these areas. Several Washington fan palms are also present. One small willow (*Salix laevegata*), four feet in height, is present at a culvert about 100 feet downstream of the site. A small six-foot tall tamarisk (*Tamarix* sp.) is also present about 50 feet downstream of the site. Although the willow and the tamarisk are hydrophytic species, the majority of the vegetation in the Project site and downstream of the site is not hydrophytic; therefore, no soil sample pits were dug.

Orchards are present in the upstream section of the drainage (the northeastern part of the study area). This area is characterized by citrus trees, with bare ground, and rip rap (12-24 inch diameter) within the channel. The rip rap has widened the OHWM in this area to 10 feet, which is the widest point of the OHWM on the Project site. Residential ornamental landscaping and avocado orchards are found upstream of the site. The stream channel remains bare in the upstream area, with sandy and rocky soil that does not support hydrophytic vegetation. Weedy species present (primarily where orchards transition to ornamental vegetation) include tree tobacco (*Nicotiana glauca*), ice plant (*Carpobrotus edulis*), mustard (*Brassica* sp.), and horehound (*Marubium vulgare*).

Coastal sage scrub vegetation in the study area is represented by California sagebrush (*Artemisia californica*), black sage (*Salvia melifera*), laurel sumac (*Malosma laurina*), and flat-topped buckwheat (*Eriogonum fasciculatum*). This vegetation community occupies the south-facing slope that rises to the northwest of the drainage, and extends to a major ridgeline to the north. A small portion of the lower section extends into the Project site (0.05 acre).

Although not observed during this survey, the presence of coastal sage scrub vegetation infers the possibility of California gnatcatcher (CAGN; *Polioptila californica californica*) inhabiting the area, a state- and federal-listed species. Protocol surveys will be required to confirm absence of the California gnatcatcher. A full listing of plant and animal species observed on the site are shown in the table on the following page. Special status species documented within the Project vicinity on the California Natural Diversity Database (CNDDB) and USFWS GIS databases are displayed on Figure 4.

Implementation of the proposed Project would not conflict with the provisions of an adopted or proposed Habitat Conservation Plan. A review of the City's draft MHCP planning efforts indicates that the Project site is not considered biologically significant or strategically located to warrant being included in a regional or local natural open space preserve. Mitigation measures that have been proposed are consistent with the MHCP and will mitigate the impacts to the 0.05 acre of CSS and the 0.06 acre of potentially jurisdictional waters on the site to less than significant.

**BENTON BURN SITE
PLANT AND ANIMAL SPECIES OBSERVED**

Scientific Name	Common Name	Habitat	Origin
Plants			
<i>Artemisia californica</i>	California sagebrush	CSS	N
<i>Brassica nigra</i> (L.) Koch.	Black mustard	ORN	I
<i>Carpobrotus edulis</i> (L.) Bolus.	Hottentot fig	ORN	I
<i>Catoneaster</i> sp.	Cotoneaster	ORN	I
<i>Datura</i> sp.	Jimson weed	ORN	N
<i>Diplicus puniceus</i>	Scarlet monkeyflower	CSS	N
<i>Eremocarpus setigerus</i>	Dove weed	ORCH	N
<i>Eriogonum fasciculatum</i> Benth. var. <i>fasciculatum</i>	California buckwheat	CSS	N
<i>Eucalyptus</i> spp.	Eucalyptus	ORN	I
<i>Gazania</i> sp.	African daisy	ORN	I
<i>Hedera</i> sp.	Ivy	ORN	I
<i>Hemizonia</i> sp.	Tarplant	ORN	N
<i>Liquidambar</i>	Sweet gum	ORN	I
<i>Malosma laurina</i>	Laurel sumac	CSS	N
<i>Marrubium vulgare</i>	Horehound	CSS	I
<i>Nicotiana glauca</i> Grah.	Tree tobacco	CSS	I
<i>Myoporum</i> sp.	Myoporum	ORN	I
<i>Opuntia</i> sp.	Ornamental prickly pear cactus	ORN	I
<i>Persia</i> sp.	Avocado	ORCH	I
<i>Phoenix canriensis</i>	Canary Island date palm	ORN	I
<i>Pinus</i> sp.	Pine tree	ORN	I
<i>Quercus berberidifolia</i>	scrub oak	CSS	N
<i>Salix laevigata</i>	Red willow	ORN	N
<i>Salvia melifera</i>	Black sage	CSS	N
<i>Schinus molle</i>	Peruvian pepper tree	ORN	I
<i>Tamarix</i> sp.	Tamarisk	ORN	I
<i>Washingtonia felifera</i>	California fan palm	ORN	N
Animals			
<i>Aphelocoma californica</i>	western scrub-jay	CSS, ORN	N
<i>Calypte anna</i>	Anna's hummingbird	ORN	N
<i>Carpodacus mexicanus</i>	house finch	ORN	N
<i>Chamaea fasciata</i>	Wrentit	CSS	N
<i>Colaptes auratus</i>	northern flicker	CSS, ORN	N
<i>Corvus corax</i>	common raven	CSS	N
<i>Dendroica coronata</i>	yellow-rumped warbler	CSS, ORN	N
<i>Mimus polyglottos</i>	northern mockingbird	ORN, ORCH	N
<i>Pipilo maculatus</i>	spotted towhee	CSS	N
<i>Psaltriparus minimus</i>	Bushtit	CSS, ORCH	N
<i>Zenaida macroura</i>	mourning dove	CSS, ORN	N
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	CSS, ORCH	N

HABITATS

CSS = Coastal sage scrub
 ORN = Ornamental
 ORCH = Orchard

OTHER TERMS

N = Native to locality
 I = Introduced species from outside locality