

ATTACHMENT 1C.1.1

Gabion Installation
East Mountain Assessment Area



Introduction

As described on page 7 of Worksheet 1.0 in the Response Action Plan (RAP, Arcadis 2016e), soil in the East Mountain Assessment Area (East Mountain AA) has been affected by metals associated with historical aerial deposition from stack emissions and/or dust from Site operations or slag processing. Metal constituents of concern (COCs) include arsenic, cadmium, copper, lead, mercury, selenium, and zinc. Stormwater runoff from the East Mountain AA flows down eroded ravines on the mountain's face along Interstate Route 10 (I-10), then is conveyed, along with stormwater runoff from the freeway and railroad, to Outfall SW-1 on the American Canal.

The ^{Sed}Soil pathway is complete for COCs in soil of the East Mountain AA, requiring the implementation of a response action. One of the response actions noted in the RAP (Arcadis 2016e) is the prevention of future discharge of impacted sediment entrained in stormwater through installation of stormwater control best management practice features. Gabions made from rock baskets covered by filter fabric make the ideal BMP to promote ponding of stormwater runoff, allowing for entrained soil particles to settle out as sediment.

The response action for construction of gabion structures to detain stormwater runoff in drainages in the East Mountain AA is described in the following sections of the RAP:

- RAP Worksheet 1.0 (page 7), Response Action Objectives
- RAP Worksheet 1.0 (page 18), Soil Response Action Objectives, containing COCs
- RAP Worksheet 2.0 (page 13), Response Action Design
- RAP Worksheet 3.0 (page 2), Gabion and check dam performance

Regulatory Approval

- Letter from TCEQ from dated December 27, 2016 regarding Approval of the following documents: Response to TCEQ comments dated September 19, 2016, dated November 22, 2016; Response to TCEQ e-mail comments dated December 7 and 20, 2016; and Revised Response Action Plan, dated August 16, 2016

Response Actions

In the East Mountain AA, TCT constructed rock-filled gabion structures and covered the baskets with filter fabric to prevent impacted sediments from following the storm water pathway and leaving the steep mountainous area. Eight rock gabions were constructed in the southern portion of the East Mountain AA and five gabions were constructed in the northern portion of the East Mountain AA, south of the South Arroyo. Figures in the RAP show schematics and as-built locations of the gabions:

- "Attachment 2A_17 10091401.pdf": Figure 1 East Drainage Area Best Management Practices (BMP) Exhibit, Storm Water Sampling Locations – shows gabion installation schematics
- Attachment 2A_17 EQ-ANSI D – 22x34 Aug 13.pdf": EQ Sheet 1 of 1 Exhibit East Side Work Authorization – shows four gabions installed in northern portion of East Mountain AA
- "Attachment 2A_17 Gabion map.pdf": inadvertently entitled "AE Location" (should be entitled "Gabions, Southern Portion of East Mountain AA")- shows gabion locations in southern portion of East Mountain AA
- RAP Figure 11 shows all gabions in East Mountain AA

Photographs of the gabions are shown in the attached photologs. The Response Action described in RAP Worksheet 1.0 (page 7) has been completed.

Supporting Documentation in This Attachment

- RAP Figure 11– Stormwater Control Summary
- Photolog 1 (Basins 2, 3, 4 and 6)
- Photolog 2 (Basin 12)