

ATTACHMENT 1C.6.3

Lower Parker Brothers Arroyo Channel Construction
Parker Brothers Arroyo Assessment Area



Lower Parker Brothers Arroyo Channel Construction Parker Brothers Arroyo Assessment Area

Introduction

As described on page 5 in Worksheet 1.0 of the Response Action Plan (RAP), one of the response action objectives at the Site was the construction of a lined, stabilized channel in the Lower Parker Brothers Arroyo (LPBA) to control potential entrainment of soil in stormwater to sediment of the Rio Grande. The channel design would also prevent erosion of the channel bottom and adjacent Cell 4 Landfill. Activities related to construction of the LPBA channel included removal of Category I and II material from the channel and construction of a Cell 4 and placement of a liner. These activities are described in other sub-attachments included in the Soil RACR. This sub-attachment focuses on the subsequent constructed improvements to the channel itself.

An additional element of the Response Action for the LPBA is the Lower PBA Outlet. TCT developed the design for the Lower PBA Outlet concurrently with the designs for the Fines Pile, Ephemeral Pond, and Triangle in the Upper Parker Brothers Arroyo. Document and drawing submittals presented the elements in combination; consequently, the Lower PBA Channel is noted briefly in this Attachment and described in greater detail in Attachment 1C.6.4 "Upper PBA Triangle, Fines Pile and Ephemeral Pond" in this Soil RACR.

The Texas Custodial Trust (TCT) submitted the following documents focused on LPBA channel construction:

- Letter to Texas Commission on Environmental Quality (TCEQ) dated November 29, 2011 regarding Interim Channel Project Including Impacted Soil Removal and Soil Amendment in Parker Brothers Arroyo (revised) (RAP Attachment 2A-3)
- Letter to TCEQ dated February 5, 2014 regarding Parker Brothers Arroyo Interim Channel Design Revision 3 (RAP Attachment 2A-3) – includes Conditional Letter of Map Revision with Grading and Drainage Plan; LPBA channel design is shown on sheets 4 and 5 of 9 of Grading and Drainage Plan
- Letter to TCEQ dated October 22, 2015 regarding "Updated Submittal of the Upper Parker Brothers Arroyo (Fines Pile/Ephemeral Pond/Triangle Areas/Paisano Outlet) Improvement Plans Including Regrading, Cover and Drainage Elements" (**Figures C-2 included in this attachment**)
- Letter to TCEQ dated April 6, 2016 regarding "Paisano Outlet and Railroad Channel Design Clarifications"
- RAP Worksheet 1.0, pages 5 - Constructing an impermeable liner overlain with riprap with appropriate grading and drainage

Regulatory Approval

- Letter from TCEQ dated February 19, 2014 regarding Acknowledgement of Receipt and Notice to Proceed, Parker Brothers Arroyo Interim Channel Design Revision 3, dated February 5, 2014
- Letter from TCEQ dated October 28, 2015 regarding "Acknowledgement and Notice to Proceed, Updated Submittal of the Upper Parker Brothers Arroyo (Fines Pile/Ephemeral Pond/Triangle Areas/Paisano Outlet) Improvement Plans Including Regrading, Cover and Drainage Elements"

Response Actions

Construction activities in LPBA began in 2011 with the removal of Category I and II material in the channel and Cell 4 footprint followed by construction of the PRBs in the channel, and construction of the Cell 4 liner system and LPBA channel construction. As described in the construction quality assurance (CQA) report included in this Attachment, channel construction including the following elements:

- Placement of articulated concrete block on a geofabric on both sides including the Cell 4 Landfill berm
- Placement of riprap on linear low density polyethylene and high density polyethylene liners
- Installation of drop structures consisting of rock-filled gabions

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Additional construction is currently in progress at the LPBA outlet where stormwater flows to a storm drain which drains beneath West Paisano Drive to the Rio Grande River. TCT has completed the following tasks:

- Graded and compacted the subgrade to nonyielding as determined by the CQA Engineer.
- Placed and compacted EBS sandy fill for subsequent placement of LLDPE liner.
- Installed a 60mil LLDPE liner followed by Hydroturf CS® with 0.75 inches of hydrobinder.
- Grouted the perimeter anchor trenches.
- Added 36-inch diameter HDPE pipe extension to the existing reinforced concrete pipe outlet that drains to the concrete box directly east of the BNSF railroad tracks.

The remainder of LPBA improvements will be completed in 2017 and those activities will be summarized in the 2017 Activities Soil RACR to be developed in late 2017.

Supporting Documentation Included in This Attachment

- Letter from TCEQ dated February 19, 2014 regarding Notice to Proceed
- Construction Quality Assurance Report, Lower Parker Brothers Arroyo Interim Channel (Arcadis 2016)
- Figure C-2 Proposed Site Plan from Letter from TCEQ dated October 28, 2015 regarding “Acknowledgement and Notice to Proceed, Updated Submittal of the Upper Parker Brothers Arroyo (Fines Pile/Ephemeral Pond/Triangle Areas/Paisano Outlet) Improvement Plans Including Regrading, Cover and Drainage Elements” Lower PBA Outlet Photolog