Inspection Report

Subject: Channel excavation and fill of Palomares Creek and fill of unnamed tributary to Palomares Creek at 25205 Palomares Road, Alameda County

Date/Time of Inspection: August 28, 2013
2:00 p.m. to 3:30 p.m.

Prepared by: David Williams
Environmental Scientist
NPDES DIVISION – ENFORCEMENT SECTION

Brian Wines
Water Resource Control Engineer
WATERSHED MANAGEMENT DIVISION – SOUTH BAY SECTION

Date prepared: October 22, 2013

We inspected the subject site in response to a notification from Hank Ackerman of Alameda County Public Works of an illegal re-alignment of Palomares Creek at 25205 Palomares Road in Castro Valley (Figure 1; the "Site"), which is owned by Floyd Louis DeMinguel. Mr. Ackerman sent photographs, taken during an inspection of the Site on August 8, 2013, by Andy Cho of the Alameda County Public Works Agency and Warden Ryan McCoy of the California Department of Fish and Wildlife. We met Mr. DeMinguel at his property with a Mr. Frank DeMinguel on August 28, 2013, and inspected the Site with Mr. Cho, Warden McCoy, Marcia Grefsrud of the California Department of Fish and Wildlife, and Justin Yee of the U.S. Army Corps of Engineers.

Channel Excavation and Fill of Palomares Creek

During the inspection, we observed a new channel, which was excavated to bypassing a meander in Palomares Creek with the intent of changing the course of flow. The channel is about 100 feet in length, 10-feet in width, and up to 10 feet deep. The sides of the excavated channel are vertical, and the steepened banks are more susceptible to erosion and collapse. About 370 cubic yards of soil was excavated to create the bypass channel (Figures 2 and 3; Photographs 1 and 2). Floyd DeMinguel stated that he had excavated the bypass channel two months earlier in order to create a landscaped area where the meander was and to eliminate the creek meander, which he said was a breeding ground for mosquitos.

Material from the excavation was stockpiled on the southern bank of Palomares Creek (Figure 2; Photograph 3), and some of the excavated material was placed in Palomares Creek (Figure 3; Photographs 4 through 6). A large area of the property was graded, including the riparian zone between the residence and Palomares Creek, and a section of the creek channel was also graded (Figure 2; Photograph 7 and 8). The excavated material and graded areas were not stabilized with erosion or sediment controls.

Fill of Unnamed Tributary to Palomares Creek

We also observed that approximately 300 linear feet of a tributary to Palomares Creek was culverted and filled. About 833 cubic yards of fill material was placed in the channel of the unnamed tributary, which enters the eastern side of Floyd DeMinguel's property from a culvert under Palomares Road and follows the north side of the Discharger's driveway (Figure 4, Photographs 9 through 13). Approximately the last 300 feet of the tributary, before it joins Palomares Creek, is now buried. Floyd DeMinguel stated that he constructed the culvert about seven years ago.

There is a wooden and wire mesh form at the upstream end of the culvert. According to Floyd DeMinguel, the form would have been used to pour a new concrete headwall and Koi pond. Plywood used in the framing was date-stamped December 2012. Filling of the unnamed tributary has removed about 300 linear feet of shaded riparian habitat, and the culvert, with a lower hydraulic roughness than a natural stream channel, will cause higher energy flow into the main channel of Palomares Creek. This has changed the hydraulics of the creek system and may contribute to bank erosion in Palomares Creek.

Attachments – Inspection Figures and Photographs

Figure 1 – Site Location and Owner Information
Aerial view from Alameda County Office of Assessor's online Parcel Viewer

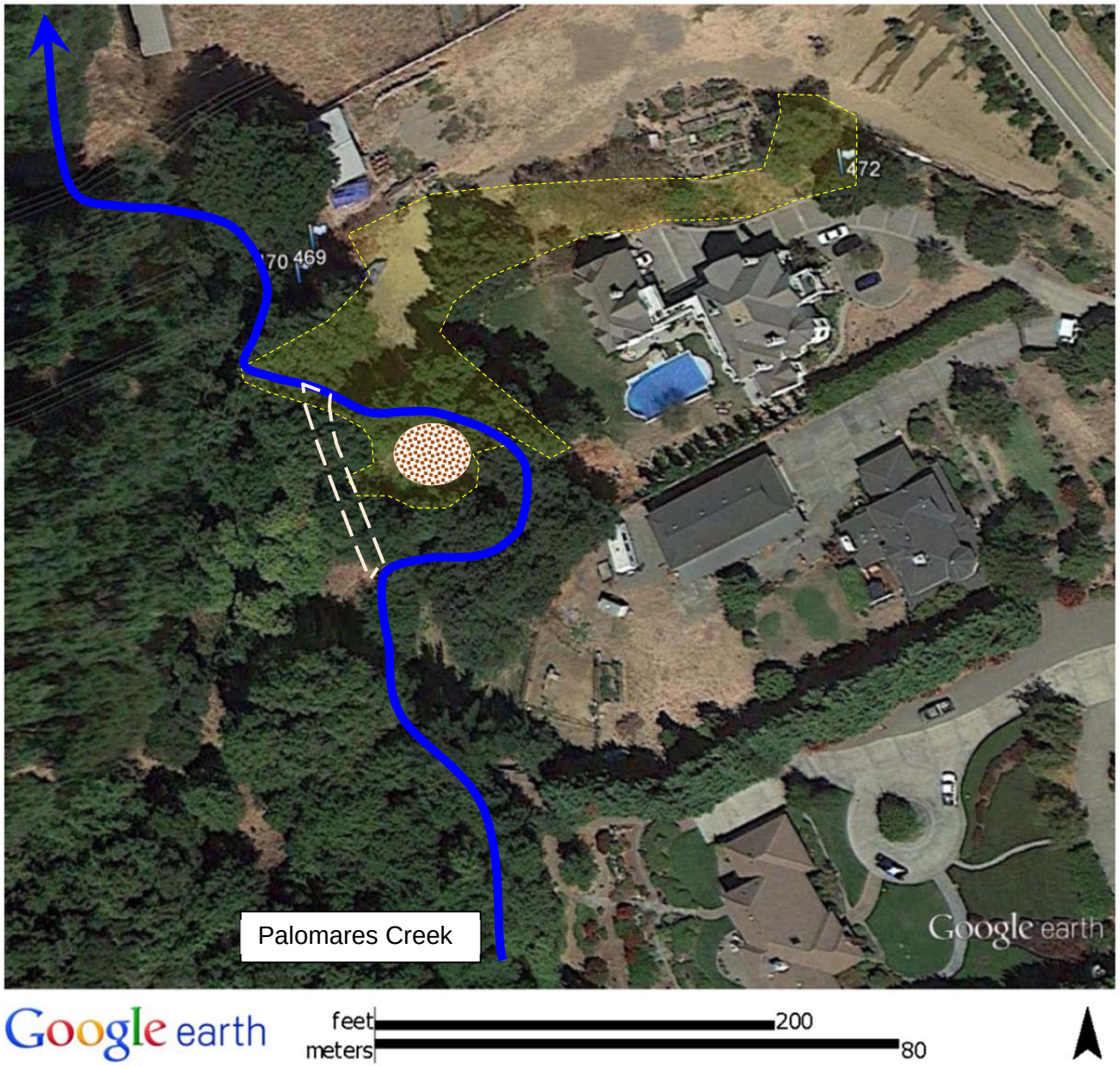

Figure 2 – Bypass Channel on Palomares Creek

Aerial view from August 28, 2012, of the Site from Google Earth. The newly excavated cut-off channel is approximately 100 feet in length with a width of 10 feet and depth of 10 feet. It is shown by the long-dashed line.

General graded and filled areas are outlined in the short-dashed line.

Approximately 370 cubic yards of material was removed to create the cut-off channel. The material is now stockpiled to the south of Palomares Creek (where the stippled pattern is shown) and equates to approximately 481 cubic yards of uncompact soil. There is also some fill material in the creek bed where it was excavated.

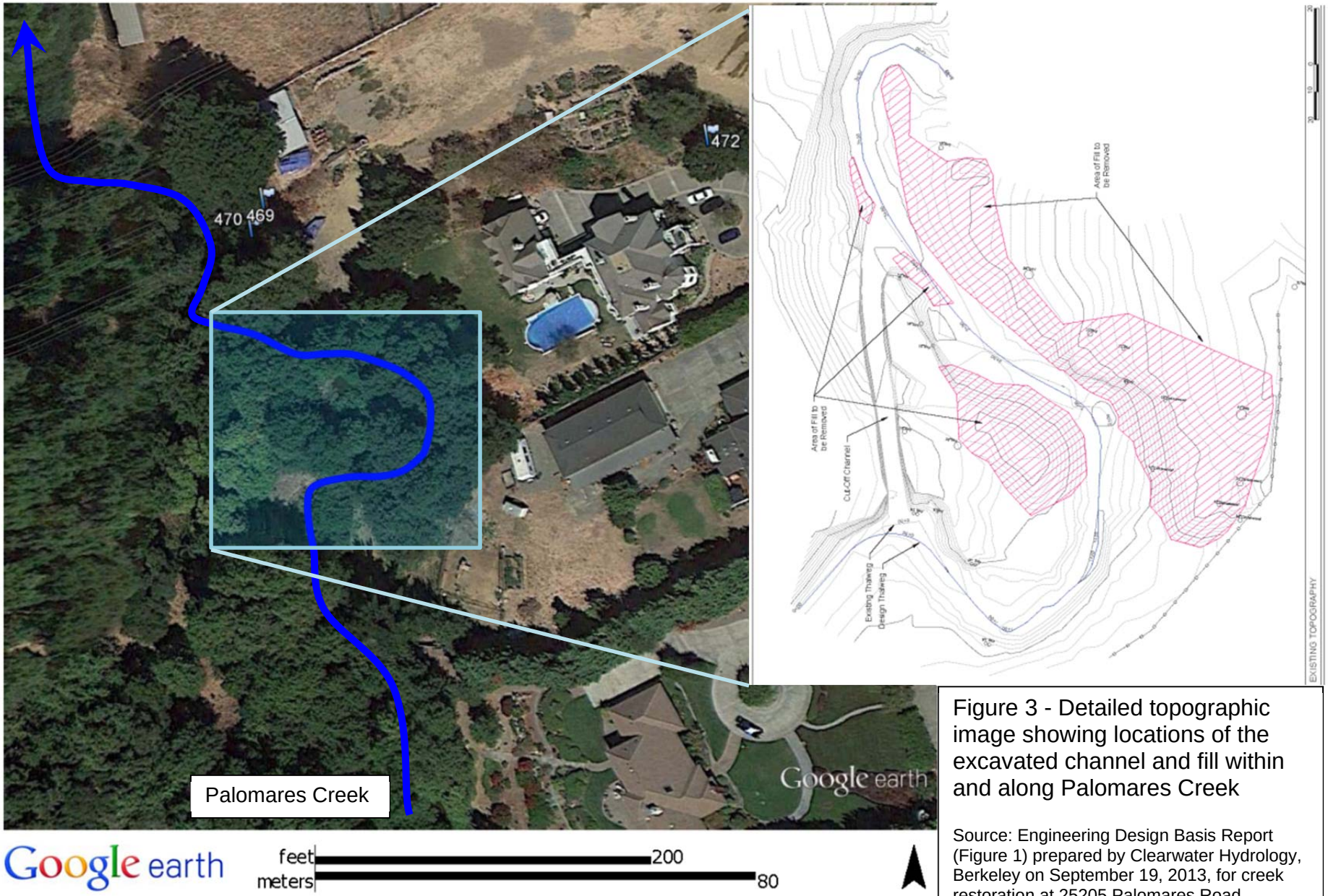

Figure 3 - Detailed topographic image showing locations of the excavated channel and fill within and along Palomares Creek

Source: Engineering Design Basis Report (Figure 1) prepared by Clearwater Hydrology, Berkeley on September 19, 2013, for creek restoration at 25205 Palomares Road.

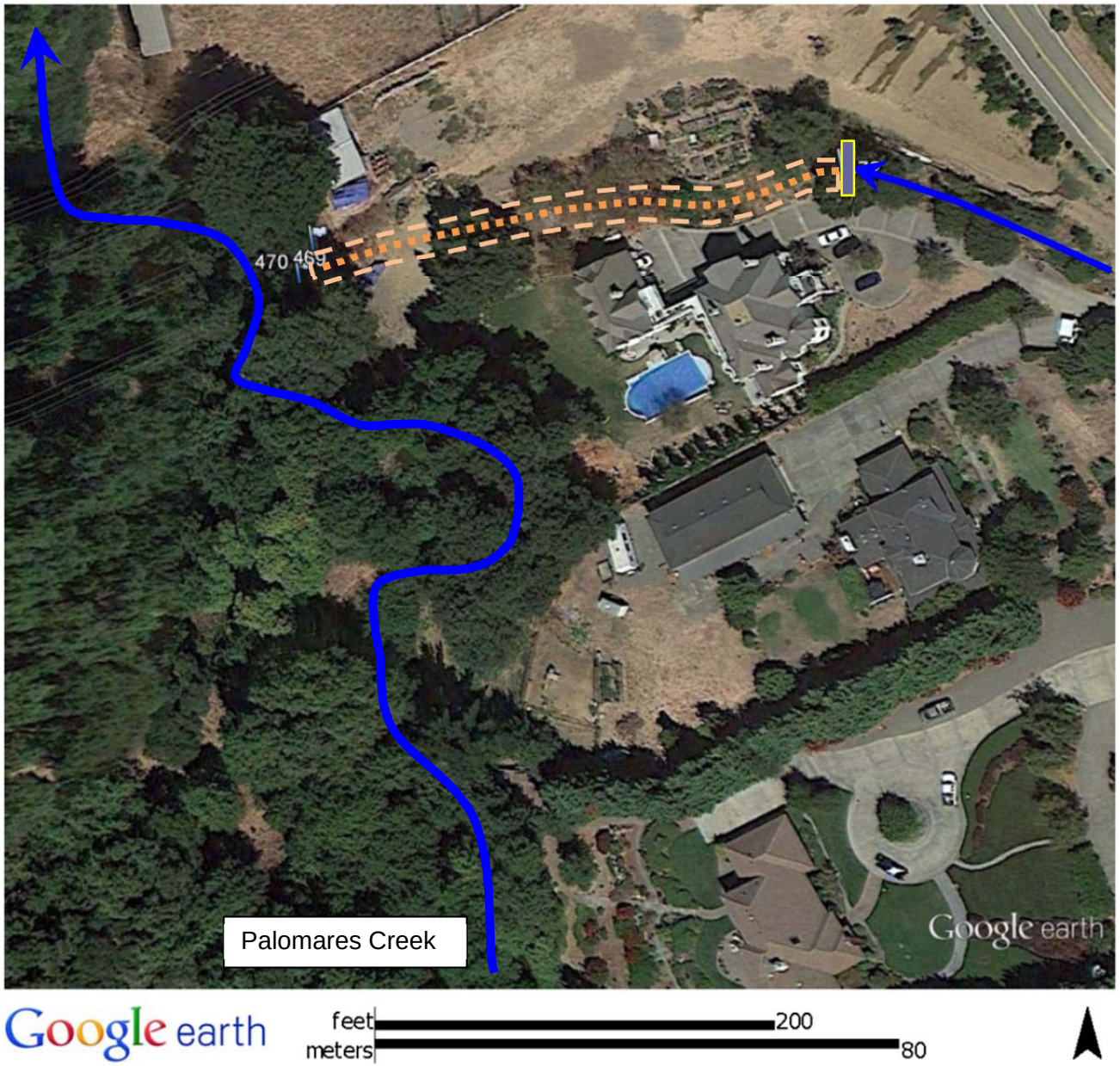

Figure 4 – Culverted Unnamed Tributary

Aerial view from August 28, 2012, of the Site from Google Earth

Unnamed Tributary to Palomares Creek that is **culverted for 300 feet** from a concrete wall (shown by the gray rectangle) to approximately 20 feet before its confluence with Palomares Creek (WP 470). The channel of the unnamed tributary follows a path approximated by the dotted line, and it is approximately 5 feet deep where the culvert discharges. The dashed lines approximate the banks of the former channel. It is estimated that approximately 833 cubic yards of material was used to fill the channel and construct the culvert.

The concrete wall is approximately 23 feet in length and 10 feet in height at the middle of channel, and 1 foot in width.
(37.686540°, -122.020088°)

Photograph 1: Cut-off channel excavation (~100 feet long, ~10 feet wide, and ~10 feet deep). Photograph is taken looking downstream to the north from the approximate middle of the excavated channel.

08/28/2013

Photograph 2: Cut-off channel excavation (~100 feet long, ~10 feet wide, and ~10 feet deep). Photograph is taken looking upstream to the south from the approximate middle of the excavated channel.

08/28/2013

Photograph 3: Stockpile of fill from excavation. Photograph is taken looking upstream to the east from the south bank.

08/28/2013

Photograph 4: Fill (left side of photograph) of Palomares Creek channel. New channel (right side of photograph) excavated to change course of flow. Note the difference between the sloped banks of the natural channel and the vertical banks of the excavation. Photograph is taken looking upstream to the south from creek channel.
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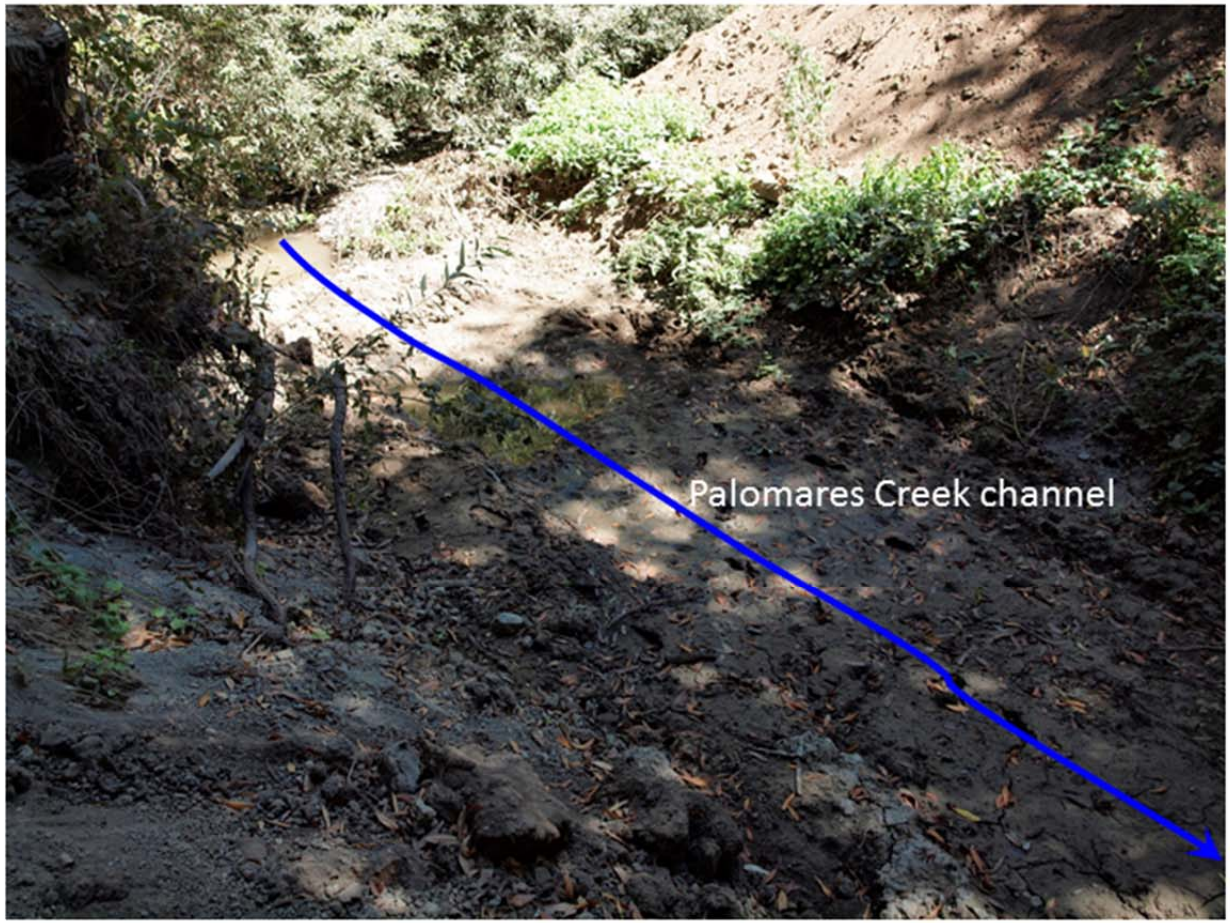

Photograph 5: Fill in Palomares Creek channel. Photograph is taken looking upstream to the southeast from the north bank.

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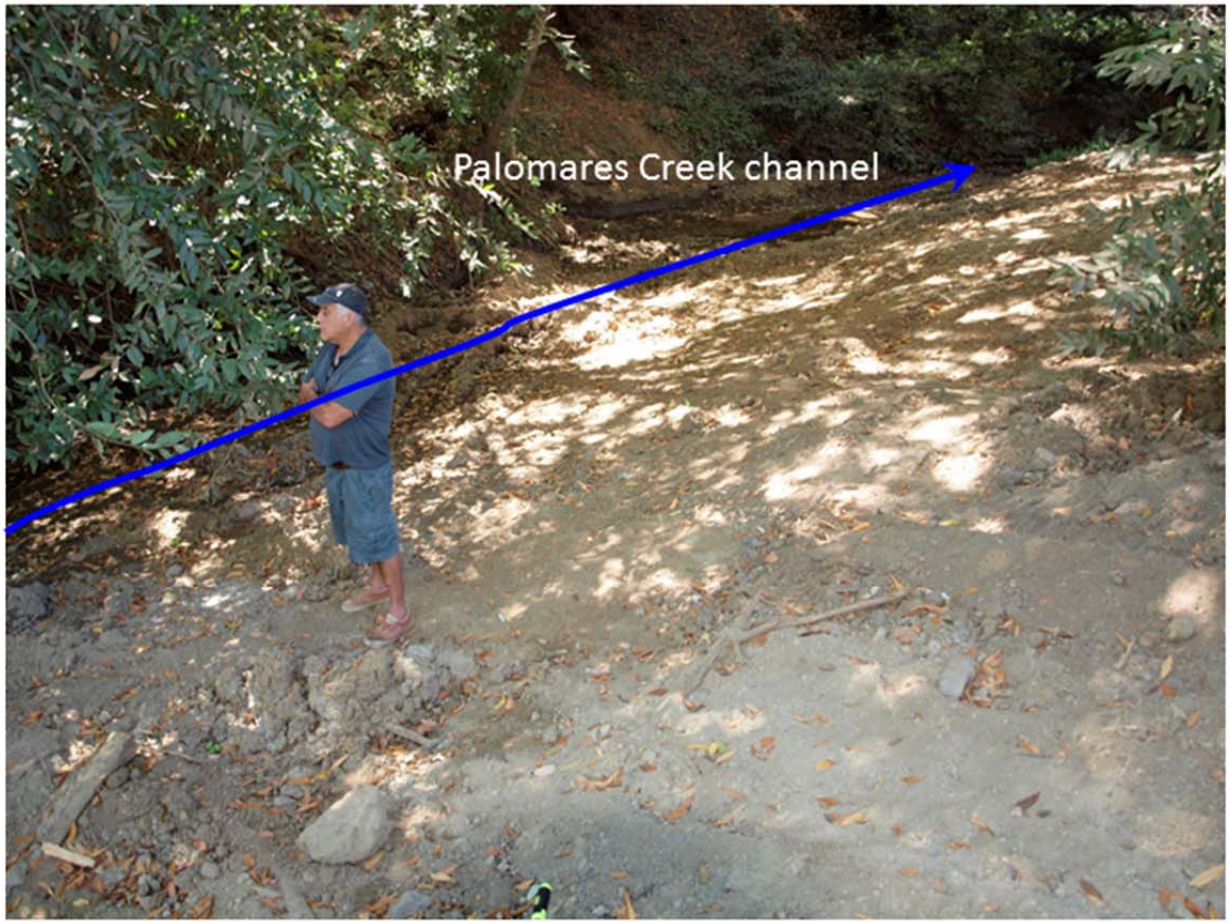

Photograph 6: Fill extending down into Palomares Creek. North of the excavated channel. Photograph is taken looking downstream to the west from the north bank.

08/28/2013

Photograph 7 (Four photographs stitched together): Graded and filled area between landscaped lawn and Palomares Creek channel. Photographs are taken while turning clockwise starting looking southeast and ending looking northwest.

Photograph 8: Graded area between landscaped lawn and Palomares Creek channel. Photograph is taken looking north.

08/28/2013

Photograph 9: Concrete wall constructed across unnamed tributary to Palomares Creek. Photograph is taken looking downstream to the northwest from the south bank.

08/28/2013

Approximate location of the buried channel of the unnamed tributary from east to west (Photographs 10 through 12, respectively) at 25025 Palomares Road, Castro Valley.

08/28/2013

Photograph 13: Terminus of culvert at 25025 Palomares Road, Castro Valley, approximately 20 feet from Palomares Creek. Photograph is taken looking upstream to the east from the confluence of the unnamed tributary with Palomares Creek.

08/28/2013