

Technical Memorandum - MWMP Hydrology & Hydraulics Current Conditions Assessment

1 Introduction

In developing the Hydrology and Hydraulics (H&H) Technical Report for the *Municipal Waterway Maintenance Plan* (MWMP), the hydrology and hydraulic assessments from the previous maintenance program, the Master Storm Water System Maintenance Program (MMP), were used as the technical basis for the recommended maintenance for the channel segments that were programmed for maintenance under the MMP. The MMP hydrologic and hydraulic assessments were summarized in fact sheets for each facility group and can be found in Attachment A of the H&H Technical Report. Twenty-one segments were analyzed under the MMP program where maintenance occurred in portions of the facility group and the Individual Hydrology and Hydraulic Assessments (IHHAs) were prepared over 5 years prior to the start of the MWMP hydrology and hydraulics evaluation process. As part of the MWMP hydrology and hydraulic evaluation process, the current condition of each of these facilities was evaluated to determine if conditions had significantly changed since the approved IHHA and if any changes to the recommendations were needed. This technical memorandum presents the results of the assessment grouped by watershed management areas (WMAs).

2 Current Condition Assessment

Twenty-one segments were evaluated to determine the current conditions of each segment and to document any changes since the IHHAs were prepared for the segments. The assessment of each segment discusses the location of the segment, when the IHHA was prepared, summary of the conditions assessment in the IHHA, when maintenance was last performed, documented the current conditions in relation to the previous modeling, and provided recommendations for any changes. The discussion of the current conditions in this technical memorandum is related to the factors observed that would change the previous hydraulic modeling (e.g., significant increase in vegetation growth or sediment deposition) or other factors that would create additional impacts that were not previously modeled.

2.1 Los Peñasquitos WMA

Seven segments located in the Los Peñasquitos WMA were assessed to review current conditions in relation to the conditions modeled for the IHHA.

2.1.1 Sorrento Valley 1 (Facility No. 2-01-000)

The Sorrento Valley 1 segment is located in the Los Peñasquitos Watershed Management Area within Los Peñasquitos Creek. The segment is located near the Interstate (I)- 5/I- 805 interchange between the railroad tracks and an industrial development starting at the southerly boundary of the Torrey Pines Preserve to a point approximately 2,300 feet southeast where Soledad Canyon Creek

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begins. The IHHA for Sorrento Valley 1 was prepared in 2010 by Rick Engineering. In the October 2010 site visit performed by Rick Engineering, the segments condition was described to have moderate to dense vegetation on the banks and bed of the segment. Based on available records, the maintenance activities last occurred in this segment in 1998, prior to the indicated site visits. During the site visit in June 2018, the condition of the segment appeared similar to the conditions discussed and modeled in the IHHA. Vegetation continued to be dense along the banks and minor amounts of vegetation were visible within the bed of the channel. Sediment depth approximation was not feasible due to the presence of water. The condition of this channel appears similar to the previous analysis and it is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking downstream from approximately Station 2161.9265 (June 2018).

2.1.2 Industrial 1 (Facility No. 2-01-120)

The Industrial 1 segment is in the Los Peñasquitos Watershed Management Area and is tributary to Los Peñasquitos Lagoon. The segment is located in a highly industrialized area and is bound by commercial buildings, warehouses, and parking lots. The segment is located west of the I-5 Local Bypass and south of Carmel Mountain Road. The IHHA for Industrial 1 was initially prepared in 2010 and updated in 2017 by Rick Engineering. During the March 2010 site visit performed by Rick Engineering, the segment conditions in the earthen channel were observed to have dense vegetation and sediment deposition was estimated to be approximately 1 foot deep. No known maintenance activities have occurred in this segment. During the site assessment in June 2018, the vegetation density in the earthen channel appeared to increase slightly since the 2010 site visit however; the limits of maintenance appear to be unchanged from the previous assessment. It is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking downstream from the Sorrento Valley Road culvert outlet at approximately Station 620 (June 2018).

2.1.3 Industrial 2 (Facility No. 2-01-122)

The Industrial 2 segment is in the Los Peñasquitos Watershed Management Area and is tributary to Los Peñasquitos Lagoon. The segment is located in a highly industrialized area and is bound by commercial buildings, warehouses, and parking lots. The segment is located west of the I-5 Local Bypass and south of Carmel Mountain Road. The IHHA for Industrial 2 was initially prepared in 2010 and updated in 2017 by Rick Engineering. During the March 2010 site visit performed by Rick Engineering, the segment conditions were described to have minor vegetation density and sediment deposition in the upstream portion of the segment and in the downstream portion of the concrete segment, the vegetation was observed to be dense. Based on available records, the maintenance activities last occurred in this segment in 2010. During the site assessment in June 2018, the ditch appeared to be similar to the conditions discussed and modeled in the IHHA. The vegetation density in the concrete ditch appeared to increase slightly since the 2010 site visit however; the limits of maintenance appear to be unchanged from the previous assessment. It is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from the Sorrento Valley Road culvert inlet at approximately Station 751.3246 (June 2018).

2.1.4 Tripp 1 (Facility No. 2-01-130)

The Tripp 1 segment is located in the Los Peñasquitos Watershed Management Area and is tributary to Los Peñasquitos Lagoon. The concrete lined segment is located west of I-5, east of Sorrento Valley Road, and south of Tripp Court, and is bordered by commercial properties. The IHHA for Tripp 1 was prepared in 2015 by Rick Engineering. During the August 2014 site visit performed by Rick Engineering, the segment conditions were described as moderate vegetation within the segment with approximately 3 feet of sediment at the inlet of the culvert across Sorrento Valley Boulevard. Based on available records, the maintenance activities last occurred in this segment in 2010. During the site assessment in June 2018, the ditch appeared to be similar to the conditions discussed and modeled in the IHHA. The vegetation in the concrete ditch appeared to increase in density since the 2014 site visit near the downstream end of the segment and the sediment deposition could not be observed due to the density of the vegetation however; the limits of maintenance appear to be unchanged from the previous assessment. It is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from the Sorrento Valley
Road culvert inlet at approximately Station
679.8481 (June 2018).

2.1.5 Roselle 1 (Facility No. 2-03-000)

The Roselle 1 segment is located in the Los Peñasquitos Watershed Management Area and is a part of Soledad Canyon Creek. The earthen segment is located near the I-5/I-805 interchange between the railroad tracks and Roselle Street and an industrial development is located along portions of the west side of the facility group. The IHHA for Roselle 1 segment was initially prepared in 2010 by Rick Engineering and was updated in 2016 by a report prepared by ESA. In the January 2016 site visit performed by ESA, the segment conditions were described as moderate to dense vegetation. Based on available records, maintenance activities last occurred in this segment in 2016 in the upstream portion of the segment. During the site assessment in June 2018, the channel appeared to be similar to the downstream channel conditions discussed and modeled in the IHHA. The upstream portion of the channel appeared to be moderately vegetated and appears to be slightly less dense than what was observed during the ESA site visit. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking downstream from approximately Station 2632.2881 (June 2018).



Looking downstream from approximately Station 3930.989 (June 2018).

2.1.6 Roselle 2 (Facility No. 2-03-002)

The Roselle 2 segment is located in the Los Peñasquitos Watershed Management Area and is a part of Soledad Canyon Creek. The concrete segment is located near the I-5/I-805 interchange between the railroad tracks and Roselle Street and an industrial development is located along portions of the west side of the facility group. The IHHA for Roselle 2 segment was initially prepared in 2013 by URS Corporation and was updated in 2016 by a report prepared by ESA. In the January 2016 site visit performed by ESA, the segment conditions were described to have up to 18 inches of sediment deposition throughout the segment and the vegetation density varied from light at the upstream end to dense at the downstream end. Based on available records, maintenance activities have occurred multiple times in this segment including in 2011, 2015, 2016, and 2017. During the site assessment in June 2018, the channel appeared to be similar to the conditions discussed and modeled in the ESA report. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 3930.989 (June 2018).



Looking upstream from approximately Station 4067.9646 (June 2018).

2.1.7 Flintkote (Facility No. 2-03-100)

The Flintkote segment is located in the Los Peñasquitos Watershed Management Area and is a tributary to Soledad Canyon Creek. The concrete segment is bound by Flintkote Avenue to the south, commercial/industrial facilities to the east and west, and Soledad Canyon Creek to the north. The IHHA for the Flintkote segment was prepared in 2013 by URS Corporation. In the April 2013 site visit performed by URS Corporation, the segment conditions were described to have up to 1.25 feet of sediment deposition within the segment and varying vegetation from relatively clean concrete at the upstream end to dense vegetation at the downstream end. Based on available records, maintenance activities have occurred multiple times in this segment including in 2011, 2014, and 2017. During the site assessment in June 2018, the channel appeared to be mostly clean with some minor sediment deposition and vegetation growth at the downstream end and minor sediment deposition at the upstream end. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 400.82 (June 2018).



Looking upstream from approximately Station 49.81 (June 2018).

2.2 San Diego Bay WMA

Two segments located in the San Diego Bay WMA were assessed to review current conditions in relation to the conditions modeled for the IHHA.

2.2.1 Pacific Beach/Olney 1 (Facility No. 3-02-101)

The Pacific Beach/Olney 1 segment is located in the Mission Bay/La Jolla Watershed Management Area and is in a relatively flat area in close proximity to Mission Bay. The earthen segment is bound by the Mission Bay High School/residential area to the north and Pacific Beach Drive to the south. The IHHA for the Pacific Beach/Olney 1 segment was prepared in 2014 by URS Corporation. In the September 2013 site visit performed by URS Corporation, the segment conditions were described as dense vegetation with accumulated sediment throughout the earthen ditch and a greater density of vegetation was observed in the upstream section. Sediment deposition in this segment was estimated to be 6 to 8 inches. Based on available records, maintenance activities last occurred in this segment in 2015. During the site assessment in June 2018, the ditch was observed to have light to medium density vegetation and a minor amount of sediment accumulation. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 1 (June 2018).

2.2.2 Mission Bay High School 1 (Facility No. 3-02-103)

The Mission Bay High School 1 segment is located in the Mission Bay/La Jolla Watershed Management Area and is in a relatively flat area in close proximity to Mission Bay. The concrete segment is bound by the Mission Bay High School bus loading zone to the north and Pacific Beach Drive to the south. The IHHA for the Mission Bay High School 1 segment was prepared in 2014 by URS Corporation. In the September 2013 site visit performed by URS Corporation, the segment conditions were described to be very close to its vegetation growth capacity. Dense vegetation and sediment deposition estimated to be 3 to 4 inches was observed. Based on available records, maintenance activities last occurred in this segment in 2015. During the site assessment in June 2018, the concrete ditch was observed to have a 2 to 3 inches of sediment deposition and light to medium density vegetation. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that the recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 12 (June 2018).

2.3 San Diego River WMA

Eight segments located in the San Diego River WMA were assessed to review current conditions in relation to the conditions modeled for the IHHA.

2.3.1 Stadium 1 (Facility No. 4-04-000)

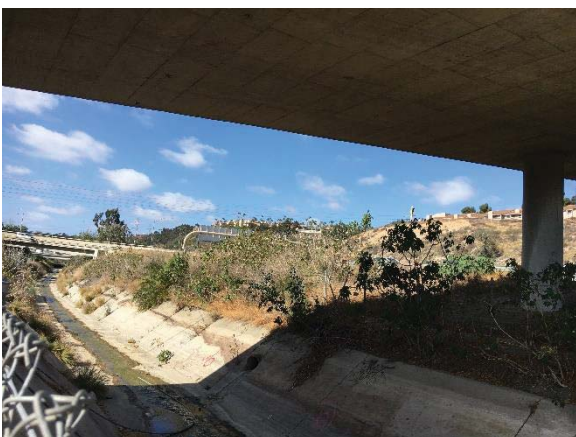
The Stadium 1 segment is located in the San Diego River Watershed Management Area and is a part of Murphy Canyon Creek. The earthen segment is bound by the stadium parking lot to the west and I-15 to the east and is located north of I-8. The IHHA for the Stadium 1 segment was prepared in 2013 by URS Corporation. During the March 2013 site visit performed by URS Corporation, the segment conditions were described as dense vegetation and the sediment deposition was estimated to be 1 to 3 feet. Based on available records, maintenance activities last occurred in this segment in 2015. During the site assessment in June 2018, the earthen channel was observed as light to medium vegetation. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking downstream from Station 628.163
(June 2018).

2.3.2 Stadium 2 (Facility No. 4-04-002)

The Stadium 2 segment is located in the San Diego River Watershed Management Area and is a part of Murphy Canyon Creek. The concrete segment is bound by the stadium parking lot to the west and I-15 to the east and is located north of I-8. The IHHA for the Stadium 2 segment was prepared in 2013 by URS Corporation. During the March 2013 site visit performed by URS Corporation, the segment conditions were described as dense vegetation and the sediment deposition was estimated to be 1 foot. Based on available records, maintenance activities last occurred in this segment in 2015. During the site assessment in June 2018, the concrete channel was observed to be mostly clean and light vegetation growth on the side slopes. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station
1847.267 (June 2018).

2.3.3 Murphy Canyon 1 (Facility No. 4-04-006)

The Murphy Canyon 1 segment is located in the San Diego River Watershed Management Area and is a part of Murphy Canyon Creek. The concrete segment is bound by industrial development and golf facilities to the west and I-15 to the east. The IHHA for the Murphy Canyon 1 segment was prepared in 2013 by URS Corporation. The downstream portion of the Stonecrest segment was originally included in the IHHA analysis however, the Stonecrest segment was analyzed separately as part of the MWMP and is not included in this current conditions assessment. During the March 2013 site visit performed by URS Corporation, the segment conditions were described as mostly clean with light vegetation growth on the side slopes. No known maintenance activities have occurred in this segment. During the site assessment in June 2018, the concrete channel was observed to be the same with slightly more vegetation growth along the side slopes. It is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 530.489 (June 2018).

2.3.4 Murphy Canyon 2 (Facility No. 4-04-008)

The Murphy Canyon 2 segment is located in the San Diego River Watershed Management Area and is a part of Murphy Canyon Creek. The earthen segment is bound by industrial development and golf facilities to the west and I-15 to the east. The IHHA for the Murphy Canyon 2 segment was prepared in 2013 by URS Corporation. During the March 2013 site visit performed by URS Corporation, the segment conditions were described as to be densely vegetated with mature trees and shrubs was considered to be in its ultimate vegetated condition. No known maintenance activities have occurred in this segment. During the site assessment in June 2018, the earthen channel was observed to be the same condition. It is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 942.369 (June 2018).

2.3.5 Mission Gorge 1 (Facility No. 4-07-002)

The Mission Gorge 1 segment is located in the San Diego River Watershed Management Area. The segment is bordered by commercial developments along the north side of I-8. The IHHA for the Mission Gorge 1 segment was prepared in 2015 by Rick Engineering. During the August 2014 site visit performed by Rick Engineering, the segment conditions were described as moderate to dense vegetation and the sediment deposition was estimated to be 0.2 to 0.9 feet deep. Based on available records, maintenance activities last occurred in this segment in 2015/2016. During the site assessment in November 2018, the concrete channel was observed to have small patches of light to moderate vegetation and 4 to 6 inches of sediment deposition along the north edge of the segment. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that H&H Technical Report for the MWMP recommendations remain unchanged.



Looking downstream from the Fairmount Avenue culvert outlet at approximately Station 1155.562 (November 2018).



Looking upstream from Fairmount Avenue at approximately Station 1305.414 (November 2018).

2.3.6 Mission Gorge 2 (Facility No. 4-07-004)

The Mission Gorge 2 segment is located in the San Diego River Watershed Management Area. The segment is bordered by commercial developments along the north side of I-8. The IHHA for the Mission Gorge 2 segment was prepared in 2015 by Rick Engineering. During the August 2014 site visit performed by Rick Engineering, the segment conditions were described as dense vegetation including several trees and the sediment deposition was estimated to be 0.5 to 1.1 feet deep. Based on available records, maintenance activities last occurred in this segment in 2015/2016. During the site assessment in November 2018, the concrete channel was observed to have light to moderate vegetation and sediment deposition was estimated to be 0.5 to 1 foot deep. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 3171.452 (November 2018).



Looking upstream at the box culvert outlet at approximately Station 3519.105 (November 2018).

2.3.7 Alvarado 1 (Facility No. 4-07-021)

The Alvarado 1 segment is located in the San Diego River Watershed Management Area. The segment is bordered by Alvarado Hospital to the east and by commercial and residential development to the north and south. The IHHA for the Alvarado 1 segment was prepared in 2015 by Rick Engineering. During the August 2014 site visit performed by Rick Engineering, the segment conditions were described as light to moderate vegetation and the sediment deposition was estimated to be 0.2 to 1.7 feet deep. Based on available records, maintenance activities last occurred in this segment in 2015/2016. During the site assessment in June 2018, the earthen channel was observed to have light to moderate vegetation and sediment deposition along a portion of the segment. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 2873.24 (June 2018).

2.3.8 Alvarado 2 (Facility No. 4-07-023)

The Alvarado 2 segment is located in the San Diego River Watershed Management Area. The segment is bordered by Alvarado Hospital to the east and by commercial and residential development to the north and south. The IHHA for the Alvarado 2 segment was prepared in 2015 by Rick Engineering. During the August 2014 site visit performed by Rick Engineering, the segment conditions were described as mostly clean with light vegetation growth on the side slopes. No known maintenance activities have occurred in this segment. During the site assessment in June 2018, the concrete channel was observed to be the same. It is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged.



Looking downstream from the pedestrian bridge at approximately Station 4502.213 (June 2018).

2.4 Pueblo San Diego WMA

Two segments located in the Pueblo San Diego WMA were assessed to review current conditions in relation to the conditions modeled for the IHHA.

2.4.1 National 1 (Facility No. 5-04-004)

The National 1 segment is located in the Pueblo San Diego Watershed Management Area. The segment extends south from Logan Avenue and flows parallel to I-15 along its western side, before the channel crosses underneath I-5 and ends just upstream of where Chollas Creek conflues with South Las Chollas Creek. The IHHA for the National 1 segment was initially prepared in 2010 by Rick Engineering. During the October 2009 site visit performed by Rick Engineering, the segment conditions were described to have low vegetation and sediment deposition was estimated to be from 0.5 to 3 feet deep. Based on available records, maintenance activities last occurred in this segment in 2015/2016. During the site assessment in August 2019, the earthen channel was observed to have light vegetation and sediment & debris deposition along the segment bottom. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that H&H Technical Report for the MWMP recommendations remain unchanged.



Looking downstream toward the National Avenue bridge at approximately Station 1745.9117 (August 2019).



Looking upstream from approximately Station 1745.9117 (August 2019).

2.4.1 National 2 (Facility No. 5-04-006)

The National 2 segment is located in the Pueblo San Diego Watershed Management Area. The segment extends south from Webster Avenue to Logan Avenue and flows parallel to I-15 along its western side. The IHHA for the National 2 segment was initially prepared in 2010 by Rick Engineering. During the October 2009 site visit performed by Rick Engineering, the segment conditions were described to have moderate to dense vegetation and sediment deposition was estimated to be from 0.3 to 1 foot deep. Based on available records, maintenance activities last occurred in this segment in 2015/2016. During the site assessment in August 2019, the concrete

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channel was observed to have light vegetation and sediment deposition along the segment bottom at the downstream end and mostly clean concrete at the upstream end. One area of concrete bank repair was also noted. Given the history of maintenance, the limits of maintenance are recommended to be unchanged from the previous assessment and it is recommended that H&H Technical Report for the MWMP recommendations remain unchanged.



Looking upstream from approximately Station 2065.8479 (August 2019).



Looking downstream from approximately Station 4774.1509 (August 2019).

2.5 Tijuana River WMA

Two segments located in the Tijuana River WMA were assessed to review current conditions in relation to the conditions modeled for the IHHA.

2.5.1 Pilot Channel 1 (Facility No. 6-01-020)

The Pilot Channel 1 segment is located in the Tijuana River Watershed Management Area and within the boundaries of the County of San Diego Tijuana River Valley Regional Park. The earthen segment is generally bounded by Hollister Street to the east, Monument Road to the south, and Saturn Boulevard to the north. The IHHA for the Pilot Channel 1 segment was initially prepared in 2012 by URS Corporation and updated in 2015 by Rick Engineering. During the September 2012 site visit performed by URS Corporation, the segment conditions were described as dense vegetation and the sediment deposition was estimated to be 3 to 4.5 feet. Based on available records, maintenance activities have occurred multiple times in this segment including in 2014, 2016, 2017, and 2018. During the previous maintenance activities, the depth of sediment within the Pilot Channel segment was determined to be deeper than originally reported in the IHHA and the maintenance has not gone east of the Hollister bridge. The maintenance width was unchanged from the approved width, however the depth varied to up to 5 feet. It has been observed during these maintenance activities that maintaining elevations consistent with prior as-built drawings would require excavation of depths greater than 15 feet, possibly indicating that sediment deposition is occurring throughout the Tijuana River Valley during flooding events, essentially raising the elevation of the portions of the valley. Rather than excavating to the as-built channel invert elevations, a range of 0 to 11-foot depth is utilized in a manner that maximizes the positive drainage flow condition in a downstream

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direction. During the site assessment in May 2017, prior to the latest maintenance activity, the earthen channel was observed to have 3 to 5 feet of sediment, trash and other debris deposited in the channel. Given the history of maintenance, the length of maintenance and the width of maintenance are recommended to be unchanged from the previous assessment. The depth of maintenance will vary based on the amount of deposition of sediment that occurs prior to maintenance activities. It is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged as the area of maintenance will remain unchanged.



Looking upstream from the Hollister Street bridge at approximately Station 14856 (May 2017).



Looking upstream from approximately Station 131 (May 2017).

2.5.2 Smuggler's Gulch 1 (Facility No. 6-01-100)

The Smugglers Gulch 1 segment is located in the Tijuana River Watershed Management Area and within the boundaries of the County of San Diego Tijuana River Valley Regional Park. The earthen segment is generally bounded by Hollister Street to the east, Monument Road to the south, and Saturn Boulevard to the north. The IHHA for the Smugglers Gulch 1 segment was initially prepared in 2012 by URS Corporation and updated in 2015 by Rick Engineering. During the September 2012 site visit performed by URS Corporation, the segment conditions were described as dense vegetation and the sediment deposition was estimated to be 1 to 2 feet. Based on available records, maintenance activities have occurred multiple times in this segment including in 2014, 2016, 2017, and 2018. During the previous maintenance activities, the depth of sediment within the downstream portion of the Smuggler's Gulch segment was determined to be deeper than originally reported in the IHHA. The maintenance width was unchanged from the approved width, however the depth varied up to 7 feet at the downstream end. It has been observed during these maintenance activities that maintaining elevations consistent with prior as-built drawings would require excavation of depths greater than 15 feet, possibly indicating that sediment deposition is occurring throughout the Tijuana River Valley during flooding events, essentially raising the elevation of the portions of the valley. Rather than excavating to the as-built channel invert elevations, a range of 0 to 7-foot depth is

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utilized in a manner that maximizes positive drainage flow condition in a downstream direction. During the site assessment in May 2017, prior to the latest maintenance activity, the earthen channel was observed to have accumulated 3 to 10 feet of sediment, trash and other debris deposited in the channel. Given the history of maintenance, the length of maintenance and the width of maintenance are recommended to be unchanged from the previous assessment. The depth of maintenance will vary based on the amount of deposition of sediment that occurs prior to maintenance activities. It is recommended that the H&H Technical Report for the MWMP recommendations remain unchanged as the area of maintenance will remain unchanged.



Looking at the culvert inlet at approximately Station 2549.85 (May 2017).



Looking upstream from the confluence with the Pilot Channel (May 2017).

3 Summary

As part of the MWMP hydrology and hydraulic evaluation process, the current condition of the twenty-one segments were evaluated to determine if conditions has significantly changed since the approved IHHA and if any changes to the recommendation were needed. Based on the engineering review of each segment, none of the segments were found to require additional maintenance outside the recommendations in the H&H Technical Report for the MWMP. It is recommended that the H&H Technical Report continue to be used along with the prioritization process to determine when maintenance is required.