

9 LOS ANGELES HARBOR NORTH

9.1 Watershed Hydrology Analysis

The Los Angeles Harbor North drainage area is part of the Dominguez Channel and LA Harbor watershed defined by County of Los Angeles DPW (Exhibit K). This drainage area is mostly urbanized. There is one canyon within this watershed that collects runoff from the southwest portion of this drainage area and discharges into a storm drain inlet. Most of the tributary area connected directly to this canyon is open space. This drainage area was changed for this MPD compared to the 2004 analysis after analyzing the topography contours. Based on topography some areas outside of the City were not tributary to storm drain systems owned by RPV, thus these areas were not considered to be a part of this drainage area in this update. There are 62 acres within subwatershed 1A that are part of the City of Rolling Hills. It consists mostly of runoff water conveyed in Eastfield Drive.

The hydrology results for the 10-, 25- and 50-year storm events are provided in Appendix J-1.

9.1.1 Hydrology Results Summary 10-, 25-, 50-year storm events

Los Angeles Harbor North drainage area was divided into 44 subwatersheds and Table 9-1 summarizes the maximum 10-, 25-, and 50- year storm event discharge flow draining into each node.

Hydrology ID	Structure ID	Subarea (acres)	10-Year Flow (cfs)	25-Year Flow (cfs)	50-Year Flow (cfs)
1A	CB0911	72.7	65.1	49.8	34.4
3B	CB0905	2.5	5.9	5.1	3.6
4B	OS0904	11.1	25.4	20.6	14.7
7C	CB3490	36.6	54.9	44.7	31.8
9C	CB0888	5.6	10.9	9	6.6
11C	CB3504	1.7	4.3	3.4	2.6
13B	OS3505	21.9	46.8	38.3	27.6
14D	CB0901	3.9	10.9	8.6	6.4
16D	CB0897	1.4	3.9	3.1	2.3
20B	CB0925	2.7	11.2	9.8	6.8
22B	CB0927	2.5	8.8	6.8	5.5
24A	IS0183	32.4	46	37.7	27.7
25B	CB0930	12.5	22.9	19.1	14.1
26C	CB0932	6.2	12.3	10.1	7.3
27C	OS0934	6.5	15	13.1	9.2
28D	CB3593	3.5	8.1	7	5
29E	CB3595	9.4	19.1	15.8	11.5
31E	CB0886	17.3	37.2	30.4	22
33E	CB3582	18.5	39.4	31.1	22.7
35D	OS3585	1.5	6.1	5.3	3.6
38B	IS0929	8.8	18.8	15.4	11.1
40B	CB0178	13.3	33.5	28.2	20.2
42B	CB0173	24.8	40.3	32.6	21.4
44F	CB14124	30.3	45.7	34.8	22.2

Hydrology ID	Structure ID	Subarea (acres)	10-Year Flow (cfs)	25-Year Flow (cfs)	50-Year Flow (cfs)
45C	CB2265	17.5	31.1	24	14.8
46D	IS2460	20.1	47.4	38.7	26.3
47E	CB2461	3	9.9	8.6	6.1
49E	CB2269	10.4	25.3	21.9	14.7
53C	CB14134	8.3	19.5	14.9	9.5
55C	IS0207	24.4	43.1	31.8	20.4
56D	CB0193	15	27	20.1	12.7
59C	OS37724	25.1	45	36.7	27.9
60D	CB37725	12.1	22.4	17.3	12.9
61E	CB37721	27.5	51.3	41.2	29.7
64D	CB0198	4.6	8.9	6.9	4.8
66D	CB0197	2.6	7.7	6.1	4.4
69C	CB1961	10.2	20.9	17	11.5
72C	CB0191	13.7	29.1	22.4	15
74C	CB0185	30	48.9	39.6	26
76G	CB0882	5.3	10.1	8.4	5.7
77C	CB0885	5	11.4	9.2	6.9
78C	OS0884	15.7	31.9	26.3	19.1
79H	CB0216	13.5	29.4	24.3	16
81I	CB0213	58.1	67	48	30.9

9.2 Hydraulic Analysis

9.2.1 Existing Condition

Table 9-2 provides important modeling assumptions used for the hydraulic analysis and Appendix J-2 provides the existing condition hydraulic analysis for the 10-, 25- and 50-year storm events.

System	Upstream Structure ID	Downstream Structure ID	Pipe ID	Street	Assumption
1	IS0903	JS2709	SD2761	Palos Verdes Drive East	Used in model a 36-inch CMP.
	JS2709	OS0902	SD2759		

9.2.1.1 Results

Table 9-3 provides a list of the storm drain structures that were flooded in the 50-year hydraulic analysis. No storm drain structures flooded in the 10-year storm event hydraulic analysis.

Storm Drain Structure ID	Floods in 50-Year Storm Event
CB0202	X
GB1954	X
MH0175	X
MH0177	X
CB0178	X
CB14124	X
CB0930	X
CB0173	X
CB0213	X

9.2.2 Recommended Improvements

Following Section 2.4.4 criteria no improvements are recommended for this drainage area.

9.2.3 Cost Estimates

No recommended improvements were proposed for this drainage area.