

Hamilton Bowl Flow Estimates

Area

From 1970 County bond map:

Area A + Area B + Area C = 191 acres

Land Use/Runoff coefficient

Land Use Estimates *	% of total	Runoff coefficient**	% weighted coefficient
Vacant	41	0.1***	0.04
Single Family Residential	16	0.45	0.07
Multi-Family Residential	4	0.80	0.03
Commercial	7	0.92	0.06
Industrial	30	0.92	0.27
Institutional	2	0.90	0.02
<i>Estimated average coefficient</i>			<i>0.49</i>

* Based on review of 1983 Aerial Photos of the City of Signal Hill and known changes.

**Except where indicated, coefficient is highest (worst case) of ranges - L.A. County Hydrology Manual

*** Soil type 014 - also from L.A. County Hydrology Manual

Peak Runoff

Using the Classic Rational Formula

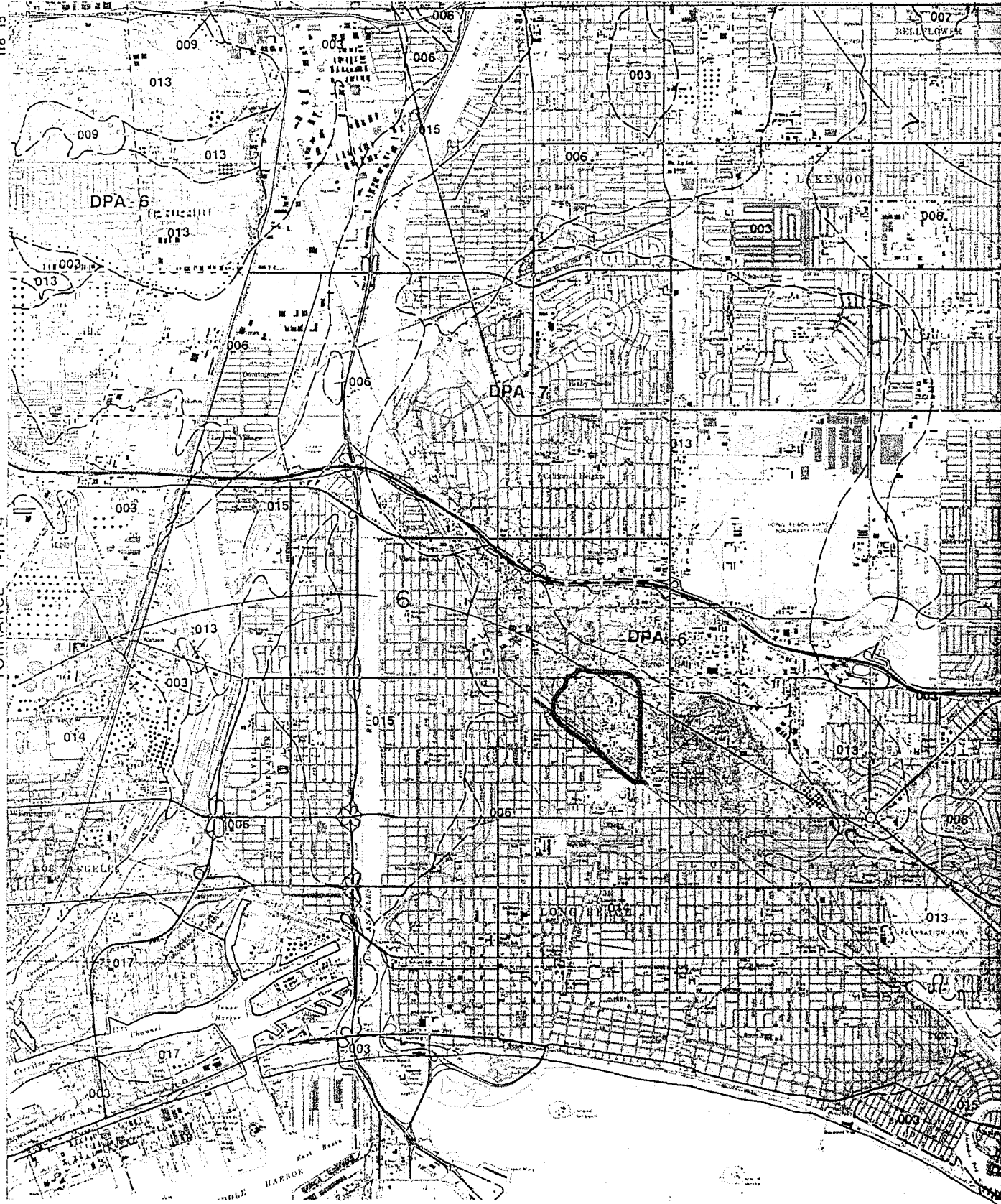
$$Q=CIA$$

Peak Runoff = (0.49) (0.6 inches per hour) (191 acres)

$$\text{Peak Runoff} = 56.2 \text{ cfs}$$

The nominal design rating of the trash net is 70 cfs, which is greater than the calculated flow above.

(A previous third party estimate, as referenced in the previous correspondence, placed the peak runoff at 69 cfs, but we have been unable to locate the calculations that were used for that estimate.)



LEGEND

- SOIL CLASSIFICATION AREA (K)
- DEBRIS POTENTIAL AREA
- 12—— RAINFALL ZONE
- 50-YEAR ISOHYET (MAX. 24-HOUR AMOUNT)

LACDPW

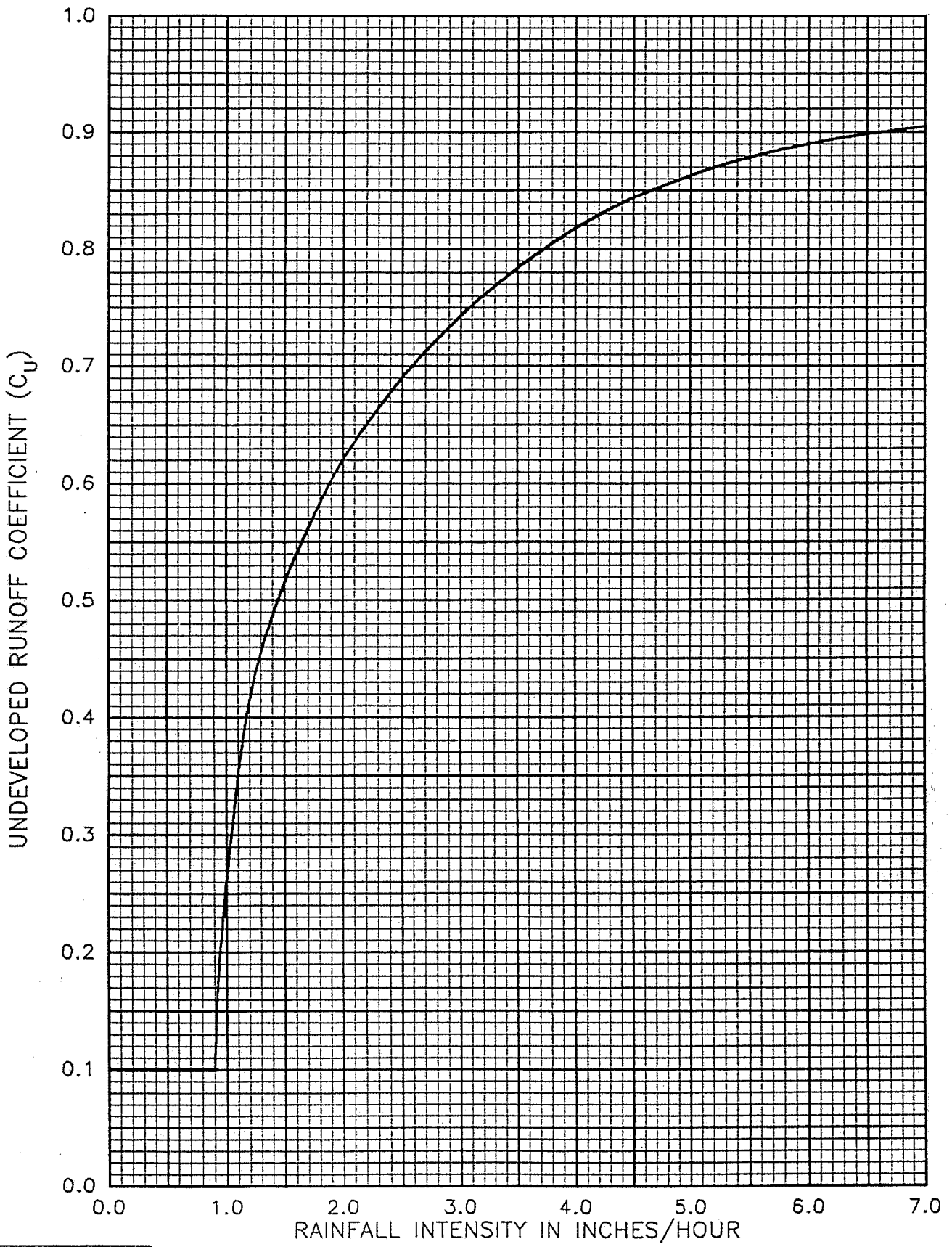


LONG BEACH

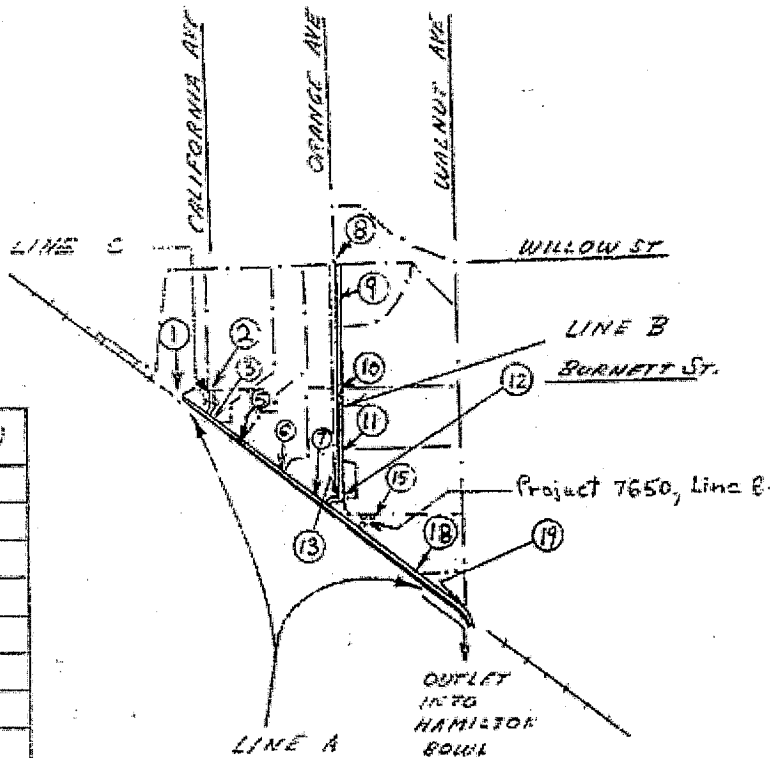
1981



hydrologic map



<p>Equation:</p> $C_D = (0.9 * IMP) + (1.0 - IMP) C_U$ <p>Where: C_D = Developed runoff coefficient. IMP = Proportion impervious. C_U = Undeveloped runoff coefficient.</p>	<p>Los Angeles County Department of Public Works</p> <p>RUNOFF COEFFICIENT CURVE SOIL TYPE NO. 014</p>
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REACH	Q (CFS)
LINE A	
1- JCT. LINE C	25
LINE C - 5	60
5 - 6	75
6 - 7	95
7 - JCT. LINE B	110
LINE B - Pr. 7650 - B	230
Pr. 7650 - B - 18	250
18 - 19	250
19 - HAMILTON	240
LINE B	
8 - 9	30
9 - 10	50
10 - 11	95
11 - 12	120
13 - LINE A	120
LINE C	
2 - 3	30
3 - LINE A	35

LEGEND

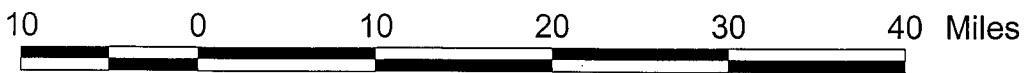
- PASSABLE FUTURE DRAIN
- → SUBAREA & COLLECTION POINT
- ==== PROJECT DRAIN
- WATERSHED BOUNDARY

LONG BEACH QUAD.

0 1000 2000

PREPARED DBM	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
DATE 11-9-71	1970 BOND ISSUE Project No 9040
SCALE 1" = 2000'	10 YEAR FREQUENCY DS

1-Year 1-Hour Rainfall Intensity (Inches/Hour)



1yr 1hr intensity.shp
La county boundary.shp