CONTRA COSTA COUNTY
TABLE OF HEADLOSS FACTORS
THROUGH STRUCTURES

TYPE OF STRUCTURE	K
1. Straight run with change in pipe size	0.25
2. Straight run with same pipe size	0.17
3. 0° - 45° deflection with change in pipe size	0.50
4. 0° - 45° deflection with same pipe size	0.42
5. 45° - 90° deflection with change in pipe size	0.75
6. 45° - 90° deflection with same pipe size	0.75
7. Approaching 90° deflection	1.00
8. 90° deflection	1.25
9. Drop manhole	1.25
10. Short radius curves (50' and shorter)	0.35

Notes:

County freeboard requirement is 1.25' (15") to grate (not TOC).

CCC uses Manning's "n" values of 0.015 for RCP, and 0.024 for CMP.

Contributing Watershed (Square Miles)	Design Event
0 to 1	10-year
1 to 4	25-year
Greater than 4 square miles	100-year