

APPENDIX F

City of Salinas Rainfall Percentile Depth

Salinas Rainfall Percentile Depth

The 85th percentile hourly rainfall intensity for the City of Salinas is 0.11 inches/hour. The Salinas NPDES Permit indicates that flow-based treatment control BMPs must be designed to infiltrate or treat the maximum flow rate produced by a rain event equal to two times the 85th percentile hourly rainfall intensity. Therefore a rainfall intensity of 0.2 inches/hour is the value to be used when calculating the water quality flow (WQ_F) for flow-based treatment control BMPs in the Salinas area.

The 95th and 85th percentile rainfall events are calculated the same way. First, obtain long-term rainfall records from a nearby weather station – try to obtain at least 30 days of daily record. Remove data from small events that have a rainfall depth of 0.1 inches or less; these small events do not typically cause runoff. Sort the remaining daily rainfall depth from highest to lowest. Next, calculate the percentage of daily rainfall events that are less than each ranked event (event number/total number of events). Use the daily rainfall event at 85 percent and 95 percent for the 85th and 95th rainfall events respectively. For the City of Salinas, the 85th percentile rain depth is 0.65 inches and the 95th percentile rain depth is 0.98 inches.

Table 1: City of Salinas Rainfall Percentile Depths per Section 438 Technical Guidance

