ATTACHMENT A-5

Quantity of Storm Water Discharge
(*Item C.4 of NOI Form C*)

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C.4 Quantity of Storm Water Discharge

Stormwater flow rates were calculated using the *Rules Relating to Storm Drainage Standards* (City and County of Honolulu, 2000) for drainage areas of 100 acres or less. A storm recurrence interval of 2 years was used to estimate the quantity of runoff. A maximum correction factor of 3 (Plate 4 of the *Rules Relating to Storm Drainage Standards*) was used to calculate the Rainfall Intensity at each site.

Table 2-1

Site Name	On-Site Disturbed Area Runoff (cfs)
PID 56	3.03
PID 47	2.39
PID 48	4.59
PID 109	3.02
Total	13.03

Table 2-1 summarizes stormwater runoff quantities calculated for each of the 4 project sites (**Tables 2-2** through **2-5** show the values used to determine these runoff quantities). Disturbed areas of the project sites are slopes adjacent to highways, abutments to overpasses, and adjacent areas (typically grassed areas) that will be used for staging. A one-half acre was assumed disturbed per each site due to the staging/storage area. The disturbed area runoff accounts for the anticipated storage/staging area.

PID 56

Table 2-2

Description	Runoff Coefficient	Rainfall Intensity (in/hr)	Exposed Area (ac)	Flow Rate (cfs)
On-Site Disturbed Area	0.5	3.9	1.56	**3.03**

PID 47

Table 2-3

Description	Runoff Coefficient	Rainfall Intensity (in/hr)	Exposed Area (ac)	Flow Rate (cfs)
On-Site Disturbed Area	0.5	3.9	1.22	**2.39**

PID 48

Table 2-4

Description	Runoff Coefficient	Rainfall Intensity (in/hr)	Exposed Area (ac)	Flow Rate (cfs)
On-Site Disturbed Area	0.5	3.9	2.35	**4.59**

PID 109

Table 2-5

Description	Runoff Coefficient	Rainfall Intensity (in/hr)	Exposed Area (ac)	Flow Rate (cfs)
On-Site Disturbed Area	0.5	3.9	1.55	**3.02**