

Exhibit Q
Response to COE Question 13

UNSTABLE SOILS

COE Question 13

“Unstable soils in the vicinity of stormwater ponds. We are concerned the proposed stormwater ponds could cause soils to become waterlogged and saturate the surrounding slopes, causing a potential for the slopes to slide into the creek, especially when the toe of the bank is cut. Please evaluate the potential for this situation to occur.”

Response:

No inherently “unstable” soils have been encountered. In regards to the stormwater ponds, the soil conditions that are relevant are the potential for erosion, the stability of cut slopes or embankments, and the potential for the basins to affect the stability of nearby terrace slopes.

The stormwater ponds include slopes that are 1V:3H or flatter. Erosion control during construction and long-term revegetation will control erosion of these relatively flat slopes.

Cut slopes for the project were evaluated and discussed in the Phase II Soils Report, and these slopes are consistent with those recommendations. Another way to judge the stability of the cut slopes is by comparing them to the existing slopes in the same material along the creek. The existing slopes are stable, even though they are much steeper than the proposed cut slopes. Therefore instability of the cut slopes for the basins should not be expected.

Soft clay soil present beneath the upper terrace material is not a factor affecting the stormwater basins because they are generally being constructed by excavation, except at the north basin. At that location, the height of the embankment is less than 1.5 m, and well within the bearing capacity of the soil.

The only location where the stormwater basins are relatively close to the creek bank is the Gateway Pond. The stormwater ponds will only store water intermittently. That is, they will not remain full. This pond is expected to have a maximum depth of storage of 1.4 m during the 100 year flood, and the pond is about 30 m from the edge of the terrace slope. Under such a gradient it is not expected that the basin will saturate the terrace slope or cause instability, and there are no plans to excavate the toe of the terrace slope.