

ENGINEERING REPORT

DISCUSSION – Lower Lake Bank Areas

Based on our observations of the surface condition of the existing lake bank at the time of our exploration (March/April, 2010), it appears that the lake level has dropped sufficiently to expose bare soil at the northern, eastern and southern shore lines. Accelerated erosion is likely in the unreinforced USCS SP soils exposed to hydrodynamic forces (wave action, seepage and runoff).

Erosion and sloughing will likely result in a flattening of the subaqueous slope particularly in the vicinity of any aquatic bench or safety bench exposed by receding water levels. In steeper slope areas, such as the southern portion of the western bank, more significant erosion may occur and a scarp may form as a result of wave attack during severe weather events. This condition is less likely to develop in areas of flatter slopes, such as portions of the southern lake bank. Based on our visual observation of the southern bank area at the time of our exploration, slope stabilization in this area does not appear necessary at this time.

Where necessary, erosion of the lower lake bank areas can be controlled using a variety of surface stabilization measures, such as the log system currently employed on the eastern shore of the lake. Generally these systems facilitate the growth of appropriate vegetation and decrease the potential for erosion caused by seepage, runoff and wave attack. Other methods, such as riprap and bulkheads might be considered in steeper areas of the lower bank, such as the southern portion of the western lake shore.