indicating conditions conducive to erosion. In addition, this shoreline is exposed to wave action in the form of boat wakes which are believed to contribute to the erosion of this shoreline.

Wave measurements made during the testing of the three sill schemes shown in Fig. 5.6 indicated that all three would reduce wave heights occurring at the shoreline by 10 to 30 percent. It is anticipated that the sills would have a similar damping effect on boat wakes. As can be seen in Table J-5, however, none of these schemes reduces the magnitudes of the current velocities enough to result in P values indicating a state of no erosion. These P values (0.2 to 18) indicate that scour at the base of the sills would be likely. This does not mean that the sills are entirely ineffective. By reducing wave heights, the sills may at least slow down the erosion rate by reducing the contribution to erosion made by waves and boat wakes.

The distinguishing feature differentiating the effectiveness of each sill scheme lies in the flow patterns and flow velocities through the gaps between the sills resulting from the various placement schemes. A comparison of Figs. 6.18, 6.19, and 6.20 provides a qualitative indication of the magnitude of circulation patterns resulting from the implementation of each of the three sill schemes. The overall sill length in each scheme is the same (approximately 130 m) but the individual sill lengths and the gaps between them are different (see Fig. 5.6). These figures indicate that the scheme providing a greater number of gaps produces circulation patterns of the least magnitude along the shoreline. In addition measurements of the flow velocities through the gaps in each scheme due to water exchange indicated that the lowest magnitudes (see Table J-5) of velocity