



Figure 4. Detailed map of the sea floor of western Massachusetts Bay showing the location of the long-term mooring at Site A (Butman and others, in press a, b, and c). The green circles show the locations of the subsurface moorings, the blue triangles the location of the bottom tripod systems, the purple squares the location of near-surface moorings, and the hexagon the location of the USCG Boston Approach B buoy. The yellow squares show the location of the bottom photographs (see figure 5). The water depth at the mooring site is nominally 30 m. The site is located on the southern flank of a ridge that rises to within about 25 m of the sea surface. All moorings were within a circle about 500 m in diameter. Water depth ranges from 29 to 33 m. Contour interval is 5 m.

The mooring locations are shown over a pseudocolored map of backscatter intensity draped over a shaded relief map of the topography. The backscatter intensity is represented by a suite of eight colors ranging from blue, which represents low intensity, to red, which represents high intensity. These data are draped over a shaded relief image created by vertically exaggerating the topography four times and then artificially illuminating the relief by a light source positioned 45 degrees above the horizon from an azimuth of 350 degrees. The resulting image displays light and dark intensities within each color band that result from a feature's position with respect to the light source. For example, north-facing slopes, receiving strong illumination, show as a light intensity within a color band, whereas south-facing slopes, being in shadow, show as a dark intensity within a color band. The long-term station is located in a region of relatively high backscatter intensity. The sea floor at the long-term site is cobbles and gravel.

The 55 individual diffuser heads for the new ocean outfall that discharges treated sewage effluent from the Boston metropolitan region into Massachusetts Bay extend across the northern part of this figure. The most notable features are two parallel rows of individual mounds of material; these mounds are the material discarded on the sea floor from the holes drilled for the risers that extend to the outfall tunnel below. The diffuser heads, about 3 m high and 4 m in diameter, are located between the rows and are not well resolved at this scale.