



Figure 2.4a. Map showing topography in shaded relief view in western Massachusetts Bay around the new ocean outfall, with 5-m contours superimposed (from Butman and others, 2003b). The shaded relief image was 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. In the resulting image, topographic features are enhanced by strong illumination on the northward-facing slopes and by shadows cast on southern slopes. The image also accentuates small features that could not be effectively shown by contours alone at this scale. The two parallel rows of mounds are formed from material discarded on the sea floor from the shafts drilled for the 55 risers that connect to the diffuser heads of the new ocean outfall. The submerged elongated hills (tops about 25 m from the sea surface) in this region are similar in size and shape to the islands in Boston Harbor. They were formed during the last glaciation and submerged during the rise in sea level after the glaciers melted.