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Sommario/riassunto	Reasonable estimates indicate that approximately a billion cubic meters of high water content soil-like wastes are produced annually worldwide, and a large portion of these are deposited hydraulically in diked impoundment areas, some of which are among the largest earth structures in the world. The major problems emanating from this disposal method are the difficulty in dewatering the wastes, their low strength and hydraulic conductivity, their high compressibility, their potential to contaminate the groundwater, the stability of the confining dikes, and the ultimate reclamation of the disturbed land. Following a brief explanation of how many of these wastes are generated, quantitative values for key engineering properties are summarized and compared for a wide variety of waste materials and some reference soils. Then, many concepts that have been applied with success will be presented together with the advantages each offers, the difficulties involved in using it, and the limitations in our knowledge. Discussed briefly will be state-of-practice developments in mathematical modeling, laboratory testing and associated interpretations, and material property formulations.