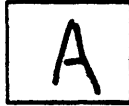


EXPLANATION

Generalized hydrologic map of  
MARTHA'S VINEYARD, N.H., by C.A.K.  
1973



Zone A

Very good aquifer. Ample supply of ground water for most domestic developments. Water table generally over 20 ft deep. In places, water is high in iron.

Horizontally-bedded sand and gravel. Glacial outwash derived from glacier front on the north side of Martha's Vineyard; thin at margins of outwash plain on northeast and northwest and thicker to south. Freshwater lens probably over 200 ft thick in center of island, thinning at coast and shores of brackish ponds. Heavy groundwater withdrawal in coastal zone will produce saltwater intrusion.

Recharge area is zone itself, as well as adjoining parts of surrounding moraines (Zones B & C). Groundwater flow is southward.

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conformity with Geological Survey  
standards or nomenclature.

B

Zone B

Good to fair aquifer. In places inadequate for large groundwater withdrawals. Depth to water table varies from 0-35 ft, but in most places is less than 30 ft. Water locally high in iron.

Stratified sand and gravel, some silts and clays and nonstratified gravelly silty sand with boulders. Consists of morainic material and outwash deposits laid down on top of wasting ice front.

Heavy pumping may produce salt water intrusion at depth, particularly within a few hundred yards of the shore.

Recharge is limited to the area of the moraine. Ground water flows towards the coast. Ground water divide probably coincides with topographic divide, as shown on accompanying map.

C

Zone C

Poor aquifer. Very variable from place to place, even within distances of 25 ft. Capacity of individual aquifers generally small. Depth to water varies from 10 ft to 300 ft. Quality of water varies from excellent to high in dissolved minerals and fine sediment.

A glacial moraine consisting of alternating thick strata of clay, sand, gravel, silt, till, greensand, etc, all steeply inclined downwards to the north in Gay Head and northwest in Chilmark and Tisbury. Some of these beds are good aquifers, some poor, and it is the difficulty of predicting which will underlie any particular site that makes water supply so uncertain in this zone.

Recharge area is the zone itself.



## Zone D

Variable aquifer. Mostly sandy zones interbedded with clay, complexly folded and tilted. Water table varies from 10 ft to 100 ft in depth. Quality of water good.

This zone consists largely of a thick gray clay overlain by medium-grained sands that were pushed by a lobe of glacial ice out of the Menemsha Basin and Menemsha Bight and in consequence are much deformed. Ridges are generally underlain by thick clay, intervening valleys by sand. All deposits dip northerly.

Recharge area is Zone D itself and surrounding zone C and Squibnocket Pond. Saltwater intrusion at depth can be produced by large ground water withdrawals in the shore zone of Menemsha Pond.