radial drainage area of Morristown, Cheesequake creek receives no affluents adequate to account for the development of a valley extending southwestward into the mainland at this point on the coast. This abnormality is the more striking from the fact that in those parts where streams might be expected, the land slopes away from the depression and streams flow on that slope to the South river or to the Raritan itself. Everywhere about the margin of the cove steep slopes prevail without that adjustment which occurs in the drainage outside of the area, showing that the basin is more recent than the drainage furrows which surround it. In general form, in its relation to side streams and to the surrounding nonglacial topography, this cove resembles what appears to have been the original condition of those indentations of the north coast of Long Island which have been occupied and somewhat enlarged by the ice of the last advance. The creek is newer than the plain and is evidently drowned beneath the sea level by recent sinking.

Along the shore at the mouth of this cove are well defined terraces, the remnants of a plain about 30 to 40 feet above the present sea level. This plain has been dissected and partly destroyed by the erosion of the cove, and it has been cut back by the sea, so that its slope and its initial seaward margin are now indeterminate.

The upper portion of this plain on the west side of the creek consists of coarse yellow gravel lying on Cretaceous clays. On the east side the underlying deposits rise to the surface of this plain, which cuts across different beds thus showing that it is a plain of denudation. The point to be determined is whether this plain is due to marine or aerial erosion, or in other words whether it can be taken as an index of the attitude of the land in recent geologic time, and if so what was that attitude and when was it taken. The fact that there is no equivalent of this plain in the glaciated area shows that it is earlier in origin than the culmination of the Wisconsin epoch and hence makes it presumable that the land was then and has since been unsubmerged.

The topographic map exhibits a number of terraces along this coast from Perth Amboy around the Neversink Highlands to the mouth of Shrewsbury river, whose elevations vary from 40 feet downward.