the valley of Contentnea Creek northward the Patuxent ("Cape Fear") beds lie beneath superimposed Miocene beds which must first be penetrated when seeking to obtain water from horizons in the former.

The area over which it is believed possible to obtain potable water from the beds of this formation by means of borings is shown on the map, Plate XXXII. It includes not only the belt of outcrop of the formation, but also an additional strip lying to the southeast of this belt, where it is possible to reach the beds by boring through the overlying younger deposits. It is probable that the Patuxent ("Cape Fear") formation extends farther coastward than the limit indicated on the map, but it is believed that beyond this limit the deeply buried waters are highly mineralized and undesirable for ordinary domestic and manufacturing purposes.

The materials of the Patuxent ("Cape Fear") formation consist of layers and lenses of light-gray, arkosic, more or less micaceous sands and light to dark drab, more or less arenaceous clays. Both the sands and clays are in many places very solid and compact and in places the sand layers are indurated to form solid rock. In the case of the sand the compactness seems to be due in the main to a filling between the grains of very fine kaolin or clay particles. However, open porous layers occur, and this is more especially true along the northwestern part of the area where the materials are in close proximity to the basement rocks from which they were derived. The materials here are coarser as a rule, also, than is true of those farther away from the Piedmont border. It is believed, also, that the buried basal portion of the formation where it rests upon the older rocks consists largely of coarse sands and gravels.

The thickness of the formation, so far as known, appears to be about 300 feet. It may become somewhat thicker, however, for a short distance to the southeast of its belt of outcrop.

Experience has shown that water-bearing beds occur within this formation. The water, of course, circulates more freely in the more porous beds. These may occur at any vertical position within the formation. Owing to the irregularly varying porosity of the different beds it is impossible to predict from surface indications at any given locality at what depth those will be encountered which are sufficiently porous to admit of free circulation of water; but since the beds nearer the base are believed to be in general more porous than those occupying a higher position, it would seem that these would offer the more promising horizons; and in places at least, which can only be determined by drilling, they should furnish very large supplies. The depths at which potable waters should be found in this formation will vary all the way