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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: *Pa & N.J.*

DESCRIPTIVE REPORT.

Topo. Sheet No. *3377*

LOCALITY:

*Delaware River - Riverton
to Bristol*

1912

CHIEF OF PARTY:

Stehman Forney

11-4045

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DEPARTMENT OF COMMERCE AND LABOR

COAST AND GEODETIC SURVEY.

O. H. TITTMANN - SUPERINTENDENT.

DESCRIPTIVE REPORT

TO ACCOMPANY

TOPOGRAPHIC SHEET. 3377

RESURVEY OF SHORE LINE

FROM

HOUSE OF CORRECTION, HOLMESBURG,

TO

BRISTOL.

DELAWARE RIVER.

1912.

SCALE 1/20,000.

(a) GENERAL DESCRIPTION.

PENNSYLVANIA SHORE. Within the limits of this sheet, the Pennsylvania shore line is comparatively low and flat, the land rising gradually up from the shore or bank. Marsh fronts the high-water line in three places, the first a mile northward from the House of Correction, about a half-mile north of Mud Island, and most of the way from a point a half-mile south of Neshaminy Creek to Bristol. The land is also low and marshy above the high-water line in several places, near the Filtering Plant, just north of the Enterprise Factory, and a large tract located about a mile to the south of Bristol. Mud Island is a low marshy island opposite Delanco, and is mostly covered with water at high tide. Outside of the above-named marshes, the land is fairly well developed, being used for farming, manufacturing plants, summer cottages, and the villages of Torresdale and Bristol, the former a residential and the latter a manufacturing village, the chief manufactures

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being carpets and and woolen goods. A large area just north of the House of Correction has been reclaimed from the marsh by deposition of sand from a suction dredge, this being the only artificially developed shore line of any extent. There were no extensive areas of foliage, the largest areas being one just south of Bristol and a few scattering areas near Andalusia and Torresdale. There are a number of wharves scattered along the shore, and three creeks flowing into the Delaware River.

NEW JERSEY SHORE. The New Jersey shore is mostly low and flat within the limits of this sheet, the main exception being around the village of Beverly. The shore is fronted by a marsh all the way except in front of the villages of Delanco, Beverly, Edgewater Park, and Burlington. Hawk Is. near Riverside is covered by a wooded marsh and is surrounded by marsh. Burlington Island, near Burlington, is mostly surrounded by marsh, and it is wooded in places. There are several marshes above high-water between Riverton and Riverside. The land is well developed, being occupied by the villages of Riverside, Delanco, Beverly, Edgewater Park and Burlington, which are mostly residential, with some manufactures, chiefly hosiery, shoes, paper-boxes, and watch-cases in Riverside and several foundries in Burlington; with manufacturing plants and farm lands in between the villages, and a railroad and a street-car line connecting them. The only wooded area of any extent is just west of the city of Burlington.

(b) CURRENTS.

The current in the part of the Delaware River shown on this sheet is tidal, and sets fair with the channel. The ebb and flood tides follow each other very quickly, still water lasting but a very few minutes. The average rise and fall of the tide at Delanco is six (6) feet. The duration of the flood tide at Burlington is four (4) hours and fifty-six (56) minutes, and of the ebb tide is seven (7) hrs. and twenty-nine (29) min. This data was obtained from the U. S. Army Engineers.

(c) ICE-HARBORS.

The only good ice-harbor is at the House of Correction.

(d) WEATHER.

The prevailing wind is southwesterly in summer, and northerly in winter. The river is usually frozen during the months of January and February. Fogs and a smoky atmosphere are very frequent, especially in calm weather, being more frequent in late summer and autumn. Freshets occur in the autumn after heavy storms near the head-waters of the river, and in spring due to the ice-jams and the melting snow. The winter of 1911-1912 was very cold for this latitude, but the following spring was fine.

(e) DESCRIPTION OF THE SHORE.

On the Pennsylvania side of the Delaware River the shore is mostly low and flat, the only steep banks of any extent being around Torresdale and Andalusia, and these are only from ten (10) to fifteen (15) feet in height.

There is a dike extending about a half-mile northeasterly from the House of Correction, back of which the land is filled-in with sand. The shore is fairly regular, except where three creeks flow into the river, and a marshy inlet just below Bristol. The most important points are- College Point just east of the mouth of Neshaminy Creek which is open and low and cultivated, and one just south of Bristol called Maple Beach which is bold and wooded and fairly steep and is being built up into a summer resort. The New Jersey shore is low and flat from Riverton to Delanco, with occasional dikes and in places the marsh extending above the high-water line. The shore from Delanco eastward is higher with fairly steep banks in places, rising to a height of over twenty (20) feet near Edgewater Park. The most important points are- Wright Point opposite the filtering plant which is low and flat, Plum Point, near Wright Pt., is low and flat and wooded, and one in Delanco which is steep and covered by houses, Diehl's Point in Beverly which is low

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and covered by houses, and one just south of Burlington which is low and used as factory grounds. Two creeks and one river also flow into the river. Wright's Cove, just west of Wrights Pt. is the chief indentation and is covered by marsh. The chief islands are Mud, Hawk and Burlington Islands. Mud Island is low and marshy and covered at high tide. Hawk Island is low and covered by a wooded marsh. Burlington Island is higher and is wooded at both the east and west ends, and a small square in the center is also wooded, and is nearly surrounded by marsh. This island is partly cultivated and partly used as a park.

(f) RIVERS AND CREEKS.

PENNYPACK CREEK. This creek is practically dry at low-water, and the tide reaches nearly to the source of the creek.

POQUESSING CREEK. This creek is tidal back to the road used as a limit to the topography, near which is a dam across it, and the creek is very small above this dam. It is a mere rivulet at low-water.

NESHAMINY CREEK. This creek is tidal for several miles, and is navigable to the first bridge (which is shown on sheet) by small-draft boats, except on extreme low-water. The current is fairly strong due to the tide.

ASSISCUNK CREEK. This creek is tidal for about ten (10) miles, and is a mere brook at low tide. It has a strong current due to the tide.

RANOCAS RIVER. This river is tidal for about twenty miles or more and the current is fairly strong due to the tide. Steamers of six (6) foot draft can go up the river at low-water to the third bridge, which is shown on the limit of this sheet, a distance of about two (2) miles. Motor-boats of small draft find enough water for several miles farther. The depth of water at the mouth of the river is eleven (11) feet at low-water. The channel is quite permanent. Freshets have some effect but nothing serious.

There is another small creek near Plum Point, which is practically dry at low-water, and is tidal to the limit of the topography.

(g) BEACONS AND BUOYS.

There are three beacons and six buoys within the limits of this sheet. The TORRESDALE LIGHT is a white beacon showing a red light, and is located on the wharf building in Torresdale. The EDDINGTON LIGHT is a white beacon showing a white light, and is located on the sunken wharf just east of the Enterprise Foundry. COLLEGE POINT LIGHT is a white beacon showing a white light, and is located on the shore at College Point. It is commonly called Jones Beacon. The PLUM POINT BUOY is a red spar, marking the westerly edge of a shoal off Plum Pt. . The HENS AND CHICKENS UPPER AND LOWER BUOYS are two black iron spars of the third-class, marking the ledge of rocks below Torresdale. The MUD ISLAND BUOY is a black spar marking the easterly side of the flats off Mud Is. . The NESHAMINY FLATS BUOY is a black spar just below the mouth of Neshaminy Creek, marking the southerly edge of the flats. The BURLINGTON BAR BUOY is a red spar off the lower end of Burlington Island.

(h) CHANGES IN THE SHORELINE AND THE DEPTHS.

There were no important changes in the shore line, except just north of the House of Correction, where part of the marsh has been reclaimed by a dike back of which sand has been deposited by a suction dredge. The Filtering Plant is comparatively new, and there are a few new buildings along the river. The depth of the water has been changed in two places- one by a twelve-foot (12) channel dredged opposite Mud Island, and one by the lower point of Burlington Island bar being dredged to a depth of twelve (12) feet at mean low-water. Data on soundings and dredged channels were obtained from the U. S. Army Engineers.

(i) SURVEY METHODS.

The shoreline was developed by the plane-table, set up on triangulation stations of the main scheme. The topography was developed by the

plane-table, starting at triangulation stations of the main scheme, and continued by traverse lines, checking in on triangulation stations of the main scheme and on the intersection stations determined by triangulation. None of the old stations of the main scheme were recovered. In the villages a traverse line was run parallel to the river, and one perpendicular to the river to get the contours and part of the street intersections. The streets not obtained by these two traverse lines were transferred from the charts made by the U. S. Army Engineers in 1909 in the cases of Delanco, Beverly, Edgewater Park, Bristol, and Burlington, and from the city map in the case of Riverside.

The traverse lines in Riverside were run along New Jersey and Pavilion Avenues, following the streetcar tracks, and one along Bridgeboro Road up to the head of steam navigation on the Rancocas River. The traverse lines in Delanco were run along Burlington Avenue, and along Pennsylvania Avenue. In Beverly, the traverse lines were run along Warren Street, and Railroad Avenue, and down Broad Street. The line followed Railroad Avenue through Edgewater Park. The traverse line through Burlington went up Read Street, along the railroad to High Street, down High Street to the river, along the water front across Assiscunk Creek, and up the easterly bank of that creek to the railroad, and followed the railroad east. In Bristol, the traverse lines followed the streetcar line along Mill Street and the river front, and the other line up Jefferson Avenue.

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CHIEF OF PARTY.