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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

E. Lester Jones
Superintendent.

State: *N.J.*

DESCRIPTIVE REPORT.

Nyack Sheet No. *3725*

LOCALITY:

Nyack N.J.

1915

CHIEF OF PARTY:

Stelman Forney

11-4646

3725

Department of Commerce

C and G Survey

O H Tittmann Superintendent

Descriptive Report

To Accompany

Fair

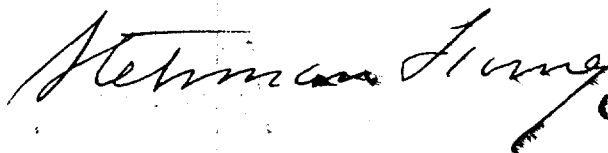
Hydrographic Sheet No. 6

Saw Mill Creek to New Canal ~~to~~ Berry's Creek

Hackensack River New Jersey

1915

Scale 1/5000

A handwritten signature in cursive script, appearing to read "Stephen L. King". The signature is written in dark ink and is positioned above the printed title "Chief of Party".

Chief of Party

(a) General description of shore line.

The shore line of the river on sheet no. 7 is backed by extensive marsh or meadow. Along the shores the soundings are shoal, as they approach the centre of the channel the drop off abruptly from 5 feet to 30 feet especially in and around the bends; the bottom is generally soft mud mixed with sand.

(f) Currents

The currents are tidal, and are very swift both on the ebb and flood tides. The current runs in while the tide is falling and runs out while it is rising for short periods from 20 to 25 minutes after high and low water, the currents set fair with the channel on the ebb and flood tides.

(g) Weather.

Prevailing winds during the winter months are from the North East to South East and blow hard at times, prevailing winds during spring and summer are South West and North West with moderate strength, winds during autumn are from the North West and North East and generally blow strong.

(m) Bars and Channels

There are no bars on that part of the river covered by sheet no. 7 but the channel is lumpy in places, but has a greater depth of water than 12 feet at mean low water. There are numerous creeks emptying into the Hackensack River which are navigable for small motor boats.

(q) Watering places for Vessels.

Fresh water can be obtained at all the bridges along the river and the villages and at Hackensack, New Jersey.

(r) Lights and Bouys.

There are no lights or bouys on this sheet. All of the bridges have

lights, which show up and down the river.

(p) The Army Engineers, will maintain a dredged channel with the depth of 12 feet at mean low water 150 feet wide from the mouth of the Hackensack River to Anderson Street Bridge, at Hackensack, N. J.

(t) Ports Commercial Importance.

Hackensack at the head of navigation is a beautiful town of 17000 inhabitants but not of much commercial importance. There are several wall paper factories on the east shore of the river at Bogota, N. J. and a number of brick yards all along the river from Hackensack to Little Ferry Bridge. The Erie Rail Road and the Susquehanna Rail Road connects the town of Hackensack with Paterson, Passaic and Jersey City. There are also lines of trolley cars to Newark, Passaic, Paterson and Fort Lee Ferry on the Hudson River.

(u) Change of Depths.

The abrupt changes in depths in the river occur, as previously mentioned, most noticeably at the bends. At the lower limit of the sounding, the first line run across the river from the mouth of Saw Mill Creek, there was found a 10 foot difference in depth between the deepest sounding of the C & G Survey and the soundings obtained by the Army Engineers on a line about 20 metres below. This is accounted for by a deep hole which ends at the mouth of Saw Mill Creek. Other abrupt changes were found where there were holes or lumps on the bottom.

The river is generally closed to navigation by ice from December to February. This season the river was closed by ice December 17 1914 and opened to navigation January 14 1915 and remained for the season.

William J. Perry
Chief of Party C. & G. S.

(w) Survey Methods.

The soundings were made with a 7 pound lead and line graduated to feet and fathoms, lead line was tested before going to work and after returning from work, a gasoline launch was used from which the soundings were made. The boat positions were obtained by two simultaneous sextants angles. When possible sounding lines were run on ranges.

Herman Henry
Chief Party.
C. H. S.

Report on Hydrographic Sheets Nos. 3725 & 3726.

These sheets cover a part of the Hackensack River, N. J., and were executed by Aid Harold H. Griffin while attached to the party of Assistant Stehman Forney.

On the whole the work seems to be very fair except for a lack of sufficient development in the neighborhood of the tributaries and wharves and a few other places.

The tide gauge used was located some distance from the work hence there may be some small error on this account.

The record shows a lack of experience and proper instruction as a number of desirable details were omitted and a small amount of work accomplished in the time spent on the working grounds.

The positions for the sounding lines were apparently very good. A number were tested and showed a judicious selection of objects. Only one position was doubtful and that apparently was due to an error of 5° in the left angle. This change merely caused the shifting of a shoal a short distance down stream without affecting the channel.

There were several long lines up and down stream without sufficient positions to enable a proper location of the soundings.

As there were no Boat's Head or Courses noted, nor any information furnished regarding currents, there is doubt regarding the location of some of the soundings. The speed of the launch was quite variable too thus giving cause to suspect the reliability of some of the soundings but in the absence of a more complete development no definite information is available along these lines.

Although the work covers two sheets all the soundings are placed in one record book and not kept separate even then.

No boat sheet was made during the work, apparently, as it was not necessary to plot the positions in order to judge the location of the lines ordinarily.

Owen B. French

Assistant.

The soundings between positions 12^a-13^a were changed by direction of Mr Flower and platted on a curve in order to clear a 11 ft sounding on line 7^a-8^a Sheet 3726

J. D. Torrey
Oct 28/15