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Department of Commerce and Labor

COAST AND GEODETIC SURVEY

Superintendent.

State: Mass

DESCRIPTIVE REPORT.

Sheet No.

LOCALITY:

Cape Cod Bay

1909

OF PARTY:

O B French

POST-OFFICE ADDRESS:

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Descriptive Report

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Washington, D. C.,

October 28, 1909.

Mr. O. H. Tittmann,

Superintendent, Coast & Geodetic Survey,

Washington, D. C.

Sir;-

The following descriptive report to accompany the revision of topographic sheets Nos. 1062, 901, 795, 1088, 1078 1077, 1704, 368, 579, 259, 260, 616, and 1982, and hydrographic sheet No. 2019, is respectfully submitted.

These sheets cover the whole of the coast of Cape Cod Bay from Ship Pond, just south of Plymouth, around the end of Cape Cod and down the outside coast to Pleasant Bay, just north of Chatham, and includes all the territory covered by chart No. 110.

Although there are many minor changes in this territory there are none of great importance. There are many new buildings, some of the old buildings are gone, several reclaimed marshes, a few decided changes in the shore line, particularly at the mouths of creeks, and many places where small timber has grown. The main roads have been improved and straightened in places, a few new roads opened, and several small summer resorts established.

The shore along this coast is a silex sand so soft that a light buggy will sink in at least two or three inches

(even if you follow the falling tide) thus making travel along the shore very hard. The roads are also very soft except where they are improved.

The main road around the coast has been macadamized nearly all the way from a point about two miles north of Sagamore to Provincetown. In Eastham there is a stretch of about three miles and in Truro about one mile where the improvement has not been made as yet although it undoubtedly will soon be improved by the State as most of the improvements have been.

Most of the roads west of Orleans are in fair condition many of them being macadamized. North of Orleans however the roads are very bad unless you follow the one main road.

When you get beyond Orleans too you soon find a poorer country in every respect. The soil is too sandy to be fertile and the labor required to make improvements so great as to prevent any very persistent effort in that direction.

The greater part of this coast is low with hills (some more than 200 ft. in height and usually covered with timber or brush) a short distance back from the shore. Shifting sand dunes border the shore in many places. On the west shore of Cape Cod Bay are bluffs some of them almost a hundred feet in height. Along the Atlantic side of the Cape from Nauset Lights to Cape Cod, or Highland, Light there are almost continuous clay or sand bluffs reaching a height of 120 feet in places. Although these bluffs are difficult to climb, especially after a rain, there are so many breaks in them that one would rarely have to travel more than 2 miles

in order to find a place where he could get away from the shore. In case of a heavy storm from the northeast however, it would probably be impossible to move along the beach at all, especially at high tide.

There seems to be a steady retrogression of the shore and adjacent bluff along the outside coast last mentioned above. Many points were located along this shore and all showed a retrogression of from 20 to 50 meters since the construction of the original sheets some fifty years ago.

The changes at Wellfleet Harbor are very noticeable. Billingsgate Island has changed its shape and also position greatly, the outside shore having washed away and the inside built out. The light-house was originally built on the east side of a good sized island but now it is on the N.W. side of a small island, and will not stand many years more unless the shore is protected so as to prevent the washing away.

The mouth of the Pamet River has changed considerably.

The long point upon which Chatham Life Saving Station has been erected has built out almost a mile toward the south since the last survey in 1868.

Both sides of the entrance to Barnstable Harbor have changed considerably.

The mouth of the Scotton Neck Creek is closed entirely. An opening has been dug through so the stream now flows directly into the bay without flowing along inside of the beach as of old. This cut is very narrow and shallow and navigable only at high tide by small boats, the bottom of the cut being above low tide.

There is at present only one good harbor around Cape Cod Bay, viz., Provincetown Harbor. Wellfleet Harbor is good for boats drawing less than eight feet of water but even those cannot get within about a half of a mile of the wharves except at high tide. All the other harbors, from Plymouth around to Provincetown, are good only for very small boats. They cannot be entered in a heavy sea and most of them have a bar almost dry at low tide.

There is very little in the way of shipping in this whole region. At Provincetown there are a few fishing schooners of the old type but elsewhere small motor boats are the only boats of any consequence that ply these waters.

Catching fish and lobsters and gathering clams and quahaugs are the principal occupation of these motor boats.

There are no manufactureing industries of any importance in this whole region except a car manufacturing plant at Sagamore. The original sheets show many salt drying works but now this business has been entirely discontinued. There are many cranberry bogs around this coast and considerable marsh land which could be readily converted into cranberry bogs with little capital.

Reclamation of the marshes is being pushed quite rapidly especially near Wellfleet. In July the State of Massachusetts had a dike nearly completed across the mouth of the Herring River Just west of Wellfleet, which when finished will permit the drainage of several square miles of marsh.

There is considerable farming land along the coast, especially west of Orleans. That north of Orleans is not fertile enough to be productive, but ~~[illegible]~~ large areas are tilled nevertheless.

A large part of the land north of Orleans is not tilled and most of this is covered with very small pine or deciduous timber.

Along the Atlantic side of the Cape there are very few dwelling houses but U. S. life saving stations are located in prominent places at intervals of 2 1/2 to 5 miles. On the Bay side there are no life saving stations beyond, or south and west, of Wood End.

Southeast of Wellfleet are four tall towers erected for Marconi wireless telegraph work. These towers are very prominent and distinctive objects, visible for long distances. The most prominent objects at the end of Cape Cod are the Pilgrim monument and stand pipe at Provincetown. This monument is just being finished. It is 27 feet square and its top is about 300 feet above high tide. Near the top the monument is enlarged so it is nearly 40 feet square for a short distance.

At Sagamore the tall brick chimney of the car manufacturing plant is a conspicuous object whenever the high hills behind and near it do not detract from its visibility.

There are several church spires which are prominent objects especially from the Bay side. The most notable are "Cong. Ch. Sp. Sandwich," " Unitarian Ch., Barnstable," " Cong. Ch., Yarmouth," " Meth. Sq. Ch. Sp., Eastham," " Cong. Ch., Wellfleet," " Meth. Ch., South Truro," " Cong. Ch. and Town Hall, Truro", besides several spires at Provincetown.

Scargo hill with the stone observation tower on its top

is a conspicuous object from every direction. Peaked Cliff is the most southern of the steep slopes or bluffs on the west side of the Bay. It is a distinctive object as it is the only one which appears to culminate in a point when seen from the water. On the east side of the Bay the clump of houses on the summit of Corn Hill just north of the mouth of the Pamet River, makes a prominent and distinctive mark.

Work on the Cape Cod Canal which is to connect Cape Cod and Buzzards Bays, was begun last July by dumping in the stone necessary to form the jetties at the Cape Cod end. The old cut for this canal is shown on the tracing for topographic sheet No. 90I. Plans for the present project were shown me and they are to utilize this old cut. The route of the canal is to be about as shown on topographic sheet No. I530, except at the ends. At the Buzzards Bay end it follows down the Monument River and at the Cape Cod Bay end it sweeps around in the smooth curve following the cut shown on Top. sheet No. 90I.

The old cut for this canal has changed the marsh streams in this neighborhood very much as the excavated material has been deposited on the adjacent marsh thus filling up the water courses. No attempt was made to show the present condition in the neighborhood of the old cut, except in a general way, as the new work will cause much greater changes. The excavated material will probably be sufficient to reclaim most of the extensive marshes at this end of the canal.

There is not much doubt that this canal will be opened as far as the car manufacturing plant at Sagamore, in the near

future, even if it does not get any farther.

When I left Cape Cod in September there was considerable talk about the legal snags the canal company had encountered. One was the existence of a law forbidding the disturbance of burial grounds. As the proposed route would require the removal of several private burying grounds no work could be done in their neighborhood until satisfactory legislation had been enacted by the state legisture. The people on Cape Cod did not think this would be difficult to secure however and that it would probably not delay the work of excavation very much. In September there were several small construction houses on the shores of Cape Cod Bay and two vessels were visible unloading rock for the jetties.

The method followed in this revision was to travel over the ground with tracings of the original sheets noting any changes that were apparent. If these changes could not be plotted accurately with reference to the adjacent topographic features, then angles were taken with a sextant so the true position could be plotted with a protractor. Whenever old triangulation stations were not sufficiently numerous ~~enough~~ to furnish suitable points for such positions then new points were established by triangulation.

The work on the original sheets was found to be very good except on sheet No. 579. Although there were a few places where the work was undoubtedly in error these places were of no importance and would probably never be noticed by anyone except an expert. When ~~they were~~ reduced to the scale of the chart the errors would probably not be apparent at all.

Although sheets Nos. 260 and 6I6 are badly broken it was surprising how accurately points could be plotted upon them with a protractor even when the objects observed were quite distant. In order to test the accuracy of this method of plotting on such sheets the positions of several points were computed and then plotted according to their latitudes and longitudes. Although the worst conditions were selected for this test the positions obtained from the computations did not differ materially from the plotted positions.

Respectfully,

Owen B. Finch.

Assistant C. & G. S.

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