

MAINE STATE LEGISLATURE

The following document is provided by the
LAW AND LEGISLATIVE DIGITAL LIBRARY
at the Maine State Law and Legislative Reference Library
<http://legislature.maine.gov/lawlib>



Reproduced from scanned originals with text recognition applied
(searchable text may contain some errors and/or omissions)

SUPPLEMENTAL REPORT

ON

POLLUTION IN THE

STATE OF MAINE

1954

COASTAL

SEWER SURVEY

PART III

(SECTION 1, TABULATED DESCRIPTION)

THE WATER IMPROVEMENT COMMISSION

in collaboration with

DEPARTMENT OF HEALTH AND WELFARE

SUPPLEMENTAL REPORT
ON
POLLUTION IN THE
STATE OF MAINE
1954

COASTAL
SEWER SURVEY

PART III

(SECTION 1, TABULATED DESCRIPTION)

THE WATER IMPROVEMENT COMMISSION
in collaboration with
DEPARTMENT OF HEALTH AND WELFARE

ORGANIZATION

As of July 1, 1955

STATE OF MAINE

EDMUND S. MUSKIE, GOVERNOR

WATER IMPROVEMENT COMMISSION

CLIFFORD G. CHASE, Chairman, Baring, Maine

DEAN H. FISHER, M.D., Secretary
Commissioner, Department of Health and Welfare

ROY V. WELDON, Bangor, Maine

EDWARD W. COLBY, M.D., Portland, Maine

EDWARD FIELD, Auburn, Maine

SEYMOUR RYCKMAN, Orono, Maine

WALTER TWEEDIE, Mars Hill, Maine

ROBERT I. ASHMAN, Chelsea, Maine

LLEWELLYN COLOMY, Hallowell, Maine

PREFACE

The purpose, scope, and organization of the activities resulting in the collection of data herein contained do not differ materially from that of that portion of the 1950 report dealing with the coastal sewer survey.

However the Sanitary Water Board gave way to the Water Improvement Commission as a result of legislative changes in 1951 and certain changes were made in the functions of the commission by the 1953 Legislature. Federal funds which had supported a field survey team were withdrawn in 1952, following which the State appropriated money to carry a partial field survey team.

A field survey team consisting of a chemist and an engineer has during the period covered by this report been financed by the appropriation of the Water Improvement Commission and a group doing similar work, but often even more limited in personnel was financed first by federal allocations and later by State funds, have been engaged in collecting data for this report.

PURPOSE AND SCOPE

The objectives to be achieved by this report are similar to the aims of the 1950 Report. In general it only consolidates the data returned from the work of field parties and presents maps to define the results of work presently completed and to serve as map data for future surveys including clam flat quality surveys.

POLLUTION LAWS

The legislature of 1951 created the Water Improvement Commission and defined its functions, in effect simply changing the name of the Sanitary Water Board, under Chapter 383 P. L. of 1951.

In 1953 the legislature provided minor administrative changes in the functioning of the Water Improvement Commission, established standards of water quality classification proved classification procedure, and established the classification of certain surface waters in the State. It also requires municipalities to provide information to the commission relative to the present method of sewage collection and disposal and specifically applies its pollution restrictions to municipalities whereas the previous law did not. The provisions of Section 6 dealing with the deposit of foreign materials in public waters were reworded and certain waters within the state previously exempted from the provisions of the section were removed from the exemption list as of September 1, 1955.

COASTAL SEWERS

TEXT INDEX

Description	Page	Description	Page
Addison, Town of	8	Lamoine, Town of	47
Bar Harbor, Town of	8	Lincolnton, Town of	48
Bath, Town of	9	Lubec, Town of	48
Belfast, Town of	11	Machias, Town of	50
Biddeford, Town of	12	Machiasport, Town of	50
Blue Hill, Town of	13	Millbridge, Town of	51
Boothbay, Town of	13	Mount Desert, Town of	51
Boothbay Harbor, Town of	15	Newcastle, Town of	52
Bowdoinham, Town of	18	Nobleboro, Town of	53
Bremen, Town of	19	Northport, Town of	53
Brewer, Town of	19	Orrington, Town of	54
Bristol, Town of	21	Owls Head, Town of	54
Brooklin, Town of	22	Pembroke, Town of	55
Brooksville, Town of	22	Penobscot, Town of	56
Brunswick, Town of	23	Perry, Town of	56
Calais, Town of	24	Phippsburg, Town of	57
Camden, Town of	25	Prospect, Town of	57
Cape Elizabeth, Town of	26	Robbinston, Town of	58
Castine, Town of	27	Rockland, Town of	58
Cherryfield, Town of	27	Rockport, Town of	60
Columbia Falls, Town of	28	Roque Bluffs, Town of	60
Cumberland, Town of	29	St. George, Town of	61
Cushing, Town of	29	Searsport, Town of	62
Cutler, Town of	30	Sedgwick, Town of	63
Damariscotta, Town of	30	South Bristol, Town of	63
Deer Isle, Town of	32	Southport, Town of	64
Dennysville, Town of	33	South Thomaston, Town of	65
East Machias, Town of	33	Steuben, Town of	66
Edgecomb, Town of	33	Stockton Springs, Town of	67
Edmunds, Town of	33	Stonington, Town of	67
Ellsworth, Town of	34	Sullivan, Town of	68
Frankfort, Town of	35	Surry, Town of	68
Franklin, Town of	35	Thomaston, Town of	69
Freeport, Town of	36	Topsham, Town of	70
Friendship, Town of	37	Trenton, Town of	70
Gouldsboro, Town of	37	Trescott, Town of	71
Hampden, Town of	39	Waldoboro, Town of	71
Harpwell, Town of	40	Warren, Town of	72
Harrington, Town of	42	Wells, Town of	73
Jonesboro, Town of	43	West Bath, Town of	74
Jonesport, Town of	43	Whiting, Town of	75
Kennebunk, Town of	44	Winterport, Town of	75
Kennebunkport, Town of	45	Yarmouth, Town of	76

SURVEY DATA

COASTAL SEWER OUTFALLS

(Data taken and accumulated between
Nov. 1, 1950 and Jan. 1, 1954)

COASTAL SEWER SURVEY

In January, 1950, a survey of the entire coastline of Maine was begun, the object of which was to locate all sewer outfalls and significant sources of pollution along the coast. Data collected by this survey up to November of 1950 appeared in the 1950 "Report on Water Pollution in the State of Maine."

After the cutoff date of the 1950 report coastal sewer survey continued, but with less concentration, during 1951 and 1952, covering segments of the coast line not previously surveyed as well as adding to and revising previously collected data.

On the progress map following are indicated the towns completed since the 1950 report, the towns unchanged since the 1950 report, the towns in which the coastal sewer data has been supplemented or revised since 1950, and those in which the survey has not been completed.

The supplemental portions of the survey were conducted on the same basis as the portion on which the 1950 data was based except that the Sanitary Water Board, responsible for the first report, became to all practical purposes the Water Improvement Commission in August of 1951. All coastal areas which were inhabited or contained possible sources of pollution were covered on foot in an effort to find all outfalls. Information concerning location of the outfall, size of pipe, number of buildings or population served, was obtained at the site, and such additional information as to whether or not the facility was public or private property was obtained from local authorities or residents of the respective areas.

In each case where sufficient data to warrant has been obtained, individual township maps have been prepared, in some cases supplemented by village maps to a larger scale, showing sewer outfalls in towns where the survey has been completed.

TIDEWATER SEWER SURVEY TOWN OF ADDISON

(See Map No. 2)

This township has a long irregular shore line, bordered on one side by the approaches to Indian River and on the other by the estuary of Pleasant River. There are three general concentrations of dwellings in the township, Addison, South Addison and Cape Split, and Addison's shore of the village of Indian River. The fishing industry and blueberry raising are the principal means of livelihood. The Pleasant River is bordered by wide salt marsh meadows once dyked for the benefit of growing hay. Much of the Addison shoreline would be suitable for cottage development, and such a colony has grown up on Cape Split facing Pleasant Bay.

A great percentage of the population appears to be serviced by privies and it is likely that at least some sewers discharge to the land side of the marshes and along small drainages and, although to a large extent their pollution reaches tidewater indirectly they were not included in the tidewater survey. The direct pollution was limited to few private sewers and the wastes of a sardine factory on the west side of the river.

LIST OF POLLUTION SOURCES

1. Sardine cannery at Addison employing about 160 persons discharges sanitary sewage and process wastes to tidewater.
2. Sewer discharges to tidewater (Cape Split)
- 3 - 4. Sewer discharges to tidewater (South Addison)
5. Sewer discharges to tidewater (Indian River)

SHOREFRONT SURVEY OF BAR HARBOR

Original by Hinckley — Nov. 1950

Revised by Geisler — June, 1953

(See Map No. 3)

The Town of Bar Harbor is renowned as a summer playground with the greater part of accessible shoreline occupied by summer property ranging in size from small camps to large, sumptuous estates.

About one-half the area of the scenically beautiful Acadia National Park is contained within the boundaries of the town. Many thousands of tourists are attracted yearly to this fascinating site where picnicking, camping, bathing, hiking and boating facilities are also available.

The portion of shore from Dorr Point to Lookout Point (sources # - 102) has previously been covered in the "1950 Report on Water Pollution in the State of Maine", and encompassed the more thickly settled sections of the town at the Village of Bar Harbor and in the vicinity of Halls Cove. The town's population of 3,864 is easily quadrupled during the summer season and this locality is the center of activity.

The sources of pollution as reported below are located along the town's tidal shores to the north and west of Bar Harbor Village. These sewer outfalls are as previously reported in other areas, also contributors of sanitary sewage from summer properties, ranging in size and value. South of the village a few estates are located above very steep rugged cliffs near Sols Cliff. Further south only a very few properties escaped the 1947 forest fire, with a few remaining near Newport Cove that are well back from the shore.

The following short descriptions should be used with the accompanying town map on which the locations of the pollutional sources are indicated.

Index No.	Description
103 - 113	Seven of these eleven outfalls serve individual properties, while #107 may possibly serve 7 houses or cottages. At #108, a 30" metal culvert for a small stream also contains sewage from 3 houses. A sewer at #113, serving about 25 overnight cabins, empties to a ditch which drains to a swamp. All these sources contribute pollution in the form of usual sanitary wastes found in households, and are located between Cape Levi and Sand Point following a westerly direction.
114 - 123 incl.	At Salisbury Cove there are ten outfalls, only (#114) of which serves a single dwelling. Number 117 serves 4 cabins, while #115 and #118 serve 3 sewer outfall and four 2" galvanized pipe outfalls, possibly sink drains, carry sanitary wastes from a rental cabin development at #119 - 123, incl. Another outfall at #116 serves an overnight cabin colony and a single house.
124	A small stream enters Clark Cove after it receives sewage from a shore dinner establishment. No sources of pollution were along the shorefront, however, in this locale.
125	A 4" C.I. sewer outfall serves two houses. The one and a half mile stretch of shore known as Aunt Mollys Beach has several cottages, but road blocks did not permit these to be inspected.
126	A sink drain was located south of Indian Point, and since all except one cottage are quite small, good water supplies are unlikely and waste disposal, therefore, not too prevalent.

SHORTFRONT SURVEY OF BATH

Original by Marzul — March, 1951

Revised by Geisler — Dec., 1953

(See Map No. 4)

The sanitary sewage of approximately 10,000 people in the city of Bath is discharged, untreated, to tidewater in the Kennebec River estuary. Approximately 95% of the sewage is discharged through the 29 public sewers, and the remainder through 76 private outfalls, the majority of which serves individual houses and are located within the city or just outside its limits.

Industrial wastes constitute very little of the city's pollution problem since the industries are mainly in the category that produces minor quantities of process waste. The main source of industrial pollution is a canning plant which discharges its processing wastes and the sewage of about 220 employees into the river during its seasonal operation. A shipyard, a windlass manufacturing company and a roller bearing plant are the other large industries situated along tidewater, but only minor amounts of industrial wastes are created by them.

A brief description of the outfalls, as indexed on the map of Bath, is as follows:

Index No.	Description
1&2	Three sink drains are located in the northern portion of town, the first being at Butler Cove and two more on the Creek southwest of Lines Island.
29	Three hundred feet downstream from the inlet near Harward Street is the largest public sewer in Bath. It is known as the Hasward Dock sewer and serves 1,175 buildings including 720 houses, 450 housing units, 3 schools, a hospital and an armory. Also connected to the system is an inoperative war-time housing development which, if reactivated, would increase the waste load by the discharge from about 150 housing units.

Index No.	Description
30 - 37 incl.	Between outfall Number 29 and the north end of Drummond Street, 8 sewers discharge to the river. Four of these, Nos. 33, 35, 36, and 37, are public lines which serve 7, 55, 14, and 23 houses respectively. The others serve from 1 to 4 houses each.
38 - 43 incl.	Six outfalls are located between the ends of Drummond and North Streets. No. 39 is a private line carrying process wastes and sanitary wastes from a canning company employing 220 people. The other sewers in this group are public lines serving from 7 to 39 houses each.
44 - 51 incl.	Between North and Oak Streets, there are 8 outfalls, all of which are private lines serving individual houses with the exception of #49 & 51 which are public sewers connected to 22 and 7 houses respectively.
52 - 55 incl.	Four public sewers discharge to the river from the shore between Oak Street and the Vine Street bridge. The largest of these is No. 55, a 42 inch sewer serving 522 buildings including a hospital, laundry and 7 schools. No. 53 serves 85 buildings (three quarters of which are stores and other commercial buildings in the business district), and the other discharges the sewage from 13 buildings.
56 - 64 incl.	South of the bridge to the end of Federal Street 9 sewers discharge from the property of a large shipyard. No. 58 is a public sewer serving 3 houses and the main shipyard office where 600 people are employed. No. 64 is also a public line and serves 300 people in the yard, 50 in a nautical equipment factory, and 15 houses. All others are private lines serving the remainder of the 2,000 employees of the shipyard and discharge such industrial wastes as dilute hydrochloric acid and paint stripper.
65 - 70 incl.	Six outfalls are located between the eastern ends of Federal and Spring Streets on the property of the nautical equipment company. No. 70 is a public sewer serving 30 houses and 50 employees of the company. The other lines are private sewers serving approximately 600 employees and carrying industrial wastes such as cutting oil.
71 - 82 incl.	Between Spring and Carlisle Streets 12 sewers discharge to the river. No. 71 is a 30 inch public line serving 350 buildings. No. 79 is a small public sewer serving 6 buildings, and the others are all private lines from one or two houses each.
83 - 92 incl.	Five public and five private sewers discharge from the shore between Carlisle and Hunt Streets. Nos. 83, 86, 89, 90, & 91 are the public lines and serve 40, 24, 43, 23, & 7 buildings respectively. The private sewers serve one house each except No. 87 which serves 4.
93 - 109 incl.	From Hunt Street south to the Bridge Street bridge there are 14 outfalls. Three of these are public lines, the most important of which is No. 93, serving 19 houses. The others are Nos. 95 and 105, which discharge the wastes from 9 & 12 houses respectively. Private outfall No. 94 serves 5 buildings including a home for the aged with 35 residents and a sink drain for an individual house is located at #106. The remaining private outfalls serve one house each, except for #102 which is used by two houses. In addition to the above mentioned outfalls there are sources at #96, 97, & 98, consisting of a ditch and two small brooks respectively, which contribute pollution from 12, 11 & 7 houses, in the same order.

SHOREFRONT SURVEY OF BELFAST

Revised by Morrison — May, 1951

Revised by Geisler — March, 1953

(See Map No. 5)

Pollution from the Town of Belfast reaches tidewater mainly from contributing sources located in the city of Belfast or its immediate vicinity on the eastern shore of the Passagassawakeag River. Other minor sources are located in those portions of the town's coastal area bordering on Northport and Searsport.

The principle sources of pollution in the city and its vicinity, are sanitary sewage from a population of 3,500 and wastes from two poultry slaughter houses and one sardine canning factory. These shores in the city from Allyn Street, on the west side of the bay, all the way around to Goose River are very badly polluted and dumping has been prevalent at quite a number of places.

In recent years the city has extended sewer service to a number of homes and has made plans for further expansion. This new sewage will be partially taken care of by means of septic tanks.

For reasons of convenience, the City of Belfast has a detailed map of the area contributing the major portion of pollution, namely the City of Belfast.

Following is a description of sources located in Belfast and indexed on the respective map:

Index No.	Description
1 - 3 incl.	As seen on the Belfast map, these sources are located between Goose River and the town line of Searsport. No. 3 is a privy on the edge of shore, just north of Patterson Point, and a steel pipe serves a picnic grove restroom at #2. In the area indicated by #1 there are about 25 overnight camps which have septic tanks. It is quite possible that some drainage or overflows from these reaches tidewater.
4 - 12 incl.	Along the eastern shores of the Passagassawakeag River and opposite the City of Belfast, between Goose River and the bridge forming the northwestern boundary of the city, are 9 sources of pollution. Seven of these are privies, #4, 5, 6, 7, 8, 9, & 12, located close to the shore and draining to tidewater. No. 11 is a tile sewer serving one house and a public sewer enters tidewater at #10 just south of the last end of the U. S. Route 1 highway bridge spanning the Passagassawakeag River.
13 - 16 incl.	On the west bank of the river, upstream from the Route 1 bridge are three city sewers, #13, 15, & 16, and one private sewer. Outfall #13 is the overflow from a septic tank, constructed by the city, reaching tidewater just north of the railroad yard limits. The tank is of concrete and has capacity of 200 persons. Outfalls #16 is a 16 inch line with a large flow of sanitary sewage. A 30 inch storm sewer also with a large flow, at #15, contains some sanitary waste. The private 20 inch outfall carries sanitary and slaughtering wastes from a poultry processing plant, entering the river at #14 about 500 ft. north of the Rt. 1 bridge.
17 - 28 incl.	Located downstream from the bridge to the end of Commercial St. are 5 city sewer outfalls, #20, 24, 26, & 28, and 7 private outfalls. The city sewers, at the time of the survey were observed to have a small flow for the size of the outfalls, and are connected to an undetermined number of dwellings. Outfalls #17 & 18 serve a sardine packing plant and large storm sewers also carrying some sanitary wastes are located at #19, 21, 22, & 23. The private outfalls serve a dance hall, laundry, and an undetermined number of houses. A pavilion at the end of the wharf on Commercial St. discharges directly to tide-water at #27.

Index No.	Description
29 - 32	These four outfalls are located in the southern limits of the city from Condon St. to City Park. A public sewer at #29 serves about 20 houses, and another public sewer with a fairly large flow is located at outfall #31. A single house is served by outfall #30 and outfall #32 serves the city park rest rooms, discharging into a small stream about 200 ft. from Belfast Bay.
33 - 36 incl.	South of the city, to the Northport town line, are the final four pollution sources found in the town of Belfast. Two separate houses are served by outfalls #34 & 36, while a sewer carrying storm water and sanitary sewage is situated at #35. A privy close to shore and draining to tidewater, is found at #33 about ¼ mile down the coast from the City Park.

COASTAL SEWER SURVEY

CITY OF BIDDEFORD

(Suburban Areas)

(See Map No. 6)

Exclusive of the urban area of the City of Biddeford, the sewer outfalls of which were mapped and listed in the 1950 Report, the pollution reaching the tidewater adjacent to Biddeford shores is in relatively small amounts from population concentrations along Route 9 and in the vicinity of Fortunes Rocks and Biddeford Pool. The estuary of the Saco River below Biddeford and Saco suffer greatly from the ferrying to and fro of both the pollution considered in this report and the greater volume from the cities of Saco and Biddeford by the tides.

Description and listing of sewer outfalls in suburban Biddeford follows:

Index No.	Description
29 - 37	Nine sewer outfalls serving individual houses discharge to the Atlantic Ocean from the Biddeford shore, between Little River and the first point on the south side of Fletcher Neck.
38 - 50	On the southeast side of Fletcher Neck, thirteen outfalls discharge the sewage from 39 buildings. Numbers 18 and 20 are public lines serving 10 and 15 houses respectively.
51 - 61 P	Three public and eight private sewers discharge from the Neck between the western tip and the mouth of Biddeford Pool. The largest public line, Number 33, serves 30 houses; the others, Numbers 27 and 29, serve 6 and 15 buildings respectively.
62 - 66	Tidewater within Biddeford Pool receives sewage from 5 outfalls, all of which serve one or two houses.
67 - 71	Five private sewers serving one to two houses each are located between Biddeford Pool and the mouth of the Saco River.
72 - 83	Twelve outfalls discharge to the Saco River outside the city limits of Biddeford. All serve one to three houses each, except Number 44 which discharges the effluent from a septic tank serving two schools.

BLUE HILL
TIDEWATER SEWER SURVEY

(See Map No. 7)

The Town of Blue Hill is large in extent but its population is concentrated in the village of Blue Hill and along the coastal highway to Brooklin, the interior being very sparsely populated. The town has a permanent population (1950) of 1,308 of which a great majority live in the village. Coastal recreational development has taken the form of fairly large estates as a rule, and although some coastal space is still available probably this shore will not carry the heavy summer population of some areas in the foreseeable future.

There is no public water supply or sewerage in Blue Hill. The only industrial waste of consequence is that of a shingle mill. There are thirty-three small private sewers discharging to tidewater directly and probably the streams entering tidewater through the village carry considerable sewage, as it was established that Mill Brook brings in sewage from a seven room school and from ten houses and two inlets within a quarter-mile below Mill Stream carry sewage from at least a dozen houses. Another small stream (intermittent) enters just northerly of Mill Stream bearing sewage from about six buildings.

Specific descriptions referred to map of Blue Hill as follows:

- 1 - 3 Three 4-inch outfalls discharge to the north side of Blue Hill Harbor from Peter's Point to Mill Brook.
- 4 - 11 On the west side of the harbor between Mill Brook and the golf course there are eight sewer outfalls entering, which range in size from four to ten inches and serve an undetermined number of houses.
- 12 - 17 Sewage discharge from six 4-inch outfalls on west side of Parker Point. The last three serve summer cottages.
- 18 - 33 From the east side of Parker Point 16 outfalls discharge, 13 of these serve summer cottages.

BOOTHBAY SHOREFRONT INVESTIGATION

Revised by Hinckley, Morrison & Peachey — May, 1951

Revised by Geisler — February, 1953

(See Map No. 8)

This is the first of two reports covering the coastline of the Boothbay-Boothbay Harbor area. As seen on the map, the shorefront of Boothbay is located at the eastern and western ends of the area. This report follows the shores of Boothbay bordering on the Damariscotta River and its estuary, around Ocean Point and Linekin Neck to the northeastern end of Boothbay Harbor and includes Sawyer and Barber Islands on the western shore of the town.

One of the maps that accompany this report shows the area to an enlarged scale, while a better picture of the over-all area may be obtained from the master map.

Only one possible source of pollution is indicated in upper Boothbay, that being the Boothbay Block Co. shown on the master map. The reason for this is that along the Damariscotta River in Edgecomb and Boothbay there is practically no development, although isolated and widely separated cottages may exist. A concrete block company with a gravel washer is set up on the west side of Pleasant Cove one mile south of the Edgecomb-Boothbay town line, and as previously stated is the only feasible pollution source in this area.

The east side of Linekin Neck, in Boothbay, is also very sparsely occupied. Due to very poor road conditions on this side of the neck and around Ocean Harbor, the area could not be surveyed to best advantage. It is therefore possible that several more outfalls exist in this area than are indicated.

Barter Island has no public water supply, except for a small area near the bridge that has a supply only in the summer season. It is possible that a very few isolated cottages on the western side of the island were not inspected.

The general area of Boothbay is already a popular summer resort, and it will undoubtedly be further developed in the future. Most of the area south of E. Boothbay village already has a public summer water supply, and many of the cottages on the north shore of Linekin Bay have sewage disposal systems.

An outline of the numbers indexed on the maps is in the following description:

Index No.	Description
1 - 7 incl.	The indicated numbers are along the shores of Boothbay bordering the Damariscotta River from the Back Narrows to the sawmill in E. Boothbay. Included are 3 septic tank drains (#2, 3, 4), with #4 draining a tank from a development of 12 weekly rental cabins, and the others serving individual cottages. Sewer outfalls #5 & #6 are 4" & 6" diameter respectively, serving individual homes in East Boothbay, while #1 is a privy near a large building close to shore and the sawmill #7 with waste pile at edge of pond and some waste in water is in the same locality as the outfalls. All drainage and discharge of sewage is to the Damariscotta River.
8 - 12 incl.	Four sewer outfalls, 3 serving individual houses and (#9) serving a large building containing a fire house, store and hall. Also a privy (#11) at edge of mill pond, all sewers discharge into the mill pond located in East Boothbay.
13 - 17 incl.	Located in East Boothbay, near the outlet of the mill pond, are 5 sewer outfalls the first of which (#13) serves the E. Boothbay grammar school. Approximately 175 persons use the school sewer which also serves several houses and a church, mostly summer residences, with the outfall located under the bridge at outlet to mill pond. A 6" tile sewer serves a large building back of wharf just below the main street (#14) and #16 is an outfall serving one house. Two shipyards with 9 and 112 employees are served by outfalls #15 & #17, respectively, with all sewage discharging into the river.
18 - 55 incl.	From E. Boothbay along the eastern shore of Linekin Neck to its tip at Ocean Point there are 39 outfalls. All are 4" in diameter, serving individual dwellings with the exception of #50 which serves a year-round home and #53 serving 3 or more cottages. Discharge of sewage is to estuary of Damariscotta River and Fisherman Passage.
56 - 79 incl.	From Ocean Point starting north along the western shore of Linekin Neck to a point opposite the northern tip of Negro Island there is a variety of outfalls discharging into Card Cove. Eighteen of these are 4" diameter sewers serving individual cottages with the exception of #56 which services 8 cottages and #6 which is a small hotel having approximately 10 guest rooms and several rental cottages. A 15" metal culvert draining a swampy area that is used by 3 cottages for sewage disposal, was encountered at #65 and an 8" tile pipe also carrying swamp drainage and sewage from a cottage that discharges to an open ditch which is in turn picked up by the pipe, was located at #66. Finally there are four 2" outfalls (#70, 72, & 78) which are probably all sink drains.
80 - 125 incl.	Further north along the western and northern shores of Linekin Neck bordering on Linekin Bay there is another group of sewer outfalls, all serving individual cottages except in four instances where 2 cottages are served by one sewer, (#80, 83, 111, & 124). Included also are a 1½" & 2" pipe (#92 & 117 respectively) that are probably sink drains. There are three (#95, 99 & 101) 3" sewers and the remainder are all 4" diameter. All sewage is discharged from these outfalls into Linekin Bay.

Index No.	Description
126 - 140 incl.	From the mainland bridge, following the shoreline of Sawyer Island generally northward, to the bridge connecting Sawyer & Hodgdon Islands, there are 12 sewer outfalls, a privy close to shore (#136), a sink drain (#132) and a septic tank drain (#140). Numbers 131 and 137 serve 2 houses and 2 cottages each, respectively, while the remainder of the sewer outfalls serve individual dwellings of both the summer and year round type, discharging sewage to tidewater.
141 - 150 incl.	There are 8 sewer outfalls, a septic tank drain (#146) and a permanently situated boat-house privy (#148) located on Hodgdon Island. As seen on the map, these are located along the island shoreline, northerly in a clockwise direction from the Sawyer inter-island bridge to the bridge from Hodgdon Island to the mainland. These outfalls vary in size from 3 to 6 inches and a wood trough (#144) is also included. All serve individual dwellings that are mostly occupied throughout the year, and discharge sewage to the Sheepscot River.
151 - 152 incl.	A privy (#151) at high water line and a 3" C.I. sewer are located on a small island just north of Hodgdon Island.
153 - 164 incl.	On Barter Island there are 6 sewer outfalls, 5 of which are 4" C.I. pipe serving 4 year-round homes and 1 cottage, while #157 is an open ditch that serves as a sewer. Also located on the island are 3 privies (#159, 160 & 161) very close to shore, a septic tank drain (#162) and a 2½" & 1½" sink drain, number 163 & 164 respectively. Sewage discharge or drainage is either to the Back River, Cross River or Sheepscot River as indicated on the map of Barter Island.

SHOREFRONT SURVEY OF BOOTHBAY HARBOR

Revised by Hinckley & Morrison — April, 1951

Revised by Geisler — February, 1953

(See Map No. 9)

It can readily be seen from the map that the survey of this area was no simple task. Due to the density of sewer outfalls in the immediate shorefront vicinity of the Town and Village of Boothbay Harbor, it was deemed necessary to incorporate a larger scale map to show the whole area to better advantage. This report covers the survey of the entire coastal area of the Town of Boothbay Harbor from its east to its west boundary, both of which border on the Town of Boothbay.

The first 78 pollution sources are along the shoreline around Spruce Point from Beyville to Higgins Lobster Pound, the area immediately south and east of the congested shorefront in the town of Boothbay Harbor. The sewers in this area are in use only during the summer months with but about 5 exceptions. Approximately 100 cottages and three relatively small hotel developments are served by sewers to the harbor in this section of the coast.

Pollution in Boothbay Harbor stems mainly from the sanitary sewage of approximately 1,500 people in the winter and 7,000 in the summer, entering tidewater from sources #79-239. Some industrial wastes from fish processing plants and factories, and wastes from the business establishments in the village, are also discharged untreated to tidewater. Wide flats are exposed at low tide in several sections of the harbor. Those inside the footbridge sometimes cause obnoxious odors in hot weather.

The area from Campbell Pond to Hodgdon Cove is occupied mainly by summer properties, many of which are quite large in size. A total of approximately 70 houses and the Marine Station of the Sea & Shore Fisheries have sewer outfalls to the harbor. About 10% of the houses are ascertained to be in use throughout the year.

Southwest of Sawyer Island, in the Town of Boothbay Harbor, is the location of the Isle of Springs. This isle seems to be well populated, having approximately 50 dwellings which are mostly summer cottages. It was not possible to survey the outfalls on the Isle of Springs because a bridge does not exist between the mainland and the island.

Index No.	Description
1	Developed area on hill back of cove in Linekin Bay, possibly 8-10 cottages are served by a 4" C.I. outfall. Sewage is discharged into the bay.
2 - 10 incl.	Outfalls serving individual cottages with the exception of #10 which serves 2 summer dwellings. Included also are a 3" & 2" pipe (4 & 6 respectively) which appear to be sink drains. All the other sewage outfalls are 4" C.I. and discharge into the cove formed at the northwest point of shore of Linekin Bay just within the Boothbay Harbor town line.
11 - 23 incl.	From a point on the shore near the north end of Appalachie Pond and Bayville to the entrance of Lewis Cove there are 13 C.I. sewer outfalls, all 4" in diameter. With the exception of #11 which serves 4 cottages and #16 & #20 which service 2 cottages each, all the outfalls discharge sewage from individual summer dwellings into Linekin Bay.
24 - 26 incl.	Two of these 3 outfalls are 4" C.I. sewers serving hotels located on the east shore of Lewis Cove and the discharge of sewage is to the cove. Number 24 outfall serves a small hotel with facilities for perhaps 10-12 guests, while #26 is for a larger hotel comprised of 2 main buildings and 10 cottages. A houseboat that has been set on a foundation is served by a 3" steel outfall, #25, also discharging to the cove.
27 - 40 incl.	A variety of sewer outfalls and drains are included in this group along the shore of Lewis Cove. Numbers 37, 38, & 40 service individual cottages, while numbers 27, 33, & 39 serve 2 cottages each; all outfalls being 4" C.I. pipe. Houses occupied throughout the year are served by outfalls numbered 28, 30, 31, & 34 while privies located very close to the shore are indicated by #32 & 35. A septic tank drain is located at #36 and a sink drain at #29. All drainage and sewage discharged from these dwellings enters the cove.
41	A large summer development consisting of a hotel estimated to house 40 guests and 22 cottages probably housing about 100 persons, has a 6" C.I. outfall.
42 - 78 incl.	All these outfalls are 4" C.I. sewers serving individual cottages with the exception of #63 which serves Spruce Point Inn, a development probably housing about 40 persons in the summer, and #74 & 75 which are a septic tank drain and an outfall serving 2 cottages, respectively. The whole of the Spruce Point shore line from Lewis Cove to Higgins Lobster Pound is encompassed in this group of outfalls that discharge to tidewater.
79 - 92 incl.	Along the shore by Atlantic Avenue, southwest of the Spruce Point road, there are 14 sewers which discharge to the harbor. The majority of these serve individual summer homes; the exceptions being number 86 which serves 3 cottages, and number 83 which serves the buildings on a lobster pound pier where several people are employed.
93 - 108 incl.	Between the Spruce Point road and the western end of Bay Street, fifteen sewers discharge to tidewater. Numbers 101, 103, 104, and 105 serve a large fish processing plant employing from 8 to 150 people depending on the season. Process water, sanitary sewage and solid fish particles, ranging from scales to whole fish, are discharged here. Other sewers in this group serve a potato products plant, lobster packing plant, small boat yard, school (2 room), church and 14 houses.

Index No.	Description
109 - 118 incl.	Ten outfalls are located between the end of Bay Street and the southeastern end of the footbridge across the inner harbor. The most important of which is number 116, which serves 2 stores (with apartments above) and ten houses. A boat yard with 6 employees has drop toilets at number 110, and a coal yard employing 12 people is served by outfall number 115. The other sewers in this group serve one house or cottage each.
119 - 127 incl.	From the southeastern end of the footbridge to the shore nearest the intersection of Union Street and Atlantic Avenue there are 9 outfalls; the first of which, number 119, is an 8 inch line serving 10 houses. The other sewers in this group serve 1 or 2 houses each.
128 - 140 incl.	Thirteen sewers are located between a point on the shore near the intersection of Union Street and Atlantic Avenue. These serve one house each except number 129 which serves 6.
141 - 149 incl.	Between the southern ends of School and Pear Streets, 9 outfalls discharge to the tide-water. Number 146 is a public 12 inch square, wooden line serving the high school (300 pupils) and 10 houses. Number 147 is also a 12 inch square wooden sewer serving 7 buildings. All others are from one house each.
150 - 158 incl.	From Pear Street to a point on the shore approximately half way between the ends of Smith and McClintock Streets, 9 outfalls discharge to the tidal flats, all are from individual houses. Number 157 is a public sewer serving a school, hotel, and 12 houses.
159 - 168 incl.	Ten sewers are located along the shore from a point halfway between Smith and McClintock Streets to the northwest end of the footbridge. Numbers 164-168 each serve a building block in the business district, containing stores, offices, and apartments. The other outfalls in this group serve one smaller building each.
169 - 179 incl.	From the footbridge to shore near the end of Todd Street there are 11 outfalls. These each serve one downtown building or establishment except number 176 which appears to serve the major part of an entire city block.
180 - 193 incl.	Fourteen sewers discharge from the shore between the end of Todd Street and the south end of the Commercial Street loop. Number 181 is a 12 inch wooden public sewer serving 20 houses and a hotel, more than any other sewer in the town. The others serve 1 to 3 houses or buildings each.
194 - 204 incl.	Eleven outfalls are located along the shore from the loop to the western end of Commercial Street. These serve one house each except number 204 which serves 3 houses and number 198 which serves a boatyard.
205 - 216 incl.	Around the point of land and cove between the end of Commercial Street and the mouth of Mill Brook, there are 12 outfalls. At number 206 the sanitary wastes from up to 400 employees of a shipyard are discharged untreated to the harbor. All other sewers serve one house each except number 216 which serves a lobster market.
217 - 225 incl.	Nine outfalls discharge from the shore between Mill Brook and the south end of St. Andrews Street. Number 225 conveys the wastes from a hospital and surrounding buildings.
226 - 239 incl.	Between St. Andrews Street and the mouth of Campbell Brook there are 239, which discharge sanitary sewage from a hotel and guest houses having a capacity of approximately 175 persons.

Index No.	Description
240 - 253 incl.	From Campbell Pond to McKnown Point there are 14 outfalls. Three of which are 2" pipe (#240, 243, 246) and drain a sink, septic tank and washroom respectively. The other outfalls are all 4" sewers that service individual houses and cottages, with the exception of #241 which serves 3 houses and #244 which is used by 2 houses. All sewage from these outfalls is discharged to Boothbay Harbor.
254	This is a 4" C.I. outfall serving Sea & Shore Fisheries buildings, having about 20 employees, and located on McKnown Pt.
255 - 291 incl.	There are 37 outfalls located along the shoreline of McKnown Pt. from the Sea & Shore Fisheries buildings to the entrance of Hodgdon Cove. Only one of these is a 3" steel sewer (#287) serving 1 cottage, the remainder are all 4" C.I. sewer outfalls. With the exceptions of which are used by one and two houses, respectively, throughout the year; and numbers 263, 276, 280, 283, 284 & 288 which service 2 cottages, #273 which serves 6 cottages and #274 which serves 3 cottages, all the 4" outfalls service individual summer cottages with the sewage being discharged to tidewater.
292 - 303 incl.	Along the shoreline from the southside of Hodgdon Cove to the bridge crossing to Sawyer Island from the mainland, there are 12 outfalls. All these are 4" sewer outfalls from individual dwellings, with the exception of #292 which is a sink drain, and discharge to the Sheepscot River.

**TOWN OF BOWDOINHAM
TIDEWATER SEWER SURVEY**

Original by Marzul — July, 1951

Revised by Geisler — Dec., 1953

(See Map No. 10)

The Town of Bowdoinham borders on the shores of Merrymeeting Bay, with the village proper being situated on the Cathance River.

As a whole, the pollution contributed by Bowdoinham, a town with no public water supply, is negligible. There are only seven sources of tidewater pollution located along the comparatively long tidal shoreline.

The town has two industries, a fertilizer manufacturing plant and a small concern that makes varnish from linseed oil. Neither plant discharges any wastes to tidewater.

The sources of pollution revealed by this survey are described briefly below and are indexed on the accompanying map:

Index No.	Description
5	Sewer outfall serving one house.
7	A privy at the water's edge.
2	A swampy area, that receives sink drain wastes and septic tank overflows from about ten houses, overflows to the river during precipitation periods.
1,3,4, & 6	Sink drains, discharging wastes to tidewater, from individual dwellings.

SHOREFRONT SURVEY OF BREMEN

Revised by Geisler — Feb., 1953

(See Map No. 11)

The coastal area of Bremen, from Broad Cove to the Bristol town line at Muscongus, is relatively free from pollution. The accompanying map will readily show how the sources of pollution are widely dispersed along the comparatively long shoreline of the town.

An outline of these sources, as indexed on the map, follows:

Index	Description
1 - 13 incl.	Nine of the pollution sources are sewer outfalls from individual houses, while #7 serves a large summer estate and #12 serves 2 houses. A privy and a lobster pound also contribute waste to tidewater at numbers 1 & 6 respectively.

COASTAL SEWER SURVEY

CITY OF BREWER

(See Map No. 12)

The City of Brewer with its population of about 7,000 (1950 census 6,862) lies along the east bank of the Penobscot with nearly all of its population tributary to a sewer system which dumps into the Penobscot River at various points along its waterfront.

The 1950 Report does not include any part of a survey of Brewer and the survey from which the material in this supplement was taken was confined to the reach of the river between the Bangor Water Company Dam and the Brewer-Orrington town line so it is possible other sources of pollution unlisted exist upstream of the dam. It is also probable at the other end of the town the Sedgeunkedunk Stream receives sanitary sewage upstream of the existing survey.

Following is a list of sewers and other important sources of pollution within the surveyed area of Brewer as of January 1950:

1. 8" sewer outlet to river from West Road serves about fifteen houses near Penobscot Terrace — a public sewer.
2. 6" outlet about fifteen feet above high water line. Supposed to serve only two houses but was observed to have large flow.
3. 8" outlet — source unknown.
4. 18" outlet serving about thirty houses — a public sewer.
5. 6" outlet apparently for one home.
6. Outlet having considerable flow.
7. 2' x 3' brick outfall — a public sewer.
8. Outlet 2' x 3' — a public sewer — Nos. 7 & 8 together serve three hundred fifty to four hundred houses.
9. Large flow from 3' x 1' opening under wharf.
10. Sewer outlet for five houses.

11. Sewer outfall at wharf — no record at city hall but about one hundred houses are believed to be served.
12. 15" tile outfall badly damaged.
13. Privy over water.
14. Brick combined sewer and storm drain (supposed to be 6 ft. dia.) serves three hundred fifty to four hundred houses — a public sewer.
15. 12" outfall, through end of wharf — serves about seventy-five houses — a public sewer.
16. 10" c.m.p. outfall serves two houses.
17. 8" outfall serves at least ten homes — a public sewer.
- 18 - 22. Five outlets all six inch diameter — serve total of eight houses.
 23. 8" outfall of Abbot St. sewer — privately owned community sewer.
 24. 10" outfall.
 25. 4" outfall.
- 26 - 27. 6" outfalls.
 28. 8" outfall — private sewer serving about ten houses.
- 29 - 32. 4" and 6" outfalls — origin not determined.
 33. 8" outfall — private sewer serving about ten houses.
 34. 3" outfall.
- 35 - 36. 6" outfalls.
 37. 12" sewer outfall serving about twelve houses.
 38. 12" sewer outfall serving about fifty houses.
 39. Industrial waste outfall.
 40. 24" sewer outfall serving thirty to forty houses.
- 41 - 45. Industrial waste outfall.
 46. Sanitary sewer.
 47. Outfall serving about one hundred houses — a public sewer.
 48. Sewer overflow discharge.
- 49 - 50. Two sewer outfall, thought to be private although one is possibly a public sewer.
 51. Sewer outfall serving about ten houses — a public sewer.
 52. 18" sewer outfall serving thirty to forty houses — a public sewer.
 53. 6" sewer outfall serving three houses.

SHOREFRONT SURVEY OF BRISTOL

Revised by Morrison — May, 1951

Revised by Geisler — February, 1953

(See Map No. 13)

Sewage, from an estimated summer population of 800 people and about 100 winter population, reaches tidewater from 130 sources in the coastal villages of Bristol east of Johns River.

The master map shows that the area covered is from Muscongus on the Bremen — Bristol border, to Foster Cove on the South Bristol town line, following the coastline in a clockwise direction. The larger scale maps show to greater detail the area surveyed and the location of the pollution sources.

It is to be noted that the majority of pollution indicators are localized near the populated areas.

The following descriptions are of the sources as indexed on the maps:

Index No.	Description
1 - 18 incl.	From Muscongus to Poland Ledge along the northeastern shore of Bristol and discharging to Muscongus Sound, are 12 outfalls serving individual houses and one (#18) servicing 3 cottages. A small inn, housing 20 summer guests, is located at #13 in Round Pond. A privy (#14), sink drain (#15), a 2½" sewer serving 2 bath houses (#17) and an open sewer (#16) serving 11 toilets for overnight cabins and a small hotel on the north shore of Moxie Cove, are also included in this group.
19 - 77 incl.	From the area immediately north of Long Cove to New Harbor there are 59 outfalls, with the larger part of these situated on the shores of Long Cove. Individual houses and cottages are served by 55 of these outfalls with Nos. 67 & 68 serving 2 cottages and 2 houses each, respectively. A summer hotel, having a capacity of approximately 50-60 guests, is served by a 6" outfall at #73. A fish handling plant, with 6 employees, is located near head of cove in New Harbor (#75) and all outfalls in this group discharge waste to the ocean.
78 - 89	There are very few outfalls, located on the eastern and western shores of Pemaquid Neck, from New Harbor to Pemaquid Beach. In fact, as seen from the map, the outfalls are clustered in two groups, the immediate vicinity of Pemaquid Point and at Pemaquid Beach. Eight of these outfalls serve individual houses and cottages with #80 serving 2 cottages, and Nos. 81 & 89 draining septic tanks. A summer hotel, housing about 150 guests, is located at #79 near the tip of Pemaquid Point. All sewage is discharged to the ocean and estuary of the Johns River.
90 - 130 incl.	There are 41 sewer outfalls along the shores of Bristol bordering the Johns River from Pemaquid Beach to Foster Cove. The majority of these are located at Pemaquid Harbor, and along the Pemaquid River where it enters the harbor. The nature of these outfalls and their sources is quite diversified, nineteen of them serving individual houses and cottages while 6 (#90, 113, 115, 116, 118 & 128) and 1 (#126) serve 2 houses and 2 cottages each, respectively. A house and 2 flush privies are served by outfall #93, a sink drain at #103 and #104 serves both a house and cottage. An open drain (#108) and a small stream (#109) each carry the sewage from one house into a cove along the south shore of the Pemaquid River, while a septic tank drain that serves 2 or 3 houses is located at #114. Just northeast of the river mouth a Fisherman's wharf and store contribute pollution at source #110. A pavillion, small summer hotel housing 40 guests, 2 lobster pounds and 2 sewers serving a restaurant and apartments are located at numbers 92, 94, 101 & 105, 106 & 107, respectively. Finally at numbers 98 & 99 there are two 4" C.I. outfalls serving a group of overnight cabins, the first serves the office and 4 cabins while the second serves 7 cabins. All sewage and waste from these sources are discharged to the tidal waters of the Johns River.

TOWN OF BROOKLIN
TIDEWATER SEWER SURVEY

Original by Hinckley — Oct., 1950

Revised by Geisler — Aug., 1953

(See Map No. 14)

The greater part of the Brooklin shore, although very attractive, has been developed very little. There are only a very few isolated summer camps or cottages and the only real sources of pollution of consequence are at Center Harbor. Here in addition to some cottages, are located a comparatively large development centered around a summer inn and a sea food canning plant that operates from May through November.

The location of the fourteen sources are shown on the accompanying map of Brooklin and are described briefly below:

Index No.	Description
1 - 4 incl.	Along the east shore of town, in the vicinity of North Brooklin, are three 4" C.I. sewer outfalls and a sink drain at #2. All of these serve individual cottages.
5	A 4" C.I. outfall possibly serves as many as three cottages on Herrick Bay.
6	A large summer inn, consisting of eight buildings, with a guest capacity of possibly 300 persons, discharges sanitary wastes through an 8" outfall into Center Harbor.
7	The canning factory employs a maximum of 45 people and has flush toilets to the harbor. The plant cans fish and shellfish, and pickles fillets during its seven months operational season. Solid wastes are picked up and taken to Rockland, but remaining waste goes to the harbor, including waste from a fish scaler on the wharf. Beside a small breakwater are piles of clam and mussel shells, also apparently waste from the factory just beyond. A very bad odor prevails on the shore in this vicinity.
8 - 14 incl.	The first three outfalls in this group service a clubhouse, perhaps a yacht club, and it could not be determined if all were sewer outfalls. The remaining four outfalls in this series are sewers from separate summer dwellings.

TOWN OF BROOKSVILLE
TIDEWATER SEWER SURVEY

Original by Hinckley — Nov., 1950

Revised by Geisler — August, 1953

(See Map No. 15)

The land area of Brooksville is deeply indented by many tidal inlets of which the Bagaduce River is the largest. The actual shoreline of the town is probably well over 60 miles, but it is mostly undeveloped and unoccupied. The town's population is scattered and villages are very small. Harborside and Blake Point have been somewhat developed as summer colonies, but the properties are mostly small cottages or camps. There seem to be no large cottages or summer estates in any of the sections inspected.

There is no source contributing any type of industrial waste, to tidewater, from the shores of Brooksville. However, there are 37 sources contributing sanitary pollution and these are indicated on the accompanying map of the town. These sources are briefly outlined as follows:

Index No.	Description
1 - 8	The area in the vicinity of Herricks and Norumbega has a sink drain at #7 and seven sewer outfalls serving individual summer dwellings.
9 - 13 incl.	Five outfalls discharge sanitary wastes to the waters of Buck Harbor from the Village of South Brooksville.
14 - 25 incl.	From Weir Cove to Blake Point there are 12 outfalls, from separate cottages, discharging to tidewater. One of these, #15, is a sink drain and two (#19 & 20) are 3" iron pipe. The remaining 9 outfalls are all 4" C.I.
26 - 35 incl.	Nine 4" C.I. and one 3" C.I. (#26) outfalls discharge sanitary wastes from individual cottages located in the vicinity of the Village of Harborside and along the shores of Goose Falls.
36 & 37	Sanitary sewage is discharged to Smith Cove through two 4" C.I. outfalls. There is nothing but isolated farms or cottages, near the shore, from here to the headwaters of the Bagaduce River.

**TOWN OF BRUNSWICK
TIDEWATER SEWER SURVEY**

Original by Marzul — June, 1951
Revised by Geisler — Jan., 1954

(See Map No. 16)

The Town of Brunswick has a sewer district that serves about one half the houses in town. The four public sewers discharge sewage from approximately 1,250 houses, untreated, into the Androscoggin River. The only other outfall worthy of note, discharges sewage from the Brunswick Naval Air Station, which has a complement of around 2,500 men under normal operating conditions.

The Androscoggin River is already highly polluted upon reaching Brunswick, due to the many contributing sources upstream. Therefore, the effects of the Brunswick pollutional load, which is in the vicinity of a population of 7,000 people, could be considered negligible when compared to the more than 2,000,000 population equivalent load that has already been accepted by the river.

Although there are 124 other sources of pollution in the town, besides those mentioned above, these are mainly individual sources that are only seasonal contributors.

There are no industrial wastes discharged to tidewater. Although a large textile plant is located in the town, its wastes are discharged above the limits of tidewater and are herewith mentioned, but not indicated on the map.

The sources of pollution are as follows:

Index No.	Description
1 & 2	Two public sewers discharging sewage to the river within one half mile of tidewater. They serve 100 and 40 buildings respectively and are included because of their nature and proximity to tidewater.
5 & 6	These are the remaining two public sewers in the town, the former serving about 50 houses and the latter being the largest of the public outfalls, serving about 1,050 houses, Bowdoin College and two commercial laundries.

Index No.	Description
7	Outfall serving the Brunswick Naval Air Station.
52, 86, & 95	Outfall serving three houses.
80, 84, 89, 98, & 101	Outfalls serving two houses.
3, 4, 8-15 incl., 33, 37, 40-45 incl., 49, 59, 61 & 62, 64, 66, 70, 72, 74 & 75, 77, 78, 81-83 incl., 85, 87, 88, 90, 92-94 incl., 121-123 incl., 125, 129 & 130.	Outfalls serving one house or summer cottage.
104	A summer hotel with a capacity of about 35 guests.
76, 79, & 127	Streams entering tidewater carrying pollution from a privy and sink drain, 2 privies and 2 sink drains, and an individual house outfall, respectively.
126	A flush privy discharging to tidewater.
16, 17 & 20	Double privies serving two houses, close to the water.
24, 26, 30, 36, 47, 63, 67, 68, & 128	Single privies built over the water or close to the bank.
18 & 19, 21-23 incl., 25, 27-29 incl., 31 & 32, 34 & 35, 38 & 39, 46, 48, 50 & 51, 53-58 incl., 60, 65, 69, 71, 73, 91, 97, 102, 105 & 106, 120 & 124.	Sink drains discharging household wastes to tidewater.

SHOREFRONT SURVEY OF CALAIS

Revised by Hinckley — August, 1950

Revised by Geisler — May, 1953

(See Map No. 17)

The shorefront of the Town of Calais is heavily littered with debris of all sorts, as is every easterly or southeasterly exposure of shorefront along the St. Croix River tidal area. This is the result of the practice of dumping rubbish on the river banks, still carried out on a large scale in spite of the fact that the city maintains a public dump, and to woeful negligence on the part of certain industries.

The City of Calais contributes the bulk of sanitary sewage and waste water from industrial processes, that pollute the waters of the St. Croix River. There are 20 private and 8 public sewer outfalls that discharge to the river from within the city limits. These serve a population of approximately 4,600, along with the usual small business establishments that occur in a city of this size. The only industry directly connected to the sewer system that discharges waste process water, is a manufacturer of knit goods. A lumber manufacturing company has a sawmill and sawdust pile located some distance from the river, however, shavings are hauled to the end of a pier and dumped into the water. A blueberry canning factory is also located on this pier and evidently has floor drains and outfalls directly to the river, rather

than a connection to the public sewer. Another sawmill, located in the vicinity of outfall #24 has filled the mill yard with edgings and bark that extends well beyond the natural shoreline. It is apparent that even though these industries have no sewer connections, they are nevertheless contributing heavily to the pollution load exerted on the St. Croix River by the City of Calais.

The accompanying maps of the town and city will indicate the polluting sources, which are described as follows:

Index No.	Description
1 - 2 incl.	Upstream from the international bridge at Todd St. are two sewer outfalls, one public and one private. The public sewer at #1 on North St. empties into a small brook that receives the sewage and flows through a large culvert under the R.R. tracks, entering the river about 200 yards north of the bridge. Private sewage from the U.S. Custom House at Todd St. enters at #2.
3 - 6 incl.	Between Price and High Streets three public and one private sewer outfalls discharge to the river. The private sewer at #6 serves an individual house at the end of Poole St. and empties to a ditch that eventually reaches the river.
7 - 28 incl.	These 22 sewer outfalls, 4 of which are public, are distributed along the waterfront area of the city. The public outfall at #8 contains laundry waste and an 18" metal culvert (#23) serves as a storm drain in addition to carrying wastes from a restaurant, a wood turning novelty manufacturer, and a knit goods plant.
29 - 30 incl.	Two private sewer outfalls, one (#29) serving a restaurant, are located just downstream and outside the city limits.
31 - 32 incl.	Only widely scattered cottages dot the remainder of the Calais shoreline and it is doubtful if any of these are contributing sources of pollution. In the vicinity of Red Beach there exists two cases worthy of note: At #31, a large cottage has 3 outfalls discharging to tidewater, and a private dump that has been in service for a long time, was found on the shore at #32.

SHOREFRONT SURVEY OF CAMDEN

Revised by Morrison — May, 1951

Revised by Geisler — March, 1953

(See Map No. 18)

Wastes enter the tidal waters along the shores of Camden from 51 sources, chiefly located within the Village of Camden. Principal sources of pollution are sewage from an estimated population of 3,300 and industrial wastes from 5 woolen mills and one shirt factory.

For reasons of convenience the town maps of Camden and the Village are incorporated on one sheet. The sources of pollution in Camden are indexed commencing with the Town map and are concluded on the larger scale map of the Village.

A summary of these indexed sources is as follows:

Index No.	Description
1 - 5 incl.	These 5 outfalls are located along the shores of Camden between the Lincolnville town line and the northern boundary of the village. Nos. 1 & 2 are on the eastern shore of the town, bordering on Penobscot Bay and serve a cottage and large estate respectively. The remaining 3 outfalls in this group serve individual houses and discharge sanitary wastes from the western shore of Northeast Point into Sherman Cove.

Index No.	Description
6 - 10 incl.	On the western shore of Sherman Cove are 5 outfalls including a large estate (#6), a house with 2 families (#9) and 3 separate homes. Outfalls #6 to 46 inclusive are located within the limits of the Village of Camden.
11 - 15 incl.	With the exception of outfalls #13, which serves an individual house, the outfalls in this group are used by a ship building yard.
16 - 23 incl.	Outfalls in this group are located on the eastern banks of the Megunticook River, from its mouth at Sherman Cove to the northern border of the village, there are 3 public sewers at #16, 17, & 20, which serve approximate populations of 150, 300, & 200 respectively. A felt mill is located at #23, a shirt factory at #19 and woolen mills at #21 & 22. An outfall (#18) near the Main Street bridge contributes wastes from 6 stores and a restaurant located partially over the river.
24 - 32 incl.	Along the western banks of the Megunticook River, from the northern border of the village to the mouth of the river, are 9 more outfalls carrying wastes of various origins. Public sewer outfalls are located at #24, 25 & 32 with estimated contributing populations of 125, 300 & 2,200, respectively. Woolen mills discharge their wastes at #26, 27, & 28 and outfalls #29, 30 & 31 serve 5 stores and about 10 apartments.
33 - 46 incl.	From the mouth of the Megunticook River to the southern border of the village there are 15 outfalls discharging sanitary wastes to tidewater. A yacht club is served by outfall #33, a small summer hotel and two residences use outfall #35, and a public sewer with an estimated contributing population of 350 is located at #39. The remaining outfalls in this group serve individual residences with #40 having two outfalls serving the same large house.
47 - 51 incl.	These five outfalls are located in the southernmost part of the town in the immediate vicinity of Ogier Point, just outside the village limits. All outfalls serve individual houses and discharge sanitary wastes to the waters of Penobscot Bay.

COASTAL SEWER SURVEY

TOWN OF CAPE ELIZABETH

(Area South of Village)

(See Map No. 19)

Exclusive of the so-called village area of Cape Elizabeth, which is actually an extension of the built-up area of South Portland, there are twenty-three private sewers entering tidewater within the town limits. The village area was covered by the 1950 report so data in the current report is confined to the remainder of the township which is generally typical of a rural coastal community in this part of Maine, having a more or less scattered permanent population which is greatly augmented in season by transients.

Index No.	Description
1	Pollution from lobster bait barrel rinsings discharge.
2 - 8	Outlets each serving one building.
9	Outlet serving two buildings.
10 - 23	Outlets each serving one building.

SHOREFRONT SURVEY OF CASTINE

Revised by Hinckley — May, 1950

Revised by Geisler — May, 1953

(See Map No. 20)

Pollution contributed to Penobscot Bay from the Town of Castine is discharged chiefly from sources located in the village. Nearly the whole village is sewered and it is reported that public sewers serve about 700 persons during the winter and about 2,000 persons in the summer.

Outside of those in the village there are a few other notable sources at Wadsworth Cove and Bethany Chapel shorefront. There are no other sections of the Castine shore which can be considered as developed areas, only isolated camps or cottages are found along the greater part of the coast and as these are so few, it was considered impracticable to investigate their polluting abilities.

Following is a description of the sources as they are found indexed on the accompanying map of the town and village of Castine:

Index No.	Description
1 - 7 incl.	From the eastern limit of the village to the end of Green Street, there are 2 public and 4 private sewer outfalls, and a privy at #5 that is partly over the water. The public sewers at #1 & 7 are approximately 8" and 15 " in diameter respectively.
8 - 17 incl.	Ten sewer outfalls are located along the coastal area between Main and Terrative Streets. Two of these, #8 & 15, are public sewers with the former serving the Maine Maritime Academy and part of the Village of Castine.
18 - 22 incl.	Four private sewer outfalls and one 12" public sewer (18) discharge to the shore between Terrative and Latour Streets.
23 - 28 incl.	From a point near the end of Madackwando Road, westward along the shore to the lighthouse there are five private and one public sewer outfalls.
29 - 32 incl.	Four private sewer outfalls 3 and 4 inches in diameter discharge to the shore west of the lighthouse.
33 - 34 incl.	At the south end of Wadsworth Cove there is a cluster of camps or cottages, six of which are near the water. These probably contribute sanitary wastes to tidewater, at location #33 on the map. A municipal swimming pool fills and empties from the cove, at #34, and a public picnic grounds is located nearby.
35	On the eastern shore of Penobscot Bay at Bethany Chapel is another group of camps located near a good beach and close enough to the water to be possible pollutants, although this was not definitely ascertained.

TOWN OF CHERRYFIELD

TIDEWATER SEWER SURVEY

Original by Hinckley — Nov., 1950

Revised by Geisler — Mar., 1954

(See Map No. 21)

The Narraguagus River receives wastes from 20 sources located in the Village of Cherryfield. There is no information available, in many of the cases, from which to ascertain exactly how many houses or population are connected to the outfalls.

There has been considerable dumping of garbage, rubbish, etc., at many locations along the river banks and two blueberry canning factories, farther upstream above tidewater, pollute the river with wastes during a few weeks each summer. At times in the past, it appears, sawmill activity along the river introduced sawdust, edgings and other wood waste to the shoreline.

At low tide the bed of the Narraguagus River contains considerable amounts of rubbish, especially cans and broken glass, and sunken logs and slabs.

The sources of pollution as disclosed at the time of survey are as follows:

Index No.	Description
1	An 8 inch tile outfall, discharging the sanitary wastes of about 8 houses.
3	A 4 inch tile outfall serving a gasoline station and discharging sanitary sewage and oil waste. Shore is heavily coated with black oil.
5	An open ditch serving as a storm drain, but also carrying the oil wastes of a garage and filling station and perhaps some sanitary waste.
6	A sink drain serving one apartment.
15	A 12" tile sewer serving as a storm drain and carrying the wastes of an inn and a single house.
2, 8 - 11 incl., 14, 16 - 20 incl. each.	Sewer outfalls, of various size and material, serving an undisclosed number of dwellings
4, 7, 12, 13.	Privies very close to the water or extending out over the river and discharging directly.

TOWN OF COLUMBIA FALLS

TIDEWATER SEWER SURVEY

Original by Hinckley — Jan., 1950

Revised by Geisler — Mar., 1954

(See Map No. 22)

No significant sources of pollution to tidewater were found in the Town of Columbia Falls.

The village is located at the head of tidewater of the Pleasant River and the total shoreline consists of about three miles of tidal marshes. A dam at the head of tide provides a log pond for the sawmill which is located on the east bank of the river. This mill normally operates throughout the spring and summer, until about the time the blueberry season permits the canning factories to operate. Until recently, all waste sawdust and shavings went directly to tidewater, but last year it was collected and hauled away. The efficiency of the collection system could not be determined, as the mill was not in operation when the survey inspection was made. A pile of shavings, near the planer shed, stands partly in the water at high tide.

No sewers were observed entering tidewater.

There are two blueberry canning factories in the town, but both are away from shore and not near any stream.

COASTAL SEWER SURVEY

TOWN OF CUMBERLAND

(See Map No. 23)

The town of Cumberland is comprised of a mainland tract and several islands. The only one of significance being Great Chebeague Island. The total population of the town is about two-thousand, comparatively a small portion being sewerred. There are concentrations of population at the northerly end of Chebague Island and at Cumberland Foreside. On the island the sewage of about two-hundred persons, some of them summer residents, is tributary to tidewater and at Cumberland Foreside.

Index No.	Description
1.	Outlet serving one building.
2.	Outlet serving one building.
3.	Outlet serving one building.
4.	Outlet serving one building and a sink drain.
5.	Outlet serving one building.
6.	Outlet serving one building.
7.	Outlet serving one building.
8.	Outlet serving one building.
9.	Outlet serving one building.
10.	Outlet serving one building.
11.	Outlet serving one building.
12.	Outlet serving one building.
13.	Outlet serving one building.
14.	Outlet serving one building.
15.	Outlet serving two buildings.
16.	Outlet serving one building.
17.	Outlet serving one building.
18.	Outlet serving one hotel.
19.	Outlet carrying the effluent of a septic tank serving thirty-eight buildings.
20.	Outlet serving five buildings.
21.	Outlet serving one building.
22.	Outlet serving six buildings comprising an inn.

SHOREFRONT SURVEY OF CUSHING

Revised by Morrison — Apr. 1951

Revised by Geisler — Feb. 1953

(See Map No. 24)

There is little pollution which reaches tidewater from the Town of Cushing, only 24 outfalls discharge from the shores of the town. These are indexed on the accompanying map and extend from Bailey Cove, near the St. George town line in the east, to Hornbarn Cove on the Meduncook River bordering in the west on the town of Friendship.

There are many miles of shoreline in Cushing and there is considerable tidal action. Therefore, sewage reaching the water receives appreciable dilution and the coastal area remains comparatively clean.

Index No.	Description
1 - 11	From Broad Cove to Burton Point there are 11 outfalls serving individual houses or cottages, with the exception of #4 which is a flush privy serving two cottages. Flush privies are also located at #6 & 9, and sink drains at #2, 3 & 5. The remaining 5 outfalls are sewers discharging sanitary wastes to the St. George River.
12 - 17 incl.	There are six outfalls located along the shores of Maple Juice Cove, from Burton Point to Stone Point. These all serve separate houses, with #12, 13 & 15 being septic tank drains.
18 - 24 incl.	Seven more outfalls discharge sanitary sewage to tidewater along the rest of the shoreline to Hornbarn Cove. These all serve individual homes or cottages, while #22 is used by a large estate and is 6" in diameter. As seen on the map, this last group of outfalls is widely dispersed along the shore.

**TOWN OF CUTLER
TIDEWATER SEWER SURVEY**

(See Map No. 25)

The Town of Cutler has a long, not too regular coastline, much of it comparatively inaccessible and backed by barrens. There is a small concentration of houses and other buildings near the foot of an estuary known as Little River the outlet of which is guarded by headlands on either side making a very picturesque little harbor. At this point and at North Cutler are the only points where buildings are actually closely adjacent to the shoreline although some residences on the Dennison Point Road are fairly close. In spite of Cutler being a fishing community, there are no canning, packing or other processing plants here, the facilities being limited to dealers wharves, and the population of probably not over a hundred persons who discharge sewage to tidewater constitute very little pollution. There is no public water supply.

List of pollution sources is as follows:

Index No.	Description
1 - 8 incl.	Private sanitary house sewers — single unit.
9	Restaurant, kitchen and toilet wastes.
10 - 13 incl.	Private sanitary house sewers — single unit.

At North Cutler a dam across Eastern Marsh Brook serves as a log pond.

**TOWN OF DAMARISCOTTA
TIDEWATER SEWER SURVEY**

Original by Lewis — Dec., 1950
Resurveyed by Hinckley — Feb., 1951
Revised by Geisler — Jan., 1954

(See Map No. 26)

Sanitary sewage, from an estimated population of 400, is discharged to the tidewaters of the Damariscotta River from the Town of Damariscotta. The major portion of the sewage emanates from a section of the Village of Damariscotta, so located that much of the sewage is discharged to the surround-

ing tidal flats. There are no public sewers in Damariscotta, however, many of the village sewers serve the same purpose, being used by multiple dwellings and business blocks.

Although the village is just across the river from Newcastle, the same conditions do not prevail in both localities. There is a very swift flow of water, in and out, each day at the tidal falls near the bridge joining the two villages. As stated in the report of Newcastle, this flow of water aids in the diluting of the sewage flow. However, in Damariscotta, the shoreline is such that the flow of water does not flush those sections where the sewage is concentrated. For this reason, many of the sewer outfalls are surrounded by masses of fecal material and the tidal flats create a nuisance condition during the warmer months, when foul odors are in evidence.

The shore is littered with refuse and debris, and an active dump is in use on the immediate waterfront of the village.

There are no sources of industrial pollution contributing wastes to tidewater.

Following is a brief description of the sources, as indicated on the accompanying maps of Damariscotta:

Index No.	Description
1 - 4 incl.	Outfall #1 serves a dairy, while the remaining three serve individual houses. All outfalls are located within one mile of Lewis Point, upstream from the village.
5 - 10 incl.	In the inner reaches the cove, south of Lewis Point, six sewers discharge the sewage from approximately 11 houses. The largest of these, #7, serves 4 houses.
11 - 20 incl.	Around the north shore of the village, from a point approximately north of the intersection of Water and Main Streets to the Newcastle-Damariscotta Bridge, ten outfalls discharge to tidewater. These serve a good sized portion of the village, being used by the following: ten offices, five stores, three barber shops, three eating establishments, a funeral parlor and 21 apartments or houses.
21 - 37 incl.	Fifteen outfalls are located along the southern shore of the village, south of the bridge to the intersection of Main and Water Streets. These serve a major portion of the village proper, including: 15 stores, two restaurants, a theater, a laundry, a barber shop and 13 apartments. The largest of these is Number 36, which serves five stores, a theater, barber shop and one house. Privies extending over the water are located at #27 & 33.
38 - 44 incl.	These seven outfalls serve the remainder of the village including a large hall (#38) a service station (#40), five houses (#39) and four individual houses (#41-44 incl.).
45	A private outfall, serving an individual house, located about ¼ mile downstream from the village.
46 - 54 incl.	Day Cove receives wastes discharged through nine outfalls. Number 48 outfall, serving a garage, enters a brook discharging to the waters of Day Cove. A general hospital and nurses home with an average of 20 patients and 30 employees, is served by outfall #54. Outfalls #50 & 52 serve 6 and 3 houses respectively, and all others serve one house each.
55 - 63 incl.	Along the shores of Cottage Point there are nine outfalls which serve individual cottages.

TOWN OF DEER ISLE
TIDEWATER SEWER SURVEY

Original by Hinckley — Nov., 1950

Revised by Geisler — Aug., 1953

(See Map No. 27)

The town of Deer Isle has many miles of shorefront being entirely on islands of which Deer Isle and Little Deer Isle are the principal land areas. The numerous coves provide good anchorage for small boats and much of the exposed shoreline has been developed as summer properties, but much the greater part of the shore property is still undeveloped.

The water supplies on Little Deer Isle are generally not very adequate and therefore houses, close enough to tidewater, do not have the water facilities to dispose of their sanitary wastes. There are also scattered houses and small fishing villages along the shores, but generally they are not close to the ocean and probably their water supplies are no better than those of the rest of the island.

Waste from a planing mill, built on a pier over the shore, is the only industrial waste reaching tidewater from the town. The mill is situated on Northeast Harbor and waste several inches thick is distributed near the shoreline in many places around the harbor, especially in the vicinity of sources #43-45.

In addition to the mill, there are 44 other sources in Deer Isle contributing sanitary sewage. All these sources are indicated on the accompanying map of the town and are briefly described as follows:

Index No.	Description
1 - 15 incl.	These fifteen outfalls are all 4" diameter sewers of various materials, that serve individual summer cottages situated on Little Deer Isle.
16 - 18 incl.	In the small village of Reach, on Deer Isle, there are two privies (#16 & 18) set on the edge of shore. A wooden trough that serves as a sink drain, also discharges to tidewater.
19 & 20	The small fishing village of Sunshine, on Stinson Neck, engaged largely in lobstering, has a dump over ledges at #19 which appears to be habitual result of the emptying of the contents of chemical toilet. A privy at #20, is set over a crevice in the ledges, directly over tidewater.
21 - 24 incl.	These four 4" C.I. sewer outfalls, located in the vicinity of Sylvester Cove, all discharge sanitary wastes from separate cottages.
25 - 36 incl.	Ten of these sources are 4" sewer lines while another, #29, is 6" and the remaining source in this group of twelve is a privy at #25, close to the shore. All are located in the vicinity of Dunham Point, on Deer Isle.
37	A privy at the top of a ledge, drains to Pressey Cove. This cove is nearly all flats and several other camps and cottages, situated on its shores, have disposal units.
38	The planing mill, described previously, at Northwest Harbor.
39 - 41 incl.	At the head of the cove near the outlet of Lily Pond is a flat, grassy area at about the level of high tide. Just above this are a church, a Masonic Hall and a school. All three are used in connection with the school system. The school lunch program is handled in the church and classes held in the Masonic Hall. The school is reported to have a septic tank which drains to the cove and the sewers or drains from the other buildings also drain to this swampy area.
42 - 45 incl.	A small hotel is served by outfall #42 and #43 and 45 are also sanitary sewers which serve separate summer dwellings. A wooden trough, probably serving as a sink drain, goes to the nearby shore at #44.

SHOREFRONT SURVEY OF DENNYVILLE

Revised by Hinckley — Sept., 1950

Revised by Geisler — May, 1953

(See Map No. 28)

The Town of Dennyville has a population of approximately 350, with the only appreciable concentration located on the shores of the Denny River in the Village of Dennyville. The extent of pollutional effects due to discharges of sanitary wastes, is very dubious.

Six private sewer outfalls and three privies are contributors from about a ½ mile stretch along the banks of the river, a description of these follows:

Index No.	Description
1 - 9 incl.	Numbers 2, 3 & 9 in this group are privies that are located very close to the river or directly over it. The remaining six sources are private sewer outfalls, ranging in size from 3 to 6 inches, that discharge sanitary sewage from individual households to the river.

TIDEWATER SEWER SURVEY OF EAST MACHIAS

(See Map No. 29)

A sewer survey of the village of East Machias made in December of 1949 by an employee of the Sanitary Water Board appears to have been limited in scope. It lists sewage contribution to the East Machias River from this village as being that of Washington Academy plus about twelve residences.

The population of East Machias is approximately 1,100, of which probably at least half reside in the village.

No supplementary or check information undertaken since original survey.

Listing of sanitary sewer outfall:

1. Washington Academy plus twelve adjacent residences discharge raw sewage to East Machias River.

TOWN OF EDGEComb

TIDEWATER SEWER SURVEY

Original by Hinckley — May., 1951

Revised by Geisler — Mar., 1954

(See Map No. 30)

Along the Damariscotta River, on the eastern shores of the Town of Edgecomb, there is practically no development although isolated and widely separated cottages may exist. No sources of pollution were found to be discharging to the river from these shores.

The western shores of the town, which border on the Sheepscot River, have not been surveyed, to date, for sources contributing pollution to tidewater.

TOWN OF EDMUNDS

TIDEWATER SEWER SURVEY

Original by Hinckley, 1951

Revised by R. W. Macdonald, 1953

(See Map No. 31)

The Town of Edmunds has a comparatively long coastline deeply indented by coves on Whiting Bay and Denny Bay, which are extensions of Cobscook Bay. Most of the coast is isolated from human habit-

ation and several miles of it are included in the Moosehorn Wildlife Refuge. On the Whiting Bay shoreline there are some deposits of sawdust and mill waste apparent from a sawmill and box factory in Whiting which has dumped its waste into the Orange River for many years. During 1951, the mill made an effort to keep waste confined in a sawdust bunker but no check has been made on its success. Otherwise the only entering waste is sanitary sewage from seven sources entering the estuary of the Dennys River on the right bank opposite the village of Dennysville:

Index No.	Description
1 - 3 incl.	Sanitary house sewers each serving single unit.
4	6" sewer serving store and apartment.
5	Wood " box sewer " present use doubtful.
6 - 7 incl.	Sanitary house sewers each serving single unit.

TIDEWATER SURVEY OF ELLSWORTH

(See Map No. 32)

Ellsworth is a large town area wise, with its population largely concentrated near the head tide on the Union River. The Union River has its source at Great Pond in a comparatively wilderness area in northern Hancock County and flows southward through an area mostly wooded but in proximity to sparsely farmed areas and rural villages, hence no considerable amount of bacterial pollution, is accumulated until Ellsworth Falls is reached, where there is some pollution, and Ellsworth where sewage from about 3,900 people finds its way to the river and to tidewater. Some pollution also enters the estuary from small streams in the vicinity. It can in fact be briefly stated that Ellsworth is responsible for the condition of the stream at its lower boundary.

There has, in the past, been some pollution of the Union River and its tributaries by sawmill waste the results of which probably reach tidewater. The more active of the industrial pollution is entered by a creamery, a blueberry canning factory, a bottling company and a meat packing company (no slaughtering). There is not sufficient data on activities of these plants to accurately determine their population equivalent.

Village areas of Ellsworth are served by a public water supply and to a degree apparent in the following listings by public sewers. There is a considerable number of dwellings located along Routes 102 and 15 and side roads but few of them appear to discharge waste to tidewater. Opportunities for future shore front development in the township are limited.

Listed below are twelve public and 27 private sewer lines serving the town of Ellsworth.

Index No.	Description
1 - 3 incl.	Three sanitary sewers serving one house each.
4 & 5	A 12" tile public sewer, serving Grant and Liberty Streets and a 15" cement tile public sewer, serving Willow St. and back end of Hancock House, respectively.
6 & 7	Two sewers of unknown origin, the former is reported to serve between 5-10 houses and the other is thought to be the Hancock House sewer.
8 - 15 incl.	Two public sewers, #8 & 10 are included in this group and serve the West Main Street section and Court - South Streets, respectively. Number 9 is a sanitary sewer serving a lumber company office and store, while the remaining five outfalls all discharge sanitary wastes from individual houses. Outfalls #12-15 incl. enter an open ditch at the head of a gully which forms a very small brook and in turn enters Union River opposite Washington Street.

Index No.	Description
16 & 17	Approximately 10-15 houses may be served by outfall #16, which is a public sewer. Number 17 outfall serves one house and both sewers enter an open ditch going to a small stream that enters Union River.
18 - 22 incl.	The first outfall of this group is a 24" public sewer serving Central and State Street area, probably about 50 houses. The sewer becomes an open ditch about 30 feet before it enters the river. The last sewer in this series is also public and it is 36" in diameter, serving as an overflow for a large State Street sewer. Number 19 serves the County Jail and Court House, while #20 & 21 serve a laundry and the rest of the building in which it is located.
23 - 27 incl.	Numbers 25 & 27 are large public sewers serving the business area, a large creamery and ice cream plant and the area south of Main Street and north of Pine St. the remaining outfalls in this group, #23, 24 & 26, serve the post office building a building on Water Street and a garage, respectively.
28 - 32 incl.	Two of these outfalls, #29 & 30, are from a shellfish plant and discharge industrial and sanitary wastes, respectively. The remaining 3 outfalls all discharge sanitary wastes from unknown sources.
33 - 39 incl.	Public sewer outfalls are at #33, 35, & 39, serving an unknown portion of the city's population. Two private sewers at #34 & 38 are in the same category as just mentioned, while separate houses are served by outfalls #36 & 37, the latter of which is a 6" x 6" wood drain.

SHOREFRONT SURVEY OF FRANKFORT

Revised by Morrison — June, 1951

Revised by Geisler — April, 1953

(See Map No. 33)

The Town of Frankfort has only four sources of pollution located along its shoreline, that discharge wastes to tidewater.

These sources may be located on the accompanying map of Frankfort and identified by the following descriptions:

Index No.	Description
1 - 3	These three sources of pollution are situated in the Village of Frankfort, on the north branch of the March River. Number 1 is a privy on the east bank of the river and #2 is an outfall from a school with about 40 pupils discharging from the west bank. A garage, small restaurant, and possibly two houses, discharge wastes from outfall #3, which is also located on the west bank of the river.
4	A granite cutting yard, with approximately 40 employees, discharges sanitary wastes into the South branch of the March River at outfall #4.

SHOREFRONT SURVEY OF FRANKLIN

Original by Hinckley — Dec., 1950

Revised by Geisler — May, 1953

(See Map No. 34)

Franklin has a broken shorefront bordering Egypt Bay, Taunton Bay and Hog Bay, which is not very long in total mileage. The rise and fall of tide is somewhat delayed and restricted, as these bays must empty and fill by a flow of water over the Sullivan Tidal Falls and one other small passage near the Village

of Hancock. Much of the shore consists of wide flats at low water, making it generally unattractive for summer development. At present, property near the water is practically unoccupied.

Fairly large streams enter Taunton Bay and Hog Bay, at West Franklin and at East Franklin, respectively. Other streams also enter tidewater. One of these, passing near the railroad station in the Village of Franklin, receives some waste from a packing plant that processes blueberries for freezing. The extent of polluttional effects due to this plant is very skeptical, since it is in operation for only a few weeks in late summer and there is very little waste from the freezing process. It is also possible that this same brook receives drainage from a very few houses.

The only sewer direct to tidewater, that is definitely acknowledged, is the outfall from the Franklin High School building, having about 50 to 60 pupils. These two sources are indicated on the map of the town, which accompanies this report.

Index No.	Description
1	Outfalls from frozen blueberries processing plant that enters small stream discharging into Hog Bay.
2	Outfall from school building, approximately 50-60 students.

COASTAL SEWER SURVEY

TOWN OF FREEPORT

(Exclusive of Village)

(See Map No. 35)

The report on sewers discharging to tidewater within the borders of the Town of Freeport contained herein is supplemental to that contained in the 1950 report which was concerned only with the Village of Freeport.

The outfalls in this listing, a total of forty-seven, represent the sanitary service for wastes of about two hundred fifty persons resident on a permanent basis on the mainland and on Bustins Island which has a summer population of 400 but is deserted in the winter season.

There appears to be an abnormal number of cottages having privies in this area. These are not listed since pollution is not direct and there is a question of whether or not it actually reaches tidewater, this fact merely being mentioned to account for the difference between the number of dwelling units immediately adjacent to the water and the number of outfalls.

Following is a listing of outfalls:

Index No.	Description
(1 - 13)	Outlets serving one building. (Nos. 2, 3, 7, 8, 9, 10, 11, 13 were reported as probably carrying sink wastes only.)
14	Mouth of inlet or ditch carrying waste from about six buildings.
(15 - 24)	Outlets serving one building each. (Nos. 19, 21 were reported as probably carrying sink wastes only.)
25	Two outlets serving one building.
26	Three outlets serving one building.
(27 - 35)	Outlets serving one building. (Nos. 29, 33 were reported as probably carrying sink wastes only.)

The outlets listed above occur on the mainland and those listed below are on Bustins Island.

Index No.	Description
(36 - 38)	Outlets serving one building each.
39	Public Dump
(40 - 48)	Outlets serving one building each. (Nos. 40, 41 were reported as probably carrying sink wastes only.)

SHOREFRONT SURVEY OF FRIENDSHIP

Revised by Morrison & Peachey — Mar. 1951

Revised by Geisler — Feb., 1953

(See Map No. 36)

Small quantities of sewage and no industrial wastes are discharged to tidewater from the southern villages in the town of Friendship. The coastal area surveyed, in this southern portion of the town, extends from the eastern border on the Meduncook river, along the shores of Friendship Harbor and Hatchet Cove, to Delano Cove bordering on the Medomak River in the west.

The water in this area, therefore, remains comparatively unpolluted, except along the western shore of Friendship Harbor where slight pollution may occasionally be noticed.

Following is a description of the 46 sources indicated on the accompanying map of the town:

Index No.	Description
1	A 4" C.I. outfall serving one cottage and discharging sewage from the eastern shore of Friendship Harbor.
2 - 17 incl.	Along the western shore of the harbor, to the tip of Jameson Point, are 15 outfalls including a septic tank drain at #13. Number 8 serves a tourist home, apartment and restaurant. Number 3 serves a clam canning factory where approximately 30 people are employed, while #11 & 15 serve 2 buildings each. The other outfalls serve one house or cottage each, and a privy at #9 also drains to the harbor.
18 - 23 incl.	From the tip of Jameson Point, along the eastern shore of Hatchet Cove near its entrance, are located six outfalls. Number 22 is a septic tank drain while the remaining outfalls serve individual dwellings.
24 - 41	There are 16 sewer outfalls and a privy (#30) situated on the western shore of Hatchet Cove and around Martin Point. A 4" tile sewer serves an inn consisting of 3 or 4 buildings, while the remaining 15 outfalls serve individual cottages with the exception of #35 & 36 which together serve one large cottage.
42 - 46 incl.	At Delano Cove, on the Medomak River near the Waldoboro townline, are five outfalls. All these serve separate houses and discharge to the river.

SHOREFRONT SURVEY OF GOULDSBORO

Original by Hinckley — Nov., 1950

Revised by Geisler — May, 1953

(See Map No. 37)

Thirty-nine sources of pollution are distributed in groups along the Gouldsboro coast. The greatest portion of these sources are only seasonal dwellings or businesses, with only two canning plants contributing industrial process wastes of any importance. There are no public sewer systems in the

town, therefore, some of the larger villages, with greater concentrations of year-round homes that are not close to the shore, do not have the opportunity of disposing sanitary sewage to tidewater. However, there is a pre-ponderance of rubbish dumping at all points along the shore in the vicinity of these larger villages. Several dumps were seen in the neighborhood of Jones Cove and the Village West Gouldsboro. There were no sewers in the area, though possibly a few enter the stream which is the outlet of Jones Pond. This stream once provided power for an old sawmill which is now only a frame and the dam beyond use and holds no water. This mill probably has not operated for at least 15 years, yet patches of well preserved sawdust, and even some larger waste, are found upon the shore. It may very well be that the entire cove, which is all flats at low tide, may contain sawdust.

Regardless of the conditions found in the above locations, it must be noted that Gouldsboro has many miles of completely undeveloped shorefront much of which is desirable for its scenic beauty. Following is a brief description of the sources of pollution as indicated on the town map:

Index No.	Description
1 - 14 incl.	There are 14 sources of pollution located in the vicinity of Corea consisting of 5 privies (#2, 4, 5, 11 & 13) which are built over the water or very close to the shore, 2 sink drains (#1 & 10) and 7 sewer outfalls that discharge sanitary sewage.
15 - 23 incl.	At Prospect Harbor there are 9 more pollutional sources, with one being of major importance. This is a sardine and fish meal canning plant located at #23, which employs about 175 people. The plant is built almost entirely over the water, several floor drains and sewers discharging process wastes directly to the water in addition to the sanitary waste contributed by the employees. A privy is set next to the water at #20, a sink drain at #21, and the remaining 6 sources are sewer outfalls of various sizes.
24 - 26 incl.	Four dumps were found at Bird Harbor Village that could contribute pollution to the harbor, however, these are not shown on the map. Two privies are found at #24 and 25 and a sink drain from a small cottage at #26 discharges to tidewater.
27 - 32 incl.	At Bunkers Harbor 5 outfalls serve individual dwellings, chiefly summer cottages, and discharge sanitary wastes to the waters of the harbor. A privy over the shore is located at #27.
33	The very small rock harbor known as Wonsqueak Harbor has two wharfs or landings, one remodeled into a small cottage and the other is apparently used very little. The cottage is located just outside the boundary of the Acadia National Park near the Winter Harbor town line, and contributes the usual household sewage directly to the water.
34	Bunkers Cove in South Gouldsboro is not near the road where most of the houses of the village are located. It provides a small harbor and here are located a canning factory and several small wharfs for use of fishermen and dealers in fish and shellfish. The cove is all flats at low tide and these are very black and messy, with large quantities of shells covering the shore near the factory. This canning plant handles clams, clam chowder, shellfish and some fish, employing 140 persons at capacity operation. Drains and outfalls carry wastes, from flushes and processing, directly to tidewater.
35 - 39 incl.	On Schieffelin Neck a large summer estate and several cottages discharge sanitary sewage to Flanders Bay through five outfalls, all 4" C.I.

COASTAL SEWER SURVEY

TOWN OF HAMPDEN

Date of Survey — Sept., 1951

Check of No. 8, Dec., 1953

(See Map No. 38)

The Town of Hampden is almost entirely residential. Of its population of about four thousand, roughly one third, are tributary to sewers emptying to tidewater, at present or will be as soon as construction now underway is completed. Public sewers account for practically all of this load and serve the public schools which have an enrollment of from six to seven hundred, many of which are from areas not tributary to sewerage entering tidewater. The only know industrial pollution at this time is from gravel washers and asphalt plants located near the river at the northerly end of town.

There has been considerable residential growth in Hampden in the years between the survey from which this report is written and the present time, so in spite of the fact that every effort short of a resurvey has been made to bring information up to date, it is possible, considering the expansion in Hampden, there is some sewerage not accounted for.

Much of Hampden shoreline bordering the Penobscot River is high and steep and at some points there are bedrock outcroppings at the water line. Most of the remainder of the shore is gravel but in some areas the channel is bedded with silt and deposits of finer material, some of it apparently organic, below the half tide mark.

Some of the Hampden shoreline is simply a continuation of the Bangor waterfront with its wharves etc. The survey from which the report is written began below this area, about 0.3 miles below the Bangor-Hampden town line.

Following is a list of sewers outfalling along the Hampden waterfront from the point below the Bangor town line mentioned above to the Hampden-Winterport town line:

Index No.	Description
1.	3" outfall serving seven houses and an industrial building. A public sewer.
2.	18" outfall apparently intended to be a storm drain but appears to contain a small quantity of sanitary waste.
3.	Discharge from a gravel washing plant.
4.	Discharge from a gravel washing plant.
5.	Discharge from mixing plant.
6.	Small flow of oil from mixing plant.
7.	10" outfall known as "Sucker Brook Sewer". Estimated to serve 125 persons but possibly much more.
8.	10" outfall of sanitary sewer serving Wheeldon Heights.
9.	4" sewer outfall serving one house.
10.	4" sewer outfall serving one house.
11.	Sewer serving one house.
12.	10" sewer outfall serving houses along Route 1. A public sewer probably serving about four hundred inhabitants and a school population.
13.	4" sewer outfall serving one house.

Index No.	Description
14.	Outfall appears to be sink drain.
15.	10" sewer outfall enters Reed Brook a short distance above tidewater. Public sewer seeming to serve about thirty properties.
16.	Sink drain and privy at high water line.
17 - 21 incl.	4" sewer outfalls serving one house each.
22.	10" sewer outfall, public sewer serving a population of two hundred plus a school of two hundred pupils.
23.	10" sewer outfall, public sewer serving an estimated hundred and fifty persons.
24.	Sink drain one cottage.
25, 26	Sewer outfalls each serving one cottage.

**TOWN OF HARPSWELL
TIDEWATER SEWER SURVEY**

Original by Fairfield — June, 1952

Revised by Geisler — Jan., 1954

(See Maps No. 39A, 39B, & 39C)

The Town of Harpswell has an extremely long coast line consisting of a peninsula nearly ten miles long and numerous islands of varying sizes. The area is used extensively as a summer haven and at least 70% of the dwellings are used only for such seasonal occupancy.

There are no public sewers in the town and only several small fish processing wharves exist, where fish scales, rinse water and floor washings are discharged to tidewater.

It was deemed necessary to show the entire town on maps of an enlarged scale, so as to locate all the sources of pollution to a reasonable degree of accuracy.

The sources are listed below, by groups for convenience and the numerical sequence covers the islands individually.

Sources 1-84 are located on Bailey Island starting from Jaquish Cut, at the southern tip of the island, and follow the shore in a counter-clockwise direction.

Index No.	Description
2	Outfall serving six buildings.
3 & 55	Outfalls serving four buildings.
36	Outfall serving three buildings.
4, 17, 22, 25, 28, 47, 48 & 79	Outfalls serving two buildings.
7, 8, 10, 12-16 incl., 24, 26, 27, 29, 30, 32-35 incl., 39-42 incl., 45, 46, 49, 54, 56-61 incl., 64-66 incl., 68-73 incl., 75-78 incl., 80-84 incl.	Outfalls serving individual dwellings.
37 & 43	Open ditches carrying sewage from separate houses.
11	Outfall serving a small hotel and five cottages.
9	Outlet from pond that receives waste from three houses.

Index No.	Description
5, 6, 23, 38 & 50	Septic tank or cesspool drains, discharging to tide-water.
52	Privy built close to shore.
1	Sink drain discharging household kitchen waste from two buildings.
31, 44, 51, 53, 62, 63, 67 & 74	Sink drains for individual buildings.
Sources 85-124 are located on the shores of Orrs Island starting from Wills Strait and following the shore in a counter-clockwise direction.	
121	Outfall serving ten buildings.
119	Outfall serving community toilets for six buildings.
91	Outfall serving three buildings.
85, 98, 104 & 122	Outfalls serving two buildings.
86, 88-90 incl., 92-96 incl., 99, 101-103 incl., 108-112 incl., 114-116 incl.	Outfalls serving individual dwellings.
87 & 123	Outfalls serving hotels.
118	Stream entering tidewater carrying wastes from three buildings.
106 & 120	Septic tank effluents from one and three houses respectively.
124	Fish processing plant with fish scales and floor washings going to tidewater.
113	Privy built close to water's edge.
97, 100, 105, 107 & 117	Sink drains discharging wastes from individual buildings.
Sources 125-246 are located on Sebasodegan Island, going around the island in a counter-clockwise direction from the Orrs Island Bridge.	
143	Outfall serving five buildings.
215	Outfall serving three buildings.
188 & 218	Outfalls serving two buildings.
137-141 incl., 150, 151, 157-161 incl., 163, 164, 168-171 incl., 173, 179, 182, 185, 192, 202, 204, 205, 216, 217, 219-232 incl., 240 & 241	Outfalls serving individual dwellings.
213	Outfall serving a summer colony of about 50 people.
167, 176 & 184	Privies and sink drains for the same building.
246	Large privy serving three buildings and built over water.
195 & 201	Privies used by two houses.

Index No.	Description
125, 126, 128, 130, 133, 134, 142, 147, 148, 155, 162, 166, 172, 174, 178, 180, 183, 186, 189, 193, 197, 206-208 incl., 235, 237, 243 & 245	Privies built close to water's edge or directly over the water and used by individual buildings.
190	Fish processing plant, employing about 20 people, discharging sanitary wastes and floor washings directly to tidewater.
200	Sink drain for two buildings.
127, 129, 131, 132, 135, 136, 145, 146, 149, 152-154 incl., 156, 165, 177, 181, 187, 191, 194, 196, 198, 199, 203, 209-212 incl., 214, 233, 234, 236, 238, 239, 242 & 244	Sink drains discharging kitchen wastes from individual dwellings.
Sources 247-260 are located on the shores of Harpswell Neck from Potts Point, at the southern tip of the peninsula, and follow the shore in a counter-clockwise direction.	
343	Outfall serving ten buildings.
293	Outfall serving three buildings.
264, 272, 299, 300 & 311	Outfalls serving two buildings.
247, 248, 250-253 incl., 255, 257-263 incl., 265-271 incl., 273-278 incl., 280, 281, 283, 286, 287, 291, 292, 295, 298, 302, 304, 306, 309, 310, 312, 314-316 incl., 321, 330-336 incl., 340, 342, 347, 349, 352-360 incl.	Outfalls serving individual dwellings.
294, 297, 301, 318, 320, 322, 323, 327-329 incl., 341, 345 & 350	Privies built close to the water's edge or directly over the water.
249, 254, 256, 279, 282, 284, 285, 288-290 incl., 296, 303, 305, 307, 308, 313, 317, 319, 324-326 incl., 337-339 incl., 344, 346, 348 & 351	Sink drain discharging to tidewater from individual buildings.

SHOREFRONT SURVEY OF HARRINGTON

Original by Hinckley — Dec., 1950

Revised by Geisler — May, 1953

(See Map No. 40)

The Town of Harrington has a long, deeply indented shoreline bordered by long stretches of marshland and extensive tidal flats, many of which are very productive clam areas. With the exception of a blueberry canning factory that operates only during a short seasonal period, the entire pollutional load contributed to tidewater is of a sanitary sewage nature. Outside of the permanently occupied dwellings located in the Village of Harrington, which contribute the major portion of the pollution, only summer cottage colonies and occasional summer properties discharge their household sewage to the tidal shores.

The accompanying map will indicate the sources of pollution which are described as follows:

Index No.	Description
1.	A group of small camps and summer properties is situated at Carrying Place Cove, but the only contributor found there was an individual cottage with a sink drain that emptied to shore.

Index No.	Description
2 - 8 incl.	The small Village of Dewey, located at the southern tip of Ripley Neck, also has mostly summer properties that border the shoreline. All the pollution contributors were found to be on these properties with privies at #4 & 5, a sink drain at #3 and the remaining sources being 4" diameter sewer outfalls.
9.	At Ripley Cove, on the west side of the neck, a dump has been established beside the road and debris reaches the shore, this dump could be considered of a fairly good size and as such, a likely contributor of pollution.
10.	Located at the mouth of the stream in the Village of Harrington is a blueberry canning factory. This operates for only a few weeks in August and September and the required processes do not produce much waste. However, what waste there is drains in to the Harrington River, but the extent of the polluttional effects cannot be accurately ascertained.
11.	The stream mentioned above receives septic tank effluent from a school of 125-150 pupils, situated at #11, slightly upstream.
12 - 25 incl.	The Village of Harrington has 14 more outfalls that discharge sanitary sewage from an undetermined number of dwellings. These sewers are of various sizes and materials, but the worst condition exists at #21-23 incl., where three sewers empty to an open ditch that flows to the river.

TIDEWATER SEWER SURVEY, TOWN OF JONESBORO

(Hinckley 1951)

(See Map No. 41)

Jonesboro has a comparative short shoreline, most of it on either side of the Chandler River estuary. Much of the township is given over to blueberry barrens and the bulk of the town's population of 450 is settled near the head of tide on the Chandler River, most of it on low ground. Above the village there is relatively little opportunity for pollution of the Chandler River.

Only one source of pollution was located by the survey, a clam canning plant employing about thirty persons, although it is entirely possible sewage enters the tidewater via several tiny brooks flowing through populated Jonesboro. There are wide areas of exposed clam flats at low water along the estuaries of the Chandler River and Mason Bay.

1. Clam-canning factory and shucking house.

TIDEWATER SEWER SURVEY, TOWN OF JONESPORT

(See Map No. 42)

The town of Jonesport has a population of 1750 scattered along the south shore for a distance of two and a half to three miles bordering Mossabec Reach across which is Beals Village. There is no public water supply and no sewerage system. A town official estimated about fifteen percent of the village population was served by private sewers. School buildings were reported to have septic tanks draining to tidewater.

Three factories in the village pack sardines in season, and at least one of these operates throughout the remainder of the year packing other fish products. There has been little development of Jonesport by summer cottagers, a small group being located at Sand River Beach, and individual units scattered along the eastern shore. At Indian Point just east of the harbor there is a public camp ground.

Near the mouth of Indian River which divides Jonesport from Addison there is a small village known as Indian River which is shared by both towns.

The shoreline of Jonesport is quite regular, sporting no large streams and only a few small stream inlets. On the shore (eastern) bordered by Chandler Bay are some excellent clam flat areas and beaches, and on the western or Indian River side has wide flat areas which seem less productive than those of Chandler Bay.

Results of the survey indicated, by lack of sewers discovered, a large number of persons must be served by privies or by sub-surface absorption. It is also probable that many houses drain to small streams entering tidewater and no sewers appear on the shore.

LIST OF SEWER OUTFALLS ENTERING TIDEWATER

Index No.	Description
1.	In tidal inlet beyond western end of Main Street, a 4 inch outfall carries slaughter house waste.
2 - 4 incl.	Along shore within approximately 800 feet of the end of Indian River Road, three outfalls discharge to Mousabec Beach.
5 - 6 incl.	From Donovan Creek to a point on the shore at the end of Underwood Road, two sewers discharge to tidewater.
7.	Overflow from fish conveyor and waste from fish meal plant.
8.	Fish packing plant employing 165 persons discharges sanitary and process waste through floors.
9 - 11 incl.	Four inch pipes discharge sewage to tidewater.
12.	Fish processing plant employing about sixty persons has several drains and outfalls to Cross Cove.
13 - 15 incl.	Sanitary sewers to Cross Cove.
16 - 18 incl.	Sanitary sewers along west shore Sawyer Cove.
19.	Factory sewer Sawyer Cove.
20.	Sanitary sewer west side Sawyer Cove.
21.	Sanitary sewer east side Sawyer Cove.
22.	Sanitary sewer discharges to outlet of Indian River from Jonesport side opposite Indian River Village in Addison.

COASTAL SEWER SURVEY

TOWN OF KENNEBUNK

(See Map No. 43)

Since the village commonly known as Kennebunk was covered in the 1950 Report this supplemental portion of the report is confined to the area more immediately coastal represented by the Lower Village, Kennebunk Beach, and the group of houses known as The Landing on the tidewater Kennebunk River.

These portions of the town represent a population of approximately two thousand of which about 75% is summer colony. There are four public sewers represented in this group and forty-eight public sewers.

Following are listings of the outfalls at the Lower Village, Kennebunk Beach and The Landing. Numbers of these outlets begin at nine as the outfalls at Kennebunk Village were numbered one through eight consecutively in the 1950 Report.

Index No.	Description
9 - 20	Between points on the west bank of the Kennebunk River near the ends of the Heath and Wells Road there are 12 sewers which discharge to tidewater. Number 16 is a public line serving 28 buildings including a school. Number 12 serves 4 buildings, and all others 3 or less.
21 - 33	Thirteen outfalls discharge to the river between the Wells Road and the tidal creek near the mouth of the river. All serve individual buildings except Number 27 which is a public sewer discharging the effluent from a septic tank serving 12 houses.
34 - 43	Ten sewers discharge to the tidal creek at the mouth of the river. Fourteen buildings are served by a public septic tank, the effluent from which is discharged at outfall Number 36. Numbers 37, 41, 42, and 43, the last 3 of which are open sewers, serve 1 hotel each.
44 - 50	Between the Kennebunk and Mousam Rivers 6 outfalls discharge to the ocean. Number 49 is the largest public sewer in the town. It serves 68 buildings including 2 hotels. All others serve one house each except Number 44 which serves a house and a hotel.
51 - 60	In the Mousam River between its mouth and the Wells Road bridge 10 sewers serving one house each discharge to tidewater.
61	Only one sewer serving one house discharges from the shore between the Mousam and Branch Rivers.

**COASTAL SEWER SURVEY
TOWN OF KENNEBUNKPORT**

(See Map No. 44)

The town of Kennebunkport had a population of 1,522 persons according to the 1950 census, the far greater part of which were in concentrations along the coast, the inland portions being for the most part marginal farm lands and brush areas.

The sanitary sewage of about 2,500 people (80% of which are summer residents only) reaches tidewater within the limits of the town through approximately two hundred private sewers serving something over four hundred buildings, nine of which are hotels. Most of these wastes originate in the village of Kennebunkport, with lesser amounts being discharged from the Cape Porpoise, Wilds District, and Beach-wood sections. There is no public sewerage system in town although there is a public water supply system.

Following are brief descriptions of the outfalls as indicated by the field survey done late in 1950, referenced to the map of coastal Kennebunkport included in this report.

Index No.	Description
1.	Outlet serving two buildings of the golf club.
2 - 5.	Outlets serving individual houses — total of five houses.
6.	Outlet of ditch carrying waste from six houses.
7 - 10.	Outlet serving individual houses — total of five houses.
11 - 12.	Two outlets from grist mill.
13 - 39.	Total of twenty-seven outlets none of which serve more than four individual housing units. (No. 24 serves four houses, No. 37 serves three houses) Total of thirty-one services in this group.

Index No.	Description
40.	Outlet serving three buildings including one hotel (108 persons total).
41 - 47.	Outlets serving from one to four buildings each.
48 - 52.	Outlets serving one building each.
53 - 58.	Outlets serving one building each. (Some fish plant spillage in one outlet.)
59.	Outlet serving two building units.
60.	Outlet of brook (S. Brook) receives pollution from about thirty-five buildings.
61 - 65.	Outlets serving one building each.
66.	Outlet serving two buildings.
67 - 68.	Outlets serving one building each.
69.	Outlet serving three buildings, one a school (104 people).
70.	Outlet serving six building units.
71.	Outlet serving two building units.
72 - 74.	Outlets serving one building each.
75.	Outlet serving six buildings.
76 - 77.	Outlets serving one building each.
78.	Outlet serving eight buildings.
79 - 84.	Outlets serving one or two buildings each. (Total of seven buildings)
85.	Outlet serving three buildings.
86 - 103.	Outlets serving one building each.
104 - 105.	Outlets serving two buildings each.
106.	Outlet serving hotel and servants' quarters.
107 - 114.	Outlets serving one and two buildings. (Total of twelve buildings)
115.	Outlet for septic tank effluent discharge, six buildings, about twenty-four people.
116.	Outlet serving one building.
117.	Outlet serving one hotel and servants' quarters. (100 people)
118 - 120.	Outlets 118 and 120 serve one building each. Outlet 119 serves three buildings.
121.	Outlet carrying effluent of septic tank serving eight buildings.
122.	Outlet from septic tank serving one building.
123.	Outlet serves twelve building units. (48 people)
124 - 127.	Two of these outlets serve a hotel, another serves one dwelling, and another serves a second hotel. (60 people)
128.	Outlet serving one hotel.
129.	Ten inch outlet serving fourteen buildings including one hotel. (250 people)
130.	Outlet serving one building.

Index No.	Description
131.	Outlet serving seven buildings. (28 people)
132 - 142.	Groups of outlets serving from one to three buildings.
143.	Outlet carries effluent of septic tank serving three buildings.
144.	Outlet serving one building.
145.	Outlet serving one hotel.
146 - 148.	Outlets serving one building each.
149.	Outlet serving four buildings.
150.	Outlet serving one building.
151.	Outlet serving one building.
152.	Outlet of ditch bearing waste from four houses.
153.	Outlet carries effluent of septic tank serving four buildings.
154.	Ditch carrying waste from four houses.
155 - 163.	Outlets serving one building each. Within this group two drainage ditches convey sewage from seven dwellings to tidewater.
164.	Outlet serves two buildings.
165.	Outlet serves one hotel.
166 - 176.	Outlets serving one building each.
177.	Outlet serving two buildings.
178 - 186.	Outlets serving one building each.
187.	Spillage of fish wastes etc.
188 - 211.	Outlets serving one to four buildings each. (Total of about thirty buildings served by this group of outlets.)

SHOREFRONT SURVEY OF LAMOINE

Original by Hinckley — Oct., 1950

Revised by Geisler — May, 1953

(See Map No. 45)

Pollution contributed to tidewater from the Town of Lamoine comes entirely from summer cottages and camps. The shorefront north of source #1, as far as the Hancock town line, has not been developed as summer property and there are no good roads to the shore. Several buildings, which appear to be small camps, can be seen from the Hancock shore, but they are few in number and widely scattered.

At Marlboro Beach, the properties should properly be called camps rather than cottages, as they are very small and several are for summer rental. No sewer or drains were found at this site, so it is to be assumed that disposal systems are in use. Near U.S.G.S. bench mark #28, at the head of Raccoon Cove, a dump is filling a gulley located on a brook that enters the cove.

The property on Meadow Point is a very small camp and the buildings shown at Lamoine Beach are summer properties only. No sewers were seen to reach the shore in this area, either.

Beyond source #9, at Berry Cove, there seems to be very little chance of pollution. The only roads leading toward the shore seem to be barely passable, indicating that the properties are used very little. These are few and widely separated. There is no development of the shorefront along the Jordan River which is all mud flats along the upper or northern part of this inlet.

There is still a great deal of unoccupied and very attractive shore front in Lamoine, much of it presenting a very beautiful view. A brief description of the nine sources contributing sanitary sewage to tidewater bordering the town, is following.

Index No.	Description
1 - 6	In the vicinity of Marlboro, between Mosely Pt. and Old Pt., there are five sewer outfalls all 4" in diameter and a wooden trough sink drain (#1) discharging household wastes to tidewater.
7 - 9 incl.	Near Berry Cove, three 4" C.I. sewer outfalls empty wastes into the cove.

SHOREFRONT SURVEY OF LINCOLNVILLE

Revised by Morrison — May, 1951

Revised by Geisler — March, 1953

(See Map No. 46)

At the time of inspection the only pollution source that could be approximately located is shown on the map as #1 in the town of Lincolnville. This source consists of several septic tank overflows that enter the unnamed brook which discharges near the beach in Lincolnville and the effects of which could be considered negligible. The exact location could not be determined because the ice was not out of the brook at the time the survey was made.

There are also summer homes which are a considerable distance apart along the coast. These have been omitted because they were inaccessible and it is not conceivable that their inspection would change the overall picture of conditions.

SHOREFRONT SURVEY OF LUBEC

Original by Hinckley — Mar., May, & Sept., 1950

Revised by Geisler — May, 1953

(See Map No. 47)

Lubec has a very long shoreline, approximating 100 miles, but only a small portion could actually be considered as being occupied. The greatest density of population and industry is centered in the Village of Lubec, with smaller out-croppings at North and South Lubec.

There are no public sewers in the town other than the one serving the grammar school and several other buildings at the Village of Lubec. Fish processing and canning industries are very concentrated, there being 13 in the village and 2 at North Lubec.

The messy condition of the shore in the vicinity of these three neighboring villages cannot be exaggerated. Litter covering the beaches is made up of both human waste and remains from industrial processing of fish. Fish heads, bones, tails and scales, along with scum marks left at the high tide mark and black, gummy substances that coat rock surfaces, attest to the degree of negligence that has prevailed among the industries in this locale. This unpleasant picture is not accurate for every inch of coastline in the vicinity of the villages, but can be substantiated in general.

The remaining southern portion of the town is clean and only widely separated houses dot the shoreline. There are attractive harbors with much of this area being suitable for summer development.

The sources of pollution, as indicated on the map, are described as follows:

Index No.	Description
1 - 6 incl.	<p>These six pollution sources are situated in the Village of North Lubec, with sanitary wastes discharging from outfalls at #1 & 2 and drainage from privies at #3 & 4, set very close to shore. There is also a good deal of rubbish discarded in the neighborhood of these sources.</p> <p>A sardine canning company at #5, employs about 60 persons. Outfalls discharge directly to the water through the wharf, with both wastes from employees and fish processing being discarded. A plant that processes fish scales used in the manufacture of pearl essence is located at #6. All wastes, including the fish scales, are dumped directly into tidewater.</p>
7 - 70 incl.	<p>Discharging to tidewater, from the shores of the Village of Lubec, are 64 closely concentrated sources of pollution. It is not feasible to list each source, as not much information is available on the number of houses or approximate population served by the individual outfalls. Instead, the industrial outfalls will be listed with whatever information concerns them, and special cases of pertinent private outfalls that discharge sanitary wastes, will be listed if figures are available. Following is the list of important industrial and sanitary sources of pollution contributing wastes from the village:</p> <ul style="list-style-type: none"> #7 – Manufacturing company that processes fish for pet food, employs about 50 persons. #11 & 15 – Privy over water. #18 – Sardine processing plant employing 60 people. #20 – Privy over water. #25 – Wooden sewer, 8" square, serves about 12 houses. #28 – Only public sewer in town, 8" tile, serves grammar school with 372 pupils and several houses. #29 – Sardine canning plant, employs about 160 people. #31 – Wooden sewer, 10" square, serves 6 houses. #33 – Fish smokehouse, employs about 15 persons, has a hole in floor that is used to dump waste fish solids to water. #34 – Tile sewer outfall serving 6 houses. #38 – Privies on side of plant, extending over water. #41 – Two sardine processing plants that employ about 200 people. #46 – Can manufacturer employing about 150 persons. #49 – Sardine processing plant employing about 145 persons. #51 & 52 – Privies set out over water. #58 – High School of 135 pupils, served by 6" tile sewer. #60 – Sardine processing plant employing about 50 people. #61 – Fish smokehouse employing about 40 persons. #64 – Sardine canning plant, employs about 130 people.
71 - 73 incl.	<p>In the Village of South Lubec are several sources discharging sanitary wastes from houses. Nos. 72 & 73 are outfalls while #71 is an open ditch carrying sewage from a house to a tidal creek.</p>

TIDEWATER SEWERAGE SURVEY OF MACHIAS

Original by Lewis — Dec., 1949

(See Map No. 48)

The Town of Machias contributes to the tidewater of the combined Machias and Middle Rivers the sanitary sewage of a permanent population of approximately 1,200 persons. Exclusive of school vacations, sewage from the Washington State Normal School with a student body of somewhat over 100 students, about half of whom are resident.

Industrial pollution consists of the wastes of one slaughter house and one rayon mill.

A survey of sewers contributing to tidewater pollution was made by G. T. Lewis of the Sanitary Water Board in December of 1950. This survey disclosed thirteen sanitary outfalls which are described on the following list and located on the map of Machias accompanying this report as well as two storm sewers discharging near the Dublin Street Bridge which supposedly carry no sanitary sewage.

No supplemental work or check has been done at Machias subsequent to Mr. Lewis' Survey.

Listing of Outfalls:

1. Six inch sewer just below upper dam in old canal. East side of river.
2. Eighteen inch sewer entering river through wing of upper dam. Forty-five feet from end of wing of dam. West side of river. This sewer includes a slaughter house.
3. Sewer size unknown west side of Dublin Street. Ten feet up stream from bridge west side of river.
4. Two foot square outfall east side of Dublin Street. Sixty feet down stream from bridge west side of river. This sewer contains normal school sewage.
5. One foot square wooden outfall opposite end of School Street west side of river. Fifty feet down stream from dam.
6. Six inch sewer, east side of Elm Street one hundred fifty feet downstream from steel bridge to Bangor Hydro station, west side of river.
7. Machias Manufacturing Company sewer outfall at rear of their factory. Septic tank effluent only.
8. A sewer flows into a small unnamed brook not shown on the map thence to Middle River. The turbidity was so high that outfall to brook could not be located visually.
9. Ten inch sewer outfall eight feet down stream from bridge on Dublin Street, east side of river.
10. Sewer outfall size unknown. Seven feet up stream from bridge on Dublin Street east side of river.
11. Four inch sewer runs down bank at rear of Lee W. Longfellow's Store, east side of river.
12. Main Street sewer seventy-five feet down stream from Farmer's Union building. Size unknown as outfall does not extend beyond cribbing east side of river.
13. So-called Jafferie sewer, seventy feet below Main Street sewer, size unknown as outfall does not extend beyond cribbing. This sewer is at rear of Lindsey Lumber Company.

TIDEWATER SEWERAGE SURVEY OF MACHIASPORT

(See Map No. 49)

Machiasport straddles Machias Bay below Machias and East Machias, the bulk of its population being along the west shore of the bay with only a few houses in the eastern section along the roads to Cutler and to Randall Point.

The sewer survey of Machiasport made in 1949 indicated industrial waste from two sardine packing plants and domestic waste from the employees of these plants varying from a dozen or so to four hundred according to season. Two private sanitary sewers are listed as having tidewater outfalls, but

the number of persons served is not determined. It seems probable, however, that many of the village homes are sewered directly to tidewater.

The total population of the town of Machiasport is about 780, about two thirds of whom are residents of Machiasport village.

No supplemental work or checking has been done at Machiasport since a survey was made by G. T. Lewis, an employee of the Sanitary Water Board, during December, 1950.

Following is a listing of outfalls described by this survey:

1. Private sanitary sewer, of unstated size and number of people served, discharges to tidewater.
2. Industrial waste discharge of sardine packing plant and sanitary waste of employees.
3. Industrial waste discharge of sardine packing plant and sanitary waste of employees.
4. Private sanitary sewer, of unstated size and number of people served discharges to tidewater.

SHOREFRONT SURVEY OF MILBRIDGE

Original by Hinckley — Dec., 1950

Revised by Geisler — May, 1953

(See Map No. 50)

The extent of the polluttional effects of wastes discharged to tidewater from the shores of Milbridge is very dubious. The town has a very long shoreline, which is virtually uninhabitated, with polluttional sources of any worthy note found only at two locations.

Following is a description of these sources as indicated on the map of Milbridge.

Index No.	Description
1 - 5 incl.	On the western shores of Rays Point is a smaller point of land that forms two coves having very productive clam flats. A colony of cottages is situated along the shores of these coves, which also have very fine beaches, and about six cottages are served by five outfalls 4" in diameter.
6	A clam canning factory at Wyman employs 40 people and has several outfalls to tidewater that discharge both sanitary and process waste.

SHOREFRONT SURVEY OF MOUNT DESERT

Original by Hinckley — Oct., 1950

Revised by Geisler — June, 1953

(See Map No. 51)

In Mount Desert a good part of the shorefront, except along the inner portion of Somes Sound, is occupied by summer cottages. However, in some areas they are widely separated due to the fact that many very large estates have been created, some comprising many acres.

On the west side of Mount Desert Island the town has a shorefront of probably at least ten miles, but there are no villages and very few dwellings. This west shore has been little developed, as yet, as summer property. Bartlett Island, having about ten miles of shoreline, lies just off shore from Mt. Desert Island. Though once populated, it may now have no permanent residents and very few seasonal ones.

There are many areas of clam flats in the harbors, but their productivity is rather questionable. However, they furnish a source of income for some of the town's population during the months when

the tourist trade is slack. The town has a population of 1,776 which is congregated chiefly in several villages, the largest of which is Northeast Harbor, and portions of these have fairly well laid out public sewer systems. It will be noted below that many of these sewers have previously been reported in the "1950 Report on Water Pollution in the State of Maine", and are, therefore, not repeated in this report. The numbering of these outfalls has also been changed, as noted below, to keep the continuity of sources of pollution in sequence, as located along the southern coast of town from east to west.

Following is a listing and short description of pollutional sources as located on the town map. Virtually all of these contribute sanitary wastes to tidewater from summer properties.

Index No.	Description
1 - 11 incl.	Previously reported in "1950 Report" as #1-11 in Village of Seal Harbor.
12 - 19 incl.	From Stanley Brook in Seal Harbor to Crowninshield Point, there are eight sewer outfalls discharging sanitary wastes to tidewater. Number 12 is a public sewer and #13 serves an inn, while the remaining outfalls serve cottages.
20 - 25 incl.	Numbers 20-24 are outfalls from private cottages that discharge wastes to Bracy Cove. A single camp at #25 on Pierce Head, also discharges sanitary sewage.
26 - 74 incl.	Previously reported in "1950 Report" as #1-49 in Northeast Harbor Village.
75 - 82 incl.	Eight sewer outfalls, all 4" C.I. pipe, discharge to Somes Sound from Manchester Point to Hadlock Brook.
83 - 96 incl.	Just north of Hadlock Brook, three cottages (#83, 84 & 85) discharge sanitary wastes to the sound from outfalls of sizes 6", 4" and 6", respectively. The remaining eleven outfalls are located slightly north at #86 - 96 and are all 4" C.I.
97	A public dump is located in an old quarry where it is easily accessible at the end of a road. The rubbish which won't burn is put in a large pile, and this extends to the high water line where high tides will reach it.
98 - 111 incl.	Previously reported in "1950 Report" as #1 - 14 in Village of Somesville.

**TOWN OF NEWCASTLE
TIDEWATER SEWER SURVEY**

Original by Morrison — March, 1951

Revised by Geisler — Dec., 1953

(See Map No. 52)

The Damariscotta River receives sanitary wastes from a population of approximately 250 people in the town of Newcastle. There is no industrial waste problem and the major portion of the sewage is discharged in locations where tidewater currents are great, thereby stimulating the diluting action of the receiving body of water.

Following is a brief description of the outfalls by groups:

Index No.	Description
1, 2	Privies at the water's edge.
3 - 17 incl.	North of the bridge to the shore near the end of the public way on Glidden Street, 15 sewers discharge to the river. These serve from one to four houses each, except numbers 6 and 3 which serve 4 houses and a school, and 7 houses, respectively.
18 - 33 incl.	South of the Newcastle-Damariscotta bridge to a point near the Newcastle Inn, 16 sewers discharge from the west bank of the Damariscotta River. Number 23 is the most important, serving 15 dwellings, a fire house and railroad. All others serve from one to three buildings each.

SHOREFRONT SURVEY OF NOBLEBORO

Original by Morrison — May, 1951

Revised by Geisler — Dec., 1953

(See Map No. 53)

The shores of Nobleboro, adjacent to the Village of Damariscotta Mills, show considerable amounts of sawdust and some scattered refuse dumping. Very little of the sanitary wastes of the village reach tidewater directly, perhaps partly due to the lack of a public water system.

Undoubtedly there are some small cottages scattered along the shore of Damariscotta Lake, however these cannot be considered as they are above tidewater. The only source contributing industrial waste is a Filleting Plant with a short seasonal period of operation.

Descriptions of the five sources contributing pollutional loads to tidewater, are as follows:

Index No.	Description
1 & 2 incl.	Two 4" outfalls serving four or more houses and a commercial laundry, respectively.
3	An alewife filleting plant, located near the highway and near the foot of the fishway, contributes processing waste and undoubtedly considerable sanitary wastes during its short season.
4	Sanitary wastes drop through floor to tailrace, from the hydro-electric power station over the outlet from Damariscotta Lake.
5	The Fishway around the power dam runs back of several houses and carries their sanitary wastes.

SHOREFRONT SURVEY OF NORTHPORT

Revised by Morrison — May, 1951

Revised by Geisler — March, 1953

(See Map No. 54)

The shoreline of the town of Northport, from the northern Belfast boundary of the Little River to the southern border at Ducktrap Harbor on the Lincolnville town line, is relatively clean. There are no industrial wastes contributing pollution to tidal water, but there is a maximum summer population of approximately 1,000 persons who discharge sanitary sewage.

As seen on the accompanying map of Northport, the majority of pollution comes from the Village of Bayside which has two large public sewers that carry comparatively heavy loads from summer populations.

Following are brief descriptions of the outfalls by groups, as indicated on the map:

Index No.	Description
1	A sink drain discharges to tidewater within ½ mile of the Belfast town line.
2 - 7 incl.	These six outfalls are located in the Village of Bayside, with public sewers at #5 & 7 serving estimated summer populations of 750 & 200, respectively. Separate houses are served by the remaining four outfalls in this group.
8 - 11 incl.	From Bayside to Saturday Cover there are 4 sources of pollution, three of which are outfalls serving individual houses and one of which is a privy located at #9 close to the shore.

TOWN OF ORRINGTON
TIDEWATER SEWER SURVEY

Original by Hinckley — Nov., 1950

Revised by Geisler — Mar., 1954

(See Map No. 55)

Only one small stream, that enters the tidewaters of the Penobscot River from the shores of the town of Orrington, was found to be conveying wastes of any nature, to tidewater. The waters along the town's shore, however, are highly polluted by wastes from towns farther upstream.

In the areas inspected there were no sewers found. At Orrington Corner there are 25 small cottages, all at the top of a very steep bank and about 30' above the high tide line. Some of these have been improved for year around living, but very few have a water supply. If any have sewers they end near the top of the bank which is wooded. The once attractive gravel shore is now thickly coated with a very unpleasant slime.

At South Orrington, Mill Stream enters tidewater at the head of a deep inlet. There is no longer a mill and only part of a dam remains. Only one small camp is near the shore. There is no public water in the village and it is doubtful if any sewers go to the shore. None could be found. Probably sewage from several houses pollutes the stream further up. The exposed bottom of the inlet was messy with slime and silt, which filled all spaces between small stones.

At North Orrington a very small stream containing sewage from a school (75 pupils) and several houses, enters the Penobscot River about one mile below the Brewer town line.

SHOREFRONT SURVEY OF OWLS HEAD

Revised by Morrison — April, 1951

Revised by Geisler — March, 1953

(See Map No. 56)

Only sanitary sewage enters tidal water from the shores of the town of Owls Head. This section of coast line, from the Rockland town line in the north to Otter Point near the southern border of South Thomaston, is fairly clean with the exceptions of Crescent and Holiday Beaches where some refuse dumping exists in addition to the concentration of sewage from private dwellings. It is very possible that considerable pollution is evident at these two beaches, and predominately more so in the summer season when a large number of summer cottages are occupied.

Generalized descriptions of the various pollution sources indicated on the Owls Head map include the following:

Index No.	Description
1 - 8 incl.	The first seven of these outfalls are clustered near the Rockland town line and discharge to Seal Ledge at the southern end of Rockland Harbor. As seen on the map, #8 is located further to the east and all are sewer outfalls serving individual houses or cottages.
9 - 12 incl.	Four outfalls serve approximately 200 children and personnel in addition to discharging kitchen and laundry wastes from a camp. This children's camp is situated on a point of land between Broad and Deep Coves. Number 9 serves the living quarters of 70 children and 30 camp personnel, in addition to discharging the camp laundry waste. All wastes are discharged to Broad Cove, on the western shore of the point of land. Nos. 10, 11, & 12 are on the eastern shore and discharge to Deep Cove. Another large building housing 70 more children and the camp kitchen discharges at outfall #10. The remaining two outfalls each serve an individual building of the camp, each of which has facilities for 20 children.

Index No.	Description
13 - 20 incl.	This group of eight pollution sources is just to the north of Holiday Beach and is the beginning of the congested shoreline, occupied by private dwellings, that extends to the southern end of Crescent Beach. Included in this group are a privy at #13, a septic tank drain at #20, and outfall from a small summer hotel that has a capacity of approximately 20 guests. The remaining six outfalls all discharge sanitary wastes from five individual cottages and one house.
21 - 44 incl.	Holiday and Crescent Beaches have outfalls from 26 dwellings that discharge sanitary sewage to tidal water. Two of these outfalls, #26 & 37, serve two cottages each, while the remaining 22 outfalls each serve an individual cottage or house.
45 - 48 incl.	The last and most southern outfall in the town of Owls Head is located just north of Otter Point, while a group of three, #45, 46, & 47, are clustered just north of Ash Point. All of these outfalls discharge wastes from individual summer cottages.

SHOREFRONT SURVEY OF PEMBROKE

Revised by Hinckley — Sept., 1950

Revised by Geisler — May, 1953

(See Map No. 57)

The Town of Pembroke has a population of approximately 1,000, but only a very small percentage of this population contributes any pollution to tidewater. Since there is no public sewerage system in the town, only those houses or villages actually situated on the coast have access to a readily available means of sewage disposal. In spite of the many miles of tidewater shore that Pembroke has available it was found that very few pollution sources existed that were using this facility to advantage.

It seems that all pollution sources worthy of note are clustered in the Village of West Pembroke, with most of these, in fact, not being too significant. The major pollution, both from a sanitary and industrial point of view, comes from a sardine canning factory that employs about 140 persons. It is to be taken into consideration that discharges of fish wastes, along with the wastes contributed by the employees, is only seasonal, but still comparatively high for this area.

The pollution sources, as indicated on the town map, are described as follows:

Index No.	Description
1	A public dump, over bank onto shore, that is conveniently located at the end of a road.
2 - 3 incl.	Two outfalls serving the canning factory, that discharge both sanitary and fish process wastes.
4 - 5 incl.	These sources are located at the head of a small cove, where Willow Brook enters Pennamaquan Bay. No. 4 is a privy over the water and #5 is an outfall from a small restaurant located very near the head of tidewater. This small cove is very messy, with scum and fish scales in evidence along the shoreline at the high water level, which in addition to the unpleasant odor, does not paint a very attractive picture.

TOWN OF PENOBSCOT
TIDEWATER SEWER SURVEY

Original by Hinckley — Sept., 1950

Revised by Geisler — Dec., 1953

(See Map No. 58)

Although the town has a long shoreline, there are only isolated camps or cottages dotting the major portion of the tidewater areas. The Village of South Penobscot has only a few houses near Winslow Stream and none near tidewater. There is no public water supply in town, which probably explains why no sewers were seen. Most buildings are not very close to the water and the only source of pollution worth noting is the factory listed below.

There are several sites where dumping has been prevalent on the banks, but the extend of their polluting effects cannot be ascertained.

The area around Morse Cove seems to be the only location of fruitful clam digging, as it was the only site where such activity seemed to be going on.

The accompanying map shows the location of the only source of pollution emptying to tidewater from the shores of Penobscot.

Index No.	Description
1.	A canning factory is located about 200 ft. above high tide, employing approximately 100 persons and discharging wastes to Winslow Stream. The factory processes blueberries, corn and sometimes beans, squash and apples, although for some unknown reason the plant was not in operation on the date this survey was made. The stream was clean, but the bottom was coated with vegetable material, partly decayed, in some quiet pools which permitted settling.

Winslow Stream enters the tideswaters of Northern Bay.

TIDEWATER SEWER SURVEY, TOWN OF PERRY

(See Map No. 59)

The tidewater sewer survey of Perry was accomplished during the month of September 1950. Sanitary sewers found to be discharging to tidewater were limited to two outfalls at the Pleasant Point Indian Reservation.

Industrial waste discharge was contributed by one sardine factory near North Perry in addition of course to sanitary sewage from plant personnel, both sources, of course, active only during canning season.

The population of Perry (613 in 1950) is distributed throughout the area with no amount of concentration at tidewater, with the exception of the Passamaquoddy Indian Reservation on Pleasant Point. The shoreline along Passamaquoddy Bay is excellent for cottage development. None of the streams emptying to tidewater along this section of coast carry appreciable amounts of pollution.

Listing of sewer outfalls:

1. Industrial waste from sardine canning factory.
2. Outfall of reservation church and rectory sewer.
3. Outfall of reservation school sewer.

SHOREFRONT SURVEY OF PHIPPSBURG

Original by Fairfield — May, 1951

Revised by Geisler — Dec., 1953

(See Map No. 60)

Although tidewater on the eastern side of Phippsburg receives considerable pollution from the Kennebec River, only comparatively small amounts of sewage are actually discharged from outfalls located in the town itself. This pollution is mostly sanitary wastes with a small amount of fish processing waste included.

All outfalls listed are private as there are no public sewers in the town. The only exception to this report is some possible pollution from about six buildings located on certain inaccessible islands which were not included in the survey.

Following is a brief description of the pollution sources as they may be located on the accompanying map:

Index No.	Description
1 - 10 incl.	In the extreme northern portion of the town, in the proximity of the Winnegance-West Bath Bridge, are ten sewer outfalls serving a total of 14 dwellings.
11	A sawmill dumping raw sawdust to tidewater.
12 - 18 incl.	Drummore Bay receives pollution from a sink drain and a privy at #12 & 13, respectively, while the village of Phippsburg discharges sewage through outfalls #15 & 16 and uses sources #14, 17 & 18 as sink drains.
19 - 38 incl.	From Mill Pond to Seal Cove, at the southern extreme of the town, there are 20 sources contributing pollution to the Kennebec River. Sewers serving individual houses are indicated by outfalls #24, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36 & 37, while #38 serves two dwellings. Outfalls #19, 20, 21, 22 & 25 are merely sink drains, while a septic tank and overflow are buried in the tidal sand at #32, all serve one building each. A privy built on bare ledge is situated at #23, very close to the water.
39 - 72 incl.	The 34 sources of pollution located on the western shores of Phippsburg are chiefly of a sanitary waste nature. The exceptions are two outfalls at #52 that discharge lobster process and rinse water, a swimming pool outlet at #62 and a fish processing and freezer plant at #65. This latter outlet serves between 1 and a maximum of 50 people during the plant's seasonal operation, with wash water and fish scales also going to tidewater. Outfalls discharging sanitary sewage from individual houses are at #39, 40, 43, 44, 53-61 incl., 68, 70 & 71, while two houses each are served by outfalls #41 & 49. An 8" outfall serves 12 buildings and a hotel at #62, with privies set at the water's edge being found at #47 & 66 and an open ditch at #45 that carries sink drainage from two houses. Sink drains from separate dwellings are also found at outfalls #42, 46, 48, 50, 51, 64, 67, 69 & 72.

TOWN OF PROSPECT

TIDEWATER SEWER SURVEY

Original by Hinckley —

Revised by Geisler — Mar., 1954

(See Map No. 61)

No sources causing tidewater pollution were found along the shores of the Town of Prospect.

Attention is called to the sources of pollution in the Village of Prospect Harbor, found in this report under the survey for the Town of Gouldsboro. It is to be noted that the Village of Prospect Har-

bor was erroneously listed under the survey of the Town of Prospect, on page 166 of the 1950 Report on Water Pollution in the State of Maine to which this report is supplemental.

SHOREFRONT SURVEY OF ROBBINSON

Revised by Hinckley — May, 1951

Revised by Geisler — April, 1953

(See Map No. 62)

The shorefront of the Town of Robbinston, along the tidal area of the St. Croix River, is very attractive and much of it is suitable for development, though at present it is sparsely occupied. Besides the sources described below, there are a few widely scattered cottages and houses along the coastline, however, no attempt was made to inspect these few isolated areas.

It is to be noted that sources #17, 18 & 19 are located in the Village of Robbinston, and have been mentioned previously on page 207 of the 1950 Report on Water Pollution. The pollution sources indicated in this report are chiefly summer cottages contributing sanitary wastes to the waters of the St. Croix River.

The sources are indexed on the map of Robbinston and are described as follows:

Index No.	Description
1 - 11 incl.	These eleven outfalls are located in the immediate vicinity of Red Beach, just south of the Calais town line. Individual cottages are served by all the outfalls, which discharge household sewage with the exception of outfalls #5, 7 & 8 that serve only as sink drains.
12 - 16 incl.	In the vicinity of Brooks Bluff are five individual cottages served by four sewers and a sink drain at #12.
17 - 19 incl.	A sardine packing plant, employing 250 people, discharge at #17 in the village of Robbinston. This plant, in addition to the sanitary wastes contributed by the workers, discharges its process water and fish waste directly to the waters of the St. Croix River. Two private sewers also discharge sanitary wastes from outfalls #18 & 19, also located in the village.

SHOREFRONT SURVEY OF ROCKLAND

Revised by Morrison — May, 1951

Revised by Geisler — March, 1953

(See Map No. 63)

The City of Rockland occupies practically all of the shoreline of Rockland. The only area not included within the city limits is the southern shore of Jameson Point as noted on the accompanying map. An index of pollution sources commences on this map and is then continued on a more detailed map of the urban area.

Rockland Harbor is heavily polluted with sewage from an estimated 8,000 persons and manufacturing or processing waste from 23 industrial establishments in the city. The industries employ about 1,900 people and consist mainly of various seafood processing and canning plants, and also include 2 kelp processing plants, a poultry slaughter house, an ice cream manufacturer, and a lime company.

Following is a description of the sources contributing pollution to Rockland Harbor and should be used in conjunction with the accompanying maps:

Index No.	Description
1 - 3 incl.	Three individual cottages are served by these outfalls located on the southern shore of Jameson Point between the city line of Rockland and Rockland-Rockport town line.
4 - 12 incl.	Along the city's shore north of the intersection of Main and North Maine Streets there are 4 public sewers serving approximately 1,475 people, 4 private sewers, and a privy at #7. The public sewers are as follows: No. 4 outfall serves 47 houses, #6 serves 42 houses in addition to a bathrobe manufacturing plant with 175 employees, #10 serves an area with about 500-600 population and #11 serves an area with approximately 400 people. The four private sewers serve the following: Two houses at #5, a lime plant with 40 employees at #8, a fish filleting plant with 10-15 employees at #9 and an oil company at #12 that has several employees. Also located next to public sewer #10 are several outfalls from a fish meal plant with 12-25 employees.
13 - 18 incl.	In the Cove west of Lime Street there are 4 sewer outfalls, two of which (#15 & 16) are public lines serving 200 and 500 persons respectively. A poultry slaughter house and an ice cream plant also discharge wastes through public sewer #16. Outfalls #17 & 18 serve a store and a small manufacturing company with 28 employees respectively. The other sources in this group are two open sewers at #13 & 14, with the former being very large and reaching the shore with wastes contributed by an estimated 2,500 persons.
19 - 23 incl.	Along the shore from the northern end of Lime Street to Tillson Wharf there are 5 sources of pollution. No. 18 designates the location of several outfalls from a kelp processing plant that employs 25 people, and includes a septic tank overflow. Seven additional outfalls carry sanitary and industrial wastes from a lobster pound (#21), a fish liver oil and fish meal plant (#22) and an ice and fish filleting plant (#23).
24 - 31 incl.	Discharging from Tillson Wharf are 8 outfalls carrying sanitary and industrial wastes. Five of these (#24-28) serve a large fish canning plant employing 250 people. The other three outlets carry wastes from a fish processing plant with 100 employees (#29), a U. S. Coast Guard Station with a personnel compliment of 6 (#30) and a restaurant (#31).
32 - 37 incl.	Six sources of pollution to tidewater are located between Tillson Wharf and the shore off Public Landing Drive. These include two fish processing plants, #32 & 33, which have 210 and 200 employees respectively; a fish wharf employing 55 people (#34), a lobster pound (#35), a house (#36) and a hotel (#37). One or more sewer outfalls serves each industrial establishment.
38 - 45 incl.	A 16" city sewer discharges the wastes of 2,500 people into the harbor at #38. It is worth noting that nearby lobster pounds utilize water from this immediate area. Further south along the shore to the eastern end of Linden Street are 7 sources of pollution. These include two public sewers (#42 & 44, serving 320 and 120 persons respectively); two private sewers (#39 & 45, serving 2 and 3 houses respectively); a lobster pound with 10 employees (#40), a kelp processing plant with 25 employees (#41), and a sardine factory that discharges waste and sewage from 250 employees (#43). Some of the industrial establishments are served by one or more outfalls each.
46 - 53 incl.	Along the shore south of Mechanic Street, to the city limits at the Owls Head town line, are 8 outfalls. These include 2 public sewers (#51 & 53, serving an estimated 90 and 200 persons respectively), and 6 private lines, 5 of which (#46-50) serve 150 employees of a shipyard, and the other (#52) serves an individual house.

SHOREFRONT SURVEY OF ROCKPORT

Revised by Morrison — May, 1951

Revised by Geisler — March, 1953

(See Map No. 64)

The entire coastal area of Rockport, from the northern border on the Camden town line to the tip of Jameson Point, is relatively free from pollution. Only 20 sources contribute wastes to tidal waters from these shores with the majority being located in the Village of Rockport. The village has an approximate population of 370 and the only industrial waste comes from two sea food processing plants that discharge into Rockport Harbor. There are no public sewers in Rockport, although 19 private sewers lead to tidewater. These outfalls are designated on the accompanying detailed map of the village where the indexing originates and are continued on the Rockport map to the southern border of the town at Jameson Point.

The sources of pollution as indicated on the accompanying two maps are described as follows:

Index No.	Description
1 - 7 incl.	The first 3 outfalls in this group serve one of the sea food processing plants located in the village, while #7 serves the other plant. The remaining outfalls are located on the Goose River and are chiefly storm water sewers, but also carry sewage from a school, lodge hall and the overflow from 2 septic tanks.
8 - 16 incl.	Nos. 10-14 incl. are located on an unnamed brook that enters the harbor and function as follows: Nos. 10 and 13 serve individual houses, while #11 & 14 serve a store and 2 family apartment and 3 houses, respectively. No. 12 drains a septic tank serving one house. North of the brook, on the shore of the harbor are a privy at #9 and a wooden sewer serving one house. South of the entrance to the brook are two outfalls serving individual houses, with the latter located just about 300 ft. south of the village limit.
17 - 19 incl.	Entering Clam Cove is sanitary sewage from 3 houses, only one of which has a direct sewer to the Cove (#17). Sewage from one of the other houses is first discharged into a street gutter (#18) and then into a brook that enters the Cove, and #19 discharges directly to the brook. There is also some refuse dumping prevalent along the shores of the cove, particularly near its contact with U. S. Route #1.
20	This outfall is located at the tip of Jameson Point, very near the Rockland town line, and serves a summer hotel that has a capacity of 30 guests.

TIDEWATER SEWER SURVEY TOWN OF ROQUE BLUFFS

(See Map No. 65)

No significant sources of pollution were found along tidewater in the town of Roque Bluffs. One drain was located but not specifically identified as a sanitary outlet.

Roque Bluffs has a permanent population of eighty concentrated at Roque Bluffs Village and Shoppe Point and several dwellings are used only in the summer.

Scenery is attractive enough to make growth as a summer colony a possibility, and there is a good beach near the highway.

A deep tidewater inlet, known as Englishman River, cuts the town nearly in two but is insignificant above tidewater and has no important source of pollution in its drainage area. Most of the clam flat areas of the town are along this estuary.

SHOREFRONT SURVEY OF ST. GEORGE

Revised by Morrison — April, 1951

Revised by Geisler — March, 1953

(See Map No. 66)

Tidewater along the southern shores of the town of St. George is relatively unpolluted except near the most densely populated areas at the center of Port Clyde Village and along the northern shore of Tenants Harbor. The area near the wharves at Port Clyde is the most noticeably polluted and the condition has been made worse due to considerable refuse dumping in addition to the sanitary wastes from the town.

As seen on the accompanying map of the St. George area, the sources of pollution as found in this survey extend from Seal Harbor on the northeastern border at the South Thomaston town line, to Fish Cove-Port Clyde Village at the southern most part of the town. Pollution contributed from the western shores of St. George, on the St. George River adjacent to Cushing, has been considered negligible and this sparsely settled area was omitted from the survey.

A total of 53 sources, only one of which is a public sewer, are located along this section of coast-line. A brief description of these sources follows:

Index No.	Description
1 - 4 incl.	There are only four sources, contributing sanitary waste to tidewater along the most eastern part of the St. George shoreline from Seal Harbor to Long Cove. These are widely dispersed as seen on the map with a cluster occurring in the Clark Island area. Numbers 1 & 4 sewer outfalls serving individual houses and #2 is a privy located on Clark Island proper. The final source in this group is an outfall drains a settling pit serving an inn with a capacity of 35 persons.
5 - 16 incl.	From Long Cove to the Marshall Point area near Port Clyde there are 12 sewer outfalls, and all are situated on the north and south shores of Tenants Harbor. Number 6 outfall is used by a hotel serving 40 guests and #10 and 11 serve separate buildings of the high school. The main school building, with about 100-130 pupils, is served by outfall #9 which drains a large septic tank. Another septic tank drain is located at #8 and a lobster dealers wharf is served by outfall #7. The remaining six outfalls all discharge sanitary sewage from individual houses, through 4" C.I. pipe to the tidal waters of Tenants Harbor.
17 - 24 incl.	Individual houses and cottages are served by 4" sanitary waste outfalls located along the eastern shore of Marshall Point. The eight sources are located comparatively close together and extend for only about one mile from the tip of the point.
25 - 53	Crowded into the Port Clyde village area are 29 outfalls contributing wastes of various natures to the waters of Fish Cove. Two houses that serve as a summer hotel, having 15-20 rooms available for guests, make use of outfall #50, and considerable fish waste is contributed through #41 by a fish processing company. A sardine packing company, with a peak season employment of 150, also contributes process waste at #37 and a large department store building discharges at outfall #39. The only public sewer is 10" in diameter and serves 15 houses, a small summer hotel (10 rooms) and a school building with about 40 pupils, this outfall enters the cove at #38. The remaining 24 outfalls are of various diameters and serve individual houses, with the exception of #25 which houses maintenance personnel stationed at the Port Clyde lighthouse.

SHOREFRONT SURVEY OF SEARSPORT

Revised by Morrison — May, 1951

Revised by Geisler — April, 1953

(See Map No. 67)

Practically all of the pollution contributed by the Town of Searsport enters tidewater at Searsport Harbor from the village and the industries located in the adjacent area of Mack Point. There are three fertilizer manufacturing plants, a coal yard, and a chemical industry, all of which are located on Mack Point or in the northeastern part of the town near Stockton Harbor. There is considerable pollution due to sanitary sewage discharged from the village of Searsport, and the estimated contributing population is approximately 450 persons.

That southern portion of the town's shoreline from the limits of the village to the Belfast town line, was found to be free from polluting sources. Although it is possible that the many small streams reaching tidewater in this area carry sanitary wastes from outlying sources, this supposition was not ascertained, however.

Reference is made to the accompanying maps of Searsport and the Village of Searsport, where the following sources of pollution may be found indexed:

Index No.	Description
1 - 2 incl.	A fertilizer plant, with 30-50 employees, and its subsidiary chemical industry plant employing 5-10 men, are located on the northeastern shore of the town at Stockton Springs Harbor. These plants discharge industrial wastes at outfalls #2 & 1, respectively.
3 - 6 incl.	Four more industries are situated on the shores of Mack Point, just to the east and outside the limits of the Village of Searsport. Two fertilizer plants employing 10-30 men and 10-40 men, are located at outfalls #5 & 6, respectively. A coal company employing 15-20 men is located at outfall #4, and a large New England Stevedoring concern that employs up to 150 men is found at #3.
7 - 14 incl.	Between the eastern boundary of the town and the end of Leach St. there are 8 sources of pollution that discharge sewage to Searsport Harbor. Two individual cottages are served by outfalls #7 & 8, while a privy (#14) on the edge of a large wharf discharges directly to the water. Mainly storm water is discharged at outfall #9, but some sanitary waste, possibly from two houses, also enters the harbor at this point. Public sewers at #10 & 13 contribute sewage from 4 & 25 houses respectively, while private sewers serving 20 houses and 40 families, are found at #11 & 12, respectively.
15 - 16 incl.	These two sources contribute wastes to the mill pond and stream that enters the harbor between Water St. and Steamboat Ave. A tile sewer at #16, serving approximately 25 houses, discharges into the mill pond near the U. S. Rte. 1 highway bridge. An individual house is served by sewer outfall #15, which discharges into the small stream.
17 - 22 incl.	A privy, near the shore, drains to tidewater at #17, while two cottages set partially over the beach at #18, discharge wastes directly to the water. A septic tank drain serving one house is found at outfall #20, and a sewer carrying mostly storm water, but containing some sanitary wastes, discharges at #19. The final two outfalls in this group serve separate houses at #21 & 22 within the village, near its southern boundary.

**TOWN OF SEDGWICK
TIDEWATER SEWER SURVEY**

Original by Hinckley — Nov., 1950

Revised by Geisler — Aug., 1953

(See Map No. 68)

Three long tidal inlets form much of the shorefront of the Town of Sedgwick, these are the Bagaduce River, the Salt Pond and Benjamin River. The shores of these inlets are practically unoccupied. Besides the inlets, there are about 8 miles of shoreline which is very sparsely occupied by farms or summer cottages. The villages of Sedgwick and Sargentville are both small and not situated directly upon the water front.

The only source of pollution, having effects of any importance, is a seasonal sea food canning company located at #1 in the village of Sargentville. At the time this survey was made, there was no activity at the plant and therefore the extent of pollution could not be ascertained.

SHOREFRONT SURVEY OF SOUTH BRISTOL

Revised by Morrison — May, 1951

Revised by Geisler — Feb., 1953

(See Map No. 69)

In South Bristol there are 113 sources of pollution along the shore line that was surveyed. These sources are chiefly sewer outfalls serving individual and multiple dwellings, having an estimated summer population of some 820 persons and about 82 in the winter.

The area covered, as seen on the accompanying maps, was from Foster Cove on the eastern shoreline bordering Bristol, going in a clockwise direction along the coast, to Fitch Cove on the Damariscotta River just south of where the town lines of Edgecomb, Newcastle and South Bristol meet. A glance at the master map will show the area covered by the larger scale map to better advantage.

Most of the shoreline of South Bristol is quite clean due to tidal action, even in the summer when the cottages are occupied. The majority of pollution sources are congregated around Christmas Cove and the Gut including the adjacent village of South Bristol.

Following is an outline of these sources as indicated on the maps:

Index No.	Description
1 - 8 incl.	From a point of land just south of High Island at the Johns River estuary to McFarland Cove and the northeast entrance to the Gut, there are 8 sewer outfalls all 4" in diameter. All the outfalls serve individual houses or cottages with the exception of Nos. 2 & 3 which service 2 & 3 cottages, respectively.
9 - 17 incl.	Discharging into the eastern part of The Gut, formed by the bridge crossing it, are 8 sewer outfalls and a (#16) sink drain. Four individual houses are served by outfalls #10, 11, 14 & 17, while #9 services a house and six overnight cabins. A building, housing 4 stores and an apartment, setting over The Gut and alongside the highway is served by outfall #15. The remaining two 4" outfalls are used by Thompson's Inn with a maximum guest capacity of 125 persons.
18 - 43 incl.	Along the eastern shore and southern most tip of South Bristol are located 24 sewer outfalls, a sink drain (#33) and a lobster pound (#22) with 4 employees. Individual cottages are served by 4" C.I. sewer outfalls #29 & 43, with #42 serving two houses and a 2" sewer (#35) serving one house. About ¾ mile north of Christmas Cove Village, on a point of land of a large estate, are three 4" C.I. outfalls. These outfalls #18, 19 & 20 each serve 3 buildings of a children's camp capable of accommodating about 125 children and necessary help. A 6" C.I. outfall (#27) in conjunction with #56, serves Holly Inn, housing about 100 guests. The remaining 16 outfalls are used by individual houses, and all the outfalls in this group discharge sewage to the ocean.

Index No.	Description
44 - 80 incl.	Northward along the western shore of South Bristol from the tip to Foster Point, there are 37 sewer outfalls, mainly situated on the shores of Christmas Cove. Individual houses and cottages are served by 29 of these, while outfalls #44, 69 & 77 serve 2, 2 & 3 houses, respectively. As stated previously, #56 serves Holly Inn, in conjunction with #27. A club house, small summer hotel " Harbor Hill ", a summer restaurant and Cove Inn (50 persons) are served respectively, by outfalls #53, 59, 60 & 68.
81 - 95 incl.	Further northward, from Foster Point to the western entrance to The Gut, are 14 sewer outfalls and a privy close to shore at #87. Individual houses and cottages are served by the outfalls with the exception of #92 & 94 which service 2 houses and a house and cottage, respectively, all discharging to the Damariscotta River estuary.
96 - 108 incl.	The western part of The Gut, from the highway bridge, receives sewage from 11 outfalls, a sink drain (#96) and a privy (#104) serving an average of 13 shipyard employees. One of the outfalls (#101) serves a building housing a post office, 2 garages, 3 stores and 3 apartments, while the remaining ten service individual houses and cottages.
109 - 113 incl.	Discharging sewage to the Damariscotta River from Jones Point and Cove are five 4" C.I. outfalls. Nos. 110 and 113 serve a house and 2 cottages, respectively, and the other 3 outfalls are used by individual cottages. These are the last sources of pollution encountered in South Bristol from this point to Fitch Cove along the shores of the Damariscotta River.

TOWN OF SOUTHPORT

TIDEWATER SEWER SURVEY

Original by Hinckley — Feb., 1951

Revised by Geisler — Dec., 1953

(See Map No. 70)

The town of Southport consists of a main island which is nearly five miles long and groups of scattered, outlying, smaller islands. The town is situated just south and west of the town of Boothbay Harbor and is chiefly occupied by summer inhabitants.

Nearly all parts of the main island and the islands just off shore are served by a summer water supply. Most of the buildings in the town are summer properties and these generally occupy shore property. Direct discharge of raw sewage is the method of disposal in practice, though some disposal units are in use. Many of the summer cottages are fairly large and probably the average number of inhabitants is greater in this sort of dwelling than in normal year round dwellings.

Only about 24 of the sources, located by this survey, seem to serve the native population and to be in use all the year. Six of the sources are hotels of various size, which probably have a combined guest and service population of about 600, when fully occupied at the height of the summer season.

There are no public sewers in the town and no sources of industrial waste pollution that enter tidewater.

Squirrel Island lies off shore, to the east of the main island and in the middle of the bay, about one half mile outside of Boothbay Harbor. This island has 120 houses, nearly all summer places, and one larger summer hotel. The island has a summer water supply and undoubtedly most sewage goes directly to the bay, although this assumption was not confirmed since the island was not included in the survey.

Due to the large number of sources and their closeness in similarity, the descriptions listed below are grouped accordingly in an effort to simplify their location on the accompanying map.

Starting at the Southport - Boothbay Harbor Bridge and following the shoreline clockwise around the island, the sources of pollution to tidewater, are as follows:

Index No.	Description
11	A 4" C.I. outfall serving a hotel, estimated to have about 50 guest rooms and also a building that houses the employees.
17, 54	Outfalls from 15 room hotels.
84	A 5" C.I. outfall serving a 30 room hotel.
135	A hotel, estimated to have 100 guest rooms, and six cottages served by a 6" C.I. outfall.
227	An outfall serving a 25 room hotel.
134	Swimming pool drain.
210	Pile of manure behind large poultry house and very close to the water.
9, 148	Streams entering tidewater, carrying pollution from house on their banks.
130, 152, 153, 155, 173, 184, 185, 187, 195, 196, 203	Cesspool or Septic tank overflows that drain to the shore.
3, 51-53 incl., 64, 110, 126, 132, 158, 177, 193, 202, 214	Sink drains from individual dwellings that discharge wastes to tide-water.
2, 5, 6, 12, 82, 131, 149, 150, 169, 171, 172, 190, 197, 199, 200, 215	Privies built directly over the water or adjacent thereto.
157	A double privy serving two cottages and extending over the water.
76	An outfall serving five cottages.
230	Two cottages and a home served by a 4" tile outfall.
47, 95, 96, 136, 222, 233	Outfalls serving either two houses or cottages.
Remaining 175 Sources	Outfalls of various sizes serving individual dwellings of summer or year-round types.

SHOREFRONT SURVEY OF SOUTH THOMASTON

Revised by Morrison — April, 1951

Revised by Geisler — March, 1953

(See Map No. 71)

Pollution contributed to tidal waters by the Town of South Thomaston is comparatively light, there being only 19 sources located along the town's shoreline. These sources are widely scattered from the northeast border of the Owls Head town line near Hayden Point, to Seal Harbor in the south on the St. George border. There are no large industries discharging wastes, only sanitary wastes are contributed by private residences and these seem to be concentrated in the Sprucehead area. The accompanying town map of South Thomaston shows an indexed location of these sources.

Information relating to the 19 sources in South Thomaston is summarized as follows:

Index No.	Description
1 - 4 incl.	There are four outfalls located on the Weskeag River north of the bridge. Two of these sewers (#3 & 4) serve individual houses, while numbers 1 & 2 serve an apartment and the post office and an apartment and grocery store, respectively.

Index No.	Description
5 - 8 incl.	All four of these outfalls serve individual houses, with #3 draining a septic tank. The first 3 discharge sanitary wastes in the immediate vicinity of Cushing Point, while #8 is located further south along the coast towards Elwell Point.
9 - 19	Sprucehead Island and the area around Elwell Point have the remaining sources contributing pollution from the town of South Thomaston. Numbers 11-15 are all outfalls serving separate dwellings and are located on Sprucehead Island. The other six sources in this final group are situated on the north and south shores of Elwell Point. Number 19 being a privy, while privies with sink drains are found at #9 & 10, and outfalls from individual houses at #16, 17 & 18, that discharge to Seal Harbor.

SHOREFRONT SURVEY OF STEUBEN

Original by Hinckley — Nov., 1950

Revised by Geisler — May, 1953

(See Map No. 72)

The Town of Steuben has a long shoreline most of which is unoccupied, but having small summer property developments near Rogers Point, at Petit Manan Point and together with a fishing village at Pigeon Hill. At Rogers Point, a fairly new road has opened up shore property which is occupied by small camps. Summer property at Pigeon Hill is generally of the small camp type, while larger properties make up the colony on Petit Manan Point which also has a development of the Boy Scouts of America situated at Overs Point. The cottages in Petit Manan Point, namely at Overs Point and Yellow Birch Head, apparently have water supplies and satisfactory sewage disposal systems. The seasonal properties at Rogers Point are all small and strictly camps having crude sanitary facilities, but no sources of pollution were found at this location, either. Only at Pigeon Hill were any sources found that could reasonably be considered as contributors of pollution, and it is very doubtful if their effect would change the overall picture of the Steuben Coastline. However, they are nonetheless noted on the map and described in brief below.

Tunk Stream enters the tidewater of Steuben Harbor at Steuben Village. This village has no public water supply and buildings are not near tidewater and very few are near the stream. There is no industry located in the village and the old wharves are used very little due to the lack of activity in the harbor. The stream may be polluted from some indirect drainage from a few houses along Route #1 and by a sawmill and box factory at Unionville, a considerable distance upstream.

Following is a short description of the minor sources of pollution existing along the shores of Steuben:

Index No.	Description
1 - 4 incl.	A group of summer cottages, close to the water in the vicinity of Pigeon Hill, has the only contributing sources of pollution found in Steuben. The fact that these properties are in use for only a portion of the year, makes them all the more non-important. Two privies, at #1 & 3, are very close to the high tide line and a sink drain is at #2. The only sewer outfall is a 4" diameter tile line that discharges sanitary sewage from a large cottage at #4.

SHOREFRONT SURVEY OF STOCKTON SPRINGS

Revised by Morrison — June, 1951

Revised by Geisler — April, 1953

(See Map No. 73)

The shoreline of Stockton Springs is relatively free from polluting sources, having only four such sources discharging to tidewater.

The accompanying map of Stockton Springs shows the sources indexed as follows:

Index No.	Description
1 - 2 incl.	A fertilizer manufacturing plant employing 5-30 men, is located at outfall #2 discharging to Mill Cove. A small stream enters the cove at #1 and appears to be polluted from septic tank overflows, from 3 or 4 houses located upstream.
3 - 4 incl.	These two sources are located in the northern end of Stockton Springs Harbor near the Searsport town line. A small stream enters the harbor at #3 and shows signs of pollution from several septic tank overflows from houses upstream. An individual house is served by outfall #4, that enters tidewater about 250 yards south of the Stockton Springs railroad station.

SHOREFRONT SURVEY OF STONINGTON

Original by Hinckley — May & Nov., 1950

Revised by Geisler — Aug., 1953

(See Map No. 74)

There are no public sewers owned by the Town of Stonington although there are several "community sewers", serving several houses and owned collectively. Sewage from a major portion of the towns 1,700 population reaches tidewater through private sewers in the village. The town has sometimes undertaken repairs on some of these and very little information was available as to the sources and population served. There is only one source of industrial pollution located within the village and not much information could be ascertained here, either.

At Burnt Cove, the properties are mostly year-round dwellings occupied by the town's residents. Outside the cove there are summer properties that consist chiefly of small, well cared for cottages or large camps.

Due to lack of information concerning the population served, the sewer outfalls or sources will be listed by type and all the corresponding numbers in that category will follow:

Pollution Source	Index Numbers
Sewer Outfall	1, 2, 3, 5, 7, 8, 9, 11, 13, 15, 19, 20, 22, 23, 24, 25, 26, 29, 30, 31, 32, 33, 36, 37, 39, 41, 42, 46, 47, 48, 49, 51, 54, 55, 57, 58, 59, 62, 64, 65, 66, 67, 68 & 69.
Brooks carrying sewage entering tidewater	50 & 56.
Privies, extending over or very close to water's edge	3, 10, 14, 17, 18, 21, 27, 34, 38, 45, 53, 60, 61 & 63.
Sink Drains	4, 12, 16, 28, 35, 40, 43, 44 & 52.
Industrial Waste (#6)	A canning factory (#6) which is built, almost entirely on piles or ledges and is over water at high tide. Sewers and floor drains are very likely, although no definite information was secured at the time of survey. A crude septic tank of coarse stone, that retains sanitary waste was observed with liquid seeping through walls to the harbor.

SHOREFRONT SURVEY OF SULLIVAN

Original by Hinckley — Dec., 1950

Revised by Geisler — May, 1953

(See Map No. 75)

The Sullivan shoreline is only about ten miles in length. Approximately one-third of this is above Sullivan Falls facing a tidal inlet through which the ocean water rushes to fill and empty Egypt Bay, Taunton Bay and Hog Bay. The rise and fall is somewhat restricted and the time of high and low water changed inside the tidal falls. Much of the shore property below the falls commands a lovely view and it will probably be developed as summer property, though at present much of it is unoccupied.

Although nine sources were found contributing pollution to tidewater, it is to be noted that these are all virtually only seasonal in occurrence. The only major pollution comes from a shellfish processing company with messy conditions existing near the outfall from the shucking room and clam washer.

At several places along the shore at West Sullivan there are piles of old mine wastes left from the operation of the old Sullivan, Wankeag and Pine Tree mines, silver mines of the 1878-84 period. Also in this vicinity are several rubbish dumps, where dumping over the bank and on shore has been prevalent.

The following descriptions are used in conjunction with the accompanying town map which shows the location of these polluttional sources:

Index No.	Description
1	Privy set at the top of a bank at shoreline.
2 - 5 incl.	Four sewer outfalls discharge sanitary wastes from 3 individual dwellings and kitchen drainage from an inn at #5. These outfalls are all 4" in diameter and located in the Village of Sullivan. At the head of a cove the outlet from Basin Pond enters tidewater. No sewers were located along the tidal shores, but it seems likely that sewers might reach the brook from several houses located near it. There are two small dams on this brook near its mouth.
6 - 9 incl.	From the shores of West Sullivan three more sewer outfalls, #6, 7 & 9, discharge sanitary sewage, with #9 emanating from an old hotel. Source #8 consists of three outfalls from the shellfish processing company which employs about 20 people and which discharges combined sanitary and process waste water.

TIDEWATER SEWER SURVEY

TOWN OF SURRY

R. W. Macdonald

(See Map No. 76)

The town of Surry has a rather irregular shore line due to the presence of Patten Bay and Newbury Neck. Besides a small concentration of population in Surry Village the population is principally scattered along the road to Ellsworth and along the road to Newbury Neck via the coast. Total population of the town is about 450 persons. There are many short streams flowing to tidewater in the town and some pollution may be carried by these the sources of which escaped the sewer survey, but nevertheless contribute to tidewater pollution. There is no public water supply and no public sewer system in town.

The north shore of Inner Patten Bay is grassy and not suited to shore front real estate development, but centered on Contention Cove quite a summer camp and cottage colony extends for about two

miles. These are low cost properties and apparently have only primitive toilet facilities with no running water.

The shoreline of Surry is such that it should prove very attractive to recreational real estate development.

Sources of pollution Surry list as follows:

Index No.	Description
1.	A home laundry (large summer business) discharges waste over bank to a grassy, swampy shore near head of tide in tidewater of Mill Brook Stream.
2.	Sanitary wastes from grammar school (2-room) enters Mill Brook Stream (also known as Meadow Stream and as Flood Str.) about 200 ft. upstream of tidewater. Is listed here because its practical effect is the same as if it entered tidewater directly.
3.	Near Weymouth Point a pipe enters through bottom of wall of shoreline not positively identified as a sewer.

SHOREFRONT SURVEY OF THOMASTON

Revised by Hinckley — March, 1951

Revised by Geisler — March, 1953

(See Map No. 77)

The Town of Thomaston contributes pollution through the sewers of Thomaston Village, located at the head of tidewater on the St. George River. The village, having a population of approximately 1,800 in addition to a State prison and various industries, is well served by public sewers.

Following are brief descriptions of the sources of pollution, which are indexed on the accompanying maps of Thomaston:

Index No.	Description
1 - 6 incl.	This group of outfalls is located on the Mill River north of the railroad bridge to Rte. 1. Two of the sewers serve individual houses (#2 & 4); while one (#3) serves four houses. The remaining outfalls are all public sewers and wastes are contributed respectively by: #1 serving 12-14 houses, #5 serving 29 houses and the high school with 100 pupils, and #6 serving about 75 houses, 2 stores, a service station and church.
7 - 12	Along the northern banks of the St. George River where it makes an abrupt swing to the west, between the R. R. and Water St. bridges, are situated six more pollution sources. One of these is a privy, #9 located near the end of Knox St. serving a boatyard with 12 employees and situated in a position such that all sanitary wastes are discharged directly to the water. A large culvert at #11, carries a large flow that contains sewage from two houses and two 6" outfalls serve a canning company (#7), discharging industrial waste and sanitary waste from about 60 employees. The other three outfalls are public sewers and contribute wastes as follows: No. 8 outfall is located at the end of Knox St. This is the largest sewer and it serves about 64 houses plus the business section of town, the railroad station and school (5 school rooms — about 175 pupils). The business area is estimated to include about 20 stores and businesses, 10-15 offices, 10 apartments over the stores and a hotel having about 30 rooms. No. 10 is an 8" public sewer serving 4 or 5 houses, while #12 serves 75 houses, 2 churches and a grammar school having 4 classrooms (nearly 150 pupils).
13 - 15	West of the Water Street bridge, to the western boundary of the village, are the final 3 outfalls located in this survey of Thomaston. No. 13 serves an individual house and #14 is probably the second largest public sewer in town. This latter sewer serves about 80 houses including a large apartment house, a filling station and a clothing manufacturing plant with about 50 employees. The most western outfall, #15, carries wastes from the State prison, that confines 300 prisoners and discharges to the St. George River.

SHOREFRONT SURVEY OF TOPSHAM

Original by Marzul — July, 1951

Revised by Geisler — Dec., 1953

(See Map No. 78)

The Town of Topsham is located on the banks of the Androscoggin River and Merrymeeting Bay. The town has 3 public sewers, one of which discharges above head of tide and is therefore not considered a source of tidewater pollution.

There are only two industries near tidewater in the town, one being a feldspar grinding plant which discharges no wastes to tidewater, and the other a small paper mill which discharges only some wash water and paper machine wastes plus the sanitary wastes of its employees. No sulfite wastes are discharged since the plant has no pulp mill.

The following information, on tidewater pollution sources, was revealed during the survey:

Index No.	Description
1, 2, 17, 19, 23, 24, 26, 27 & 28	Sewer outfalls serving individual houses.
25	An outfall discharging sewage from two houses.
11, 12, 14 & 15	Privies at water's edge.
20	A small brook, entering tidewater, carrying sewage discharged from two houses.
21 & 22	Two public sewers, the former serving a 250 pupil school and six houses, while the latter is the outlet for the Main Street town sewer which serves about 115 houses.
29	Outfalls from the paper company plant that discharge sanitary wastes of its employees and some waste and wash water from paper machines.
3, 4, 5, 6, 7, 8, 9, 10, 13, 16 & 18	Outfalls serving as sink drains for individual houses.

SHOREFRONT SURVEY OF TRENTON

Original by Hinckley — Oct., 1950

Revised by Geisler — June, 1953

(See Map No. 79)

Only six sources of pollution were located along the tidewater shores of Trenton. There is no industry situated in the town and these sources are solely summer properties discharging sanitary wastes.

The Jordan River, which is on the eastern border of the town and is really a tidal inlet and not a stream, is all flats at its inner section at low tide. The shore here is grassy and unattractive, and wholly undeveloped. There are quite a few cottages in the vicinity of the pollution sources, as shown on the map, but these all seem to have sewage disposal systems as no outfalls were found discharging wastes to tidewater.

Since there is a large amount of undeveloped shorefront remaining in this town, much of it having a very beautiful view of the mountains of Mt. Desert Island, it is to be anticipated that future summer developments may possibly effect the pollutional load contributed by the town.

TOWN OF TRESCOTT
TIDEWATER SEWER SURVEY

Original by Hinckley — May, 1951
Revised by Geisler — Mar., 1954

(See Map No. 80)

Following is a description of the sources as located on the accompanying town map:

Index No.	Description
1	A 4" C.I. sewer outfall from an individual cottage on the eastern shore of Oak Point.
2 - 3	At Bayside, north of Heath Brook, are two more outfalls from cottages. These are also 4" C.I. and discharge sanitary wastes.
4 - 6	Another group of camps and cottages is located near Mill Cove close to the Trenton-Ellsworth line. Most of these seem to have no water and they are only small camps, though some are larger. The three polluttional sources located here are all privies located very close to the water.

No sources were found to be contributing pollution to tidewater, from the town of Trescott. The northern shoreline of the town is of considerable length and borders the large bays that must fill and empty through the narrow passage between Eastport and Lubec. Very little of this shoreline is occupied or developed, in any way.

SHOREFRONT SURVEY OF WALDOBORO AND THE VILLAGE OF WALDOBORO

Revised by Hinckley & Peachey — Mar., 1951
Revised by Geisler — Feb., 1953

(See Map No. 81)

From the map it is seen that only two sources of pollution were found in Waldoboro outside of the Village of Waldoboro.

The accompanying detailed map of the village continues the sequence of indexed sources.

There is a combined school and industrial population load of about 600 in the village, along with approximately 50 commercial establishments and 75 residential units that have sewer service to the tidewater of the Medomak River. In addition to sanitary wastes, a poultry slaughter house, button factory, rug dyeing plant and laundry also discharge wastes to the river. This pollution originates from 22 sources and while the total volume of sewage contributed by this area is relatively small, it should be noted that the flow of the Medomak River is also small and the tidal prism may not give enough dilution to prevent pollution of the clam flats.

Additional pollution, occurring above tidewater, may reach tidewater by way of several small streams entering from the east. The extent of this pollution is difficult to judge, being contributed by perhaps 30 families, but much of the load may be absorbed before reaching the river.

Following are brief descriptions of the outfalls by groups, as indexed on the map:

Index No.	Description
1 - 2 incl.	Two privies located close to shore at Pitcher Cove on the Medomak River in Waldoboro. These are indicated on the town map.

Index No.	Description
3 - 9 incl.	Seven sewers discharge to the Madomak River from the village of Waldoboro south of the Main Street bridge. Nos. 7 and 9 are the only public sewers in the town and together serve a total of 33 commercial, 55 residential and 4 municipal establishments including the high school with 300 students. No. 3 also serves a school having 195 students. The others serve individual houses, except #6 which serves a button factory employing 66 people and that discharges an industrial waste of sulfuric acid to the river.
10 - 17 incl.	On the east side of the river, between the Main St. and Mill St. bridges, are 8 sewer outfalls. No. 10 outfall serves a small rug factory that discharges small quantities of dye waste and wash water but no sanitary sewage, while #13 serves a large building housing a hall, 3 apartments and a store. The remainder of the outfalls are used by individual houses.
18 - 20	North of the Mill St. bridge to Rte. 1 are three more sources of pollution. No. 18 is a privy and sink drain, while #19 is a wooden sewer serving one house located on a small brook and #20 serves two apartments in a house close to Rte. 1. The first two are located on the east side of the Medomak River and the last is on the west side.
21 - 24	Coming south along the west side of the river from Rte. 1 are two septic tank drains located at Nos. 21 & 24. A meat processing plant, with 8 employees, discharges refrigeration water and cleanup waste at the former; while a clam canning factory with sanitary facilities for 40-50 employees in addition to their industrial waste, is situated at the latter. A poultry slaughter house, at #22, has drop toilets for 40 employees and waste drainage from other slaughter house functions that enter the river. The remaining outfall serves one house located at #23.

COASTAL SEWER SURVEY

TOWN OF WARREN

(See Map No. 82)

At Warren Village a dam across the St. George River forms the head of tidewater. The town has no public sewer system but is served by a public water supply. The village probably accounts for somewhat less than half the town's population of sixteen hundred. There is a woolen mill in the village.

Public schools are equipped with septic tanks, but a great deal of sanitary sewage is discharged directly to the St. George River, much of it above the dam and is not recorded in this report. The outfalls of sanitary and industrial waste which discharge to tidewater are listed below:

Index No.	Description
1.	4" outfall serving one house.
2.	A group of five separate outfalls, close together serving the same plant which discharges its industrial and sanitary waste to the stream.
3.	4" outfall serving one house.
4.	4" outfall serving one house.
5.	4" outfall serving one house.
6.	4" outfall serving one house.
7.	4" outfall serving one house.

COASTAL SEWER SURVEY

TOWN OF WELLS

(Fairfield)

(See Map No. 83)

The town of Wells is located in York County between the towns of York and Kennebunk. The bulk of the town's population of 2,231 (1950 census) are concentrated in the village of Ogunquit at the southeast corner of the township and along U. S. Highway No. 1 which roughly parallels the coast at distances up to a mile and a half. None of the tidal estuaries extend inland of this road. A considerable summer colony is scattered along the coastal area particularly at Moody Beach, Skippers Point, Moody Point, Webhannet, Wells Beach, and Drake Island. The township inland of U. S. No. 1 is sparsely populated, with practically the only culture marginal farmland.

It is therefore apparent that pollution to tidewater in this vicinity originates with coastal sewer outfalls at Ogunquit and in the Webhannet, Wells Beach and Skippers Point areas with at least some being brought down from the houses along U. S. No. 1 by the various streams entering tidewater. However, since this is a coastal sewer survey, those sewers entering streams along the main highway are neglected since they are upstream of the head of tide.

A public septic tank has been installed at Ogunquit and chlorination of the effluent is practiced at least through spring and summer months thus lightening the load somewhat.

Following is a list of sewer outfalls in the town of Wells, the numbering of items corresponding to that on the map of the township:

1. Septic tank effluent from one house about 800 ft. northwest of York town line about 15 ft. above high tide.
2. Sewer outlet for one building above low water and 300 ft. north of No. 1.
3. Three outlets from one building on south side of cove at the approximate outlet of Josias River to the Cove.
4. An outlet serving one building located about 50 feet west of No. 3.
5. A 6" outfall which is the discharge of a public septic tank serving twenty-eight buildings two of which are hotels (approx. 312 people).
6. Outlet serving one building.
7. Outlet serving one building.
8. Outlet 6" line — overflow of public septic tank serving about fifty-nine buildings or about two hundred thirty-six persons.
9. Outlet serving one building.
10. Outlet serving one building.
11. Outlet serving one building.
12. Outlet serving one building.
13. Outlet of public septic tank serving fifty buildings, two of which are hotels (about 400 persons during summer months). Effluent chlorinated during summer months. In winter only two buildings on this system and no treatment used.
14. Outlet serving one building.
15. Outlet 15" line discharging chlorinated effluent of settling tanks to point below low tide levels. Two hundred twenty-nine tributary, six of which are hotels. Population served about 1500 persons.
16. Outlet serving one building.

17. Outlet serving one building about 800 feet of Beach Street.
18. Ditch receiving overflow from cesspool.
19. Outlet serving one building near Skippers Point.
20. Outlet serving one building. (Skippers Point)
21. Two outlets serving one building 200 feet north of the firehouse.
22. Two outlets serving one building through drainage ditch to creek 800 feet north of No. 21.
23. Drain outlet serving one building.
24. Overflow of cesspool serving one building.
25. Outlet serving one building (sink drain).
26. Outlet serving one building.
27. Outlet serving one building.
28. Outlet serving one building.
29. Outlet serving one building.
30. Outlet serving one building.

SHOREFRONT SURVEY OF WEST BATH

Original by Marzul — April, 1951

Revised by Geisler — Dec., 1953

(See Map No. 84)

West Bath is a town of about 350 permanent residents and is primarily a rural area with many summer homes and cottages located on its shoreline. Comparatively small amounts of sewage reaches tidewater in this vicinity since most of these summer residences lack water-borne sewage systems, but many of the houses have privies close enough to the shore to cause contamination and most houses have sink drains leading directly to tidewater.

The only industry in the town is a wood flour plant which does not discharge any industrial waste to tidewater.

All the houses in the Sabino and Mill Cove area are summer residences and all outfalls in the town are privately owned.

The sources, as found at the time the survey was made, are indexed on the maps and may be broken down into the following groups:

Index No.	Description
1-8 incl., 10-20 incl., 36, 38-43 incl., 45, 48, 50, 52, 56, 57, 59, 61-65 incl., 67-69 incl., 80-83 incl.	Private outfalls serving, in almost all cases, individual houses. In several instances more than one house is served, the only sources worthy of such note are #80, 81, & 82, which serve a restaurant and lobster pound, one house and 8 overnight cabins, and 5 houses respectively.
9, 27-29 incl., 33-35 incl., 53-55 incl. & 71 22, 47, 73 & 79	Privies close to the water's edge. Brooks entering tidewater carrying pollution from nearby outfalls, privies and sink drains.
21, 23-26 incl., 30-32 incl., 37, 44, 46, 49, 51, 58, 60, 66, 70, 72, 74-78 incl.	Sink drains to tidewater serving, in the majority of cases, a single house each.

TOWN OF WHITING
TIDEWATER SEWER SURVEY

(See Map No. 85)

The Town of Whiting has two separated tidewater shores in the northeast and southwest corners of the town, the former location is adjacent to the small village of Whiting at the mouth of the Orange River and the other borders Holmes Bay and is surrounded by blueberry barrens.

There are only two significant sources of pollution, one on each shoreline. At Whiting Village a sawmill and box factory has for years dumped waste into the Orange River near its mouth resulting in fouling of tide flats in Whiting Bay. A sawdust bunker has been constructed by the mill in 1951 to help in rectifying this situation, and conditions have not been checked since. At Holmes Bay a fish canning factory employing about forty persons contributes sanitary and industrial waste to tidewater.

Map numbering of pollution sources is as follows:

Index No.	Description
1.	Sawmill and box factory.
2.	Fish canning plant.

SHOREFRONT SURVEY OF WINTERPORT

Revised by Morrison — June, 1951

Revised by Geisler — April, 1953

(See Map No. 86)

The town of Winterport contributes pollution to the tidewaters of the Penobscot River, which forms the eastern boundary of the town and also separates Waldo and Hancock Counties.

With the exception of Bald Hill Cove in North Winterport, all discharges to the river are made from the Village of Winterport or its immediate vicinity. Approximately 550 persons are served by six public sewers and five private sewers which have outfalls in this vicinity. The usual small stores and business establishments, found in any village, are also connected to the sewer system; but no industries are located in the village that would add polluttional wastes or process water.

The maps of the town and village which accompany this report, will show the location of the sources, indexed as follows:

Index No.	Description
1 - 2 incl.	These sources are the only ones not actually located within the limits of the village. At Bald Hill Cove there are several privies near the shore and a small fish market that might possibly throw wastes into the river waters, although no direct sewer connection exists. Number 2 is a public sewer serving only three houses, at this time, and discharges to the river just north of the brook forming the village boundary.
3 - 7 incl.	Between North St. and Ferry St., within the village, there are three public and two private sewer outfalls. The public sewers are located at #3, 5 & 6. Number 3 serves 17 houses and a grade school with about 180 pupils. A hotel, two auto service stations, five stores, an office building, five apartments and 15 houses, are served by outfall #5. Number 6 outfall is used by one store, a town building, and about 13 houses. The private sewers, #4 & 7, serve ten houses, and three stores, a garage, several halls and 10 houses, respectively.

Index No.	Description
8 - 12 incl.	Three private (#8, 9 & 11) and two public (#10 & 12) sewer outfalls are located between Kaler St. and Marine St. Number 8 serves a store, an apartment, a church and 9 houses. Five houses, and three houses and three overnight cabins are served by private outfalls #9 & 11, respectively. Public sewer outfall #10 discharges to the river at the foot of Steamboat Ave. This sewer serves three stores, two garages, 7 apartments and 30 houses. The final and most southerly outfall in the village is a public sewer serving the high school and about 25 houses at #12.

COASTAL SEWER SURVEY

TOWN OF YARMOUTH

(See Map No. 87)

The township of Yarmouth has a permanent population of about 2,700 persons based on the 1950 census, practically all of which is concentrated in the village of Yarmouth and so discharges its waste to the Royal River and its estuary and the outfalls of these sewers were located and described in the 1950 Report.

The outfalls described herein are exclusive of those covered by the 1950 Report.

Index No.	Description
13	Outlet serving a restaurant and lobster pound.
14	Outlet serving one cottage.
15	Outlet serving camp of about forty persons capacity.
16, 17	Outlets serving one house.
17A	Inlet carrying waste from two houses.
18 - 22	Outlets serving one dwelling each.
23	Outlet serving one hotel and five cottages.
24 - 27	Outlets serving one building each.
28 - 29	Outlets serving two buildings each.
30 - 35	Outlets serving one building each.
36	Outlet serving one building.
37 - 45	Outlets serving one building each.
47 - 49	Outlets serving total of two houses.
37 - 39	Outlets serving one building each.
40 - 44	Outlets serving one building each.
45	Outlet serving summer hotel with a capacity of about forty persons.
46	Outlet serving one building.